NATIONAL ENERGY TECHNOLOGY LABORATORY

NEMS CO_2 Market Model Development Documentation Report Appendices

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U.S. DEPARTMENT OF ENERGY

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APPENDIX A. CO2MM VARIABLES AND DEFINITIONS

CO2MM Output Variables			
Variable Name	**Units**	**Include**	**Definition**
TFRSUB(MNUMNR,MNUMYR)	$87/metric ton CO2	co2mmout	CO2 transfer subsidy paid by EOR facility to CO2 supplier
TFRSUB_PREV(MNUMNR,MNUMYR)	$87/metric ton CO2	co2mmout	CO2 transfer subsidy from previous cycle
TFRSUB_PREV1(MNUMNR,MNUMYR)	$87/metric ton CO2	co2mmout	CO2 transfer subsidy from two cycles prior
TFRCST(MNUMNR,MNUMYR)	$87/metric ton CO2	co2mmout	CO2 transfer cost
EORTFRCST(MNUMNR,MNUMYR)	$87/metric ton CO2	co2mmout	CO2 transfer cost for EOR
EORAPROD(MNUMNR,MNUMYR)	Millions bbls oil	co2mmout	Annualized regional production of EOR in year Y (e.g., 2010); Use EORPRDLMT(N,R,Y) values as the basis for annualizing EORPROD(R,Y)
EORAPROD_PREV(MNUMNR,MNUMYR)	Millions bbls oil	co2mmout	EORAPROD from previous cycle
EORAPROD_PREV1(MNUMNR,MNUMYR)	Millions bbls oil	co2mmout	EORAPROD from two cycles prior
EORACO2(MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	Annualized regional demand for CO2 in year Y (e.g., 2010) this annual demand must directly correspond to annual EOR production EORAPROD(R,Y)
EORACO2_PREV(MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	EORACO2 from previous cycle
EORACO2_PREV1(MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	EORACO2 from two cycles prior
OGEORAPROD(MNUMOR,MNUMYR)	Millions bbls oil	co2mmout	Annualized regional production of EOR in year Y by OGSM regions; to be passed to OGSM
CO2CAP(MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	Aggregate annual CO2 captured by region, and year
CO2CAP_PREV(MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	CO2CAP from precious cycle
CO2CAP_PREV1(MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	CO2CAP from two cycles prior
SCO2CAP(4,MNUMNR,MNUMYR)	Million metric tons CO2		Aggregate annual CO2 captured by technology-type, region, and year; 1:CS, 2:IS, 3:RET, 4:CTL
CO2CAPPLT(MNUMNR,35,MJUMPYR)	Million metric tons CO2	co2mminc	CO2 CAPTURED BY REGION AND PLANT TYPE
CO2SEQ(MNUMNR,MJUMPYR)	Million metric tons	co2mmout	Aggregate annual CO2 sequestered in deep saline formations by region, and

	CO2		year.
SEORAPROD(4,MNUMNR,MNUMYR)	Millions bbls oil	co2mmout	Annualized regional production of EOR in year Y (e.g., 2010) and by source of CO2 (e.g., natural, industrial, energy)
SEORACO2(4,MNUMNR,MNUMYR)	Million metric tons CO2	co2mmout	Annualized demand for CO2 by source: 1=PP+CTL, 2=CTL, 3=NAT+IND, 4=Total
EORPRODARI(MNUMNR,MJUMPYR)	Million bbls oil	co2mminc	Gross 30-year production of EOR estimated for year Y (e.g., 2010) in region R as directly calculated using NETL data.
OGEORPRODARI(MNUMOR,MJUMPYR)	Million bbls oil	co2mminc	Same as above in OGSM region
EORCO2ARI(MNUMNR,MJUMPYR)	Million metric tons CO2	co2mminc	Gross 30-year CO2 demand corresponding to EORPRODARI
EORPROD(MNUMNR,MJUMPYR)	Million bbls oil	co2mminc	Incremental 30-year production of EOR for each year in the projection: For the EOR start year (e.g., 2010), value = EORPRODARI(R,Y); if value exceeds EORPRDLMT(R,Y), EORPROD(R,Y) = EORPRDLMT(R,Y) For subsequent years (e.g., 2011, 2012, etc.), value = EORPRODARI(R,Y+1) - EORPROD(R,Y); if value exceeds EORPRDLMT(R,Y+1), EORPROD(R,Y+1) = EORPRDLMT(R,Y+1)
SEORPROD(4,MNUMNR,MJUMPYR)	Million bbls oil	co2mminc	= EORPROD(R,Y) * CO2 source percentage; Aggregate 30-year production of EOR that begins in year Y (e.g., 2010) in region R by source of CO2 (e.g., natural, industrial, energy); proportioned based on percentage of total CO2 supplied by each source of CO2.
EORRES(MNUMNR,MJUMPYR)	Million bbls oil	co2mminc	Remaining total EOR reserves by region and year; for start year Y of EOR production, = EORRES(R); for year Y+1 of EOR production, =EORRES(R) - EORPROD(R,Y)
EORPRDLMT(30,MNUMNR,MJUMPYR)	Million bbls oil	co2mminc	Regional, annualized maximum production profile must be adjusted for year Y+1 based on the year Y value of EORPROD(R,Y); N = Y – EOR start year.
EORCO2LMT(30,MNUMNR,MJUMPYR)	Million metric tons CO2	co2mminc	Regional, annualized maximum CO2 demand profile (net of Industrial and Natural Sources)

TOTEORCO2LMT(30,MNUMNR,MJUMPYR)	Million metric tons CO2	co2mminc	Total regional, annualized maximum CO2 demand profile
SEORCO2(4,MNUMNR,MJUMPYR)	Million metric tons CO2	co2mminc	Aggregate regional 30-year demand for CO2 that begins in year Y (e.g., 2010) and by source of CO2 (e.g., natural, industrial, energy); must directly correspond to value of EORPROD(S,R,Y)
EORCO2(MNUMNR,MJUMPYR)	Million metric tons CO2	co2mminc	Aggregate 30-year demand for CO2 that begins in year Y (e.g., 2010) in region R
TRNSREV(MNUMNR,MJUMPYR)	$87	co2mminc	the revenues of pipeline companies
EORREV(MNUMNR,MJUMPYR)	$87	co2mminc	the revenues of EOR
CTLREV(MNUMNR,MJUMPYR)	$87	co2mminc	the revenues of CTL
PPREV(MNUMNR,MJUMPYR)	$87	co2mminc	the revenues of power plants
EORPRODCAP	Million bbls oil	co2mminc	Total annual EOR production deployment cap
EORAPRODADJ(MNUMNR,MNUMYR)	Million bbls oil	co2mminc	Annual regional EOR production cap adjustment
EORACO2ADJ(MNUMNR,MNUMYR)	Million metric tons CO2	co2mminc	Corresponding annual regional CO2 demand cap adjustment
EORACO2NIADJ(MNUMNR,MNUMYR)	Million metric tons CO2	co2mminc	Corresponding annual regional Natural & Industrial CO2 demand cap adjustment
EORACO2_ORG(MNUMNR,MNUMYR)	Million metric tons CO2	co2mminc	Original CO2 demand before adjsutment
DELTA13(MNUMYR)	Million metric tons CO2	co2mminc	Region 13 demand that cannot be met by region 13 supply
CO2_11TO13(MNUMYR)	Million metric tons CO2	co2mminc	Calculated CO2 transfer from region 11 to region 13
CO2_12TO13(MNUMYR)	Million metric tons CO2	co2mminc	Calculated CO2 transfer from region 12 to region 13

CO2MM Input Variables			
Variable Name	**Units**	**Include**	**Definition**
IT_WOP(MJUMPYR,2)	$87/bbl	intout	World oil price
MC_JPGDP(-2:MJUMPYR)	index	macout	Chained price index- gross domestic product; 1987=1.0
CTLCO2Q(MNUMNR,MNUMYR)	Million metric tons CO2 per cd	co2mmout	Quantity of CO2 captured by CTL
AVGWOP(MJUMPYR)	$87/bbl	co2mminc	WOP 5-year moving average
MAXTFRSUB(MNUMNR,MNUMYR)	$87/mtCO2	co2mminc	Maximum CO2 transfer subsidy

EORSTYR(MNUMNR)	year	co2mminc	Start year for EOR production (user specified year)
IRRVAL	percent	co2mminc	User defined IRR value to use with the demand curve tables
IRRIND	index	co2mminc	corresponding index of the IRR value
CO2RPTFY	year	co2mminc	First reporting year
CO2RPTLY	year	co2mminc	Last reporting year
EORYRMIN(1)	year	co2mminc	Year of the lowest average WOP value
CO2STG(MNUMNR)	Billion metric Tons CO2 total	co2mminc	Gross regional CO2 sequestration storage capacity for deep saline formations based on DOE Sequestration Program data; CO2MM will track regional aquifer utilization based on captured CO2 not applied to EOR; Units = Billion metric tons CO2
CO2STGCST(MNUMNR,MJUMPYR)	$87/metric ton CO2	co2mminc	Regional deep saline formation sequestration costs (escalated in subsequent years at user-defined rate)
CO2TRCST(MNUMNR,MJUMPYR)	$87/metric ton CO2	co2mminc	Regional CO2 transport costs (escalated in subsequent years at user-defined rate)
CO2TRPCT(2)	fraction	co2mminc	fraction of transport cost paid by EOR=1 and Source=2
CO2CCCST(MNUMNR,MJUMPYR)	$87/metric ton CO2	co2mminc	Regional CO2 capture and compression costs
EORRESMAX(MNUMNR)	Million bbls oil	co2mminc	Regional Gross EOR reserve limit based on NETL data for 30-year capacity @ $70/bbl oil price and $0/mton CO2 price and user-defined IRR value – establishes initial regional EOR reserve capacity as applied to the start of EOR production. This parameter represents an upper bound on total EOR production by region that cannot be exceeded.
EORPRDLMTPCT(30,MNUMNR,MJUMPYR)	Percent; N =1 for start year of EOR production	co2mminc	Initial regional, annualized maximum production profile (for N =1) based on applicable constraints on production of the regional gross EOR supply (e.g., wells drilled, field production limits, pipeline construction, etc.). Regional annual production profile represents the maximum regional production limits for all years in the projection as initialized at the start year of EOR production. This year-by-year profile will set as a percentage of the total gross regional supply and should add to 100%, which assumes that the gross

			capacity will be spoken for by 2030.
OILCO2PRDR(MNUMNR,MJUMPYR)	ratio	co2mminc	Oil production to CO2 demand ratio

CO2MM Mapping Variables			
Variable Name	**Units**	**Include**	**Definition**
NGEMM_EL(16)	--	co2mminc	Mapping of EMM/NGTDM region into EMM regions
CO2OGREG(MNUMOR)	--	co2mminc	OGSM region mapping for ARI data
COAL2EMM(NDREG,MNUMNR)	--	co2mminc	Coal Demand Region mapping into EMM Region
OGEMM_MAP(MNUMOR)	--	co2mminc	OGSM to EMM region mapping

CO2MM Miscellaneous Variables			
Variable Name	**Units**	**Include**	**Definition**
CO2MAXCYC	parameter	co2mminc	Maximum number of cycles allowed per NEMS year
CO2CURICYC(MNUMYR)	counter	co2mmout	Current cycle of CO2MM run; resets to 1 every subsequent year
BADSOLU(MNUMNR,MNUMYR)	flag	co2mmout	Indicates whether solution has converged or not; 1= bad solution, 0= converged solution
ONCEYRFLG(MNUMYR)	flag	co2mmout	1 when CO2CURICYC=1; 0 - otherwise
CO2ONCE	flag	co2mmout	1 if it is the last specified cycle in the NEMS run; 0 otherwise
OFFFLAG	flag	co2mmout	Indicates when the NEMS modules are turned off
NEXTYRFLG	flag	co2mmout	Flags if the model passed to the next year
CO2UNIT	--	co2mminc	Unit ID for co2mmout file
CO2DBG	--	co2mminc	Unit ID for co2mmdbgfile
CO2REP	--	co2mminc	Unit ID for co2mmrep file
CO2SOLYR	--	co2mminc	Unit ID for co2solyr file

CO2MM Variables for NETL Demand Curve Data			
Variable Name	**Units**	**Include**	**Definition**

ARI_IRR(4,2)	Percent; index	co2mminc	Available IRR values and corresponding index
OIL_STEP(5)	$87/bbl	co2mminc	Oil price steps
CO2_STEP(11)	$87/mmtCO2	co2mminc	CO2 price steps
ARI_OIL(4,MNUMNR,5,11)	Million bbls	co2mminc	EOR production steps corresponding to each oil price/CO2 price pair
ARI_CO2(4,MNUMNR,5,11)	Million mtCO2	co2mminc	CO2 demand (net of industrial and natural) steps corresponding to each oil price/CO2 price pair
ARI_CO2TOT(4,MNUMNR,5,11)	Million mtCO2	co2mminc	Total CO2 demand steps corresponding to each oil price/CO2 price pair
ARI_OGOIL(4,MNUMOR,5,11)	Million bbls	co2mminc	EOR production steps corresponding to each oil price/CO2 price pair by OGSM region

APPENDIX B. CO2MM SOURCE CODE

```
! $Header: D:/default/source/RCS/co2mm.f,v 1.1 2008/03/13 17:17:02 Administrator
Exp $
      SUBROUTINE CO2MM
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'intout'
      include 'co2mminc'
      include 'co2mmout'

      INTEGER*4 I,J,YR         !COUNTERS

      LOGICAL    READFLG1/.TRUE./
      LOGICAL    ONCEcyc/.TRUE./
!      LOGICAL    NEWRUN
      CHARACTER*2 CYCID(99)
      CHARACTER*14 Fname
      DATA CYCID/'01','02','03','04','05','06','07','08','09','10', &
               '11','12','13','14','15','16','17','18','19','20', &
               '21','22','23','24','25','26','27','28','29','30', &
                   '31','32','33','34','35','36','37','38','39','40', &
                   '41','42','43','44','45','46','47','48','49','50', &
                   '51','52','53','54','55','56','57','58','59','60', &
                   '61','62','63','64','65','66','67','68','69','70', &
                   '71','72','73','74','75','76','77','78','79','80', &
                   '81','82','83','84','85','86','87','88','89','90', &
                   '91','92','93','94','95','96','97','98','99'/


      write(6,*) 'Calling CO2MM '

      carbconsflg = 1

      NEWRUN=.true.
!      NEWRUN=.false.

      IF (READFLG1) THEN



       write(6,*) 'yd1 read rountines'
!       IF (CURIRUN .EQ. 1) THEN
        CO2UNIT = 161              ! CO2MMOUT output file
        FNAME='CO2MMOUT'//CYCID(CURIRUN)//'.txt'
        OPEN (UNIT=CO2UNIT, FILE=FNAME)
        write(CO2UNIT,*) 'CYCLE  |',curirun
        CO2DBG=162
        FNAME='CO2MMDBG'//CYCID(CURIRUN)//'.txt'
        OPEN(UNIT=CO2DBG,FILE=FNAME)   !temp dbg file
        write(CO2DBG,*) 'cycle',curirun
!       ENDIF
       if (curirun.lt.numiruns) then
!        CO2ONCE = .TRUE.
```

```
        CO2ONCE = 1.
       else
!        CO2ONCE = .FALSE.
        CO2ONCE = 0.
       endif
        CALL READ_DMDTABLES
        CALL READ_CO2DAT

        IF (CURIRUN .EQ. 1) THEN
!          BADSOLU= .TRUE.
!          ONCEYRFLG=.TRUE.

          CO2SOLYR=165
!          IF(.not. NEWRUN) THEN
!            OPEN(UNIT=CO2SOLYR,FILE='d:/yd1/co2mm/input/CO2SOLYR.txt')
!            DO I=EORSTYR(MNUMNR), MJUMPYR
!              READ (CO2SOLYR,*)YR,(BADSOLU(J,I), J=1,MNUMNR)
!            ENDDO
!            READ(CO2SOLYR,*)(ONCEYRFLG(I), I=EORSTYR(MNUMNR), mjumpyr)
!            CLOSE(UNIT=CO2SOLYR)        ! CO2SOLYR
!          ELSE
            BADSOLU= 1.
            ONCEYRFLG=1.
            OPEN(UNIT=CO2SOLYR,FILE='CO2SOLYR.txt')   !temp dbg file
            DO I=EORSTYR(MNUMNR), MJUMPYR
              WRITE (CO2SOLYR,10)I,(BADSOLU(J,I), J=1,MNUMNR)
            ENDDO
            WRITE(CO2SOLYR,15)(ONCEYRFLG(I), I=EORSTYR(MNUMNR), mjumpyr)
            CLOSE(UNIT=CO2SOLYR)        ! CO2SOLYR
  !         ENDIF
        ELSE
          CO2SOLYR=165
          OPEN(UNIT=CO2SOLYR,FILE='CO2SOLYR.txt')   !temp dbg file
          DO I=EORSTYR(MNUMNR), MJUMPYR
            READ (CO2SOLYR,*)YR,(BADSOLU(J,I), J=1,MNUMNR)
          ENDDO
          READ(CO2SOLYR,*)(ONCEYRFLG(I), I=EORSTYR(MNUMNR), mjumpyr)
          CLOSE(UNIT=CO2SOLYR)        ! CO2SOLYR
        ENDIF

!       IF (CURIRUN .EQ. 1) THEN
!         BADSOLU(:,:)= 1.
!         ONCEYRFLG(:)=1.
!       ENDIF
!          CO2SOLYR=165
!          OPEN(UNIT=CO2SOLYR,FILE='CO2SOLYR.txt')   !temp dbg file
!          DO I=EORSTYR(MNUMNR), MJUMPYR
!            WRITE (CO2SOLYR,10)I,(BADSOLU(J,I), J=1,MNUMNR-1)
!          ENDDO
!          WRITE(CO2SOLYR,15)(ONCEYRFLG(I), I=EORSTYR(MNUMNR), mjumpyr)
!          CLOSE(UNIT=CO2SOLYR)        ! CO2SOLYR

        !FIND THE YEAR OF THE MINIMUM AVERAGE WOP VALUE
        ! WOP 5-year moving average
        AVGWOP = 0.
        DO J = EORSTYR(MNUMNR), MJUMPYR
          DO I = J-4,J
```

```
            AVGWOP(J) = AVGWOP(J) + IT_WOP(I,1)   !$/bbl WOP
          ENDDO
          AVGWOP(J) = AVGWOP(J) / 5.
        ENDDO
        EORYRMIN = MINLOC(AVGWOP, MASK=AVGWOP .GT. 0.0)
        write(CO2DBG,*) 'Min Ave Oil Prc Year',EORYRMIN(1)
        write(CO2DBG,*) 'Min Ave Oil Prc',AVGWOP(EORYRMIN(1))

        READFLG1 = .FALSE.
 !       NEXTYRFLG = .FALSE.
 !       OFFFLAG=.FALSE.
        NEXTYRFLG = 0
        OFFFLAG=0


      ENDIF


      IF (CURIYR .LT. EORSTYR(MNUMNR) ) THEN
        CALL CO2_INIT

      ELSE

        IF (NCRL.EQ.1) THEN
          CALL CO2_OILOUT
          IF (NUMIRUNS.NE.1) CALL CO2_TURNOFF
          write(6,*) 'calling CO2_OUT'
          CALL CO2_OUT
          IF (CURIRUN.EQ.NUMIRUNS .AND. OFFFLAG.EQ.1) CALL CO2_REP
          IF (NUMIRUNS.EQ.1 .AND. CURIYR .EQ. LASTYR) CALL CO2_REP
!          NEXTYRFLG = .TRUE.
          NEXTYRFLG = 1
          IF (BADSOLU(MNUMNR,CURIYR) .NE. 1 .AND. (CURIYR .EQ. LASTYR .OR. &
           CURIYR .EQ. EORSTYR(MNUMNR)+5 .OR. &
           CURIYR .EQ. EORSTYR(MNUMNR)+10 .OR. &
           CURIYR .EQ. EORSTYR(MNUMNR)+15)) THEN
            CALL CO2_REP
!            IF (CO2ONCE.EQ.1) THEN
!              NUMIRUNS = curirun+1
 !             CALL CHNGMOREOPT_NRUNS(NUMIRUNS)
!              CO2ONCE = .FALSE.
!            ENDIF
            if(curiyr .eq. lastyr)then
            CLOSE(UNIT=CO2UNIT)        ! CO2MMOUT
            CLOSE(UNIT=CO2DBG)        ! CO2MMOUT
            endif

          ENDIF
          RETURN
        ENDIF

       IF (CURITR .EQ. 1) THEN
         IF (ONCEYRFLG(CURIYR) .EQ. 1) THEN
          CO2CURICYC(CURIYR) = 1.
          write(6,*) 'co2mm cycle dbg1',CO2CURICYC(CURIYR)
         ELSEIF (ONCEYRFLG(CURIYR) .EQ. 0 .AND. BADSOLU(MNUMNR,CURIYR) .NE. 0)
THEN
```

```
          OPEN(UNIT=166,FILE='CO2temp.txt')   !temp dbg file
          READ (166,*) (CO2CURICYC(I), I=EORSTYR(MNUMNR), mjumpyr)
          CLOSE(UNIT=166)        ! CO2SOLYR
        write(6,*) 'co2mm cycle dbg2',CO2CURICYC(CURIYR)
         CO2CURICYC(CURIYR) = CO2CURICYC(CURIYR) + 1.
         ONCEcyc=.FALSE.
        ENDIF
        write(6,*) curiyr+1989,'co2mm cycle',CO2CURICYC(CURIYR),
'of',CO2MAXCYC,CURIRUN

         OPEN(UNIT=166,FILE='CO2temp.txt')   !temp dbg file
         WRITE (166,15) (CO2CURICYC(I), I=EORSTYR(MNUMNR), mjumpyr)
         CLOSE(UNIT=166)        ! CO2SOLYR

        CALL CO2_PROD
!       ELSEIF (CURITR .EQ. 2) THEN
!        CALL CO2_OILOUT
!        IF (NUMIRUNS.NE.1) CALL CO2_TURNOFF
!        IF (CURIRUN.EQ.NUMIRUNS .AND. OFFFLAG.EQ.1) CALL CO2_REP
       ENDIF

      ENDIF

!10    FORMAT(I2,<MNUMNR-1>(1X,L1))
!15    FORMAT(<mjumpyr-EORSTYR(MNUMNR)+1>(1X,L1))
10    FORMAT(I2,<MNUMNR-1>(I2))
15    FORMAT(<mjumpyr-EORSTYR(MNUMNR)+1>(I4))

      return
      end

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  INITIALIZE USER DEFINED INPUT PARAMETERS
!  READ COST AND CAPACITY DATA FROM CO2DAT INPUT FILE
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE READ_CO2DAT
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'macout'
      include 'co2mminc'
      include 'co2mmout'

      INTEGER*4  CO2DAT          ! UNIT ID FOR CO2MM DATA FILE
      INTEGER*4 I,J,N            ! COUNTERS
      INTEGER*4 YEAR(MNUMNR),YR
      INTEGER*4 REG


      CO2DAT=153
      OPEN(UNIT=CO2DAT,FILE='D:\yd1\CO2MM\input\co2dat.txt',STATUS='OLD')
```

```
! Initialize the cost variables for all years
      DO J=1,MJUMPYR
        DO I=1, MNUMNR
          CO2STGCST(I,J) = 0.0
          CO2TRCST(I,J) = 0.0
          CO2CCCST(I,J) = 0.0
        ENDDO
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
      READ(CO2DAT,*) IRRVAL                      !IRR value
      DO I=1,4
        IF (ARI_IRR(I,2) .EQ. IRRVAL) IRRIND = ARI_IRR(I,1)
      ENDDO
!      write(co2dbg,*) 'IRR', irrval,irrind
      !SET THE MAX EOR RESERVE LIMIT @$70/BBL OIL & $0/MTON CO2
!      write(co2dbg,*) 'MAX RESERVE'
      EORRESMAX(MNUMNR) =0
      DO I=1,MNUMNR-1
        EORRESMAX(I)=ARI_OIL(IRRIND,I,5,1)
!        write(co2dbg,*) i, EORRESMAX(I)
        EORRESMAX(MNUMNR) = EORRESMAX(MNUMNR) + EORRESMAX(I)
      ENDDO


      CALL CO2NEXTDATA(CO2DAT)
      READ(CO2DAT,*) (YEAR(I), I=1,MNUMNR)
      DO I=1,MNUMNR
        EORSTYR(I) = YEAR(I) - 1989              !EOR start year
      ENDDO
      write(co2dbg,*) 'start year',(EORSTYR(I)+1989, I=1,MNUMNR)

      CALL CO2NEXTDATA(CO2DAT)
      READ(CO2DAT,*) (CO2STG(I), I=1,MNUMNR-1)    !sequesration storage capacity
!      write(co2dbg,*) 'seq storage capacity'
      write(co2dbg,*) (CO2STG(I), I=1,MNUMNR-1)

      CALL CO2NEXTDATA(CO2DAT)
      write(co2dbg,*) 'co2 seq costs'
      DO J=EORSTYR(MNUMNR), MJUMPYR
        READ(CO2DAT,*) YR, (CO2STGCST(I,J), I=1,MNUMNR-1)   !CO2 seq costs
!        write(co2dbg,*) j+1989, (CO2STGCST(I,J), I=1,MNUMNR-1)
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
      write(co2dbg,*) 'co2 transport costs'
      DO J=EORSTYR(MNUMNR), MJUMPYR
        READ(CO2DAT,*) YR, (CO2TRCST(I,J), I=1,MNUMNR-1)    !CO2 transport costs
!        write(co2dbg,*) j+1989, (CO2TRCST(I,J), I=1,MNUMNR-1)
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
      READ(CO2DAT,*) (CO2TRPCT(I), I=1,2)                !1=EOR, 2=SOURCE
!      write(co2dbg,*) 'transport split', (CO2TRPCT(I), I=1,2)

      CALL CO2NEXTDATA(CO2DAT)
```

```
      write(co2dbg,*) 'co2 cc costs'
      DO J=EORSTYR(MNUMNR), MJUMPYR
        READ(CO2DAT,*) YR,(CO2CCCST(I,J), I=1,MNUMNR-1)     !CO2
capture/compression costs
!        write(co2dbg,*) j+1989, (CO2CCCST(I,J), I=1,MNUMNR-1)
      ENDDO
! Convert costs from constant $2007 to $87
      DO J=1,MJUMPYR
        DO I=1, MNUMNR
          CO2STGCST(I,J) = CO2STGCST(I,J) * MC_JPGDP(-2)/MC_JPGDP(18)
          CO2TRCST(I,J) = CO2TRCST(I,J) * MC_JPGDP(-2)/MC_JPGDP(18)
          CO2CCCST(I,J) = CO2CCCST(I,J) * MC_JPGDP(-2)/MC_JPGDP(18)
        ENDDO
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
      DO I = 1,MNUMNR-1
        READ(CO2DAT,10) REG
        write(co2dbg,*) REG
        DO J = EORSTYR(MNUMNR), MJUMPYR
          READ(CO2DAT,*) YR, (EORPRDLMTPCT(N,I,J), N=1,30)    !annualized
maximum production profile
 !         write(co2dbg,*) j+1989,(EORPRDLMTPCT(N,I,J), N=1,30)
        ENDDO
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
      READ(CO2DAT,*) (NGEMM_EL(I), I=1,NNGEM-1)

      CALL CO2NEXTDATA(CO2DAT)
!      write(6,*)ndreg
      DO I=1,NDREG
        READ(CO2DAT,*) REG,(COAL2EMM(I,J), J=1,MNUMNR-1)
!        write(6,*) 'yd1map in',reg,(COAL2EMM(I,J), J=1,MNUMNR-1)
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
!      write(6,*)ndreg
      DO I=1,MNUMPR-1
        READ(CO2DAT,*) REG,(PADD2EMM(I,J), J=1,MNUMNR-1)
!        write(6,*) 'yd1map in',reg,(COAL2EMM(I,J), J=1,MNUMNR-1)
      ENDDO

      CALL CO2NEXTDATA(CO2DAT)
!      write(6,*)ndreg
      READ(CO2DAT,*) EORPRODCAP
!        write(6,*) 'yd1map in',reg,(COAL2EMM(I,J), J=1,MNUMNR-1)

!      write(6,*) 'end reading CO2 data'
 10   FORMAT(14X,I4)
      CLOSE(UNIT=CO2DAT)

      !CALCULATE THE MAXIMUM TRANSFER SUBSIDY
      DO I = 1, MNUMNR-1
        DO J = EORSTYR(I), MJUMPYR
          MAXTFRSUB(I,J) = CO2_STEP(11) + CO2STGCST(I,J) - CO2TRPCT(1) *
CO2TRCST(I,J)
```

```
          IF (I.EQ.3 .OR. I.EQ.6 .OR. I.EQ.7 .OR. I.EQ.15) MAXTFRSUB(I,J) = 0.0
          if(curirun.eq.1) then
            if (newrun) TFRSUB(I,J) = MAXTFRSUB(I,J)  !initialize  transfer
subsidy for forecast years in 1st cycle
 !           if (.not.newrun.and.j.eq.26) TFRSUB(I,J) = MAXTFRSUB(I,J)  !temp
            TFRCST(I,J) = CO2STGCST(I,J) + CO2TRPCT(2) * CO2TRCST(I,J) -
TFRSUB(I,J)
            EORTFRCST(I,J) = -CO2STGCST(I,J) + CO2TRPCT(1) * CO2TRCST(I,J) +
TFRSUB(I,J)
            IF (EORTFRCST(I,J) .LT. 0.0) EORTFRCST(I,J) = 0.0
          endif
        ENDDO
      ENDDO


      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  READ DEMAND CURVE TABLES FROM CO2DMD INPUT FILE
!  THE DATA FILE IS CONVERTED FROM THE SPREADSHEET CREATED FOR NETL BY ARI
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE READ_DMDTABLES
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'macout'
      include 'co2mminc'
      include 'co2mmout'

      INTEGER*4  ARIDMD          ! UNIT ID FOR ARI DATA FILE
      INTEGER*4 I,J,K,L,N            ! COUNTERS
      INTEGER*4 REG,OGREG
      CHARACTER*4 STATEID
      CHARACTER*1 CH       ! INDICATOR WHEN END OF DATA SEGMENT REACHED
      REAL*4
TOILSTEP,TCO2STEP,TEMPCO2DMD(4),TEMPEORPROD(4),NATCO2(4),INDCO2(4),TEMPCO2ST(4)

      !INITIALIZE THE VARIABLES
      ARI_OIL = 0.0
      ARI_CO2 = 0.0
      ARI_CO2TOT = 0.0
      ARI_OGOIL = 0.0
      CO2OGREG = 0
      ARIDMD=153
      OPEN(UNIT=ARIDMD,FILE='D:\yd1\CO2MM\input\aridmd.txt',STATUS='OLD')
!      write(6,*) 'reading CO2 DEMAND DATA'
      CALL CO2NEXTDATA(ARIDMD)
      READ(ARIDMD,*) I, (ARI_IRR(J,2), J=1,I)
      DO I=1,4
        ARI_IRR(I,1) = I
      ENDDO
```

```
      CALL CO2NEXTDATA(ARIDMD)
      READ(ARIDMD,*) I, (OIL_STEP(J), J=1,I)
      CALL CO2NEXTDATA(ARIDMD)
      READ(ARIDMD,*) I, (CO2_STEP(J), J=1,I)
      DO I=1,11
        CO2_STEP(I) = 18.9 * CO2_STEP(I) * MC_JPGDP(-2)/MC_JPGDP(18)  !DEFLATE
TO $87 AND CONVERT TO $/TON
      ENDDO
      DO I=1,5
        OIL_STEP(I) = OIL_STEP(I) * MC_JPGDP(-2)/MC_JPGDP(18)  !DEFLATE TO $87
      ENDDO
      CH = '+'
      DO WHILE (CH .NE. '#')
        CALL CO2NEXTDATA(ARIDMD)
        READ(ARIDMD,*) REG,STATEID,OGREG
        CO2OGREG(REG,OGREG)=1
        write(co2dbg,*) reg, stateid,ogreg
        CALL CO2NEXTDATA(ARIDMD)

        DO J=1,5
          DO K=1,11
            READ(ARIDMD,*)
CH,TOILSTEP,TCO2STEP,(TEMPCO2DMD(L),TEMPEORPROD(L),NATCO2(L),INDCO2(L), L=1,4)
 !
write(co2dbg,*)TOILSTEP,TCO2STEP,(TEMPCO2DMD(L),TEMPEORPROD(L),NATCO2(L),INDCO2(
L), L=1,4)
            DO L=1,4
              ARI_OIL(L,REG,J,K)=ARI_OIL(L,REG,J,K) + TEMPEORPROD(L)
              TEMPCO2ST(L)=TEMPCO2DMD(L) - NATCO2(L) - INDCO2(L)
              if (TEMPCO2ST(L) .lt. 0.0) TEMPCO2ST(L)=0.0
              ARI_CO2(L,REG,J,K)=ARI_CO2(L,REG,J,K) + TEMPCO2ST(L)
!              ARI_CO2(L,REG,J,K)=ARI_CO2(L,REG,J,K) + TEMPCO2DMD(L) - NATCO2(L)
- INDCO2(L)
!              if (ARI_CO2(L,REG,J,K) .lt. 0.0) ARI_CO2(L,REG,J,K)=0.0
              ARI_CO2TOT(L,REG,J,K)=ARI_CO2TOT(L,REG,J,K) + TEMPCO2DMD(L)
              ARI_OGOIL(L,REG,OGREG,J,K)=ARI_OGOIL(L,REG,OGREG,J,K) +
TEMPEORPROD(L)
            ENDDO
          ENDDO
        ENDDO
      ENDDO
!      write(6,*) 'end co2 demand data'
      CLOSE(UNIT=ARIDMD)
      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!
!  INITIALIZE VARIABLES
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_INIT
      IMPLICIT NONE
```

```
      include 'parametr'
      include 'ncntrl'
      include 'co2mminc'
      include 'co2mmout'

      INTEGER*4 I,J,N            ! COUNTERS


      !Initialize Variables
       DO I=1,MNUMNR
         TFRSUB(I,CURIYR) = 0.0
         TFRCST(I,CURIYR) = 0.0
         EORPRODARI(I,CURIYR) = 0.0
         EORCO2ARI(I,CURIYR) = 0.0
         EORAPROD(I,CURIYR) = 0.0
         EORACO2(I,CURIYR) = 0.0
         EORAPRODADJ(I,CURIYR) = 0.0
         EORACO2ADJ(I,CURIYR) = 0.0
         CO2CAP(I,CURIYR) = 0.0
         SCO2CAP(1:4,I,CURIYR) = 0.0
         CO2SEQ(I,CURIYR) = 0.0
         TRNSREV(I,CURIYR) = 0.0
         SEORAPROD(1,I,CURIYR) = 0.0
         OILCO2PRDR(I,CURIYR) = 0.0
         SEORAPROD(1:4,I,CURIYR) = 0.0
         SEORACO2(1:4,I,CURIYR) = 0.0
         EORRES(I,CURIYR) = EORRESMAX(I)
       ENDDO
       DO I=1, MNUMOR
        OGEORAPROD(I,CURIYR) = 0.0
        OGEORPRODARI(I,CURIYR) = 0.0
       ENDDO
       CO2_11TO13 = 0.
       CO2_12TO13 = 0.
       RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  CALCULATE ANNUAL EOR PRODUCTION
!  SET LIMITS AND INITIALIZE TRANSFER COST
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_PROD
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'intout'
      include 'macout'
      include 'co2mminc'
      include 'co2mmout'

      REAL*4 EOR_DMDCRV        ! DEMAND CURVE FUNCTION
      REAL*4 temp,tempco2,tempeor,temptotco2,tempogem
```

```
      REAL*4 OILPRC
      INTEGER*4 I,J,N            ! COUNTERS
      REAL TPQ                   !PLACEHOLDER for P*Q
      REAL TPQSEQ                !PLACEHOLDER for P*Q
      REAL*4 CO2_SUBSIDY_PREV(MNUMNR,MNUMYR)
      REAL*4 CO2_SUPPLY_PREV(MNUMNR,MNUMYR)
      REAL*4 CO2_DEMAND_PREV(MNUMNR,MNUMYR)
      LOGICAL CO2TFRFLAG
      REAL*4 EORCAPADJ
      REAL*4 OIL2CO2
      CHARACTER*2 SOL(2,MNUMNR)
      COMMON /CO2CHSOL/ SOL

!      CO2TFRFLAG=.FALSE.
!      CO2TFRFLAG=.TRUE.
      TPQ = 0.0
      TPQSEQ = 0.0

!      write(co2dbg,*) 'Year',CURIYR+1989
!      write(co2dbg,*) 'TRANSFER SUBSIDY'
!      write(co2dbg,*) 'Cycle',curirun-2,curirun-1,curirun,CO2CURICYC(CURIYR)
!      do I=1, MNUMNR-1
!        write(co2dbg,*) I,
CO2_SUBSIDY_PREV(I,CURIYR),TFRSUB_PREV(I,CURIYR),TFRSUB(I,CURIYR)
!      enddo
!      write(co2dbg,*) 'DEMAND'
!      write(co2dbg,*) 'Cycle',curirun-2,curirun-1
!      do I=1, MNUMNR-1
!        write(co2dbg,*) I, CO2_DEMAND_PREV(I,CURIYR),EORACO2_PREV(I,CURIYR)
!      enddo
!      write(co2dbg,*) 'SUPPLY'
!      write(co2dbg,*) 'Cycle',curirun-2,curirun-1
!      do I=1, MNUMNR-1
!        write(co2dbg,*) I, CO2_SUPPLY_PREV(I,CURIYR),CO2CAP_PREV(I,CURIYR)
!      enddo
      ! WOP 5-year moving average
!!       AVGWOP(CURIYR) = 0.
!!         DO I = CURIYR-4,CURIYR
!!           AVGWOP(CURIYR) = AVGWOP(CURIYR) + IT_WOP(i,1)   !$/bbl WOP
!!         ENDDO
!!         AVGWOP(CURIYR) = AVGWOP(CURIYR) / 5.
!         if(curiyr .eq. 23) AVGWOP(23) = AVGWOP(23)*0.5
!         if(curiyr .eq. 24) AVGWOP(24) = AVGWOP(24)*0.7
!         if(curiyr .eq. 25) AVGWOP(25) = AVGWOP(25)*0.8
!         if(curiyr .eq. 26) AVGWOP(26) = AVGWOP(26)*0.9
!      write(co2dbg,*) 'average wop',curiyr+1989,
AVGWOP(CURIYR)*MC_JPGDP(18)/MC_JPGDP(-2)

        IF (CURIYR .LE. EORYRMIN(1)) THEN
          OILPRC=AVGWOP(EORYRMIN(1))
        ELSE
          OILPRC=AVGWOP(CURIYR)
        ENDIF
!yd1      OILPRC=AVGWOP(CURIYR)
!      IF (CURIYR .EQ. EORSTYR(MNUMNR)) OILPRC=AVGWOP(EORYRMIN(1))

      EORPRODARI(MNUMNR,CURIYR) = 0.0
```

```
      DO I = 1,MNUMNR-1
        EORPRODARI(I,CURIYR) =
EOR_DMDCRV('OIL',IRRIND,I,0,OILPRC,EORTFRCST(I,CURIYR),'EM')  !function
        EORCO2ARI(I,CURIYR) =
EOR_DMDCRV('CO2',IRRIND,I,0,OILPRC,EORTFRCST(I,CURIYR),'EM')  !function
        !TOTAL CO2 DEMAND FROM ALL THE SOURCES INCLUDING NAT & IND; ASSIGNED TO
POSITION 4
        SEORCO2(4,I,CURIYR) =
EOR_DMDCRV('N&I',IRRIND,I,0,OILPRC,EORTFRCST(I,CURIYR),'EM')  !function
        ! 30-YEAR CO2 DEMAND FROM NAT & IND SOURCES (3)
        SEORCO2(3,I,CURIYR) = SEORCO2(4,I,CURIYR) - EORCO2ARI(I,CURIYR)
        !CALCULATE THE OIL PRODUCTION TO TOTAL CO2 DEMAND RATIO
!        IF (SEORCO2(4,I,CURIYR).NE.0.0) OILCO2PRDR(I,CURIYR) =
EORPRODARI(I,CURIYR) / SEORCO2(4,I,CURIYR)

      !30-YEAR GROSS INCREMENTAL PRODUCTION and CO2 DEMAND
      !Q: should we allow the decrease in max production if actual was less than
max in the previous year?? currently we do not
        EORPROD(I,CURIYR) = AMAX1(0.0,(EORPRODARI(I,CURIYR) -
MAXVAL(EORPRODARI(I,1:CURIYR-1))))
        EORCO2(I,CURIYR) = AMAX1(0.0,(EORCO2ARI(I,CURIYR) -
MAXVAL(EORCO2ARI(I,1:CURIYR-1))))
        TEORCO2(I,CURIYR) = AMAX1(0.0,(SEORCO2(4,I,CURIYR) -
MAXVAL(SEORCO2(4,I,1:CURIYR-1))))

        !add leftovers from previous year (not satisfied by supply, and
overlimit)
        EORPROD(I,CURIYR) = EORPROD(I,CURIYR) + EORAPRODADJ(I,CURIYR-1) &
           + (EORAPROD(I,CURIYR-1) - SEORAPROD(4,I,CURIYR-1))
        EORCO2(I,CURIYR) = EORCO2(I,CURIYR) + EORACO2ADJ(I,CURIYR-1) &
           + (EORACO2(I,CURIYR-1) - SEORACO2(1,I,CURIYR-1))
        TEORCO2(I,CURIYR) = TEORCO2(I,CURIYR) + EORACO2ADJ(I,CURIYR-
1)+EORACO2NIADJ(I,CURIYR) &
           + (EORACO2(I,CURIYR-1) - SEORACO2(1,I,CURIYR-1))

        DO N=1,30
          EORPRDLMT(N,I,CURIYR) = EORPRDLMTPCT(N,I,CURIYR) *
EORPROD(I,CURIYR)/100.
          EORCO2LMT(N,I,CURIYR) = EORPRDLMTPCT(N,I,CURIYR) *
EORCO2(I,CURIYR)/100.
          TOTEORCO2LMT(N,I,CURIYR) = EORPRDLMTPCT(N,I,CURIYR) *
TEORCO2(I,CURIYR)/100.
        ENDDO
!      write(co2dbg,*) 'EORPRODARI',i,EORPRODARI(I,CURIYR)
!      write(co2dbg,*) 'EORPRODARI diff',i,EORPRODARI(I,CURIYR) -
MAXVAL(EORPRODARI(I,1:CURIYR-1))
!      write(co2dbg,*)
'EORPRDLMT',EORPRDLMT(1,I,CURIYR),MAXVAL(EORPRODARI(I,1:CURIYR-1))
      EORPRODARI(MNUMNR,CURIYR) = EORPRODARI(MNUMNR,CURIYR) +
EORPRODARI(I,CURIYR)
      ENDDO

      !DETERMINE 30-YEAR POTENTIAL PRODUCTION BY OGSM REGION
      ! AND DEFINE EMM TO OGSM REGION MAPPING
!      IF (ONCEYRFLG(CURIYR) .EQ. 1) THEN
        OGEORPRODARI(:,CURIYR) = 0.0
        DO I=1, MNUMOR-1
```

```
         DO J=1,MNUMNR-1
          IF (CO2OGREG(J,I).NE.0) THEN
           TEMPOGEM =
EOR_DMDCRV('OIL',IRRIND,J,I,OILPRC,EORTFRCST(J,CURIYR),'OG')  !function
           OGEORPRODARI(I,CURIYR) = OGEORPRODARI(I,CURIYR)+ TEMPOGEM
           IF (EORPRODARI(J,CURIYR).NE.0.0) THEN
             OGEMM_MAP(J,I)=TEMPOGEM/EORPRODARI(J,CURIYR)
           ELSE
             OGEMM_MAP(J,I)=1.0
           ENDIF
           OGEORPRODARI(MNUMOR,CURIYR) =OGEORPRODARI(MNUMOR,CURIYR) +
OGEORPRODARI(I,CURIYR)
          ENDIF
         ENDDO
        ENDDO
        !temp until OGEMM_MAP will be added to co2mmout include
        OPEN(UNIT=166,FILE='CO2OGEMM_MAP.txt')   !temp dbg file
        DO J=1,MNUMNR-1
          WRITE (166,15) (OGEMM_MAP(J,I), I=1, MNUMOR-1)
        ENDDO
        CLOSE(UNIT=166)        ! CO2SOLYR
!      ELSE
!         OPEN(UNIT=166,FILE='CO2OGEMM_MAP.txt')   !temp dbg file
!         DO J=1,MNUMNR-1
!         READ (166,15) (OGEMM_MAP(J,I), I=1, MNUMOR-1)
!       ENDDO
!         CLOSE(UNIT=166)        ! CO2SOLYR
!      ENDIF
15    FORMAT(<MNUMOR-1>F10.3)

!      IF ((OGEORPRODARI(MNUMOR,CURIYR)-EORPRODARI(MNUMNR,CURIYR)).NE.0) &
!            write(co2dbg,*) 'ATTN: OGSM AND EMM REGION TOTAL MUST BE THE
SAME',OGEORPRODARI(MNUMOR,CURIYR)-EORPRODARI(MNUMNR,CURIYR)

      !30-YEAR GROSS INCREMENTAL PRODUCTION
!      DO I=1,MNUMNR-1
!        EORPROD(I,CURIYR) = AMAX1(0.0,(EORPRODARI(I,CURIYR) -
MAXVAL(EORPRODARI(I,1:CURIYR-1))))
!      ENDDO

      !CALCULATE ANNUAL EOR PRODUCTION AND CORRESPONDING CO2 DMD
      !WRITE THE SUM TO CHECK
      EORAPROD(MNUMNR,CURIYR) = 0.0
        EORACO2(MNUMNR,CURIYR) = 0.0
        SEORACO2(3,MNUMNR,CURIYR) = 0.0
      DO I=1,MNUMNR-1
        TEMP = EORPRDLMT(1,I,CURIYR)
        TEMPCO2 = EORCO2LMT(1,I,CURIYR)
        TEMPTOTCO2 = TOTEORCO2LMT(1,I,CURIYR)
        DO J=1,CURIYR-EORSTYR(I)
          TEMP=TEMP + EORPRDLMT(1+J,I,CURIYR-J)
          TEMPCO2=TEMPCO2 + EORCO2LMT(1+J,I,CURIYR-J)
          TEMPTOTCO2=TEMPTOTCO2 + TOTEORCO2LMT(1+J,I,CURIYR-J)
        ENDDO
        EORAPROD(I,CURIYR) = TEMP
        EORACO2(I,CURIYR) = TEMPCO2
        SEORACO2(3,I,CURIYR) = TEMPTOTCO2 - TEMPCO2
```

```
        !do not let the production grow before the oil price starts increasing
!        IF (CURIYR .GT. EORSTYR(I) .AND. CURIYR .LT. EORYRMIN(1) .and. &
!          EORAPROD(I,CURIYR).gt.EORAPROD(I,CURIYR-1) .AND. EORAPROD(I,CURIYR-
1).NE.0.0) THEN
!          EORAPROD(I,CURIYR) = EORAPROD(I,CURIYR-1)
!          EORACO2(I,CURIYR) = EORACO2(I,CURIYR-1)
!          SEORACO2(3,I,CURIYR) = SEORACO2(3,I,CURIYR-1)
!        endif

        EORAPROD(MNUMNR,CURIYR) = EORAPROD(MNUMNR,CURIYR) + EORAPROD(I,CURIYR)
        EORACO2(MNUMNR,CURIYR) = EORACO2(MNUMNR,CURIYR) + EORACO2(I,CURIYR)
        SEORACO2(3,MNUMNR,CURIYR) = SEORACO2(3,MNUMNR,CURIYR) +
SEORACO2(3,I,CURIYR)
        TPQ = TPQ + EORACO2(I,CURIYR)* TFRCST(I,CURIYR)
        TPQSEQ = TPQSEQ + EORACO2(I,CURIYR)* CO2STGCST(I,CURIYR)
      ENDDO
      WRITE(CO2dbg,*) 'ANNUALIZED EOR PRODUCTION FOR YEAR ',CURIYR+1989
      WRITE(CO2dbg,*) 'YEAR    REG      OIL      CO2'
      DO I=1,MNUMNR
        WRITE(CO2dbg,*) I,EORAPROD(I,CURIYR),EORACO2(I,CURIYR)
      ENDDO

      IF (EORACO2(MNUMNR,CURIYR).NE. 0.0) THEN
        TFRCST(MNUMNR,CURIYR) = TPQ / EORACO2(MNUMNR,CURIYR)    !national
weighted average transfer cost
        CO2STGCST(MNUMNR,CURIYR) = TPQSEQ / EORACO2(MNUMNR,CURIYR)   !national
average sequestration cost
      ENDIF
      !CALCULATE THE OIL PRODUCTION TO TOTAL CO2 DEMAND RATIO
      DO I=1, MNUMNR-1
        IF ((EORACO2(I,CURIYR)+SEORACO2(3,I,CURIYR)) .NE.0.0) THEN
          OILCO2PRDR(I,CURIYR) = EORAPROD(I,CURIYR) /
(EORACO2(I,CURIYR)+SEORACO2(3,I,CURIYR))
        ELSE
          OILCO2PRDR(I,CURIYR)=0
        ENDIF
      ENDDO

      !check if max prod exceeeds the cap and adjust accordingly
      IF ((EORAPROD(MNUMNR,CURIYR)-SEORAPROD(4,MNUMNR,CURIYR-1)) .GT. EORPRODCAP
&
           .AND. CURIYR .NE. EORSTYR(MNUMNR)) THEN
        TPQ = 0.0
        TPQSEQ = 0.0
        write(co2dbg,*) 'Annual prd increase ',(EORAPROD(MNUMNR,CURIYR)-
SEORAPROD(4,MNUMNR,CURIYR-1)),'> cap',EORPRODCAP

        DO I=1, MNUMNR-1
         EORCAPADJ = EORAPROD(I,CURIYR)/EORAPROD(MNUMNR,CURIYR)
!         EORCAPADJ = SEORAPROD(4,I,CURIYR-1)/SEORAPROD(4,MNUMNR,CURIYR-1)
         TEMP = EORCAPADJ * (SEORAPROD(4,MNUMNR,CURIYR-1)+EORPRODCAP)
         EORAPRODADJ(I,CURIYR) = EORAPROD(I,CURIYR) - TEMP
!         IF (SEORACO2(4,I,CURIYR-1) .NE.0.0) THEN
         IF ((EORACO2(I,CURIYR)+SEORACO2(3,I,CURIYR)) .NE.0.0) THEN
           TEMPTOTCO2 = TEMP / OILCO2PRDR(I,CURIYR)
           TEMPCO2 = TEMPTOTCO2 *
EORACO2(I,CURIYR)/(EORACO2(I,CURIYR)+SEORACO2(3,I,CURIYR))
```

```
!           TEMPCO2 = TEMPTOTCO2 * SEORACO2(1,I,CURIYR-1)/SEORACO2(4,I,CURIYR-1)
         ELSE
           TEMPTOTCO2 = 0.0
           TEMPCO2 = 0.0
         ENDIF

         EORAPROD(I,CURIYR) = TEMP
         EORACO2ADJ(I,CURIYR) = EORACO2(I,CURIYR) - TEMPCO2
         EORACO2(I,CURIYR) = TEMPCO2
         EORACO2NIADJ(I,CURIYR)=SEORACO2(3,I,CURIYR)-(TEMPTOTCO2 - TEMPCO2)
         SEORACO2(3,I,CURIYR) = TEMPTOTCO2 - TEMPCO2

        TPQ = TPQ + EORACO2(I,CURIYR)* TFRCST(I,CURIYR)
        TPQSEQ = TPQSEQ + EORACO2(I,CURIYR)* CO2STGCST(I,CURIYR)
        ENDDO
        EORAPROD(MNUMNR,CURIYR) = 0.0
        EORACO2(MNUMNR,CURIYR) = 0.0
        SEORACO2(3,MNUMNR,CURIYR) = 0.0
        DO I=1, MNUMNR-1
          EORAPROD(MNUMNR,CURIYR) = EORAPROD(MNUMNR,CURIYR) + EORAPROD(I,CURIYR)
          EORACO2(MNUMNR,CURIYR) = EORACO2(MNUMNR,CURIYR) + EORACO2(I,CURIYR)
          SEORACO2(3,MNUMNR,CURIYR) = SEORACO2(3,MNUMNR,CURIYR) +
SEORACO2(3,I,CURIYR)
        ENDDO
        IF (EORACO2(MNUMNR,CURIYR).NE. 0.0) THEN
          TFRCST(MNUMNR,CURIYR) = TPQ / EORACO2(MNUMNR,CURIYR)    !national
weighted average transfer cost
          CO2STGCST(MNUMNR,CURIYR) = TPQSEQ / EORACO2(MNUMNR,CURIYR)   !national
average sequestration cost
        ENDIF
        WRITE(CO2dbg,*) 'ADJUSTED ANNUAL EOR PRODUCTION FOR YEAR',CURIYR+1989
        WRITE(CO2dbg,*) 'YEAR    REG      OIL      CO2    OIL ADJ'
        DO I=1,MNUMNR
          WRITE(CO2dbg,*)
I,EORAPROD(I,CURIYR),EORACO2(I,CURIYR),EORAPRODADJ(I,CURIYR)
        ENDDO
      ELSE
       DO I=1,MNUMNR-1
        EORAPRODADJ(I,CURIYR) = 0.0
        EORACO2ADJ(I,CURIYR) = 0.0
       ENDDO
      ENDIF

      !CALCULATE ANNUAL EOR PRODUCTION BY OGSM REGION
!         OGEORAPROD(I,CURIYR) = 0.0     !will be set in the next iteration
!         OGEORAPROD(I,CURIYR) = OGEMM_MAP(I) * EORAPROD(MNUMNR,CURIYR)
!         OGEORAPROD(MNUMOR,CURIYR) = OGEORAPROD(MNUMOR,CURIYR) +
OGEORAPROD(I,CURIYR)
      OGEORAPROD(:,CURIYR) = 0.0
      DO I=1, MNUMOR-1
       DO J=1, MNUMNR-1
        OGEORAPROD(I,CURIYR) = OGEORAPROD(I,CURIYR)+ OGEMM_MAP(J,I) *
SEORAPROD(4,J,CURIYR)   !set initial level from prev cycle
        ENDDO
        OGEORAPROD(MNUMOR,CURIYR) = OGEORAPROD(MNUMOR,CURIYR) +
OGEORAPROD(I,CURIYR)
      ENDDO
```

```
      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  DEMAND CURVE FUNCTION
!  Interpolates
!
!  STATUS:
!
!  CALLED BY:  CO2_PROD
!
!  NOTES:
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =

      REAL FUNCTION EOR_DMDCRV(INVAL,IRR,IREG,IOREG,WOP,CO2COST,RID)
      IMPLICIT NONE
      include 'parametr'
      include 'ncntrl'
      include 'co2mminc'
      include 'co2mmout'

      REAL*4      WOP
      REAL*4      CO2COST
      REAL*4
XOILBASE,XCO2BASE,XOILEND1,XOILEND2,XCO2END1,XCO2END2,XTCO2END1,XTCO2END2,XTCO2B
ASE
      REAL*4      ARIOIL(5,11),ARICO2(5,11),ARICO2T(5,11)
      INTEGER*4   IRR
      INTEGER*4   IREG,IOREG
      INTEGER*4   I,J,K,L                    !COUNTERS
      CHARACTER*3 INVAL    !OIL, CO2, N&I- TOTAL CO2 INCLUDING NATURAL AND
INDUSTRIAL SOURCES
      CHARACTER*2 RID      !EM-NERC regions, OG-OGSM regions

      XOILEND1 = 0.0
      XOILEND2 = 0.0
      XCO2END1 = 0.0
      XCO2END2 = 0.0
      XTCO2END1 = 0.0
      XTCO2END2 = 0.0


      ARIOIL = ARI_OIL(IRR,IREG,:,:)
      ARICO2 = ARI_CO2(IRR,IREG,:,:)
      ARICO2T = ARI_CO2TOT(IRR,IREG,:,:)
      IF(RID.eq.'OG') ARIOIL = ARI_OGOIL(IRR,IREG,IOREG,:,:)
!      write(co2dbg,*) 'irr',irr, ireg
      DO I=1,4
        DO J=1,10
          IF (WOP .GT. OIL_STEP(I) .AND. WOP .LE. OIL_STEP(I+1)) THEN

            IF (CO2COST .GT. CO2_STEP(J) .AND. CO2COST .LE. CO2_STEP(J+1)) THEN
```

```
              XOILEND1 = ARIOIL(I,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARIOIL(I,J+1) - ARIOIL(I,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XOILEND2 = ARIOIL(I+1,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARIOIL(I+1,J+1) - ARIOIL(I+1,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XOILBASE = XOILEND2 - ((OIL_STEP(I+1) - WOP) * &
                           (XOILEND2 - XOILEND1) / (OIL_STEP(I+1) - OIL_STEP(I)))
              XCO2END1 = ARICO2(I,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARICO2(I,J+1) - ARICO2(I,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XCO2END2 = ARICO2(I+1,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARICO2(I+1,J+1) - ARICO2(I+1,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XCO2BASE = XCO2END2 - ((OIL_STEP(I+1) - WOP) * &
                           (XCO2END2 - XCO2END1) / (OIL_STEP(I+1) - OIL_STEP(I)))
              XTCO2END1 = ARICO2T(I,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARICO2T(I,J+1) - ARICO2T(I,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XTCO2END2 = ARICO2T(I+1,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARICO2T(I+1,J+1) - ARICO2T(I+1,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XTCO2BASE = XTCO2END2 - ((OIL_STEP(I+1) - WOP) * &
                           (XTCO2END2 - XTCO2END1) / (OIL_STEP(I+1) -
OIL_STEP(I)))
            ELSEIF ((J .EQ. 1 .AND. CO2COST .LE. CO2_STEP(J)) .OR.  &
                      ((J+1) .EQ. 11 .AND. CO2COST .GT. CO2_STEP(J+1))) THEN
              K = J
              IF ((J+1) .EQ. 11) K=J+1
              XOILEND1 = ARIOIL(I,K)
              XOILEND2 = ARIOIL(I+1,K)
              XOILBASE = XOILEND2 - ((OIL_STEP(I+1) - WOP) * &
                           (XOILEND2 - XOILEND1) / (OIL_STEP(I+1) - OIL_STEP(I)))
              XCO2END1 = ARICO2(I,K)
              XCO2END2 = ARICO2(I+1,K)
              XCO2BASE = XCO2END2 - ((OIL_STEP(I+1) - WOP) * &
                           (XCO2END2 - XCO2END1) / (OIL_STEP(I+1) - OIL_STEP(I)))
              XTCO2END1 = ARICO2T(I,K)
              XTCO2END2 = ARICO2T(I+1,K)
              XTCO2BASE = XTCO2END2 - ((OIL_STEP(I+1) - WOP) * &
                           (XTCO2END2 - XTCO2END1) / (OIL_STEP(I+1) -
OIL_STEP(I)))
            ENDIF
          ELSEIF ((I .EQ. 1 .AND. WOP .LE. OIL_STEP(I)) .OR.  &
                      ((I+1) .EQ. 5 .AND. WOP .GT. OIL_STEP(I+1))) THEN
            L = I
            IF ((I+1) .EQ. 5) L=I+1
            IF (CO2COST .GT. CO2_STEP(J) .AND. CO2COST .LE. CO2_STEP(J+1)) THEN
              XOILBASE = ARIOIL(L,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARIOIL(L,J+1) - ARIOIL(L,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XCO2BASE = ARICO2(L,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARICO2(L,J+1) - ARICO2(L,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
              XTCO2BASE = ARICO2T(L,J+1) - ((CO2_STEP(J+1) - CO2COST) * &
                         (ARICO2T(L,J+1) - ARICO2T(L,J)) / (CO2_STEP(J+1) -
CO2_STEP(J)))
```

```
          ELSEIF ((J .EQ. 1 .AND. CO2COST .LE. CO2_STEP(J)) .OR.  &
                    ((J+1) .EQ. 11 .AND. CO2COST .GT. CO2_STEP(J+1))) THEN
             K = J
             IF ((J+1) .EQ. 11) K=J+1
             XOILBASE = ARIOIL(L,K)
             XCO2BASE = ARICO2(L,K)
             XTCO2BASE = ARICO2T(L,K)
          ENDIF
        ENDIF
      ENDDO
     ENDDO

        IF (INVAL .EQ. 'OIL') EOR_DMDCRV = XOILBASE
        IF (INVAL .EQ. 'CO2') EOR_DMDCRV = XCO2BASE
        IF (INVAL .EQ. 'N&I') EOR_DMDCRV = XTCO2BASE

     write(CO2DBG,*) 'region ', ireg,' irr ',irr
     write(CO2DBG,*) 'oil prc      co2 price'
     write(CO2DBG,*) wop, co2cost
     write(CO2DBG,*) 'oil end points'
     write(CO2DBG,*) XOILEND1,XOILEND2, XOILBASE
     write(CO2DBG,*) 'co2 end points'
     write(CO2DBG,*) XCO2END1,XCO2END2, XCO2BASE

     RETURN
     END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  LOOPS THRU DATA FILE UNTIL NEXT RECORD TO BE READ IS FOUND
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
     SUBROUTINE CO2NEXTDATA(UNITNUM)
     IMPLICIT NONE

     include 'parametr'
     include 'co2mminc'
     include 'co2mmout'

     INTEGER*4  UNITNUM        ! UNIT NUMBER
     CHARACTER*1 CH            ! BEGINNING OF DATA FLAG

! -------------

! READ UNTIL @ IN 1ST COLUMN

     CH = 'A'
     DO WHILE (CH .NE. '@')
       READ(UNITNUM,10) CH
     ENDDO
 10  FORMAT(A1)

     RETURN
     END
```

```
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  CREATE CO2MM OUTPUT FILE
!
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_REP
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'intout'
      include 'macout'
      include 'emmparm'
      include 'udatout'
      include 'cogen'
      include 'cdsparms'
      include 'coalemm'
      include 'co2mminc'
      include 'co2mmout'


      INTEGER*4 I,J,K,N,IY,W            ! COUNTERS
      REAL*4      TFT149(22,MNUMYR)
      CHARACTER*31    TRLNAME(22)
      CHARACTER*1    UDLN/'-'/                  !
      CHARACTER*1    SPLT/'|'/                  !
      CHARACTER*27    TNAME(30)
      CHARACTER*27    PLNTID(NCLUT1+1)
      CHARACTER*17    FNAME

        CO2REP = 164              ! CO2MMREP output file
        if (curiyr.eq.28) then
         fname = 'CO2MMREP.2017.txt'
        elseif(curiyr.eq.33) then
         fname = 'CO2MMREP.2022.txt'
        elseif(curiyr.eq.38) then
         fname = 'CO2MMREP.2027.txt'
        else
          fname = 'CO2MMREP.txt     '
        endif
        OPEN (UNIT=CO2REP, FILE=fname)
        write(co2dbg,*) 'opening the CO2REP file'
        write(6,*) 'yd1: opening the CO2REP file'
        TNAME(1)= 'TOTAL CO2 PURCHASED        '
        TNAME(2)= 'TOTAL CO2 CAPTURED         '
        TNAME(3)= 'CO2 SEQUESTERED            '
        TNAME(4)= '5-YR MOV. AVERAGE OIL PRICE'
        TNAME(5)= 'WORLD OIL PRICE            '
        TNAME(6)= 'CO2 PRICE TO EOR           '
        TNAME(7)= '30-YEAR EOR PRODUCTION     '
        TNAME(8)= '30-YEAR CO2 DEMAND         '
        TNAME(9)= 'CO2 TRANSFER PRICE         '
        TNAME(10)='CO2 SEQUESTRATION PRICE    '
```

```
TNAME(11)='PIPELINE COMPANIES REVENUE '
TNAME(12)='CO2 TRANSPORT COST         '
TNAME(13)='RETROFITTED PLANTS         '
TNAME(14)='IGCC WITH SEQUESTRATION    '
TNAME(15)='NGCC WITH SEQUESTRATION    '
TNAME(16)='CTL PLANTS                 '
TNAME(17)='CO2 TRANSFER SUBSIDY       '
TNAME(18)='ANNUAL NAT & IND CO2 DEMAND'
TNAME(19)='EOR FIELDS REVENUE         '
TNAME(20)='POWER PLANTS REVENUE       '
TNAME(21)='CTL PLANTS REVENUE         '
TNAME(22)='30-YR NAT & IND CO2 DEMAND '
TNAME(23)='MAX CO2 DMD NET OF NAT& IND'
TNAME(25)='CO2 PURCHASED FROM POWER PL'
TNAME(26)='ORIGINAL CO2 DEMAND        '
TNAME(27)='CO2 DEMAND ADJUSTMENT      '
TNAME(28)='CO2 TRANSFER TO REG 13     '

PLNTID(1)  = 'B1'
PLNTID(2)  = 'B2'
PLNTID(3)  = 'B3'
PLNTID(4)  = 'B4'
PLNTID(5)  = 'B5'
PLNTID(6)  = 'B6'
PLNTID(7)  = 'B7'
PLNTID(8)  = 'B8'
PLNTID(9)  = 'C1'
PLNTID(10) = 'C2'
PLNTID(11) = 'C3'
PLNTID(12) = 'C4'
PLNTID(13) = 'C5'
PLNTID(14) = 'C6'
PLNTID(15) = 'C7'
PLNTID(16) = 'C8'
PLNTID(17) = 'C9'
PLNTID(18) = 'CX'
PLNTID(19) = 'CY'
PLNTID(20) = 'CZ'
PLNTID(21) = 'H1'
PLNTID(22) = 'H2'
PLNTID(23) = 'H3'
PLNTID(24) = 'H4'
PLNTID(25) = 'H5'
PLNTID(26) = 'H6'
PLNTID(27) = 'H7'
PLNTID(28) = 'H8'
PLNTID(29) = 'H9'
PLNTID(30) = 'HA'
PLNTID(31) = 'HB'
PLNTID(32) = 'HC'
PLNTID(33) = 'PC'
PLNTID(34) = 'IG'
PLNTID(35) = 'IS'
PLNTID(36) = 'CS'

CO2RPTFY=EORSTYR(MNUMNR)-1
CO2RPTLY=CURIYR
```

```
        W=37+9*(CO2RPTLY-CO2RPTFY)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 1. ANNUALIZED EOR MAXIMUM PRODUCTION LIMIT
PROFILE BY EMM REGION, MMbbl'
        CALL CO2RPTHD
        DO I=1,MNUMNR-1
          WRITE(CO2REP,*) 'REGION', I
          WRITE(CO2REP,12) (UDLN,J=1,W)
          DO N=1,30
            WRITE(CO2REP,15) N, (EORPRDLMT(N,I,J), J=CO2RPTFY,CO2RPTLY)
          ENDDO
          WRITE(CO2REP,12) (UDLN,J=1,W)
        ENDDO
 100  FORMAT(I4,3X,30F7.2)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 2. ANNUAL MAXIMUM POTENTIAL EOR PRODUCTION BY EMM
REGION, MMbbl'
        CALL CO2RPTHD
        WRITE(CO2REP,*) 'REGION'
        DO I=1,MNUMNR
            WRITE(CO2REP,15) I, (EORAPROD(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 3. END-OF-YEAR EOR RESERVES BY EMM REGION, MMbbl'
        CALL CO2RPTHD

        DO I=1,MNUMNR
            WRITE(CO2REP,15) I, (EORRES(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 4. ANNUAL CO2 DEMAND, SUPPLY, CO2 SEQUESTERED,
MMmt'
        CALL CO2RPTHD
          DO I=1,MNUMNR
            WRITE(CO2REP,*) 'REGION', I
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(1),(SEORACO2(4,I,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(18),(SEORACO2(3,I,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(23),(EORACO2(I,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(2),(CO2CAP(I,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(3),(CO2SEQ(I,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)
          ENDDO

          WRITE(CO2REP,10) ' '
          WRITE(CO2REP,*) 'TABLE 5. ANNUAL CO2 SUPPLY BY SOURCE, MMmt'
          CALL CO2RPTHD
          DO I=1,MNUMNR
            WRITE(CO2REP,*) 'REGION', I
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(13),(SCO2CAP(1,I,J), J=CO2RPTFY,CO2RPTLY)
```

```
            WRITE(CO2REP,77) TNAME(14),(SCO2CAP(2,I,J),  J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(15),(SCO2CAP(3,I,J),  J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(16),(SCO2CAP(4,I,J),  J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)
          ENDDO


        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 6. CO2 TRANSFER PRICE, TRANSFER SUBSIDY,
SEQUESTRATION COST, TRANSPORT PRICE, $2007/mt CO2'
        CALL CO2RPTHD
          DO I=1,MNUMNR
            WRITE(CO2REP,*) 'REGION', I
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(9),(TFRCST(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(17),(TFRSUB(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(10),(CO2STGCST(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(12),(CO2TRCST(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)
          ENDDO

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 6a. REVENUES TO EOR, POWER PLANTS, CTL PLANTS AND
TRANSPORTATION COMPANIES, $ 2007'
        CALL CO2RPTHD
          DO I=1,MNUMNR
            WRITE(CO2REP,*) 'REGION', I
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(19),(EORREV(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(20),(PPREV(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(21),(CTLREV(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(11),(TRNSREV(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)
          ENDDO


        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 7. DEMAND CURVE VALUES. ', &
        'OIL PRICE($2007/bbl), CO2 PRICE($2007/mtco2), EOR PROD(MMbbl), CO2
DEMAND(MMmt)'
        CALL CO2RPTHD

        WRITE(CO2REP,77) TNAME(4),(AVGWOP(J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
        WRITE(CO2REP,77) TNAME(5),(IT_WOP(j,1)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
        WRITE(CO2REP,12) (UDLN,I=1,W)
        DO I=1,MNUMNR-1
          WRITE(CO2REP,*) 'REGION', I, 'IRR', IRRVAL
```

```
          WRITE(CO2REP,12) (UDLN,J=1,W)
          WRITE(CO2REP,77) TNAME(6),(EORTFRCST(I,J)*MC_JPGDP(18)/MC_JPGDP(-2),
J=CO2RPTFY,CO2RPTLY)
          WRITE(CO2REP,77) TNAME(7),(EORPRODARI(I,J), J=CO2RPTFY,CO2RPTLY)
          WRITE(CO2REP,77) TNAME(8),(EORCO2ARI(I,J), J=CO2RPTFY,CO2RPTLY)
          WRITE(CO2REP,77) TNAME(22),(SEORCO2(3,I,J), J=CO2RPTFY,CO2RPTLY)
          WRITE(CO2REP,12) (UDLN,J=1,W)
        ENDDO

         WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 8. CO2 SUPPLY BY EMM REGION AND PLANT TYPE, MMmt'
        CALL CO2RPTHD
        DO I=1,MNUMNR
            WRITE(CO2REP,*) 'REGION', I
            WRITE(CO2REP,12) (UDLN,J=1,W)
            DO K = 1 , NCLUT1+1
              IF (K .EQ. 6 .OR. K .EQ. 8 .OR. K .EQ. 14 .OR. K .EQ. 17 .OR.
&      !RETROFITTED PLANTS & IS
               K .EQ. 20 .OR.  K .EQ. 26 .OR. K .EQ. 29 .OR. K .EQ. 32 .OR.
K .EQ. 35) THEN
                WRITE(CO2REP,77) PLNTID(K),(CO2CAPPLT(I,K,J),
J=CO2RPTFY,CO2RPTLY)
              ELSEIF (K .EQ. 36) THEN      !CS
                WRITE(CO2REP,77) PLNTID(K),(SCO2CAP(3,I,J), J=CO2RPTFY,CO2RPTLY)
              ENDIF
            ENDDO
            WRITE(CO2REP,12) (UDLN,J=1,W)
          ENDDO

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 9. EOR OIL PRODUCTION FROM CTL AND POWER PLANTS
BY EMM REGION, MMbbl'
        CALL CO2RPTHD
        DO I=1,MNUMNR
            WRITE(CO2REP,15) I, (SEORAPROD(1,I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 9a. EOR OIL PRODUCTION FROM NATURAL AND
INDUSTRIAL SOURCES BY EMM REGION, MMbbl'
        CALL CO2RPTHD
        DO I=1,MNUMNR
            WRITE(CO2REP,15) I, (SEORAPROD(3,I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 10. TOTAL ANNUAL EOR OIL PRODUCTION BY EMM REGION,
MMbbl'
        CALL CO2RPTHD
        DO I=1,MNUMNR
            WRITE(CO2REP,15) I, (SEORAPROD(4,I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
```

```
        WRITE(CO2REP,*) 'TABLE 10a. TOTAL ANNUAL EOR PRODUCTION BY OGSM REGION,
MMbbl'
        CALL CO2RPTHD
        DO I=1,MNUMOR
            WRITE(CO2REP,15) I, (OGEORAPROD(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

 !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!
                           ! REPLICATE THE FTAB TABLW 149 (59)
                           ! TABLE 59 - ELECTRIC GENERATING CAPACITY
        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 11. Replicate 59Elect. Gen. Cap. by Plant Type,
Technology '
        WRITE(CO2REP,*) '(Thousand Megawatts)'
        CALL CO2RPTHD

!RLElectric Power (Power and Combined H and P)                          p15000
               TRLNAME(1)  =   'Coal
'             !137 1 ya_Coal          p25000
               TRLNAME(2)  =   '  Advanced
'             !138 1 ya_Advanced      p35000
               TRLNAME(3)  =   '     IGCC without
sequestration'             !139 1 ya_IGCCwithoutse p45000
               TRLNAME(4)  =   '     IGCC with sequestration
'             !140 1 ya_IGCCwithseque p45000
               TRLNAME(5)  =   '  Conventional
'             !141 1 ya_Conventional  p35000
               TRLNAME(6)  =   'Oil and Natural Gas Steam
'             !142 1 ya_OtherFossilSt p25000
               TRLNAME(7)  =   'Combined Cycle
'             !143 1 ya_CombinedCycle p25000
               TRLNAME(8)  =   '  Advanced
'             !144 1 za_Advanced      p35000
               TRLNAME(9)  =   '     NGCC without
sequestration'             !145 1 za_NGCCwithoutse p45000
               TRLNAME(10) =   '     NGCC with sequestration
'             !146 1 za_NGCCwithseque p45000
               TRLNAME(11) =   '  Conventional
'             !147 1 za_Conventional  p35000
               TRLNAME(12) =   'Combustion Turbine/Diesel
'             !148 1 za_CombustionTur p25000
               TRLNAME(13) =   '  Advanced
'             !149 1 ab_Advanced      p35000
               TRLNAME(14) =   '  Conventional
'             !150 1 ab_Conventional  p35000
               TRLNAME(15) =   'Nuclear Power
'             !151 1 ab_NuclearPower  p25000
               TRLNAME(16) =   'Pumped Storage
'             !152 1 ab_PumpedStorage p25000
               TRLNAME(17) =   'Fuel Cells
'             !153 1 ab_FuelCells     p25000
               TRLNAME(18) =   'Renewable Sources
'             !154 1 ab_RenewableSour p25000
               TRLNAME(19) =   'Distributed Generation
'             !155 1 ab_DistributedGe p25000
```

```
               TRLNAME(20) =   '  Base Load
'             !156 1 ab_BaseLoad      p35000
               TRLNAME(21) =   '  Peak Power
'             !157 1 ab_PeakPower     p35000
               TRLNAME(22) =   '  Total
'             !158 1 ab_Total         p15000
       DO IY=CO2RPTFY,CO2RPTLY
         TFT149(1,IY) = UCAPCSU(16,IY) + UCAPCSN(16,IY) + UCAPCSC(16,IY) +
UCAPIGC(16,IY)
         TFT149(2,IY) = UCAPIGU(16,IY) + UCAPIGN(16,IY) + UCAPISU(16,IY) +
UCAPISN(16,IY) + &
                           UCAPIGC(16,IY)
         TFT149(3,IY) = UCAPIGU(16,IY) + UCAPIGN(16,IY) + UCAPIGC(16,IY)
         TFT149(4,IY) = UCAPISU(16,IY) + UCAPISN(16,IY)
         TFT149(5,IY) = TFT149(1,IY) - TFT149(2,IY)
         TFT149(6,IY) = UCAPOSU(16,IY) + UCAPOSN(16,IY) + UCAPOSC(16,IY)
         TFT149(7,IY) = UCAPCCU(16,IY) + UCAPCCN(16,IY) + UCAPCCC(16,IY) +
UCAPACC(16,IY)
         TFT149(8,IY) = UCAPACU(16,IY) + UCAPACN(16,IY) + UCAPASU(16,IY) +
UCAPASN(16,IY) + &
                           UCAPACC(16,IY)
         TFT149(9,IY) = UCAPACU(16,IY) + UCAPACN(16,IY) + UCAPACC(16,IY)
         TFT149(10,IY) = UCAPASU(16,IY) + UCAPASN(16,IY)
         TFT149(11,IY) = TFT149(7,IY) - TFT149(8,IY)
         TFT149(12,IY) = UCAPCTU(16,IY) + UCAPCTN(16,IY) + UCAPCTC(16,IY) +
UCAPATC(16,IY)
         TFT149(13,IY) = UCAPATU(16,IY) + UCAPATN(16,IY) + UCAPATC(16,IY)
         TFT149(14,IY) = TFT149(12,IY) - TFT149(13,IY)
         TFT149(15,IY) = UCAPNUU(16,IY) + UCAPNUN(16,IY)
         TFT149(16,IY) = UCAPPSU(16,IY) + UCAPPSN(16,IY)
         TFT149(17,IY) = UCAPFCU(16,IY) + UCAPFCN(16,IY)
         TFT149(18,IY) = UCAPHYU(16,IY) + UCAPGEU(16,IY) + UCAPMSU(16,IY) +
UCAPWDU(16,IY) + &
                           UCAPSTU(16,IY) + UCAPPVU(16,IY) + UCAPWNU(16,IY) + &
                           UCAPHYN(16,IY) + UCAPGEN(16,IY) + UCAPMSN(16,IY) +
UCAPWDN(16,IY) + &
                           UCAPSTN(16,IY) + UCAPPVN(16,IY) + UCAPWNN(16,IY) + &
                           UCAPHYC(16,IY) + UCAPGEC(16,IY) + UCAPMSC(16,IY) +
UCAPWDC(16,IY) + &
                           UCAPSTC(16,IY) + UCAPPVC(16,IY) + UCAPWNC(16,IY)
         TFT149(19,IY) = UCAPDBU(16,IY) + UCAPDBN(16,IY) + UCAPDPU(16,IY) +
UCAPDPN(16,IY)
         TFT149(20,IY) = UCAPDBU(16,IY) + UCAPDBN(16,IY)
         TFT149(21,IY) = UCAPDPU(16,IY) + UCAPDPN(16,IY)
         TFT149(22,IY) = TFT149(1,IY) + TFT149(6,IY) + TFT149(7,IY) + &
                           TFT149(12,IY) + TFT149(15,IY) + TFT149(16,IY) + &
                           TFT149(17,IY) + TFT149(18,IY) + TFT149(19,IY)
      ENDDO
        DO I=1,22
            WRITE(CO2REP,78) TRLNAME(I), (TFT149(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 12. EOR OIL PRODUCTION CAP ADJUSTMENT, MMbbl'
        CALL CO2RPTHD
        DO I=1,MNUMNR-1
```

```
            WRITE(CO2REP,15) I, (EORAPRODADJ(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)
        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 12a. CO2 DEMAND CAP ADJUSTMENT, MMmt'
        CALL CO2RPTHD
        DO I=1,MNUMNR-1
            WRITE(CO2REP,15) I, (EORACO2ADJ(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 13. EOR OIL TO CO2 PRODUCTION RATIO, Fraction'
        CALL CO2RPTHD
        DO I=1,MNUMNR-1
            WRITE(CO2REP,15) I, (OILCO2PRDR(I,J), J=CO2RPTFY,CO2RPTLY)
        ENDDO
        WRITE(CO2REP,12) (UDLN,I=1,W)

        WRITE(CO2REP,10) ' '
        WRITE(CO2REP,*) 'TABLE 14. ADJUSTMENTS TO REG 13 (CALIFORNIA), MMmt'
        CALL CO2RPTHD

            WRITE(CO2REP,*) 'REGION', 11
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(25),(SEORACO2(1,11,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(26),(EORACO2_ORG(11,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(23),(EORACO2(11,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(2),(CO2CAP(11,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(27),(0.3*DELTA13(J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(28),(CO2_11TO13(J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(3),(CO2SEQ(11,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,*) 'REGION', 12
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(25),(SEORACO2(1,12,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(26),(EORACO2_ORG(12,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(23),(EORACO2(12,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(2),(CO2CAP(12,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(27),(0.7*DELTA13(J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(28),(CO2_12TO13(J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(3),(CO2SEQ(12,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,*) 'REGION', 13
            WRITE(CO2REP,12) (UDLN,J=1,W)
            WRITE(CO2REP,77) TNAME(25),(SEORACO2(1,13,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(26),(EORACO2_ORG(13,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(23),(EORACO2(13,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(2),(CO2CAP(13,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(27),(DELTA13(J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(28),(CO2_11TO13(J)+CO2_12TO13(J),
J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,77) TNAME(3),(CO2SEQ(13,J), J=CO2RPTFY,CO2RPTLY)
            WRITE(CO2REP,12) (UDLN,J=1,W)

 10   FORMAT(A1)                                  !
 11   FORMAT(77X,A45)                             !
```

```
 12    FORMAT(208(A1))
 13    FORMAT(77X,A40,I2)                          !
 15    FORMAT(I4,23X,'|',50F9.2)                          !
 16    FORMAT(A6,'|',50F9.2)                         !
 77    FORMAT(A27,'|',50F9.2)                      !
 78    FORMAT(A31,'|',50F9.2)                      !
 110   FORMAT('REGION',15I4)
 115   FORMAT(I4,3X,15F7.2)


         CLOSE(UNIT=CO2REP)        ! CO2MMREP
         RETURN
       END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  SET END OF YEAR OUTPUT VARS
!
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
       SUBROUTINE CO2_OUT
       IMPLICIT NONE

       include 'parametr'
       include 'ncntrl'
       include 'co2mminc'
       include 'co2mmout'


       INTEGER*4 I,J,N,K            ! COUNTERS
       REAL TPQ                   !PLACEHOLDER for P*Q
       REAL TPQSEQ                !PLACEHOLDER for P*Q

       TPQ = 0.0
       TPQSEQ = 0.0
       CO2CAP(MNUMNR,CURIYR) = 0.0
       CO2SEQ(MNUMNR,CURIYR) = 0.0
       SCO2CAP(1:4,MNUMNR,CURIYR) = 0.0
       SEORACO2(1,MNUMNR,CURIYR) = 0.0
       SEORACO2(2,MNUMNR,CURIYR) = 0.0
       SEORACO2(4,MNUMNR,CURIYR) = 0.0
       TRNSREV(MNUMNR,CURIYR) = 0.0
       PPREV(MNUMNR,CURIYR) = 0.0
       CTLREV(MNUMNR,CURIYR) = 0.0
       EORREV(MNUMNR,CURIYR) = 0.0
       SEORAPROD(1,MNUMNR,CURIYR) = 0.0
       SEORAPROD(3,MNUMNR,CURIYR) = 0.0
       SEORAPROD(4,MNUMNR,CURIYR) = 0.0
       OGEORAPROD(:,CURIYR) = 0.0
       EORRES(MNUMNR,CURIYR) = 0.0
       CO2CAPPLT(MNUMNR,1:35,CURIYR) = 0.0

        !SET CO2 SUPPLY BY SOURCE FROM EMM AND PMM
        !TOTAL CO2 SUPPLY FROM EMM AND PMM (1-3: EMM, 4: CTL)
!        CALL CO2SUP_OUT
```

```
       DO I=1,MNUMNR-1
!         CO2CAP(I,CURIYR) = SUM(SCO2CAP(1:4,I,CURIYR))


         !CALCULATE TOTALS
         DO J=1,4
           SCO2CAP(J,MNUMNR,CURIYR) = SCO2CAP(J,MNUMNR,CURIYR) +
SCO2CAP(J,I,CURIYR)
         ENDDO
         DO K = 1 , 35
          CO2CAPPLT(MNUMNR,K,CURIYR) = CO2CAPPLT(MNUMNR,K,CURIYR) +
CO2CAPPLT(I,K,CURIYR)
         ENDDO

         !set CO2 to EOR values from plants
 !        SEORACO2(1,I,CURIYR) =
AMIN1(CO2CAP(I,CURIYR),EORACO2(I,CURIYR)) !total CO2 sold to EOR from Power
plants and CTL
         IF (CO2CAP(I,CURIYR).NE.0.0) THEN
           SEORACO2(2,I,CURIYR) = (SCO2CAP(4,I,CURIYR)/CO2CAP(I,CURIYR)) *
SEORACO2(1,I,CURIYR)   !CO2 sold to EOR from CTL
         ELSE
           SEORACO2(2,I,CURIYR) = 0.0
         ENDIF
!         SEORACO2(4,I,CURIYR) = SEORACO2(1,I,CURIYR) +
SEORACO2(3,I,CURIYR)   !TOTAL CO2 TO EOR

!         CO2SEQ(I,CURIYR) = CO2CAP(I,CURIYR)-SEORACO2(1,I,CURIYR)  !calculate
CO2 sequestered
!         IF (CO2SEQ(I,CURIYR) .LT. 0.0) THEN
!           WRITE(CO2UNIT,*) 'ATTN1:',CURIYR+1989,' CO2 SUPPLY < DEMAND:
INCREASE TRANSFER SUBSIDY FOR REG', I
!           CO2SEQ(I,CURIYR) = 0.0
!         ENDIF

         TPQ = TPQ + SEORACO2(1,I,CURIYR)* TFRCST(I,CURIYR)
         TPQSEQ = TPQSEQ + CO2SEQ(I,CURIYR)* CO2STGCST(I,CURIYR)

         !National Totals
         SEORACO2(1,MNUMNR,CURIYR) = SEORACO2(1,MNUMNR,CURIYR) +
SEORACO2(1,I,CURIYR)   !CTL + Power Plants
         SEORACO2(2,MNUMNR,CURIYR) = SEORACO2(2,MNUMNR,CURIYR) +
SEORACO2(2,I,CURIYR)        !CTL
         SEORACO2(4,MNUMNR,CURIYR) = SEORACO2(4,MNUMNR,CURIYR) +
SEORACO2(4,I,CURIYR)

         CO2CAP(MNUMNR,CURIYR) = CO2CAP(MNUMNR,CURIYR) + CO2CAP(I,CURIYR)
         CO2SEQ(MNUMNR,CURIYR) = CO2SEQ(MNUMNR,CURIYR) + CO2SEQ(I,CURIYR)

      !Calculate revenues of pipeline companies
         TRNSREV(I,CURIYR) = CO2TRCST(I,CURIYR) *
SEORACO2(1,I,CURIYR)     !revenues of pipeline companies
         TRNSREV(MNUMNR,CURIYR) = TRNSREV(MNUMNR,CURIYR) + TRNSREV(I,CURIYR)
         PPREV(I,CURIYR) = - TFRCST(I,CURIYR) * (SEORACO2(1,I,CURIYR)-
SEORACO2(2,I,CURIYR))    !revenues of POWER PLANTS
         PPREV(MNUMNR,CURIYR) = PPREV(MNUMNR,CURIYR) + PPREV(I,CURIYR)
```

```
         CTLREV(I,CURIYR) = - TFRCST(I,CURIYR) *
SEORACO2(2,I,CURIYR)    !revenues of CTL PLANTS
         CTLREV(MNUMNR,CURIYR) = CTLREV(MNUMNR,CURIYR) + CTLREV(I,CURIYR)
         EORREV(I,CURIYR) = -(-CO2STGCST(I,CURIYR) + CO2TRPCT(1) *
CO2TRCST(I,CURIYR) + TFRSUB(I,CURIYR)) * SEORACO2(1,I,CURIYR)    !revenues of
EOR  !EORTFRCST(I,CURIYR)
         EORREV(MNUMNR,CURIYR) = EORREV(MNUMNR,CURIYR) + EORREV(I,CURIYR)

      !Calculate annual amount of oil produced corresponding to CO2 captured
from Plants
!         SEORAPROD(1,I,CURIYR) = SEORACO2(1,I,CURIYR)* OILCO2PRDR(I,CURIYR)
         SEORAPROD(1,MNUMNR,CURIYR) = SEORAPROD(1,MNUMNR,CURIYR) +
SEORAPROD(1,I,CURIYR)
      !Calculate annual amount of oil produced corresponding to CO2 from Natural
and Industrial sources
!         SEORAPROD(3,I,CURIYR) = SEORACO2(3,I,CURIYR)* OILCO2PRDR(I,CURIYR)
         SEORAPROD(3,MNUMNR,CURIYR) = SEORAPROD(3,MNUMNR,CURIYR) +
SEORAPROD(3,I,CURIYR)
      !Calculate TOTAL annual amount of oil produced
 !        SEORAPROD(4,I,CURIYR) = SEORACO2(4,I,CURIYR)* OILCO2PRDR(I,CURIYR)
         SEORAPROD(4,MNUMNR,CURIYR) = SEORAPROD(4,MNUMNR,CURIYR) +
SEORAPROD(4,I,CURIYR)
       ENDDO
       IF (SEORACO2(1,MNUMNR,CURIYR) .NE. 0.0) THEN
         TFRCST(MNUMNR,CURIYR)=TPQ /SEORACO2(1,MNUMNR,CURIYR)
       ELSE
         TFRCST(MNUMNR,CURIYR)=TFRCST(1,CURIYR)
       ENDIF

!       IF (CO2CAP(MNUMNR,CURIYR).NE. 0.0) TFRCST(MNUMNR,CURIYR) = TPQ /
SEORAPROD(1,MNUMNR,CURIYR)    !national weighted average transfer cost
!       IF (CO2SEQ(MNUMNR,CURIYR).GT.0.0) CO2STGCST(MNUMNR,CURIYR) = TPQSEQ /
CO2SEQ(MNUMNR,CURIYR)   !national average sequestration cost

       DO I=1,MNUMNR
!         WRITE(CO2UNIT,*) 'ANNUAL CO2 DEMAND   SUPPLY    SENT TO SEQUESTER'
!         WRITE(CO2UNIT,*)
CURIYR+1989,I,EORACO2(I,CURIYR),CO2CAP(I,CURIYR),CO2SEQ(I,CURIYR)
       ENDDO

       !CALCULATE ANNUAL EOR PRODUCTION BY OGSM REGION
!       OGEORAPROD(MNUMOR,CURIYR) = 0.0
      DO I=1, MNUMOR-1
!       DO J=1,MNUMNR-1
!        OGEORAPROD(I,CURIYR) = OGEORAPROD(I,CURIYR)+ OGEMM_MAP(J,I) *
SEORAPROD(4,J,CURIYR)
!       ENDDO
       OGEORAPROD(MNUMOR,CURIYR) = OGEORAPROD(MNUMOR,CURIYR) +
OGEORAPROD(I,CURIYR)
      ENDDO

!       WRITE(CO2UNIT,*) 'REMAINING EOR END-OF-YEAR RESERVE'

      DO I=1,MNUMNR-1
        IF(CURIYR .LT. EORSTYR(I)) THEN
          EORRES(I,CURIYR) = EORRESMAX(I)
        ELSE
```

```
          EORRES(I,CURIYR) = EORRES(I,CURIYR-1) - SEORAPROD(4,I,CURIYR)
        ENDIF
        EORRES(MNUMNR,CURIYR) = EORRES(MNUMNR,CURIYR) + EORRES(I,CURIYR)
        WRITE(CO2dbg,*) CURIYR+1989, I,EORRES(I,CURIYR)
       ENDDO
!       WRITE(CO2UNIT,*) CURIYR+1989, MNUMNR,EORRES(MNUMNR,CURIYR)


      RETURN
      END

      !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!
      SUBROUTINE CO2RPTHD                           ! BEGIN CO2RPTHD SUBROUTINE
      IMPLICIT NONE                                 !
                                                    !
      include 'parametr'                            !
      include 'ncntrl'                              !
      include 'co2mminc'
      include 'co2mmout'
                                                    !
      CHARACTER*1    UDLN/'-'/                      !
      CHARACTER*1    SPLT/'|'/                      !
      INTEGER        I,W
                                                    !
      W=37+9*(CO2RPTLY-CO2RPTFY)
                                                    !
      WRITE(CO2REP,11) 'NEMS',SCEN,DATE,'Years',(BASEYR+CO2RPTFY-1),'-', &
      (BASEYR+CO2RPTLY-1)
      WRITE(CO2REP,12) (UDLN,I=1,W)
      WRITE(CO2REP,13) (BASEYR+I-1,I=CO2RPTFY,CO2RPTLY)
      WRITE(CO2REP,12) (UDLN,I=1,W)

  11  FORMAT(A4,1X,A10,2X,A8,2X,A5,1X,I4,A1,I4)
  12  FORMAT(208(A1))
  13  FORMAT(27X,'|',50(5X,I4))
      RETURN                                        !
      END                                           !

      ! = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  SET END OF YEAR OUTPUT VARS
!
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2SUP_OUT
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'emmparm'
      include 'control'
      include 'emeblk'
      include 'ecpcntl'
      include 'cdsparms'
```

```
      include 'uefdout'
      include 'coalemm'
      include 'co2mminc'
      include 'co2mmout'


      INTEGER*4 I,J,K,N            ! COUNTERS
!      INTEGER*4 COAL2EMM(14)
!      DATA COAL2EMM/7,3,9,8,1,4,1,9,5,2,11,12,12,13/
      REAL TEMIS(16)                 !PLACEHOLDER for P*Q
      REAL TCCS(16)                !PLACEHOLDER for P*Q
      REAL TPLCCS(MNUMNR,NCLUT1)
      REAL TPLEMIS(MNUMNR,NCLUT1)
      real temp
      real tempd(mnumnr)

      !NGCC WITH SEQ - 3
      TEMIS = 0.0
      tccs = 0.0
      do i=1,nngem-1  !1-16
        N=NGEMM_EL(I)
!        write(6,*) 'yd1map ng',n
        TEMIS(N)= TEMIS(N) + &
            qGFelgr(i,curiyr)*(1.0-xqGFelgr(i,curiyr))*eGFelgr(curiyr) + &
            qGIelgr(i,curiyr)*(1.0-xqGIelgr(i,curiyr))*eGIelgr(curiyr) + &
            qGCelgr(i,curiyr)*(1.0-xqGCelgr(i,curiyr))*eGCelgr(curiyr)
        tccs(N) = tccs(n) + &
            qGFelgr(i,curiyr)*eGFelgr(curiyr) + &
            qGIelgr(i,curiyr)*eGIelgr(curiyr) + &
            qGCelgr(i,curiyr)*eGCelgr(curiyr)

      enddo
      DO I = 1,MNUMNR-1
        SCO2CAP(3,I,CURIYR) = (tccs(I) - TEMIS(I))*.001*44./12.
      ENDDO

      !RETROFITS -1, IGCC W/SEQ -2
      TEMIS = 0.0
      tccs = 0.0
      TPLCCS = 0.0
      TPLEMIS = 0.0
      DO I=1,NDRGG   !1-14
        DO N=1,MNUMNR-1
!        N = UMP_COLR(I,2)

!          write(6,*) 'yd1map',i,n,COAL2EMM(I,N)
         DO K = 1 , NCLUT1

            TEMIS(N)= TEMIS(N) + COAL2EMM(I,N)*QCLCLNR(i,curiyr,k)*(1.0-
XCLCLNR(i,curiyr,k))*CCLCLNR(i,curiyr,k)
            tccs(N) = tccs(N) +
COAL2EMM(I,N)*QCLCLNR(i,curiyr,k)*CCLCLNR(i,curiyr,k)
            TPLEMIS(N,K) = TPLEMIS(N,K) +
COAL2EMM(I,N)*QCLCLNR(i,curiyr,k)*(1.0-XCLCLNR(i,curiyr,k))*CCLCLNR(i,curiyr,k)
            TPLCCS(N,K) = TPLCCS(N,K) +
COAL2EMM(I,N)*QCLCLNR(i,curiyr,k)*CCLCLNR(i,curiyr,k)
         enddo
```

```
        enddo
      enddo
!      DO N=1,MNUMNR-1   !1-14
!        I=UPCLRG(N)   !COAL REGION
!        write(6,*) 'yd1map',i
!        if (i .ne. 0) then
!         DO K = 1 , NCLUT1
!
!            TEMIS(N)= TEMIS(N) + QCLCLNR(i,curiyr,k)*(1.0-
XCLCLNR(i,curiyr,k))*CCLCLNR(i,curiyr,k)
!            tccs(N) = tccs(N) + QCLCLNR(i,curiyr,k)*CCLCLNR(i,curiyr,k)
!            TPLEMIS(N,K) = TPLEMIS(N,K) + QCLCLNR(i,curiyr,k)*(1.0-
XCLCLNR(i,curiyr,k))*CCLCLNR(i,curiyr,k)
!            TPLCCS(N,K) = TPLCCS(N,K) + QCLCLNR(i,curiyr,k)*CCLCLNR(i,curiyr,k)
!         enddo
!       endif
!      enddo
      SCO2CAP(1,1:16,CURIYR)=0.0
      DO I = 1,MNUMNR-1
        DO K = 1 , NCLUT1
          CO2CAPPLT(I,K,CURIYR) = (TPLCCS(I,K)-TPLEMIS(I,K))*.001*44./12.
          IF (K .EQ. 6 .OR. K .EQ. 8 .OR. K .EQ. 14 .OR. K .EQ. 17 .OR.
&      !RETROFITTED PLANTS
               K .EQ. 20 .OR.  K .EQ. 26 .OR. K .EQ. 29 .OR. K .EQ. 32) THEN
             SCO2CAP(1,I,CURIYR) = SCO2CAP(1,I,CURIYR) + CO2CAPPLT(I,K,CURIYR)
          ELSEIF (K .EQ. 35) THEN                  !IGCC W/ SEQ
            SCO2CAP(2,I,CURIYR) = CO2CAPPLT(I,K,CURIYR)
          ENDIF
        ENDDO
      ENDDO
      DO I=1,MNUMNR-1
         SCO2CAP(4,I,CURIYR) = CTLCO2Q(I,CURIYR) * 365. /1000.   !Convert 1000
ton/cd to MMt
      ENDDO


      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  SET OGSM OUTPUT VARS FOR 2ND ITERATION
!
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_OILOUT
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'intout'
      include 'co2mminc'
      include 'co2mmout'
```

```
      INTEGER*4 I,J,N            ! COUNTERS
      CHARACTER*1    UDLN/'-'/                    !
      CHARACTER*1    SPLT/'|'/                    !
      CHARACTER*19 TNAME(30)


       !SET CO2 SUPPLY BY SOURCE FROM EMM AND PMM
       !TOTAL CO2 SUPPLY FROM EMM AND PMM (1-3: EMM, 4: CTL)
       CALL CO2SUP_OUT

       DO I=1,MNUMNR-1
         CO2CAP(I,CURIYR) = SUM(SCO2CAP(1:4,I,CURIYR))
         EORACO2_ORG(I,CURIYR) = EORACO2(I,CURIYR)
       ENDDO
       CALL CO2_INTERREG_ADJ(1)
       DO I=1,MNUMNR-1
      !set CO2 PURCHASED IN A REGION
         SEORACO2(1,I,CURIYR) = AMIN1(CO2CAP(I,CURIYR),EORACO2(I,CURIYR))
         CO2SEQ(I,CURIYR) = CO2CAP(I,CURIYR)-SEORACO2(1,I,CURIYR)  !calculate
CO2 sequestered
         IF (I.EQ.11)  SEORACO2(1,I,CURIYR) =  SEORACO2(1,I,CURIYR) -
CO2_11TO13(CURIYR)
         IF (I.EQ.12)  SEORACO2(1,I,CURIYR) =  SEORACO2(1,I,CURIYR) -
CO2_12TO13(CURIYR)
         IF (I.EQ.13)  SEORACO2(1,I,CURIYR) =  SEORACO2(1,I,CURIYR) +
CO2_11TO13(CURIYR)+CO2_12TO13(CURIYR)

         SEORACO2(4,I,CURIYR) = SEORACO2(1,I,CURIYR) +
SEORACO2(3,I,CURIYR)   !TOTAL CO2 TO EOR


      !Calculate annual amount of oil produced corresponding to CO2 captured
from Plants
         SEORAPROD(1,I,CURIYR) = SEORACO2(1,I,CURIYR)* OILCO2PRDR(I,CURIYR)
         !Calculate annual amount of oil produced corresponding to CO2 from
Natural and Industrial sources
         SEORAPROD(3,I,CURIYR) = SEORACO2(3,I,CURIYR)* OILCO2PRDR(I,CURIYR)

      !Calculate TOTAL annual amount of oil produced
         SEORAPROD(4,I,CURIYR) = SEORACO2(4,I,CURIYR)* OILCO2PRDR(I,CURIYR)

       ENDDO

       !CALCULATE ANNUAL EOR PRODUCTION BY OGSM REGION
       OGEORAPROD(:,CURIYR)=0
      DO I=1, MNUMOR-1
       DO J=1, MNUMNR-1
        OGEORAPROD(I,CURIYR) = OGEORAPROD(I,CURIYR) + OGEMM_MAP(J,I) *
SEORAPROD(4,J,CURIYR)
       ENDDO
      ENDDO

      !write debug tables
        TNAME(1)= 'TOTAL CO2 DEMAND   '
        TNAME(2)= 'CO2 CAPTURED       '
        TNAME(3)= 'CO2 SEQUESTERED    '
        TNAME(4)= '5-yr Ave. Oil Price'
```

```
  TNAME(5)= 'WOP                 '
  TNAME(6)= 'CO2 Price           '
  TNAME(7)= '30-yr EOR Productio'
  TNAME(8)= '30-yr CO2 Demand    '
  TNAME(9)= 'CO2 TRANSFER PRICE '
  TNAME(10)='CO2 SEQUESTR PRICE '
  TNAME(11)='PIPE COMP REVENUE  '
  TNAME(12)='CO2 TRANSPORT PRICE'
  TNAME(13)='Retrofitted Plants '
  TNAME(14)='IGCC with Sequest  '
  TNAME(15)='NGCC with Sequest  '
  TNAME(16)='CTL Plants         '
  TNAME(17)='CO2 TRANSFR SUBSIDY'
  TNAME(18)='NAT & IND CO2 DEMND'
  TNAME(19)='MAX ANNUAL EOR PROD'
  TNAME(20)='PP & CTL OIL PROD  '
  TNAME(21)='NAT & IND OIL PROD '
  TNAME(24)='TOTAL EOR OIL PROD '
  TNAME(22)='30-yr Nat & Ind CO2'
  TNAME(23)='MAX DMD NET OF N&I '
  TNAME(25)='CO2 PURCHASED FR PP'
  TNAME(26)='ORIGINAL CO2 DEMAND'
  TNAME(27)='DEMAND ADJUSTMENT  '
  TNAME(28)='CO2 TRANSFER TO 13 '
if (NCRL.EQ.1 .and. BADSOLU(MNUMNR,CURIYR).ne.0) then
write(CO2UNIT,*) ' '
write(CO2UNIT,*) 'YEAR   |',CURIYR+1989
write(CO2UNIT,15) (I,I=1,MNUMNR-1)
WRITE(CO2UNIT,12) (UDLN,I=1,155)
WRITE(CO2UNIT,77) TNAME(19),(EORAPROD(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(20),(SEORAPROD(1,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(21),(SEORAPROD(3,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(24),(SEORAPROD(4,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,*) ' '
write(CO2UNIT,15) (I,I=1,MNUMNR-1)
WRITE(CO2UNIT,12) (UDLN,I=1,155)
WRITE(CO2UNIT,77) TNAME(1),(SEORACO2(4,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(18),(SEORACO2(3,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(23),(EORACO2(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(25),(SEORACO2(1,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(2),(CO2CAP(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(3),(CO2SEQ(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,*) ' '
write(CO2UNIT,15) (I,I=1,MNUMNR-1)
WRITE(CO2UNIT,12) (UDLN,I=1,155)
WRITE(CO2UNIT,77) TNAME(13),(SCO2CAP(1,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(14),(SCO2CAP(2,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(15),(SCO2CAP(3,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(16),(SCO2CAP(4,I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,*) ' '
write(CO2UNIT,15) (I,I=1,MNUMNR-1)
WRITE(CO2UNIT,12) (UDLN,I=1,155)
WRITE(CO2UNIT,77) TNAME(9),(TFRCST(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(17),(TFRSUB(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(10),(CO2STGCST(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(12),(CO2TRCST(I,CURIYR), I=1,MNUMNR-1)
WRITE(CO2UNIT,77) TNAME(4),AVGWOP(CURIYR)
```

```
      WRITE(CO2UNIT,77) TNAME(5),IT_WOP(CURIYR,1)
      WRITE(CO2UNIT,*) 'CALIFORNIA (REG 13) ADJUSTMENTS'
      write(CO2UNIT,15) (I,I=11,13)
      WRITE(CO2UNIT,12) (UDLN,I=1,155)
      WRITE(CO2UNIT,77) TNAME(26),(EORACO2_ORG(I,CURIYR), I=11,13)
      WRITE(CO2UNIT,77) TNAME(23),(EORACO2(I,CURIYR), I=11,13)
      WRITE(CO2UNIT,77) TNAME(2),(CO2CAP(I,CURIYR), I=11,13)
      WRITE(CO2UNIT,77) TNAME(3),(CO2SEQ(I,CURIYR), I=11,13)
      WRITE(CO2UNIT,77)
TNAME(27),0.3*DELTA13(CURIYR),0.7*DELTA13(CURIYR),DELTA13(CURIYR)
      WRITE(CO2UNIT,77)
TNAME(28),CO2_11TO13(CURIYR),CO2_12TO13(CURIYR),(CO2_11TO13(CURIYR)+CO2_12TO13(C
URIYR))
      WRITE(CO2UNIT,77) TNAME(25),(SEORACO2(1,I,CURIYR), I=11,13)

      endif

12    FORMAT(155(A1))
15    FORMAT('REGION',13X,'|',<MNUMNR-1>(7X,I2))
77    FORMAT(A19,'|',<MNUMNR-1>F9.2)
      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  SHUT DOWN THE NEMS MODULES IF NO SOLUTION
!
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_TURNOFF
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'co2mminc'
      include 'co2mmout'

      integer*4 i,J,K
      INTEGER YR
      REAL*4 DUM
      CHARACTER*2 SOL(2,MNUMNR)
      COMMON /CO2CHSOL/ SOL

      K=0
      WRITE(CO2DBG,*) ' '
      WRITE(CO2DBG,*) 'CO2MM SOLUTION'
      WRITE(CO2DBG,*) 'YEAR ',CURIYR+1989,'NEMS CYCLE ',CURIRUN
      WRITE(CO2DBG,*) 'CO2MM CYCLE ',CO2CURICYC(CURIYR),'OF',CO2MAXCYC
      WRITE(CO2DBG,*) 'REGION  SUBSIDY  SUPPLY  DEMAND'
      IF (BADSOLU(MNUMNR,CURIYR) .EQ. 1) THEN
        do i=1,mnumnr-1
!       IF (BADSOLU(I,CURIYR) .EQ. 1)
THEN                                                                  !within
10% tolerance
```

```
          IF ((TFRSUB(I,CURIYR) .EQ. MAXTFRSUB(I,CURIYR) .AND.
CO2CAP(I,CURIYR) .LE.  (1. * EORACO2(I,CURIYR))) &  !undersupply at MAX    -or-
           .OR. (TFRSUB(I,CURIYR) .EQ. 0.0 .AND. CO2CAP(I,CURIYR) .GE.
(.9*EORACO2(I,CURIYR))) &                 !oversupply at 0       -or-
           .OR. ABS(EORACO2(I,CURIYR)-CO2CAP(I,CURIYR)) .LE.
(0.1*EORACO2(I,CURIYR)) &                           !within 10% tolerance  -or-
           .OR. ABS(EORACO2(I,CURIYR)-CO2CAP(I,CURIYR)) .LE. 0.5
&                                 !diff btw sup & dmd is neglegible -or-
           .OR. ABS(TFRSUB(I,CURIYR)-TFRSUB_PREV(I,CURIYR)).LE.0.05
&                              !subsidy change is within 5 cents -or-
           .OR. ABS((EORACO2(I,CURIYR)-CO2CAP(I,CURIYR))-  &
           (EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR))) .LE. 0.5
&                         !sup & dmd diff btw cycles is constant -or-
            .OR. CO2CURICYC(CURIYR) .EQ. CO2MAXCYC)
THEN                                                !reached max allowed
number of cycles for the year

            IF (TFRSUB(I,CURIYR) .EQ. MAXTFRSUB(I,CURIYR) .AND. &
             CO2CAP(I,CURIYR) .LE.  (1. * EORACO2(I,CURIYR))) THEN
               SOL(2,I) ='C1'
               DUM = 1. * EORACO2(I,CURIYR)-CO2CAP(I,CURIYR)
            ELSEIF (TFRSUB(I,CURIYR) .EQ. 0.0 .AND. CO2CAP(I,CURIYR) .GE.
(.9*EORACO2(I,CURIYR))) THEN
               SOL(2,I) ='C2'
               DUM = CO2CAP(I,CURIYR) - .9*EORACO2(I,CURIYR)
            ELSEIF (ABS(EORACO2(I,CURIYR)-CO2CAP(I,CURIYR)) .LE.
(0.1*EORACO2(I,CURIYR))) THEN
               SOL(2,I) ='C3'
               DUM = 0.1*EORACO2(I,CURIYR)-ABS(EORACO2(I,CURIYR)-
CO2CAP(I,CURIYR))
            ELSEIF (ABS(EORACO2(I,CURIYR)-CO2CAP(I,CURIYR)) .LE. 0.5) THEN
               SOL(2,I) ='C4'
               DUM = ABS(EORACO2(I,CURIYR)-CO2CAP(I,CURIYR))
           ELSEIF (ABS(TFRSUB(I,CURIYR)-TFRSUB_PREV(I,CURIYR)).LE.0.05) THEN
               SOL ='C5'
               DUM = ABS(TFRSUB(I,CURIYR)-TFRSUB_PREV(I,CURIYR))
            ELSEIF (ABS((EORACO2(I,CURIYR)-CO2CAP(I,CURIYR))-  &
             (EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR))) .LE. 0.5) THEN
               SOL(2,I) ='C6'
               DUM = ABS(ABS(EORACO2(I,CURIYR)-CO2CAP(I,CURIYR))-  &
                     ABS(EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR)))
            ELSEIF (CO2CURICYC(CURIYR) .EQ. CO2MAXCYC) THEN
              SOL(2,I) ='C7'

            ELSE
              SOL(2,I) = 'NN'
            ENDIF

 !          BADSOLU(I,CURIYR) = .FALSE.
            BADSOLU(I,CURIYR) = 0
            WRITE(6,*) 'CO2MM CONTINUES...REG',I
            WRITE(CO2DBG,20)
I,TFRSUB(I,CURIYR),CO2CAP(I,CURIYR),EORACO2(I,CURIYR),SOL(2,I),DUM
          ELSE

 !          NEXTYRFLG = .FALSE.
            NEXTYRFLG = 0
```

```
            BADSOLU(I,CURIYR) = 1
 !          ONCEYRFLG(CURIYR)=0
            OFFFLAG=1
            WRITE(CO2DBG,20)
I,TFRSUB(I,CURIYR),CO2CAP(I,CURIYR),EORACO2(I,CURIYR),'X '

          ENDIF
        enddo
      ENDIF
      IF(ALL(BADSOLU(1:MNUMNR-1,CURIYR).EQ.0)) THEN
        BADSOLU(MNUMNR,CURIYR)=0
      ELSE
        BADSOLU(MNUMNR,CURIYR)=1
      ENDIF

      CALL CO2_TRFCOST

      IF (BADSOLU(MNUMNR,CURIYR) .EQ. 1) THEN
         EXW=0
         EXM=0
         EXR=0
         EXK=0
         EXI=0
         EXT=0
         EXE=0
         EXC=0
         EXL=0
         EXG=0
         EXO=0
         EXN=0
         EXH=0
         EX2=0
         RUNMOD( 1)=EXW
         RUNMOD( 2)=EXM
         RUNMOD( 3)=EXR
         RUNMOD( 4)=EXK
         RUNMOD( 5)=EXI
         RUNMOD( 6)=EXT
         RUNMOD( 7)=EXE
         RUNMOD( 8)=EXC
         RUNMOD( 9)=EXL
         RUNMOD(10)=EXG
         RUNMOD(11)=EXO
         RUNMOD(12)=EXN
         RUNMOD(13)=EXH
         RUNMOD(14)=EX2
         WRITE(6,*) ' CO2MM:TURNING WORLD OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING MAC OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING RESD OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING COMM OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING IND OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
```

```
         WRITE(6,*) ' CO2MM:TURNING TRAN OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING UTIL OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING COAL OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING WELL OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING PIPE OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING REFINE
OFF',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING RENEW OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
         WRITE(6,*) ' CO2MM:TURNING CO2MM OFF
',I,CURIYR+1989,CURITR,CURIRUN       ! PRINT MESSAGE TO TERMINAL
       ENDIF


!      do i=1,mnumnr-1
!        IF (BADSOLU(I,CURIYR) .EQ. 0) THEN
!          K=K+1
!        ENDIF
!      enddo
!      IF (K.eq.15) BADSOLU(MNUMNR,CURIYR) = 0
      WRITE(CO2DBG,*) ' '
      ONCEYRFLG(CURIYR)=0
      CO2SOLYR=165
      OPEN(UNIT=CO2SOLYR,FILE='CO2SOLYR.txt')   !temp dbg file
      DO J=EORSTYR(MNUMNR), mjumpyr
        WRITE(CO2SOLYR,10)J,(BADSOLU(I,J), I=1,MNUMNR)
      ENDDO
      WRITE(CO2SOLYR,15)(ONCEYRFLG(I), I=EORSTYR(MNUMNR), mjumpyr)
      CLOSE(UNIT=CO2SOLYR)        ! CO2SOLYR
!
!
!10    FORMAT(I2,<MNUMNR-1>(1X,L1))
!15    FORMAT(<mjumpyr-EORSTYR(MNUMNR)+1>(1X,L1))
10    FORMAT(I2,<MNUMNR>(I2))
15    FORMAT(<mjumpyr-EORSTYR(MNUMNR)+1>(I2))
20    FORMAT(I2,3F10.3,2X,A2,1X,F6.2)
      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  UPDATE TRANSFER COST
!
!  STATUS:  COMPLETE
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_TRFCOST
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'intout'
```

```
      include 'macout'
      include 'co2mminc'
      include 'co2mmout'

      INTEGER*4 I,J,N            ! COUNTERS
      INTEGER*4 CO2TFROPT        ! OPTION TO CHOOSE THE METHOD FOR CALCULATING
THE TRANSFER SUBSIDY: (MIGHT NEED TO MOVE TO THE COMMON BLOCK)
                                 ! 1- SECANT, 2- BISECTION, 3- BRENT'S METHOD
      REAL*4 CO2_SUBSIDY_PREV(MNUMNR,MNUMYR)
      REAL*4 CO2_SUPPLY_PREV(MNUMNR,MNUMYR)
      REAL*4 CO2_DEMAND_PREV(MNUMNR,MNUMYR)
      REAL*4 CO2_SUPPLY(MNUMNR)
      REAL*4 DELTA_RIGHT,DELTA_LEFT,DELTA
      LOGICAL CO2TFRFLAG
      CHARACTER*2 SOL(2,MNUMNR)
      COMMON /CO2CHSOL/ SOL

      CO2TFROPT = 1     !
      CO2TFRFLAG=.FALSE.
!      CO2TFRFLAG=.TRUE.
      DO I=1,MNUMNR-1
        CO2_SUPPLY(I)= CO2CAP(I,CURIYR)
      ENDDO
      CO2_SUPPLY(11)= CO2CAP(11,CURIYR)-CO2_11TO13(CURIYR)
      CO2_SUPPLY(12)= CO2CAP(12,CURIYR)-CO2_12TO13(CURIYR)
      CO2_SUPPLY(13)= CO2CAP(13,CURIYR)+CO2_11TO13(CURIYR)+CO2_12TO13(CURIYR)

!       !Initialize Transfer Subsidy
      IF (NUMIRUNS.EQ.1 .AND. CO2TFRFLAG) THEN   !increasing transfer subsidy
for single cycle run
       DO I=1, MNUMNR-1
         IF (CO2_SUPPLY(I) .LT. (0.9 * EORACO2_ORG(I,CURIYR-1)) ) THEN
 !          TFRSUB(I,CURIYR) = TFRSUB(I,CURIYR-1)+5.
           TFRSUB(I,CURIYR) = MAXTFRSUB(I,CURIYR)
         ELSE
           TFRSUB(I,CURIYR) = 0.0     !TFRSUB(I,CURIYR-1)
         ENDIF
         IF (I.EQ.3 .OR. I.EQ.6 .OR. I.EQ.7 .OR. I.EQ.15) TFRSUB(I,CURIYR) =
0.0    !PAY FULL SEQ COST IN REG W/ NO EOR PROD
       ENDDO
      ELSEIF (CO2TFROPT.EQ.1) THEN   !SECANT METHOD
       DO I=1, MNUMNR-1
        IF (I.NE.3 .AND. I.NE.6 .AND. I.NE.7 .AND. I.NE.15) THEN

         IF (BADSOLU(I,CURIYR).EQ.1) THEN
           TFRSUB_PREV1(I,CURIYR) = TFRSUB_PREV(I,CURIYR)
           CO2CAP_PREV1(I,CURIYR)  = CO2CAP_PREV(I,CURIYR)
           EORACO2_PREV1(I,CURIYR) = EORACO2_PREV(I,CURIYR)
           !Set for the next cycle
           TFRSUB_PREV(I,CURIYR) = TFRSUB(I,CURIYR)
           CO2CAP_PREV(I,CURIYR) = CO2_SUPPLY(I)
           EORACO2_PREV(I,CURIYR) = EORACO2_ORG(I,CURIYR)
           SOL(1,I)='PS'

           IF(TFRSUB_PREV(I,CURIYR) .EQ. MAXTFRSUB(I,CURIYR)) THEN
               TFRSUB(I,CURIYR) = 0.0
```

```
              write(co2dbg,*) 'inner cycle',CO2CURICYC(CURIYR), 'of
',CO2MAXCYC,'badsolu',BADSOLU(I,CURIYR)

           ELSEIF (TFRSUB_PREV(I,CURIYR) .EQ. 0 .AND. TFRSUB_PREV1(I,CURIYR) .EQ.
0) THEN
             TFRSUB(I,CURIYR) = MAXTFRSUB(I,CURIYR)/2
           ELSE
             write(co2dbg,*) 'inner cycle',CO2CURICYC(CURIYR), 'of ',CO2MAXCYC
             if ((EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR)-
(EORACO2_PREV1(I,CURIYR)-CO2CAP_PREV1(I,CURIYR))) &
                  .ne. 0.0) then
               TFRSUB(I,CURIYR) = TFRSUB_PREV(I,CURIYR) - &
                 (TFRSUB_PREV(I,CURIYR) -
TFRSUB_PREV1(I,CURIYR))*(EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR))/ &
                  (EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR)-
(EORACO2_PREV1(I,CURIYR)-CO2CAP_PREV1(I,CURIYR)))
             endif
               IF (TFRSUB(I,CURIYR) .LT. 0) THEN
                 TFRSUB(I,CURIYR) = 0.0
                 BADSOLU(I,CURIYR) = 0
                 SOL(1,I)='LB'
               ELSEIF (TFRSUB(I,CURIYR) .GT. MAXTFRSUB(I,CURIYR)) THEN
                 TFRSUB(I,CURIYR) = MAXTFRSUB(I,CURIYR)
                 BADSOLU(I,CURIYR) = 0
                 SOL(1,I)='UB'
               ENDIF


           ENDIF
         ENDIF
        ENDIF
       ENDDO
      ELSEIF (CO2TFROPT.EQ.2) THEN   !BISECTION METHOD
       DO I=1, MNUMNR-1
        IF (I.NE.3 .AND. I.NE.6 .AND. I.NE.7 .AND. I.NE.15) THEN

         IF (BADSOLU(I,CURIYR).EQ.1) THEN
           !Set for the next cycle
           !PREV1 - RIGHT POINT; PREV - LEFT POINT
           IF(TFRSUB(I,CURIYR) .EQ. MAXTFRSUB(I,CURIYR)) THEN
             TFRSUB_PREV(I,CURIYR) = TFRSUB(I,CURIYR)
             CO2CAP_PREV(I,CURIYR) = CO2_SUPPLY(I)
             EORACO2_PREV(I,CURIYR) = EORACO2_ORG(I,CURIYR)
           ELSEIF(TFRSUB_PREV(I,CURIYR) .EQ. MAXTFRSUB(I,CURIYR) .AND. &
                  TFRSUB(I,CURIYR) .EQ. 0) THEN
             TFRSUB_PREV1(I,CURIYR) = TFRSUB_PREV(I,CURIYR)
             CO2CAP_PREV1(I,CURIYR) = CO2CAP_PREV(I,CURIYR)
             EORACO2_PREV1(I,CURIYR) = EORACO2_PREV(I,CURIYR)
             TFRSUB_PREV(I,CURIYR) = TFRSUB(I,CURIYR)
             CO2CAP_PREV(I,CURIYR) = CO2_SUPPLY(I)
             EORACO2_PREV(I,CURIYR) = EORACO2_ORG(I,CURIYR)
           ELSE
             DELTA_RIGHT = EORACO2_PREV1(I,CURIYR)-CO2CAP_PREV1(I,CURIYR)
             DELTA_LEFT = EORACO2_PREV(I,CURIYR)-CO2CAP_PREV(I,CURIYR)
             DELTA = EORACO2_ORG(I,CURIYR)-CO2_SUPPLY(I)
             IF (DELTA_LEFT*DELTA .GT. 0) THEN            !THROW AWAY LEFT HALF
               TFRSUB_PREV(I,CURIYR) = TFRSUB(I,CURIYR)
```

```
                CO2CAP_PREV(I,CURIYR) = CO2_SUPPLY(I)
                EORACO2_PREV(I,CURIYR) = EORACO2_ORG(I,CURIYR)
              ELSE                                          !THROW AWAY RIGHT HALF
                TFRSUB_PREV1(I,CURIYR) = TFRSUB(I,CURIYR)
                CO2CAP_PREV1(I,CURIYR) = CO2_SUPPLY(I)
                EORACO2_PREV1(I,CURIYR) = EORACO2_ORG(I,CURIYR)
              ENDIF
            ENDIF
            SOL(1,I)='PS'
            IF(TFRSUB_PREV(I,CURIYR) .EQ. MAXTFRSUB(I,CURIYR)) THEN
                TFRSUB(I,CURIYR) = 0.0
                write(co2dbg,*) 'inner cycle',CO2CURICYC(CURIYR), 'of
',CO2MAXCYC,'badsolu',BADSOLU(I,CURIYR)
            ELSE
              write(co2dbg,*) 'inner cycle',CO2CURICYC(CURIYR), 'of ',CO2MAXCYC
              TFRSUB(I,CURIYR) = (TFRSUB_PREV(I,CURIYR) +
TFRSUB_PREV1(I,CURIYR))/2
            ENDIF
          ENDIF
         ENDIF
        ENDDO
      ENDIF
      write(co2dbg,*) 'Year',CURIYR+1989
      write(co2dbg,*) 'TRANSFER SUBSIDY'
      write(co2dbg,*) 'Cycle',curirun-2,curirun-1,curirun,CO2CURICYC(CURIYR)
      do I=1, MNUMNR-1
        write(co2dbg,*) I,
TFRSUB_PREV1(I,CURIYR),TFRSUB_PREV(I,CURIYR),TFRSUB(I,CURIYR)
      enddo
      write(co2dbg,*) 'DEMAND'
      write(co2dbg,*) 'Cycle',curirun-2,curirun-1
      do I=1, MNUMNR-1
        write(co2dbg,*) I, EORACO2_PREV1(I,CURIYR),EORACO2_PREV(I,CURIYR)
      enddo
      write(co2dbg,*) 'SUPPLY'
      write(co2dbg,*) 'Cycle',curirun-2,curirun-1
      do I=1, MNUMNR-1
        write(co2dbg,*) I, CO2CAP_PREV1(I,CURIYR),CO2CAP_PREV(I,CURIYR)
      enddo

      !Calculate Transfer Cost for EOR and Supply Source
      IF (carbconsflg .eq. 1) THEN   !Carbon Constraint Environment
        DO I= 1, MNUMNR - 1
          EORTFRCST(I,CURIYR) = -CO2STGCST(I,CURIYR) + CO2TRPCT(1) *
CO2TRCST(I,CURIYR) + TFRSUB(I,CURIYR)
          IF (EORTFRCST(I,CURIYR) .LT. 0.0) EORTFRCST(I,CURIYR) = 0.0
          TFRCST(I,CURIYR) = CO2STGCST(I,CURIYR) + CO2TRPCT(2) *
CO2TRCST(I,CURIYR) - TFRSUB(I,CURIYR)  !>0 = cost to the power plants, <0 =
credit to Power Plants
        ENDDO
      ELSE                        ! No Carbon Constraint
        DO I= 1, MNUMNR - 1
          EORTFRCST(I,CURIYR) = CO2CCCST(I,CURIYR) + CO2TRPCT(1) *
CO2TRCST(I,CURIYR) + TFRSUB(I,CURIYR)
          IF (EORTFRCST(I,CURIYR) .LT. 0.0) EORTFRCST(I,CURIYR) = 0.0
          TFRCST(I,CURIYR) = CO2CCCST(I,CURIYR) + CO2TRPCT(2) *
CO2TRCST(I,CURIYR) + TFRSUB(I,CURIYR)
```

```
        ENDDO
      ENDIF
      CALL CO2_INTERREG_ADJ(2)

      RETURN
      END

! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
!
!  RE-ALLOCATE CALIFORNIA (REG 13) CO2 DEMAND AND SUPPLY AND
!  CORRESPONDING OIL PRODUCTION
!
!  STATUS:  IN PROGRESS
!
! = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
      SUBROUTINE CO2_INTERREG_ADJ(N)
      IMPLICIT NONE

      include 'parametr'
      include 'ncntrl'
      include 'intout'
      include 'co2mminc'
      include 'co2mmout'


      INTEGER*4 I,J,N            ! COUNTERS
      REAL*4 TEMP11TO13
      REAL*4 TEMP12TO13
      REAL*4 share_coef13_11
      REAL*4 share_coef13_12


      IF (CO2CAP(13,CURIYR) .LT. EORACO2(13,CURIYR)) THEN
        DELTA13(CURIYR) = EORACO2(13,CURIYR) - CO2CAP(13,CURIYR)
          TEMP11TO13=CO2CAP(11,CURIYR)-EORACO2_ORG(11,CURIYR)
          TEMP12TO13=CO2CAP(12,CURIYR)-EORACO2_ORG(12,CURIYR)
          IF(TEMP11TO13 .LT. 0.0) TEMP11TO13=0.0
          IF(TEMP12TO13 .LT. 0.0) TEMP12TO13=0.0
          IF((TEMP11TO13+TEMP12TO13).NE.0.0) THEN
            share_coef13_11=TEMP11TO13/(TEMP11TO13+TEMP12TO13)
            share_coef13_12=TEMP12TO13/(TEMP11TO13+TEMP12TO13)
          ELSE
            share_coef13_11=0.3
            share_coef13_12=0.7
          ENDIF

        IF(N.EQ.1) THEN


          EORACO2(13,CURIYR) = EORACO2(13,CURIYR) - DELTA13(CURIYR)
          EORACO2(12,CURIYR) = EORACO2(12,CURIYR) +
share_coef13_12*DELTA13(CURIYR)
          EORACO2(11,CURIYR) = EORACO2(11,CURIYR) +
share_coef13_11*DELTA13(CURIYR)


          CO2_11TO13(CURIYR) = AMIN1(share_coef13_11*DELTA13(CURIYR),TEMP11TO13)
```

```
          CO2_12TO13(CURIYR) = AMIN1(share_coef13_12*DELTA13(CURIYR),TEMP12TO13)

        ELSEIF(N.EQ.2) THEN
          IF((TEMP11TO13+TEMP12TO13).LT.DELTA13(CURIYR)) THEN
            TFRCST(11,CURIYR) = (TFRCST(11,CURIYR)*EORACO2_ORG(11,CURIYR)+ &

(TFRCST(13,CURIYR)+5.)*share_coef13_11*DELTA13(CURIYR))/EORACO2(11,CURIYR)
            TFRCST(12,CURIYR) = (TFRCST(12,CURIYR)*EORACO2_ORG(12,CURIYR)+ &

(TFRCST(13,CURIYR)+5.)*share_coef13_12*DELTA13(CURIYR))/EORACO2(12,CURIYR)
          ENDIF
        ENDIF
      ENDIF



      RETURN
      END
```

APPENDIX C. CO2MMREP OUTPUT REPORT FILE

TABLE 1. ANNUALIZED EOR MAXIMUM PRODUCTION LIMIT PROFILE BY EMM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 1																				
1	0.00	1.20	0.01	0.02	0.02	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02
2	0.00	2.67	0.02	0.05	0.05	0.07	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.05
3	0.00	3.34	0.03	0.07	0.07	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.07	0.06
4	0.00	4.28	0.04	0.09	0.09	0.12	0.13	0.13	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.10	0.09	0.08
5	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
6	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
7	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
8	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
9	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
10	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
11	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
12	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
13	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
14	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
15	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
16	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
17	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
18	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
19	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
20	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
21	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
22	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
23	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
24	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
25	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
26	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
27	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
28	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
29	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
30	0.00	4.70	0.04	0.09	0.10	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.10	0.09
REGION 2																				

1	0.00	136.38	0.80	2.40	3.15	3.94	4.37	4.03	3.82	3.64	3.77	3.74	3.68	3.41	3.98	3.23	3.08	3.75	2.86	2.60
2	0.00	303.07	1.79	5.34	7.00	8.76	9.72	8.96	8.50	8.10	8.39	8.31	8.18	7.57	8.85	7.19	6.84	8.33	6.35	5.78
3	0.00	378.84	2.23	6.68	8.74	10.95	12.15	11.20	10.62	10.12	10.48	10.38	10.23	9.47	11.07	8.98	8.55	10.42	7.94	7.23
4	0.00	484.91	2.86	8.55	11.19	14.02	15.56	14.34	13.60	12.96	13.42	13.29	13.09	12.12	14.17	11.50	10.95	13.34	10.17	9.25
5	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
6	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
7	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
8	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
9	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
10	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
11	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
12	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
13	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
14	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
15	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
16	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
17	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
18	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
19	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
20	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
21	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
22	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
23	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
24	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
25	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
26	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
27	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
28	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
29	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18
30	0.00	533.41	3.14	9.40	12.31	15.42	17.11	15.78	14.96	14.25	14.76	14.62	14.40	13.33	15.58	12.65	12.04	14.67	11.18	10.18

REGION 3

1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 4

1	0.00	4.13	0.00	0.06	0.08	0.11	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.08	0.07
2	0.00	9.17	0.00	0.13	0.18	0.25	0.27	0.27	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.19	0.18	0.16
3	0.00	11.46	0.00	0.16	0.23	0.31	0.33	0.33	0.32	0.30	0.30	0.29	0.29	0.28	0.28	0.28	0.26	0.24	0.22	0.20
4	0.00	14.67	0.00	0.21	0.29	0.40	0.43	0.43	0.41	0.39	0.38	0.37	0.37	0.36	0.36	0.35	0.33	0.31	0.28	0.26
5	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
6	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
7	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
8	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
9	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
10	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
11	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
12	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
13	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
14	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
15	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
16	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
17	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
18	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
19	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
20	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
21	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28

22	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
23	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
24	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
25	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
26	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
27	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
28	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
29	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28
30	0.00	16.14	0.00	0.23	0.32	0.44	0.47	0.47	0.45	0.42	0.42	0.41	0.40	0.39	0.40	0.39	0.37	0.34	0.31	0.28

REGION 5

1	0.00	4.05	0.04	0.08	0.10	0.11	0.12	0.12	0.11	0.11	0.15	0.15	0.15	0.16	0.16	0.17	0.14	0.13	0.12	0.11
2	0.00	9.01	0.08	0.18	0.23	0.25	0.27	0.27	0.25	0.24	0.32	0.34	0.34	0.35	0.36	0.37	0.31	0.30	0.28	0.26
3	0.00	11.26	0.10	0.23	0.28	0.31	0.33	0.33	0.32	0.30	0.40	0.42	0.43	0.43	0.45	0.46	0.39	0.37	0.35	0.32
4	0.00	14.41	0.13	0.29	0.36	0.40	0.43	0.43	0.41	0.39	0.52	0.54	0.55	0.55	0.57	0.59	0.49	0.48	0.44	0.41
5	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
6	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
7	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
8	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
9	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
10	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
11	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
12	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
13	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
14	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
15	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
16	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
17	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
18	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
19	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
20	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
21	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
22	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
23	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
24	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
25	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
26	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
27	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
28	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
29	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45
30	0.00	15.85	0.14	0.32	0.40	0.44	0.47	0.47	0.45	0.43	0.57	0.60	0.61	0.61	0.63	0.65	0.54	0.52	0.49	0.45

REGION 6

1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 7

1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 8

1	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02
2	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.05	0.05	0.06	0.06	0.04	0.04	0.04	0.04
3	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.06	0.06	0.07	0.07	0.05	0.05	0.05	0.05
4	0.00	0.15	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.06	0.07	0.08	0.08	0.09	0.09	0.07	0.07	0.06	0.06
5	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
6	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
7	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
8	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
9	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
10	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
11	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
12	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
13	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
14	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
15	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
16	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
17	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
18	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
19	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
20	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
21	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07

22	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
23	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
24	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
25	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
26	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
27	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
28	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
29	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07
30	0.00	0.16	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.08	0.08	0.09	0.10	0.10	0.07	0.07	0.07	0.07

REGION 9

1	0.00	43.49	0.24	0.77	0.93	1.20	1.31	1.28	1.22	1.16	1.20	1.18	1.17	1.15	1.16	1.15	1.06	0.99	0.91	0.82
2	0.00	96.63	0.54	1.70	2.07	2.66	2.90	2.85	2.70	2.57	2.66	2.63	2.59	2.55	2.57	2.55	2.35	2.19	2.01	1.83
3	0.00	120.79	0.67	2.13	2.58	3.32	3.63	3.56	3.38	3.21	3.32	3.29	3.24	3.19	3.22	3.19	2.93	2.74	2.52	2.29
4	0.00	154.62	0.86	2.73	3.31	4.26	4.65	4.56	4.32	4.11	4.25	4.21	4.15	4.08	4.12	4.08	3.76	3.50	3.22	2.93
5	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
6	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
7	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
8	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
9	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
10	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
11	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
12	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
13	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
14	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
15	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
16	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
17	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
18	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
19	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
20	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
21	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
22	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
23	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
24	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
25	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
26	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
27	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
28	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
29	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22
30	0.00	170.08	0.95	3.00	3.64	4.68	5.11	5.02	4.75	4.53	4.68	4.63	4.56	4.49	4.53	4.49	4.13	3.85	3.55	3.22

REGION 10

1	0.00	85.54	0.72	1.64	2.09	2.44	2.76	2.54	2.41	2.30	2.37	2.34	2.31	2.35	2.29	2.27	2.09	1.95	1.79	1.63
2	0.00	190.10	1.59	3.64	4.65	5.42	6.12	5.65	5.36	5.10	5.26	5.21	5.13	5.22	5.09	5.04	4.64	4.33	3.98	3.62
3	0.00	237.62	1.99	4.55	5.81	6.78	7.65	7.06	6.70	6.38	6.58	6.51	6.41	6.52	6.36	6.30	5.81	5.41	4.98	4.53
4	0.00	304.15	2.55	5.83	7.44	8.68	9.80	9.04	8.57	8.17	8.42	8.33	8.20	8.35	8.14	8.06	7.43	6.93	6.37	5.80
5	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
6	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
7	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
8	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
9	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
10	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
11	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
12	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
13	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
14	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
15	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
16	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
17	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
18	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
19	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
20	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
21	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
22	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
23	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
24	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
25	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
26	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
27	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
28	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
29	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37
30	0.00	334.57	2.80	6.41	8.19	9.54	10.78	9.94	9.43	8.98	9.26	9.16	9.02	9.18	8.96	8.87	8.17	7.62	7.01	6.37

REGION 11

1	0.00	17.40	0.38	0.31	0.40	0.49	0.52	0.52	0.53	0.52	0.54	0.55	0.56	0.58	0.53	0.43	0.41	0.38	0.35	0.31
2	0.00	38.68	0.85	0.68	0.90	1.08	1.15	1.16	1.17	1.15	1.19	1.23	1.25	1.30	1.17	0.96	0.91	0.84	0.77	0.70
3	0.00	48.34	1.06	0.85	1.12	1.35	1.44	1.45	1.47	1.44	1.49	1.54	1.57	1.62	1.46	1.19	1.13	1.05	0.96	0.87
4	0.00	61.88	1.35	1.09	1.44	1.73	1.84	1.86	1.88	1.85	1.91	1.97	2.00	2.07	1.87	1.53	1.45	1.34	1.23	1.12
5	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
6	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
7	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
8	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
9	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
10	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23

11	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
12	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
13	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
14	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
15	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
16	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
17	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
18	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
19	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
20	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
21	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
22	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
23	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
24	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
25	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
26	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
27	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
28	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
29	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23
30	0.00	68.07	1.49	1.20	1.58	1.90	2.03	2.04	2.06	2.03	2.10	2.17	2.20	2.28	2.05	1.68	1.60	1.48	1.36	1.23

REGION 12

1	0.00	5.36	0.00	0.08	0.11	0.15	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.11	0.10	0.09
2	0.00	11.91	0.00	0.17	0.24	0.33	0.35	0.35	0.33	0.31	0.30	0.30	0.29	0.28	0.28	0.28	0.26	0.24	0.22	0.20
3	0.00	14.89	0.00	0.21	0.30	0.41	0.43	0.43	0.41	0.39	0.38	0.37	0.36	0.35	0.35	0.35	0.33	0.30	0.28	0.25
4	0.00	19.05	0.00	0.27	0.38	0.52	0.55	0.56	0.53	0.50	0.49	0.47	0.46	0.45	0.45	0.44	0.42	0.39	0.36	0.32
5	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
6	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
7	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
8	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
9	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
10	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
11	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
12	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
13	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
14	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
15	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
16	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
17	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
18	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
19	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
20	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
21	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35

22	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
23	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
24	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
25	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
26	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
27	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
28	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
29	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35
30	0.00	20.96	0.00	0.30	0.42	0.57	0.61	0.61	0.58	0.55	0.54	0.52	0.51	0.50	0.50	0.49	0.46	0.43	0.39	0.35

REGION 13

1	0.00	14.14	0.00	0.20	0.28	0.39	33.17	0.65	0.92	1.12	1.27	1.35	1.31	1.29	1.34	1.20	0.97	0.90	0.83	0.75
2	0.00	31.42	0.00	0.45	0.63	0.86	73.71	1.44	2.04	2.49	2.82	3.00	2.92	2.86	2.99	2.67	2.17	2.01	1.84	1.67
3	0.00	39.27	0.00	0.56	0.79	1.07	92.14	1.79	2.55	3.11	3.52	3.75	3.65	3.58	3.74	3.34	2.71	2.51	2.30	2.09
4	0.00	50.27	0.00	0.72	1.01	1.37	117.93	2.30	3.27	3.98	4.51	4.79	4.67	4.58	4.78	4.27	3.47	3.21	2.94	2.67
5	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
6	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
7	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
8	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
9	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
10	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
11	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
12	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
13	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
14	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
15	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
16	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
17	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
18	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
19	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
20	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
21	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
22	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
23	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
24	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
25	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
26	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
27	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
28	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
29	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94
30	0.00	55.29	0.00	0.79	1.11	1.51	129.73	2.53	3.59	4.38	4.96	5.27	5.14	5.04	5.26	4.70	3.81	3.53	3.24	2.94

REGION 14

1	0.00	0.42	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.16	0.19	0.21	0.22	0.24	0.27	0.19	0.19	0.18	0.17
2	0.00	0.94	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.35	0.43	0.47	0.49	0.54	0.59	0.41	0.43	0.41	0.38
3	0.00	1.17	0.00	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.44	0.54	0.58	0.62	0.67	0.74	0.51	0.53	0.51	0.48
4	0.00	1.50	0.00	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.56	0.69	0.75	0.79	0.86	0.95	0.66	0.68	0.65	0.62
5	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
6	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
7	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
8	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
9	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
10	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
11	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
12	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
13	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
14	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
15	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
16	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
17	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
18	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
19	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
20	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
21	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
22	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
23	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
24	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
25	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
26	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
27	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
28	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
29	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68
30	0.00	1.65	0.00	0.02	0.03	0.05	0.05	0.05	0.05	0.04	0.62	0.76	0.82	0.87	0.95	1.05	0.72	0.75	0.72	0.68

REGION 15

1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 2. ANNUAL MAXIMUM POTENTIAL EOR PRODUCTION BY EMM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION																				
1	0.00	1.20	0.77	0.68	0.69	0.96	1.05	1.38	1.69	1.93	2.15	2.36	2.56	2.68	2.88	3.16	3.51	3.86	4.21	4.56
2	0.00	136.38	87.19	77.36	78.24	109.12	118.80	156.88	192.29	218.96	244.33	267.87	290.64	304.19	326.29	357.78	397.06	436.72	476.50	516.16
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	4.13	2.63	2.33	2.35	3.27	3.55	4.68	5.73	6.53	7.28	7.97	8.64	9.04	9.68	10.61	11.77	12.92	14.08	15.23
5	0.00	4.05	2.59	2.31	2.34	3.26	3.55	4.68	5.74	6.53	7.30	8.04	8.77	9.25	10.00	11.06	12.39	13.72	15.06	16.41
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.04	0.03	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.11	0.14	0.17	0.22	0.29	0.36	0.44	0.52	0.61
9	0.00	43.49	27.80	24.66	24.93	34.74	37.78	49.84	61.05	69.49	77.53	85.00	92.22	96.55	103.55	113.56	126.15	138.68	151.22	163.80
10	0.00	85.54	54.75	48.65	49.24	68.71	74.84	98.86	121.18	137.98	153.96	168.78	183.11	191.73	205.66	225.53	250.55	275.44	300.31	325.27
11	0.00	17.40	11.21	10.00	10.11	14.12	15.37	20.28	24.85	28.32	31.64	34.76	37.83	39.74	42.76	46.98	52.22	57.40	62.52	67.64
12	0.00	5.36	3.42	3.02	3.05	4.25	4.61	6.08	7.45	8.48	9.45	10.35	11.22	11.73	12.56	13.75	15.24	16.73	18.22	19.71
13	0.00	14.14	9.01	7.97	8.05	11.20	19.03	35.73	49.28	64.91	76.70	84.02	91.29	95.80	103.05	113.29	126.00	138.55	151.00	163.38
14	0.00	0.42	0.27	0.24	0.24	0.33	0.36	0.48	0.59	0.67	0.80	1.03	1.33	1.69	2.17	2.80	3.55	4.33	5.17	6.02
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	312.16	199.67	177.25	179.26	250.00	278.98	378.94	469.92	543.86	611.23	670.30	727.76	762.57	818.82	898.79	998.79	1098.79	1198.79	1298.79

TABLE 3. END-OF-YEAR EOR RESERVES BY EMM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	137.68	137.64	137.62	136.93	136.24	135.27	134.23	132.84	131.15	129.22	127.07	124.71	122.15	119.46	116.59	113.43	109.92	106.07	101.86	97.30
2	16120.90	16073.83	16037.13	16003.89	15946.38	15878.60	15759.81	15602.93	15410.63	15191.67	14947.34	14679.47	14401.16	14096.98	13770.69	13412.91	13015.85	12579.13	12102.63	11586.47
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	461.70	457.57	454.94	452.62	450.27	447.00	443.45	438.77	433.03	426.51	419.23	411.25	402.61	393.57	383.88	373.28	361.51	348.59	334.51	319.28
5	517.18	517.18	517.18	517.11	514.78	511.52	507.97	503.28	497.54	491.01	483.71	475.67	466.90	457.66	447.66	436.59	424.20	410.49	395.43	379.02
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	28.75	28.75	28.75	28.75	28.75	28.75	28.75	28.75	28.75	28.71	28.66	28.62	28.58	28.53	28.31	28.02	27.66	27.22	26.70	26.09
9	5110.86	5094.34	5082.66	5063.84	5038.91	5007.74	4969.97	4920.13	4859.08	4789.59	4712.06	4627.06	4534.84	4438.29	4334.75	4221.19	4095.04	3956.36	3805.14	3641.34
10	10186.15	10180.17	10171.54	10163.27	10122.54	10079.90	10005.06	9906.20	9785.02	9647.04	9493.08	9324.30	9149.89	8958.17	8752.51	8526.98	8276.42	8000.98	7700.67	7375.39
11	2013.51	2007.49	2002.61	1997.99	1987.88	1973.76	1958.39	1941.83	1922.37	1902.37	1882.15	1861.40	1839.59	1809.65	1766.88	1719.91	1667.69	1610.29	1547.77	1480.13
12	595.42	590.06	586.64	583.62	580.57	576.32	571.71	565.63	558.19	549.71	540.26	529.91	518.69	506.96	494.40	480.65	465.41	448.68	430.46	410.75
13	5504.31	5490.17	5481.16	5473.19	5465.13	5453.93	5434.90	5404.43	5375.76	5335.13	5287.90	5232.35	5169.08	5107.10	5024.08	4910.78	4784.79	4646.24	4495.24	4331.86
14	9629.36	9628.94	9628.67	9628.43	9628.19	9627.86	9627.49	9627.02	9626.43	9625.76	9624.96	9623.93	9622.60	9620.92	9618.74	9615.94	9612.39	9608.06	9602.89	9596.87
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	50305.82	50206.15	50128.90	50049.64	49899.64	49720.66	49441.72	49071.80	48627.95	48116.71	47546.42	46918.66	46256.10	45537.27	44738.48	43839.68	42840.89	41742.10	40543.30	39244.51

TABLE 4. ANNUAL CO2 DEMAND, SUPPLY, CO2 SEQUESTERED, MMmt

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 1																				
TOTAL CO2 PURCHASED	0.00	0.01	0.01	0.17	0.17	0.23	0.25	0.34	0.41	0.47	0.52	0.57	0.62	0.65	0.70	0.77	0.85	0.94	1.02	1.11
ANNUAL NAT & IND CO2 DEMAND	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
MAX CO2 DMD NET OF NAT& IND	0.00	0.28	0.18	0.16	0.16	0.23	0.25	0.33	0.40	0.45	0.51	0.56	0.60	0.63	0.68	0.75	0.83	0.91	1.00	1.08
TOTAL CO2 CAPTURED	0.00	0.00	0.00	2.50	2.76	2.94	2.94	2.94	2.94	2.94	4.18	8.86	17.18	21.68	37.94	63.27	81.27	112.53	152.96	227.45
CO2 SEQUESTERED	0.00	0.00	0.00	2.34	2.60	2.72	2.70	2.62	2.54	2.49	3.67	8.30	16.58	21.04	37.26	62.53	80.44	111.61	151.96	226.37
REGION 2																				
TOTAL CO2 PURCHASED	0.00	12.37	9.64	8.72	15.04	17.64	30.71	40.23	48.91	55.26	61.22	66.67	68.85	74.83	79.84	87.12	96.21	105.38	114.55	123.65
ANNUAL NAT & IND CO2 DEMAND	0.00	12.37	7.89	6.94	6.94	9.53	10.14	13.04	15.57	17.29	18.83	20.17	21.40	21.92	23.02	24.73	26.94	29.07	31.16	33.23
MAX CO2 DMD NET OF NAT& IND	0.00	23.47	15.02	13.35	13.52	18.87	20.57	27.19	33.34	37.97	42.39	46.50	50.50	52.90	56.82	62.39	69.28	76.31	83.39	90.43
TOTAL CO2 CAPTURED	0.00	0.00	1.76	1.78	8.09	8.11	46.95	49.31	47.75	47.81	47.80	47.81	47.45	60.84	73.04	81.52	92.63	102.70	103.22	113.79

CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	26.37	22.12	14.41	9.84	5.42	1.30	0.00	7.93	16.22	19.13	23.36	26.39	19.83	23.36
REGION 3																				
TOTAL CO2 PURCHASED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CO2 CAPTURED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89	4.79	5.31	5.31	16.79	26.02	27.50	66.05	92.66	102.28
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89	4.79	5.31	5.31	16.79	26.02	27.50	66.05	92.66	102.28
REGION 4																				
TOTAL CO2 PURCHASED	0.00	0.99	0.63	0.56	0.56	0.79	0.85	1.12	1.38	1.57	1.75	1.92	2.08	2.17	2.33	2.55	2.83	3.11	3.39	3.67
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.99	0.63	0.56	0.56	0.79	0.85	1.12	1.38	1.57	1.75	1.92	2.08	2.17	2.33	2.55	2.83	3.11	3.39	3.67
TOTAL CO2 CAPTURED	0.00	2.52	2.52	2.53	5.59	5.70	5.78	5.78	5.79	6.34	7.90	8.58	10.18	13.05	19.94	23.20	32.12	33.49	38.08	56.14
CO2 SEQUESTERED	0.00	1.53	1.89	1.97	5.02	4.91	4.93	4.66	4.41	4.77	6.16	6.66	8.10	10.88	17.61	20.65	29.29	30.38	34.69	52.47
REGION 5																				
TOTAL CO2 PURCHASED	0.00	0.00	0.00	0.02	0.62	0.86	0.94	1.24	1.52	1.73	1.93	2.12	2.32	2.44	2.64	2.92	3.27	3.62	3.97	4.32
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	1.07	0.69	0.61	0.62	0.86	0.94	1.24	1.52	1.73	1.93	2.12	2.32	2.44	2.64	2.92	3.27	3.62	3.97	4.32
TOTAL CO2 CAPTURED	0.00	0.00	0.00	0.02	7.79	8.08	8.29	8.29	8.31	9.71	13.70	15.42	16.82	17.47	23.02	23.23	35.32	35.44	42.45	64.40
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	7.18	7.22	7.35	7.05	6.79	7.98	11.77	13.29	14.50	15.02	20.38	20.31	32.05	31.83	38.48	60.08
REGION 6																				
TOTAL CO2 PURCHASED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CO2 CAPTURED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.90	0.90	0.90	2.50	4.49	4.58	12.23	16.59	18.08
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.90	0.90	0.90	2.50	4.49	4.58	12.23	16.59	18.08
REGION 7																				
TOTAL CO2 PURCHASED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CO2 CAPTURED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.12	0.12	0.12	1.03	1.29	1.30	5.43	7.65	22.11
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.12	0.12	0.12	1.03	1.29	1.30	5.43	7.65	22.11
REGION 8																				

TOTAL CO2 PURCHASED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.07	0.09	0.12	0.14	0.17	0.20
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.06	0.07	0.09	0.12	0.14	0.17	0.20
TOTAL CO2 CAPTURED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	7.84	7.82	9.57	10.10	18.42	19.05
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.77	7.73	9.45	9.95	18.25	18.86

REGION 9

TOTAL CO2 PURCHASED	0.00	5.71	4.04	6.49	8.57	10.66	12.82	16.77	20.36	22.97	25.42	27.66	29.80	31.00	33.05	36.04	39.82	43.56	47.28	51.00
ANNUAL NAT & IND CO2 DEMAND	0.00	5.71	3.64	3.20	3.20	4.40	4.68	6.02	7.19	7.98	8.69	9.31	9.88	10.12	10.62	11.41	12.43	13.42	14.38	15.34
MAX CO2 DMD NET OF NAT& IND	0.00	9.32	5.97	5.30	5.37	7.48	8.14	10.75	13.17	14.99	16.73	18.35	19.93	20.88	22.42	24.62	27.38	30.14	32.90	35.66
TOTAL CO2 CAPTURED	0.00	0.00	0.40	3.29	6.01	6.26	15.12	15.66	15.30	15.52	17.10	21.35	29.19	34.59	61.95	67.23	80.61	99.20	143.46	178.67
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.64	0.00	6.97	4.91	2.14	0.53	0.37	3.00	9.27	13.71	39.53	42.61	53.23	69.06	110.56	143.00

REGION 10

TOTAL CO2 PURCHASED	0.00	1.53	2.21	2.12	10.44	10.92	19.14	25.24	30.89	35.12	39.14	42.86	44.25	48.62	52.13	57.14	63.46	69.74	76.01	82.31
ANNUAL NAT & IND CO2 DEMAND	0.00	1.52	0.97	0.85	0.85	1.17	1.25	1.61	1.92	2.13	2.32	2.48	2.63	2.70	2.83	3.04	3.32	3.58	3.83	4.09
MAX CO2 DMD NET OF NAT& IND	0.00	20.42	13.08	11.62	11.77	16.42	17.89	23.64	28.97	32.99	36.82	40.38	43.83	45.92	49.29	54.10	60.14	66.16	72.18	78.22
TOTAL CO2 CAPTURED	0.00	0.01	1.24	1.27	9.59	9.74	37.01	38.67	37.58	38.33	40.33	41.19	41.62	51.25	62.44	68.40	82.15	89.19	92.95	111.08
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	19.12	15.03	8.61	5.34	3.51	0.81	0.00	5.33	13.15	14.30	22.00	23.02	20.78	32.86

REGION 11

TOTAL CO2 PURCHASED	0.00	1.75	1.42	1.35	2.95	4.12	4.47	4.80	5.62	5.75	5.79	5.92	6.20	8.50	12.10	13.27	14.74	16.24	17.78	19.39
ANNUAL NAT & IND CO2 DEMAND	0.00	0.90	0.58	0.51	0.51	0.70	0.74	0.95	1.14	1.26	1.38	1.47	1.56	1.60	1.68	1.81	1.97	2.12	2.28	2.43
MAX CO2 DMD NET OF NAT& IND	0.00	4.15	2.69	2.42	2.65	3.52	3.74	4.92	6.03	6.88	7.69	8.45	9.20	9.67	11.88	15.81	19.93	23.83	26.78	30.85
TOTAL CO2 CAPTURED	0.00	0.85	0.85	0.85	3.84	3.84	3.76	3.84	4.48	4.48	4.42	4.45	4.64	6.90	11.59	16.52	21.95	26.70	36.52	48.23
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	1.20	0.32	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	2.01	2.87	9.74	17.38

REGION 12

TOTAL CO2 PURCHASED	0.00	1.28	0.82	0.73	0.74	1.04	1.13	1.51	1.88	2.21	2.58	3.01	3.50	3.93	4.54	5.33	6.31	7.33	8.41	9.53
ANNUAL NAT & IND CO2 DEMAND	0.00	0.33	0.21	0.19	0.19	0.26	0.27	0.35	0.42	0.47	0.51	0.54	0.58	0.59	0.62	0.67	0.73	0.78	0.84	0.89
MAX CO2 DMD NET OF NAT& IND	0.00	3.41	2.12	1.86	1.68	2.57	4.86	9.46	13.17	17.50	20.76	22.74	24.70	25.92	26.21	24.31	24.32	25.09	25.75	25.15
TOTAL CO2 CAPTURED	0.00	8.20	8.20	8.20	8.21	8.21	8.21	8.21	8.21	11.55	13.52	15.82	17.97	17.90	21.81	27.53	29.59	30.58	41.46	45.83
CO2 SEQUESTERED	0.00	4.78	6.07	6.34	6.54	5.64	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.22	5.26	5.48	15.71	20.68

REGION 13

TOTAL CO2 PURCHASED	0.00	2.61	1.66	1.46	1.47	2.04	4.14	7.20	6.90	9.96	11.59	13.50	15.19	14.70	19.42	26.11	28.61	30.96	33.18	35.27
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.15	0.15	0.15	0.15	0.15	0.13	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.34	2.12	2.70	2.71	3.72	4.87
TOTAL CO2 CAPTURED	0.00	0.15	0.15	0.15	0.15	0.15	0.13	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.34	2.12	2.70	2.71	3.72	4.87

CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 14																				
TOTAL CO2 PURCHASED	0.00	0.09	0.06	0.05	0.05	0.07	0.07	0.10	0.11	0.13	0.15	0.19	0.25	0.33	0.42	0.55	0.69	0.85	1.01	1.17
ANNUAL NAT & IND CO2 DEMAND	0.00	0.09	0.06	0.05	0.05	0.07	0.07	0.10	0.11	0.13	0.15	0.19	0.25	0.33	0.42	0.55	0.69	0.85	1.01	1.17
MAX CO2 DMD NET OF NAT& IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CO2 CAPTURED	0.00	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.19	0.19	0.18	0.34
CO2 SEQUESTERED	0.00	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.19	0.19	0.18	0.34
REGION 15																				
TOTAL CO2 PURCHASED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANNUAL NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX CO2 DMD NET OF NAT& IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CO2 CAPTURED	0.00	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	0.50	0.50	0.91
CO2 SEQUESTERED	0.00	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	0.50	0.50	0.91
REGION 16																				
TOTAL CO2 PURCHASED	0.00	26.34	20.50	21.67	40.61	48.36	74.53	98.54	117.98	135.17	150.10	164.44	173.08	187.18	207.23	231.88	256.91	281.87	306.77	331.62
ANNUAL NAT & IND CO2 DEMAND	0.00	20.94	13.35	11.75	11.75	16.13	17.16	22.08	26.36	29.27	31.89	34.19	36.32	37.27	39.22	42.23	46.09	49.84	53.52	57.17
MAX CO2 DMD NET OF NAT& IND	0.00	63.29	40.54	36.04	36.47	50.90	57.39	78.80	98.15	114.25	128.73	141.19	153.35	160.75	172.70	189.66	210.81	232.02	253.25	274.45
TOTAL CO2 CAPTURED	0.00	11.86	15.25	20.71	52.17	53.19	128.30	132.99	130.66	136.98	151.49	169.57	191.67	230.29	340.39	412.79	501.98	627.02	790.83	1013.22
CO2 SEQUESTERED	0.00	6.46	8.10	10.79	23.31	20.95	70.93	56.53	39.04	31.08	33.28	39.32	54.91	80.38	172.38	223.14	291.17	395.00	537.58	738.77

TABLE 5. ANNUAL CO2 SUPPLY BY SOURCE, MMmt

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 1																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	2.09	5.36	9.85	24.25	47.93	65.75	89.05	120.62	178.81
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	2.50	2.76	2.94	2.94	2.94	2.94	2.94	3.47	6.77	11.82	11.82	13.69	15.34	15.52	23.48	32.34	48.64
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 2																				
RETROFITTED PLANTS	0.00	0.00	1.76	1.77	8.08	8.10	42.57	42.63	40.87	40.90	40.89	40.90	40.54	45.40	51.81	51.88	49.00	59.09	59.63	70.19
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.01	0.01	0.01	4.37	6.69	6.89	6.91	6.91	6.91	6.91	15.43	21.23	29.63	43.63	43.60	43.60	43.60
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 3																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	2.06	2.57	2.57	9.51	14.60	15.64	34.51	39.22	46.51
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	2.73	2.73	2.73	7.28	11.43	11.86	31.55	53.45	55.77
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 4																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	1.69	1.69	1.69	1.69	1.70	1.70	1.70	1.70	2.76	5.64	11.91	15.16	24.08	25.45	29.64	45.66
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.01	1.37	1.49	1.57	1.57	1.57	2.12	3.68	4.36	4.89	4.89	4.96	4.97	4.97	4.97	5.37	7.41
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.55	0.55	0.55	0.55	0.55
CTL PLANTS	0.00	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52
REGION 5																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	4.30	4.29	4.30	4.30	4.32	4.32	4.32	4.32	4.37	5.02	10.40	10.57	22.67	22.79	28.78	45.54
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.02	3.49	3.79	3.99	3.99	3.99	5.39	9.38	11.10	12.45	12.45	12.62	12.65	12.65	12.65	13.67	18.86
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 6																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.35	0.35	0.35	1.05	2.06	2.06	5.42	5.42	6.45
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.54	0.54	0.54	1.45	2.27	2.36	6.28	10.64	11.10
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.53	0.53	0.53
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 7																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.05	0.05	0.83	0.97	0.97	4.55	5.03	5.18
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08	0.08	0.08	0.20	0.32	0.33	0.87	2.62	16.93
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 8																				
RETROFITTED PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.83	7.81	9.55	10.08	18.40	19.04
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 9

RETROFITTED PLANTS	0.00	0.00	0.40	0.40	2.39	2.39	10.23	10.24	9.84	9.85	10.93	11.83	13.68	17.15	43.14	46.50	56.69	75.29	119.41	153.94
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	2.88	3.62	3.87	4.89	5.42	5.46	5.66	6.17	9.52	15.51	17.45	18.81	20.74	23.92	23.91	24.04	24.72
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 10

RETROFITTED PLANTS	0.00	0.00	1.23	1.24	7.81	7.82	31.93	31.97	30.75	30.78	30.77	30.77	30.52	34.19	41.25	41.31	45.26	52.32	55.59	71.10
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.02	1.76	1.91	5.06	6.68	6.82	7.54	9.54	10.41	11.08	17.04	21.18	27.08	36.87	36.85	37.36	39.96
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

REGION 11

RETROFITTED PLANTS	0.00	0.85	0.85	0.85	0.85	0.85	0.76	0.85	0.85	0.85	0.81	0.81	0.83	0.85	4.00	6.96	10.34	13.57	21.36	30.81
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	3.00	3.00	2.99	3.00	3.63	3.63	3.61	3.64	3.81	6.05	7.59	9.56	11.61	13.13	15.17	16.49
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 12

RETROFITTED PLANTS	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.69	7.93	7.97	8.96	19.84	21.69
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.69
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34	5.30	7.60	9.74	9.67	10.90	11.38	13.39	13.39	13.39	14.25
CTL PLANTS	0.00	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20

REGION 13

RETROFITTED PLANTS	0.00	0.15	0.15	0.15	0.15	0.15	0.13	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.34	2.12	2.70	2.71	3.72	4.31
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 14

RETROFITTED PLANTS	0.00	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.19	0.19	0.18	0.34
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 15

RETROFITTED PLANTS	0.00	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	0.50	0.50	0.91
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 16																				
RETROFITTED PLANTS	0.00	1.13	4.52	4.54	25.41	25.42	91.74	91.98	88.62	88.70	91.05	95.16	101.32	121.36	209.17	255.94	313.39	404.48	527.33	700.46
IGCC WITH SEQUESTRATION	0.00	0.00	0.00	5.44	13.03	14.03	22.83	27.29	27.67	30.59	40.80	52.45	66.06	82.48	101.45	124.47	152.16	184.21	223.12	270.21
NGCC WITH SEQUESTRATION	0.00	0.00	0.00	0.00	3.00	3.00	2.99	3.00	3.63	6.97	8.91	11.23	13.56	15.72	19.04	21.65	25.71	27.60	29.64	31.82
CTL PLANTS	0.00	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73

TABLE 6. CO2 TRANSFER PRICE, TRANSFER SUBSIDY, SEQUESTRATION COST, TRANSPORT PRICE, $2007/mt CO2

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 1																				
CO2 TRANSFER PRICE	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
REGION 2																				
CO2 TRANSFER PRICE	0.00	12.50	-2.68	-4.13	-15.21	12.50	-35.80	12.50	12.50	12.50	12.50	12.50	12.50	-42.25	12.50	-42.25	-42.25	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	15.18	16.63	27.71	0.00	48.30	0.00	0.00	0.00	0.00	0.00	0.00	54.75	0.00	54.75	54.75	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
REGION 3																				
CO2 TRANSFER PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 4																				
CO2 TRANSFER PRICE	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 5

CO2 TRANSFER PRICE	0.00	8.73	11.47	8.64	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	3.77	1.03	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 6

CO2 TRANSFER PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 7

CO2 TRANSFER PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 8

CO2 TRANSFER PRICE	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 9

CO2 TRANSFER PRICE	0.00	12.50	4.38	-12.63	4.36	12.50	9.86	12.50	12.50	12.50	11.16	10.28	11.42	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	8.12	25.13	8.14	0.00	2.64	0.00	0.00	0.00	1.34	2.22	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 10

CO2 TRANSFER PRICE	0.00	12.50	-14.15	-9.87	-42.25	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	26.65	22.37	54.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 11

CO2 TRANSFER PRICE	0.00	-1.17	6.26	8.06	1.96	8.93	-12.26	9.69	0.07	8.25	12.50	5.83	2.31	10.32	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	13.67	6.24	4.44	10.54	3.57	24.76	2.81	12.43	4.25	0.00	6.67	10.19	2.18	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 12

CO2 TRANSFER PRICE	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 13

CO2 TRANSFER PRICE	0.00	-42.25	-42.25	-42.25	-42.25	-42.25	12.50	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25
CO2 TRANSFER SUBSIDY	0.00	54.75	54.75	54.75	54.75	54.75	0.00	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 14

CO2 TRANSFER PRICE	0.00	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25	-42.25
CO2 TRANSFER SUBSIDY	0.00	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75	54.75
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

REGION 15

CO2 TRANSFER PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 16

CO2 TRANSFER PRICE	0.00	-16.05	-9.75	-10.09	-18.65	8.66	-6.80	7.20	7.77	7.17	6.94	6.29	5.91	-12.29	6.17	-13.05	-12.92	5.19	5.33	5.46
CO2 TRANSFER SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO2 SEQUESTRATION PRICE	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
CO2 TRANSPORT COST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 6a. REVENUES TO EOR, POWER PLANTS, CTL PLANTS AND TRANSPORTATION COMPANIE
S, $ 2007
NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 1																				
EOR FIELDS REVENUE	0.00	0.00	0.00	1.21	1.22	1.70	1.85	2.44	2.99	3.41	3.80	4.17	4.53	4.75	5.10	5.60	6.23	6.86	7.49	8.12
POWER PLANTS REVENUE	0.00	0.00	0.00	-2.01	-2.04	-2.84	-3.09	-4.07	-4.99	-5.68	-6.34	-6.95	-7.55	-7.92	-8.50	-9.34	-10.39	-11.43	-12.48	-13.53
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	0.00	0.81	0.81	1.14	1.24	1.63	2.00	2.27	2.53	2.78	3.02	3.17	3.40	3.73	4.15	4.57	4.99	5.41
REGION 2																				
EOR FIELDS REVENUE	0.00	0.00	-13.50	-16.25	-163.54	60.83	-839.28	203.92	250.04	284.80	317.91	348.78	355.88	-2499.65	426.18	-2947.83	-3273.28	572.32	625.45	678.21
POWER PLANTS REVENUE	0.00	0.00	4.71	7.35	123.07	-101.39	736.42	-339.86	-416.74	-474.67	-529.85	-581.30	-593.14	2235.14	-710.30	2635.89	2926.90	-953.87	-1042.42	-1130.35
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	8.79	8.90	40.47	40.56	102.86	135.95	166.70	189.87	211.94	232.52	237.25	264.51	284.12	311.94	346.38	381.55	416.97	452.14
REGION 3																				
EOR FIELDS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POWER PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 4																				
EOR FIELDS REVENUE	0.00	7.43	4.74	4.19	4.23	5.89	6.40	8.43	10.33	11.76	13.11	14.37	15.58	16.30	17.46	19.13	21.23	23.32	25.40	27.50
POWER PLANTS REVENUE	0.00	0.00	0.00	-0.02	-3.87	-5.47	-6.00	-7.92	-9.71	-11.79	-14.87	-16.90	-19.52	-21.91	-25.42	-28.41	-32.60	-35.93	-39.53	-43.77
CTL PLANTS REVENUE	0.00	-12.39	-7.90	-6.97	-3.19	-4.35	-4.66	-6.14	-7.51	-7.81	-6.98	-7.05	-6.44	-5.25	-3.69	-3.47	-2.78	-2.93	-2.81	-2.06
PIPELINE COMPANIES REVENUE	0.00	4.96	3.16	2.79	2.82	3.93	4.26	5.62	6.89	7.84	8.74	9.58	10.39	10.86	11.64	12.75	14.15	15.55	16.94	18.33
REGION 5																				
EOR FIELDS REVENUE	0.00	0.00	0.00	0.07	4.63	6.47	7.04	9.29	11.38	12.95	14.48	15.93	17.38	18.32	19.80	21.90	24.51	27.13	29.77	32.43
POWER PLANTS REVENUE	0.00	0.00	0.00	-0.16	-7.72	-10.78	-11.73	-15.48	-18.97	-21.59	-24.13	-26.56	-28.97	-30.54	-33.01	-36.49	-40.85	-45.22	-49.62	-54.04
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	0.00	0.09	3.09	4.31	4.69	6.19	7.59	8.64	9.65	10.62	11.59	12.21	13.20	14.60	16.34	18.09	19.85	21.62
REGION 6																				
EOR FIELDS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

POWER PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 7																				
EOR FIELDS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POWER PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 8																				
EOR FIELDS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.54	0.70	0.88	1.07	1.28	1.48
POWER PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.18	-0.18	-0.18	-0.18	-0.18	-0.90	-1.16	-1.47	-1.79	-2.13	-2.47
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.36	0.46	0.59	0.72	0.85	0.99
REGION 9																				
EOR FIELDS REVENUE	0.00	0.00	-0.25	-57.95	-3.43	46.96	39.57	80.61	98.76	112.41	103.05	96.95	128.02	156.62	168.18	184.67	205.39	226.04	246.72	267.48
POWER PLANTS REVENUE	0.00	0.00	-1.75	41.51	-23.40	-78.27	-80.29	-134.35	-164.59	-187.36	-186.69	-188.70	-227.65	-261.03	-280.30	-307.78	-342.31	-376.73	-411.19	-445.80
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	0.00	2.00	16.43	26.83	31.31	40.72	53.74	65.84	74.94	83.64	91.75	99.63	104.41	112.12	123.11	136.92	150.69	164.48	178.32
REGION 10																				
EOR FIELDS REVENUE	0.00	0.10	-23.78	-18.83	-452.95	73.09	134.19	177.28	217.31	247.44	276.15	302.85	312.14	344.40	369.70	405.74	451.07	496.21	541.34	586.65
POWER PLANTS REVENUE	0.00	0.00	17.39	12.37	404.48	-121.65	-223.57	-295.36	-362.05	-412.27	-460.10	-504.59	-520.08	-573.86	-616.04	-676.10	-751.67	-826.90	-902.11	-977.64
CTL PLANTS REVENUE	0.00	-0.16	0.18	0.13	0.54	-0.16	-0.08	-0.10	-0.12	-0.14	-0.15	-0.16	-0.16	-0.14	-0.13	-0.13	-0.12	-0.12	-0.12	-0.11
PIPELINE COMPANIES REVENUE	0.00	0.06	6.21	6.33	47.93	48.72	89.46	118.18	144.87	164.96	184.10	201.90	208.09	229.60	246.47	270.49	300.72	330.81	360.89	391.10
REGION 11																				
EOR FIELDS REVENUE	0.00	-5.22	1.06	2.59	-7.42	13.43	-64.38	18.04	-22.09	14.58	33.12	3.67	-12.47	36.69	78.15	85.95	95.80	105.86	116.27	127.22
POWER PLANTS REVENUE	0.00	0.99	-5.30	-6.82	-4.79	-30.53	45.73	-37.26	-0.30	-37.00	-55.20	-25.92	-10.74	-71.17	-130.24	-143.25	-159.67	-176.44	-193.78	-212.03
CTL PLANTS REVENUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE	0.00	4.23	4.23	4.23	12.22	17.10	18.65	19.22	22.39	22.42	22.08	22.25	23.20	34.48	52.10	57.30	63.87	70.57	77.51	84.81
REGION 12																				
EOR FIELDS REVENUE	0.00	7.12	4.59	4.11	4.18	5.87	6.46	8.66	10.94	13.06	15.56	18.49	21.90	25.08	29.38	35.00	41.87	49.13	56.78	64.78
POWER PLANTS REVENUE	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.04	-6.32	-10.22	-14.85	-19.86	-22.66	-30.57	-40.97	-50.45	-59.93	-75.92	-88.66
CTL PLANTS REVENUE	0.00	-11.86	-7.64	-6.85	-6.95	-9.76	-10.74	-14.40	-18.19	-15.45	-15.71	-15.96	-16.64	-19.15	-18.40	-17.36	-19.33	-21.95	-18.71	-19.31

PIPELINE COMPANIES REVENUE |	0.00	4.74	3.06	2.74	2.78	3.91	4.30	5.77	7.29	8.71	10.37	12.32	14.60	16.72	19.59	23.33	27.91	32.75	37.85	43.19

REGION 13

EOR FIELDS REVENUE |	0.00	-123.26	-78.29	-68.91	-69.41	-96.22	31.05	-340.40	-326.04	-470.44	-547.59	-637.78	-717.96	-694.46	-917.40	-1233.84	-1351.64	-1463.03	-1567.88	-1666.38
POWER PLANTS REVENUE |	0.00	110.21	70.01	61.62	62.07	86.04	-51.76	304.38	291.54	420.66	489.64	570.29	641.99	620.97	820.32	1103.28	1208.61	1308.21	1401.97	1490.05
CTL PLANTS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE |	0.00	13.04	8.28	7.29	7.35	10.18	20.70	36.02	34.50	49.78	57.95	67.49	75.97	73.49	97.08	130.57	143.03	154.82	165.91	176.34

REGION 14

EOR FIELDS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POWER PLANTS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 15

EOR FIELDS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
POWER PLANTS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CTL PLANTS REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE COMPANIES REVENUE |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 16

EOR FIELDS REVENUE |	0.00	-113.83	-105.43	-149.77	-682.50	118.02	-677.10	168.28	253.61	230.08	229.70	167.53	125.12	-2591.84	197.08	-3422.99	-3777.94	44.91	82.61	127.48
POWER PLANTS REVENUE |	0.00	111.20	85.06	113.84	547.79	-264.91	405.69	-529.97	-685.85	-736.19	-797.93	-795.65	-785.69	1866.85	-1014.95	2495.66	2746.10	-1180.02	-1327.22	-1478.24
CTL PLANTS REVENUE |	0.00	-24.41	-15.36	-13.69	-9.59	-14.27	-15.47	-20.64	-25.83	-23.39	-22.84	-23.16	-23.25	-24.54	-22.21	-20.96	-22.23	-25.00	-21.64	-21.48
PIPELINE COMPANIES REVENUE |	0.00	27.04	35.73	49.62	144.30	161.16	286.89	382.33	458.06	529.50	591.07	651.28	683.82	749.53	840.07	948.29	1054.06	1160.11	1266.24	1372.24

TABLE 7. DEMAND CURVE VALUES.

OIL PRICE($2007/bbl), CO2 PRICE($2007/mtco2), EOR PROD(MMbbl), CO2 DEMAND(MMmt)

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
5-YR MOV. AVERAGE OIL PRICE|	0.00	67.52	64.36	61.55	58.86	56.13	53.95	52.47	51.70	51.60	52.16	52.86	53.60	54.39	55.24	56.18	56.79	57.43	58.03	58.59
WORLD OIL PRICE |	64.32	61.63	58.85	56.10	53.39	50.66	50.74	51.47	52.25	52.89	53.45	54.22	55.22	56.19	57.15	58.12	57.28	58.38	59.19	59.95

REGION 1 IRR 30

CO2 PRICE TO EOR |	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION |	0.00	133.65	133.65	133.65	133.65	133.65	133.65	133.65	133.65	133.65	133.92	134.25	134.61	134.99	135.40	135.85	136.14	136.44	136.73	137.00

30-YEAR CO2 DEMAND	0.00	31.47	31.47	31.47	31.47	31.47	31.47	31.47	31.47	31.47	31.56	31.68	31.81	31.95	32.09	32.25	32.36	32.47	32.57	32.67
30-YR NAT & IND CO2 DEMAND	0.00	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06

REGION 2 IRR 30

CO2 PRICE TO EOR	0.00	0.00	7.68	9.13	20.21	0.00	40.80	0.00	0.00	0.00	0.00	0.00	0.00	47.25	0.00	47.25	47.25	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	15153.55	14335.18	14134.06	11982.37	15153.55	6260.46	15153.55	15153.55	15153.55	15179.28	15211.36	15245.93	6027.80	15321.67	6456.74	6603.88	15422.44	15450.17	15476.05
30-YEAR CO2 DEMAND	0.00	2607.56	2334.71	2267.61	1650.29	2607.56	1073.19	2607.56	2607.56	2607.56	2615.47	2625.33	2635.96	1059.32	2659.24	1093.73	1105.54	2690.22	2698.75	2706.71
30-YR NAT & IND CO2 DEMAND	0.00	1374.20	1374.20	1374.20	1339.72	1374.20	277.35	1374.20	1374.20	1374.20	1374.20	1374.20	1374.20	217.49	1374.20	297.13	324.45	1374.20	1374.20	1374.20

REGION 3 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 4 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	458.43	458.43	458.43	458.43	458.43	458.43	458.43	458.43	458.43	458.65	458.92	459.21	459.52	459.85	460.21	460.45	460.70	460.93	461.15
30-YEAR CO2 DEMAND	0.00	110.12	110.12	110.12	110.12	110.12	110.12	110.12	110.12	110.12	110.19	110.29	110.40	110.51	110.63	110.76	110.85	110.94	111.02	111.10
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 5 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	450.36	450.36	450.36	450.36	450.36	450.36	450.36	450.36	450.36	454.79	460.32	466.28	472.55	479.33	486.77	491.65	496.69	501.47	505.93
30-YEAR CO2 DEMAND	0.00	119.09	119.09	119.09	119.09	119.09	119.09	119.09	119.09	119.09	120.21	121.60	123.10	124.68	126.39	128.27	129.50	130.77	131.98	133.10
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 6 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 7 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 8 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	6.21	8.21	10.36	12.63	15.08	17.76	19.53	21.35	23.07	24.69
30-YEAR CO2 DEMAND	0.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	2.02	2.66	3.36	4.10	4.89	5.77	6.34	6.93	7.49	8.01
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 9 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.62	17.63	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	4831.74	4757.20	2154.65	4754.29	4831.74	4831.74	4831.74	4831.74	4831.74	4839.76	4849.75	4860.53	4871.87	4884.13	4897.59	4906.41	4915.53	4924.18	4932.24
30-YEAR CO2 DEMAND	0.00	1035.68	1006.10	147.59	1004.94	1035.68	1035.68	1035.68	1035.68	1035.68	1038.61	1042.28	1046.23	1050.39	1054.88	1059.82	1063.05	1066.40	1069.56	1072.52
30-YR NAT & IND CO2 DEMAND	0.00	634.25	634.25	534.15	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25	634.25

REGION 10 IRR 30

CO2 PRICE TO EOR	0.00	0.00	19.15	14.87	47.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	9504.84	7160.49	8174.05	3592.12	9504.84	9504.84	9504.84	9504.84	9504.84	9519.95	9538.79	9559.09	9580.46	9603.57	9628.94	9645.56	9662.75	9679.04	9694.23
30-YEAR CO2 DEMAND	0.00	2269.44	1565.30	1869.53	689.84	2269.44	2269.44	2269.44	2269.44	2269.44	2274.65	2281.14	2288.15	2295.52	2303.49	2312.23	2317.97	2323.90	2329.51	2334.75
30-YR NAT & IND CO2 DEMAND	0.00	169.13	169.13	169.13	63.67	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13	169.13

REGION 11 IRR 30

CO2 PRICE TO EOR	0.00	6.17	0.00	0.00	3.04	0.00	17.26	0.00	4.93	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	1933.80	1964.68	1964.68	1961.64	1964.68	1808.71	1964.68	1956.17	1964.68	1965.08	1965.59	1963.10	1966.70	1967.32	1967.99	1968.44	1968.90	1969.33	1969.74
30-YEAR CO2 DEMAND	0.00	461.65	475.72	475.72	474.43	475.72	410.77	475.72	471.96	475.72	475.84	475.98	474.98	476.29	476.46	476.65	476.77	476.90	477.02	477.13
30-YR NAT & IND CO2 DEMAND	0.00	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42	100.42

REGION 12 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42	595.42
30-YEAR CO2 DEMAND	0.00	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42	105.42
30-YR NAT & IND CO2 DEMAND	0.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00

REGION 13 IRR 30

CO2 PRICE TO EOR	0.00	47.25	47.25	47.25	47.25	47.25	0.00	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25
30-YEAR EOR PRODUCTION	0.00	1570.84	1570.84	1570.84	1570.84	1570.84	5210.64	1570.84	1570.84	1570.84	1671.54	1797.07	1932.38	2074.83	2228.85	2397.88	2508.69	2623.24	2731.78	2833.06
30-YEAR CO2 DEMAND	0.00	289.85	289.85	289.85	289.85	289.85	1319.07	289.85	289.85	289.85	315.11	346.61	380.57	416.31	454.95	497.37	525.17	553.91	581.15	606.56
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 14 IRR 30

CO2 PRICE TO EOR	0.00	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25	47.25
30-YEAR EOR PRODUCTION	0.00	46.88	46.88	46.88	46.88	46.88	46.88	46.88	46.88	46.88	63.16	83.45	105.33	128.35	153.25	180.58	198.49	217.01	234.55	250.93
30-YEAR CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YR NAT & IND CO2 DEMAND	0.00	10.13	10.13	10.13	10.13	10.13	10.13	10.13	10.13	10.13	13.65	18.03	22.76	27.74	33.12	39.02	42.89	46.89	50.68	54.22

REGION 15 IRR 30

CO2 PRICE TO EOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR EOR PRODUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YEAR CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-YR NAT & IND CO2 DEMAND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 8. CO2 SUPPLY BY EMM REGION AND PLANT TYPE, MMmt

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 1																				
B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	2.66	2.66	3.97	3.96	7.62	7.62	7.62	8.58
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.77	13.67	27.86	39.45	59.75	76.10	123.23
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	2.50	3.06	6.42	7.57	7.59	8.15	10.09
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.82	0.82	0.82	0.93	3.10	3.10	3.10	3.10	3.10
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.52	2.52	3.96	6.78	21.44	29.58
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	4.06	4.05	4.21	4.21	4.21
IS	0.00	0.00	0.00	2.50	2.76	2.94	2.94	2.94	2.94	2.94	3.47	6.77	11.82	11.82	13.69	15.34	15.52	23.48	32.34	48.64
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REGION 2																				
B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	32.08	32.12	32.15	32.18	32.18	32.17	32.18	32.18	32.18	32.16	29.28	32.95	33.55	42.36
C9	0.00	0.00	0.00	0.00	6.31	6.31	6.32	6.33	6.33	6.34	6.33	6.34	6.34	6.33	12.81	12.82	12.82	19.24	19.25	19.23
CZ	0.00	0.00	1.76	1.77	1.77	1.78	1.79	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H6	0.00	0.00	0.00	0.00	0.00	0.00	2.38	2.38	2.38	2.38	2.38	2.38	2.02	6.90	6.83	6.90	6.90	6.90	6.83	6.83
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IS	0.00	0.00	0.00	0.01	0.01	0.01	4.37	6.69	6.89	6.91	6.91	6.91	6.91	15.43	21.23	29.63	43.63	43.60	43.60	43.60
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 3

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	1.43
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77	2.77	3.80	22.60	26.90	32.90
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.79	0.79	0.79	0.79	0.78	0.78
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.90	3.90	3.90	3.90	4.32	5.13
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.25	5.34	5.34	5.41	5.41	5.41
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	2.73	2.73	2.73	7.28	11.43	11.86	31.55	53.45	55.77
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 4

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	1.27	2.21	2.21	2.21	2.21	2.78	4.56
C9	0.00	0.00	0.00	0.00	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	3.84	6.88	6.89	10.58	11.94	14.56	25.40
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.52	1.87	2.70	2.71	3.70	6.11
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	3.66	3.66	3.66	3.66	3.66
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	4.60	4.60	4.60	5.59
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.33	0.33
IS	0.00	0.00	0.00	0.01	1.37	1.49	1.57	1.57	1.57	2.12	3.68	4.36	4.89	4.89	4.96	4.97	4.97	4.97	5.37	7.41
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.55	0.55	0.55	0.55	0.55

REGION 5

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.58	0.68	0.68	0.68	0.74	2.18	6.72
C9	0.00	0.00	0.00	0.00	4.30	4.29	4.30	4.30	4.31	4.31	4.31	4.31	4.31	4.41	4.55	4.56	7.99	8.06	10.98	19.19
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.09	0.12	0.13	1.75	4.51
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.13	5.21	5.21	5.20	5.20	5.20
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	8.64	8.65	8.65	9.89
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02
IS	0.00	0.00	0.00	0.02	3.49	3.79	3.99	3.99	3.99	5.39	9.38	11.10	12.45	12.45	12.62	12.65	12.65	12.65	13.67	18.86
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 6

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.36	3.36	4.23
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.70	0.70	0.86
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	1.06	1.06	1.06	1.06	1.06
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.54	0.54	0.54	1.45	2.27	2.36	6.28	10.64	11.10
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.53	0.53	0.53

REGION 7

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47	0.59
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.70	0.70	0.70	0.70	0.70	0.70
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	3.21	3.21	3.23
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.15	0.15	0.15	0.63	0.63
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08	0.08	0.08	0.20	0.32	0.33	0.87	2.62	16.93
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 8

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	2.83	2.83	2.81
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	1.25	3.00	3.00	10.97	10.97
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.25	4.25	4.25	4.25	4.61	4.61
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 9

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	7.29	7.30	7.31	7.32	7.32	8.22	8.22	8.29	11.51	11.50	10.85	12.42	12.73	17.07
C9	0.00	0.00	0.00	0.00	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	2.89	16.52	16.50	26.28	41.49	80.58	104.67
CZ	0.00	0.00	0.40	0.40	0.40	0.41	0.41	0.41	0.00	0.00	0.00	0.00	1.93	1.93	2.95	4.66	4.65	4.66	4.80	5.13
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.54	0.54	0.54	1.62	1.62	1.54	4.04	4.68	4.70	4.70	4.70	4.69	5.59
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.47	7.47	8.57	10.08	14.67	19.53

HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66	1.65	1.94	1.94	1.94
IS	0.00	0.00	0.00	2.88	3.62	3.87	4.89	5.42	5.46	5.66	6.17	9.52	15.51	17.45	18.81	20.74	23.92	23.91	24.04	24.72
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 10

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	22.44	22.46	22.49	22.51	22.51	22.50	22.51	22.77	22.77	22.76	20.75	23.31	24.46	32.90
C9	0.00	0.00	0.00	0.00	6.57	6.57	6.58	6.58	6.59	6.60	6.59	6.60	6.60	6.59	11.12	11.13	12.80	17.30	18.73	22.66
CZ	0.00	0.00	1.23	1.24	1.24	1.25	1.25	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	2.03
H6	0.00	0.00	0.00	0.00	0.00	0.00	1.67	1.67	1.67	1.67	1.67	1.67	1.41	4.82	7.35	7.41	7.41	7.40	7.35	7.35
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.31	4.31	4.31	6.16
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IS	0.00	0.00	0.00	0.02	1.76	1.91	5.06	6.68	6.82	7.54	9.54	10.41	11.08	17.04	21.18	27.08	36.87	36.85	37.36	39.96
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 11

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	3.14	6.51	9.73	9.73	9.61
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.37
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	2.96	2.97	10.68	16.57
H6	0.00	0.85	0.85	0.85	0.85	0.85	0.76	0.85	0.85	0.85	0.81	0.81	0.83	0.85	0.86	0.87	0.87	0.87	0.81	1.12
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
CS	0.00	0.00	0.00	0.00	3.00	3.00	2.99	3.00	3.63	3.63	3.61	3.64	3.81	6.05	7.59	9.56	11.61	13.13	15.17	16.49

REGION 12

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.95	0.95	1.93	1.93	1.90
C9	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.04
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.24	5.26	5.27	7.59	9.38
H6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	1.73	1.73	1.73	1.73	1.80
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	5.14	5.14
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43	3.43
IS	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.69
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34	5.30	7.60	9.74	9.67	10.90	11.38	13.39	13.39	13.39	14.25

REGION 13

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.58
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77	1.78	1.78	1.78	1.78
H6	0.00	0.15	0.15	0.15	0.15	0.15	0.13	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.34	0.34	0.35	0.35	0.34	0.35
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.63
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 14

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H6	0.00	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 15

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.40	0.40	0.40
C9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
CZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H6	0.00	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION 16

B6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C6	0.00	0.00	0.00	0.00	0.00	0.00	61.81	61.88	61.95	62.01	62.00	65.25	67.86	68.92	80.90	80.86	83.46	96.05	100.10	129.31
C9	0.00	0.00	0.00	0.00	20.86	20.85	20.88	20.90	20.92	20.94	20.92	20.94	20.93	27.84	69.60	83.79	116.74	187.22	261.92	367.62

CZ	0.00	0.00	3.39	3.41	3.42	3.44	3.45	3.47	0.00	0.00	0.00	0.00	4.23	5.49	7.34	23.78	25.82	25.88	39.97	56.38
H6	0.00	1.13	1.13	1.13	1.13	1.13	5.61	5.73	5.72	5.73	8.10	8.55	7.87	18.68	31.76	35.73	35.74	35.70	35.50	37.45
H9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	19.16	19.16	39.04	46.50	72.41	92.27
HC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.41	0.41	12.62	12.59	13.13	17.43	17.43
IS	0.00	0.00	0.00	5.44	13.03	14.03	22.83	27.29	27.67	30.59	40.80	52.45	66.06	82.48	101.45	124.47	152.16	184.21	223.12	270.21
CS	0.00	0.00	0.00	0.00	3.00	3.00	2.99	3.00	3.63	6.97	8.91	11.23	13.56	15.72	19.04	21.65	25.71	27.60	29.64	31.82

TABLE 9. EOR OIL PRODUCTION FROM CTL AND POWER PLANTS BY EMM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	0.00	0.00	0.66	0.67	0.93	1.02	1.34	1.65	1.87	2.09	2.30	2.49	2.61	2.80	3.08	3.42	3.77	4.11	4.45
2	0.00	0.00	6.69	6.78	30.96	31.16	79.59	106.02	131.07	150.46	169.18	186.84	191.80	215.06	232.22	256.22	285.90	316.24	346.89	377.47
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	4.13	2.63	2.33	2.35	3.27	3.55	4.68	5.73	6.53	7.28	7.97	8.64	9.04	9.68	10.61	11.77	12.92	14.08	15.23
5	0.00	0.00	0.00	0.07	2.34	3.26	3.55	4.68	5.74	6.53	7.30	8.04	8.77	9.25	10.00	11.06	12.39	13.72	15.06	16.41
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.22	0.29	0.36	0.44	0.52	0.61
9	0.00	0.00	1.16	9.53	15.61	18.31	24.00	31.95	39.49	45.35	51.02	56.39	61.66	65.04	70.26	77.59	86.76	95.96	105.22	114.54
10	0.00	0.05	4.84	4.94	37.40	38.05	69.96	92.57	113.66	129.62	144.84	159.01	164.02	181.09	194.48	213.52	237.46	261.31	285.16	309.11
11	0.00	2.91	2.90	2.90	8.37	11.73	12.83	13.27	15.52	15.60	15.42	15.59	16.31	24.30	36.82	40.58	45.24	49.89	54.51	59.17
12	0.00	3.97	2.54	2.25	2.28	3.20	3.50	4.66	5.78	6.69	7.60	8.48	9.37	9.97	10.84	12.03	13.49	14.95	16.40	17.86
13	0.00	14.14	9.01	7.97	8.05	11.20	19.03	30.47	28.67	40.63	47.23	55.56	63.26	61.98	83.02	113.29	126.00	138.55	151.00	163.38
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	25.19	29.77	37.43	108.03	121.12	217.02	289.65	347.31	403.31	452.00	500.22	526.38	578.39	650.35	738.26	822.79	907.74	992.94	1078.24

TABLE 9a. EOR OIL PRODUCTION FROM NATURAL AND INDUSTRIAL SOURCES BY EMM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	0.04	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.09	0.09	0.10	0.11
2	0.00	47.07	30.01	26.45	26.55	36.61	39.21	50.86	61.23	68.51	75.15	81.04	86.50	89.12	94.07	101.56	111.17	120.48	129.61	138.69
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	16.52	10.53	9.28	9.32	12.86	13.78	17.89	21.56	24.14	26.51	28.61	30.56	31.51	33.29	35.97	39.39	42.72	46.00	49.25
10	0.00	5.93	3.78	3.33	3.33	4.58	4.88	6.29	7.52	8.36	9.12	9.78	10.38	10.64	11.18	12.01	13.09	14.13	15.15	16.16
11	0.00	3.11	1.97	1.73	1.74	2.39	2.55	3.29	3.94	4.40	4.80	5.16	5.50	5.65	5.94	6.40	6.97	7.51	8.01	8.47
12	0.00	1.39	0.88	0.77	0.77	1.05	1.11	1.42	1.66	1.79	1.86	1.87	1.85	1.76	1.72	1.72	1.75	1.79	1.82	1.85
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.42	0.27	0.24	0.24	0.33	0.36	0.48	0.59	0.67	0.80	1.03	1.33	1.69	2.17	2.80	3.55	4.33	5.17	6.02
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	74.48	47.48	41.83	41.97	57.86	61.92	80.26	96.55	107.91	118.30	127.54	136.19	140.44	148.45	160.54	176.00	191.05	205.85	220.55

TABLE 10. TOTAL ANNUAL EOR OIL PRODUCTION BY EMM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	0.04	0.02	0.68	0.69	0.96	1.05	1.38	1.69	1.93	2.15	2.36	2.56	2.68	2.88	3.16	3.51	3.86	4.21	4.56
2	0.00	47.07	36.70	33.24	57.51	67.78	118.80	156.88	192.29	218.96	244.33	267.87	278.30	304.19	326.29	357.78	397.06	436.72	476.50	516.16
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	4.13	2.63	2.33	2.35	3.27	3.55	4.68	5.73	6.53	7.28	7.97	8.64	9.04	9.68	10.61	11.77	12.92	14.08	15.23
5	0.00	0.00	0.00	0.07	2.34	3.26	3.55	4.68	5.74	6.53	7.30	8.04	8.77	9.25	10.00	11.06	12.39	13.72	15.06	16.41
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.22	0.29	0.36	0.44	0.52	0.61
9	0.00	16.52	11.69	18.81	24.93	31.17	37.78	49.84	61.05	69.49	77.53	85.00	92.22	96.55	103.55	113.56	126.15	138.68	151.22	163.80
10	0.00	5.98	8.62	8.27	40.73	42.63	74.84	98.86	121.18	137.98	153.96	168.78	174.40	191.73	205.66	225.53	250.55	275.44	300.31	325.27
11	0.00	6.02	4.88	4.63	10.11	14.12	15.37	16.56	19.46	20.00	20.22	20.75	21.80	29.95	42.76	46.98	52.22	57.40	62.52	67.64
12	0.00	5.36	3.42	3.02	3.05	4.25	4.61	6.08	7.45	8.48	9.45	10.35	11.22	11.73	12.56	13.75	15.24	16.73	18.22	19.71
13	0.00	14.14	9.01	7.97	8.05	11.20	19.03	30.47	28.67	40.63	47.23	55.56	63.26	61.98	83.02	113.29	126.00	138.55	151.00	163.38
14	0.00	0.42	0.27	0.24	0.24	0.33	0.36	0.48	0.59	0.67	0.80	1.03	1.33	1.69	2.17	2.80	3.55	4.33	5.17	6.02
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	99.67	77.25	79.26	150.00	178.98	278.94	369.92	443.86	511.23	570.30	627.76	662.57	718.82	798.79	898.79	998.79	1098.79	1198.79	1298.79

TABLE 10a. TOTAL ANNUAL EOR PRODUCTION BY OGSM REGION, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 11. Replicate 59Elect. Gen. Cap. by Plant Type, Technology

(Thousand Megawatts)

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Coal	317.07	316.90	314.28	316.07	315.71	315.20	310.51	309.61	308.80	307.76	307.40	308.08	309.83	309.48	308.38	308.21	308.60	303.32	302.48	300.77
Advanced	0.53	0.53	0.53	1.83	3.33	3.63	5.37	6.05	6.05	6.52	8.25	10.33	12.81	15.80	19.38	23.68	28.84	35.03	42.46	51.38
IGCC without sequestration	0.53	0.53	0.53	0.83	1.13	1.43	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73
IGCC with sequestration	0.00	0.00	0.00	1.00	2.20	2.20	3.64	4.32	4.32	4.79	6.52	8.59	11.08	14.07	17.65	21.95	27.11	33.30	40.73	49.65
Conventional	316.54	316.37	313.75	314.23	312.38	311.57	305.13	303.56	302.75	301.24	299.14	297.75	297.02	293.68	289.00	284.53	279.76	268.28	260.01	249.39
Oil and Natural Gas Steam	118.27	83.17	76.85	75.34	73.49	64.97	64.97	64.47	64.36	62.98	61.45	60.99	60.89	58.67	58.22	56.64	55.93	52.16	50.91	48.56
Combined Cycle	191.34	192.74	192.77	203.40	208.27	212.43	214.12	219.23	219.45	222.73	224.57	226.05	230.65	234.70	240.86	244.96	246.47	247.29	248.03	248.84
Advanced	0.50	0.50	0.54	9.92	14.56	18.15	19.85	24.27	24.49	27.63	29.48	30.95	35.56	39.61	45.77	49.73	51.24	52.06	52.79	53.60
NGCC without sequestration	0.50	0.50	0.54	9.92	13.56	17.15	18.85	23.27	23.27	25.24	26.39	27.06	30.85	34.09	38.99	41.84	41.84	42.12	42.12	42.12
NGCC with sequestration	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.22	2.39	3.10	3.90	4.71	5.52	6.78	7.88	9.40	9.93	10.67	11.48
Conventional	190.84	192.24	192.24	193.48	193.72	194.28	194.28	194.95	194.95	195.09	195.09	195.09	195.09	195.09	195.09	195.23	195.23	195.23	195.23	195.23
Combustion Turbine/Diesel	138.34	131.47	130.35	133.03	135.19	136.40	137.43	141.19	142.04	143.36	144.49	145.35	148.46	151.84	152.74	154.17	154.36	154.44	154.40	154.40
Advanced	2.14	2.14	2.69	4.49	6.65	7.86	8.84	11.43	12.28	13.59	14.73	15.58	18.69	21.98	22.89	24.31	24.51	24.59	24.59	24.59
Conventional	136.20	129.33	127.66	128.53	128.54	128.54	128.59	129.76	129.76	129.76	129.76	129.76	129.76	129.85	129.85	129.85	129.85	129.85	129.82	129.82
Nuclear Power	101.17	101.42	101.65	101.96	102.09	102.37	102.87	104.49	106.49	108.89	108.89	109.41	110.45	113.33	116.33	119.94	124.27	128.97	132.49	136.23
Pumped Storage	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46
Fuel Cells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Renewable Sources	113.17	113.89	119.18	125.56	132.54	141.47	145.49	152.02	163.26	167.79	170.12	173.44	178.99	184.31	201.53	219.48	241.97	261.86	276.76	291.01
Distributed Generation	0.20	0.31	0.39	0.56	0.76	0.92	1.15	1.36	1.52	1.65	1.84	2.00	2.23	2.46	2.62	2.83	2.96	3.11	3.27	3.38
Base Load	0.06	0.13	0.19	0.26	0.34	0.42	0.47	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Peak Power	0.14	0.17	0.20	0.30	0.42	0.50	0.68	0.86	1.03	1.16	1.35	1.51	1.74	1.97	2.12	2.33	2.47	2.61	2.78	2.89
Total	1001.02	961.36	956.94	977.38	989.52	995.22	998.00	1013.83	1027.38	1036.62	1040.22	1046.77	1062.96	1076.25	1102.15	1127.68	1156.03	1172.60	1189.80	1204.66

TABLE 12. EOR OIL PRODUCTION CAP ADJUSTMENT, MMbbl

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	0.00	1.91	2.70	3.69	3.93	3.96	3.75	3.57	3.47	3.38	3.30	3.23	3.24	3.17	3.02	2.79	2.56	2.32	2.08
2	0.00	0.00	216.68	305.67	417.39	444.76	448.18	424.98	404.93	393.63	383.31	374.55	366.33	367.00	359.34	342.04	315.96	289.93	263.23	235.29
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	6.54	9.19	12.53	13.33	13.40	12.68	12.07	11.73	11.42	11.15	10.90	10.91	10.67	10.14	9.36	8.58	7.78	6.94
5	0.00	0.00	6.45	9.11	12.46	13.29	13.39	12.69	12.09	11.74	11.45	11.24	11.05	11.16	11.01	10.58	9.86	9.11	8.32	7.48
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.07	0.09	0.13	0.14	0.14	0.13	0.13	0.12	0.13	0.15	0.17	0.21	0.24	0.27	0.29	0.29	0.29	0.28
9	0.00	0.00	69.08	97.44	132.99	141.59	142.52	135.00	128.56	124.92	121.63	118.85	116.24	116.48	114.04	108.56	100.38	92.07	83.54	74.67
10	0.00	0.00	136.06	192.20	262.65	280.05	282.35	267.81	255.18	248.04	241.53	236.00	230.80	231.32	226.49	215.61	199.37	182.86	165.90	148.28
11	0.00	0.00	27.85	39.50	53.92	57.54	58.00	54.94	52.34	50.90	49.64	48.61	47.68	47.95	47.09	44.91	41.55	38.10	34.54	30.83
12	0.00	0.00	8.49	11.94	16.28	17.31	17.40	16.47	15.68	15.24	14.83	14.48	14.14	14.15	13.83	13.14	12.13	11.11	10.06	8.98
13	0.00	0.00	22.40	31.50	42.95	45.67	71.80	96.79	103.78	116.68	120.33	117.48	115.07	115.59	113.49	108.31	100.26	91.98	83.42	74.48
14	0.00	0.00	0.67	0.94	1.28	1.36	1.37	1.30	1.23	1.20	1.26	1.44	1.68	2.04	2.39	2.68	2.83	2.88	2.86	2.75
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 12a. CO2 DEMAND CAP ADJUSTMENT, MMmt

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	0.00	0.45	0.64	0.87	0.93	0.93	0.88	0.84	0.82	0.80	0.78	0.76	0.76	0.75	0.71	0.66	0.61	0.55	0.49
2	0.00	0.00	37.34	52.76	72.10	76.92	77.61	73.65	70.21	68.26	66.50	65.02	63.65	63.83	62.58	59.64	55.13	50.66	46.07	41.22
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	1.57	2.21	3.01	3.20	3.22	3.05	2.90	2.82	2.74	2.68	2.62	2.62	2.56	2.44	2.25	2.06	1.87	1.67
5	0.00	0.00	1.71	2.41	3.29	3.51	3.54	3.36	3.20	3.11	3.03	2.97	2.92	2.95	2.91	2.79	2.60	2.40	2.19	1.97
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8	0.00	0.00	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.09	0.09	0.09	0.09
9	0.00	0.00	14.83	20.96	28.62	30.50	30.72	29.12	27.73	26.94	26.24	25.66	25.11	25.19	24.70	23.54	21.79	20.01	18.17	16.26
10	0.00	0.00	32.50	45.92	62.76	66.93	67.50	64.03	61.01	59.31	57.76	56.46	55.24	55.40	54.29	51.72	47.86	43.92	39.87	35.66
11	0.00	0.00	6.70	9.55	13.03	13.94	14.07	13.33	12.71	12.36	12.06	11.81	11.60	11.67	11.47	10.96	10.16	9.37	8.56	7.73
12	0.00	0.00	1.52	2.16	2.97	3.19	3.25	3.13	3.07	3.13	3.25	3.45	3.68	4.04	4.31	4.46	4.44	4.35	4.18	3.94
13	0.00	0.00	4.12	5.76	7.84	8.30	15.62	22.88	24.98	28.60	29.53	28.54	27.64	27.41	26.54	24.96	22.76	20.56	18.33	16.08
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 13. EOR OIL TO CO2 PRODUCTION RATIO, Fraction

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	0.00	4.11	4.11	4.11	4.11	4.11	4.12	4.12	4.12	4.12	4.13	4.13	4.13	4.13	4.12	4.12	4.12	4.12	4.11	4.11
2	0.00	3.81	3.81	3.81	3.82	3.84	3.87	3.90	3.93	3.96	3.99	4.02	4.04	4.07	4.09	4.11	4.13	4.14	4.16	4.17
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.15
5	0.00	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.79	3.79	3.79	3.79	3.79	3.79	3.79
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08
9	0.00	2.89	2.89	2.90	2.91	2.92	2.95	2.97	3.00	3.03	3.05	3.07	3.09	3.11	3.13	3.15	3.17	3.18	3.20	3.21
10	0.00	3.90	3.90	3.90	3.90	3.91	3.91	3.92	3.92	3.93	3.93	3.94	3.94	3.94	3.95	3.95	3.95	3.95	3.95	3.95
11	0.00	3.44	3.43	3.42	3.43	3.43	3.44	3.45	3.47	3.48	3.49	3.50	3.51	3.52	3.53	3.54	3.54	3.53	3.52	3.49
12	0.00	4.18	4.15	4.11	4.10	4.09	4.07	4.04	3.97	3.84	3.66	3.44	3.21	2.98	2.77	2.58	2.42	2.28	2.17	2.07
13	0.00	5.42	5.44	5.47	5.48	5.50	4.60	4.23	4.15	4.08	4.08	4.12	4.16	4.22	4.28	4.34	4.40	4.47	4.55	4.63
14	0.00	4.63	4.63	4.65	4.70	4.76	4.86	4.98	5.11	5.24	5.30	5.28	5.24	5.19	5.14	5.12	5.11	5.12	5.13	5.14
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 14. ADJUSTMENTS TO REG 13 (CALIFORNIA), MMmt

NEMS co2interre d011509a Years 2011-2030

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REGION 11																				
CO2 PURCHASED FROM POWER PL	0.00	0.85	0.85	0.85	2.44	3.42	3.73	3.84	4.48	4.48	4.42	4.45	4.64	6.90	10.42	11.46	12.77	14.11	15.50	16.96
ORIGINAL CO2 DEMAND	0.00	4.15	2.69	2.42	2.44	3.42	3.73	4.92	6.03	6.88	7.69	8.45	9.20	9.67	10.42	11.46	12.77	14.11	15.50	16.96
MAX CO2 DMD NET OF NAT& IND	0.00	4.15	2.69	2.42	2.65	3.52	3.74	4.92	6.03	6.88	7.69	8.45	9.20	9.67	11.88	15.81	19.93	23.83	26.78	30.85
TOTAL CO2 CAPTURED	0.00	0.85	0.85	0.85	3.84	3.84	3.76	3.84	4.48	4.48	4.42	4.45	4.64	6.90	11.59	16.52	21.95	26.70	36.52	48.23
CO2 DEMAND ADJUSTMENT	0.00	0.74	0.00	0.39	0.40	0.00	1.20	0.00	3.51	0.00	0.00	6.08	6.54	0.00	0.00	7.20	0.00	8.48	0.00	9.12

CO2 TRANSFER TO REG 13	0.00	0.00	0.00	0.00	0.20	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	4.35	7.16	9.71	11.28	13.88
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	1.20	0.32	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	2.01	2.87	9.74	17.38
REGION 12																				
CO2 PURCHASED FROM POWER PL	0.00	0.95	0.61	0.55	0.56	0.78	0.86	1.15	1.46	1.74	2.07	2.46	2.92	3.34	3.92	4.67	5.58	6.55	7.57	8.64
ORIGINAL CO2 DEMAND	0.00	0.95	0.61	0.55	0.56	0.78	0.86	1.15	1.46	1.74	2.07	2.46	2.92	3.34	3.92	4.67	5.58	6.55	7.57	8.64
MAX CO2 DMD NET OF NAT& IND	0.00	3.41	2.12	1.86	1.68	2.57	4.86	9.46	13.17	17.50	20.76	22.74	24.70	25.92	26.21	24.31	24.32	25.09	25.75	25.15
TOTAL CO2 CAPTURED	0.00	8.20	8.20	8.20	8.21	8.21	8.21	8.21	8.21	11.55	13.52	15.82	17.97	17.90	21.81	27.53	29.59	30.58	41.46	45.83
CO2 DEMAND ADJUSTMENT	0.00	1.72	0.00	0.92	0.93	0.00	2.81	0.00	8.20	0.00	0.00	14.19	15.25	0.00	0.00	16.80	0.00	19.78	0.00	21.28
CO2 TRANSFER TO REG 13	0.00	2.46	1.51	1.31	1.12	1.79	4.00	7.06	6.75	9.81	11.45	13.36	15.05	14.55	17.90	19.65	18.74	18.54	18.18	16.51
CO2 SEQUESTERED	0.00	4.78	6.07	6.34	6.54	5.64	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.22	5.26	5.48	15.71	20.68
REGION 13																				
CO2 PURCHASED FROM POWER PL	0.00	2.61	1.66	1.46	1.47	2.04	4.14	7.20	6.90	9.96	11.59	13.50	15.19	14.70	19.42	26.11	28.61	30.96	33.18	35.27
ORIGINAL CO2 DEMAND	0.00	2.61	1.66	1.46	1.47	2.04	4.14	8.45	11.86	15.91	18.82	20.41	21.93	22.72	24.10	26.11	28.61	30.96	33.18	35.27
MAX CO2 DMD NET OF NAT& IND	0.00	0.15	0.15	0.15	0.15	0.15	0.13	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.34	2.12	2.70	2.71	3.72	4.87
TOTAL CO2 CAPTURED	0.00	0.15	0.15	0.15	0.15	0.15	0.13	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.34	2.12	2.70	2.71	3.72	4.87
CO2 DEMAND ADJUSTMENT	0.00	2.46	0.00	1.31	1.32	0.00	4.01	0.00	11.71	0.00	0.00	20.27	21.78	0.00	0.00	23.99	0.00	28.25	0.00	30.40
CO2 TRANSFER TO REG 13	0.00	2.46	1.51	1.31	1.32	1.89	4.01	7.06	6.75	9.81	11.45	13.36	15.05	14.55	19.07	23.99	25.90	28.25	29.46	30.40
CO2 SEQUESTERED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX D. CO2MM INPUT FILE TABLES

CO2DAT.txt

```
This file contains the input data for the CO2MM:

--      IRR value specified by user
--      Start year for EOR production (user specified year)
--      Gross regional CO2 sequestration storage capacity for deep saline formations based on DOE Sequestration Program data
--      Regional deep saline formation sequestration costs
--      Regional CO2 transport costs
--      The portion of transport cost paid by EOR and the source
--      Regional CO2 capture & compression costs
--      Initial regional, annualized maximum production profile (for N =1) based on applicable constraints on production of the regional gross EOR supply
--      NGTDM/EMM region (1-16) mapping into EMM region (1-13)
--      Coal Demand Region (1-14) mapping into EMM region (1-15)
--      PADD (1-5) mapping into EMM region (1-16)
--      Total annual CO2 EOR production increase limit.
        All the regions in this input file refer to EMM regions including AK and HI (MNUMNR) unless otherwise specified

=====================================================================

        Data:      User Defined IRR value for the demand curves
        Variables: IRRVAL
        Units:     PERCENT
-------------------------------------------------------------------------------------------------------------------------------------
DOCUMENTATION UPDATES:  DATE--AUTHOR--COMMENT
-------------------------------------------------------------------------------------------------------------------------------------
NOTES:
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@
30

=====================================================================

        Data:         Start year for EOR production (user specified year)
        Variables:    EORSTYR(R)
        Units:        year
-------------------------------------------------------------------------------------------------------------------------------------
DOCUMENTATION UPDATES:  DATE--AUTHOR--COMMENT
-------------------------------------------------------------------------------------------------------------------------------------
```

NOTES:

@	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012

Data: Gross regional CO2 sequestration storage capacity for deep saline formations based on DOE Sequestration Program data (Billion metric Tons CO2 total);
CMM will track regional aquifer utilization based on captured CO2 not applied to EOR

Variables: CO2STG(R)

Units: Billion metric tons CO2

DOCUMENTATION UPDATES: DATE--AUTHOR--COMMENT

NOTES: PLACEHOLDER. Not currently used in code

@	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9

Data: Regional deep saline formation sequestration costs in constant 2007 dollars

Variables: CO2STGCST(R,Y)

Units: $2007 constant; $/metric ton CO2

DOCUMENTATION UPDATES: DATE--AUTHOR--COMMENT

NOTES:

@	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2012	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2013	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2014	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2015	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2016	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2017	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2018	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2019	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2020	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2021	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2022	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2023	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2024	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2025	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2026	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2027	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

2028	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2029	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
2030	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

==========

Data: Regional CO2 transport costs in constant 2007 dollars
Variables: CO2TRCST(R,Y)
Units: $2007; $/metric ton CO2

DOCUMENTATION UPDATES: DATE--AUTHOR--COMMENT

NOTES:

@	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2012	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2013	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2014	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2015	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2016	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2017	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2018	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2019	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2020	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2021	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2022	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2023	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2024	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2025	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2026	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2027	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2028	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2029	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00
2030	5.00	5.00	0.00	5.00	5.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00

==========

Data: The portion of transport cost paid by EOR and the source
Variables: CO2TRPCT(2)
Units: Fraction

DOCUMENTATION UPDATES: DATE--AUTHOR--COMMENT

NOTES:

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------------------------------------------------------------------------------------------------------------------------------------------------------
@      EOR        CO2 Source Facility
       0.5        0.5

=====================================================================

       Data:          Regional capture and compression costs in constant 2007 dollars
       Variables:     CO2CCCST(R,Y)
       Units:         $2007; $/metric ton CO2
------------------------------------------------------------------------------------------------------------------------------------------------------
DOCUMENTATION UPDATES:  DATE--AUTHOR--COMMENT
-------------------------------------------------------------------------------------------------------------------------------------------------------
NOTES: PLACEHOLDER
------------------------------------------------------------------------------------------------------------------------------------------------------
@                1     2     3     4     5     6     7     8     9    10    11    12    13    14    15
   2012      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2013      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2014      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2015      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2016      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2017      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2018      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2019      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2020      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2021      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2022      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2023      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2024      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2025      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2026      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2027      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2028      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2029      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
   2030      10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00

=====================================================================

       Data:          Initial regional, annualized maximum production profile (for N =1) based on applicable constraints on production of the regional gross EOR supply
                      (e.g., wells drilled, field production limits, pipeline construction, etc.). Regional annual production profile represents the maximum regional production
                      limits for all years in the projection as initialized at the start year of EOR production.  The maximum production profile will be reset in each subsequent
                      year based on the actual levels of EOR production. This year-by-year profile will set as a percentage of the total gross regional supply and should add
                      to 100%, which assumes that the gross capacity will be spoken for by 2030
       Variables:     EORPRDLMTPCT(N,R,Y)
       Units:         Percentage; N =1 for start year of EOR production
```

DOCUMENTATION UPDATES: DATE--AUTHOR--COMMENT

12-10-08 -- yd1 -- The annualized production profile has been updated. The current profile has been developed by Don Remson (NETL)

NOTES:

@ N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Region	1																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	2																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	3																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	4																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	5																													

2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	6																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	7																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	8																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	9																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	10																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	11																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	12																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	13																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	14																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Region	15																													
2012	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2013	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2014	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2015	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2016	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2017	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2018	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2019	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2020	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2021	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2022	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2023	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2024	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2025	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2026	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2027	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2028	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2029	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
2030	0.90	2.00	2.50	3.20	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52

NGTDM/EMM region (1-16) mapping into EMM region (1-13)

NGEM_EL(16)

@

7	6	1	4	5	3	9	8	9	10	2	11	12	12	11	13

Weighted Coal Demand Region (1-14) mapping into EMM region (1-15)

COAL2EMM(14,15)

@	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.248	0.000	0.613	0.000	0.000	0.122	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.301	0.000	0.147	0.000	0.000	0.000	0.000	0.000	0.552	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.583	0.000	0.000	0.000	0.000	0.000	0.000
5	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.571	0.000	0.000	0.410	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.465	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.535	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.194	0.494	0.000	0.000	0.000	0.063	0.248	0.000	0.001	0.000	0.000	0.000
10	0.000	0.519	0.000	0.000	0.000	0.000	0.000	0.000	0.118	0.363	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.757	0.229	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.296	0.526	0.178	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.898	0.102	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.748	0.000	0.129	0.033	0.089

Weighted PADD (1-5) into NERC (1-15) region mapping

@	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.012	0.000	0.935	0.000	0.000	0.000	0.000	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000
2	0.350	0.099	0.000	0.250	0.025	0.000	0.000	0.000	0.049	0.226	0.000	0.000	0.000	0.000	0.000
3	0.000	0.368	0.000	0.000	0.000	0.000	0.000	0.000	0.551	0.062	0.000	0.019	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.844	0.156	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.207	0.000	0.670	0.123	0.000

==========

Data: The total annual CO2 EOR production increase limit.
The annual CO2 EOR production can increase by no more than specified limit over the previous year.
This number is total for all regions

Variables: EORPRODCAP

Units: Million Barrels per year

DOCUMENTATION UPDATES: DATE--AUTHOR--COMMENT

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NOTES: Developed by Don Remson NETL
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@
 100.00

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ARIDMD.txt

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@        IRR
  4      15        20        25        30
@        OIL PRICE STEP
  5      30.00     40.00     50.00     60.00     70.00
@        CO2 PRICE STEP
  11     0.00      0.25      0.50      0.75      1.00      1.25      1.50      1.75      2.00      2.25      2.50

@ REGION     STATE     OGREG
        1       KY         1
     IRR                 15                                  20                                  25                                  30
                       CO2                 CO2       CO2       CO2                 CO2       CO2       CO2                 CO2       CO2       CO2                 CO2       CO2
                  Purchased   EOR Oil Industrial  Natural Purchased   EOR Oil Industrial  Natural Purchased   EOR Oil Industrial  Natural Purchased   EOR Oil Industrial  Natural
@ OIL PRC CO2  PRC    (MMmt)   (MMbbl)    (MMmt)    (MMmt)    (MMmt)   (MMbbl)    (MMmt)    (MMmt)    (MMmt)   (MMbbl)    (MMmt)    (MMmt)    (MMmt)   (MMbbl)    (MMmt)    (MMmt)
+   30.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   30.00      0.25      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   30.00      0.50      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      3.51     26.21      0.00      0.00
+   30.00      0.75      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      3.51     26.21      0.00      0.00      2.01     15.98      0.00      0.00
+   30.00      1.00      5.50     36.23      0.00      0.00      3.51     26.21      0.00      0.00      3.51     26.21      0.00      0.00      1.36     12.19      0.00      0.00
+   30.00      1.25      3.51     26.21      0.00      0.00      3.51     26.21      0.00      0.00      1.36     12.19      0.00      0.00      1.36     12.19      0.00      0.00
+   30.00      1.50      3.51     26.21      0.00      0.00      1.36     12.19      0.00      0.00      1.36     12.19      0.00      0.00      0.89      9.22      0.00      0.00
+   30.00      1.75      2.01     15.98      0.00      0.00      1.36     12.19      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00
+   30.00      2.00      1.36     12.19      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00
+   30.00      2.25      1.36     12.19      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00
+   30.00      2.50      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00      0.89      9.22      0.00      0.00
+   40.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   40.00      0.25      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   40.00      0.50      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   40.00      0.75      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   40.00      1.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   40.00      1.25      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   40.00      1.50      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      4.01     29.05      0.00      0.00
+   40.00      1.75      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      4.67     32.32      0.00      0.00      3.51     26.21      0.00      0.00
+   40.00      2.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      3.51     26.21      0.00      0.00      3.51     26.21      0.00      0.00
+   40.00      2.25      5.50     36.23      0.00      0.00      4.01     29.05      0.00      0.00      3.51     26.21      0.00      0.00      1.36     12.19      0.00      0.00
+   40.00      2.50      4.67     32.32      0.00      0.00      3.51     26.21      0.00      0.00      2.86     22.43      0.00      0.00      1.36     12.19      0.00      0.00
+   50.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   50.00      0.25      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   50.00      0.50      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   50.00      0.75      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   50.00      1.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
+   50.00      1.25      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00      5.50     36.23      0.00      0.00
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+	50.00	1.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	50.00	1.75	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	50.00	2.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	50.00	2.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	50.00	2.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	0.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	0.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	0.75	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	1.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	1.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	1.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	1.75	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	2.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	2.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	60.00	2.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	0.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	0.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	0.75	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	1.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	1.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	1.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	1.75	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	2.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	2.25	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00
+	70.00	2.50	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00	5.50	36.23	0.00	0.00

@ REGION STATE OGREG

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		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	0.60	2.42	0.00	0.00	0.60	2.42	0.00	0.00	0.60	2.42	0.00	0.00	0.60	2.42	0.00	0.00
+ 30.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

+	30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	40.00	0.25	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00
+	40.00	0.50	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00
+	40.00	0.75	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00
+	40.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	50.00	0.25	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	50.00	0.50	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	50.00	0.75	3.51	11.85	0.00	0.00	3.51	11.85	0.00	0.00	3.51	11.85	0.00	0.00	3.51	11.85	0.00	0.00
+	50.00	1.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00
+	50.00	1.25	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00
+	50.00	1.50	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00
+	50.00	1.75	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00
+	50.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	60.00	0.25	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	60.00	0.50	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	60.00	0.75	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	60.00	1.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	60.00	1.25	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	60.00	1.50	2.10	7.69	0.00	0.00	2.10	7.69	0.00	0.00	2.10	7.69	0.00	0.00	2.10	7.69	0.00	0.00
+	60.00	1.75	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00
+	60.00	2.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00
+	60.00	2.25	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00
+	60.00	2.50	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00	0.95	3.93	0.00	0.00
+	70.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	70.00	0.25	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	70.00	0.50	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	70.00	0.75	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	70.00	1.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00	5.99	18.21	0.00	0.00
+	70.00	1.25	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	70.00	1.50	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	70.00	1.75	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00	4.37	14.70	0.00	0.00
+	70.00	2.00	2.96	10.54	0.00	0.00	2.96	10.54	0.00	0.00	2.96	10.54	0.00	0.00	2.96	10.54	0.00	0.00
+	70.00	2.25	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00

+	70.00	2.50	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00	1.33	5.47	0.00	0.00

@ REGION STATE OGREG

1 MI 1

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 30.00	0.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 30.00	0.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	0.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	1.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	1.25	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	1.50	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	1.75	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	2.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	2.25	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 30.00	2.50	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 40.00	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 40.00	0.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 40.00	0.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 40.00	0.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 40.00	1.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 40.00	1.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00
+ 40.00	1.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00
+ 40.00	1.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 40.00	2.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 40.00	2.25	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 40.00	2.50	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00
+ 50.00	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	0.25	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	0.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	0.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	1.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	1.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	1.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	1.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	2.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+ 50.00	2.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00
+ 50.00	2.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	0.00	0.00	1.06	0.00
+ 60.00	0.00	25.08	92.03	1.06	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00
+ 60.00	0.25	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00
+ 60.00	0.50	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00

+	60.00	0.75	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	1.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	1.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	1.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	1.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	2.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	2.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	60.00	2.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	0.00	25.08	92.03	1.06	0.00	25.08	92.03	1.06	0.00	25.08	92.03	1.06	0.00	22.48	83.24	1.06	0.00
+	70.00	0.25	25.08	92.03	1.06	0.00	25.08	92.03	1.06	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00
+	70.00	0.50	25.08	92.03	1.06	0.00	25.08	92.03	1.06	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00
+	70.00	0.75	25.08	92.03	1.06	0.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	1.00	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	1.25	22.48	83.24	1.06	0.00	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	1.50	22.48	83.24	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	1.75	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	2.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	2.25	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00
+	70.00	2.50	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00	20.76	78.44	1.06	0.00

@ REGION	STATE	OGREG																
2	C_TX	2																
IRR		15					20					25					30	
		CO2			CO2	CO2	CO2			CO2	CO2	CO2			CO2	CO2	CO2	
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	
@ OIL PRC	CO2 PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	
+ 30.00	0.00	136.85	817.86	0.00	0.00	127.05	788.81	0.00	0.00	122.23	705.35	0.00	0.00	97.63	577.02	0.00	0.00	
+ 30.00	0.25	136.85	817.86	0.00	0.00	124.31	719.05	0.00	0.00	113.40	670.74	0.00	0.00	97.63	577.02	0.00	0.00	
+ 30.00	0.50	136.85	817.86	0.00	0.00	113.40	670.74	0.00	0.00	97.63	577.02	0.00	0.00	73.07	497.95	0.00	0.00	
+ 30.00	0.75	115.48	684.43	0.00	0.00	113.40	670.74	0.00	0.00	73.07	497.95	0.00	0.00	50.66	164.71	0.00	0.00	
+ 30.00	1.00	113.40	670.74	0.00	0.00	97.63	577.02	0.00	0.00	53.11	198.67	0.00	0.00	50.66	164.71	0.00	0.00	
+ 30.00	1.25	113.40	670.74	0.00	0.00	68.54	486.94	0.00	0.00	50.66	164.71	0.00	0.00	42.31	101.11	0.00	0.00	
+ 30.00	1.50	79.26	519.43	0.00	0.00	50.66	164.71	0.00	0.00	50.66	164.71	0.00	0.00	5.13	68.41	0.00	0.00	
+ 30.00	1.75	53.11	198.67	0.00	0.00	50.66	164.71	0.00	0.00	38.26	90.66	0.00	0.00	5.13	68.41	0.00	0.00	
+ 30.00	2.00	50.66	164.71	0.00	0.00	38.26	90.66	0.00	0.00	5.13	68.41	0.00	0.00	0.01	31.82	0.00	0.00	
+ 30.00	2.25	42.31	101.11	0.00	0.00	5.13	68.41	0.00	0.00	0.01	31.82	0.00	0.00	0.01	31.82	0.00	0.00	
+ 30.00	2.50	38.26	90.66	0.00	0.00	0.01	31.82	0.00	0.00	0.01	31.82	0.00	0.00	0.01	31.82	0.00	0.00	
+ 40.00	0.00	295.08	971.23	0.00	0.00	136.85	817.86	0.00	0.00	136.85	817.86	0.00	0.00	124.31	719.05	0.00	0.00	
+ 40.00	0.25	136.85	817.86	0.00	0.00	136.85	817.86	0.00	0.00	127.05	788.81	0.00	0.00	124.31	719.05	0.00	0.00	
+ 40.00	0.50	136.85	817.86	0.00	0.00	136.85	817.86	0.00	0.00	127.05	788.81	0.00	0.00	124.31	719.05	0.00	0.00	
+ 40.00	0.75	136.85	817.86	0.00	0.00	136.85	817.86	0.00	0.00	124.31	719.05	0.00	0.00	97.63	577.02	0.00	0.00	
+ 40.00	1.00	136.85	817.86	0.00	0.00	127.05	788.81	0.00	0.00	115.48	684.43	0.00	0.00	97.63	577.02	0.00	0.00	
+ 40.00	1.25	136.85	817.86	0.00	0.00	115.48	684.43	0.00	0.00	97.63	577.02	0.00	0.00	79.26	519.43	0.00	0.00	
+ 40.00	1.50	127.05	788.81	0.00	0.00	115.48	684.43	0.00	0.00	97.63	577.02	0.00	0.00	68.54	486.94	0.00	0.00	

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+   40.00    1.75   118.23   754.20    0.00    0.00   113.40   670.74    0.00    0.00    79.26   519.43    0.00    0.00    53.11   198.67    0.00    0.00
+   40.00    2.00   115.48   684.43    0.00    0.00    79.26   519.43    0.00    0.00    68.54   486.94    0.00    0.00    50.66   164.71    0.00    0.00
+   40.00    2.25   113.40   670.74    0.00    0.00    74.73   508.42    0.00    0.00    50.66   164.71    0.00    0.00    50.66   164.71    0.00    0.00
+   40.00    2.50   103.48   637.06    0.00    0.00    62.69   478.57    0.00    0.00    50.66   164.71    0.00    0.00    46.60   154.26    0.00    0.00
+   50.00    0.00   334.97  1607.84    0.00    0.00   295.08   971.23    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   50.00    0.25   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   50.00    0.50   303.52   981.59    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   50.00    0.75   303.52   981.59    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   50.00    1.00   295.08   971.23    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   50.00    1.25   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00   115.48   684.43    0.00    0.00
+   50.00    1.50   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00    99.71   590.71    0.00    0.00
+   50.00    1.75   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00   115.48   684.43    0.00    0.00    99.71   590.71    0.00    0.00
+   50.00    2.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00   115.48   684.43    0.00    0.00    79.26   519.43    0.00    0.00
+   50.00    2.25   136.85   817.86    0.00    0.00   118.23   754.20    0.00    0.00    99.71   590.71    0.00    0.00    79.26   519.43    0.00    0.00
+   50.00    2.50   118.23   754.20    0.00    0.00   115.48   684.43    0.00    0.00    79.26   519.43    0.00    0.00    68.54   486.94    0.00    0.00
+   60.00    0.00   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   295.08   971.23    0.00    0.00   136.85   817.86    0.00    0.00
+   60.00    0.25   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   60.00    0.50   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   60.00    0.75   310.45  1011.34    0.00    0.00   302.01  1000.99    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   60.00    1.00   310.45  1011.34    0.00    0.00   295.08   971.23    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   60.00    1.25   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   60.00    1.50   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   60.00    1.75   303.52   981.59    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   60.00    2.00   295.08   971.23    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00   118.23   754.20    0.00    0.00
+   60.00    2.25   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00    99.71   590.71    0.00    0.00
+   60.00    2.50   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   118.23   754.20    0.00    0.00    99.71   590.71    0.00    0.00
+   70.00    0.00   341.33  1644.98    0.00    0.00   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   143.78   847.61    0.00    0.00
+   70.00    0.25   341.33  1644.98    0.00    0.00   334.97  1607.84    0.00    0.00   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    0.50   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   302.01  1000.99    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    0.75   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   302.01  1000.99    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    1.00   341.33  1644.98    0.00    0.00   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    1.25   310.45  1011.34    0.00    0.00   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    1.50   310.45  1011.34    0.00    0.00   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    1.75   310.45  1011.34    0.00    0.00   302.01  1000.99    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00
+   70.00    2.00   310.45  1011.34    0.00    0.00   295.08   971.23    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   70.00    2.25   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00
+   70.00    2.50   310.45  1011.34    0.00    0.00   136.85   817.86    0.00    0.00   136.85   817.86    0.00    0.00   127.05   788.81    0.00    0.00

@ REGION     STATE     OGREG
        2     E_TX         2
     IRR                 15                                  20                                  25                                  30
                       CO2                 CO2       CO2       CO2                 CO2       CO2       CO2                 CO2       CO2       CO2                 CO2       CO2
                 Purchased   EOR Oil Industrial  Natural Purchased   EOR Oil Industrial  Natural Purchased   EOR Oil Industrial  Natural Purchased   EOR Oil Industrial  Natural
@ OIL PRC CO2  PRC    (MMmt)   (MMbbl)    (MMmt)    (MMmt)    (MMmt)   (MMbbl)    (MMmt)    (MMmt)    (MMmt)   (MMbbl)    (MMmt)    (MMmt)    (MMmt)   (MMbbl)    (MMmt)    (MMmt)
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+	30.00	0.00	1058.08	5003.99	0.00	0.00	1039.83	4930.55	0.00	0.00	970.93	4635.26	0.00	0.00	945.74	4534.37	0.00	0.00
+	30.00	0.25	1054.10	4987.48	0.00	0.00	1026.11	4883.15	0.00	0.00	953.76	4566.90	0.00	0.00	926.26	4447.53	0.00	0.00
+	30.00	0.50	1039.83	4930.55	0.00	0.00	970.93	4635.26	0.00	0.00	936.45	4502.89	0.00	0.00	885.69	4295.88	0.00	0.00
+	30.00	0.75	1029.25	4896.65	0.00	0.00	949.25	4550.84	0.00	0.00	892.94	4326.08	0.00	0.00	840.69	4107.58	0.00	0.00
+	30.00	1.00	966.42	4619.20	0.00	0.00	922.31	4450.87	0.00	0.00	858.30	4178.26	0.00	0.00	800.04	3937.50	0.00	0.00
+	30.00	1.25	935.11	4501.20	0.00	0.00	873.28	4252.89	0.00	0.00	811.34	3985.73	0.00	0.00	188.97	1260.50	0.00	0.00
+	30.00	1.50	896.16	4348.08	0.00	0.00	835.26	4082.55	0.00	0.00	750.04	3729.54	0.00	0.00	126.06	976.27	0.00	0.00
+	30.00	1.75	847.27	4144.71	0.00	0.00	774.67	3832.06	0.00	0.00	166.93	1166.30	0.00	0.00	60.33	686.45	0.00	0.00
+	30.00	2.00	814.69	4002.93	0.00	0.00	196.65	1326.66	0.00	0.00	63.82	701.56	0.00	0.00	56.41	667.56	0.00	0.00
+	30.00	2.25	746.25	3712.47	0.00	0.00	102.35	884.22	0.00	0.00	56.41	667.56	0.00	0.00	41.41	599.06	0.00	0.00
+	30.00	2.50	196.65	1326.66	0.00	0.00	56.41	667.56	0.00	0.00	41.41	599.06	0.00	0.00	39.06	577.06	0.00	0.00
+	40.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1057.61	5003.31	0.00	0.00	1047.03	4969.41	0.00	0.00
+	40.00	0.25	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1057.61	5003.31	0.00	0.00	1029.61	4898.97	0.00	0.00
+	40.00	0.50	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1043.40	4950.08	0.00	0.00	1026.11	4883.15	0.00	0.00
+	40.00	0.75	1061.59	5019.82	0.00	0.00	1057.61	5003.31	0.00	0.00	1026.11	4883.15	0.00	0.00	999.65	4783.30	0.00	0.00
+	40.00	1.00	1061.59	5019.82	0.00	0.00	1029.25	4896.65	0.00	0.00	1021.60	4867.09	0.00	0.00	936.45	4502.89	0.00	0.00
+	40.00	1.25	1054.10	4987.48	0.00	0.00	1029.25	4896.65	0.00	0.00	999.65	4783.30	0.00	0.00	906.13	4395.40	0.00	0.00
+	40.00	1.50	1029.25	4896.65	0.00	0.00	1016.82	4851.66	0.00	0.00	923.24	4454.47	0.00	0.00	889.98	4328.19	0.00	0.00
+	40.00	1.75	1024.75	4880.60	0.00	0.00	999.65	4783.30	0.00	0.00	902.59	4381.48	0.00	0.00	847.46	4149.45	0.00	0.00
+	40.00	2.00	1019.97	4865.16	0.00	0.00	911.30	4416.96	0.00	0.00	858.54	4194.09	0.00	0.00	804.74	3970.96	0.00	0.00
+	40.00	2.25	1007.46	4817.44	0.00	0.00	890.84	4328.81	0.00	0.00	830.27	4078.89	0.00	0.00	226.28	1452.31	0.00	0.00
+	40.00	2.50	904.32	4383.61	0.00	0.00	847.46	4149.45	0.00	0.00	778.17	3859.19	0.00	0.00	161.42	1174.90	0.00	0.00
+	50.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	50.00	0.25	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	50.00	0.50	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1057.61	5003.31	0.00	0.00
+	50.00	0.75	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00
+	50.00	1.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1057.61	5003.31	0.00	0.00	1043.40	4950.08	0.00	0.00
+	50.00	1.25	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00	1024.83	4883.54	0.00	0.00
+	50.00	1.50	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1043.40	4950.08	0.00	0.00	1020.33	4867.49	0.00	0.00
+	50.00	1.75	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00	1023.47	4880.99	0.00	0.00	999.65	4783.30	0.00	0.00
+	50.00	2.00	1061.59	5019.82	0.00	0.00	1043.40	4950.08	0.00	0.00	1016.82	4851.66	0.00	0.00	970.75	4678.30	0.00	0.00
+	50.00	2.25	1061.59	5019.82	0.00	0.00	1019.97	4865.16	0.00	0.00	1016.82	4851.66	0.00	0.00	899.66	4369.84	0.00	0.00
+	50.00	2.50	1043.53	4953.58	0.00	0.00	1019.97	4865.16	0.00	0.00	964.16	4654.24	0.00	0.00	889.97	4328.22	0.00	0.00
+	60.00	0.00	1102.47	5146.58	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	60.00	0.25	1102.47	5146.58	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	60.00	0.50	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	60.00	0.75	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	60.00	1.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	60.00	1.25	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	60.00	1.50	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00
+	60.00	1.75	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00
+	60.00	2.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00	1034.12	4918.59	0.00	0.00
+	60.00	2.25	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1042.25	4953.97	0.00	0.00	1020.33	4867.49	0.00	0.00
+	60.00	2.50	1061.59	5019.82	0.00	0.00	1051.01	4985.92	0.00	0.00	1034.12	4918.59	0.00	0.00	1020.33	4867.49	0.00	0.00

+	70.00	0.00	1114.79	5181.75	0.00	0.00	1102.47	5146.58	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	0.25	1114.79	5181.75	0.00	0.00	1102.47	5146.58	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	0.50	1106.86	5161.59	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	0.75	1102.47	5146.58	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	1.00	1102.47	5146.58	0.00	0.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	1.25	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	1.50	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	1.75	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00
+	70.00	2.00	1102.47	5146.58	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1051.01	4985.92	0.00	0.00
+	70.00	2.25	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1047.03	4969.41	0.00	0.00
+	70.00	2.50	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1061.59	5019.82	0.00	0.00	1037.75	4937.92	0.00	0.00

@ REGION STATE OGREG
2 G_TX 2

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	317.18	1182.36	0.00	0.00	106.46	413.01	0.00	0.00	82.17	321.65	0.00	0.00	56.77	226.97	0.00	0.00
+ 30.00	0.25	200.05	771.60	0.00	0.00	102.72	400.89	0.00	0.00	62.35	250.81	0.00	0.00	41.72	171.94	0.00	0.00
+ 30.00	0.50	102.72	400.89	0.00	0.00	62.35	250.81	0.00	0.00	41.72	171.94	0.00	0.00	16.21	72.75	0.00	0.00
+ 30.00	0.75	76.54	308.29	0.00	0.00	56.77	226.97	0.00	0.00	37.85	156.31	0.00	0.00	16.21	72.75	0.00	0.00
+ 30.00	1.00	62.35	250.81	0.00	0.00	37.85	156.31	0.00	0.00	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.25	41.72	171.94	0.00	0.00	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.50	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.75	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.00	362.85	1348.41	0.00	0.00	347.40	1290.09	0.00	0.00	317.18	1182.36	0.00	0.00	121.96	465.70	0.00	0.00
+ 40.00	0.25	356.15	1326.06	0.00	0.00	318.58	1187.39	0.00	0.00	200.05	771.60	0.00	0.00	92.28	355.53	0.00	0.00
+ 40.00	0.50	345.22	1282.79	0.00	0.00	262.51	1001.48	0.00	0.00	110.55	432.33	0.00	0.00	78.91	310.43	0.00	0.00
+ 40.00	0.75	318.58	1187.39	0.00	0.00	196.78	760.81	0.00	0.00	88.54	343.41	0.00	0.00	62.35	250.81	0.00	0.00
+ 40.00	1.00	255.25	977.39	0.00	0.00	106.81	420.20	0.00	0.00	62.35	250.81	0.00	0.00	41.72	171.94	0.00	0.00
+ 40.00	1.25	180.82	706.79	0.00	0.00	78.91	310.43	0.00	0.00	41.72	171.94	0.00	0.00	41.72	171.94	0.00	0.00
+ 40.00	1.50	106.81	420.20	0.00	0.00	62.35	250.81	0.00	0.00	41.72	171.94	0.00	0.00	16.21	72.75	0.00	0.00
+ 40.00	1.75	80.62	327.61	0.00	0.00	41.72	171.94	0.00	0.00	37.85	156.31	0.00	0.00	16.21	72.75	0.00	0.00
+ 40.00	2.00	62.35	250.81	0.00	0.00	41.72	171.94	0.00	0.00	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	2.25	41.72	171.94	0.00	0.00	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	2.50	37.85	156.31	0.00	0.00	16.21	72.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	0.00	528.67	1827.55	0.00	0.00	377.63	1401.79	0.00	0.00	361.66	1343.82	0.00	0.00	336.84	1254.19	0.00	0.00
+ 50.00	0.25	470.37	1666.30	0.00	0.00	362.85	1348.41	0.00	0.00	350.49	1306.73	0.00	0.00	317.18	1182.36	0.00	0.00
+ 50.00	0.50	440.01	1577.79	0.00	0.00	361.66	1343.82	0.00	0.00	327.83	1225.07	0.00	0.00	245.53	944.04	0.00	0.00
+ 50.00	0.75	371.65	1380.39	0.00	0.00	356.15	1326.06	0.00	0.00	318.58	1187.39	0.00	0.00	193.57	749.80	0.00	0.00

+	50.00	1.00	361.66	1343.82	0.00	0.00	330.92	1241.71	0.00	0.00	242.26	933.24	0.00	0.00	106.81	420.20	0.00	0.00
+	50.00	1.25	356.15	1326.06	0.00	0.00	256.65	982.42	0.00	0.00	177.60	695.78	0.00	0.00	78.91	310.43	0.00	0.00
+	50.00	1.50	330.92	1241.71	0.00	0.00	242.26	933.24	0.00	0.00	106.81	420.20	0.00	0.00	62.35	250.81	0.00	0.00
+	50.00	1.75	268.99	1036.74	0.00	0.00	177.60	695.78	0.00	0.00	78.91	310.43	0.00	0.00	41.72	171.94	0.00	0.00
+	50.00	2.00	242.26	933.24	0.00	0.00	100.44	398.44	0.00	0.00	47.29	195.78	0.00	0.00	41.72	171.94	0.00	0.00
+	50.00	2.25	223.08	868.21	0.00	0.00	66.43	270.13	0.00	0.00	41.72	171.94	0.00	0.00	41.72	171.94	0.00	0.00
+	50.00	2.50	100.44	398.44	0.00	0.00	47.29	195.78	0.00	0.00	41.72	171.94	0.00	0.00	16.21	72.75	0.00	0.00
+	60.00	0.00	562.88	1941.37	0.00	0.00	530.24	1834.95	0.00	0.00	460.09	1632.27	0.00	0.00	362.85	1348.41	0.00	0.00
+	60.00	0.25	562.88	1941.37	0.00	0.00	506.60	1795.20	0.00	0.00	371.65	1380.39	0.00	0.00	361.66	1343.82	0.00	0.00
+	60.00	0.50	540.06	1906.36	0.00	0.00	460.09	1632.27	0.00	0.00	361.66	1343.82	0.00	0.00	350.49	1306.73	0.00	0.00
+	60.00	0.75	518.83	1839.36	0.00	0.00	377.63	1401.79	0.00	0.00	361.66	1343.82	0.00	0.00	333.09	1249.02	0.00	0.00
+	60.00	1.00	508.17	1802.59	0.00	0.00	370.46	1375.81	0.00	0.00	356.15	1326.06	0.00	0.00	320.57	1200.98	0.00	0.00
+	60.00	1.25	379.07	1406.95	0.00	0.00	361.66	1343.82	0.00	0.00	333.09	1249.02	0.00	0.00	242.26	933.24	0.00	0.00
+	60.00	1.50	377.63	1401.79	0.00	0.00	356.15	1326.06	0.00	0.00	256.17	986.75	0.00	0.00	177.60	695.78	0.00	0.00
+	60.00	1.75	366.03	1360.46	0.00	0.00	333.09	1249.02	0.00	0.00	251.51	970.93	0.00	0.00	106.81	420.20	0.00	0.00
+	60.00	2.00	364.22	1353.86	0.00	0.00	268.99	1036.74	0.00	0.00	223.08	868.21	0.00	0.00	82.99	329.74	0.00	0.00
+	60.00	2.25	338.75	1268.35	0.00	0.00	254.60	987.56	0.00	0.00	106.81	420.20	0.00	0.00	78.91	310.43	0.00	0.00
+	60.00	2.50	326.33	1227.39	0.00	0.00	223.08	868.21	0.00	0.00	82.99	329.74	0.00	0.00	47.29	195.78	0.00	0.00
+	70.00	0.00	583.38	2010.47	0.00	0.00	562.88	1941.37	0.00	0.00	527.92	1827.54	0.00	0.00	460.09	1632.27	0.00	0.00
+	70.00	0.25	583.38	2010.47	0.00	0.00	562.88	1941.37	0.00	0.00	508.17	1802.59	0.00	0.00	377.63	1401.79	0.00	0.00
+	70.00	0.50	576.58	1989.22	0.00	0.00	518.83	1839.36	0.00	0.00	505.16	1790.04	0.00	0.00	364.65	1355.01	0.00	0.00
+	70.00	0.75	556.83	1964.28	0.00	0.00	511.28	1813.98	0.00	0.00	377.63	1401.79	0.00	0.00	361.66	1343.82	0.00	0.00
+	70.00	1.00	543.13	1916.42	0.00	0.00	508.17	1802.59	0.00	0.00	377.63	1401.79	0.00	0.00	361.66	1343.82	0.00	0.00
+	70.00	1.25	540.06	1906.36	0.00	0.00	424.14	1564.72	0.00	0.00	363.46	1350.43	0.00	0.00	339.93	1270.82	0.00	0.00
+	70.00	1.50	518.83	1839.36	0.00	0.00	377.63	1401.79	0.00	0.00	361.66	1343.82	0.00	0.00	333.09	1249.02	0.00	0.00
+	70.00	1.75	491.20	1759.50	0.00	0.00	376.44	1397.21	0.00	0.00	345.59	1290.15	0.00	0.00	256.00	992.59	0.00	0.00
+	70.00	2.00	425.71	1572.12	0.00	0.00	366.03	1360.46	0.00	0.00	333.09	1249.02	0.00	0.00	251.51	970.93	0.00	0.00
+	70.00	2.25	415.29	1535.84	0.00	0.00	356.15	1326.06	0.00	0.00	256.00	992.59	0.00	0.00	232.33	905.90	0.00	0.00
+	70.00	2.50	376.44	1397.21	0.00	0.00	338.75	1268.35	0.00	0.00	254.60	987.56	0.00	0.00	177.60	695.78	0.00	0.00

@ REGION	STATE	OGREG
2	W_TX	4

		IRR	15				20				25				30			
			CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
			Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	2150.86	7209.60	63.42	1310.78	1940.88	6539.05	63.42	1310.78	1473.64	5057.41	63.42	1310.78	936.13	3232.76	63.42	1310.78
+	30.00	0.25	1950.15	6567.29	63.42	1310.78	1516.48	5218.18	63.42	1310.78	957.01	3314.95	63.42	1310.78	694.74	2422.20	63.42	1310.78
+	30.00	0.50	1534.40	5279.54	63.42	1310.78	986.14	3419.98	63.42	1310.78	669.90	2331.45	63.42	1310.78	115.70	413.59	63.42	1310.78
+	30.00	0.75	990.62	3434.74	63.42	1310.78	681.63	2378.26	63.42	1310.78	115.70	413.59	63.42	1310.78	58.05	219.01	63.42	1310.78
+	30.00	1.00	727.35	2551.21	63.42	1310.78	115.70	413.59	63.42	1310.78	58.05	219.01	63.42	1310.78	9.25	35.71	63.42	1310.78
+	30.00	1.25	186.04	680.15	63.42	1310.78	58.05	219.01	63.42	1310.78	9.25	35.71	63.42	1310.78	0.00	0.00	63.42	1310.78
+	30.00	1.50	97.31	352.05	63.42	1310.78	9.25	35.71	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78
+	30.00	1.75	12.81	51.24	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78

+	30.00	2.00	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78
+	30.00	2.25	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78
+	30.00	2.50	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78
+	40.00	0.00	2517.00	8217.66	63.42	1310.78	2434.84	8015.61	63.42	1310.78	2154.73	7221.52	63.42	1310.78	2076.40	6956.80	63.42	1310.78
+	40.00	0.25	2441.39	8039.50	63.42	1310.78	2200.86	7355.95	63.42	1310.78	2118.49	7099.86	63.42	1310.78	1835.57	6219.28	63.42	1310.78
+	40.00	0.50	2267.17	7557.42	63.42	1310.78	2154.73	7221.52	63.42	1310.78	1930.27	6508.92	63.42	1310.78	1291.85	4474.09	63.42	1310.78
+	40.00	0.75	2157.17	7230.55	63.42	1310.78	1961.06	6607.67	63.42	1310.78	1345.21	4646.98	63.42	1310.78	931.42	3233.02	63.42	1310.78
+	40.00	1.00	2090.29	7020.46	63.42	1310.78	1521.65	5274.85	63.42	1310.78	960.08	3336.95	63.42	1310.78	429.48	1569.35	63.42	1310.78
+	40.00	1.25	1617.47	5566.88	63.42	1310.78	1009.83	3523.94	63.42	1310.78	705.38	2469.86	63.42	1310.78	120.75	433.27	63.42	1310.78
+	40.00	1.50	1081.31	3773.78	63.42	1310.78	735.81	2580.54	63.42	1310.78	359.97	1316.73	63.42	1310.78	102.35	371.72	63.42	1310.78
+	40.00	1.75	893.45	3129.09	63.42	1310.78	421.02	1540.01	63.42	1310.78	102.35	371.72	63.42	1310.78	16.69	65.96	63.42	1310.78
+	40.00	2.00	702.51	2460.45	63.42	1310.78	106.90	387.39	63.42	1310.78	16.69	65.96	63.42	1310.78	0.00	0.00	63.42	1310.78
+	40.00	2.25	188.96	700.76	63.42	1310.78	58.05	219.01	63.42	1310.78	9.25	35.71	63.42	1310.78	0.00	0.00	63.42	1310.78
+	40.00	2.50	97.31	352.05	63.42	1310.78	12.81	51.24	63.42	1310.78	0.00	0.00	63.42	1310.78	0.00	0.00	63.42	1310.78
+	50.00	0.00	2620.77	8561.97	63.42	1310.78	2581.44	8432.43	63.42	1310.78	2518.84	8269.08	63.42	1310.78	2423.70	7987.59	63.42	1310.78
+	50.00	0.25	2620.77	8561.97	63.42	1310.78	2535.75	8344.75	63.42	1310.78	2434.46	8023.82	63.42	1310.78	2283.75	7580.85	63.42	1310.78
+	50.00	0.50	2550.61	8395.72	63.42	1310.78	2455.13	8085.68	63.42	1310.78	2387.13	7887.28	63.42	1310.78	2134.20	7157.63	63.42	1310.78
+	50.00	0.75	2515.63	8289.95	63.42	1310.78	2397.89	7923.51	63.42	1310.78	2157.17	7230.55	63.42	1310.78	1966.12	6625.52	63.42	1310.78
+	50.00	1.00	2470.44	8155.40	63.42	1310.78	2166.78	7260.93	63.42	1310.78	2025.35	6816.05	63.42	1310.78	1757.43	5984.34	63.42	1310.78
+	50.00	1.25	2211.62	7392.19	63.42	1310.78	2136.64	7166.66	63.42	1310.78	1824.07	6200.31	63.42	1310.78	1225.53	4248.95	63.42	1310.78
+	50.00	1.50	2157.17	7230.55	63.42	1310.78	1964.41	6630.80	63.42	1310.78	1318.45	4576.42	63.42	1310.78	976.38	3409.27	63.42	1310.78
+	50.00	1.75	2084.64	7012.18	63.42	1310.78	1416.43	4896.65	63.42	1310.78	1005.03	3513.19	63.42	1310.78	447.40	1641.02	63.42	1310.78
+	50.00	2.00	1756.89	6005.34	63.42	1310.78	1053.33	3686.84	63.42	1310.78	447.40	1641.02	63.42	1310.78	140.93	509.41	63.42	1310.78
+	50.00	2.25	1341.56	4657.47	63.42	1310.78	993.52	3473.73	63.42	1310.78	422.47	1543.70	63.42	1310.78	102.35	371.72	63.42	1310.78
+	50.00	2.50	1014.99	3548.64	63.42	1310.78	444.77	1631.62	63.42	1310.78	118.63	434.20	63.42	1310.78	21.74	85.63	63.42	1310.78
+	60.00	0.00	2753.27	8949.61	63.42	1310.78	2664.54	8689.31	63.42	1310.78	2597.89	8486.47	63.42	1310.78	2539.69	8355.26	63.42	1310.78
+	60.00	0.25	2712.31	8816.93	63.42	1310.78	2620.77	8561.97	63.42	1310.78	2539.69	8355.26	63.42	1310.78	2524.87	8309.25	63.42	1310.78
+	60.00	0.50	2634.39	8603.73	63.42	1310.78	2611.12	8535.62	63.42	1310.78	2535.75	8344.75	63.42	1310.78	2406.58	7972.81	63.42	1310.78
+	60.00	0.75	2620.77	8561.97	63.42	1310.78	2544.35	8372.24	63.42	1310.78	2515.63	8289.95	63.42	1310.78	2327.44	7706.25	63.42	1310.78
+	60.00	1.00	2575.08	8474.29	63.42	1310.78	2526.50	8325.45	63.42	1310.78	2406.58	7972.81	63.42	1310.78	2146.25	7197.04	63.42	1310.78
+	60.00	1.25	2548.33	8402.08	63.42	1310.78	2421.34	8023.07	63.42	1310.78	2199.41	7386.83	63.42	1310.78	2030.56	6835.48	63.42	1310.78
+	60.00	1.50	2521.89	8313.43	63.42	1310.78	2249.72	7532.66	63.42	1310.78	2119.06	7119.46	63.42	1310.78	1881.70	6390.22	63.42	1310.78
+	60.00	1.75	2317.56	7743.53	63.42	1310.78	2186.23	7346.46	63.42	1310.78	1922.47	6508.65	63.42	1310.78	1474.93	5048.42	63.42	1310.78
+	60.00	2.00	2243.08	7516.18	63.42	1310.78	2079.68	7019.98	63.42	1310.78	1859.58	6320.47	63.42	1310.78	1342.29	4629.04	63.42	1310.78
+	60.00	2.25	2176.62	7316.08	63.42	1310.78	1896.62	6446.98	63.42	1310.78	1390.67	4801.24	63.42	1310.78	991.15	3455.25	63.42	1310.78
+	60.00	2.50	2115.36	7134.82	63.42	1310.78	1589.62	5440.09	63.42	1310.78	1031.44	3595.82	63.42	1310.78	467.43	1719.94	63.42	1310.78
+	70.00	0.00	2878.01	9279.00	63.42	1310.78	2729.91	8864.91	63.42	1310.78	2664.54	8689.31	63.42	1310.78	2641.27	8621.20	63.42	1310.78
+	70.00	0.25	2775.80	9021.26	63.42	1310.78	2712.97	8819.35	63.42	1310.78	2657.64	8668.87	63.42	1310.78	2589.29	8458.98	63.42	1310.78
+	70.00	0.50	2771.26	9006.76	63.42	1310.78	2664.54	8689.31	63.42	1310.78	2641.27	8621.20	63.42	1310.78	2539.69	8355.26	63.42	1310.78
+	70.00	0.75	2740.20	8916.02	63.42	1310.78	2657.64	8668.87	63.42	1310.78	2569.37	8458.44	63.42	1310.78	2539.69	8355.26	63.42	1310.78
+	70.00	1.00	2683.21	8754.18	63.42	1310.78	2579.02	8484.80	63.42	1310.78	2539.69	8355.26	63.42	1310.78	2464.93	8151.67	63.42	1310.78
+	70.00	1.25	2673.51	8718.88	63.42	1310.78	2569.37	8458.44	63.42	1310.78	2515.63	8289.95	63.42	1310.78	2346.89	7791.78	63.42	1310.78
+	70.00	1.50	2585.92	8505.24	63.42	1310.78	2548.33	8402.08	63.42	1310.78	2458.81	8132.08	63.42	1310.78	2303.19	7666.38	63.42	1310.78
+	70.00	1.75	2565.83	8454.99	63.42	1310.78	2479.06	8189.64	63.42	1310.78	2346.89	7791.78	63.42	1310.78	2079.68	7019.98	63.42	1310.78

+	70.00	2.00	2556.18	8428.63	63.42	1310.78	2458.81	8132.08	63.42	1310.78	2165.70	7282.56	63.42	1310.78	1950.78	6622.12	63.42	1310.78
+	70.00	2.25	2500.88	8266.28	63.42	1310.78	2257.86	7562.50	63.42	1310.78	2070.29	6995.99	63.42	1310.78	1721.79	5834.34	63.42	1310.78
+	70.00	2.50	2323.82	7767.01	63.42	1310.78	2138.50	7204.99	63.42	1310.78	1909.06	6499.36	63.42	1310.78	1450.72	4984.13	63.42	1310.78

@ REGION	STATE	OGREG
4	IL	1

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	107.18	441.61	0.00	0.00	83.97	354.33	0.00	0.00	76.91	325.98	0.00	0.00	32.39	152.77	0.00	0.00
+ 30.00	0.25	87.69	373.44	0.00	0.00	80.95	344.21	0.00	0.00	71.41	306.03	0.00	0.00	14.12	76.12	0.00	0.00
+ 30.00	0.50	80.95	344.21	0.00	0.00	76.29	322.82	0.00	0.00	14.12	76.12	0.00	0.00	8.51	56.82	0.00	0.00
+ 30.00	0.75	76.29	322.82	0.00	0.00	14.12	76.12	0.00	0.00	8.51	56.82	0.00	0.00	6.05	42.49	0.00	0.00
+ 30.00	1.00	31.53	151.02	0.00	0.00	8.51	56.82	0.00	0.00	6.05	42.49	0.00	0.00	0.85	7.06	0.00	0.00
+ 30.00	1.25	8.51	56.82	0.00	0.00	6.05	42.49	0.00	0.00	6.05	42.49	0.00	0.00	0.85	7.06	0.00	0.00
+ 30.00	1.50	8.51	56.82	0.00	0.00	6.05	42.49	0.00	0.00	0.85	7.06	0.00	0.00	0.85	7.06	0.00	0.00
+ 30.00	1.75	6.05	42.49	0.00	0.00	0.85	7.06	0.00	0.00	0.85	7.06	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.00	6.05	42.49	0.00	0.00	0.85	7.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.25	0.85	7.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.00	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	109.49	455.19	0.00	0.00	89.59	385.45	0.00	0.00
+ 40.00	0.25	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	98.00	413.75	0.00	0.00	85.65	369.95	0.00	0.00
+ 40.00	0.50	109.89	457.81	0.00	0.00	106.43	445.23	0.00	0.00	86.63	375.54	0.00	0.00	81.09	348.16	0.00	0.00
+ 40.00	0.75	109.49	455.19	0.00	0.00	89.74	386.48	0.00	0.00	83.61	363.07	0.00	0.00	40.24	199.51	0.00	0.00
+ 40.00	1.00	104.35	437.16	0.00	0.00	86.63	375.54	0.00	0.00	75.13	328.12	0.00	0.00	22.76	125.16	0.00	0.00
+ 40.00	1.25	88.58	382.41	0.00	0.00	83.61	362.72	0.00	0.00	40.53	201.21	0.00	0.00	16.52	102.69	0.00	0.00
+ 40.00	1.50	84.33	366.61	0.00	0.00	41.97	211.02	0.00	0.00	16.52	102.69	0.00	0.00	9.93	65.98	0.00	0.00
+ 40.00	1.75	82.53	359.47	0.00	0.00	19.43	118.97	0.00	0.00	11.58	76.17	0.00	0.00	8.51	56.82	0.00	0.00
+ 40.00	2.00	43.43	218.47	0.00	0.00	16.52	102.69	0.00	0.00	10.16	67.01	0.00	0.00	6.05	42.49	0.00	0.00
+ 40.00	2.25	18.81	115.80	0.00	0.00	10.16	67.01	0.00	0.00	6.05	42.49	0.00	0.00	6.05	42.49	0.00	0.00
+ 40.00	2.50	15.09	93.53	0.00	0.00	10.16	67.01	0.00	0.00	6.05	42.49	0.00	0.00	0.85	7.06	0.00	0.00
+ 50.00	0.00	111.30	461.70	0.00	0.00	111.30	461.70	0.00	0.00	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00
+ 50.00	0.25	111.30	461.70	0.00	0.00	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00
+ 50.00	0.50	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	99.74	423.02	0.00	0.00
+ 50.00	0.75	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	107.92	451.24	0.00	0.00	89.53	387.64	0.00	0.00
+ 50.00	1.00	109.89	457.81	0.00	0.00	109.89	457.81	0.00	0.00	99.74	423.02	0.00	0.00	87.04	378.15	0.00	0.00
+ 50.00	1.25	109.89	457.81	0.00	0.00	106.83	447.85	0.00	0.00	87.86	382.39	0.00	0.00	84.60	368.66	0.00	0.00
+ 50.00	1.50	109.89	457.81	0.00	0.00	91.48	395.75	0.00	0.00	84.60	368.66	0.00	0.00	45.48	228.65	0.00	0.00
+ 50.00	1.75	106.83	447.85	0.00	0.00	87.86	382.39	0.00	0.00	84.60	368.66	0.00	0.00	21.12	130.76	0.00	0.00
+ 50.00	2.00	91.48	395.75	0.00	0.00	84.87	370.28	0.00	0.00	44.41	225.40	0.00	0.00	20.51	126.83	0.00	0.00
+ 50.00	2.25	86.91	377.16	0.00	0.00	67.80	310.90	0.00	0.00	23.03	141.39	0.00	0.00	19.94	123.37	0.00	0.00
+ 50.00	2.50	84.87	370.28	0.00	0.00	44.41	225.40	0.00	0.00	20.86	129.06	0.00	0.00	16.96	105.86	0.00	0.00
+ 60.00	0.00	114.35	473.79	0.00	0.00	111.30	461.70	0.00	0.00	111.30	461.70	0.00	0.00	111.30	461.70	0.00	0.00

+	60.00	0.25	112.47	465.56	0.00	0.00	111.30	461.70	0.00	0.00	111.30	461.70	0.00	0.00	110.22	459.30	0.00	0.00
+	60.00	0.50	112.47	465.56	0.00	0.00	111.30	461.70	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00
+	60.00	0.75	111.30	461.70	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	109.89	457.81	0.00	0.00
+	60.00	1.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	109.89	457.81	0.00	0.00	106.67	446.89	0.00	0.00
+	60.00	1.25	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	109.89	457.81	0.00	0.00	99.74	423.02	0.00	0.00
+	60.00	1.50	110.22	459.30	0.00	0.00	109.89	457.81	0.00	0.00	105.59	443.50	0.00	0.00	88.37	384.81	0.00	0.00
+	60.00	1.75	110.22	459.30	0.00	0.00	109.89	457.81	0.00	0.00	99.74	423.02	0.00	0.00	85.82	375.52	0.00	0.00
+	60.00	2.00	109.89	457.81	0.00	0.00	105.59	443.50	0.00	0.00	88.37	384.81	0.00	0.00	85.27	372.90	0.00	0.00
+	60.00	2.25	109.89	457.81	0.00	0.00	99.74	423.02	0.00	0.00	85.82	375.52	0.00	0.00	46.61	235.16	0.00	0.00
+	60.00	2.50	107.92	451.24	0.00	0.00	88.37	384.81	0.00	0.00	85.27	372.90	0.00	0.00	40.59	213.24	0.00	0.00
+	70.00	0.00	122.12	485.19	0.00	0.00	114.35	473.79	0.00	0.00	113.46	467.75	0.00	0.00	111.30	461.70	0.00	0.00
+	70.00	0.25	114.35	473.79	0.00	0.00	114.35	473.79	0.00	0.00	111.30	461.70	0.00	0.00	111.30	461.70	0.00	0.00
+	70.00	0.50	114.35	473.79	0.00	0.00	113.36	471.60	0.00	0.00	111.30	461.70	0.00	0.00	111.30	461.70	0.00	0.00
+	70.00	0.75	113.36	471.60	0.00	0.00	112.47	465.56	0.00	0.00	111.30	461.70	0.00	0.00	110.22	459.30	0.00	0.00
+	70.00	1.00	113.36	471.60	0.00	0.00	111.30	461.70	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00
+	70.00	1.25	113.36	471.60	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00
+	70.00	1.50	112.29	469.20	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	108.25	452.73	0.00	0.00
+	70.00	1.75	111.11	465.34	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	99.74	423.02	0.00	0.00
+	70.00	2.00	111.11	465.34	0.00	0.00	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	97.01	413.89	0.00	0.00
+	70.00	2.25	111.11	465.34	0.00	0.00	110.22	459.30	0.00	0.00	105.59	443.50	0.00	0.00	88.37	384.81	0.00	0.00
+	70.00	2.50	110.22	459.30	0.00	0.00	110.22	459.30	0.00	0.00	99.74	423.02	0.00	0.00	85.82	375.52	0.00	0.00

@ REGION STATE OGREG

5 ND 5

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	68.95	268.45	0.00	0.00	66.29	257.66	0.00	0.00	56.08	216.85	0.00	0.00	45.22	180.53	0.00	0.00
+ 30.00	0.25	66.29	257.66	0.00	0.00	56.08	216.85	0.00	0.00	45.22	180.53	0.00	0.00	12.62	62.94	0.00	0.00
+ 30.00	0.50	60.30	232.76	0.00	0.00	45.22	180.53	0.00	0.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00
+ 30.00	0.75	45.22	180.53	0.00	0.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00	8.51	47.30	0.00	0.00
+ 30.00	1.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00	5.04	32.58	0.00	0.00	0.77	12.41	0.00	0.00
+ 30.00	1.25	9.15	48.22	0.00	0.00	5.04	32.58	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+ 30.00	1.50	5.04	32.58	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+ 30.00	1.75	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+ 30.00	2.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+ 30.00	2.25	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+ 30.00	2.50	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+ 40.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	68.95	268.45	0.00	0.00
+ 40.00	0.25	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	68.95	268.45	0.00	0.00	62.07	241.76	0.00	0.00
+ 40.00	0.50	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	68.95	268.45	0.00	0.00	53.57	208.78	0.00	0.00
+ 40.00	0.75	73.59	287.92	0.00	0.00	68.95	268.45	0.00	0.00	56.08	216.85	0.00	0.00	45.22	180.53	0.00	0.00
+ 40.00	1.00	73.59	287.92	0.00	0.00	60.30	232.76	0.00	0.00	45.22	180.53	0.00	0.00	12.62	62.94	0.00	0.00

+	40.00	1.25	68.95	268.45	0.00	0.00	53.57	208.78	0.00	0.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00
+	40.00	1.50	60.30	232.76	0.00	0.00	26.31	114.36	0.00	0.00	12.62	62.94	0.00	0.00	8.51	47.30	0.00	0.00
+	40.00	1.75	45.22	180.53	0.00	0.00	12.62	62.94	0.00	0.00	8.51	47.30	0.00	0.00	8.51	47.30	0.00	0.00
+	40.00	2.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00	8.51	47.30	0.00	0.00	4.24	27.13	0.00	0.00
+	40.00	2.25	12.62	62.94	0.00	0.00	8.51	47.30	0.00	0.00	4.24	27.13	0.00	0.00	0.77	12.41	0.00	0.00
+	40.00	2.50	8.51	47.30	0.00	0.00	5.04	32.58	0.00	0.00	0.77	12.41	0.00	0.00	0.77	12.41	0.00	0.00
+	50.00	0.00	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	50.00	0.25	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	50.00	0.50	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	73.59	287.92	0.00	0.00
+	50.00	0.75	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	68.95	268.45	0.00	0.00
+	50.00	1.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	62.96	243.54	0.00	0.00
+	50.00	1.25	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	68.95	268.45	0.00	0.00	53.57	208.78	0.00	0.00
+	50.00	1.50	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	60.46	235.47	0.00	0.00	45.22	180.53	0.00	0.00
+	50.00	1.75	73.59	287.92	0.00	0.00	73.59	287.92	0.00	0.00	53.57	208.78	0.00	0.00	12.62	62.94	0.00	0.00
+	50.00	2.00	73.59	287.92	0.00	0.00	60.46	235.47	0.00	0.00	26.31	114.36	0.00	0.00	12.62	62.94	0.00	0.00
+	50.00	2.25	73.59	287.92	0.00	0.00	45.22	180.53	0.00	0.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00
+	50.00	2.50	60.46	235.47	0.00	0.00	12.62	62.94	0.00	0.00	12.62	62.94	0.00	0.00	8.51	47.30	0.00	0.00
+	60.00	0.00	116.91	447.68	0.00	0.00	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00
+	60.00	0.25	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00
+	60.00	0.50	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00
+	60.00	0.75	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	60.00	1.00	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	60.00	1.25	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	60.00	1.50	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	73.59	287.92	0.00	0.00
+	60.00	1.75	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	60.46	235.47	0.00	0.00
+	60.00	2.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	73.59	287.92	0.00	0.00	56.23	219.57	0.00	0.00
+	60.00	2.25	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	65.09	254.94	0.00	0.00	45.22	180.53	0.00	0.00
+	60.00	2.50	93.66	367.51	0.00	0.00	71.08	279.85	0.00	0.00	60.46	235.47	0.00	0.00	12.62	62.94	0.00	0.00
+	70.00	0.00	116.91	447.68	0.00	0.00	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00
+	70.00	0.25	116.91	447.68	0.00	0.00	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00
+	70.00	0.50	116.91	447.68	0.00	0.00	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00
+	70.00	0.75	116.91	447.68	0.00	0.00	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00
+	70.00	1.00	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00
+	70.00	1.25	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00
+	70.00	1.50	116.91	447.68	0.00	0.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	70.00	1.75	116.91	447.68	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	70.00	2.00	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00
+	70.00	2.25	98.88	386.14	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	71.08	279.85	0.00	0.00
+	70.00	2.50	93.66	367.51	0.00	0.00	93.66	367.51	0.00	0.00	73.59	287.92	0.00	0.00	65.09	254.94	0.00	0.00

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@ REGION     STATE     OGREG
        5       SD         5
     IRR                  15                                   20                                   25                                   30
                         CO2                 CO2       CO2       CO2                 CO2       CO2       CO2                 CO2       CO2       CO2                 CO2       CO2
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			Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@	OIL PRC	CO2 PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

+	60.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

@ REGION STATE OGREG
5 MT 5

			IRR	15				20				25				30		
				CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
			Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00
+	30.00	0.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	7.79	25.87	0.00	0.00	1.44	5.98	0.00	0.00
+	30.00	0.50	23.22	79.55	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00
+	30.00	0.75	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	40.00	0.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	40.00	0.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	40.00	0.75	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00
+	40.00	1.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00	7.79	25.87	0.00	0.00
+	40.00	1.25	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00
+	40.00	1.50	23.22	79.55	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00
+	40.00	1.75	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00
+	40.00	2.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.25	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	50.00	0.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00

+	50.00	0.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	50.00	0.75	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	50.00	1.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	50.00	1.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	50.00	1.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00
+	50.00	1.75	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00	16.60	51.95	0.00	0.00
+	50.00	2.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00	16.60	51.95	0.00	0.00	1.44	5.98	0.00	0.00
+	50.00	2.25	32.03	105.63	0.00	0.00	7.79	25.87	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00
+	50.00	2.50	7.79	25.87	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00	1.44	5.98	0.00	0.00
+	60.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	0.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	0.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	0.75	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	1.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	1.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	1.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	1.75	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	60.00	2.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00
+	60.00	2.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00
+	60.00	2.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	16.60	51.95	0.00	0.00	16.60	51.95	0.00	0.00
+	70.00	0.00	42.60	170.30	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	0.25	42.60	170.30	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	0.50	42.60	170.30	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	0.75	42.60	170.30	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	1.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	1.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	1.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	1.75	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	2.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	2.25	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00
+	70.00	2.50	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00	32.03	105.63	0.00	0.00

@ REGION STATE OGREG

5 NE 3

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00
+ 30.00	0.25	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00
+ 30.00	0.50	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+ 30.00	0.75	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+ 30.00	1.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+ 30.00	1.25	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00

+	30.00	1.50	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.75	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.25	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.50	0.54	5.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	40.00	0.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	40.00	0.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00
+	40.00	0.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00
+	40.00	1.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00
+	40.00	1.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00
+	40.00	1.50	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00
+	40.00	1.75	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+	40.00	2.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+	40.00	2.25	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+	40.00	2.50	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00	0.54	5.23	0.00	0.00
+	50.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	0.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	0.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	0.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	1.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	1.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	1.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	50.00	1.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00
+	50.00	2.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00
+	50.00	2.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00
+	50.00	2.50	10.25	44.04	0.00	0.00	3.83	18.52	0.00	0.00	3.83	18.52	0.00	0.00	0.54	5.23	0.00	0.00
+	60.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	0.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	0.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	0.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	1.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	1.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	1.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	1.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	2.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	2.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	60.00	2.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	0.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	0.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	0.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	1.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	1.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00

+	70.00	1.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	1.75	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	2.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	2.25	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00
+	70.00	2.50	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00	10.25	44.04	0.00	0.00

@ REGION STATE OGREG

8 FL 2

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.25	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.50	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.75	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	0.25	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	0.50	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	0.75	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	1.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	1.25	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	1.50	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 50.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

+	50.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.00	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	60.00	0.25	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	60.00	0.50	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	60.00	0.75	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.25	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.50	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	1.75	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	2.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	2.25	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	0.00	62.81	198.64	0.00	0.00	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	70.00	0.25	62.81	198.64	0.00	0.00	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	70.00	0.50	62.81	198.64	0.00	0.00	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	70.00	0.75	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	70.00	1.00	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00
+	70.00	1.25	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	1.50	62.81	198.64	0.00	0.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	1.75	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	2.00	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	2.25	9.33	28.75	0.00	0.00	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	70.00	2.50	9.33	28.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	32.10	110.78	0.00	0.00	60.21	225.98	0.00	0.00	31.01	129.32	0.00	0.00	17.06	75.27	0.00	0.00
+ 30.00	0.25	32.10	110.78	0.00	0.00	60.21	225.98	0.00	0.00	17.06	75.27	0.00	0.00	4.49	22.54	0.00	0.00
+ 30.00	0.50	32.10	110.78	0.00	0.00	17.06	75.27	0.00	0.00	13.38	59.69	0.00	0.00	4.49	22.54	0.00	0.00
+ 30.00	0.75	0.00	0.00	0.00	0.00	17.06	75.27	0.00	0.00	4.49	22.54	0.00	0.00	2.75	14.32	0.00	0.00
+ 30.00	1.00	0.00	0.00	0.00	0.00	4.49	22.54	0.00	0.00	4.49	22.54	0.00	0.00	2.75	14.32	0.00	0.00
+ 30.00	1.25	0.00	0.00	0.00	0.00	4.49	22.54	0.00	0.00	2.75	14.32	0.00	0.00	2.75	14.32	0.00	0.00
+ 30.00	1.50	0.00	0.00	0.00	0.00	2.75	14.32	0.00	0.00	2.75	14.32	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	1.75	0.00	0.00	0.00	0.00	2.75	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.00	32.10	110.78	0.00	0.00	60.21	225.98	0.00	0.00	60.21	225.98	0.00	0.00	60.21	225.98	0.00	0.00
+ 40.00	0.25	32.10	110.78	0.00	0.00	60.21	225.98	0.00	0.00	60.21	225.98	0.00	0.00	60.21	225.98	0.00	0.00
+ 40.00	0.50	32.10	110.78	0.00	0.00	60.21	225.98	0.00	0.00	60.21	225.98	0.00	0.00	31.01	129.32	0.00	0.00

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+   40.00    0.75   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   31.01  129.32    0.00    0.00   17.06   75.27    0.00    0.00
+   40.00    1.00   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   17.06   75.27    0.00    0.00   13.38   59.69    0.00    0.00
+   40.00    1.25   32.10  110.78    0.00    0.00   31.01  129.32    0.00    0.00   17.06   75.27    0.00    0.00    4.49   22.54    0.00    0.00
+   40.00    1.50   32.10  110.78    0.00    0.00   17.06   75.27    0.00    0.00    4.49   22.54    0.00    0.00    4.49   22.54    0.00    0.00
+   40.00    1.75    0.00    0.00    0.00    0.00   17.06   75.27    0.00    0.00    4.49   22.54    0.00    0.00    4.49   22.54    0.00    0.00
+   40.00    2.00    0.00    0.00    0.00    0.00    4.49   22.54    0.00    0.00    4.49   22.54    0.00    0.00    4.49   22.54    0.00    0.00
+   40.00    2.25    0.00    0.00    0.00    0.00    4.49   22.54    0.00    0.00    4.49   22.54    0.00    0.00    2.75   14.32    0.00    0.00
+   40.00    2.50    0.00    0.00    0.00    0.00    4.49   22.54    0.00    0.00    2.75   14.32    0.00    0.00    0.00    0.00    0.00    0.00
+   50.00    0.00   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   50.00    0.25   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   50.00    0.50   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   50.00    0.75   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   50.00    1.00   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   50.00    1.25   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   17.06   75.27    0.00    0.00
+   50.00    1.50   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   31.01  129.32    0.00    0.00   17.06   75.27    0.00    0.00
+   50.00    1.75   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   17.06   75.27    0.00    0.00   17.06   75.27    0.00    0.00
+   50.00    2.00   32.10  110.78    0.00    0.00   31.01  129.32    0.00    0.00   17.06   75.27    0.00    0.00    4.49   22.54    0.00    0.00
+   50.00    2.25   32.10  110.78    0.00    0.00   17.06   75.27    0.00    0.00    8.16   38.12    0.00    0.00    4.49   22.54    0.00    0.00
+   50.00    2.50   32.10  110.78    0.00    0.00   17.06   75.27    0.00    0.00    4.49   22.54    0.00    0.00    4.49   22.54    0.00    0.00
+   60.00    0.00   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    0.25   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    0.50   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    0.75   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    1.00   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    1.25   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    1.50   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    1.75   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   60.00    2.00   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   17.06   75.27    0.00    0.00
+   60.00    2.25   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   31.01  129.32    0.00    0.00   17.06   75.27    0.00    0.00
+   60.00    2.50   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   17.06   75.27    0.00    0.00   17.06   75.27    0.00    0.00
+   70.00    0.00   42.61  145.23    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    0.25   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    0.50   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    0.75   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    1.00   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    1.25   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    1.50   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    1.75   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    2.00   36.57  125.65    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    2.25   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00
+   70.00    2.50   32.10  110.78    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00   60.21  225.98    0.00    0.00

@ REGION     STATE     OGREG
        9     S_LA         2
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IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	1160.31	3369.17	0.00	570.73	642.08	1970.51	0.00	574.29	245.37	777.01	0.00	590.16	4.97	18.19	0.00	596.41
+ 30.00	0.25	651.73	2001.21	0.00	572.53	288.17	915.89	0.00	590.16	4.97	18.19	0.00	628.48	0.00	0.00	0.00	633.96
+ 30.00	0.50	299.24	950.79	0.00	590.16	4.97	18.19	0.00	628.48	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	0.75	15.13	50.56	0.00	622.23	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	1.00	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	1.25	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	1.50	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	1.75	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	2.00	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	2.25	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 30.00	2.50	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	634.25
+ 40.00	0.00	1604.08	4524.53	0.00	550.69	1531.16	4322.68	0.00	552.18	1262.90	3658.40	0.00	570.73	961.14	2842.14	0.00	570.73
+ 40.00	0.25	1549.06	4371.48	0.00	552.18	1274.46	3691.06	0.00	558.29	961.14	2842.14	0.00	570.73	498.51	1540.31	0.00	584.16
+ 40.00	0.50	1422.45	4069.18	0.00	558.29	984.13	2908.82	0.00	570.73	526.99	1629.75	0.00	582.41	189.79	609.30	0.00	590.16
+ 40.00	0.75	1077.94	3155.52	0.00	570.73	615.66	1892.41	0.00	582.41	215.68	692.64	0.00	590.16	4.97	18.19	0.00	596.41
+ 40.00	1.00	708.63	2164.07	0.00	570.73	323.98	1022.10	0.00	590.16	28.44	94.14	0.00	596.41	0.00	0.00	0.00	631.84
+ 40.00	1.25	458.14	1428.59	0.00	582.41	50.47	165.41	0.00	590.16	0.00	0.00	0.00	628.48	0.00	0.00	0.00	633.96
+ 40.00	1.50	172.88	560.42	0.00	590.16	4.97	18.19	0.00	628.48	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 40.00	1.75	18.27	61.77	0.00	622.23	0.00	0.00	0.00	631.84	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 40.00	2.00	0.00	0.00	0.00	628.48	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 40.00	2.25	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 40.00	2.50	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 50.00	0.00	1621.73	4569.10	0.00	529.78	1604.08	4524.53	0.00	536.20	1544.06	4357.32	0.00	548.10	1519.10	4292.11	0.00	552.18
+ 50.00	0.25	1617.27	4560.13	0.00	531.73	1555.87	4389.59	0.00	548.10	1527.36	4313.57	0.00	552.18	1272.61	3685.05	0.00	570.73
+ 50.00	0.50	1604.08	4524.53	0.00	546.22	1531.81	4325.14	0.00	550.69	1277.47	3699.45	0.00	558.29	926.81	2758.05	0.00	570.73
+ 50.00	0.75	1555.87	4389.59	0.00	550.69	1338.98	3859.49	0.00	556.80	1035.06	3048.15	0.00	570.73	637.49	1947.41	0.00	582.41
+ 50.00	1.00	1437.35	4108.25	0.00	550.69	1162.40	3400.37	0.00	556.80	670.33	2046.71	0.00	582.41	419.38	1305.04	0.00	582.41
+ 50.00	1.25	1279.98	3707.92	0.00	556.80	826.06	2483.38	0.00	570.73	484.21	1504.07	0.00	582.41	116.62	380.27	0.00	590.16
+ 50.00	1.50	1049.36	3087.30	0.00	556.80	548.01	1690.87	0.00	582.41	223.18	716.06	0.00	588.41	18.27	61.77	0.00	596.41
+ 50.00	1.75	708.63	2164.07	0.00	569.24	331.39	1044.39	0.00	582.41	43.27	140.90	0.00	590.16	0.00	0.00	0.00	628.48
+ 50.00	2.00	511.16	1588.37	0.00	580.91	165.87	537.07	0.00	588.41	0.00	0.00	0.00	628.48	0.00	0.00	0.00	631.84
+ 50.00	2.25	308.65	978.96	0.00	588.41	18.27	61.77	0.00	590.16	0.00	0.00	0.00	631.84	0.00	0.00	0.00	633.96
+ 50.00	2.50	172.88	560.42	0.00	588.41	0.00	0.00	0.00	628.48	0.00	0.00	0.00	633.96	0.00	0.00	0.00	633.96
+ 60.00	0.00	1622.60	4571.64	0.00	517.83	1622.60	4571.64	0.00	529.78	1604.63	4526.33	0.00	529.78	1555.87	4389.59	0.00	536.20
+ 60.00	0.25	1622.60	4571.64	0.00	517.83	1617.72	4561.55	0.00	529.78	1561.30	4402.93	0.00	536.20	1538.62	4343.26	0.00	548.10
+ 60.00	0.50	1618.59	4564.09	0.00	519.83	1604.63	4526.33	0.00	531.73	1544.06	4357.32	0.00	548.10	1414.37	4045.97	0.00	556.80
+ 60.00	0.75	1617.72	4561.55	0.00	529.78	1555.87	4389.59	0.00	548.10	1437.35	4108.25	0.00	550.69	1278.12	3701.91	0.00	556.80
+ 60.00	1.00	1604.63	4526.33	0.00	543.63	1543.62	4357.42	0.00	550.69	1286.31	3723.77	0.00	556.80	944.20	2813.05	0.00	570.73
+ 60.00	1.25	1598.64	4511.19	0.00	546.22	1404.19	4020.21	0.00	556.80	1099.67	3238.14	0.00	556.80	653.48	1995.26	0.00	580.61
+ 60.00	1.50	1461.87	4173.56	0.00	550.69	1270.11	3681.47	0.00	556.80	814.80	2446.08	0.00	569.24	528.43	1629.02	0.00	582.41

+	60.00	1.75	1404.19	4020.21	0.00	556.80	1000.89	2961.66	0.00	556.80	554.59	1710.55	0.00	580.91	245.92	781.49	0.00	582.41
+	60.00	2.00	1270.11	3681.47	0.00	556.80	684.69	2091.91	0.00	556.80	473.15	1469.16	0.00	582.41	106.14	344.12	0.00	590.16
+	60.00	2.25	1006.67	2978.18	0.00	556.80	554.59	1710.55	0.00	580.91	173.36	560.49	0.00	588.41	18.27	61.77	0.00	596.41
+	60.00	2.50	708.15	2162.79	0.00	556.80	382.76	1202.09	0.00	580.91	98.94	319.61	0.00	588.41	0.00	0.00	0.00	628.48
+	70.00	0.00	1622.60	4571.64	0.00	505.69	1622.60	4571.64	0.00	517.83	1622.60	4571.64	0.00	529.78	1605.08	4527.74	0.00	529.78
+	70.00	0.25	1622.60	4571.64	0.00	511.72	1622.60	4571.64	0.00	517.83	1618.59	4564.09	0.00	529.78	1561.86	4404.73	0.00	534.25
+	70.00	0.50	1622.60	4571.64	0.00	517.83	1618.59	4564.09	0.00	529.78	1605.08	4527.74	0.00	529.78	1544.06	4357.32	0.00	536.20
+	70.00	0.75	1622.60	4571.64	0.00	517.83	1618.59	4564.09	0.00	529.78	1556.42	4391.39	0.00	531.73	1519.10	4292.11	0.00	548.10
+	70.00	1.00	1618.59	4564.09	0.00	519.83	1605.08	4527.74	0.00	529.78	1543.62	4357.42	0.00	548.10	1304.54	3772.00	0.00	556.80
+	70.00	1.25	1617.72	4561.55	0.00	519.83	1598.64	4511.19	0.00	543.63	1414.37	4045.97	0.00	550.69	1247.01	3623.75	0.00	556.80
+	70.00	1.50	1617.72	4561.55	0.00	521.78	1461.87	4173.56	0.00	550.69	1286.31	3723.77	0.00	556.80	946.55	2821.72	0.00	556.80
+	70.00	1.75	1599.20	4512.99	0.00	543.63	1414.37	4045.97	0.00	556.80	1117.27	3288.17	0.00	556.80	761.48	2294.94	0.00	566.67
+	70.00	2.00	1510.08	4309.22	0.00	546.22	1286.31	3723.77	0.00	556.80	934.33	2790.66	0.00	556.80	539.73	1665.03	0.00	580.91
+	70.00	2.25	1449.16	4140.53	0.00	556.80	1117.27	3288.17	0.00	556.80	658.38	2010.32	0.00	566.67	443.48	1377.96	0.00	580.91
+	70.00	2.50	1304.54	3772.00	0.00	556.80	884.41	2642.61	0.00	556.80	539.73	1665.03	0.00	580.91	173.36	560.49	0.00	588.41

@ REGION	STATE	OGREG
9	MS	2

		IRR	15				20				25				30			
			CO2 Purchased	EOR Oil	CO2 Industrial	CO2 Natural	CO2 Purchased	EOR Oil	CO2 Industrial	CO2 Natural	CO2 Purchased	EOR Oil	CO2 Industrial	CO2 Natural	CO2 Purchased	EOR Oil	CO2 Industrial	CO2 Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	31.48	118.89	0.00	31.45	27.92	105.10	0.00	27.89	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77
+	30.00	0.25	29.68	112.43	0.00	29.65	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77	0.29	3.19	0.00	0.29
+	30.00	0.50	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	0.75	12.03	50.50	0.00	12.02	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	1.00	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	1.25	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	1.50	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	1.75	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	2.00	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	2.25	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	30.00	2.50	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.00	0.00	0.00	0.00
+	40.00	0.00	51.55	192.24	0.00	51.49	50.05	179.78	0.00	50.00	31.48	118.89	0.00	31.45	31.48	118.89	0.00	31.45
+	40.00	0.25	50.05	179.78	0.00	50.00	43.94	162.81	0.00	43.89	31.48	118.89	0.00	31.45	18.04	71.55	0.00	18.02
+	40.00	0.50	43.94	162.81	0.00	43.89	31.48	118.89	0.00	31.45	19.79	78.88	0.00	19.77	12.03	50.50	0.00	12.02
+	40.00	0.75	31.48	118.89	0.00	31.45	19.79	78.88	0.00	19.77	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77
+	40.00	1.00	31.48	118.89	0.00	31.45	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77	2.41	12.30	0.00	2.41
+	40.00	1.25	19.79	78.88	0.00	19.77	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77	0.29	3.19	0.00	0.29
+	40.00	1.50	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	40.00	1.75	12.03	50.50	0.00	12.02	2.41	12.30	0.00	2.41	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	40.00	2.00	5.78	25.23	0.00	5.77	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	40.00	2.25	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	40.00	2.50	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29

+	50.00	0.00	68.01	231.49	0.00	67.94	66.05	226.24	0.00	65.98	54.14	199.03	0.00	54.08	50.05	179.78	0.00	50.00
+	50.00	0.25	66.05	226.24	0.00	65.98	54.14	199.03	0.00	54.08	50.05	179.78	0.00	50.00	31.48	118.89	0.00	31.45
+	50.00	0.50	51.55	192.24	0.00	51.49	51.55	192.24	0.00	51.49	43.94	162.81	0.00	43.89	31.48	118.89	0.00	31.45
+	50.00	0.75	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	31.48	118.89	0.00	31.45	19.79	78.88	0.00	19.77
+	50.00	1.00	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	19.79	78.88	0.00	19.77	19.79	78.88	0.00	19.77
+	50.00	1.25	45.43	175.26	0.00	45.39	31.48	118.89	0.00	31.45	19.79	78.88	0.00	19.77	12.03	50.50	0.00	12.02
+	50.00	1.50	45.43	175.26	0.00	45.39	19.79	78.88	0.00	19.77	13.79	57.84	0.00	13.78	5.78	25.23	0.00	5.77
+	50.00	1.75	32.98	131.34	0.00	32.94	19.79	78.88	0.00	19.77	12.03	50.50	0.00	12.02	5.78	25.23	0.00	5.77
+	50.00	2.00	21.29	91.34	0.00	21.27	13.79	57.84	0.00	13.78	5.78	25.23	0.00	5.77	2.41	12.30	0.00	2.41
+	50.00	2.25	13.79	57.84	0.00	13.78	12.03	50.50	0.00	12.02	2.41	12.30	0.00	2.41	0.29	3.19	0.00	0.29
+	50.00	2.50	13.79	57.84	0.00	13.78	5.78	25.23	0.00	5.77	0.29	3.19	0.00	0.29	0.29	3.19	0.00	0.29
+	60.00	0.00	79.97	281.96	0.00	79.89	68.01	231.49	0.00	67.94	68.01	231.49	0.00	67.94	66.05	226.24	0.00	65.98
+	60.00	0.25	79.97	281.96	0.00	79.89	68.01	231.49	0.00	67.94	66.05	226.24	0.00	65.98	54.14	199.03	0.00	54.08
+	60.00	0.50	77.97	275.50	0.00	77.88	66.05	226.24	0.00	65.98	54.14	199.03	0.00	64.08	45.43	175.26	0.00	45.39
+	60.00	0.75	68.01	231.49	0.00	67.94	54.14	199.03	0.00	54.08	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39
+	60.00	1.00	54.14	199.03	0.00	54.08	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	31.48	118.89	0.00	31.45
+	60.00	1.25	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	21.60	85.34	0.00	21.58
+	60.00	1.50	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	32.98	131.34	0.00	32.94	19.79	78.88	0.00	19.77
+	60.00	1.75	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	21.29	91.34	0.00	21.27	19.79	78.88	0.00	19.77
+	60.00	2.00	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	19.79	78.88	0.00	19.77	12.03	50.50	0.00	12.02
+	60.00	2.25	45.43	175.26	0.00	45.39	21.29	91.34	0.00	21.27	13.79	57.84	0.00	13.78	5.78	25.23	0.00	5.77
+	60.00	2.50	45.43	175.26	0.00	45.39	21.29	91.34	0.00	21.27	13.79	57.84	0.00	13.78	5.78	25.23	0.00	5.77
+	70.00	0.00	86.08	303.36	0.00	85.99	79.97	281.96	0.00	79.89	68.01	231.49	0.00	67.94	68.01	231.49	0.00	67.94
+	70.00	0.25	86.08	303.36	0.00	85.99	79.97	281.96	0.00	79.89	68.01	231.49	0.00	67.94	68.01	231.49	0.00	67.94
+	70.00	0.50	79.97	281.96	0.00	79.89	68.01	231.49	0.00	67.94	68.01	231.49	0.00	67.94	66.05	226.24	0.00	65.98
+	70.00	0.75	79.97	281.96	0.00	79.89	68.01	231.49	0.00	67.94	66.05	226.24	0.00	65.98	54.14	199.03	0.00	54.08
+	70.00	1.00	77.97	275.50	0.00	77.88	68.01	231.49	0.00	67.94	54.14	199.03	0.00	54.08	45.43	175.26	0.00	45.39
+	70.00	1.25	77.97	275.50	0.00	77.88	54.14	199.03	0.00	54.08	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39
+	70.00	1.50	76.01	270.25	0.00	75.93	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39
+	70.00	1.75	54.14	199.03	0.00	54.08	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	35.55	141.71	0.00	35.51
+	70.00	2.00	51.55	192.24	0.00	51.49	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	21.29	91.34	0.00	21.27
+	70.00	2.25	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	35.55	141.71	0.00	35.51	21.29	91.34	0.00	21.27
+	70.00	2.50	45.43	175.26	0.00	45.39	45.43	175.26	0.00	45.39	21.29	91.34	0.00	21.27	13.79	57.84	0.00	13.78

@ REGION	STATE	OGREG
9	AL	2

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+ 30.00	0.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.50	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

+	30.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	40.00	0.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	40.00	0.50	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	40.00	0.75	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	40.00	1.00	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00
+	40.00	1.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.50	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	0.00	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	0.25	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	0.50	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	0.75	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	1.00	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	1.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	1.50	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	50.00	1.75	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00
+	50.00	2.00	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	50.00	2.50	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	60.00	0.00	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07
+	60.00	0.25	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	0.50	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	0.75	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	1.00	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	1.25	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	1.50	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	1.75	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	2.00	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	2.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	60.00	2.50	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	0.00	0.00	0.00	0.00
+	70.00	0.00	42.61	145.23	0.00	42.57	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54
+	70.00	0.25	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07
+	70.00	0.50	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07
+	70.00	0.75	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07

+	70.00	1.00	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	70.00	1.25	36.57	125.65	0.00	36.54	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	70.00	1.50	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	70.00	1.75	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	70.00	2.00	36.57	125.65	0.00	36.54	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	70.00	2.25	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07
+	70.00	2.50	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07	32.10	110.78	0.00	32.07

@ REGION	STATE	OGREG
10	NM	4

		IRR	15				20				25				30			
			CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
			Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	307.96	1107.08	0.00	147.99	244.36	846.58	0.00	147.99	216.44	760.76	0.00	147.99	150.95	537.87	0.00	147.99
+	30.00	0.25	282.96	1024.02	0.00	147.99	216.44	760.76	0.00	147.99	152.11	542.46	0.00	147.99	78.92	318.53	0.00	147.99
+	30.00	0.50	220.90	779.74	0.00	147.99	156.82	557.86	0.00	147.99	80.28	323.74	0.00	147.99	30.62	146.41	0.00	147.99
+	30.00	0.75	161.11	575.66	0.00	147.99	80.28	323.74	0.00	147.99	30.62	146.41	0.00	147.99	21.85	109.56	0.00	147.99
+	30.00	1.00	134.45	477.81	0.00	147.99	30.62	146.41	0.00	147.99	21.85	109.56	0.00	147.99	21.85	109.56	0.00	147.99
+	30.00	1.25	30.62	146.41	0.00	147.99	21.85	109.56	0.00	147.99	21.85	109.56	0.00	147.99	10.02	51.52	0.00	147.99
+	30.00	1.50	26.67	128.76	0.00	147.99	21.85	109.56	0.00	147.99	10.02	51.52	0.00	147.99	0.00	0.00	0.00	147.99
+	30.00	1.75	21.85	109.56	0.00	147.99	10.02	51.52	0.00	147.99	10.02	51.52	0.00	147.99	0.00	0.00	0.00	147.99
+	30.00	2.00	21.85	109.56	0.00	147.99	10.02	51.52	0.00	147.99	0.00	0.00	0.00	147.99	0.00	0.00	0.00	147.99
+	30.00	2.25	10.02	51.52	0.00	147.99	0.00	0.00	0.00	147.99	0.00	0.00	0.00	147.99	0.00	0.00	0.00	147.99
+	30.00	2.50	0.00	0.00	0.00	147.99	0.00	0.00	0.00	147.99	0.00	0.00	0.00	147.99	0.00	0.00	0.00	147.99
+	40.00	0.00	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	312.71	1122.24	0.00	147.99	245.84	852.34	0.00	147.99
+	40.00	0.25	461.15	1674.74	0.00	147.99	333.25	1188.78	0.00	147.99	301.58	1088.73	0.00	147.99	245.84	852.34	0.00	147.99
+	40.00	0.50	423.79	1557.50	0.00	147.99	301.58	1088.73	0.00	147.99	284.45	1029.77	0.00	147.99	220.90	779.74	0.00	147.99
+	40.00	0.75	308.23	1115.85	0.00	147.99	284.45	1029.77	0.00	147.99	220.90	779.74	0.00	147.99	156.39	560.25	0.00	147.99
+	40.00	1.00	301.58	1088.73	0.00	147.99	260.99	962.93	0.00	147.99	160.85	579.23	0.00	147.99	91.25	361.11	0.00	147.99
+	40.00	1.25	260.99	962.93	0.00	147.99	220.90	779.74	0.00	147.99	86.33	348.40	0.00	147.99	37.51	174.30	0.00	147.99
+	40.00	1.50	259.50	957.18	0.00	147.99	95.07	385.17	0.00	147.99	37.51	174.30	0.00	147.99	31.33	149.89	0.00	147.99
+	40.00	1.75	193.37	739.37	0.00	147.99	47.97	215.29	0.00	147.99	36.16	169.10	0.00	147.99	25.80	127.21	0.00	147.99
+	40.00	2.00	95.07	385.17	0.00	147.99	36.16	169.10	0.00	147.99	25.80	127.21	0.00	147.99	21.85	109.56	0.00	147.99
+	40.00	2.25	37.51	174.30	0.00	147.99	30.62	146.41	0.00	147.99	21.85	109.56	0.00	147.99	10.02	51.52	0.00	147.99
+	40.00	2.50	30.62	146.41	0.00	147.99	21.85	109.56	0.00	147.99	21.85	109.56	0.00	147.99	10.02	51.52	0.00	147.99
+	50.00	0.00	616.19	2150.21	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	423.79	1557.50	0.00	147.99
+	50.00	0.25	528.05	1883.22	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	401.11	1491.00	0.00	147.99
+	50.00	0.50	511.51	1838.62	0.00	147.99	461.15	1674.74	0.00	147.99	423.79	1557.50	0.00	147.99	312.98	1131.01	0.00	147.99
+	50.00	0.75	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	401.11	1491.00	0.00	147.99	301.58	1088.73	0.00	147.99
+	50.00	1.00	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	308.23	1115.85	0.00	147.99	260.99	962.93	0.00	147.99
+	50.00	1.25	461.15	1674.74	0.00	147.99	396.37	1475.84	0.00	147.99	284.45	1029.77	0.00	147.99	211.59	752.79	0.00	147.99
+	50.00	1.50	403.52	1499.73	0.00	147.99	308.23	1115.85	0.00	147.99	260.99	962.93	0.00	147.99	210.10	747.04	0.00	147.99
+	50.00	1.75	396.37	1475.84	0.00	147.99	260.99	962.93	0.00	147.99	211.59	752.79	0.00	147.99	101.15	402.47	0.00	147.99

+	50.00	2.00	355.77	1350.04	0.00	147.99	250.19	930.23	0.00	147.99	101.15	402.47	0.00	147.99	52.90	228.01	0.00	147.99
+	50.00	2.25	260.99	962.93	0.00	147.99	189.01	747.71	0.00	147.99	95.07	385.17	0.00	147.99	37.51	174.30	0.00	147.99
+	50.00	2.50	248.71	924.48	0.00	147.99	95.07	385.17	0.00	147.99	37.51	174.30	0.00	147.99	31.33	149.89	0.00	147.99
+	60.00	0.00	637.42	2224.47	0.00	147.99	616.19	2150.21	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99
+	60.00	0.25	637.42	2224.47	0.00	147.99	542.15	1934.68	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99
+	60.00	0.50	616.19	2150.21	0.00	147.99	525.62	1890.08	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99
+	60.00	0.75	616.19	2150.21	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	423.79	1557.50	0.00	147.99
+	60.00	1.00	542.15	1934.68	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	403.52	1499.73	0.00	147.99
+	60.00	1.25	511.51	1838.62	0.00	147.99	461.15	1674.74	0.00	147.99	417.41	1539.15	0.00	147.99	401.11	1491.00	0.00	147.99
+	60.00	1.50	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	403.52	1499.73	0.00	147.99	308.23	1115.85	0.00	147.99
+	60.00	1.75	511.51	1838.62	0.00	147.99	403.52	1499.73	0.00	147.99	396.37	1475.84	0.00	147.99	260.99	962.93	0.00	147.99
+	60.00	2.00	461.15	1674.74	0.00	147.99	403.52	1499.73	0.00	147.99	372.91	1409.00	0.00	147.99	250.19	930.23	0.00	147.99
+	60.00	2.25	403.52	1499.73	0.00	147.99	396.37	1475.84	0.00	147.99	250.19	930.23	0.00	147.99	151.89	576.03	0.00	147.99
+	60.00	2.50	398.78	1484.57	0.00	147.99	372.91	1409.00	0.00	147.99	250.19	930.23	0.00	147.99	101.15	402.47	0.00	147.99
+	70.00	0.00	637.42	2224.47	0.00	147.99	637.42	2224.47	0.00	147.99	621.56	2169.34	0.00	147.99	525.62	1890.08	0.00	147.99
+	70.00	0.25	637.42	2224.47	0.00	147.99	623.56	2177.46	0.00	147.99	542.15	1934.68	0.00	147.99	511.51	1838.62	0.00	147.99
+	70.00	0.50	637.42	2224.47	0.00	147.99	621.56	2169.34	0.00	147.99	525.62	1890.08	0.00	147.99	511.51	1838.62	0.00	147.99
+	70.00	0.75	637.42	2224.47	0.00	147.99	621.56	2169.34	0.00	147.99	525.62	1890.08	0.00	147.99	423.79	1557.50	0.00	147.99
+	70.00	1.00	637.42	2224.47	0.00	147.99	542.15	1934.68	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99
+	70.00	1.25	637.42	2224.47	0.00	147.99	525.62	1890.08	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99
+	70.00	1.50	623.56	2177.46	0.00	147.99	525.62	1890.08	0.00	147.99	423.79	1557.50	0.00	147.99	403.52	1499.73	0.00	147.99
+	70.00	1.75	616.19	2150.21	0.00	147.99	511.51	1838.62	0.00	147.99	423.79	1557.50	0.00	147.99	403.52	1499.73	0.00	147.99
+	70.00	2.00	525.62	1890.08	0.00	147.99	511.51	1838.62	0.00	147.99	403.52	1499.73	0.00	147.99	401.11	1491.00	0.00	147.99
+	70.00	2.25	525.62	1890.08	0.00	147.99	461.15	1674.74	0.00	147.99	403.52	1499.73	0.00	147.99	372.91	1409.00	0.00	147.99
+	70.00	2.50	511.51	1838.62	0.00	147.99	403.52	1499.73	0.00	147.99	398.78	1484.57	0.00	147.99	344.98	1317.34	0.00	147.99

@ REGION STATE OGREG

10 OK 3

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	1157.31	4885.11	21.14	0.00	1110.52	4735.56	21.14	0.00	831.32	3635.41	21.14	0.00	666.30	3058.62	21.14	0.00
+ 30.00	0.25	1110.52	4735.56	21.14	0.00	989.76	4281.47	21.14	0.00	680.17	3113.51	21.14	0.00	540.09	2617.48	21.14	0.00
+ 30.00	0.50	1110.52	4735.56	21.14	0.00	718.28	3272.58	21.14	0.00	540.09	2617.48	21.14	0.00	515.61	2520.72	21.14	0.00
+ 30.00	0.75	724.60	3295.43	21.14	0.00	556.36	2680.79	21.14	0.00	534.49	2594.58	21.14	0.00	457.34	2269.14	21.14	0.00
+ 30.00	1.00	608.35	2894.75	21.14	0.00	540.09	2617.48	21.14	0.00	515.61	2520.72	21.14	0.00	383.25	1936.37	21.14	0.00
+ 30.00	1.25	552.13	2665.69	21.14	0.00	515.61	2520.72	21.14	0.00	383.25	1936.37	21.14	0.00	336.80	1738.16	21.14	0.00
+ 30.00	1.50	515.61	2520.72	21.14	0.00	455.80	2262.47	21.14	0.00	336.80	1738.16	21.14	0.00	251.26	1342.09	21.14	0.00
+ 30.00	1.75	514.06	2514.05	21.14	0.00	336.80	1738.16	21.14	0.00	254.72	1359.39	21.14	0.00	173.82	936.02	21.14	0.00
+ 30.00	2.00	336.80	1738.16	21.14	0.00	277.59	1470.46	21.14	0.00	180.85	970.27	21.14	0.00	148.69	823.63	21.14	0.00
+ 30.00	2.25	277.59	1470.46	21.14	0.00	238.74	1277.96	21.14	0.00	122.34	690.76	21.14	0.00	45.72	267.05	21.14	0.00
+ 30.00	2.50	238.74	1277.96	21.14	0.00	122.34	690.76	21.14	0.00	45.72	267.05	21.14	0.00	20.41	125.58	21.14	0.00
+ 40.00	0.00	1174.70	4959.60	21.14	0.00	1171.99	4951.00	21.14	0.00	1118.33	4759.66	21.14	0.00	1110.52	4735.56	21.14	0.00

+	40.00	0.25	1174.70	4959.60	21.14	0.00	1171.99	4951.00	21.14	0.00	1118.33	4759.66	21.14	0.00	896.44	3928.44	21.14	0.00
+	40.00	0.50	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00	1110.52	4735.56	21.14	0.00	762.28	3478.15	21.14	0.00
+	40.00	0.75	1171.99	4951.00	21.14	0.00	1110.52	4735.56	21.14	0.00	789.73	3588.46	21.14	0.00	690.83	3162.27	21.14	0.00
+	40.00	1.00	1133.02	4825.55	21.14	0.00	1038.05	4474.77	21.14	0.00	755.96	3455.30	21.14	0.00	540.09	2617.48	21.14	0.00
+	40.00	1.25	1110.52	4735.56	21.14	0.00	827.06	3744.96	21.14	0.00	576.07	2764.55	21.14	0.00	540.09	2617.48	21.14	0.00
+	40.00	1.50	1038.05	4474.77	21.14	0.00	646.02	3077.47	21.14	0.00	545.93	2646.35	21.14	0.00	515.61	2520.72	21.14	0.00
+	40.00	1.75	827.06	3744.96	21.14	0.00	576.07	2764.55	21.14	0.00	534.49	2594.58	21.14	0.00	457.34	2269.14	21.14	0.00
+	40.00	2.00	646.02	3077.47	21.14	0.00	545.93	2646.35	21.14	0.00	515.61	2520.72	21.14	0.00	430.62	2148.58	21.14	0.00
+	40.00	2.25	562.20	2709.65	21.14	0.00	515.61	2520.72	21.14	0.00	457.34	2269.14	21.14	0.00	351.48	1802.34	21.14	0.00
+	40.00	2.50	545.93	2646.35	21.14	0.00	515.61	2520.72	21.14	0.00	400.10	2013.36	21.14	0.00	342.04	1760.27	21.14	0.00
+	50.00	0.00	1189.82	5034.13	21.14	0.00	1174.70	4959.60	21.14	0.00	1174.70	4959.60	21.14	0.00	1133.02	4825.55	21.14	0.00
+	50.00	0.25	1189.82	5034.13	21.14	0.00	1174.70	4959.60	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00
+	50.00	0.50	1189.82	5034.13	21.14	0.00	1174.70	4959.60	21.14	0.00	1133.02	4825.55	21.14	0.00	1118.33	4759.66	21.14	0.00
+	50.00	0.75	1178.33	4977.61	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00	1110.52	4735.56	21.14	0.00
+	50.00	1.00	1174.70	4959.60	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00	838.02	3781.76	21.14	0.00
+	50.00	1.25	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00	1110.52	4735.56	21.14	0.00	789.73	3588.46	21.14	0.00
+	50.00	1.50	1171.99	4951.00	21.14	0.00	1125.21	4801.45	21.14	0.00	827.06	3744.96	21.14	0.00	755.96	3455.30	21.14	0.00
+	50.00	1.75	1133.02	4825.55	21.14	0.00	1125.21	4801.45	21.14	0.00	827.06	3744.96	21.14	0.00	646.02	3077.47	21.14	0.00
+	50.00	2.00	1125.21	4801.45	21.14	0.00	830.99	3759.91	21.14	0.00	646.02	3077.47	21.14	0.00	545.93	2646.35	21.14	0.00
+	50.00	2.25	1125.21	4801.45	21.14	0.00	827.06	3744.96	21.14	0.00	646.02	3077.47	21.14	0.00	545.93	2646.35	21.14	0.00
+	50.00	2.50	935.06	4163.88	21.14	0.00	646.02	3077.47	21.14	0.00	545.93	2646.35	21.14	0.00	515.61	2520.72	21.14	0.00
+	60.00	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1174.70	4959.60	21.14	0.00
+	60.00	0.25	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1171.99	4951.00	21.14	0.00
+	60.00	0.50	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1174.70	4959.60	21.14	0.00	1171.99	4951.00	21.14	0.00
+	60.00	0.75	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00
+	60.00	1.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00
+	60.00	1.25	1189.82	5034.13	21.14	0.00	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00	1133.02	4825.55	21.14	0.00
+	60.00	1.50	1189.82	5034.13	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00	1125.21	4801.45	21.14	0.00
+	60.00	1.75	1189.82	5034.13	21.14	0.00	1171.99	4951.00	21.14	0.00	1133.02	4825.55	21.14	0.00	852.71	3847.65	21.14	0.00
+	60.00	2.00	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00	1125.21	4801.45	21.14	0.00	827.06	3744.96	21.14	0.00
+	60.00	2.25	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00	856.64	3862.60	21.14	0.00	755.96	3455.30	21.14	0.00
+	60.00	2.50	1136.65	4843.56	21.14	0.00	1125.21	4801.45	21.14	0.00	841.74	3810.85	21.14	0.00	646.02	3077.47	21.14	0.00
+	70.00	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00
+	70.00	0.25	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00
+	70.00	0.50	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00
+	70.00	0.75	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1186.19	5016.12	21.14	0.00
+	70.00	1.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1171.99	4951.00	21.14	0.00
+	70.00	1.25	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1133.02	4825.55	21.14	0.00
+	70.00	1.50	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00
+	70.00	1.75	1189.82	5034.13	21.14	0.00	1189.82	5034.13	21.14	0.00	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00
+	70.00	2.00	1189.82	5034.13	21.14	0.00	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00	1133.02	4825.55	21.14	0.00
+	70.00	2.25	1189.82	5034.13	21.14	0.00	1187.12	5025.53	21.14	0.00	1133.02	4825.55	21.14	0.00	929.10	4123.40	21.14	0.00
+	70.00	2.50	1189.82	5034.13	21.14	0.00	1148.15	4900.08	21.14	0.00	1133.02	4825.55	21.14	0.00	852.71	3847.65	21.14	0.00

@ REGION	STATE	OGREG
10	KA	3

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	287.25	1208.32	0.00	0.00	281.11	1189.52	0.00	0.00	232.39	1025.16	0.00	0.00	203.11	910.54	0.00	0.00
+ 30.00	0.25	281.11	1189.52	0.00	0.00	232.39	1025.16	0.00	0.00	214.75	956.32	0.00	0.00	191.43	864.84	0.00	0.00
+ 30.00	0.50	232.39	1025.16	0.00	0.00	219.97	973.01	0.00	0.00	191.43	864.84	0.00	0.00	155.34	723.02	0.00	0.00
+ 30.00	0.75	219.97	973.01	0.00	0.00	194.50	879.47	0.00	0.00	155.34	723.02	0.00	0.00	131.61	619.11	0.00	0.00
+ 30.00	1.00	200.49	900.83	0.00	0.00	155.34	723.02	0.00	0.00	131.61	619.11	0.00	0.00	79.14	380.53	0.00	0.00
+ 30.00	1.25	158.41	737.66	0.00	0.00	155.34	723.02	0.00	0.00	127.75	602.36	0.00	0.00	7.84	39.51	0.00	0.00
+ 30.00	1.50	155.34	723.02	0.00	0.00	127.75	602.36	0.00	0.00	52.99	257.28	0.00	0.00	4.60	23.47	0.00	0.00
+ 30.00	1.75	127.75	602.36	0.00	0.00	52.99	257.28	0.00	0.00	7.84	39.51	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.00	127.75	602.36	0.00	0.00	7.84	39.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.25	7.84	39.51	0.00	0.00	4.60	23.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 30.00	2.50	4.60	23.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+ 40.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	281.11	1189.52	0.00	0.00
+ 40.00	0.25	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00
+ 40.00	0.50	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00
+ 40.00	0.75	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	215.53	962.69	0.00	0.00
+ 40.00	1.00	281.11	1189.52	0.00	0.00	232.39	1025.16	0.00	0.00	232.39	1025.16	0.00	0.00	194.50	879.47	0.00	0.00
+ 40.00	1.25	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	200.49	900.83	0.00	0.00	155.34	723.02	0.00	0.00
+ 40.00	1.50	232.39	1025.16	0.00	0.00	203.11	910.54	0.00	0.00	160.79	745.05	0.00	0.00	137.13	642.16	0.00	0.00
+ 40.00	1.75	227.17	1008.47	0.00	0.00	163.86	759.68	0.00	0.00	155.34	723.02	0.00	0.00	131.61	619.11	0.00	0.00
+ 40.00	2.00	200.49	900.83	0.00	0.00	155.34	723.02	0.00	0.00	137.13	642.16	0.00	0.00	79.14	380.53	0.00	0.00
+ 40.00	2.25	158.41	737.66	0.00	0.00	155.34	723.02	0.00	0.00	131.61	619.11	0.00	0.00	52.99	257.28	0.00	0.00
+ 40.00	2.50	158.41	737.66	0.00	0.00	137.13	642.16	0.00	0.00	52.99	257.28	0.00	0.00	7.84	39.51	0.00	0.00
+ 50.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+ 50.00	0.25	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+ 50.00	0.50	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00
+ 50.00	0.75	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00
+ 50.00	1.00	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00
+ 50.00	1.25	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00
+ 50.00	1.50	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	220.75	979.39	0.00	0.00
+ 50.00	1.75	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	232.39	1025.16	0.00	0.00	182.33	828.76	0.00	0.00
+ 50.00	2.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	215.53	962.69	0.00	0.00	160.79	745.05	0.00	0.00
+ 50.00	2.25	232.39	1025.16	0.00	0.00	227.17	1008.47	0.00	0.00	163.86	759.68	0.00	0.00	155.34	723.02	0.00	0.00
+ 50.00	2.50	232.39	1025.16	0.00	0.00	212.91	952.98	0.00	0.00	158.41	737.66	0.00	0.00	137.13	642.16	0.00	0.00
+ 60.00	0.00	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+ 60.00	0.25	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+ 60.00	0.50	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+ 60.00	0.75	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+ 60.00	1.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00

+	60.00	1.25	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	236.67	1041.16	0.00	0.00
+	60.00	1.50	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	242.80	1059.97	0.00	0.00	236.67	1041.16	0.00	0.00
+	60.00	1.75	291.67	1222.35	0.00	0.00	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00
+	60.00	2.00	291.67	1222.35	0.00	0.00	236.67	1041.16	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00
+	60.00	2.25	287.25	1208.32	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	220.75	979.39	0.00	0.00
+	60.00	2.50	236.67	1041.16	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00	194.75	880.91	0.00	0.00
+	70.00	0.00	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	0.25	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	0.50	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	0.75	299.52	1243.90	0.00	0.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	1.00	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	1.25	299.52	1243.90	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	1.50	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00
+	70.00	1.75	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	242.80	1059.97	0.00	0.00
+	70.00	2.00	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	242.80	1059.97	0.00	0.00	236.67	1041.16	0.00	0.00
+	70.00	2.25	291.67	1222.35	0.00	0.00	291.67	1222.35	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00
+	70.00	2.50	291.67	1222.35	0.00	0.00	242.80	1059.97	0.00	0.00	236.67	1041.16	0.00	0.00	232.39	1025.16	0.00	0.00

@ REGION	STATE	OGREG
10	N_LA	2

		IRR		15				20				25				30		
			CO2 Purchased	EOR Oil	Industrial	CO2 Natural	Purchased	EOR Oil	Industrial	CO2 Natural	Purchased	EOR Oil	Industrial	CO2 Natural	Purchased	EOR Oil	Industrial	CO2 Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	419.55	1385.70	0.00	0.00	272.49	947.90	0.00	0.00	214.63	752.84	0.00	0.00	154.03	550.22	0.00	0.00
+	30.00	0.25	238.69	831.39	0.00	0.00	186.39	659.87	0.00	0.00	109.46	411.43	0.00	0.00	73.79	285.64	0.00	0.00
+	30.00	0.50	180.51	640.37	0.00	0.00	99.08	377.41	0.00	0.00	34.60	141.97	0.00	0.00	34.60	141.97	0.00	0.00
+	30.00	0.75	99.08	377.41	0.00	0.00	34.60	141.97	0.00	0.00	29.01	121.34	0.00	0.00	5.14	22.65	0.00	0.00
+	30.00	1.00	34.60	141.97	0.00	0.00	29.01	121.34	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00
+	30.00	1.25	29.01	121.34	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00	1.28	7.09	0.00	0.00
+	30.00	1.50	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00
+	30.00	1.75	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00
+	30.00	2.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00
+	30.00	2.25	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00
+	30.00	2.50	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	1.28	7.09	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	592.07	1906.26	0.00	0.00	536.31	1746.33	0.00	0.00	501.18	1644.60	0.00	0.00	464.66	1513.14	0.00	0.00
+	40.00	0.25	541.30	1762.65	0.00	0.00	490.31	1587.21	0.00	0.00	396.93	1325.98	0.00	0.00	337.60	1149.31	0.00	0.00
+	40.00	0.50	496.09	1628.61	0.00	0.00	382.33	1283.13	0.00	0.00	310.08	1073.57	0.00	0.00	237.86	837.09	0.00	0.00
+	40.00	0.75	382.33	1283.13	0.00	0.00	305.42	1059.16	0.00	0.00	225.95	799.21	0.00	0.00	161.89	576.97	0.00	0.00
+	40.00	1.00	289.58	1009.51	0.00	0.00	225.95	799.21	0.00	0.00	127.37	471.94	0.00	0.00	73.79	285.64	0.00	0.00
+	40.00	1.25	208.22	732.65	0.00	0.00	110.59	416.61	0.00	0.00	73.79	285.64	0.00	0.00	53.04	209.79	0.00	0.00
+	40.00	1.50	107.18	404.89	0.00	0.00	73.79	285.64	0.00	0.00	34.60	141.97	0.00	0.00	16.15	66.92	0.00	0.00
+	40.00	1.75	73.79	285.64	0.00	0.00	34.60	141.97	0.00	0.00	16.15	66.92	0.00	0.00	5.14	22.65	0.00	0.00
+	40.00	2.00	34.60	141.97	0.00	0.00	29.01	121.34	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00

+	40.00	2.25	29.01	121.34	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00
+	40.00	2.50	10.57	46.29	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00	5.14	22.65	0.00	0.00
+	50.00	0.00	635.30	2021.00	0.00	0.00	626.95	1993.13	0.00	0.00	620.21	1970.99	0.00	0.00	575.08	1855.93	0.00	0.00
+	50.00	0.25	629.40	2001.49	0.00	0.00	623.01	1980.27	0.00	0.00	575.08	1855.93	0.00	0.00	525.11	1710.86	0.00	0.00
+	50.00	0.50	598.81	1928.40	0.00	0.00	562.40	1828.64	0.00	0.00	533.37	1737.89	0.00	0.00	481.88	1564.73	0.00	0.00
+	50.00	0.75	571.43	1853.50	0.00	0.00	533.37	1737.89	0.00	0.00	434.22	1430.02	0.00	0.00	383.94	1287.26	0.00	0.00
+	50.00	1.00	552.10	1796.43	0.00	0.00	430.20	1418.08	0.00	0.00	368.79	1242.76	0.00	0.00	308.61	1069.48	0.00	0.00
+	50.00	1.25	447.11	1471.30	0.00	0.00	349.86	1192.59	0.00	0.00	308.61	1069.48	0.00	0.00	243.99	856.40	0.00	0.00
+	50.00	1.50	349.86	1192.59	0.00	0.00	310.08	1073.57	0.00	0.00	225.95	799.21	0.00	0.00	139.63	512.30	0.00	0.00
+	50.00	1.75	302.25	1049.41	0.00	0.00	225.95	799.21	0.00	0.00	139.63	512.30	0.00	0.00	87.06	331.33	0.00	0.00
+	50.00	2.00	247.53	870.83	0.00	0.00	139.63	512.30	0.00	0.00	81.18	311.82	0.00	0.00	53.04	209.79	0.00	0.00
+	50.00	2.25	157.68	574.41	0.00	0.00	81.18	311.82	0.00	0.00	53.04	209.79	0.00	0.00	34.60	141.97	0.00	0.00
+	50.00	2.50	103.24	391.67	0.00	0.00	53.04	209.79	0.00	0.00	34.60	141.97	0.00	0.00	16.15	66.92	0.00	0.00
+	60.00	0.00	689.81	2191.84	0.00	0.00	652.58	2066.75	0.00	0.00	629.40	2001.49	0.00	0.00	626.95	1993.13	0.00	0.00
+	60.00	0.25	655.32	2075.50	0.00	0.00	636.25	2023.43	0.00	0.00	629.40	2001.49	0.00	0.00	623.01	1980.27	0.00	0.00
+	60.00	0.50	644.58	2047.33	0.00	0.00	629.40	2001.49	0.00	0.00	626.95	1993.13	0.00	0.00	575.08	1855.93	0.00	0.00
+	60.00	0.75	636.89	2025.37	0.00	0.00	601.26	1936.77	0.00	0.00	592.07	1906.26	0.00	0.00	537.39	1729.90	0.00	0.00
+	60.00	1.00	634.31	2017.74	0.00	0.00	594.87	1915.55	0.00	0.00	538.00	1731.75	0.00	0.00	454.54	1493.02	0.00	0.00
+	60.00	1.25	601.26	1936.77	0.00	0.00	562.40	1828.64	0.00	0.00	457.34	1502.60	0.00	0.00	403.42	1345.04	0.00	0.00
+	60.00	1.50	574.24	1862.78	0.00	0.00	462.33	1518.92	0.00	0.00	403.42	1345.04	0.00	0.00	324.71	1118.62	0.00	0.00
+	60.00	1.75	528.71	1710.71	0.00	0.00	411.68	1372.07	0.00	0.00	329.53	1131.39	0.00	0.00	279.74	972.02	0.00	0.00
+	60.00	2.00	421.48	1404.89	0.00	0.00	338.14	1157.50	0.00	0.00	308.61	1069.48	0.00	0.00	238.07	835.71	0.00	0.00
+	60.00	2.25	358.13	1219.62	0.00	0.00	308.61	1069.48	0.00	0.00	245.06	860.45	0.00	0.00	144.28	526.71	0.00	0.00
+	60.00	2.50	311.15	1077.62	0.00	0.00	244.23	859.69	0.00	0.00	157.36	578.86	0.00	0.00	90.48	343.04	0.00	0.00
+	70.00	0.00	709.90	2254.47	0.00	0.00	693.46	2202.01	0.00	0.00	654.29	2072.11	0.00	0.00	643.26	2039.59	0.00	0.00
+	70.00	0.25	706.59	2245.11	0.00	0.00	658.84	2086.96	0.00	0.00	645.96	2048.21	0.00	0.00	635.25	2020.17	0.00	0.00
+	70.00	0.50	696.56	2215.00	0.00	0.00	654.29	2072.11	0.00	0.00	635.25	2020.17	0.00	0.00	629.40	2001.49	0.00	0.00
+	70.00	0.75	690.65	2194.39	0.00	0.00	636.25	2023.43	0.00	0.00	634.31	2017.74	0.00	0.00	598.81	1928.40	0.00	0.00
+	70.00	1.00	685.64	2178.21	0.00	0.00	635.30	2021.00	0.00	0.00	601.26	1936.77	0.00	0.00	586.92	1890.07	0.00	0.00
+	70.00	1.25	644.58	2047.33	0.00	0.00	606.17	1953.01	0.00	0.00	598.81	1928.40	0.00	0.00	538.00	1731.75	0.00	0.00
+	70.00	1.50	635.30	2021.00	0.00	0.00	601.26	1936.77	0.00	0.00	540.81	1741.03	0.00	0.00	480.05	1565.82	0.00	0.00
+	70.00	1.75	607.76	1957.38	0.00	0.00	578.18	1875.63	0.00	0.00	492.58	1604.48	0.00	0.00	411.68	1372.07	0.00	0.00
+	70.00	2.00	585.53	1900.24	0.00	0.00	537.67	1731.56	0.00	0.00	411.68	1372.07	0.00	0.00	369.09	1248.60	0.00	0.00
+	70.00	2.25	562.01	1833.18	0.00	0.00	453.13	1491.42	0.00	0.00	377.36	1275.64	0.00	0.00	319.32	1102.17	0.00	0.00
+	70.00	2.50	484.21	1587.76	0.00	0.00	411.68	1372.07	0.00	0.00	320.70	1106.69	0.00	0.00	275.51	959.14	0.00	0.00

@ REGION	STATE	OGREG
11	UT	5

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	203.43	651.09	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	87.30	315.63	0.00	0.00
+ 30.00	0.25	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00

+	30.00	0.50	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00
+	30.00	0.75	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00
+	30.00	1.00	78.11	288.25	0.00	0.00	78.11	288.25	0.00	0.00	78.11	288.25	0.00	0.00	78.11	288.25	0.00	0.00
+	30.00	1.25	65.75	251.21	0.00	0.00	65.75	251.21	0.00	0.00	65.75	251.21	0.00	0.00	65.75	251.21	0.00	0.00
+	30.00	1.50	16.49	67.34	0.00	0.00	16.49	67.34	0.00	0.00	16.49	67.34	0.00	0.00	16.49	67.34	0.00	0.00
+	30.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	30.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
+	40.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	40.00	0.25	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	40.00	0.50	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	40.00	0.75	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00
+	40.00	1.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00
+	40.00	1.25	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00	106.66	387.39	0.00	0.00
+	40.00	1.50	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00
+	40.00	1.75	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00
+	40.00	2.00	82.05	312.02	0.00	0.00	82.05	312.02	0.00	0.00	82.05	312.02	0.00	0.00	82.05	312.02	0.00	0.00
+	40.00	2.25	65.75	251.21	0.00	0.00	65.75	251.21	0.00	0.00	65.75	251.21	0.00	0.00	65.75	251.21	0.00	0.00
+	40.00	2.50	16.49	67.34	0.00	0.00	16.49	67.34	0.00	0.00	16.49	67.34	0.00	0.00	16.49	67.34	0.00	0.00
+	50.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	50.00	0.25	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	50.00	0.50	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	50.00	0.75	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	50.00	1.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	50.00	1.25	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00
+	50.00	1.50	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00
+	50.00	1.75	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00
+	50.00	2.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00
+	50.00	2.25	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00
+	50.00	2.50	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00	94.41	349.05	0.00	0.00
+	60.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	0.25	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	0.50	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	0.75	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	1.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	1.25	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	1.50	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	1.75	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	60.00	2.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00
+	60.00	2.25	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00
+	60.00	2.50	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00	130.66	476.92	0.00	0.00
+	70.00	0.00	237.18	768.34	0.00	0.00	237.18	768.34	0.00	0.00	237.18	768.34	0.00	0.00	237.18	768.34	0.00	0.00
+	70.00	0.25	233.37	756.22	0.00	0.00	233.37	756.22	0.00	0.00	233.37	756.22	0.00	0.00	233.37	756.22	0.00	0.00

+	70.00	0.50	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	0.75	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	1.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	1.25	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	1.50	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	1.75	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	2.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	2.25	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00	227.44	740.62	0.00	0.00
+	70.00	2.50	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00	223.75	732.17	0.00	0.00

@ REGION	STATE	OGREG
11	WY	5

		IRR	15				20				25				30			
			CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
			Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	229.77	904.17	100.42	0.00	200.11	812.49	100.42	0.00	163.43	689.44	100.42	0.00	145.98	627.86	100.42	0.00
+	30.00	0.25	200.11	812.49	100.42	0.00	200.11	812.49	100.42	0.00	200.11	812.49	100.42	0.00	200.11	812.49	100.42	0.00
+	30.00	0.50	171.21	718.78	100.42	0.00	171.21	718.78	100.42	0.00	171.21	718.78	100.42	0.00	171.21	718.78	100.42	0.00
+	30.00	0.75	142.51	616.64	100.42	0.00	142.51	616.64	100.42	0.00	142.51	616.64	100.42	0.00	142.51	616.64	100.42	0.00
+	30.00	1.00	85.07	407.92	100.42	0.00	85.07	407.92	100.42	0.00	85.07	407.92	100.42	0.00	85.07	407.92	100.42	0.00
+	30.00	1.25	50.84	279.48	100.42	0.00	50.84	279.48	100.42	0.00	50.84	279.48	100.42	0.00	50.84	279.48	100.42	0.00
+	30.00	1.50	33.93	207.51	100.42	0.00	33.93	207.51	100.42	0.00	33.93	207.51	100.42	0.00	33.93	207.51	100.42	0.00
+	30.00	1.75	22.76	160.56	100.42	0.00	22.76	160.56	100.42	0.00	22.76	160.56	100.42	0.00	22.76	160.56	100.42	0.00
+	30.00	2.00	19.44	146.50	100.42	0.00	19.44	146.50	100.42	0.00	19.44	146.50	100.42	0.00	19.44	146.50	100.42	0.00
+	30.00	2.25	15.82	131.02	100.42	0.00	15.82	131.02	100.42	0.00	15.82	131.02	100.42	0.00	15.82	131.02	100.42	0.00
+	30.00	2.50	2.53	28.28	100.42	0.00	2.53	28.28	100.42	0.00	2.53	28.28	100.42	0.00	2.53	28.28	100.42	0.00
+	40.00	0.00	313.11	1126.51	100.42	0.00	313.11	1126.51	100.42	0.00	313.11	1126.51	100.42	0.00	313.11	1126.51	100.42	0.00
+	40.00	0.25	287.90	1083.06	100.42	0.00	287.90	1083.06	100.42	0.00	287.90	1083.06	100.42	0.00	287.90	1083.06	100.42	0.00
+	40.00	0.50	261.31	1000.81	100.42	0.00	261.31	1000.81	100.42	0.00	261.31	1000.81	100.42	0.00	261.31	1000.81	100.42	0.00
+	40.00	0.75	215.71	863.22	100.42	0.00	215.71	863.22	100.42	0.00	215.71	863.22	100.42	0.00	215.71	863.22	100.42	0.00
+	40.00	1.00	200.78	815.03	100.42	0.00	200.78	815.03	100.42	0.00	200.78	815.03	100.42	0.00	200.78	815.03	100.42	0.00
+	40.00	1.25	178.04	743.04	100.42	0.00	178.04	743.04	100.42	0.00	178.04	743.04	100.42	0.00	178.04	743.04	100.42	0.00
+	40.00	1.50	163.03	693.58	100.42	0.00	163.03	693.58	100.42	0.00	163.03	693.58	100.42	0.00	163.03	693.58	100.42	0.00
+	40.00	1.75	124.10	553.12	100.42	0.00	124.10	553.12	100.42	0.00	124.10	553.12	100.42	0.00	124.10	553.12	100.42	0.00
+	40.00	2.00	75.73	376.32	100.42	0.00	75.73	376.32	100.42	0.00	75.73	376.32	100.42	0.00	75.73	376.32	100.42	0.00
+	40.00	2.25	56.35	302.37	100.42	0.00	56.35	302.37	100.42	0.00	56.35	302.37	100.42	0.00	56.35	302.37	100.42	0.00
+	40.00	2.50	44.44	253.13	100.42	0.00	44.44	253.13	100.42	0.00	44.44	253.13	100.42	0.00	44.44	253.13	100.42	0.00
+	50.00	0.00	348.38	1222.90	100.42	0.00	348.38	1222.90	100.42	0.00	348.38	1222.90	100.42	0.00	348.38	1222.90	100.42	0.00
+	50.00	0.25	346.36	1218.64	100.42	0.00	346.36	1218.64	100.42	0.00	346.36	1218.64	100.42	0.00	346.36	1218.64	100.42	0.00
+	50.00	0.50	299.73	1117.52	100.42	0.00	299.73	1117.52	100.42	0.00	299.73	1117.52	100.42	0.00	299.73	1117.52	100.42	0.00
+	50.00	0.75	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00
+	50.00	1.00	266.43	1015.18	100.42	0.00	266.43	1015.18	100.42	0.00	266.43	1015.18	100.42	0.00	266.43	1015.18	100.42	0.00
+	50.00	1.25	255.80	984.45	100.42	0.00	255.80	984.45	100.42	0.00	255.80	984.45	100.42	0.00	255.80	984.45	100.42	0.00

+	50.00	1.50	211.03	849.96	100.42	0.00	211.03	849.96	100.42	0.00	211.03	849.96	100.42	0.00	211.03	849.96	100.42	0.00
+	50.00	1.75	193.06	792.47	100.42	0.00	193.06	792.47	100.42	0.00	193.06	792.47	100.42	0.00	193.06	792.47	100.42	0.00
+	50.00	2.00	178.71	745.58	100.42	0.00	178.71	745.58	100.42	0.00	178.71	745.58	100.42	0.00	178.71	745.58	100.42	0.00
+	50.00	2.25	164.59	699.52	100.42	0.00	164.59	699.52	100.42	0.00	164.59	699.52	100.42	0.00	164.59	699.52	100.42	0.00
+	50.00	2.50	141.62	616.43	100.42	0.00	141.62	616.43	100.42	0.00	141.62	616.43	100.42	0.00	141.62	616.43	100.42	0.00
+	60.00	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00
+	60.00	0.25	348.38	1222.90	100.42	0.00	348.38	1222.90	100.42	0.00	348.38	1222.90	100.42	0.00	348.38	1222.90	100.42	0.00
+	60.00	0.50	346.36	1218.64	100.42	0.00	346.36	1218.64	100.42	0.00	346.36	1218.64	100.42	0.00	346.36	1218.64	100.42	0.00
+	60.00	0.75	324.26	1184.01	100.42	0.00	324.26	1184.01	100.42	0.00	324.26	1184.01	100.42	0.00	324.26	1184.01	100.42	0.00
+	60.00	1.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00
+	60.00	1.25	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00
+	60.00	1.50	284.96	1076.39	100.42	0.00	284.96	1076.39	100.42	0.00	284.96	1076.39	100.42	0.00	284.96	1076.39	100.42	0.00
+	60.00	1.75	257.13	989.09	100.42	0.00	257.13	989.09	100.42	0.00	257.13	989.09	100.42	0.00	257.13	989.09	100.42	0.00
+	60.00	2.00	234.68	924.25	100.42	0.00	234.68	924.25	100.42	0.00	234.68	924.25	100.42	0.00	234.68	924.25	100.42	0.00
+	60.00	2.25	211.03	849.96	100.42	0.00	211.03	849.96	100.42	0.00	211.03	849.96	100.42	0.00	211.03	849.96	100.42	0.00
+	60.00	2.50	194.62	798.48	100.42	0.00	194.62	798.48	100.42	0.00	194.62	798.48	100.42	0.00	194.62	798.48	100.42	0.00
+	70.00	0.00	368.32	1245.17	100.42	0.00	368.32	1245.17	100.42	0.00	368.32	1245.17	100.42	0.00	368.32	1245.17	100.42	0.00
+	70.00	0.25	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00
+	70.00	0.50	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00
+	70.00	0.75	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00	350.40	1230.14	100.42	0.00
+	70.00	1.00	324.26	1184.01	100.42	0.00	324.26	1184.01	100.42	0.00	324.26	1184.01	100.42	0.00	324.26	1184.01	100.42	0.00
+	70.00	1.25	315.06	1161.30	100.42	0.00	315.06	1161.30	100.42	0.00	315.06	1161.30	100.42	0.00	315.06	1161.30	100.42	0.00
+	70.00	1.50	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00
+	70.00	1.75	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00	313.27	1157.11	100.42	0.00
+	70.00	2.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00	297.94	1113.33	100.42	0.00
+	70.00	2.25	274.34	1045.67	100.42	0.00	274.34	1045.67	100.42	0.00	274.34	1045.67	100.42	0.00	274.34	1045.67	100.42	0.00
+	70.00	2.50	257.13	989.09	100.42	0.00	257.13	989.09	100.42	0.00	257.13	989.09	100.42	0.00	257.13	989.09	100.42	0.00

@ REGION STATE OGREG

12 CO 5

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	119.66	508.86	37.00	0.00	118.93	505.71	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00
+ 30.00	0.25	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+ 30.00	0.50	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+ 30.00	0.75	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00
+ 30.00	1.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00
+ 30.00	1.25	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00
+ 30.00	1.50	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00
+ 30.00	1.75	6.98	31.22	37.00	0.00	6.98	31.22	37.00	0.00	6.98	31.22	37.00	0.00	6.98	31.22	37.00	0.00
+ 30.00	2.00	6.98	31.22	37.00	0.00	6.98	31.22	37.00	0.00	6.98	31.22	37.00	0.00	6.98	31.22	37.00	0.00
+ 30.00	2.25	0.00	0.00	37.00	0.00	0.00	0.00	37.00	0.00	0.00	0.00	37.00	0.00	0.00	0.00	37.00	0.00

+	30.00	2.50	0.00	0.00	37.00	0.00	0.00	0.00	37.00	0.00	0.00	0.00	37.00	0.00	0.00	0.00	37.00	0.00
+	40.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00
+	40.00	0.25	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00
+	40.00	0.50	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	40.00	0.75	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	40.00	1.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	40.00	1.25	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	40.00	1.50	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	40.00	1.75	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00
+	40.00	2.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00
+	40.00	2.25	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00	118.93	505.71	37.00	0.00
+	40.00	2.50	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00	115.58	488.17	37.00	0.00
+	50.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	50.00	0.25	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	50.00	0.50	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00
+	50.00	0.75	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00
+	50.00	1.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00	130.41	548.41	37.00	0.00
+	50.00	1.25	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	50.00	1.50	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	50.00	1.75	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	50.00	2.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	50.00	2.25	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	50.00	2.50	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	60.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	60.00	0.25	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	60.00	0.50	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	60.00	0.75	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	60.00	1.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	60.00	1.25	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	60.00	1.50	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00
+	60.00	1.75	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00
+	60.00	2.00	127.59	541.42	37.00	0.00	127.59	541.42	37.00	0.00	127.59	541.42	37.00	0.00	127.59	541.42	37.00	0.00
+	60.00	2.25	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	60.00	2.50	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00	119.66	508.86	37.00	0.00
+	70.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	0.25	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	0.50	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	0.75	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	1.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	1.25	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	1.50	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	1.75	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	2.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00
+	70.00	2.25	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00	142.42	595.42	37.00	0.00

+	70.00	2.50	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00	138.35	580.98	37.00	0.00

@ REGION	STATE	OGREG
13	CA	6

		IRR	15				20				25				30			
			CO2 Purchased	CO2 EOR Oil	CO2 Industrial	CO2 Natural	CO2 Purchased	CO2 EOR Oil	CO2 Industrial	CO2 Natural	CO2 Purchased	CO2 EOR Oil	CO2 Industrial	CO2 Natural	CO2 Purchased	CO2 EOR Oil	CO2 Industrial	CO2 Natural
@ OIL PRC	CO2 PRC		(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+	30.00	0.00	1182.97	4741.38	0.00	0.00	1138.08	4567.86	0.00	0.00	982.94	4029.59	0.00	0.00	651.23	2843.96	0.00	0.00
+	30.00	0.25	1151.83	4621.31	0.00	0.00	891.42	3742.68	0.00	0.00	651.23	2843.96	0.00	0.00	466.64	2118.41	0.00	0.00
+	30.00	0.50	886.84	3722.78	0.00	0.00	652.05	2858.48	0.00	0.00	395.01	2015.10	0.00	0.00	172.19	1058.85	0.00	0.00
+	30.00	0.75	602.42	2822.95	0.00	0.00	386.16	1982.06	0.00	0.00	166.72	1018.02	0.00	0.00	64.05	576.34	0.00	0.00
+	30.00	1.00	392.00	2016.16	0.00	0.00	177.09	1079.59	0.00	0.00	64.05	576.34	0.00	0.00	50.68	496.27	0.00	0.00
+	30.00	1.25	325.55	1712.24	0.00	0.00	144.62	923.32	0.00	0.00	51.68	504.63	0.00	0.00	39.53	429.50	0.00	0.00
+	30.00	1.50	159.31	1003.58	0.00	0.00	64.05	576.34	0.00	0.00	39.53	429.50	0.00	0.00	31.58	389.39	0.00	0.00
+	30.00	1.75	59.05	540.53	0.00	0.00	39.53	429.50	0.00	0.00	31.58	389.39	0.00	0.00	26.16	335.71	0.00	0.00
+	30.00	2.00	48.61	482.46	0.00	0.00	31.58	389.39	0.00	0.00	31.58	389.39	0.00	0.00	26.16	335.71	0.00	0.00
+	30.00	2.25	39.53	429.50	0.00	0.00	31.58	389.39	0.00	0.00	26.16	335.71	0.00	0.00	26.16	335.71	0.00	0.00
+	30.00	2.50	31.58	389.39	0.00	0.00	31.58	389.39	0.00	0.00	24.91	325.70	0.00	0.00	16.96	260.27	0.00	0.00
+	40.00	0.00	1371.11	5419.13	0.00	0.00	1322.31	5234.21	0.00	0.00	1280.44	5076.52	0.00	0.00	1193.74	4773.94	0.00	0.00
+	40.00	0.25	1347.23	5326.76	0.00	0.00	1289.36	5117.49	0.00	0.00	1201.72	4805.24	0.00	0.00	1145.16	4596.52	0.00	0.00
+	40.00	0.50	1313.69	5216.77	0.00	0.00	1273.09	5068.87	0.00	0.00	1145.16	4596.52	0.00	0.00	911.56	3824.48	0.00	0.00
+	40.00	0.75	1292.04	5145.49	0.00	0.00	1170.95	4701.73	0.00	0.00	911.56	3824.48	0.00	0.00	718.63	3117.74	0.00	0.00
+	40.00	1.00	1195.99	4806.67	0.00	0.00	929.32	3892.91	0.00	0.00	725.55	3139.21	0.00	0.00	573.32	2570.76	0.00	0.00
+	40.00	1.25	943.37	3951.20	0.00	0.00	791.82	3503.67	0.00	0.00	563.85	2665.13	0.00	0.00	242.71	1387.81	0.00	0.00
+	40.00	1.50	826.12	3644.19	0.00	0.00	604.71	2831.02	0.00	0.00	381.42	1974.69	0.00	0.00	213.99	1258.25	0.00	0.00
+	40.00	1.75	633.44	2948.58	0.00	0.00	471.70	2328.23	0.00	0.00	217.08	1280.84	0.00	0.00	161.93	1013.74	0.00	0.00
+	40.00	2.00	502.33	2454.94	0.00	0.00	219.82	1292.35	0.00	0.00	159.31	1003.58	0.00	0.00	64.05	576.34	0.00	0.00
+	40.00	2.25	392.00	2016.16	0.00	0.00	187.69	1155.84	0.00	0.00	69.16	616.48	0.00	0.00	54.61	526.63	0.00	0.00
+	40.00	2.50	205.32	1233.20	0.00	0.00	69.16	616.48	0.00	0.00	54.61	526.63	0.00	0.00	48.46	495.68	0.00	0.00
+	50.00	0.00	1401.28	5488.28	0.00	0.00	1401.28	5488.28	0.00	0.00	1362.34	5370.52	0.00	0.00	1303.36	5157.59	0.00	0.00
+	50.00	0.25	1401.28	5488.28	0.00	0.00	1375.43	5428.78	0.00	0.00	1327.68	5256.87	0.00	0.00	1289.36	5117.49	0.00	0.00
+	50.00	0.50	1375.43	5428.78	0.00	0.00	1361.91	5390.04	0.00	0.00	1308.31	5194.11	0.00	0.00	1289.36	5117.49	0.00	0.00
+	50.00	0.75	1371.11	5419.13	0.00	0.00	1333.24	5286.65	0.00	0.00	1289.36	5117.49	0.00	0.00	1251.76	4983.99	0.00	0.00
+	50.00	1.00	1361.91	5390.04	0.00	0.00	1313.69	5216.77	0.00	0.00	1267.34	5046.75	0.00	0.00	1148.80	4610.63	0.00	0.00
+	50.00	1.25	1346.32	5344.91	0.00	0.00	1292.04	5145.49	0.00	0.00	1176.72	4727.31	0.00	0.00	918.65	3853.14	0.00	0.00
+	50.00	1.50	1297.42	5168.15	0.00	0.00	1250.53	4992.65	0.00	0.00	918.65	3853.14	0.00	0.00	779.62	3360.13	0.00	0.00
+	50.00	1.75	1280.60	5114.05	0.00	0.00	957.39	4011.73	0.00	0.00	889.48	3747.75	0.00	0.00	604.71	2831.02	0.00	0.00
+	50.00	2.00	1152.79	4685.16	0.00	0.00	835.69	3684.15	0.00	0.00	635.73	2956.65	0.00	0.00	463.11	2290.38	0.00	0.00
+	50.00	2.25	866.90	3810.31	0.00	0.00	684.55	3138.81	0.00	0.00	513.46	2496.05	0.00	0.00	242.71	1387.81	0.00	0.00
+	50.00	2.50	847.50	3736.86	0.00	0.00	604.71	2831.02	0.00	0.00	381.42	1974.69	0.00	0.00	217.08	1280.84	0.00	0.00
+	60.00	0.00	1413.60	5518.68	0.00	0.00	1410.19	5504.31	0.00	0.00	1401.28	5488.28	0.00	0.00	1401.28	5488.28	0.00	0.00
+	60.00	0.25	1413.60	5518.68	0.00	0.00	1401.28	5488.28	0.00	0.00	1401.28	5488.28	0.00	0.00	1375.43	5428.78	0.00	0.00
+	60.00	0.50	1404.69	5502.65	0.00	0.00	1401.28	5488.28	0.00	0.00	1375.43	5428.78	0.00	0.00	1327.68	5256.87	0.00	0.00

+	60.00	0.75	1404.69	5502.65	0.00	0.00	1375.43	5428.78	0.00	0.00	1361.91	5390.04	0.00	0.00	1308.31	5194.11	0.00	0.00
+	60.00	1.00	1375.43	5428.78	0.00	0.00	1371.11	5419.13	0.00	0.00	1326.78	5275.02	0.00	0.00	1289.36	5117.49	0.00	0.00
+	60.00	1.25	1371.11	5419.13	0.00	0.00	1347.91	5349.94	0.00	0.00	1313.69	5216.77	0.00	0.00	1271.02	5062.08	0.00	0.00
+	60.00	1.50	1371.11	5419.13	0.00	0.00	1346.32	5344.91	0.00	0.00	1292.04	5145.49	0.00	0.00	1260.68	5024.96	0.00	0.00
+	60.00	1.75	1347.91	5349.94	0.00	0.00	1326.78	5275.02	0.00	0.00	1260.68	5024.96	0.00	0.00	1074.28	4396.74	0.00	0.00
+	60.00	2.00	1346.32	5344.91	0.00	0.00	1297.42	5168.15	0.00	0.00	1132.60	4595.77	0.00	0.00	929.81	3899.69	0.00	0.00
+	60.00	2.25	1330.05	5296.29	0.00	0.00	1269.47	5069.27	0.00	0.00	950.21	3983.94	0.00	0.00	704.55	3217.53	0.00	0.00
+	60.00	2.50	1310.51	5226.40	0.00	0.00	1012.13	4198.61	0.00	0.00	848.25	3739.24	0.00	0.00	670.69	3088.63	0.00	0.00
+	70.00	0.00	1441.22	5564.62	0.00	0.00	1433.52	5546.01	0.00	0.00	1413.60	5518.68	0.00	0.00	1410.19	5504.31	0.00	0.00
+	70.00	0.25	1441.22	5564.62	0.00	0.00	1413.60	5518.68	0.00	0.00	1413.60	5518.68	0.00	0.00	1401.28	5488.28	0.00	0.00
+	70.00	0.50	1413.60	5518.68	0.00	0.00	1404.69	5502.65	0.00	0.00	1401.28	5488.28	0.00	0.00	1401.28	5488.28	0.00	0.00
+	70.00	0.75	1413.60	5518.68	0.00	0.00	1404.69	5502.65	0.00	0.00	1375.43	5428.78	0.00	0.00	1375.43	5428.78	0.00	0.00
+	70.00	1.00	1404.69	5502.65	0.00	0.00	1404.69	5502.65	0.00	0.00	1375.43	5428.78	0.00	0.00	1361.91	5390.04	0.00	0.00
+	70.00	1.25	1404.69	5502.65	0.00	0.00	1378.83	5443.15	0.00	0.00	1371.11	5419.13	0.00	0.00	1326.78	5275.02	0.00	0.00
+	70.00	1.50	1378.83	5443.15	0.00	0.00	1371.11	5419.13	0.00	0.00	1346.32	5344.91	0.00	0.00	1313.69	5216.77	0.00	0.00
+	70.00	1.75	1374.51	5433.50	0.00	0.00	1371.11	5419.13	0.00	0.00	1346.32	5344.91	0.00	0.00	1308.31	5194.11	0.00	0.00
+	70.00	2.00	1374.51	5433.50	0.00	0.00	1347.91	5349.94	0.00	0.00	1326.78	5275.02	0.00	0.00	1279.63	5101.58	0.00	0.00
+	70.00	2.25	1371.11	5419.13	0.00	0.00	1346.32	5344.91	0.00	0.00	1295.34	5161.36	0.00	0.00	1245.20	4958.65	0.00	0.00
+	70.00	2.50	1347.91	5349.94	0.00	0.00	1346.32	5344.91	0.00	0.00	1285.01	5124.24	0.00	0.00	1012.13	4198.61	0.00	0.00

@ REGION	STATE	OGREG
14	AK	11

IRR		15				20				25				30			
		CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2	CO2		CO2	CO2
		Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural	Purchased	EOR Oil	Industrial	Natural
@ OIL PRC CO2	PRC	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)	(MMmt)	(MMbbl)	(MMmt)	(MMmt)
+ 30.00	0.00	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	0.25	1585.86	7283.31	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	0.50	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	0.75	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	1.00	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	1.25	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	1.50	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	1.75	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	2.00	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	2.25	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 30.00	2.50	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 40.00	0.00	2044.88	9315.78	0.00	264.27	1728.05	7840.98	0.00	264.27	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27
+ 40.00	0.25	1803.49	8111.94	0.00	264.27	1613.35	7398.81	0.00	264.27	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27
+ 40.00	0.50	1719.10	7814.76	0.00	264.27	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27	0.00	0.00	0.00	264.27
+ 40.00	0.75	1683.08	7680.22	0.00	264.27	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27
+ 40.00	1.00	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 40.00	1.25	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+ 40.00	1.50	1585.86	7283.31	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27

+	40.00	1.75	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+	40.00	2.00	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+	40.00	2.25	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+	40.00	2.50	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+	50.00	0.00	2235.29	9982.21	0.00	264.27	2093.52	9548.73	0.00	264.27	1803.49	8111.94	0.00	264.27	1594.82	7309.53	0.00	264.27
+	50.00	0.25	2214.25	9912.99	0.00	264.27	2083.46	9504.51	0.00	264.27	1728.05	7840.98	0.00	264.27	1585.86	7283.31	0.00	264.27
+	50.00	0.50	2186.00	9832.36	0.00	264.27	2029.11	9269.04	0.00	264.27	1683.08	7680.22	0.00	264.27	1585.86	7283.31	0.00	264.27
+	50.00	0.75	2093.52	9548.73	0.00	264.27	1944.71	8971.86	0.00	264.27	1585.86	7283.31	0.00	264.27	1585.86	7283.31	0.00	264.27
+	50.00	1.00	2067.69	9457.77	0.00	264.27	1690.63	7711.51	0.00	264.27	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27
+	50.00	1.25	2020.15	9242.82	0.00	264.27	1613.35	7398.81	0.00	264.27	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27
+	50.00	1.50	1944.71	8971.86	0.00	264.27	1585.86	7283.31	0.00	264.27	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27
+	50.00	1.75	1690.63	7711.51	0.00	264.27	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27	0.00	0.00	0.00	264.27
+	50.00	2.00	1613.35	7398.81	0.00	264.27	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27
+	50.00	2.25	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+	50.00	2.50	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27	0.00	0.00	0.00	264.27	0.00	0.00	0.00	264.27
+	60.00	0.00	2242.07	10000.43	0.00	264.27	2239.37	9993.73	0.00	264.27	2214.25	9912.99	0.00	264.27	2044.88	9315.78	0.00	264.27
+	60.00	0.25	2242.07	10000.43	0.00	264.27	2214.25	9912.99	0.00	264.27	2093.52	9548.73	0.00	264.27	2029.11	9269.04	0.00	264.27
+	60.00	0.50	2239.37	9993.73	0.00	264.27	2214.25	9912.99	0.00	264.27	2083.46	9504.51	0.00	264.27	1699.59	7737.73	0.00	264.27
+	60.00	0.75	2231.27	9972.12	0.00	264.27	2093.52	9548.73	0.00	264.27	2029.11	9269.04	0.00	264.27	1683.08	7680.22	0.00	264.27
+	60.00	1.00	2214.25	9912.99	0.00	264.27	2093.52	9548.73	0.00	264.27	1953.67	8998.08	0.00	264.27	1585.86	7283.31	0.00	264.27
+	60.00	1.25	2186.00	9832.36	0.00	264.27	2067.69	9457.77	0.00	264.27	1690.63	7711.51	0.00	264.27	1585.86	7283.31	0.00	264.27
+	60.00	1.50	2093.52	9548.73	0.00	264.27	2058.73	9431.55	0.00	264.27	1632.06	7479.41	0.00	264.27	1585.86	7283.31	0.00	264.27
+	60.00	1.75	2077.75	9501.99	0.00	264.27	1944.71	8971.86	0.00	264.27	1585.86	7283.31	0.00	264.27	1585.86	7283.31	0.00	264.27
+	60.00	2.00	2058.73	9431.55	0.00	264.27	1916.24	8868.61	0.00	264.27	1585.86	7283.31	0.00	264.27	1585.86	7283.31	0.00	264.27
+	60.00	2.25	1983.29	9160.59	0.00	264.27	1632.06	7479.41	0.00	264.27	1585.86	7283.31	0.00	264.27	85.27	395.60	0.00	264.27
+	60.00	2.50	1944.71	8971.86	0.00	264.27	1585.86	7283.31	0.00	264.27	1585.86	7283.31	0.00	264.27	63.15	292.24	0.00	264.27
+	70.00	0.00	2247.85	10017.38	0.00	264.27	2242.07	10000.43	0.00	264.27	2242.07	10000.43	0.00	264.27	2121.78	9629.36	0.00	264.27
+	70.00	0.25	2247.85	10017.38	0.00	264.27	2242.07	10000.43	0.00	264.27	2236.48	9985.37	0.00	264.27	2121.78	9629.36	0.00	264.27
+	70.00	0.50	2242.07	10000.43	0.00	264.27	2239.37	9993.73	0.00	264.27	2214.25	9912.99	0.00	264.27	2093.52	9548.73	0.00	264.27
+	70.00	0.75	2242.07	10000.43	0.00	264.27	2231.27	9972.12	0.00	264.27	2121.78	9629.36	0.00	264.27	2067.69	9457.77	0.00	264.27
+	70.00	1.00	2239.37	9993.73	0.00	264.27	2231.27	9972.12	0.00	264.27	2093.52	9548.73	0.00	264.27	2029.11	9269.04	0.00	264.27
+	70.00	1.25	2231.27	9972.12	0.00	264.27	2214.25	9912.99	0.00	264.27	2077.75	9501.99	0.00	264.27	1916.24	8868.61	0.00	264.27
+	70.00	1.50	2231.27	9972.12	0.00	264.27	2093.52	9548.73	0.00	264.27	2067.69	9457.77	0.00	264.27	1908.70	8837.32	0.00	264.27
+	70.00	1.75	2214.25	9912.99	0.00	264.27	2093.52	9548.73	0.00	264.27	2020.15	9242.82	0.00	264.27	1632.06	7479.41	0.00	264.27
+	70.00	2.00	2186.00	9832.36	0.00	264.27	2077.75	9501.99	0.00	264.27	1916.24	8868.61	0.00	264.27	1585.86	7283.31	0.00	264.27
+	70.00	2.25	2093.52	9548.73	0.00	264.27	2058.73	9431.55	0.00	264.27	1908.70	8837.32	0.00	264.27	1585.86	7283.31	0.00	264.27
#	70.00	2.50	2068.79	9475.76	0.00	264.27	1983.29	9160.59	0.00	264.27	1632.06	7479.41	0.00	264.27	1585.86	7283.31	0.00	264.27

APPENDIX E. CO2MM MODEL RUN SETUP

Current version of CO2MM is compatible with NEMS AEO2008 version only. Any CO2MM run setup must start with the base case AEO 2008 scedes. The following file pathes need to be updated (or added) in the AEO 2008 scedes:

INTEGRATING MODEL/ FTAB: main.obj, filer.obj, dict.txt, varlist.txt, restart.unf;

PMM: refine.obj, refrpt.obj, refeth.obj, mpsnrm.txt;

EMM: uecp.obj, emmcntl.txt, ecpdat.txt;

OGSM: wellogs.obj, wellrep.obj;

CO2MM: co2mm.obj.

In order to run the carbon tax case the path to corresponding epmcntl.txt and epmdata.txt need to be also updated.

EX2 switch must be turned on to run CO2MM model.

The default scripts directory needs to be updated to include the run submitter script modifications.

All the modified source code needs to be re-compiled with CO2MM co2mminc and co2mmout include files.

A typical CO2MM run should be run for 60-90 cycles.

SAMPLE SCEDES FILE

CO2MMN=d:/co2mm/source/co2mm.obj

REFINEN=d:/co2mm/source/refine.obj

REFRPTN=d:/co2mm/source/refrpt.obj

REFETHN=d:/co2mm/source/refeth.obj

MPSNRMN=d:/co2mm/input/mpsnrm052908.txt

UECPN=d:/co2mm/source/uecp.obj

EMMCNTLN=d:/co2mm//input/emmcntl.txt

ECPDATN=d:/co2mm/input/ecpdat.co2mmhnuc.txt

WELLOGSN=d:/co2mm/source/wellogs.obj

WELLREPN=d:/co2mm/source/wellrep.obj

MAINN=d:/co2mm/source/main.obj

FILERN=d:/co2mm/source/filer.obj

DICTN=d:/co2mm/buildit/dict.txt

VARLISTN=d:/co2mm/newrestart/varlist.txt

EPMCNTLN=d:/co2mm/input/epmcntl.taxtest.txt

EPMDATAN=d:/co2mm/input/epmdata.taxtest.txt

```
RESTARTN=d:/co2mm /newrestart/restart.co2mm.unf
TABREQN=d:/co2mm/input/tabreq.txt
EX2=1
EXW=0
EXM=0
EXR=0
EXK=0
EXI=0
EXT=0
EXE=0
EXC=0
EXL=0
EXG=0
EXO=0
EXN=0
EXH=0
RUNEPM=1
NRUNS=1
DBDUMP=1
PACK=0
DOEMALL=0
DOAMINOF=2
OFFSET10=16
OFFSET16=10
HOLD=0
LASTYR=2030
MAXITRJR=1
MAXITR=6
MAXITRSR=9
WALLSW=1
COMPRESS=0
RUNCOB=0
RELEASE=0
```

RANTORTF=0

ORD2=8

ORDW=1

ORDM=2

ORDR=4

ORDK=5

ORDI=6

ORDT=7

ORDE=9

ORDC=3

ORDL=10

ORDG=11

ORDO=12

ORDN=13

ORDH=14

PRTDBGW=0

PRTDBGM=0

PRTDBGR=0

PRTDBGK=0

PRTDBGI=0

PRTDBGT=0

PRTDBGE=0

PRTDBGC=0

PRTDBGL=1

PRTDBGG=0

PRTDBGO=0

PRTDBGN=0

PRTDBGH=0

FIRSYR=1990

FRCTOL=.05

ABSTOL=20.

RLXPC=.666

NYRS=3

```
I4SITE=2
I4SCNT=2
IRELAX=2
ITIMNG=1
WWOP=2
MMAC=2
TTECH=2
NRGBILL=1
CAFE=0
CAFEMEET=0
MACTAX=0
MACTXYR=2006
HISTORY=0
MODELON=1
HGSTRUCT=1
ECPSTART=2
ECPACT=0
ECPBASIS=0
STSCALNG=0
FIXAKMD=0
IMULTBM=1
HIRENEW=0
LORENEW=0
STEONG=1
NGDEMAND=1
COMMENT=....
CLEANUP=d:/default/scripts/cleanup.sh
MACFDBK=1
ELASSW=0
DSMSWTCH=0
FUNFMT=1
FMTON=nulline
FMTOFF=nullstr
```

EXPNGPRD=1750
EXPNGPRC=900
EXPNGGRW=20
EXPNGEXP=70
EXPNGIPT=350
EXPNGEX2=130
EMMRENEW=1
ETHTECH=0
OGTECADJ=0
OGACCESS=0
OGHIST=1
OGIPPR=0
OGTECH=1
OGFORE=0
OGMEXICO=0
OGLNGCST=100
OGCONADJ=0
OGUNCADJ=0
EUEDEXP=0
WOPA2015=30
WOPA2030=30
WOPA_ONE=30
WOPA_TWO=30
JUMPYR=2030
WOPLIMIT=2602
IRESTRP=0
MNDBGCV=0
WGTGUESS=50
WELLPF=1
PFGUESS=50
RRSLRECL=550
PPY=nulline
PPN=nullstr

RENEWBM=0

RENEWGE=0

RENEWWI=0

RENEWMS=2

ETTDBGI=nulline

ETTDBGC=nullstr

OGNOTECH=0

BMYREXP=1996

MIDTERM=0

MIDITR=2

STEOBM=1

PMM3RGN=1

IPMM=1

CTLSEQSW=0

YEARPR=2006

CUMCAP=2006

CUMPROD=2006

ELGREXP=50

ORACLESW=0

ORCLECP=0

ORCLEFD=0

ORCLEFP=0

ORCLCL=0

ORCLPMM=0

COLDFUSE=0

TRANEFF=0

BEHAVE=2

LADYFILE=4

NGCANOVR=0

FTABCOLS=28

FTABCOLW=6

FTABREG=0

FOOTNOTE=0

FTAB1ST=2003

FTABLAST=2030

FTABGROW=0,1999

FTABSKIP=0,2020

FTABWK1=1

FTABCARB=co2

MINSCORE=3.93

FGRAPH=1

SHFILE=filemgr.shell

SHJCL=jcl.shell

SHOPT=moreopt.shell

SSCRIPT=qnems.shell

OMLVERS=vers41dllb

LNKINEMS=1

LAYOUTN=D:/AEO2008CD-03-08/input/layout.txt

TABREQN=D:/AEO2008CD-03-08/input/tabreq.txt

VARLISTN=D:/AEO2008CD-03-08/input/varlist.txt

MCPARMSN=D:/AEO2008CD-03-08/input/mcparms.txt

EMMCNTLN=D:/AEO2008CD-03-08/input/emmcntl.txt

SO2CNTLN=D:/AEO2008CD-03-08/input/so2cntl.txt

ELGNRCRN=D:/AEO2008CD-03-08/input/elgnrcr.txt

ELDATYRN=D:/AEO2008CD-03-08/input/eldatyr.txt

INDRUNN=D:/AEO2008CD-03-08/input/indrun.txt

ENPRODN=D:/AEO2008CD-03-08/input/enprod.txt

WHYDRON=D:/AEO2008CD-03-08/input/whydro.txt

CLNODESN=D:/AEO2008CD-03-08/input/clnodes.txt

CLCONTN=D:/AEO2008CD-03-08/input/clcont.txt

KTECHN=D:/AEO2008CD-03-08/input/ktech.wk1

KPARMN=D:/AEO2008CD-03-08/input/kparm.txt

KFLSPCN=D:/AEO2008CD-03-08/input/kflspc.txt

KVINTN=D:/AEO2008CD-03-08/input/kvint.txt

KSHEFFN=D:/AEO2008CD-03-08/input/ksheff.txt

CRDCURVN=D:/AEO2008CD-03-08/input/crdcurv.txt

OMSECONN=D:/AEO2008CD-03-08/input/omsecon.txt
PRDCURVN=D:/AEO2008CD-03-08/input/prdcurv.txt
OMSREFN=D:/AEO2008CD-03-08/input/omsref.txt
CLPARAMN=D:/AEO2008CD-03-08/input/clparam.txt
CLRATESN=D:/AEO2008CD-03-08/input/clrates.txt
CLUSERN=D:/AEO2008CD-03-08/input/cluser.txt
ELCGPURN=D:/AEO2008CD-03-08/input/elcgpur.txt
RFHISTN=D:/AEO2008CD-03-08/input/rfhist.txt
QDCRDCFN=D:/AEO2008CD-03-08/input/qdcrdcf.txt
RFCTRLN=D:/AEO2008CD-03-08/input/rfctrl.txt
RFINVESTN=D:/AEO2008CD-03-08/input/rfinvest.txt
MU1PRDSN=D:/AEO2008CD-03-08/input/mu1prds.txt
MU2PRDSN=D:/AEO2008CD-03-08/input/mu2prds.txt
SPRFLRTN=D:/AEO2008CD-03-08/input/sprflrt.txt
CLSHAREN=D:/AEO2008CD-03-08/input/clshare.txt
KBEHAVN=D:/AEO2008CD-03-08/input/kbehav.txt
KCAPFACN=D:/AEO2008CD-03-08/input/kcapfac.txt
KPREMN=D:/AEO2008CD-03-08/input/kprem.txt
PLNTDAFN=D:/AEO2008CD-03-08/input/plntdaf.daf
MPSPMMN=d:/aeo2007/input/mpspmm.txt
FINREGN=D:/AEO2008CD-03-08/input/finreg.txt
EFPTAXN=D:/AEO2008CD-03-08/input/efptax.txt
EFPALLN=D:/AEO2008CD-03-08/input/efpall.txt
EFPCNTLN=D:/AEO2008CD-03-08/input/efpcntl.txt
PHASEINN=D:/AEO2008CD-03-08/input/phasein.txt
SALELBN=D:/AEO2008CD-03-08/input/salelb.txt
ACTPMM2N=D:/AEO2008CD-03-08/input/actpmm2.act
BASPMM1N=d:/default/input/baspmm1.v1.7.txt
BASPMM2N=D:/AEO2008CD-03-08/input/baspmm2.dat
LDSMDAFN=D:/AEO2008CD-03-08/input/ldsmdaf.daf
KINTENSN=D:/AEO2008CD-03-08/input/kintens.txt
MSWDATN=D:/AEO2008CD-03-08/input/mswdat.txt
MNCNVRGN=D:/AEO2008CD-03-08/input/mncnvrg.txt

WESAREAN=D:/AEO2008CD-03-08/input/wesarea.txt
WESTECHN=D:/AEO2008CD-03-08/input/westech.txt
WESLICEN=D:/AEO2008CD-03-08/input/weslice.txt
KDELEFFN=D:/AEO2008CD-03-08/input/kdeleff.txt
KOFFPENN=D:/AEO2008CD-03-08/input/koffpen.txt
KHURELAN=D:/AEO2008CD-03-08/input/khurela.txt
KEMFACN=D:/AEO2008CD-03-08/input/kemfac.txt
WETOHINN=D:/AEO2008CD-03-08/input/wetohin.txt
RFRENEWN=D:/AEO2008CD-03-08/input/rfrenew.txt
SOLARINN=D:/AEO2008CD-03-08/input/solarin.txt
KRENEWN=D:/AEO2008CD-03-08/input/krenew.txt
BASEMMON=D:/AEO2008CD-03-08/input/basemmo.txt
BASEMMIN=D:/AEO2008CD-03-08/input/basemmi.dat
LDSMSTRN=D:/AEO2008CD-03-08/input/ldsmstr.txt
WGEEIADN=D:/AEO2008CD-03-08/input/wgeeiad.txt
WGEPARMN=D:/AEO2008CD-03-08/input/wgeparm.txt
WGESITEN=D:/AEO2008CD-03-08/input/wgesite.txt
BAXPMM1N=d:/default/input/baxpmm1.v1.7.txt
BAXPMM2N=D:/AEO2008CD-03-08/input/baxpmm2.dat
ECPDATN=D:/AEO2008CD-03-08/input/ecpdat.txt
ETTINN=D:/AEO2008CD-03-08/input/ettin.txt
ETTDEMN=D:/AEO2008CD-03-08/input/ettdem.daf
KSDELAN=D:/AEO2008CD-03-08/input/ksdela.txt
LDSMRRSN=D:/AEO2008CD-03-08/input/ldsmrrs.daf
LDSMCRSN=D:/AEO2008CD-03-08/input/ldsmcrs.daf
KBLDGN=D:/AEO2008CD-03-08/input/kbldg.txt
CLEXFRTN=D:/AEO2008CD-03-08/input/clexfrt.txt
CLEXDEMN=D:/AEO2008CD-03-08/input/clexdem.txt
CLEXSO2N=D:/AEO2008CD-03-08/input/clexso2.txt
CLEXSUPN=D:/AEO2008CD-03-08/input/clexsup.txt
CLEXIMSN=D:/AEO2008CD-03-08/input/cleXims.txt
CLEXEXSN=D:/AEO2008CD-03-08/input/clexexs.txt
RSHTSHRN=D:/AEO2008CD-03-08/input/rshtshr.txt

RSUEC10N=D:/AEO2008CD-03-08/input/rsuec10.txt
RSUEC11N=D:/AEO2008CD-03-08/input/rsuec11.txt
NUGPIPEN=D:/AEO2008CD-03-08/input/nugpipe.txt
EXSTCAPN=D:/AEO2008CD-03-08/input/exstcap.txt
PLANCAPN=D:/AEO2008CD-03-08/input/plancap.txt
EPMCNTLN=D:/AEO2008CD-03-08/input/epmcntl.txt
EPMDATAN=D:/AEO2008CD-03-08/input/epmdata.txt
KDSSTMN=D:/AEO2008CD-03-08/input/kdsstm.txt
KDSEFFN=D:/AEO2008CD-03-08/input/kdseff.txt
KDSFSN=D:/AEO2008CD-03-08/input/kdsfs.txt
RTEKCLN=D:/AEO2008CD-03-08/input/rtekcl.txt
RTEKTYN=D:/AEO2008CD-03-08/input/rtekty.txt
PRETTINN=D:/AEO2008CD-03-08/input/prettin.txt
ETCNCTN=D:/AEO2008CD-03-08/input/etcnct.txt
CANSPLYN=D:/AEO2008CD-03-08/input/cansply.v1.4.txt
PLTF860N=D:/AEO2008CD-03-08/input/pltf860.v1.125.txt
PLTDATAN=D:/AEO2008CD-03-08/input/pltdata.v1.12.txt
LGRGNMEN=D:/AEO2008CD-03-08/input/lgrgnme.txt
RSEFF01N=D:/AEO2008CD-03-08/input/rseff01.txt
KMINFLN=D:/AEO2008CD-03-08/input/kminfl.txt
SICGENN=D:/AEO2008CD-03-08/input/sicgen.txt
RSSTEON=D:/AEO2008CD-03-08/input/rssteo.txt
INDSTEON=D:/AEO2008CD-03-08/input/indsteo.txt
KSTEON=D:/AEO2008CD-03-08/input/ksteo.txt
RSRET01N=D:/AEO2008CD-03-08/input/rsret01.txt
WLALASKAN=D:/AEO2008CD-03-08/input/wlalaska.txt
WLBASICN=D:/AEO2008CD-03-08/input/wlbasic.txt
WLIMPN=D:/AEO2008CD-03-08/input/wlimp.txt
WLLNGN=D:/AEO2008CD-03-08/input/wllng.txt
WLLOW48N=D:/AEO2008CD-03-08/input/wllow48.txt
WLOFFN=D:/AEO2008CD-03-08/input/wloff.txt
WLEORN=D:/AEO2008CD-03-08/input/wleor.txt
RMISCN=D:/AEO2008CD-03-08/input/rmisc.txt

HEMDBINN=D:/AEO2008CD-03-08/input/hemdbin.txt
HEMPARMN=D:/AEO2008CD-03-08/input/hemparm.txt
KCALNUGN=D:/AEO2008CD-03-08/input/kcalnug.txt
KCALTRNN=D:/AEO2008CD-03-08/input/kcaltrn.txt
KPREM5N=D:/AEO2008CD-03-08/input/kprem5.txt
ITRNLOGN=D:/AEO2008CD-03-08/input/itrnlog.txt
ITLBSHRN=D:/AEO2008CD-03-08/input/itlbshr.txt
RSSQRFTN=D:/AEO2008CD-03-08/input/rssqrft.txt
FTAB05N=D:/AEO2008CD-03-08/input/ftab05.txt
MPSNRMN=D:/AEO2008CD-03-08/input/mpsnrm.txt
CANOUTN=D:/AEO2008CD-03-08/input/canout.daf
WODSUPPN=D:/AEO2008CD-03-08/input/wodsupp.txt
WODTECHN=D:/AEO2008CD-03-08/input/wodtech.txt
KDEGDAYN=D:/AEO2008CD-03-08/input/kdegday.txt
FRMCHRGN=D:/AEO2008CD-03-08/input/frmchrg.v1.3.txt
KVARSDIN=D:/AEO2008CD-03-08/input/kvarsdi.txt
RELDLSRN=D:/AEO2008CD-03-08/input/reldlsr.v1.2.txt
ALL1LSRN=D:/AEO2008CD-03-08/input/all1lsr.v1.1.txt
LDSMCALN=D:/AEO2008CD-03-08/input/ldsmcal.v1.1.txt
KCOGENN=D:/AEO2008CD-03-08/input/kcogen.txt
CODES123N=D:/AEO2008CD-03-08/input/codes123.txt
TRNINPUTN=D:/AEO2008CD-03-08/input/trninput.wk1
INDPALOGN=D:/AEO2008CD-03-08/input/indpalog.wk1
RSEQP93N=D:/AEO2008CD-03-08/input/rseqp93.txt
ACEINPUTN=D:/AEO2008CD-03-08/input/aceinput.wk1
CFSTOCKN=D:/AEO2008CD-03-08/input/cfstock.wk1
WFLOORSN=D:/AEO2008CD-03-08/input/wfloors.txt
RTEKTYCN=D:/AEO2008CD-03-08/input/rtektyc.txt
RTEKCLCN=D:/AEO2008CD-03-08/input/rtekclc.txt
RENDATN=D:/AEO2008CD-03-08/input/rendat.txt
RSHTSH95N=D:/AEO2008CD-03-08/input/rshtsh95.txt
INDCSCN=D:/AEO2008CD-03-08/input/indcsc.txt
EINTLRNN=D:/AEO2008CD-03-08/input/eintlrn.txt

STIFDATAN=D:/AEO2008CD-03-08/input/stifdata.txt
WLUGRN=D:/AEO2008CD-03-08/input/wlugr.txt
WLGSMN=D:/AEO2008CD-03-08/input/wlgsm.txt
WLTGMN=D:/AEO2008CD-03-08/input/wltgm.txt
NGCANN=D:/AEO2008CD-03-08/input/ngcan.txt
NGCAPN=D:/AEO2008CD-03-08/input/ngcap.txt
NGDTARN=D:/AEO2008CD-03-08/input/ngdtar.txt
NGHISANN=D:/AEO2008CD-03-08/input/nghisan.txt
NGHISMNN=D:/AEO2008CD-03-08/input/nghismn.txt
NGMAPN=D:/AEO2008CD-03-08/input/ngmap.txt
NGMISCN=D:/AEO2008CD-03-08/input/ngmisc.txt
NGPTARN=D:/AEO2008CD-03-08/input/ngptar.txt
NGUSERN=D:/AEO2008CD-03-08/input/nguser.txt
PRODFLOWN=D:/AEO2008CD-03-08/input/prodflow.txt
EMMDBDEFN=D:/AEO2008CD-03-08/input/emmdbdef.txt
RGENTKN=D:/AEO2008CD-03-08/input/rgentk.txt
KGENTKN=D:/AEO2008CD-03-08/input/kgentk.txt
ICOGENN=D:/AEO2008CD-03-08/input/icogen.wk1
RSSTKEFFN=D:/AEO2008CD-03-08/input/rsstkeff.txt
RFPRDIMPN=D:/AEO2008CD-03-08/input/rfprdimp.txt
EFPDATAN=D:/AEO2008CD-03-08/input/efpdata.v1.1.txt
TRDCNTLN=d:/default/input/trdcntl.v1.1.txt
ITECHN=D:/AEO2008CD-03-08/input/itech.txt
VEHSALESN=D:/AEO2008CD-03-08/input/vehsales.wk1
NHTSALDTN=D:/AEO2008CD-03-08/input/nhtsaldt.txt
NHTSALDVN=D:/AEO2008CD-03-08/input/nhtsaldv.txt
NHTSAN=D:/AEO2008CD-03-08/input/nhtsa.wk1
FEMHISTN=D:/AEO2008CD-03-08/input/femhist.wk1
CITATIONN=D:/AEO2008CD-03-08/input/citation.txt
MNEXSTEON=D:/AEO2008CD-03-08/input/mnexsteo.txt
CMMDBDEFN=D:/AEO2008CD-03-08/input/cmmdbdef.txt
MCEVCODEN=D:/AEO2008CD-03-08/input/mcevcode.txt
MCDRIVERN=D:/AEO2008CD-03-08/input/mcdriver.wk1

MCEVWORKN=d:/aeo2008/mac/mcevwork.wf1
MCEVIOMDN=d:/aeo2008/mac/mceviomd.wf1
MCEVSUBSN=D:/AEO2008CD-03-08/input/mcevsubs.prg
MASTERN=D:/AEO2008CD-03-08/input/master.cr
TEMFCTRN=D:/AEO2008CD-03-08/input/temfctr.txt
INDBEUN=D:/AEO2008CD-03-08/input/indbeu.txt
MCCOMFLRN=D:/AEO2008CD-03-08/input/mccomflr.wk1
MCBASEN=D:/AEO2008CD-03-08/input/mcbase.wk1
MCRGBASEN=D:/AEO2008CD-03-08/input/mcrgbase.wk1
CLHISTN=D:/AEO2008CD-03-08/input/clhist.txt
MNCVFACTN=D:/AEO2008CD-03-08/input/mncvfact.wk1
EMMDBN=D:/AEO2008CD-03-08/input/emmdb.mdb
WLHISTN=D:/AEO2008CD-03-08/input/wlhist.txt
MCEVEPMDN=d:/aeo2008/mac/mcevepmd.wf1
MACFACTN=d:/default/input/macfact.v1.1.wk1
MOTORSN=D:/AEO2008CD-03-08/input/motors.wk1
COMFLOORN=D:/AEO2008CD-03-08/input/comfloor.xls
OFFSETSN=D:/AEO2008CD-03-08/input/offsets.wk1
HYDSITEN=D:/AEO2008CD-03-08/input/hydsite.txt
MCHIGHLON=D:/AEO2008CD-03-08/input/mchighlo.xls
NGMISCCNN=D:/AEO2008CD-03-08/input/ngmisccn.txt
NGHISMNCN=D:/AEO2008CD-03-08/input/nghismnc.txt
NGCAPCNN=D:/AEO2008CD-03-08/input/ngcapcn.txt
NGDTARCNN=D:/AEO2008CD-03-08/input/ngdtarcn.txt
WCCANN=D:/AEO2008CD-03-08/input/wccan.txt
WCUGRN=D:/AEO2008CD-03-08/input/wcugr.txt
WCDRILLN=D:/AEO2008CD-03-08/input/wcdrill.txt
NGLNGDATN=D:/AEO2008CD-03-08/input/nglngdat.txt
WCPROFN=D:/AEO2008CD-03-08/input/wcprof.txt
WCSUCRTN=D:/AEO2008CD-03-08/input/wcsucrt.txt
WCPRODN=D:/AEO2008CD-03-08/input/wcprod.txt
WCMISCN=D:/AEO2008CD-03-08/input/wcmisc.txt
WCTAXRTN=D:/AEO2008CD-03-08/input/wctaxrt.txt

WCLEOPN=D:/AEO2008CD-03-08/input/wcleop.txt
WCSCHEDN=D:/AEO2008CD-03-08/input/wcsched.txt
MINICANN=D:/AEO2008CD-03-08/input/minican.txt
GLFN=D:/AEO2008CD-03-08/input/glf.txt
BASEFDIN=D:/AEO2008CD-03-08/input/basefdi.dat
BASCMMIN=D:/AEO2008CD-03-08/input/bascmmi.dat
HMMCNTLN=D:/AEO2008CD-03-08/input/hmmcntl.v1.1.txt
HMMINDATN=D:/AEO2008CD-03-08/input/hmmindat.v1.1.txt
PMMDBN=D:/AEO2008CD-03-08/input/pmmdb.mdb
ICCNVRGN=D:/AEO2008CD-03-08/input/iccnvrg.txt
WCDCFUSN=D:/AEO2008CD-03-08/input/wcdcfus.txt
OMSINPUTN=D:/AEO2008CD-03-08/input/omsinput.wk1
QSBLKN=D:/AEO2008CD-03-08/input/qsblk.txt
MAINN=d:/co2mm/source/aeo/main.obj
NGTDMN=d:/co2mm/source/aeo/ngtdm.obj
NGPTMN=d:/co2mm/source/aeo/ngptm.obj
NGHISTN=d:/co2mm/source/aeo/nghist.obj
NGITMN=d:/co2mm/source/aeo/ngitm.obj
WELLOGSN=d:/co2mm/source/aeo/wellogs.obj
WELLOFFN=d:/co2mm/source/aeo/welloff.obj
WELLIMPN=d:/co2mm/source/aeo/wellimp.obj
WELLEORN=d:/co2mm/source/aeo/welleor.obj
WELLCOSTN=d:/aeo2007/source/wellcost.obj
WELLDCFN=d:/co2mm/source/aeo/welldcf.obj
WELLEXPN=d:/aeo2007/source/wellexp.obj
WELLREPN=d:/co2mm/source/aeo/wellrep.obj
WELLAKN=d:/co2mm/source/aeo/wellak.obj
UTILN=d:/co2mm/source/aeo/util.obj
UDATN=d:/co2mm/source/aeo/udat.obj
UREADN=d:/co2mm/source/aeo/uread.obj
UDAFN=d:/co2mm/source/aeo/udaf.obj
UEFDN=d:/co2mm/source/aeo/uefd.obj
UECPN=d:/co2mm/source/aeo/uecp.obj

UEFPN=d:/co2mm/source/aeo/uefp.obj
UNUGSN=d:/co2mm/source/aeo/unugs.obj
ULDSMN=d:/co2mm/source/aeo/uldsm.obj
UCAPEN=d:/co2mm/source/aeo/ucape.obj
RENEWN=d:/co2mm/source/aeo/renew.obj
WORLDN=d:/co2mm/source/aeo/world.obj
REFINEN=d:/co2mm/source/aeo/refine.obj
REFETHN=d:/co2mm/source/aeo/refeth.obj
MACN=d:/co2mm/source/aeo/mac.obj
RESDN=d:/co2mm/source/aeo/resd.obj
COMMN=d:/co2mm/source/aeo/comm.obj
INDN=d:/co2mm/source/aeo/ind.obj
TRANN=d:/co2mm/source/aeo/tran.obj
FILERN=d:/co2mm/source/aeo/filer.obj
FILEMGRN=d:/co2mm/source/aeo/filemgr.obj
OMLANALN=d:/aeo2008/source/omlanal.obj
DICTIONN=d:/default/objects/diction.v1.4.obj
FTABN=d:/co2mm/source/aeo/ftab.obj
EPMN=d:/co2mm/source/aeo/epm.obj
FWK1ION=d:/co2mm/source/aeo/fwk1io.obj
CIO4WK1N=d:/co2mm/source/aeo/cio4wk1.obj
DUMMYXN=d:/co2mm/source/aeo/dummyx.obj
PREPETTN=d:/co2mm/source/aeo/prepett.obj
PREPPLTN=d:/co2mm/source/aeo/prepplt.obj
PREPDSMDN=d:/co2mm/source/aeo/prepdsmd.obj
FTAB2N=d:/co2mm/source/aeo/ftab2.obj
HEMN=d:/co2mm/source/aeo/hem.obj
REFRPTN=d:/co2mm/source/aeo/refrpt.obj
READDAN=d:/default/objects/readda.v1.3.obj
UTILRN=d:/default/objects/utilr.v1.28.obj
NEMSWK1N=d:/co2mm/source/aeo/nemswk1.obj
COALCPSN=d:/co2mm/source/aeo/coalcps.obj
COALCDSN=d:/co2mm/source/aeo/coalcds.obj

INDSICN=d:/default/objects/indsic.v1.11.obj

INDGRPN=d:/default/objects/indgrp.v1.13.obj

TRANFRTN=d:/co2mm/source/aeo/tranfrt.obj

RPTTRADN=d:/default/objects/rpttrad.v1.30.obj

WELLUGRN=d:/co2mm/source/aeo/wellugr.obj

ORCLTABSN=d:/aeo2006/source/orcltabs.obj

DUMMYPPN=d:/co2mm/source/aeo/dummypp.obj

DUMPACKN=d:/co2mm/source/aeo/dumpack.obj

INTERCVN=d:/aeo2007/source/intercv.obj

WELLLNGN=d:/aeo2007/source/welllng.obj

UDBPN=d:/aeo2007/scripts/udbp.exe

NGLNGN=d:/co2mm/source/aeo/nglng.obj

WELLMEXN=d:/co2mm/source/aeo/wellmex.obj

WELLUGRCN=d:/aeo2007/source/wellugrc.obj

WELLDCFCN=d:/aeo2007/source/welldcfc.obj

HMMN=d:/aeo2008/source/hmm.obj