Wednesday, November 4, 2020

11:00 AM **Carbon Storage Program Remarks**
Darin Damiani, DOE FE, Carbon Storage

11:05 AM **Carbon Storage Technology Manager Remarks**
Mark McKoy, NETL

11:10 AM **Welcome, Meeting Objectives, NRAP Background and Accomplishment**
Bob Dilmore, NETL (Live)

New Developments in NRAP Tools
(Pre-recorded)

11:30 AM **NRAP - Open-IAM:**
•**Update on Fit-for-purpose functionality**
•**GUI development (SBIR)**
Veronika Vasylkivska, NETL, Mark Brandyberry, Illinois Rocstar

11:45 AM **Tools for Induced Seismicity Management**
•**STSF**
•**RiskCat**
Josh White, LLNL, Corinne Layland-Bachmann, LBNL

12:00 PM **Monitoring Design and Optimization Tools**
•**DREAM 2.0 (and 3.0)**
•**Microseismic Monitoring Array Design Optimization**
Alex Hanna, PNNL, Lianjie Huang, LANL

12:15 PM **Other Characterization and Forecasting Tools**
•**SOSAT**
•**Seal Leakage**
•**Fault Leakage ROM**
Jeff Burghardt, PNNL, Ernest Lindner, NETL

12:30 PM **BREAK**

Recommended Practices for Risk-Based Decision Support
(Live)

12:35 PM   **Conceptualization/Framework for Recommended Practices**
Curt Oldenburg, LBNL

12:40 PM   **Containment Assurance and Leakage Risk**
Burt Thomas, NETL

1:00 PM   **Recommended Practices for Induced Seismicity**
Dennise Templeton, LLNL

1:20 PM   **Moderated Discussion: Feedback on Recommended Practices**
Moderator: Curt Oldenburg, LANL

1:35 PM   **BREAK**

Key Messages for GCS Derived from NRAP Research
(Live)

2:15 PM   **Context for Large-Scale CCUS Deployment**
Bob Dilmore, NETL

2:25 PM   **Establishing the Basis for Key Insights on Leakage Probability**
Chris Brown, PNNL and Rajesh Pawar, LANL

2:40 PM   **Establishing the Basis for Key Insights on Induced Seismicity Risk Management**
Josh White, LLNL

2:55 PM   **Establishing the Basis for Key Insights on Potential Leakage Impacts to Groundwater**
Megan Smith, LLNL

3:10 PM   **Establishing the Basis for Key Insights on Risk-Based Monitoring Design**
Erika Gasperikova, LBNL

3:25 PM   **Moderated Discussion: Feedback on Key Insights**
Moderator: Chris Brown, PNNL

4:00 PM   **ADJOURN**

Thursday, November 5, 2020

11:00 AM   **Welcome Back / Day 1 Recap**

Testing and Application of NRAP Tools and Methods

11:15 AM   **Overview of NRAP Tools and Recommended Practices Applications (Application Catalog)**
Nicolas Huerta, PNNL (Live)

11:30 AM   **Example Application: FutureGen 2**

- **Characterization**
- **Risk-Based AOR**
- **Monitoring Design**
- **Supporting Post-Injection Closure Decisions**
- **Containment Assurance and Accounting**

Diana Bacon, PNNL (Pre-recorded)

12:00 PM   **Data to drive NRAP tools: From Kimberlina, FutureGen and Beyond, Tools to Optimize Data Discovery and Modeling Uses**
Paige Morkner, NETL (Pre-recorded)

12:15 AM   **Panel Discussion: How can NRAP better engage with CCUS demonstration and deployment efforts?**
Moderator: Rajesh Pawar (LANL)
Panelists TBD (Live)

1:00 PM   **Closing Remarks**

2:00 PM to 3:00 PM   Lightning Breakout Sessions
(Pre-recorded 3-minute presentations followed by discussion)

Room 1   **Modeling Dynamic Risk Using Ensemble Smoother with Mutliple Date Asssimilation (ES-MDA) and NRAP-Open-IAM**
Bailian Chen, LANL

Room 2   **CO_2 Plume Evolution in a Depleted Natural Gas Reservoir: Reducing Uncertainty in Conformance Over Time**
Christine Doughty, LBNL

Room 3	**Channelized CO_2 flow in the Hierarchical Fluvial Reservoir at Cranfield, Mississippi** Quanlin Zhou, LBNL
Room 4	**Seismic Forecasting and PISC: Insights for IS Risk Management** Kayla Kroll, LLNL
Room 5	**Insights from State-Scale Well Integrity Data Analysis** Greg Lackey, NETL
Room 6	**Influence of Effective Stress and Transport on Mechanical and Chemical Alteration Processes at the Cement-Caprock Interface** Kevin Rhino, LLNL
Room 7	**Improved Cemented Wellbore Leakage ROM using a subROM Approach** Michelle Bourret, LANL
Room 8	**CO_2 Plume Location by Deep Learning Inversion of Gravity Data** Xianjin Yang, LLNL
Room 9	**Detection of CO_2 Leakage from Surface and Boprehole Gravity Measurements** Delphine Appriou, PNNL
Room 10	**CO_2 Leakage Detection in the Kimberlina 2 Model Using Elastic Least-Squares Reverse-Time Migration** Zongcai Feng, LANL