Reuse assets Reduce costs Re-energize power



3rd Thermal-Mechanical-Chemical Energy Storage Workshop August 10<sup>th</sup>, 2021

## **PRODUCT** | BOLDERBLOC<sup>™</sup> MODULAR TES SYSTEM



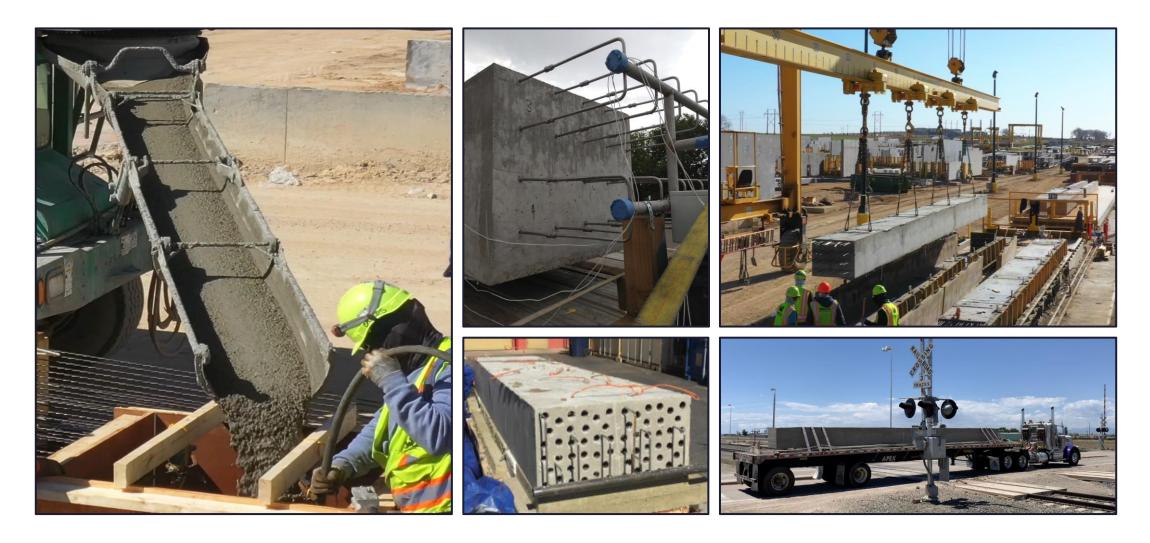
• Patented Steel Tube & High-Temperature Concrete Design

- Over 55 BolderBloc<sup>™</sup> modules manufactured to date
- Max Temp: ~600 °C
- $\sim 650 \text{ kWh}_{thermal}$  per module



#### **PRODUCT** | BOLDERBLOC<sup>™</sup> MODULAR TES SYSTEM





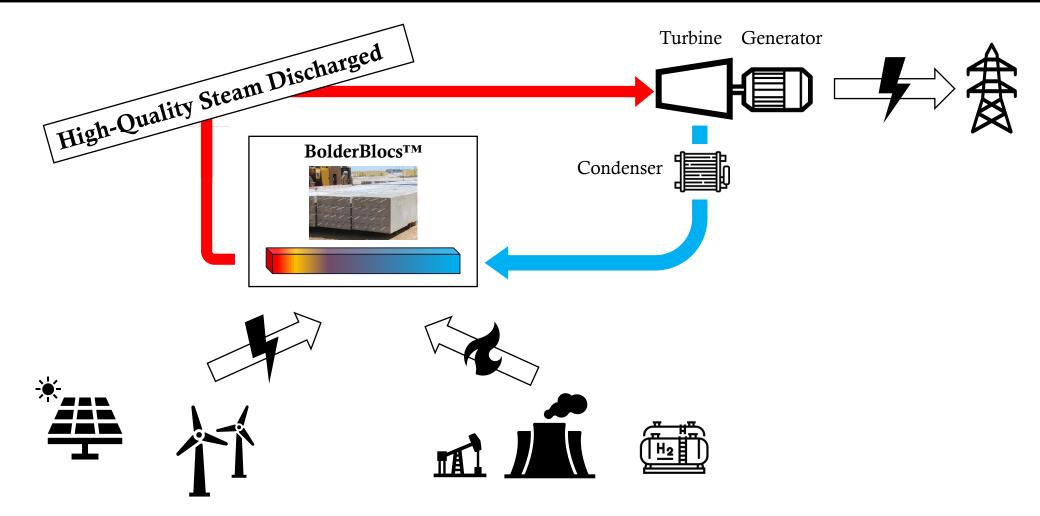
# MILESTONES | GASTON ELECTRIC GENERATING PLANT 📚

- \$4 M DOE/NETL Award
- 10 MWh<sub>e</sub> Pilot Plant
- Supercritical Steam
  - ~530 °C
  - ~230 bar
- Partners Include:
  - EPRI | Lead
  - Southern Co | Site Host
  - United E&C | EPC
- Operational: Q1-2022



### **PRODUCT** GENERAL OPERATION





Electricity (Resistively-Heated) or other Thermal Heat Sources

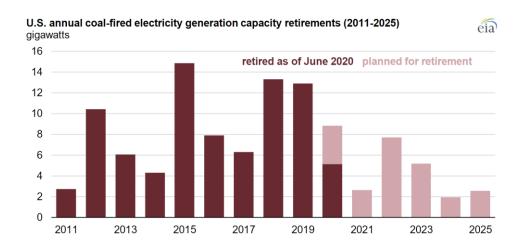
## **OPPORTUNITIES** | REUSE RETIRING ASSETS



Save Jobs

#### **Prevent Waste**

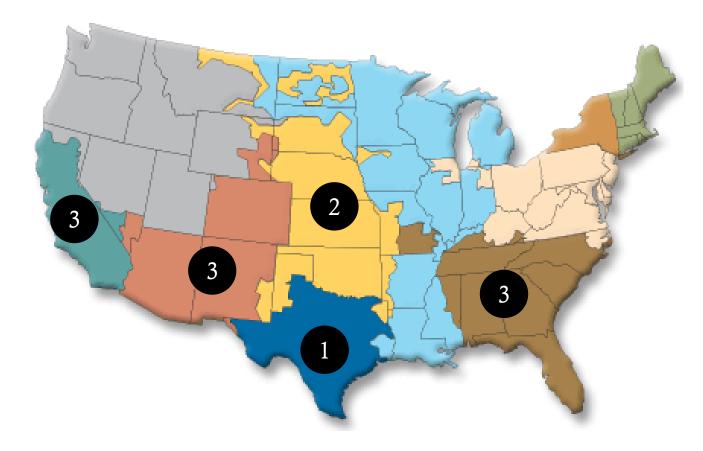
#### Lower Capital Requirements





#### **SALES PIPELINE** | TOP 12 PROSPECTS

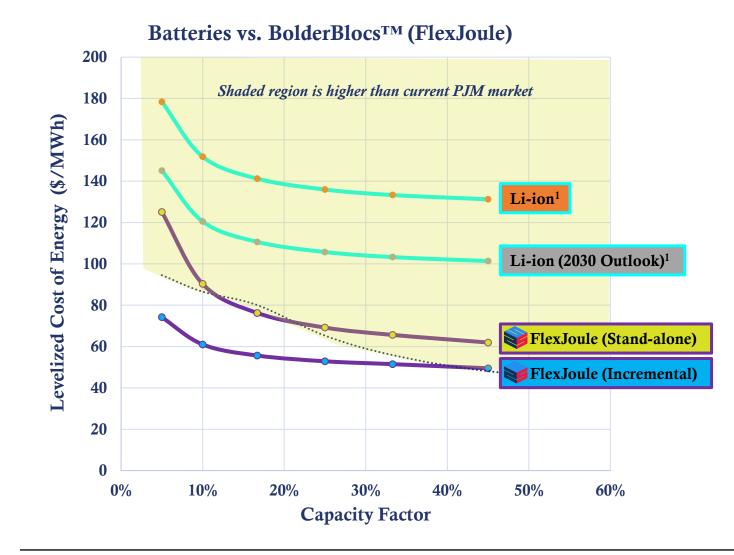




Electric Power Market	Projects	Power (MW)
Southeast	3	972
Southwest	3	539
CAISO	3	259
SPP	2	224
ERCOT	1	261
	12	2,255

~2.3 GW ~\$1.9 B





#### **Capital Cost Comparisons**

	4 Hours (\$/kW)	<b>8 Hours</b> (\$/kW)
Li-ion <sup>1</sup>	\$1,280	\$1,539
Li-ion <sup>1</sup> (2030 Outlook)	\$875	\$1,080
<b>BolderBlocs</b> <sup>TM</sup>	\$380	\$480