The BEST field projects develop and validate cost effective pressure control, plume management, and extracted water strategies to improve the efficiency and capacity of CO₂ saline storage reservoirs.

### Feasibility Evaluation

- 5 projects performed site characterization, extraction and monitoring approaches, and life cycle analysis of treating extracted formation water across different regions of the US.
- Modelled strategies for well placement and pumping rates to extract brine for pressure management.
- Calculated costs for process elements such as extraction, transportation, pre – and primary treatment, and disposal of residual brine concentrate.

### Field Demonstration Projects

- **Plant Smith Generating Station – Gulf Coast Basin**
  Electric Power Research Institute

- **Johnsons Corner – Williston Basin**
  UND Energy Environmental Research Center

### Accomplishments of BEST projects in reservoir pressure management:

- The feasibility evaluation explored various basins across the US to analyze a range of formation water salinity and composition, including the Illinois Basin, Green River Basin, Gulf Coast Basin, and the Williston Basin.
- Modeling demonstrated the impact of reservoir characteristics on pressure reduction for various injection and extraction scenarios in the feasibility evaluation projects.
- A brine treatment test-facility for evaluating potential technologies for treating high TDS brines is operational at Johnsons Corner, Williston Basin.
- A novel approach of incorporating passive pressure relief wells along with active brine extraction wells, modeled in one of the Phase I projects, will be field validated in EPRI's Gulf Coast Basin project.
- Active reservoir management (ARM) strategies are being tested at the Johnsons Corner site to help manage formation pressure and plume movement through the storage reservoir.