University of Wyoming | School of Energy Resources

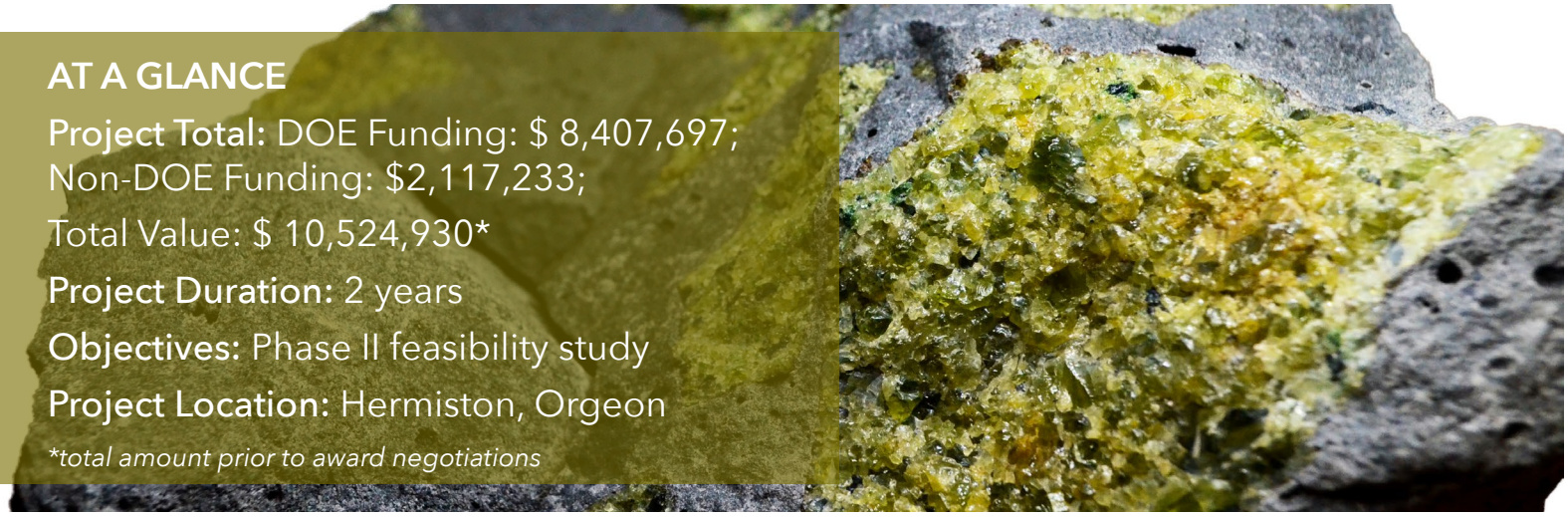
HERO BASALT CARBONSAFE

Carbon Storage Assurance Facility Enterprise

ABOUT THE PROJECT

HERO Basalt CarbonSAFE – University of Wyoming (Laramie, Wyoming) plans to accelerate the scale-up and deployment of commercial CO_2 storage in basaltic rocks at a storage complex near Hermiston, Oregon. Basalt formations represent an attractive alternative for CO_2 storage due to their potential for rapid mineralization, widespread geographic distribution, and potentially large storage capacity. The abundance of basalts in the Pacific Northwest makes them a critical reservoir type for deploying CO_2 storage in the region.

The two-year feasibility study will include drilling a test well for the collection of data from these formations; obtaining and analyzing geologic samples; using the results of the analyses to create geologic computer models in which to test storage scenarios; and assessing societal and environmental impacts of the carbon storage at the site. The project also will assess capturing CO_2 from Calpine's Hermiston Power Project, one of the region's cleanest and most efficient natural-gas power stations.



AT A GLANCE

Project Total: DOE Funding: $ 8,407,697;
Non-DOE Funding: $2,117,233;
Total Value: $ 10,524,930*

Project Duration: 2 years

Objectives: Phase II feasibility study

Project Location: Hermiston, Orgeon

**total amount prior to award negotiations*

PROJECT PARTNERS

Oxy Low Carbon Ventures (Oxy)

Pacific Northwest National Laboratory (PNNL)

Calpine

SLB

Carbfix

WHY WYOMING IN OREGON?

The Pacific Northwest is a key market for Wyoming-sourced natural gas. The Northwest Pipeline that connects Wyoming natural gas resources to Washington and Oregon has over 14 million dekatherms of capacity. However, using that gas in a way that is consistent with regulatory requirements in Washington and Oregon will likely mean capturing and storing CO_2 emissions from gas plants such as Hermiston.