

**Energy Resources Council Special Meeting
Minutes
January 18, 2022
ZOOM**

Attendance

Cindy Crane, WY House Representative Don Burkhart, Dave Emery, Thomas Botts, Mark Doelger, Charlene Russell and Ex-officio: Randall Luthi. Also, present Glen Murrell, Anja Bendel, and Trish Steger

Absent: WY Senator Jim Anderson, Carl Bauer, Vello Kuuskraa and Ex-officio: Edward Seidel, John Koprowski and Dave True

Call to order

Chairman Crane confirmed presence of a quorum and called the meeting to order at 11:02 AM. The meeting was held by ZOOM.

Chairman Crane provided an overview of the three recommended proposals: Tallgrass Phase I/ Tallgrass Phase II, North Shore/Starwood and 8 Rivers.

WEA Overview of Proposals – excerpts from WEA PPT Presentation

Company	Request	Cost Share	In-Kind	Total Cost	Match %	Funding Source	Comments
Tallgrass P.1	\$330,090	\$319,090	\$11,000	\$660,180	50%	CCUS	
Tallgrass P.2	\$3,778,900	\$3,720,900	\$58,000	\$7,557,800	50%	CCUS	
North Shore/Starwood	\$4,262,500	\$2,557,500	\$1,705,000	\$8,525,000	50%	CCUS	
8 Rivers	\$150,000	\$1,652,863		\$1,802,863		Innovation sub-account	Cost share composed of \$1,412,863 federal award and \$240,000 from 8 Rivers

Tallgrass Phase I & Phase II Project Overview and Vote

The most critical requirement of any potential CCUS project is access to underground geologic formations that are capable of permanently storing CO₂. Tallgrass is proposing to study the potential to sequester CO₂ in the Wyoming Denver-Julesburg (DJ) Basin in support of the development of a commercial scale sequestration hub in Eastern Wyoming.

Phase 1 (Q1 2022): Tallgrass would (i) purchase currently available two-dimensional seismic data in the target sequestration area, and (ii) analyze the two-dimensional seismic data to determine the thickness, depth, faults, and continuity of the target sequestration area.

Phase 2 (Q2-Q4 2022): Tallgrass would (i) drill a characterization well and (ii) analyze the detailed geological data from the deep saline formations in the target sequestration area to determine the viability of sequestering 10 million tons per year of CO₂ in the Wyoming DJ Basin.

Motion and Vote

Motion by Dave Emery to approve \$330,090 Phase I and \$3,778,900 Phase II in CCUS funding for Tallgrass: Eastern Wyoming Sequestration Hub. *Conditions:* Matching funds to be in place prior to the start of project, an assessment and evaluation of the completion of Phase I to be conducted prior to allocation of Phase II CCUS funding, Phase II funding to be released over the course of the project - not as a lump sum. Tom Botts seconded the motion. Charlene Russell abstained from the vote due to conflict of interest. The motion passed by unanimous remaining votes.

North Shore Energy & Starwood Energy Group: Project Phoenix Overview & Vote

North Shore Energy & Starwood Energy Group are jointly exploring the development of a state-of-the-art ammonia complex with on-site carbon capture and sequestration capabilities at existing depleted hydrocarbon reservoirs and processing facilities near Evanston, Wyoming. This project would put the state of Wyoming on the forefront of both crucial energy transition (CCUS) and the development of low carbon fuel alternatives (Ammonia). The grant funds partially cover development costs, such as engineering and site development.

FEL-1: Conduct pre-assessment engineering work. Obtain technology license for the carbon capture system, hydrogen plant, and ammonia loop. Provide for layout and design of facility.

FEL-2: Develop a -30%/+30% cost estimate, total capital needs and necessary equipment estimate. The team will consist of an engineering partner, the technology providers and an EPC provider. Initiate the permitting process in tandem with this phase of the project.

FEL-3: Develop a -10/+10% estimate. The project will complete the pre-construction phase & move forward into detailed engineering and construction. Execute necessary supplemental agreements and finalize financing.

Front-end loading (FEL) or pre-project planning will be followed by a detailed FEED (Front-end engineering design) study culminating in a Notice to Proceed.

Motion and Vote

Motion by Tom Botts to recommend \$4,262,500 in CCUS funding for North Shore Energy & Starwood Energy Group: Project Phoenix. *Conditions:* Matching funds to be in place prior to start of project and CCUS funding to be released over the course of the project – not as a lump sum. Mark Doelger seconded the motion. Motion passed by unanimous vote.

8 Rivers: The 8RH2 Process for Producing Clean Hydrogen with Auto thermal Reforming and Carbon Capture Project Overview & Vote

Wyoming’s abundant gas resource faces a challenging future unless there is technology that enables the gas to be decarbonized, transported to the end user, and utilized cleanly and cheaply. Wyoming needs technologies, business models, and sample projects to solve this problem, such as blue H₂ projects with the carbon stored locally.

This project aims to leverage Federal funding to conduct a Pre-Front-End Engineering Design (Pre-FEED) study for a new build 8 Rivers Hydrogen (⁸RH₂) plant in Wyoming to enable a FEED study followed by project construction. The facility would use auto thermal reforming to produce 100 MMSCFD of clean hydrogen with up to 99% carbon capture, for sequestration at the Painter Gas Complex in Evanston, Wyoming, North Shore. Though the pre-FEED just covers H₂, the H₂ could be converted to ammonia for export, producing 440,000 tonnes of ammonia while storing 600,000 tonnes of CO₂.

Motion and Vote

Motion by Tom Botts to recommend \$150,000 in funding from Innovation Sub-Account for 8 Rivers: the 8RH2 Process for Producing Clean Hydrogen with Auto thermal Reforming and Carbon Capture. WY House Representative Burkhart seconded the motion. Motion passed by unanimous vote.

WEA Remaining Funds Balance

Glen Murrell informed the ERC the WEA held approximately \$1.35M in remaining funds. The funds do not revert. A discussion ensued regarding the best use of the remaining funds. The ERC recommended that all remaining funds should be held for future projects and/or activity.

Adjournment

The meeting adjourned at 11:31 AM

RESPECTFULLY SUBMITTED:

Cindy Crane
Chairman

James Anderson
Vice-Chairman