

Hydrogen Energy Development for North Dakota

Submitted by:

Energy & Environmental Research Center (EERC)

☐ **Total Funding Request - \$500,000**

Total Project Costs - \$500,000

Project Duration: 2 years

PROJECT DESCRIPTION

The EERC proposes to address Section 15 of Senate Bill 2014; “Pursuant to the continuing appropriation in section 57-51.1-07.3 and notwithstanding any policies developed by the oil and gas research council requiring matching funds, the industrial commission shall use \$500,000, or so much of the sum as may be necessary, from the oil and gas research fund to contract with the energy and environmental research center for a study regarding the development and implementation of hydrogen energy in the state. The study must include a plan for the development and implementation of hydrogen energy and must include consideration of existing resources, methods of production and delivery, and potential uses of hydrogen. The study may include estimates of the cost and timeline to develop infrastructure for hydrogen energy and the use of public and private partnerships to assist in the development of infrastructure for hydrogen energy...”

This project will provide a pathway for the development of a hydrogen economy in North Dakota by producing a road map that assesses opportunities and challenges for hydrogen energy production, storage, infrastructure, and use in the state.

Technical Reviewers' Rating Summary					
		Technical Reviewer			
Statement	Weighting Factor	<u>G-54-01A</u>	<u>G-54-01B</u>	<u>G-54-01C</u>	<u>Average Weighted Score</u>
Objectives	9	3	4	4	27
Achievability	7	5	4	5	28
Methodology	8	3	4	5	32
Contribution	8	3	5	4	32
Awareness / Background	5	5	5	4	20
Project Management	3	3	3	3	9
Equipment / Facilities	2	5	3	5	8
Value / Industry-Budget	4	2	3	4	12
Financial Match – Budget	4	1	3	2	8
Average Weighted Score		166	200	206	190
Maximum Weighted Score				250 possible points	

TECHNICAL REVIEWER TOTALS

- G-54-01A

Average Weighted Score: **166 out of 250**

FUND

- G-54-01B

Average Weighted Score: **200 out of 250**

FUND

- G-54-01C

Average Weighted Score: **206 out of 250**

FUND

TECHNICAL REVIEWER COMMENTS

Reviewer G-54-01A

The goals and needs for investigative research regarding the formation of a hydrogen economy in the state of North Dakota are well justified. While more details as to what specific sources would be used to achieve these goals, they remain a point of necessary research. With the apparent shift of consumer preference away from fossil fuels, a study of possible alternatives that will benefit the local economy and state revenues will help guide the transition and use of resources while keeping North Dakota in the forefront of energy and resource production.

Recommendation: FUND

Reviewer G-54-01B

North Dakota's potential as a hydrogen production leader is enormous and I recommend proceeding with funding the application as an important first step to fully understand the opportunities and challenges ahead. Countless questions exist today for all stakeholders on how to make meaningful forward progress in the hydrogen space. The legislative foresight to earmark funds for a hydrogen study lead by the EERC should greatly assist key stakeholders in better understanding how to position themselves for the increasing interest in hydrogen as an energy source. No direct study partners were outlined in the application. While it may very well organically occur throughout the course of study, collaboration/partnerships with existing industry participants would certainly enhance the final results.

Recommendation: FUND

Reviewer G-54-01C

The proposed work offers a road map for continued success for the ND Energy industry. The markets for energy are changing due to a number of forces and ND needs to understand how the energy carrier can/ will offer opportunities for continued growth due to the numerous natural resources in the state.

Recommendation: FUND

Director's Recommendation:

- **Fund in the amount of \$500,000**