

CLEAN RESOURCES

CARBON CAPTURE UTILIZATION AND STORAGE AND HYDROGEN HYDROGEN

FUNDING DETAILS

FEED – Hydrogen in Midstream Infrastructure

NOVA Gas Transmission Ltd. (NGTL), an affiliate of TC Energy Corporation and ATCO are seeking to advance a Front End Engineering and Design (FEED) study to assess existing mid-stream infrastructure suitability for hydrogen transmission and address knowledge gaps associated with utilizing existing assets to transport hydrogen.



RECIPIENT:
NGTL



PARTNERS:
ATCO



TOTAL BUDGET:
\$ 1.2 M



AI FUNDING:
\$600 K



PROJECT DATES:
MAY 2023 –
AUG 2024



PROJECT TRL:
Start: 3
End: 5



APPLICATION

NGTL and ATCO pipelines are interconnected to a continental network of transmission pipelines which can provide a new path to market for local hydrogen production. The ability to transport clean hydrogen via the existing transmission network would provide an expedited pathway for clean hydrogen to get to market and offers convenient and reliable access for customers seeking reduced carbon intensity fuels. Leveraging the extensive existing natural gas network will help to advance a hydrogen economy while limiting the impact to landowners, stakeholders, communities, and the environment.

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PROJECT GOALS

- Identification of the knowledge gaps affecting the industry's ability to utilize existing assets in high-pressure hydrogen transmission via pipeline.
- Advance the practical knowledge on high-pressure pipeline transmission of NG-H₂ blends and pure hydrogen.
- Facilitate dialogue with regulatory bodies to address gaps in quantifying the ESG benefits and regulatory approval of hydrogen projects.
- Quantification of environmental benefits from hydrogen.

BENEFITS TO ALBERTA

- The ability to introduce hydrogen into existing assets would boost hydrogen supply technologies, unlocking cost reductions of production pathways while building additional market opportunities for hydrogen producers and downstream customers seeking low-carbon gaseous fuel products. Given the time and capital required to deploy energy infrastructure, leveraging existing assets is an economical and effective way to achieve timely, cost-effective emission reductions.
- As NGTL and ATCO uncover additional learnings from the FEED study, we will leverage industry organizations we participate in to ensure the findings are shared with the broader industry to promote the safety of hydrogen transportation and promote Alberta based operators as leaders in the hydrogen transport sector.



4-6 Project Jobs



50-200 Future
Jobs



1 New
Product/Service



724 – 11,200 kT/yr
Future GHGs
Reduced

CURRENT
STATUS

JUN 2023

Project set up activities and gathering asset documentation are in progress