Project: FY20-XCI-224

Title: Preliminary Front End Engineering and Design (pre-FEED) Study for a full-scale carbon dioxide capture system at Coal Creek Station (CCS2)

Submitted By: Great River Energy

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Purpose: The goal of this project is to better quantify the costs, benefits and operational issues of integrating a system to capture and store carbon dioxide from the Coal Creek Energy Park, which includes both the Coal Creek Station and the Blue Flint Ethanol Plant. GRE is in the early stages of evaluating a potential carbon capture and storage project to determine if it is an economically feasible means of reducing carbon emissions at Coal Creek Station. The study would include five different objectives necessary to provide information related to overall costs, benefits and operational issues and opportunities associated with integrating a carbon dioxide capture system. The project is expected to take approximately one-year commencing in January 2020. The benefits to North Dakota include continued operation of the state’s largest lignite-based plant by identifying technologies that significantly reduce the carbon dioxide footprint in a cost-effective manner. In addition, the project’s technology and information development could benefit other lignite-based generating stations.

Duration: 14 months

Participants & Cost Share:

<table>
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<th>Participant</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Great River Energy</td>
<td>$4,239,000</td>
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Project Deliverables: Status Reports
Q1 2020 report-complete, Q2 2020 report-complete, Q3 2020 report-complete