

CBM Water Pipeline Feasibility, Powder River Basin, Wyoming

M. Doelger

ABSTRACT

The Wyoming Pipeline Authority has done the initial scoping for a CBM water pipeline that would originate in the Gillette area and transport up to one million barrels of water per day to Teapot Dome where it would be injected into the Madison or Tensleep formation aquifers. The project would be approximately 70 miles of 42" steel pipe, and could be completed in two years if properly supported by industry. Precedent for the project has been set by Anadarko with their project which involves injection of CBM water into the Madison Formation at the adjoining Salt Creek Field.

Industry interest to a non-binding open season has been relatively modest; two companies responded affirmatively, one company was a "no", and three companies have requested further review and consideration as to the location, economics, and timing of the pipeline. The Authority remains hopeful about the project, although the current level of support is not enough to build the project.

There are many benefits to the CBM producers in the PRB from a water pipeline, including economic and regulatory certainty. The Authority is also looking at options that will reduce the cost of the pipeline to the subscribers in the form of severance tax relief based on a commitment to the pipeline, and annual tariff reductions or rebates to subscribers from the sale of water. Some of the identified markets for the water include municipal and agricultural use, augmentation of in-stream flows, and cooling for coal-fired plants. Advanced coal technologies such as IGCC and coal to liquids will require water on a firm, uninterrupted basis. In effect, many benefits are derived by aggregating water to a storage facility for future beneficial use.

There are many benefits to the state of Wyoming as well; there are no issues regarding trans-basin diversion of water, no issues with surrounding states, no issues over surface discharge; as such the CBM play advances by adding another water management tool. If the water pipeline meets the constitutional criteria of "conservation and utilization" the state could invest in the pipeline as a work of internal improvement.

The Authority has laid a foundation and gained support (some support is conditional) for this project with all interested and involved parties, including: Governor Freudenthal's office, the Joint Minerals, Business and Economic Development Committee of the legislature, the office of the State Engineer, the Water Development Commission, the CBM Water Task Force, the Department of Environmental Quality, and the Department of Energy Rocky Mountain Oil Field Testing Center.