Research Note: Mountain Valley Pipeline

March 2021

- Proposed pipeline is approximately 3 years and $2.5 billion over budget
- Most difficult sections remain to be constructed
- Project lacks crucial federal authorizations
- Shippers have signaled hesitance about their shipping commitments
- Demand for additional Appalachian pipeline capacity is questionable
- Biden administration's focus on climate policy may present an additional risk

The Mountain Valley Pipeline project is owned by Mountain Valley Pipeline, LLC (MVP), a joint venture with the following approximate ownership shares: EQM Midstream Partners (47.6%), NextEra Energy Resources (31%), Con Edison Transmission (10%), WGL Midstream (10%), RGC Midstream, LLC (1%).

EQM Midstream Partners holds a Negative rating outlook from FitchRatings based in part on "regulatory and environmental challenges with multiple delays and cost overruns" related to the project. Major credit rating agencies all rate EQM Midstream Partners a speculative investment. The most recent ratings include: Moody's: Ba3; S&P: BB-; Fitch: BB.

MVP currently estimates that the project will be completed in "late" 2021. MVP originally estimated the project would finish in late 2018, three years earlier. MVP has moved back the estimated completion date several times during the course of the project's development, most recently during its third quarter 2020 earnings report.

MVP estimates the total cost of the project at $5.8-6 billion. MVP increased the estimated cost of the project twice in 2020. MVP originally told investors that the project would cost $3.5 billion. Prior to the 2020 cost increases, a study by energy consulting firm BTU Analytics ranked it as the most expensive recent North American pipeline project on a cost-per-mile basis. NextEra posted a Q4 2020 impairment charge of $1.2 billion on its investments in the pipeline, citing "substantial delays in reaching commercial operation and increased costs associated with those delays." Con Edison similarly registered a $223 million impairment on its investment, as of the end of 2020.

MVP states the project is 92 percent complete. Yet MVP's own documentation shows that, as of October 23, 2020, only about half of the pipeline, approximately 155 miles, is completed to the point of final restoration. The sections that remain to be built are widely seen as the most difficult to construct, due to their steep slopes and water crossings.

The project currently lacks crucial federal authorizations. Presently, a federal appeals court ruling prohibits construction to cross water bodies using methods originally intended by developers along 274 miles, or 90% or the route. As a result of that decision, on January 26, 2021, MVP announced that it intends to abandon the streamlined nationwide permit for stream crossing and to seek instead an individual permit under Section 404 of the Clean Water Act for many of its stream crossings. In February

2021, MVP signaled its intent to submit individual permit applications to the Army Corps, and to seek the requisite state certifications required for such a permit.

For the balance of water body crossings, MVP intends to seek FERC permission to bore under those streams and wetlands. MVP stated that it will withdraw its currently pending request to bore under streams and wetlands along the first 77 miles of its proposed route, and will submit a revised application for a certificate amendment to address all the streams and wetlands under which it proposes to bore.

An additional federal appeals court case regarding alleged violations of the Endangered Species Act is also active. Finally, approval for the pipeline to cross 3.5 miles of the Jefferson National Forest was granted in January 2021, but is being challenged in court. Additionally, MVP is not authorized to undertake activities related to construction on Jefferson National Forest lands until the company has obtained all Federal and State authorizations outstanding for the entire project.

Some of the pipeline's shippers have signaled hesitance about the value of their shipping commitments on the pipeline. EQT, which owns the largest shipping commitment, recently stated that it hopes to sell the company's commitment at cost. EQT's commitment represents 58.25% of the pipeline's capacity. ConEd, the parent of Con Edison Transmission, stated that it may sell its stake in the project because their view on natural gas has "largely changed" and gas is "no longer ... part of the longer-term view." There are also questions about the demand for additional pipeline capacity in the eastern United States. Operators for the existing Transco pipeline system have indicated that the system can handle the region's capacity needs. There is already more than 2 million dekatherm/day excess pipeline capacity than currently demanded to move all Appalachian Basin production to market, a statement supported by EQT CEO Toby Rice in EQT's fourth quarter earnings call. In 2017, then-Federal Energy Regulatory Commissioner Cheryl LaFleur voted against approval of the pipeline, citing in part a lack of evidence for clear end uses of the delivered gas.

Finally, the pipeline will create an estimated 89.5 million metric tons of carbon dioxide equivalent emissions per year between gas combustion, methane leakage, gas production & processing, and compressor stations. For comparison, this is approximately the emissions of 26 average coal-fired power plants or 19 million average passenger vehicles. This quantity would increase if planned capacity expansions and the Southgate Extension are completed. This may present an additional risk to the pipeline's viability, given the Biden administration's prioritization of climate change regulation.

This note was prepared by Oil Change International, Sierra Club, NRDC and Appalachian Mountain Advocates.