



Bankruptcy Battle Looms for Ruby Pipeline

- The Ruby Pipeline faces unfavorable market dynamics and is likely headed for a bankruptcy battle after major contracts representing nearly 60% of its capacity expired in July 2021 without renewal.
- Since entering service in 2011, Ruby has contended with declining Rockies gas production and increased supply competition from Western Canada, lowering the value of gas transit from the Rockies to the Pacific Northwest.
- Ruby has run at a low 39% average utilization in 2021, and the pipeline's efforts to sign new contracts are challenged by thin forward spreads between Opal, WY and the Malin hub in Oregon.
- East Daley projects Ruby Pipeline could default on its debt payments as early as April 2022 without a restructuring, upping the stakes in negotiations between joint owners Pembina Pipeline (PBA) and Kinder Morgan (KMI) and debtholders.
- Our modeling shows the debt market is not adequately pricing in the re-contracting risk for Ruby. In an optimistic contracting scenario, we model Ruby's net present value 17% below that reflected in the recent price of Ruby's senior notes. We see notable additional downside in less optimistic scenarios.

Ruby Pipeline Faces Uphill Struggle

Joint 50% owners Kinder Morgan (KMI) and Pembina Pipeline (PBA) may be at risk of losing control of Ruby Pipeline as they continue negotiations with bondholders to restructure the asset's debt. Contracts accounting for nearly 60% of Ruby's capacity rolled off at the end of July, leaving the pipeline system in dire financial straits. We project a 65% decline in annual revenue following the contract cliff, and we see bankruptcy as a possibility for Ruby as early as April 2022 without a restructuring deal. Both KMI and PBA have already recorded significant write-downs on the book value of Ruby. However, we question whether debt markets are properly pricing the contracting risk that Ruby confronts if debtholders take ownership of the asset.



Figure 1: Ruby Pipeline Map (Ruby Pipeline LLC Informational Postings)

Ruby Pipeline runs 680 miles from the Opal hub in Wyoming to Malin, OR, and supplies Nevada, Oregon, and northern California gas markets. The 42-inch pipeline was built by El Paso and Global Infrastructure Partners in 2010 and placed

into service in July 2011.¹ At the time, growing gas production was trapped within the Western Rockies, creating bottlenecks that led to heavy discounting on gas prices in the basin. Ruby was envisioned as a route to evacuate Rockies gas and feed expected demand growth in the Pacific Northwest region. The Jordan Cove LNG export project under development in Oregon was another opportunity to boost regional demand and future markets for Rockies gas.

Market trends instead have largely moved against Ruby. The pipeline has seen growing supply competition from Western Canada via incremental expansions of TC Energy's (TRP) Gas Transmission Northwest (GTN) system as well as its NGTL system. Alberta gas prices are heavily discounted due to the distance from major demand centers and constraints exiting the basin, enabling shippers on GTN to poach market share from Ruby in the Pacific Northwest. Rockies natural gas production moved into decline as U.S. natural gas prices fell in the 2010s, down 2.3 Bcf/d in the last decade.² The start of the REX Pipeline also opened new markets for Rockies gas in the Midwest, raising regional prices. And the Jordan Cove LNG project, facing stiff landowner and environmental opposition, has been mired for years in permitting delays. PBA indicated in an appeals court filing in April that it has paused development of Jordan Cove.

As a result of these developments, throughput on Ruby has historically run far below its 1.5 Bcf/d of capacity. The average utilization of Ruby has been just 38.6% so far in 2021. Average flows through the first nine months of 2021 were down 15% Y-o-Y and down 27% vs. 2019 levels. The price spread between the Opal hub in Wyoming and Malin has declined to average ~10¢/MMBtu over the last five years as the discounting of Rockies gas prices has subsided. The compressed spread renders all long-term contracts on Ruby significantly out of the money.

Ruby Pipeline had a notable contract cliff that occurred on July 31, when all but three legacy contracts rolled off. The expiring contracts, totaling nearly 0.9 Bcf/d of capacity, were struck 10 years ago near the pipeline's maximum tariff rate of \$0.95/Dth and brought in ~\$20 million in monthly revenue. In our modeling of KMI and PBA, East Daley previously forecasted these expiring anchor contracts would renew at market rates around 5¢/Dth. This assumption reflected prevailing prices for transit, as Ruby has been able to contract at monthly rates around 2¢-5¢ in recent years. Instead, none of the expiring legacy contracts were renewed, though some short-term agreements have recently been signed at higher rates than the average spread in recent years. Even with these incremental agreements, East Daley estimates Ruby will see a ~65% decline in revenues (see Figure 2).

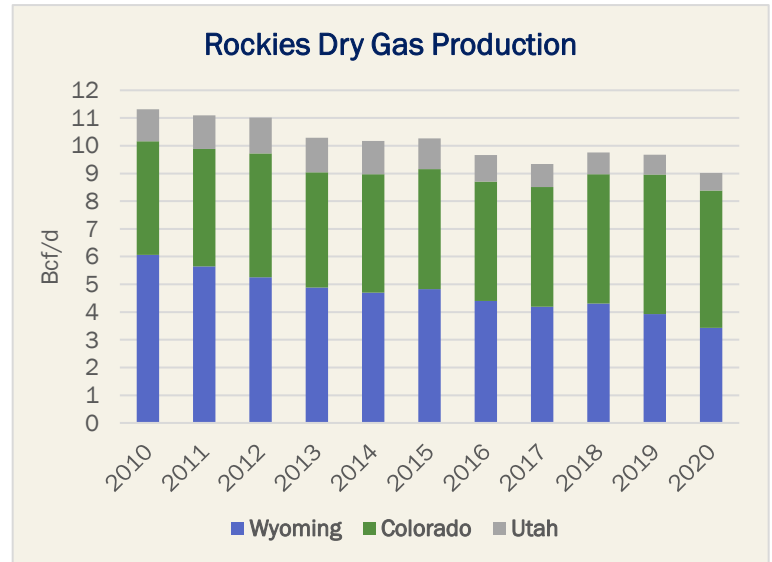


Figure 2: Dry Gas Production from Wyoming, Colorado, and Utah since 2010 (U.S. Energy Information Administration)

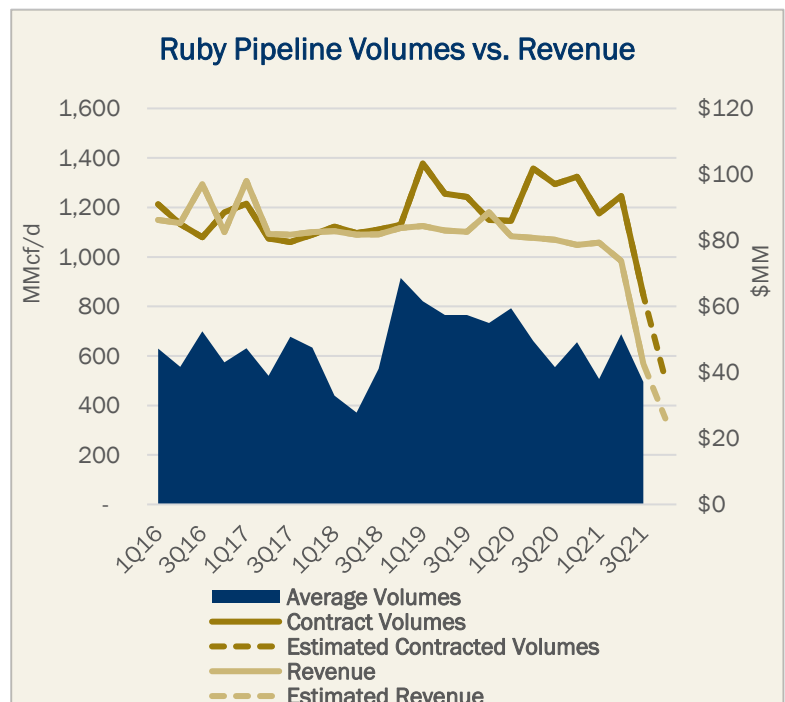


Figure 3: Ruby Pipeline Volumes, Contracts and Revenue (East Daley Financial Blueprints, East Daley Research)

¹ KMI acquired El Paso and its 50% project interest in 2012. Pembina owns 50% of Ruby Pipeline through its acquisition of Veresen in 2017 for \$7.1 billion. Veresen in 2014 bought Global Infrastructure Partners' 50% convertible preferred interest in Ruby for ~\$1.4 billion.

² Rockies gas production has grown from the Denver-Julesburg Basin, but the formation is located on the eastern side of the Rocky Mountains and inaccessible to Ruby Pipeline's interconnect at Opal in western Wyoming.

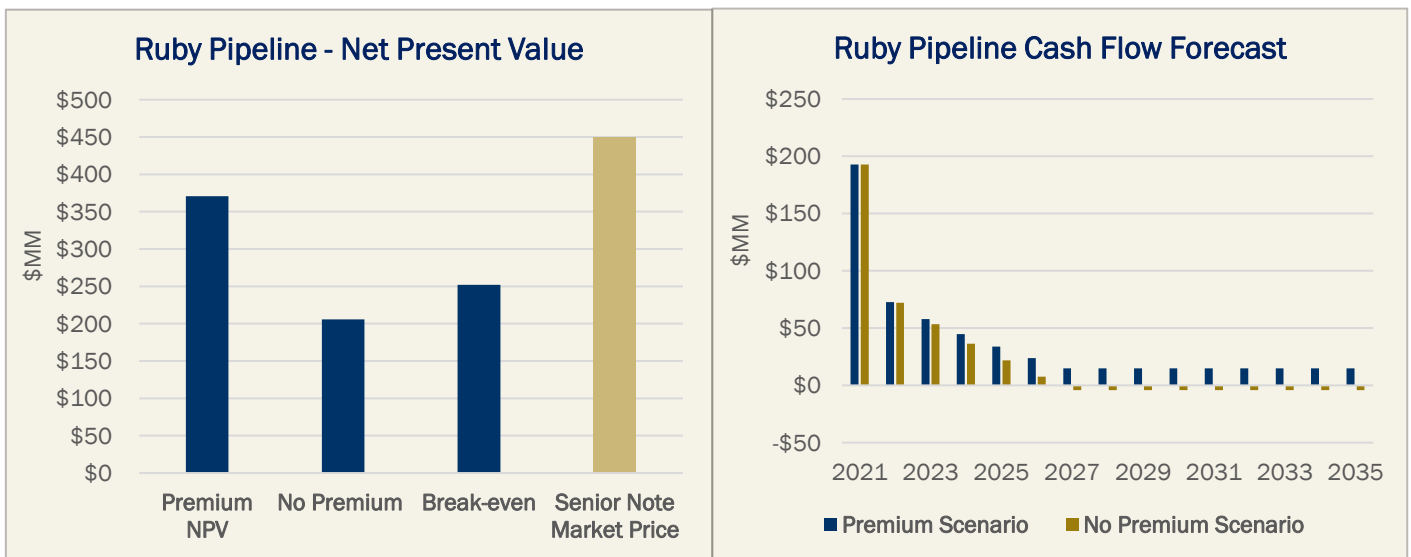
A large drain on Ruby’s cash flow is PBA’s 50% convertible preferred interest in the asset, which provides annual distributions of \$91 million. Ruby also has a large debt payment of \$475 million due in April 2022. Following the latest contract expirations, we forecast Ruby will not have sufficient cash on hand to make this payment. Moreover, we anticipate additional risk on the remaining contracts that backstop Ruby’s finances.

Gaming Ruby’s Contracting Scenarios

The financial outlook for Ruby largely hinges on future decisions by California utility and counterparty PG&E (PCG). PG&E has two contracts totaling 375 MMcf/d of firm service on Ruby. But starting in 2022, the utility has the right to ratchet its commitment 20% lower, or 75 MMcf/d, once a year for five years. In a worst-case scenario, PG&E could elect to sever all its long-term contracts on Ruby by 2026. We don’t expect this scenario to occur, but we do see leverage for PG&E to negotiate its transport costs lower given the prevailing regional dynamics.

On the one hand, Ruby provides supply diversification for PG&E in case service is disrupted on the GTN system at Malin or PG&E’s system interconnects at the Southern California border, a valuable resource for a must-run utility. On the other hand, interruptible capacity is ample on Ruby, and PG&E could elect to cover more of its future load through short-term contracts.³ PG&E is also due to see more supply availability at Malin at the same time its Ruby contract options kick in. TRP is building the GTN Xpress project, which will add 250 MMcf/d of capacity on GTN from the Canada-U.S. border at Kingsgate, ID to Malin. TRP has scheduled the GTN Xpress project to start in phases between 2021 and 2023, adding more Western Canada gas to the regional supply mix. Forward price spreads between Opal and Malin are thin for the foreseeable future, averaging 6¢/MMBtu in the next few years, another point of leverage for PG&E in future contract negotiations. Ultimately we expect PG&E to renew its currently contracted capacity on Ruby, but to barter down the rate the utility pays as its capacity commitments expire.

We ran several scenarios to consider future contracting on Ruby. In our ‘Premium’ scenario, we assume Ruby re-contracts all expiring capacity with PG&E at 30¢/Dth. This amount is about double where we assess the current market rate based on recent short-term contracts prices, or ~16¢/Dth. In this scenario, PG&E maintains all its currently contracted capacity and pays a relative premium price, but still manages to negotiate a much lower rate than its current contract rate on Ruby of 68¢/Dth. We ran a second ‘Break-even’ scenario to see the minimum contract price PG&E would need to pay in order for Ruby to stay cash-flow neutral.⁴ We forecast PG&E would have to re-contract its capacity for 20¢/Dth in order for Ruby to break even based on cash flow upon the contract expirations. In a third ‘No Premium’ scenario, we assume PG&E pays the going market rate for capacity on Ruby.



Figures 4 & 5: Ruby Pipeline Cash Flow and Net Present Value Forecasts in Various Contracting Scenarios (East Daley Financial Blueprints, East Daley Research)

³ To err on the conservative side, we assume in all modeled scenarios that PG&E re-contracts for 100% of its expiring FT capacity on Ruby Pipeline. If PG&E were to rely on more interruptible service or spot gas purchasing, the spread between Opal and Malin would likely widen, creating other commercial opportunities for Ruby.

⁴ We assume all other Ruby shippers pay a lower 16¢/Dth for transport, reflecting prevailing market rates.

Figures 4 and 5 on page 3 show the results of our scenario analysis through cash flow and net present value (NPV) forecasts for Ruby Pipeline. Ruby's long-term cash flow would remain marginally positive at ~\$15 million/year in our optimistic 'Premium' scenario. This is a shadow of the \$192.8 million in cash flow we forecast in 2021, Ruby's last year with major contract protections. In a 'No Premium' contracting scenario, we model Ruby's cash flow moving negative by 2027 as PG&E re-contracts capacity at lower prevailing market prices. We consider these scenarios fairly conservative since we assume PG&E re-contracts 100% of the capacity coming due for renewal. If PG&E elects to drop any of its future commitments on Ruby for incremental supply coming from Canada, our findings would be materially worse for the pipeline.

In our 'Premium' contracting scenario, we calculate an NPV for Ruby Pipeline of \$370.9 million utilizing a 3% discount rate. Ruby's NPV would be as low as \$205.8 million in a 'No Premium' contracting scenario. These are relevant benchmarks to consider the asset's value if debtholders wrestle control of Ruby from KMI/PBA in a Chapter 11 bankruptcy proceeding. Recently, Ruby's senior market notes traded at 94.48% of par, implying an asset value of ~\$450 million. While the debt is thinly traded, our most optimistic scenario for Ruby shows its NPV to be about 17% lower.

Conclusion

Ruby Pipeline faces a challenging future due to market trends that have lowered the value of the system's transport services to the Pacific Northwest market. Over 10 years, Ruby has contended with declining Rockies gas production and increasing supply competition from Western Canada in the Pacific Northwest region. The REX Pipeline also has created more options to bid away Rockies gas to premium markets in the eastern U.S. The result has been narrowing spreads between Opal and Malin gas prices that do not support break-even level contract rates for Ruby. Long-term contracts have protected Ruby's financials, but a major contract cliff at the of July 2021 exposed the pipeline to these harsher market conditions. East Daley projects a 65% decline in annual revenue in 2022 following the recent contract cliff, and we see bankruptcy as a distinct possibility for Ruby as early as April 2022 without a restructuring deal.

Joint owners Pembina Pipeline (PBA) and Kinder Morgan (KMI) have already taken significant book impairments for the Ruby Pipeline asset. Yet even if debtholders take control of Ruby, our forecasting shows the debt market is not adequately pricing in the re-contracting risk we anticipate for the pipeline system. Much will depend on the decisions of counterparty PG&E. Yet even in a relatively conservative scenario where PG&E pays nearly double the going market rate to re-contract expiring capacity, we model Ruby's net present value 17% below that reflected in the recent price of Ruby's senior notes. From this outlook, there seems to be a higher likelihood that the situation turns out worse than better for Ruby stakeholders.

Highest regards,

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