

Executive Summary of Alternative Energy Proposal

In lieu of Xcel's proposal to build 25 miles more of new power line between Barksdale and Bayfield at a cost of about \$26 million, CheqBay Renewables is proposing a submarine cable costing about \$10 million less and a large solar project near Bayfield. CheqBay Renewables' plan has four major elements:

1. A 34.5-kV submarine cable from Ashland to Washburn, undergrounded on land at each end;
2. A 5-MW solar-plus-battery-storage facility near Bayfield;
3. Re-construction of old segments of the existing 34.5-kV line from Iron River to Bayfield; and
4. Connection of the 17 MVA spare 115/34.5-kV transformer at Iron River in lieu of the small transformer now used there.

Of these, the last two are virtually cost-free. Xcel is also planning to do the reconstruction discussed in paragraph 3. This is a common item in both CheqBay and Xcel plans. However, Xcel is doing the reconstruction to 69-kV standards. CheqBay is recommending rebuilding to 34.5-kV standards only, which costs less.

Item 4 costs very little because it just requires Xcel to connect a transformer it has on site.

CheqBay's submarine cable and related circuit breakers cost about \$16 million but provide a more reliable second 34.5-kV line to Washburn from the south than Xcel's proposed new line. The submarine cable improves reliability in Washburn compared to Xcel's overhead line, which shares poles or Barksdale ROW with the existing line.

The submarine cable and related capacitor installations increase normal voltage at Washburn and Bayfield, allowing 34.5-kV line re-construction west of Bayfield.

CheqBay's solar-plus-battery-energy-storage facility helps support the Bayfield Area in line outage situations. It reduces large line losses in serving the region. It provides clean renewable energy to the grid. It could also provide some ancillary grid support services. It and the underwater line help avoid 25 miles of new overhead line in a scenic region.

The CheqBay alternative approach is a win-win-win for CheqBay, Xcel, and residents of the area affected by Xcel's proposed new 34.5-kV line. That is why CheqBay urges Xcel to enter a dialogue on the alternative approach and urges Bayfield County Board members to defer any preliminary action on new county forest line easements until that dialogue runs its course.

Robert H. Owen, Jr.
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