

OPS-79 A Power Project in the Real World

This a schematic laying out a company's plans to construct a natural gas fired power facility out in the Hanna/Sheerness area of Alberta. PACE Canada LP has been constructing a 13 MW solar facility on land previously dedicated for coal production. The facility is not yet operational. The solar project will deliver its generated power to a Sheerness substation capable of 17 MW. The natural gas fired facilities are being designed to deliver 3.75 MWh of power continuously (Phase 1a) with another 6.25 MWh available on a variable basis (1.25 MWh (Phase 1b) and 5.0 MWh (Phase 2)). The variable component will rise, and fall based on the solar farm output. Effectively, the natural gas fired facilities will be supplying the 75% backup power that the Alberta government has proposed for new renewable projects. The project will be using 1.25 MW CAT generators based on availability and versatility. The total cost for that backup will be around \$4.5 million. Note, for another ±\$1,000,000, the natural gas facility could supply the same power as the \$17 MM solar facility. Begs the question, why are we spending \$17 MM when the same power levels can be produced for \$5 to \$6 MM? Elevated costs do not stop at the front end. Battery storage is ridiculously expensive. Just one hour of backup will cost

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around \$5 MM. One day of backup (which will not be enough) drives the cost up to \$68 MM. Renewables are not the answer. We are building two grids when one (natural gas fired) would be enough. We are spending \$17 MM (for 13 MW) when a \$5 to \$6 MM option is available. With battery backup added, the costs inflate to \$75+ MM (\$17 plus \$68 MM+ for 13 MW) when a \$5 to \$6 MM option is available. With renewables, electricity prices will increase and no there will be no measurable impact on temperature!

Hanna-Sheerness Power Project

