DPU 4.02U: Please calculate the cost to liquefy, store and vaporize gas on a per Dth basis? For example, if the LNG facility were to be filled with Wexpro gas at a COS price of $4.23 per Dth, what would be the cost per Dth of the natural gas that is withdrawn from the LNG storage facility after 1 year? (ie additional cost for liquefaction, storage and vaporization per Dth). Please provide the calculations and assumptions used to generate the answer.

Answer: The original response included an incorrect denominator amount of 2,650,000 Dth. This should have been 1,272,453 Dth. Also, the vaporization costs were included in the variable costs and the original answer assumed they were not. The answer has been corrected to adjust for these changes.

The total projected Operating and Maintenance expenses for this facility are estimated to be $5,185,343. More specifically, this includes $2,784,143 in fixed costs and $2,401,143 in variable costs. The annual variable costs assume filling the storage tank from empty to full (approximately 1,272,453 Dth), and electricity costs for 8 days of vaporization at 150,000 Dth/day. Dividing the total O&M amounts of $5,185,343 by 1,272,453 Dths amounts to $4.08/Dth.

The carrying costs would be based upon an annual carrying cost of 9.33%. So for example, a Dth of gas with a value of $4.23 would cost $0.39 per year in carrying charges.

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