

IR 15-124 Initial Staff Questions for Coalition to Lower Energy Costs/Competitive Energy Services
August 3, 2015

Instructions for responses: Please e-mail responses in PDF format **by August 13, 2015** to alexander.speidel@puc.nh.gov; responses will be promptly posted to the NHPUC website here: http://puc.nh.gov/Electric/Investigation_into_Potential_Approaches_to_Mitigate_Wholesale_Electricity_Prices.html

1. Ref. Competitive Energy Services February 7, 2014 Report. CES assumed that the spot price for natural gas in New England is \$5/MMBtu during any hour when the combined demand for natural gas from LDCs and power generation is less than the combined capacities of the region's pipelines. Other consulting firms such as ICF and Black & Veatch assert there is evidence for gas prices to spike whenever pipeline utilization rates are in excess of around 75%. Does CES' assumption suggest that its dispatch model understates gas costs and hence potential cost savings or is the \$5/MMBtu average price a conservative estimate that accounts for such price spikes?
2. Ref. Competitive Energy Services February 7, 2014 Report. CES assumed that the price for LNG delivered into New England's LNG storage facilities is \$18/MMBtu. Whenever the demand for natural gas from LDCs plus power generation is higher than pipeline capacity, the excess demand is met first by LNG at the delivered price of \$18/MMBtu. Does the fact that the LNG price to generators does not include a mark-up for profit suggest that CES' model understates gas costs and hence potential cost savings?
3. Ref. Competitive Energy Services' December 5, 2014 Report to TGP. Figure 1 shows the estimated power cost savings relative to the Base Case for increasing increments of pipeline capacity. These savings are driven in large part by reductions in the number of hours LNG fueled generation is on the margin. Are the savings estimates directly proportional to the difference between the price of LNG and the price of natural gas assumed in the dispatch model? That is, if the price of LNG was \$10/MMBtu instead of \$14/MMBtu, would the savings be reduced by approximately 30 percent? If not, please discuss the relationship between the price of LNG and cost savings and provide revised savings estimates assuming a \$10/MMBtu LNG price.
4. Ref. Competitive Energy Services February 7, 2014 Report. The results of CES' dispatch model indicate that as the amount of incremental pipeline capacity increases the number of hours LNG is on the margin falls as does the volume of gas supplied by the region's two large LNG storage facilities. To the extent the reduction in LNG volumes results in the closure of one of the LNG facilities and higher LNG prices as the sole supplier seeks to recover its fixed costs over a smaller volume, please comment on the likely impact of these changes on power cost and hence the benefits of increased pipeline capacity.
5. Ref. Competitive Energy Services February 7, 2014 Report and Competitive Energy Services' December 5, 2014 Report to TGP. The results of CES' dispatch model under different Base Cases show LNG on the margin in 2013 for approximately 1,000 and 2,000 hours when existing pipeline capacity is not adequate. Are these results supported by empirical evidence? If so, please provide all support.
6. Spectra has said that the combination of AIM, Atlantic Bridge and Access Northeast will significantly reduce the bottlenecks on the Algonquin system. Assuming the NED project does

not go forward, does CES believe such pipeline expansions will also reduce the constraints on TGP's existing system? If so, please describe the process that results in this effect. Similarly, assuming the Access Northeast project does not go forward, does CES believe the NED project will reduce the constraints on the Algonquin system? If so, please explain why.

7. Ref. Direct Testimony of Competitive Energy Services, June 2, 2015. Figure 7 provides estimates of the declining annual power cost savings associated with each 0.20 Bcf/day increment of pipeline capacity up to a total of 2.4 Bcf/day. Does CES's finding that incremental power cost savings decline significantly as the total pipeline capacity increment approaches 2.4 Bcf/day mean that a pipeline project that provides incremental capacity of 2.4 Bcf/day will largely eliminate regional pipeline constraints? If not, how should the decreasing rate of power cost savings be interpreted?
8. Liberty and other Anchor Shippers on NED have entered into precedent agreements with TGP for capacity on the NED Supply Path. In the case of Liberty, the amount of capacity on the Supply Path is 60% of the capacity purchased on the Market Path. (Check regarding others) Do these actions suggest, in CES' opinion, that the Anchor Shippers share the concern that the price of natural gas at Wright, NY will materially exceed the price in the Marcellus production area plus transportation to Wright for a significant portion of the contract term? If not, please discuss.
9. Ref. Competitive Energy Services, Report to Tennessee Gas Pipeline Company, December 5, 2014, page 10. Please elaborate on the statement that throughput on the NED pipeline would be less than the combined electric and non-electric market demand for natural gas in New England on most days of the year based, if the capacity of the project was less than 1 Bcf/day. Is CES saying that on most days of the year, and particularly on winter days, the total demand for natural gas will exceed the supply from the NED pipeline and hence the remaining gas demand must be met by existing/other new pipelines at prices based in large part on the price of gas at receipt points other than Wright, NY? And that it will be prices on these other pipelines that will set the clearing prices in the New England natural gas market? Also, under what circumstances, if any, is the price of gas delivered to New England on cold winter days by the proposed NED pipeline likely to set market clearing prices? Finally, if the answer to the previous question is that there are no circumstances under which gas delivered by the proposed NED project will set clearing prices, is the benefit the NED project bring to regional electricity consumers set by the impact the incremental pipeline capacity has on clearing prices and hence power cost savings.
10. Ref. Competitive Energy Services, Report to Tennessee Gas Pipeline Company, December 5, 2014, page 11. CES goes on to say that under the conditions set forth on page 10, the lower delivered gas price associated with the NED project "will redound to the benefit of the holder(s) of firm capacity on that pipeline". Would CES agree that the holders of firm capacity on the NED pipeline may not be limited to generators directly connected to the existing TGP system but could include generators directly connected to the Algonquin and M&N pipelines and, moreover, that this potential benefit could function as an incentive to gas generators to bid for EDC capacity that comprises receipt and delivery points on the NED pipeline?
11. Staff understands that the interconnection of the NED project with the Joint Facilities, together with the anticipated reversal of gas flow along the Joint Facilities, will enable the NED project to

access more New England gas generators in New Hampshire, Maine and in the Atlantic Canada region. To the extent such generators choose to purchase gas supplies transported on the NED pipeline instead of Access Northeast, will those generators incur the cost of firm transportation on both the Joint Facilities and NED pipelines? Also, to CES' knowledge, will a single transportation rate be levied for the whole of the Access Northeast project or separate rates for Algonquin and M&N pipelines?

12. Similarly, is it CES' understanding that gas generators directly served by Algonquin that receive firm gas supplies via the NED project will incur the additional cost of firm transportation on Access Northeast. Additionally, is it CES's understanding that such firm transportation will be available only if the Access Northeast project goes ahead?
13. ISO-NE in a recent whitepaper titled *The Importance of a Performance-Based Capacity Market to Ensure Reliability as the Grid Adapts to a Renewable Energy Future* (June 2015) contends that energy market price reductions caused by subsidized renewable resources put upward pressure on capacity market prices. Has CES considered the potential impact on capacity prices caused by energy price reductions driven by EDC funded pipeline expansion projects? If so, please discuss.
14. Assuming the New England states decide to purchase a specific amount of incremental pipeline capacity at the lowest reasonable cost, and three regional projects are capable of supplying that capacity via purchases made by EDCs, what approach would CES recommend the New England states employ to select among competing pipeline projects? Also, does CES see any downside to requiring pipeline projects to compete to supply the needed capacity?
15. Assuming the New England states decide to support a single regional pipeline project, does CES see any downside to such a decision?
16. In the Mass DPU proceeding DPU 15-37, CES is quoted as claiming that the average price of gas for the period December 1, 2013 through November 30, 2014 at the Tennessee Z4 Marcellus trading point was \$2.57/MMBtu compared to \$5.28/MMBtu at the TETCO M3 trading point. Is it reasonable to conclude from this comparison that the NED project will provide greater benefits to the region than the Access Northeast project, all other things being equal? If yes, please explain why. If no, what was CES' purpose in making this comparison?