

Supplement to the Downstate New York Natural Gas Long-Term Capacity Report

Estimated Customer Cost Impact of the Different Options to Close the Gap Between Forecast Demand and Available Supply

Background

In the Natural Gas Long-Term Capacity Report, we developed the Net Present Value (NPV) of net costs for different alternatives to close the gap between forecast demand and available supply. This enabled us to provide a comparison of the total cost package that would impact customers from 2020-2035. The results of this analysis can be seen in the Report on pages 17 and 100.

For each of the options, we also provided the estimated cumulative spend in five year increments (by 2024/25, 2029/30, and 2034/35), which can be seen in Figures 24 – 31 on pages 90-96. And, in pages 107-116 of the Appendix, we show the annual cost from 2020-2034 of the each of the options under consideration.

While we believe the analyses included in the Report provide the ability to compare the costs of the different options under both a High Demand and Low Demand forecast, we recognize it may be difficult to translate into the impact on customer costs. Therefore, using the same underlying data, we have conducted additional analysis to provide estimates of the impact to customer costs under each option.

Step 1: Calculating Cost Increase Percentages Over Time

In the first step of our supplemental analysis, we looked at the average annual non-discounted cost of each solution approach in five-year time periods (2020/2021 – 2024/2025, 2025/2026 – 2029/2030, and 2030/2031 – 2034/2035), and compared that to the Baseline KEDNY/KEDLI costs (operating revenue)¹ to calculate the total cost increase % resulting from each option.

So, for example, the NESE pipeline is estimated to cost \$193M per year starting in 2021/2022. Therefore, over the first five-year period, the average cost per year would be \$154M (\$193M for four years, divided by five). Dividing this by the total baseline revenue of \$3.1B, we arrive at a 4.9% cost increase for the first five-year period for this option.

The results of this analysis for each of the different options is included in Table 1 below.

¹ Baseline revenue from 2018 annual reports: KEDY \$1.85B, KEDLI \$1.24B, Downstate NY total \$3.1B

Table 1: Total Cost Impact (% Change from Baseline) of Different Options to Close the Gap Between Downstate NY Gas Demand and Supply

Option	High Demand Scenario				Low Demand Scenario			
	5yr avg 2024/25	5yr avg 2029/30	5yr avg 2034/35	15 year Average	5yr avg 2024/25	5yr avg 2029/30	5yr avg 2034/35	15 year Average
Offshore LNG Port	5.4%	7.7%	5.3%	6.1%	5.2%	5.1%	5.3%	5.2%
LNG Import Terminal	5.4%	9.8%	7.9%	7.7%	5.2%	7.1%	7.9%	6.7%
Northeast Supply Enhancement (NESE)	4.9%	6.2%	6.3%	5.8%	4.9%	6.2%	6.2%	5.7%
Peak LNG Facility	5.6%	13.7%	3.0%	7.4%	5.2%	3.6%	3.4%	4.1%
LNG Barges	5.6%	13.3%	2.4%	7.1%	5.2%	3.1%	2.8%	3.7%
Clove Lakes (CL) Transmission Loop	5.6%	14.0%	3.4%	7.7%	5.2%	3.9%	3.8%	4.3%
Gas Compression on the Iroquois GTS	5.1%	11.0%	5.3%	7.1%	3.9%	5.1%	0.6%	3.2%
Gas Compression + LNG Barges	3.7%	9.4%	4.6%	5.9%	1.0%	3.4%	3.8%	2.7%
Gas Compression + Clove Lakes	3.7%	10.1%	5.5%	6.5%	1.0%	4.2%	4.8%	3.3%
No Infrastructure	5.8%	13.9%	5.9%	8.5%	5.3%	7.8%	(0.1%)	4.3%

The percentage increases above are all calculated as changes from the Baseline. For example, if we are looking at the No Infrastructure option and the High Demand scenario, it indicates that costs would be 5.8% higher for the first five-year time period, then would increase another 8.1% to a total of 13.9% over Baseline for the next five-year period, then would go back to a level that is 5.8% higher than the Baseline for the final five-year period.

This analysis isolates the cost impact of each alternative and does not take into account other potential changes that could impact costs and customer bills, such as changes to customer mix and volume, other changes in capital investment, operating cost increases, etc.

Step 2: Factoring in Projected Changes in Number of Customers to Calculate Average Cost Per Customer

Having calculated the cost changes over the five year time periods for each of the different options, in Step 2 we factor in the changes in the number of customers over time to derive an average estimated customer cost impact. Again, we are using the same data on the cost of each option, but now taking into account the expected growth in number of customers over time, taken from our High Demand and Low Demand scenarios as described in the Report.

The results of this analysis for each of the different options is included in Table 2 below.

Table 2: Average Customer Cost Impact (% Change from Baseline) of Different Options to Close the Gap Between Downstate NY Gas Demand and Supply

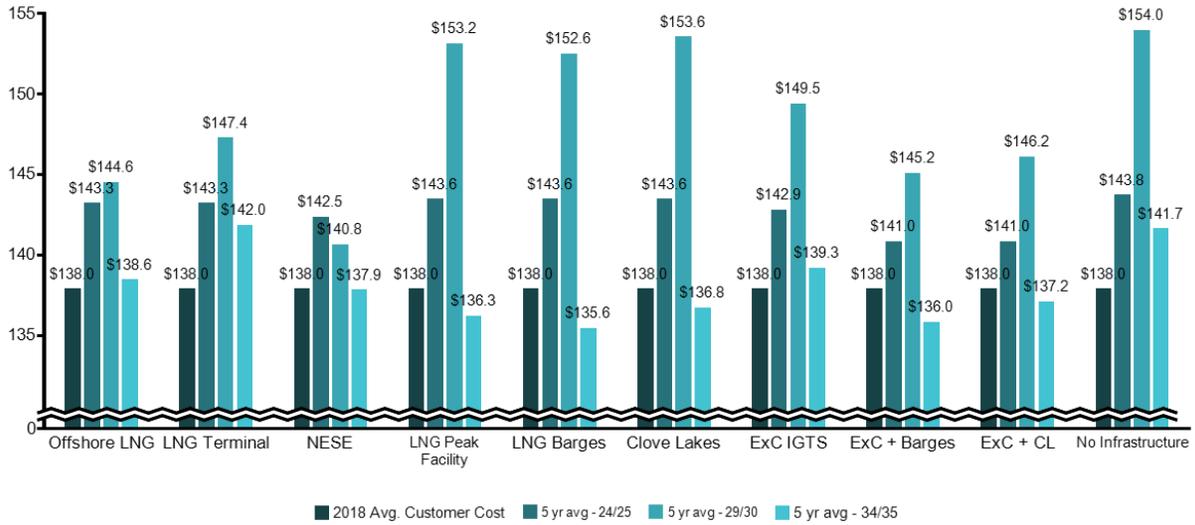
Supply Option Alternative	High Demand Scenario				Low Demand Scenario			
	5yr avg 2024/25	5yr avg 2029/30	5yr avg 2034/35	15 year Average	5yr avg 2024/25	5yr avg 2029/30	5yr avg 2034/35	15 year Average
Offshore LNG Port	3.9%	4.8%	0.4%	3.0%	3.7%	1.9%	0.3%	2.0%
LNG Import Terminal	3.9%	6.8%	2.9%	4.5%	3.7%	3.9%	2.7%	3.4%
Northeast Supply Enhancement (NESE)	3.3%	2.0%	0.0%	1.7%	3.2%	2.1%	0.3%	1.9%
Peak LNG Facility	4.0%	11.0%	(1.2%)	4.6%	3.7%	0.5%	(1.5%)	0.9%
LNG Barges	4.0%	10.6%	(1.8%)	4.3%	3.7%	0.0%	(2.1%)	0.5%
Clove Lakes (CL) Transmission Loop	4.0%	11.3%	(0.8%)	4.8%	3.7%	0.8%	(1.1%)	1.1%
Gas Compression on the Iroquois GTS	3.6%	8.3%	0.9%	4.3%	2.2%	1.1%	(5.0%)	(0.6%)
Gas Compression + LNG Barges	2.1%	5.2%	(1.5%)	2.0%	(0.6%)	(0.6%)	(1.9%)	(1.0%)
Gas Compression + Clove Lakes	2.1%	5.9%	(0.6%)	2.5%	(0.6%)	0.2%	(1.0%)	(0.5%)
No Infrastructure	4.2%	11.6%	2.7%	6.2%	3.8%	5.3%	(3.9%)	1.7%

In all scenarios, the number of customers is expected to increase, which drives the cost impact on a per-customer basis lower when compared to the total cost impact (i.e. the percentages are lower in Table 2 than they are in Table 1 across the board). In the options that require No Infrastructure programs as a significant component of the solution, the number of new customers grows at a slower pace as programs such as Electrification of heat move customers off of the gas system.

Again, as in Table 1, this analysis does not take into account changes in customer mix or any other changes to cost such as changes in capital investment, operating cost increases, etc. It is an attempt to isolate the overall average impact to costs of the different options – further segmented analysis accounting for multiple other factors would have to be conducted to arrive at projected customer bill impacts by customer class and across KEDNY and KEDLI.

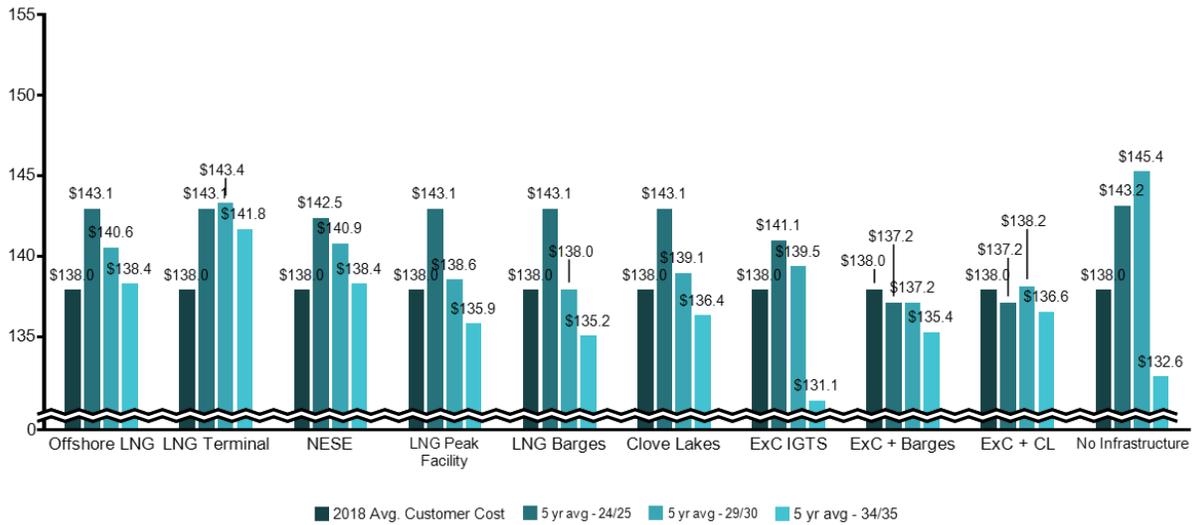
To further illustrate the estimated impact, we have included Figures 1 and 2 below that show the average customer cost in 2018, and then what it is estimated to be over the different five-year time periods for each of the solution approaches under the High Demand and Low Demand scenarios.

Figure 1: Option Impact on Average Monthly Customer Cost in High Demand Scenario



Note: Represents average monthly cost to DNY customers and does not reflect actual "Customer Bill Impact". Assumes the same impact for every customer type (e.g., residential heat, multi-family, etc.); actual impact would differ for each type and be impacted by other capital investments and other operating cost changes/increases

Figure 2: Option Impact on Average Monthly Customer Cost in Low Demand Scenario



Note: Represents average monthly cost to DNY customers and does not reflect actual "Customer Bill Impact". Assumes the same impact for every customer type (e.g., residential heat, multi-family, etc.); actual impact would differ for each type and be impacted by other capital investments and other operating cost changes/increases