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ResearchReport

Natural Gas System Expansion Plan

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Issue

This report answers questions related to the Public Utilities Regulatory Authority's (PURA) decision reviewing the 2019 system expansion reconciliation mechanisms filed by the local distribution companies (LDCs, i.e., Connecticut Natural Gas (CNG), Southern Connecticut Gas (Southern), and Yankee).

Summary

[PA 13-298](PA 13-298) required the LDCs to submit a natural gas infrastructure expansion plan ("System Expansion Plan") to PURA and the Department of Energy and Environmental Protection (DEEP). Among other things, the law required the plan to include steps to expand the natural gas distribution network, increase the rate of cost-effective customer conversions, provide natural gas access for industrial facilities, lower costs of adding new customers, and limit risk to existing customers by incorporating mechanisms to increase or decrease conversions in response to changing energy prices. The law required the plan to include a 10-year schedule for customer conversions. To fund the expansion, the law required PURA to (1) establish a new rate for new customers, (2) establish a rate mechanism for the companies to recover prudent investments outside of a rate proceeding ("System Expansion Reconciliation mechanism" (SER)), and (3) assign up to $15 million in non-firm margin credits (NFM) to offset expansion costs (CGS § 16-19ww).

Non-firm Margin Credits

Non-firm margin credits (NFM) represent revenue earned by gas companies through interruptible and off-system sales. Previously, the companies returned NFM credits to customers as a credit on their bills.

PURA approved the LDCs' joint plan in 2013 (Docket 13-06-02) and a related settlement in 2015 (Docket 13-06-02RE01). PURA also revised related orders in subsequent decisions (Docket 13-06-

02RE03 and Docket 17-03-03). The System Expansion Plan, as approved and modified by these decisions, requires PURA to review certain information in each company's annual SER filing.

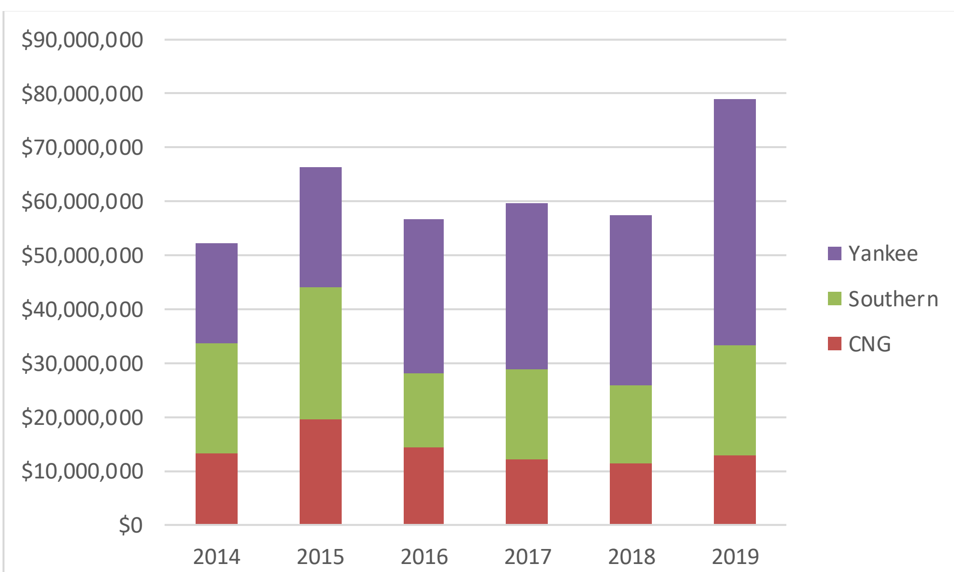
PURA's review of the companies' 2019 SER filings included a review of the System Expansion Plan's overall progress since 2014 (Docket 20-03-16). Among other things, PURA found that, over that time period, (1) the average cost per new customer increased; (2) the companies required significant subsidies, borne by ratepayers, through the SER and NFM to offset costs; and (3) firm gas ratepayers pay higher costs due to allocation of NFM to expansion projects.

Noting that System Expansion Plan results fell short of PURA's and the LDCs' expectations, PURA indicated that it would (1) re-open SEP-related dockets to re-examine certain program elements and (2) convene a working group. PURA has also published a draft decision reviewing 2020 SER filings, finding similar conclusions (Docket 21-02-01).

Has the average cost per new customer increased from 2014 to 2019?

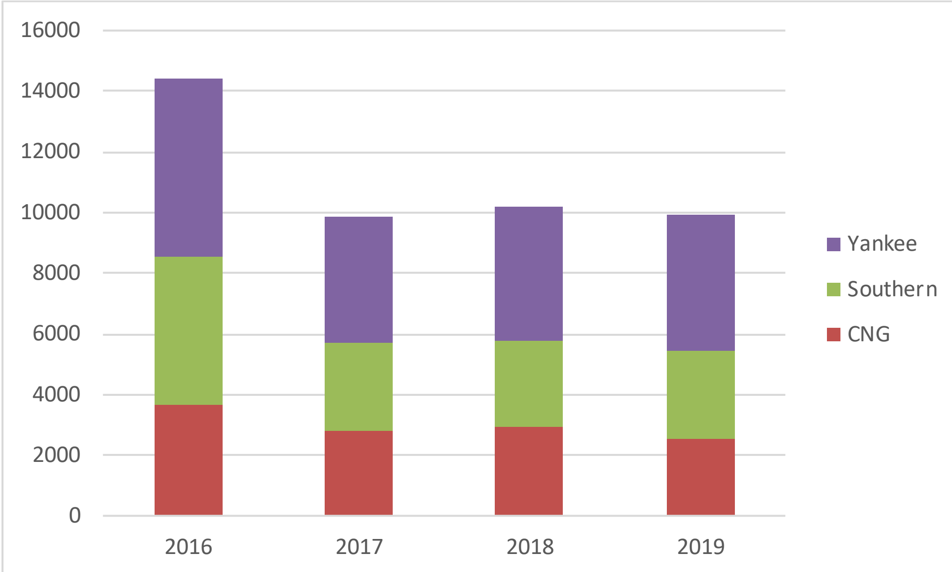
In the 2019 review, PURA concluded that the average cost per new customer has increased over this time period. The authority based this conclusion on capital expenditures remaining "relatively robust" (Figure 1) and the declining number of new customers added (Figure 2).

Figure 1: Capital Expenditures on Natural Gas Expansion Projects by Company (2014-2019)



Source: PURA Final Decision, Docket 20-03-16, p. 7 (Table F)

Figure 2: New Customers Added through Natural Gas Expansion Projects by Company (2016-2019)



Source: PURA Final Decision, Docket 20-03-16, p. 13 (Table P)

Were significant subsidies (SER and NFM) required to offset revenue shortfalls and capital cost variances? Are ratepayers significantly subsidizing projects under the System Expansion Plan?

In the 2019 review, PURA found that the LDCs required significant subsidies through the SER and NFM to offset revenue shortfalls and capital cost variances. The authority based this finding on information provided by the LDCs on projects that have been in service into their fifth year. The table below provides summary information for each company.

Table 1: Approximate Ratepayer Cost for Projects that Obtained Fifth-Year of Service

Company	Number of Projects	SER($)	NFM($)
CNG	10	$127,000	$500,000
Southern	11	$117,000	$295,000
Yankee	9	$370,000	$1.7 million

Source: PURA Final Decision, Docket 20-03-16, p. 8-10

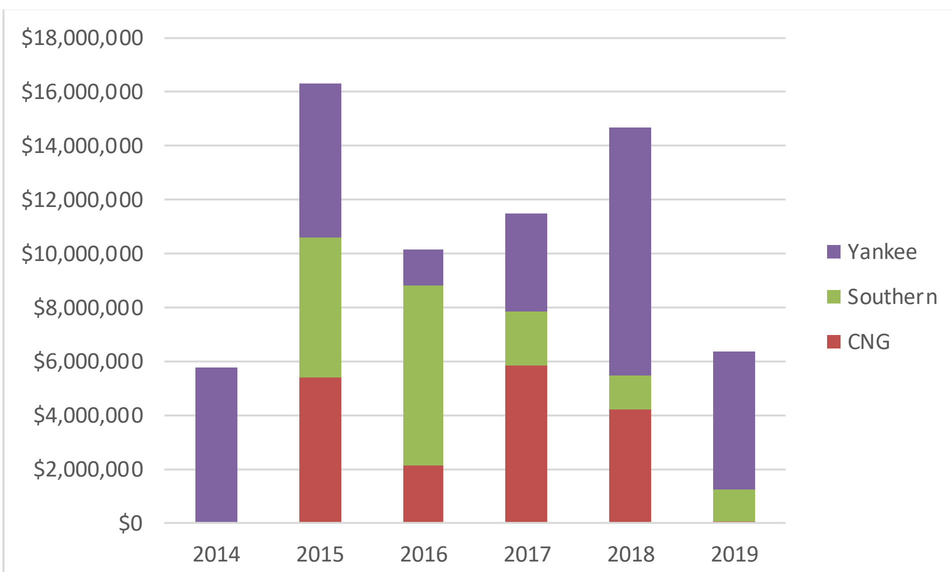
Citing this and other data, PURA concluded that ratepayers are significantly subsidizing projects under the System Expansion Plan (2019 Decision, p. 10). The authority noted that some projects had unexpected costs. According to the LDCs, factors driving unexpected costs include the following:

1. rock formations encountered during construction;
2. changes to project scope, including adding services;
3. pavement issues related to state and local requirements;
4. estimates provided by former contractors;
5. traffic control; and
6. unforeseen environmental issues.

Are firm gas ratepayers paying higher gas costs due to the NFM allocation to expansion projects?

In the 2019 decision, PURA concluded that firm gas ratepayers pay approximately $64 million in higher gas costs due to NFM allocated to expansion projects. This amount represents the cumulative total for all three companies from 2014 to 2019. The figure below shows amounts by company and year.

Figure 3: NFM Spent on Natural Gas Expansion Projects by Company (2014-2019)



Source: PURA Final Decision, Docket 20-03-16, p. 7 (Table F)

Conclusions and Subsequent Actions

According to PURA, despite heavy capital investment by the LDCs, the System Expansion Plan results are falling short of PURA's and the companies' expectations. Specifically, PURA determined that (1) the number of new customer additions are far lower than the original goals in the Comprehensive Energy Strategy and (2) data from the companies indicate generally that the capital investment required to connect new customers has increased (or remained consistent), despite lower levels of customer conversion compared to the program's earlier years.

PURA stated it would reconsider certain program elements, including considering steps to (1) mitigate project variances and required subsidies, (2) reduce the number of customers who are non-compliant with their service agreements, and (3) revisit or redesign current marketing efforts related to the program (or make customers aware of alternative clean heating options where natural gas is not physically or economically available). PURA also expressed interest in exploring whether any distribution pricing adjustments are warranted, given that the price disparity between heating oil and natural gas is smaller than previous years, resulting in a longer payback period and decreased customer demand.

PURA re-opened a related docket and directed the companies to revisit the System Expansion Plan and the related settlement within a working group and discuss these issues and the potential development of a revised System Expansion Plan framework that (1) allows the companies to continue the program under current legislative authority, (2) attracts new customers, and (3) protects ratepayer benefits (Docket 13-06-02RE05).

In its draft decision approving the companies' 2020 SER filings, PURA similarly found (1) the average cost per new customer increased significantly and (2) the companies required significant subsides through the SER and the use of NFM to offset revenue shortfalls and capital cost variances (Docket 21-03-01). Noting that issues identified in the 2019 review persisted in 2020, PURA stated that it is currently reviewing certain elements of the System Expansion Plan in the separate docket referenced above (i.e., Docket 13-06-02RE05).

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