Work Description:
The Gas Rate Design and Analysis Systems deliverables, also known as Gas Customer Usage System (CUS), included the replacement of a flat file mainframe system with server-based database technology and specialized gas bill impact reporting tools. CUS replaced a system that relied for reporting on RAMIS, which is no longer supported, with a system that permits user-friendly access tools.

This enhancement project addresses additional rate case systems enhancements and reporting requirements, outside the scope of the initial project:

- special reporting to support dual fuel and other non-firm service offerings
- enhancements to bill impact process to further eliminate reliance on RAMIS code mainframe system reports
- updates to Dynamic Load Shaping system (DLS) to incorporate upgrades to gas billing and/or gas interval data input systems

The high level schedule covers approximately three years, January 2014 through September 2016.

Justification:
Alternatives/Risk of No Action:
Non-firm sales and revenue analyses rely on a series of detailed, monthly mainframe, hardcopy reports, with at least five separate report formats. Information in these reports is analyzed and becomes the basis for much of the non-firm revenue data used in rate cases and monthly closings.

In addition, the production of the monthly mainframe downloaded sales reports is a step in the bill impact process that relies on RAMIS coded reports. RAMIS is no longer supported, and there are few RAMIS experts available to make modifications to reports or to deal with any changes to reporting.

There is real concern whether these mainframe reports can meet the increasing gas service analysis demands given the importance of these reports to rate case preparation. Absent the
redesign and replacement of these reports, the shortcomings have a cascading effect, requiring more off-system analysis and offline data manipulation.

Furthermore, both of these reports rely on information from mainframe sources that have/or are now in the process of being replaced and/or consolidated in other corporate efforts (i.e., revenues in RevStat and traction systems are now in RevStat DB). There were also changes to the granularity of the data stored.

**Non-financial Benefits (if applicable):**
This system rebuild effort is an important step in eliminating many of the time-consuming steps associated with multiple downloads and inconsistent file formats. It continues to streamline the bill impact process. The non-financial benefits will be more thorough scenario analyses.

The CUS system effort has benefits beyond those already discussed:
- The architecture design and process review has increased scrutiny of the complex coding utilized for standardization of consumption storage in CUS, resulting in the update of this logic and a process for ongoing review.
- The choice of Business Intelligence (BI) platform may better leverage revenue and other data stored on the same platform for analysis and reporting.
- The multi-department review has lead to a better understanding of some of the more complex logic (i.e., aligning usage by trips, use of service point to align sales by premises) and its uses in other analyses.

**Technical Evaluation/Analysis:**
Initially listed as a required CUS report, each non-firm sales report format was analyzed, focusing on current user requirements. Because of the complexity and age of the source code, reengineering analysis and parallel testing was also employed. Gas RESPIN, the system replaced by CUS, was not a source for these reports. This enhancement project can leverage work already completed.

The downloaded monthly sales report is a series of monthly snapshot reports of usage and revenue information. The inflexibility of the coding has resulted in minimal changes. User analysis will dictate the current requirements (billing only, billing and revenue information) and timing of the reports, which in turn will determine the report source.

It is anticipated that SSRS, a reporting tool by Microsoft, will be used to create canned reports from a data warehouse developed by the Business Intelligence (BI) group.

Currently, DLS continues to extract billing information from gas RESPIN files. Updates to DLS will require an interface to extract data from CUS to the DLS system. It will require both PC and mainframe coding. Updates to DLS to extract interval data is awaiting consolidation of gas interval data into a single warehouse.

**Project Relationships (if applicable):**
CECONY and ORU have different legacy billing platforms, and Rate Engineering had parallel but not identical mainframe systems for electric and gas usage storage. The CUS platform is now standardizing customer usage and rate design analysis across companies and services.
This is an enhancement to the Gas Rate Design and Analysis Systems project and addresses added scope.

The ultimate goal of Rate Engineering’s strategic systems plan is an integrated system with ease of reporting and inquiries. Where possible, Rate Engineering is replacing all systems relying on RAMIS coding.

Key elements include:
- replacement of two mainframe systems, Load Study System (LSS) and its companion demand analysis reporting system (COEDS), with DLS, a SAS-based modular load research and sample design system
- replacement of RESPIN, the customer usage, flat file, mainframe system, with CUS
- integration of CUS, DLS and rate design/bill comparison pricing systems, specifically BillCalc

**Estimated Completion Date:**
9/2016

**Status:**
Not started

**Budget Funding $600,000: ($000s) Not yet approved**

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