

**CASE STUDY**

# Maximizing the Approach, Strategy and Resources for Gas Main Replacement and Reinforcement Programs

Baltimore Gas & Electric has a portfolio of programs to modernize and improve gas system performance while limiting emissions. The largest program aims to replace all of the aged infrastructure for certain material types prone to leaking. The utility wanted to define and build out its reporting and processes and find ways to better leverage resources while minimizing execution risk.

**Challenge**

Baltimore Gas & Electric (BGE) has a portfolio of several programs to modernize its natural gas distribution network, including replacements, reinforcements, reliability and relocations. BGE aims over the course of 30 years to replace over 1,000 miles of gas main as well as over 100,000 gas services in its heavily urban environment. The work aims to cut down on methane and greenhouse gas emissions from aging infrastructure or infrastructure material failures.

Recognizing that it needed to ramp up its main replacement program significantly, the utility obtained funding from the state to increase its pace and priority. However, in order to manage the greater scope of annual replacement program

**Project Stats****Client**

Baltimore Gas & Electric

**Location**

Baltimore, Maryland

**30**

**YEARS OF PLANNED  
IMPROVEMENTS**

**\$100M+**

**ANNUAL SPEND**

**1K+**

**MILES OF REPLACED  
INFRASTRUCTURE**

work, BGE needed assistance with the development, organization and strategy of its processes, as well as careful documentation and dashboard tools to manage the work effectively.

## Solution

While BGE has retained ownership of the execution of its programs, it selected Burns & McDonnell to consult and support the programs and projects with project management tools and an emphasis on cost and schedule controls, starting in 2015.

The utility's programs involve upgrading natural gas mains and services to address issues of corrosion, material degradation and leaking. We focused on program management support to give the utility technical guidance and assisted in the build-out of a diverse support team. Our team has helped BGE manage risk and build a suite of reporting and controls while pushing an aggressive acceleration and ramp-up for the utility's annual goals.

We built software tools and leveraged other existing tools to break projects into meaningful quantities, such as in terms of feet of main, number of services and connections performed. These work activities were tracked separately to make use of as many data points as possible and see that the reporting was meaningful.

The tools and dashboards make it easy to follow the progress of the work and how the progress is affecting cash flow and resource utilization. The team provides extensive reporting, including weekly and monthly visualization graphics, to keep BGE management up to speed across its broad range of ongoing project work.

## Results

Through successful project work over almost a decade of the programs collectively known as the Centrally Managed Gas Program Portfolio, BGE has made great strides toward building a safer, more reliable and greener system with fewer leaks and emissions.

We have developed cohesive relationships with the BGE team, which appreciates our guidance and ability to track the work. Together we have worked to continuously improve year-over-year execution. We are able to escalate issues at opportune times and provide timely notifications. This gives BGE a better idea of the true health and status of its programs early on, before any problems can magnify. It has also helped with reducing financial risks by giving the utility actionable intelligence to redeploy stranded funding as needed.

## About Burns & McDonnell



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