



# Vermont Gas Systems, Inc.

BMP Distribution Partner Since 2016



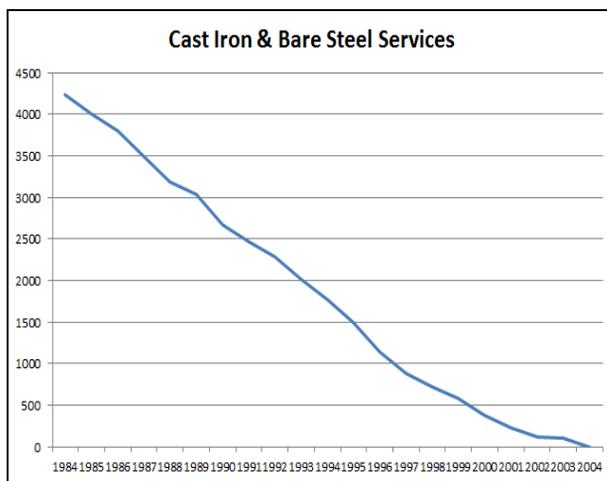
## Background

Vermont Gas Systems provides an important energy service to more than 53,000 customers in northwestern Vermont. VGS has maintained a tight transmission and distribution system through frequent surveys, new technologies, pipe replacements and aggressive leak repair programs. To date, Vermont Gas has replaced all cast iron and bare steel with either polyethylene or coated steel and continues to follow a steel replacement program, retiring and replacing coated steel services and mains annually. Vermont Gas has also completed several major gate station replacements.

## Historical Highlights

### Cast Iron and Bare Steel Replacement

Vermont Gas has previously replaced all cast iron and bare steel mains and services. The replacement program officially began in 1984, with 41 miles of main and 4,230 services that were either cast iron or bare steel. An average of 2 miles of main and 200 services were replaced annually. The program was completed when the system no longer contained cast iron or bare steel mains and services in 2004.



### Station Replacements

In 1995, Vermont Gas began rebuilding or replacing older gate stations. Seven stations have been rebuilt to date. Two redundant stations were also retired completely with the rebuild of one larger, new station.

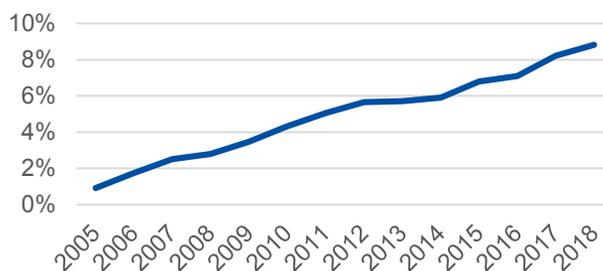


# Vermont Gas Systems, Inc. Historical Fact Sheet

## Steel Replacement Program

Upon the 2004 completion of cast iron and bare steel replacement, Vermont Gas continued with a steel replacement program. Areas are evaluated on an annual basis to determine if upgrading is appropriate. Factors considered in the evaluation include areas of isolated coated steel, low cathodic protection readings and review of steel fittings for any history of issues both within Vermont Gas and industry wide. To date, VGS has replaced approximately 9% of its entire steel system since 2005, with more replacement scheduled for 2019 and beyond.

Cumulative Percentage of 2005 Steel System Replaced



## Excess Flow Valves

To mitigate the gas release from any third-party damage of a service line, VGS began installing excess flow valves (EFV) in the mid-1980s. VGS continues to install EFVs where possible on all new and replacement services.

To date, VGS has installed over 29,000 EFVs, equating to approximately 72% of the total distribution system.

Percentage of Services with Excess Flow Valves

