

# Case Study. Snam: Converting gas pneumatics to instrument air

Best Practice: Pneumatic equipment

## The Issue

- Gas-driven pneumatic systems are used across the natural gas industries for process control, including pressure, temperature, liquid level, and flow rate regulation.
- All vent gas by design (high bleed, low bleed, intermittent, continuous)

## The approach

- Instrument air systems substitute compressed air for the pressurized natural gas, eliminating methane emissions and providing additional safety benefits.
- Devices were replaced at many compressor and regulating & reducing stations to instrument air driven
- During 2014-15, Snam replaced ~450 high-bleed old positioners in its R&R stations with a low-emission model
- In new R&R stations, Snam installed boilers with electric control, used fewer regulating lines but of greater diameter, and installed electrically actuated control valves



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## The Result

- 200,000 m<sup>3</sup> gas saving per compressor station per year
- Across R&R plants, 4,000,000 m<sup>3</sup> gas saving per year
- As a result of the pneumatic equipment replacement initiatives, the Snam pneumatic emission reduction from 2013 to 2018 was about 33%, ~6,000,000 m<sup>3</sup> of natural gas saved per year.

