

# Case Study 4: Hot Tapping for Pipeline Connections (Snam)

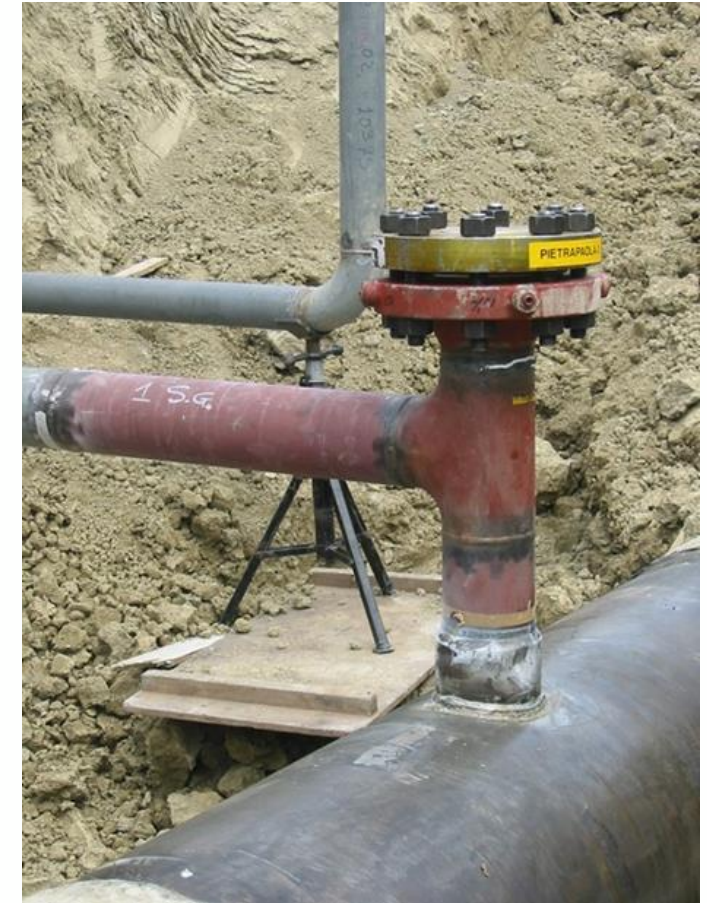


## The issue

- New connections often need to be made to pipelines to expand or modify the existing transmission network. Historically, this required shutting down a portion of the network and releasing gas to the atmosphere.

## The approach

- Hot tapping is an alternative procedure that makes a new pipeline connection while the pipeline remains in service. Hot tapping involves attaching a branch connection and valve on the outside of the pipeline before cutting out the wall of the pipeline within the branch. This avoids the loss of natural gas, methane emissions and disruption to customers.



## Results

- Snam applies hot tapping techniques where reasonably possible, especially when a high number of customers are connected. In 2018, six hot-tapping procedures saved 1,700,000 sm<sup>3</sup> of gas (14% reduction of vented emissions). In 2019, hot-tapping saved 1,030,000 sm<sup>3</sup> of gas
- The average total cost for each procedure, including labor costs, is €70,000
- Although this technique is widely applied and considered as common practice in the oil and gas industry, each hot tap has to be evaluated individually. Specific welding procedures must be used to assure a safe process