

Northern Natural Gas Company
2020 Maintenance Capital Reconciliation
Significant Capital Expenditure Category Details

Pipeline Integrity:

Northern's pipeline integrity program spending of approximately \$64m primarily addresses pipe replacements as a result of class location changes or recent pipeline assessments. Northern completed 68 pipeline integrity projects in 2020 ranging in cost from \$3k to \$4,604k. These projects included pipeline class change location replacements and/or pressure tests, pipeline integrity replacements, new block valve installations and station frost heave remediations.

Pipeline-Shallow/Exposed Pipe:

Northern's shallow or exposed pipe program spending of approximately \$24m addresses Northern's highest ranked shallow or exposed pipeline conditions. Northern completed 20 shallow or exposed pipeline projects in 2020 ranging in cost from \$63k to \$3,117k. Northern utilized both civil remediation and pipe replacement methods to resolve the shallow or exposed pipelines.

Compressor Modifications:

Northern's compressor modifications program spending of approximately \$19m addresses capital upgrades and replacements related to Northern's compression fleet. Northern completed 45 compressor modification projects in 2020 ranging from \$3k to \$5,272k. These projects included fuel valve replacements, engine and piping modifications, exhaust replacements, tubing upgrades, pump replacements, and lubrication system replacements.

Underground/LNG Storage:

Northern's underground/LNG storage program spending of approximately \$20m was primarily focused on improving integrity and reliability of our storage facilities and installing new wells. Approximately \$11m of the capital expenditures focused on improving integrity and reliability, notably through wellsite separator replacements and well liner installations. The remaining \$9m was focused on new well installations at Northern's Redfield, Iowa, underground storage facility to maintain reservoir performance.

Corrosion Control:

Northern's corrosion control program spending of approximately \$24m primarily focuses on Northern's cathodic protection system. Northern completed hundreds of corrosion control projects in 2020 ranging in cost from a few hundred dollars to \$6,627k. These projects included ground bed and rectifier installations, shorted casing remediations, test station installations, recoats and a large diameter pipe replacement.