DG 08-048
Unitil Corporation and Northern Utilities Natural Gas

Joint Report on Cost Analysis of Proposed Capital Investment Projects

In response to the Commission's secretarial letter of March 28, 2011, Commission Staff and Northern Utilities Natural Gas ("Northern" or "the Company") held several informal discussions and shared and critiqued their respective analyses of cost issues raised in Docket No. DG 08-048. Specifically, Staff and Northern analyzed and conferred on their analyses of the costs and benefits of the Company's Little Bay Bridge project and PHMSA integrity management upgrades in the context of the various pipeline configuration scenarios presented at the status conference held on February 18, 2011. Based upon these discussions and analyses, Staff and the Company report as follows:

Little Bay Bridge: The Company's plan is to relocate the existing pipeline that spans Little Bay Bridge by installing a new river crossing using Horizontal Directional Bore (HDD) technology. The unloaded capital cost estimate for this project is approximately $2.75 million. The alternative comparison project was to split the pipeline at Little Bay Bridge and abandon the crossing, and instead construct a new gate station in Eliot, Maine to allow for continued service to the Dover, Rochester and southern Maine service areas. Estimated unloaded capital costs for the alternative were approximately $2.2 million. Further analysis by Staff and the Company of the gas supply reconfiguration costs associated with abandoning the crossing and servicing a new gate station reveal additional annual capacity costs of an estimated minimum of $1.7 million. Accordingly, based upon available information and an economic analysis which considers both the initial capital and subsequent ongoing gas supply costs, Staff and the Company agree that the proposal to install a new pipeline crossing at this location is reasonable.

PHMSA Integrity Management Costs: Integrity management costs are associated with performing baseline assessments of the 13 High Consequence Areas (HCAs) in New Hampshire and 4 HCAs in Maine by 2012, which will require modifications to accommodate intelligent line inspections (ILI) throughout the lengths of pipeline in each of those locations. The modifications necessary to facilitate inspections include replacing fittings and main valve lines, and replacing station taps with new meter station bridles. The unloaded cost estimate for this project is approximately $1.9 million,[1] plus additional capital and O&M costs associated with the required ongoing seven-year cycle evaluations.

[1] In light of pending changes in federal PHMSA regulations, including hydro testing and full system ILI requirements, total IMP costs for the Northern system could be substantially higher in the near future.

Alternatives to regulation under PHMSA would involve reducing the operating pressure of the pipeline from transmission to distribution level. This would involve significant capital costs associated with pipeline replacement, ball valve regulator additions and regulator station modifications. In many areas of the system, where the higher operating pressures currently are necessary to maximize capacity, alternatives such as larger diameter pipe or localized peak shaving could be required. Northern could also be exposed to additional gas supply costs as a result of a reduced operating pressure. In such a scenario, the Company could find itself contracting for more supply resources and deliverability to one or more city gates from one interstate pipeline while not being able to utilize available resources and deliverability from another city gate and pipeline.

Although the alternative of operating the pipeline at reduced pressure would eliminate certain pipeline integrity management costs required under PHMSA regulation, costs that could escalate significantly in light of recent pipeline failures and proposed PHSMA safety requirements, Staff and the Company agree that under current PHMSA pipeline integrity management requirements, maintaining transmission pressure and continuing with HCA assessments is reasonable, based on information available at this time.