

Challenges and Misalignments with the Current Regulatory Model

Prepared by Xcel Energy for the e21 Initiative

The e21 Initiative is convened by:



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OVERVIEW

Under cost-of-service regulation (COSR), a utility's rates and profits are largely based on the amount of energy sold. This model worked well when sales were growing and investments were relatively stable. For many utilities, significant load growth allowed them to avoid rate cases for several years, as the incremental revenues funded new system investments and supported earnings. Now, however, sales are declining at the same time that utility investment and operational costs are increasing, which contributes to significant revenue deficiencies and depressed earnings. The combination of persistent under-earnings and high levels of capital expenditures have increased the frequency and magnitude of rate case filings.

As rates continue to increase, it can be expected that more and more customers will seek alternatives to paying the higher rates, which further increases rates for remaining customers, thus perpetuating the problem. As this occurs and a utility's profitability potential is impaired, a utility risks poorer credit ratings and a higher cost of capital, which also contributes to higher customer rates.

FACTORS CONTRIBUTING TO CHALLENGES

Below is an overview of key factors that are contributing to the need for frequent rate cases and inability to earn our authorized return. It may be helpful to remember the fundamental equation that drives rates under COSR.

$$\text{Rates} = \frac{\text{Total Revenue Requirement (\$)}}{\text{Unit Sales (kWh)}}$$

Declining/Flat Sales

The decline in sales growth means the utility can no longer rely on growth to support new investments and offset rising costs. As reported in Xcel Energy's most recent Minnesota electric rate case, total 2014 and 2015 sales are forecasted to decline 0.6 percent and 0.4 percent, respectively, due to declining sales in the Residential and Small C&I classes. The decline in sales is driven by the continuation of declining use per customer due to energy efficiency gains and slowing economic growth. These declines continue recent trends in lower consumption and slower growth.

This issue is exacerbated when the sales and customer count forecast approved for use in setting rates is overly optimistic. In this case, the combination of rates being set too low and actual sales coming in lower than forecasted contributes to an ongoing revenue deficiency.

Increase in Distributed Generation (DG) and New Generation Alternatives

New state energy policies and programs, declines in the cost of DG, and continued utility rate increases are contributing to growing customer interest in DG and other generation alternatives. Because a portion of a utility's fixed costs are recovered through the per kWh (volumetric) charge, rate frameworks that allow customers to reduce the kWh on which they are billed, like net metering, result in DG customers not paying the full fixed costs of maintaining the grid. This potentially shifts costs to non-DG customers, creating equity issues and driving further rate increases.

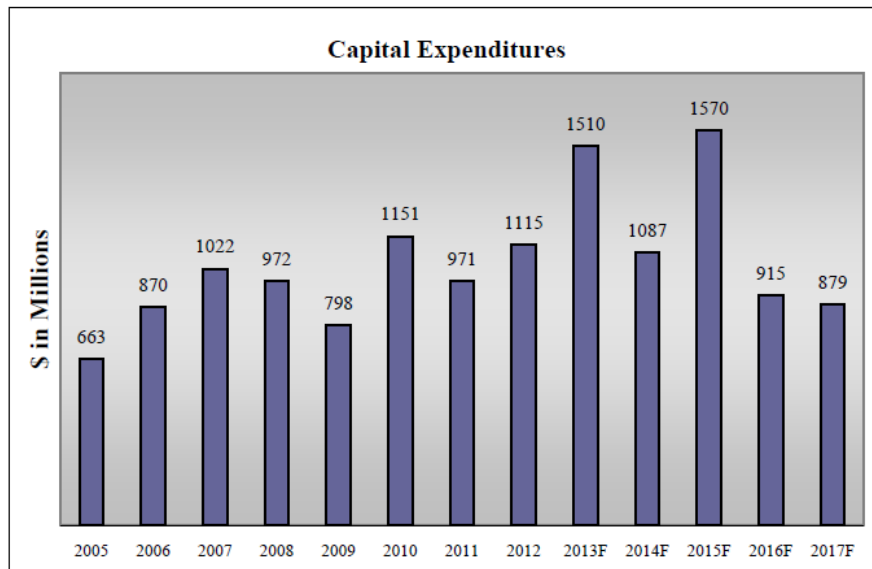
Minnesota law provides an opportunity to move away from net metering through the adoption of a Value of Solar tariff. The VOS tariff is intended to represent the value of DG to the utility system. Under this framework, a DG customer purchases all energy needs from the utility but is

compensated via bill credit for DG production at the VOS rate. This matter is pending at the Commission.

Significant Capital Investment

As noted in Xcel Energy’s pending Minnesota electric rate case, the Company is in the peak years of the investment cycle as the Company continues to invest in the nuclear fleet and transmission and distribution infrastructure. These investments are needed to extend the lives of critical assets, address aging infrastructure, and meet the needs of customers, which are all tenets of safe, reliable and high-quality service. Additionally, the Company is investing in renewable energy to capture favorable market pricing, provide a hedge against future environmental costs and support state energy policy goals.

The chart below shows that NSPM’s forecasted capital expenditures for 2013 through 2017 are approximately \$6.0 billion or averaging slightly under \$1.2 billion per year. These additional expenditures are required to complete the CapX2020 transmission project, the Prairie Island Unit 2 steam generator replacement, and several transmission and distribution infrastructure replacement projects. By comparison, the \$7.6 billion of capital expenditures since 2005 have averaged slightly under \$1 billion per year.



Xcel Energy. Docket No. E002/GR-13-868. 2014 Minnesota Electric Rate Case. Direct Testimony of George E. Tyson

Evolving environmental regulations may require additional large investments in future years, as might increasing customer demands for expanded energy choices and enhanced grid functionality and services.

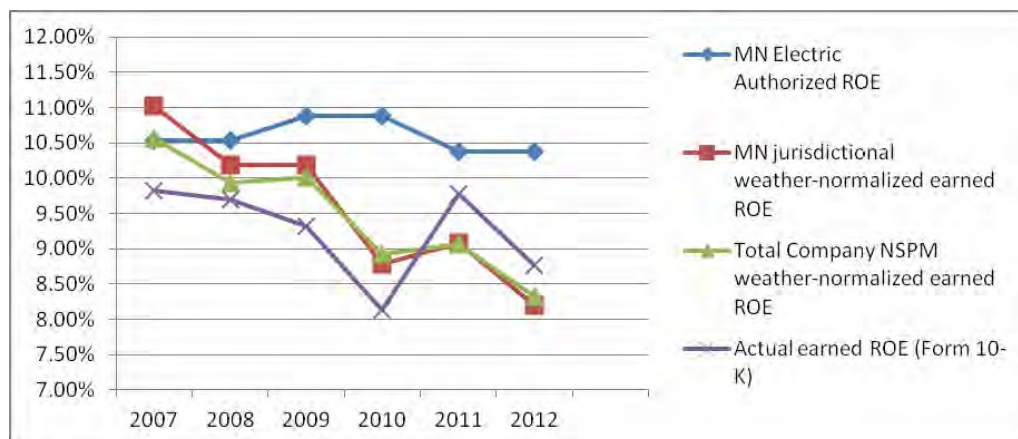
Rising Operational Costs

Like many businesses, utilities continue to experience increased costs of doing business, including costs related in part to investments, such as property tax increases, and operating and maintaining our assets, such as chemicals and other materials. Other cost increases are related to employee benefits and compensation. While some cost increases can be mitigated through efficiency and productivity initiatives, others are largely unavoidable.

Regulatory Lag

While Minnesota law provides for several mitigation tools to address regulatory lag, it is not completely eliminated. Regulatory lag refers to the time between the incurrence of costs and the implementation of rates that recover those costs. It can generally be thought of as the time between rate cases. During this time, there is the risk that rates will not keep pace with rising costs, which impairs the utility's ability to earn its authorized return and prompts further rate relief. This motivates enhanced efficiency as a utility can retain cost savings between rate cases, but often the magnitude of cost increases and/or decline in revenue is far beyond what can be offset by efficiency initiatives.

According to the Xcel Energy's current rate case, since 2007, the Company has not achieved its authorized ROE for its Minnesota Electric Retail Jurisdiction, the NSPM Total Company Electric Utility, or Total Company Financial Reporting (Form 10-K) basis. The chart below compares NSPM's authorized and actual ROEs during this time period.



Source: Docket No. E002/GR-13-868. Direct Testimony of George E. Tyson

EXISTING MITIGATION TOOLS

Minnesota law has several provisions that enhance or modify the COSR model to address regulatory lag and the need for frequent rate cases. These include:

- Forecasted/current year test years, allowing projected cost increases to be reflected in rates;
- Multi-year rate plans covering up to three years;
- Interim rates within 60 days of filing a case;
- Time limit for the Commission to issue a final order;
- Automatic adjustment clauses and cost trackers outside of rate case;
- Construction work in progress (CWIP) in rate base;
- Revenue decoupling mechanisms; and
- Energy efficiency performance incentives.

Xcel Energy proposed a two-year rate plan as part of its pending rate case. The second year rate adjustment is limited to major, low-risk capital projects and associated O&M. While the two-year plan does not include the complete projected revenue requirement over those two years, it helps rates keep pace with major investments without a back-to-back rate case.

The Company has also proposed a partial decoupling mechanism to be effective in the second year of the proposed 2014-2015 multi-year electric rate plan. Decoupling mechanisms set the

revenue target and periodically adjust the rate to ensure recovery of the allowed revenue. As such, a utility will recover its allowed revenue requirement for the affected customer classes regardless of deviations in sales. The Company's proposed mechanism, if approved, will apply to residential and small C&I (non-demand) customers and will not include weather effects, meaning the revenues collected per customer will be weather-normalized. The mechanism is intended to make the Company whole for the lost revenues resulting from conservation and the associated under-recovery of fixed costs through volumetric rates for the affected classes. The Company would retain the weather risk, which could still result in the Company not recovering its full revenue requirement for those classes.

It is important to note that while decoupling can mitigate the financial impacts of sales erosion in the specified customer classes, it is not a comprehensive solution that addresses all underlying challenges, such as the current need for frequent rate case filings. For example, certain rate classes and causes of revenue attrition may be excluded. Additionally, in a time of declining use per customer, the mechanism may always be catching up for further reductions in sales, which could lead to higher rates. Because the rate adjustments are applied on a volumetric basis, customers on a net-metering arrangement would contribute less to revenue recovery, continuing cross-subsidization concerns.