BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Dan Lipschultz	Commissioner
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
John A. Tuma	Commissioner

In the Matter of the Petition of Northern States Power Company for Approval of the Transmission Cost Recovery Rider Revenue Requirements for 2017 and 2018, and Revised Adjustment Factor

ISSUE DATE: September 27, 2019

DOCKET NO. E-002/M-17-797

ORDER AUTHORIZING RIDER RECOVERY, SETTING RETURN ON EQUITY, AND SETTING FILING REQUIREMENTS

PROCEDURAL HISTORY

On November 8, 2017, Northern States Power Company d/b/a Xcel Energy (Xcel or the Company) filed a petition requesting approval of $109.5 million in 2017 and 2018 revenue requirements under its Transmission Cost Recovery rider (TCR), along with TCR adjustment factors.

On April 2, 2018, the Office of the Attorney General, Residential Utilities and Antitrust Division (the OAG) filed comments recommending a lower return on equity (ROE) than Xcel proposed.

On April 2, 2018, the Department of Commerce, Division of Energy Resources (the Department) filed comments requesting that Xcel file additional information on, among other issues, the Company's proposed Advanced Distribution Management System (ADMS) project, a distribution-grid modernization project. The Department also recommended a lower ROE than proposed by Xcel.

On May 14, 2018, Xcel Energy filed reply comments in response to the Department's request for more information.

On May 25, 2018, Xcel filed supplemental comments updating the Company's proposal relating to the ratepayer cost of Accumulated Deferred Income Tax (ADIT), and the Company's ADMS forecast to eliminate hardware costs.

On July 16, 2018, Xcel filed a second set of supplemental comments further refining its ADIT proposal.

On March 4, 2019, the Department filed a response recommending approval of the petition with modifications.

On April 11, 2019, Xcel filed comments responding to the Department's March 4 response comments.

On May 23, 2019, the petition came before the Commission.

FINDINGS AND CONCLUSIONS

I. Xcel's Petition

Xcel's petition proposes cost recovery under the Company's TCR rider, which is governed by Minn. Stat. § 216B.16, subd. 7b. The statute authorizes the Commission to approve the automatic adjustment of charges for the Minnesota jurisdictional costs associated with a utility's new transmission facilities, including facilities certified by the Commission under Minn. Stat. § 216B.2425, which requires utilities operating under a multiyear rate plan, such as Xcel, to identify "investments that it considers necessary to modernize the transmission and distribution system by enhancing reliability."[1]

The statute also authorizes cost recovery of "charges incurred by a utility under a federally approved tariff that accrue from other transmission owners' regionally planned transmission projects that have been determined by the Midcontinent Independent System Operator (MISO) to benefit the utility or integrated transmission system."[2]

Xcel is currently recovering the costs of certain projects previously approved by the Commission in other proceedings and has proposed to continue recovering those costs under the rider, along with the costs of a new project, the Company's ADMS project. The Commission previously certified the ADMS project under Minn. Stat. § 216B.2425.[3] Xcel's petition addresses the need for ADMS, customer benefits, the process for selecting the vendor, and budget information.

Xcel is also seeking recovery of costs related to the MISO charges associated with regionally planned transmission projects; according to Xcel, those charges are substantially offset by associated revenues, and Xcel has proposed recovery of the difference, to the extent that charges exceed revenues.

Xcel proposed using a 10.0% return on equity (ROE) to calculate its revenue requirements under the TCR rider.

Further, Xcel proposed calculating its ADIT using a proration formula consistent with Internal Revenue Service (IRS) regulations.

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[1] Minn. Stat. § 216B.2425, subd. 2 (e).

[2] Minn Stat. § 216B.16, subd. 7b (a) (3).

[3] *In the Matter of Xcel Energy's 2015 Biennial Distribution-Grid-Modernization Report*, Docket No. E-002/M-15-962, Order Certifying Advanced Distribution-Management System (ADMS) Project Under Minn. Stat. § 216B.2425 and Requiring Distribution Study (June 28, 2016).

A. ADMS

ADMS is a software platform that serves as the foundation of operational hardware and software applications, and is a key element of grid modernization according to Xcel. ADMS is designed to support the control room, field operating personnel, and engineers in the monitoring, control, and optimization of the electric distribution grid by enabling better management of load flow from substations to the edge of the grid. Xcel stated that ADMS is the only comprehensive platform capable of achieving the Company's grid modernization initiatives.

The primary functions of ADMS are: to connect distribution substations, primary feeders, and devices in a format that displays the entire distribution grid from substation transformers to service transformers; to use a distribution supervisory control and data acquisition (D-SCADA) application to monitor and control field devices; and to enable real-time load-flow calculations for all grid segments. Centralizing control of the distribution system in this manner would, Xcel stated, improve grid operation and functionality.

With an increasing level of distributed energy resources (DER) being added to the electric grid, Xcel stated that ADMS would enable the Company to effectively adapt by integrating various technologies to manage real-time adjustments to the electric flow. Xcel also stated that ADMS would increase reliability by using automated grid components to more quickly conduct outage analyses. The central-control aspect of ADMS would also increase operational efficiency and would have the benefit of facilitating safe operations between technologies and reduce the risk of miscommunications that occur as a result of using multiple models. Xcel asserted that these benefits would, in turn, more effectively meet customers' needs.

Xcel implemented a five-stage process for selecting a vendor with experience in developing, implementing, and supporting electric distribution real-time SCADA and ADMS control systems. The process included a market analysis; development of business requirements; a request-for-proposal and evaluation process; a recommended final vendor; and contract development and execution.

Xcel's ADMS budget of $69.1 million represents the estimated Minnesota jurisdictional costs for labor, software, hardware, and geospatial information system (GIS) data collection efforts. The 2018 Minnesota jurisdictional portion of that cost, not recovered in base rates, is approximately $10.2 million, which the Company has requested to recover through the TCR rider. This amount excludes the costs of hardware, which Xcel stated it intends to recover through base rates in a future general rate case.

The Department recommended that if the Commission finds a need for ADMS, consistent with Minn. Stat. § 216B.2425, the Commission should approve Xcel's cost recovery request. The Department evaluated the Company's acquisition process, updated cost estimates, and calculation of Minnesota jurisdictional costs. Based on its analysis, the Department stated that the costs are reasonable and prudent and are therefore eligible for recovery.

The Commission will approve recovery of revenue requirements based upon approximately $10.2 million in actual expenditures, incremental above base rates, for ADMS through 2018 in the TCR rider.[4] Xcel's acquisition process was thorough and targeted to avoid unreasonable expenditures, and the Commission concurs that the costs incurred in 2018 are reasonable and prudent.

B. Return on Equity

Minn. Stat. § 216B.16, subd. 7b(b)(6) authorizes the Commission to approve a tariff that "allows a return on investment at the level approved in the utility's last general rate case, unless a different return is found to be consistent with the public interest." In Xcel's last general rate case, the Company reached a settlement agreement with several parties that authorized Xcel to represent its authorized ROE as 9.20%; the Commission subsequently approved the settlement agreement.[5] In that case, the Department had recommended an ROE of 9.06% prior to entering into the settlement agreement.[6]

Xcel is a subsidiary of Xcel Energy, Inc. and has no publicly traded common stock. Its ROE must therefore be inferred from market data for groups of companies that present similar investment risks, or "proxy groups." In this case, Xcel and the Department conducted cost-of-equity analyses using proxy groups they considered similar enough to Xcel to serve as substitutes in identifying a recommended ROE.

The Department used two proxy groups— the electric services proxy group and the combination proxy group. The first proxy group includes companies that are engaged in the generation, transmission and/or distribution of electric energy for sale and are therefore comparable to Xcel in both business operations and risk.

The second proxy group includes companies that are classified as primarily providing electric services, with at least 60% of their operating income from regulated electric operations. Xcel used one proxy group that also included electric utilities but was broader than the Department's proxy groups. Although the parties' comparison groups were not identical, the list of companies in Xcel's proxy group was substantially similar to the companies listed in the Department's two proxy groups.

In conducting their cost-of-equity analyses, Xcel and the Department both used the Discounted Cash Flow (DCF) model and the Capital Asset Pricing Model (CAPM). Xcel additionally used a Risk Premium model.

The DCF model uses the current dividend yield and the expected growth rate of dividends to determine what rate of return is high enough to induce investment. The model is derived from a formula used by investors to assess the attractiveness of investment opportunities using three inputs—dividends, stock prices, and growth rates. DCF modeling can be performed using constant-growth, two-growth, or multistage dividend-growth assumptions. Dividend yields are calculated using average stock prices over varying time periods. The Department relied on a

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[4] Approximately $6.6 million is to be recovered through base rates.

[5] *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E-002/GR-15-826 (June 12, 2017).

[6] The Department stated that the revenue requirement adjustments made in the rate case were informed by the recommended ROE of 9.06%.

30-day average stock price to calculate dividend yields, whereas Xcel recommended its ROE based on a dividend yield calculation using a 90-day average.

The CAPM model estimates the required return on investment by determining the rate of return on a risk-free, interest-bearing investment and adding a historical risk premium; the utility's risk premium is then determined by subtracting that risk-free rate of return from the total return on all market equities and multiplying the difference by beta, a measure of the investment's volatility compared with the volatility of the market as a whole.

The Risk Premium model determines the cost of equity by adding to current bond yields a premium reflecting the greater returns realized by equity holders over various historical periods.

The OAG likened the Company's risk under the rider to the risk of debt securities and therefore recommended that the Commission set the ROE using the Company's most recent cost of long-term debt.

1. Positions of the Parties

a. Xcel

Xcel proposed an ROE of 10.0% to calculate the rider's revenue requirements, stating that there is record support for an upward departure from the level authorized in the Company's last general rate case.

In support of the reasonableness of its position, Xcel cited a report (the Report) of an independent consultant retained by Xcel to analyze its 10.0% ROE proposal.[7] In conducting the analysis, the consultant used a weighted mix of the constant-growth DCF model, the CAPM, and the Risk Premium model. The consultant also considered capital market conditions and authorized returns in other jurisdictions. The Report found that an ROE range between 9.19% and 10.78% is supported by the analysis, and ultimately recommended approval of Xcel's proposed 10.0% ROE. The results of the Report's analysis are shown in the table below.

DCF Model – 90-day average stock price	**9/30/2017**	**01/31/2019**
Constant Growth	8.19%	8.74%
Risk Premium		
30-Year U.S. Treasury	10.41%	10.22%
Moody's A-rated Utility Index	10.36%	10.16%
CAPM		
Value Line Beta	10.78%	10.62%
Bloomberg Beta	9.52%	9.35%
Expected Earnings	Not filed	10.79%
Mean of All Methods (excluding expected earnings)	9.85%	9.82
Mean of All Methods (including expected earnings)	N/A	9.98%

[7] Cost of Equity – TCR Rider Report, Concentric Energy Advisors, November 8, 2017.

Xcel argued that the results shown above justify a 10.0% return on equity because the DCF Model reflects artificially high stock prices due to anomalously low interest rates, which understate utilities' cost of equity. That fact, Xcel claimed, justifies a weighted mix of the results of the three methods.

Additionally, Xcel challenged the Department's revised DCF analyses, which modified the electric proxy group by eliminating the company NextEra, resulting in a downward adjustment in the Department's recommended ROE from 8.99% to 8.59%. Xcel further discouraged reliance on updated data from 2019 in lieu of 2018 data, which more accurately corresponds to the timeframe during which Xcel incurred the costs at issue.

Xcel also referred to decisions made in other cases as relevant to the Commission's determination of an ROE, stating that heavy reliance on the DCF model puts Minnesota utilities on the lower-end of the range of ROEs authorized in other states. Moreover, Xcel stated that in recent rate case decisions, the Commission has approved higher ROEs than the ROE authorized in Xcel's most recent general rate case.[8]

Subjective factors, Xcel contended, further weigh in favor of a higher ROE, rather than a lower ROE as recommended by the Department and the OAG. Xcel highlighted its carbon reduction initiatives, stating that the Company is leading the nation in this effort and is providing a road map for other utilities across the country. The Company also noted its commitments to working with stakeholders to implement other important policy objectives related to issues such as nuclear fuel storage, cyber-security, and economic development, among others.

b. The Department

In response to Xcel's initial proposal of a 10.0% ROE, the Department conducted a separate ROE analysis, stating that the ROE approved in Xcel's most recent general rate case was for settlement purposes and not binding on future Commission decisions involving ROE determinations. The Department underscored the guiding principles applicable in determining an ROE, noting that a fair return is one that enables the utility to attract sufficient capital on reasonable terms. Based on its analysis, the Department ultimately recommended an ROE of 8.59%. The Department further recommended that the Commission use the ROE set in this docket in future cases requiring an ROE determination until the Commission's decision in Xcel's next general rate case.

In developing its recommended ROE, the Department relied on the results of its DCF analyses, as shown in the table below.

[8] Xcel cited three rate case decisions involving Minnesota Power, Otter Tail Power Company, and Minnesota Energy Resources Corporation that authorized ROEs of 9.25%, 9.41%, and 9.70%, respectively (see Dockets: E-015/GR-16-664; E-017/GR-15-1033; and G-011/GR-17-563).

Model	**Mean Average of Two-Growth DCF ROE Estimate**	**Weighted Percentage**	**Weighted ROE**
2018 Results			
Electric Proxy Group	8.80%	60.0%	5.28%
Combined Proxy Group	9.28%	40.0%	3.71%
Recommended ROE			**8.99%**
2019 Results			
Electric Proxy Group	8.09%	60.0%	4.85%
Combined Proxy Group	9.34%	40.0%	3.74%
Recommended ROE			**8.59%**

The Department's updated initial analysis used updated proxy groups, recent stock prices, dividends, and long-term earnings growth rate forecasts to reflect more recent market data from the time period between initial and reply comment periods.

The Department also conducted a CAPM analysis as a basis for checking the reasonableness of the outcomes of the DCF analysis, stating that the CAPM results for both proxy groups are within the ranges of the mean and high two-growth DCF results in the Department's analyses. Moreover, the Department asserted that because the DCF model is market-based, it incorporates all relevant market information and the results therefore sufficiently reflect market awareness and outcomes that investors can reasonably expect.

c. The OAG

The OAG recommended an ROE of approximately 4.3%, consistent with the Company's cost of long-term debt. The OAG's position is predicated on the assertion that riders are lower-risk investments than the costs managed between rate cases. The OAG stated that because riders are trued-up each year, those adjustments for over- or under-recovered amounts significantly reduce the utility's financial risk.

The OAG stated that the risk of riders is comparable to the risk associated with debt securities in light of the fact that they share certain characteristics that are not present in equity investments. To illustrate the point, the OAG stated that the near-guarantee of rider recovery is similar to the guarantee of repayment for debt securities, whereas equity investors are paid when boards of directors decide to pay dividends. Another shared characteristic, according to the OAG, is that debt holders are generally prioritized over equity holders in bankruptcy proceedings. This level of protection against loss is similar to a utility's low level of risk of loss in rider recovery.

For these reasons, the OAG recommended using the Company's cost of long-term debt as the ROE in this case.

2. Commission Action

In its last general rate case, Xcel requested an ROE of 10%, but the Company and other settling parties ultimately agreed that Xcel could represent its authorized ROE as 9.20%. The

Commission is not persuaded that an upward departure from 9.20% in this case is either warranted or consistent with the public interest.

The DCF modeling conducted by the Department is substantially reliable as a starting point for determining an ROE. While Xcel's recommendation of a weighted mix of the results of three models is an attempt to correct the results of the DCF analysis, the Commission is not convinced that there is an apparent error or methodological problem with the DCF model or the way in which the Department conducted its analyses. As the Department stated, the DCF analysis incorporates relevant market data that properly reflects recent market conditions, leading to sound and reliable results.

The Department's use of 2018 data in its initial analysis is consistent with the timeframe during which Xcel's costs were incurred, and although there is no single correct approach, it is reasonable to rely on data from that timeframe in determining an ROE. The results of that DCF analysis support an ROE of 8.99%.

ROE decisions in other jurisdictions are, in a broad sense, a check on the reasonableness of this Commission's decisions, although the fact-intensive nature of utility regulation limits the usefulness of those decisions. According to Xcel's and the Department's data, however, an ROE above 9% is both within the range of DCF-supported ROEs and is well within the range of ROEs set in other jurisdictions. Furthermore, in recent prior rate cases, this Commission placed substantial reliance on the DCF model, undercutting Xcel's claim that those cases are a basis for setting a higher ROE than that produced by the DCF model in this case. Accordingly, an ROE is not unreasonable merely because it is lower than ROEs approved in prior cases that were informed by the DCF model; those decisions depend heavily on specific facts, which in turn, affect the modeling, its relevant inputs, and associated results.

There is also no persuasive evidence in the record to support a claim that the results of the DCF model skew against the utility and jeopardize its ability to attract capital at reasonable rates, maintain its credit rating and financial integrity, and produce returns commensurate with those earned on other investments with equivalent risks.

For these reasons, the Commission will set the ROE at 9.06%. This ROE is anchored in the DCF analyses, which provide a range of reasonable ROEs. The basis of the Department's recommendations is a weighting method (60%/40%) applied to the electric and combined proxy groups, which the Department stated is consistent with past practice. Under these circumstances, however, and lacking a clear rationale in the record for strictly adhering to that ratio, a slight variation to that approach is warranted based on the specific facts of this case, including the fact that the revenue requirement adjustments set in Xcel's most recent rate case were informed by the Department's recommended ROE of 9.06%. The Commission is persuaded that this ROE is consistent with the public interest.

Continuing to use this ROE going forward will provide administrative efficiency, and the Commission will therefore require Xcel to use an ROE of 9.06% in all electric dockets filed by the Company that require an ROE until the Commission issues an order in the Company's next rate case authorizing a different ROE.

C. Carrying Charge

Xcel proposed using a two-way carrying charge on tracker balances for the time period beginning January 1, 2019. The two-way charge would require ratepayers to pay interest on under-recovered amounts and require the Company to pay interest on over-recovered amounts.

Xcel took the position that the delay between when cost recovery requests are made and when rates become effective creates large carryover balances, causing volatility in annual rider rates. Xcel therefore recommended a two-way carrying charge as a way to incentivize a closer match between time periods.

The Department disagreed that a carrying charge would incentivize faster implementation of rates, and recommended against a carrying charge, stating that the advantages of cost-recovery under a rider outweigh any potential disadvantage from not implementing a carrying charge.

The Commission concurs with the Department that a carrying charge is not necessary. The Commission is not persuaded that a carrying charge would effectively address volatility in rider charges, or that volatility in rates is likely, in fact, to occur. The Commission will therefore deny Xcel's proposal.

D. Interest Payments

A small portion of costs incurred by Xcel included interest payments made by transmission owners to transmission customers *vis-a-vis* MISO, which implemented a federally mandated reduction in the ROE level authorized for MISO transmission owners from 12.38% to 10.82%. Xcel, as both a transmission owner and customer, owed payments and received revenues as a result of the change, but ultimately paid more in interest than it received. Xcel did not, however, include the required interest payments in its proposed TCR rider revenue requirements, stating that this kind of interest is more comparable to interest associated with the cost of capital and should be treated as such.

The Department recommended that Xcel be required to include the interest payments in the TCR rider because Minn. Stat. § 216B.16, subd. 7 (b) (2), authorizes recovery of charges related to regionally planned transmission projects, without limiting the types of costs (net of associated revenues) that can be recovered. The Department disagreed with Xcel's position that actual interest payments associated with the ROE refunds are comparable to interest expense associated with the cost of capital.

The Commission concurs with the Department's analysis and will require Xcel to include the interest component of the ROE refunds in the TCR rider revenue requirements.

E. Accumulated Deferred Income Tax (ADIT)

At the time of Xcel's filing, the Company proposed to prorate ADIT for 2018.
ADIT accounts for tax liability between the time when reported income tax obligation is accrued compared to when the income tax obligation is paid. This difference arises when a utility uses accelerated depreciation for income tax purposes. Under this scenario, the value of an asset depreciates sooner, lowering the amount of income tax that is due in the early years of an asset's

life. But because, for regulatory purposes, the total tax amount remains the same over the life of the asset, the levelized amount of tax that ratepayers pay results in over-payment of taxes in the early years. This is, in effect, a pre-payment of the income taxes due. ADIT tracks that difference, which is removed from rate base, creating a reduction in customers' rates.

The Internal Revenue Service (IRS) prescribes how that pre-payment is addressed in rates. In recent years, the IRS began applying its rules to require that if rates are implemented prior to the end of a test year, ADIT must be prorated. The proration applies to the months, within the test year, during which rates are effective. The result is that ratepayers do not receive the full rate reduction. In response to changes by the IRS, Xcel has claimed that proration applies to forecasted ADIT balances as well and that Xcel is unable to replace the pro-rated forecasted ADIT balances with actual non-prorated ADIT balances in any true-up calculation. The Department disagrees with this position.

In this case, Xcel stated that it is working with Deloitte Tax Services to evaluate its calculations and minimize or eliminate customer impacts but requested to prorate ADIT for 2018. Xcel stated that Deloitte recommended two ideas for resolving the issue, including: applying a mid-month convention for the proration factors in each of the monthly revenue requirement calculations; and removing ADIT from the beginning and ending monthly rate base averages because proration is a form of averaging.

The Department recommended that the Commission consider implementing the adjustment factors, based on actual non-prorated ADIT balances, on or after January 1, 2019; doing so would eliminate the need to prorate ADIT balances.

The Commission concurs with the Department and will require Xcel to implement its TCR rider effective January 1, 2019, thereby eliminating the need to prorate ADIT. The Commission also encourages the Department to work with Xcel on the effectiveness of the Deloitte method.

II. Other Commission Action

To ensure that Xcel provides the most up-to-date information on ADMS expenditures, the Commission will require Xcel to file, within 120 days, a compliance filing that includes:

a. The actual expenditures on the ADMS implementation to date, in base rates and incrementally above base rates, broken down in the categories of: design (including software configuration and software interfaces), hardware, software, testing and implementation – broken down by internal and external labor.

b. An estimate of the total quantity of work completed on the ADMS Project identified by the major categories (listed above). In the event work cannot be quantified in a category, major tasks completed shall be provided.

c. Detailed information on the GIS data collection effort and what interrelated benefits (with other future benefits) or direct benefits are expected from the GIS data collection.

Further, the Commission will require Xcel to include in any future cost recovery filing for ADMS investments, an ADMS business case and a comprehensive assessment of qualitative and quantitative benefits to customers.

The Commission will also require Xcel to make an annual ADMS filing that includes:

a. The actual costs spent on the ADMS implementation for the reporting period, and for the work to date, broken down in the categories of: design (including software configuration and software interfaces), hardware, software, testing and implementation – broken down by internal and external labor.

b. An estimate of the total quantity of work completed on the ADMS Project identified by major category. In the event work cannot be quantified, major tasks completed shall be provided.

c. The additional functional requirements installed to achieve ADMS usage functions (including AMI, FAN, FLISR or IVVO modules), their percent of system implementation or integration, and cost incurred to date.

d. The estimated anticipated expenses in coming reporting periods, both capital and O&M.

The Commission will delegate to the Executive Secretary the authority to set the filing timeframe and the docket in which the filing should be made.

If and when Xcel requests cost recovery for Advanced Grid Intelligence and Security (AGIS) investments, the filing must include a business case and comprehensive assessment of qualitative and quantitative benefits to customers, as set forth in the ordering paragraphs below.

The Commission will also request that the Commissioner of Commerce seek authority from the Commissioner of Minnesota Management and Budget to incur costs for specialized technical professional investigative services under Minn. Stat. § 216B.62, subd. 8. The purpose is to investigate the potential costs and benefits of grid modernization investments proposed for recovery by Xcel in its next rate case or TCR filing, and to assist the Department in providing recommendations to the Commission regarding any such investments.

The Commission will require Xcel to file, within 30 days, a compliance filing that reflects the decisions herein and that includes an update of the forecasted numbers with actual numbers.

The Commission will require Xcel to work with the Commission's Consumer Affairs Office on its proposed customer notice regarding the change in the TCR adjustment factors.

ORDER

1. The Commission hereby approves recovery of revenue requirements based on approximately $10.2 million in actual expenditures, incremental above base rates, for ADMS through 2018 in the TCR rider.

2. The Commission hereby sets the TCR rider ROE at 9.06%.

3. Xcel must use an ROE of 9.06% in all electric dockets that require an ROE determination until the Commission issues an order in the Company's next rate case authorizing a different ROE.

4. Xcel must implement its TCR rider effective January 1, 2019.

5. Within 120 days, Xcel must file a compliance filing that includes:

    a. The actual expenditures on the ADMS implementation to date, in base rates and incrementally above base rates, broken down in the categories of: design (including software configuration and software interfaces), hardware, software, testing and implementation – broken down by internal and external labor.

    b. An estimate of the total quantity of work completed on the ADMS Project identified by the major categories (listed above). In the event work cannot be quantified in a category, major tasks completed shall be provided.

    c. Detailed information on the GIS data collection effort and what interrelated benefits (with other future benefits) or direct benefits are expected from the GIS data collection.

6. Xcel must include in any future cost recovery filing for ADMS investments an ADMS business case and a comprehensive assessment of qualitative and quantitative benefits to customers.

7. Xcel must make an annual ADMS filing that includes:

    a. The actual costs spent on the ADMS implementation for the reporting period, and for the work to date, broken down in the categories of: design (including software configuration and software interfaces), hardware, software, testing and implementation – broken down by internal and external labor.

    b. An estimate of the total quantity of work completed on the ADMS Project identified by major category. In the event work cannot be quantified, major tasks completed shall be provided.

    c. The additional functional requirements installed to achieve ADMS usage functions (including AMI, FAN, FLISR or IVVO modules), their percent of system implementation or integration, and cost incurred to date.

    d. The estimated anticipated expenses in coming reporting periods, both capital and O&M.

8. The Commission hereby delegates authority to the Executive Secretary to set the annual ADMS filing timeframe and the docket in which the filing will be made.

9. If and when Xcel requests cost recovery for Advanced Grid Intelligence and Security investments, the filing must include a business case and comprehensive assessment of qualitative and quantitate benefits to customers, considering, at a minimum, the following:

   A. Scope of Investment

      1. Investment Description

         a. Detailed description of proposed investment and project life; and

         b. If multiple components, overview of costs and descriptions of each:

            i. Include purpose and role;
            ii. Explain known and potential future use cases for each component;
            iii. Explain known and potential value streams and how each component fits with state policy, statues, rules and Commission orders; and
            iv. Describe beneficiaries of each investment (who, how many, over what time period).

         c. Articulation of principles, objectives, capability, functionalities, and technologies enabled by investment; and

         d. Interrelation and interdependencies with other existing or future investments, including overlapping costs: scope, amount, timing.

      2. Alternatives considered:

         a. If a Request for Proposal was used provide:

            i. The RFP issued, including list of all services or assets scoped in the RFP;
            ii. Provide summary of responses ;
            iii. Provide assessment of bids and factors used for selection; and
            iv. The scope of offerings or services included in the selected bid.

         b. If not, what was used.

3. Costs

   a. Provide sufficient information to determine what is included in the investment in each of the following categories:

      i. Direct Costs (product, service, customer, project, or activity);
      ii. Indirect Costs;
      iii. Tangible Costs;
      iv. Intangible Costs; and
      v. Real Costs.

   b. If needed, provide the utility's definition of each category and whether internal or external labor costs are included in the category and the instant petition. If the costs are not included in the petition, include information on where and when those costs will be sought to be recovered.

   c. If there is overlap or costs included in both categories, outline the overlapping costs and explain.

   d. For each of the cost categories outline whether the investment has been partially approved or included in previous or on-going docket riders, rate cases, or other cost recovery mechanisms or note all costs are included in the instant petition.

4. Detailed Analysis of the type of proposed (or multiple) cost effectiveness analysis utilized:

   a. Least-cost, best-fit (Xcel proposes in IDP Reply comments);
   b. Utility Cost-test; and
   c. Integrated Power System and Societal Cost test.

B. Provide a cost benefit analysis for: 1) each investment component with overlapping costs or benefits in isolation and 2) each bundled components, as appropriate:

   1. Provide Discount Rate Used and Basis; and

   2. Identify cost categories and benefit categories used (explain metrics), including an explanation of how benefits can be monitored over time and proposal for reporting to Commission:

      a. Identify quantitative costs and qualitative costs:

i. Use quantitative methods to address qualitative benefits to the extent possible;
ii. Explain system used to assess value and priorities to qualitative benefits (points and/or weighting); and
iii. Identify sensitivity ranges on estimates or value.

b. Include a long-term bill impact analysis;

c. Include a reference case/scenario without the project (or group of projects); and

d. Apply the following principles to ensure the investment analysis has:

i. compared with traditional resources or technologies;
ii. clearly accounted for state regulatory and policy goals;
iii. accounted for all relevant costs and benefits, including those difficult to quantify;
iv. provided symmetry across relevant costs and benefits;
v. applied a full life-cycle analysis;
vi. provided a sufficient incremental and forward-looking view;
vii. is transparent;
viii. avoided combining or conflating different costs and benefits;
ix. discuss customer equity issues, as needed;
x. assessed bundles and portfolio where reasonable; and
xi. addressed locational and temporal values.

10. The Commission requests that the Commissioner of Commerce seek authority from the Commissioner of Minnesota Management and Budget to incur costs for specialized technical professional investigative services under Minn. Stat. § 216B.62, subd. 8, to investigate the potential costs and benefits of grid modernization investments proposed for recovery by Xcel in its next rate case or TCR filing and to assist the Department in providing recommendations to the Commission regarding any such investments.

11. The Commission hereby denies Xcel's request for implementation of a two-way carrying charge.

12. Xcel must include the interest component of MISO ROE refunds in the TCR rider revenue requirements.

13. Within 30 days, Xcel must file a compliance filing that reflects the Commission's decisions herein and that includes an update of the forecasted numbers with actual numbers.

14. Xcel must work with the Commission's Consumer Affairs Office on its proposed customer notice.

15. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf

Daniel P. Wolf
Executive Secretary

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