Alliance for Transportation Electrification

June 2, 2025

Colorado Public Utilities Commission

1560 Broadway, Suite 250

Denver, CO 80202

Re: In the Matter of the Application of Public Service Company of Colorado for Approval of its 2025-2029 Distribution System Plan and the Grid Modernization Adjustment Clause

Proceeding No. 24A-0547E

Commissioners,

The Alliance for Transportation Electrification ("ATE") submits these comments in response to the 2025-2029 Distribution System Plan ("DSP) filed by Public Service Company of Colorado, d/b/a Xcel Energy ("Xcel") on December 16, 2024.

I. Introduction

ATE is a 501(c)(6) non-profit corporation established in early 2018 with the goal of promoting policies and regulatory measures to accelerate the pace of EV adoption and infrastructure. ATE's membership consists of nearly 60 industry members that include electric utilities, auto and bus manufacturers, EV charging infrastructure providers, and related trade associations and other non-governmental organizations (NGOs). We take a "big tent" approach to advance the industry and focus not just on accelerating EV charging deployments—which necessarily requires a strong utility role—but also promoting public accessibility and open standards. We are presently involved in about 30 proceedings in the States before the PSCs, state energy offices, Legislatures, Governors, state DOTs and DEPs, and other agencies. The question of utilities engaging in proactive distribution grid

planning and investment is an emerging topic that we are tracking in several states, including New York, California, Massachusetts, Minnesota, New Mexico, and Colorado.

II. Proactive Distribution System Investment is an Emerging Best Practice

ATE supports Xcel's DSP filing, and particularly the proactive distribution system investments that Xcel proposes. Proactive infrastructure investments, driven by rigorous bottom-up load forecasting, are emerging as a best practice across the country as Commissions increasingly seek ways for utilities to speed energization timelines, accommodate new load, and support customer electrification.

ATE is keenly focused on the rising risks of the current reactive, or "just-in-time" (frequently, not-in-time), distribution grid upgrade approach that most utilities follow. This approach, while adequate in times of low load growth, is increasingly insufficient in an era of load growth—especially load growth from transportation electrification, which can require significant distribution grid investment and can materialize on a much shorter timeline than comparable volumes of stationary electrification load.

The risks for utilities and ratepayers associated with a reactive approach include:

- Unmet customer expectations for energization timelines
- A slowed pace of electrification—resulting in lost utility revenue and a missed opportunity to put downward pressure on electric rates
- Customer technology lock-in, as customers opt for non-electric alternatives in face of lengthy energization timelines
- Potential for higher long-term costs for ratepayers due to a piecemeal distribution grid upgrade approach
- Potential for missed state energy policy goals

To mitigate these risks, ATE advocates that utilities engage in proactive distribution grid planning and, where appropriate, Commissions approve utility investments in distribution grid upgrades in areas of current or projected constraint, and we advocate that these upgrades be approved even in advance of capacity checks or "known load" from specific customers.

A growing body of research stresses the importance of building grid capacity to support transportation electrification, and doing so within typical utility planning horizons. For example, the International Council on Clean Transportation concluded in 2023:

> Electric utilities should plan for the significant loads that will come from electric MHDVs and provide timely interconnections. Loads of up to 132 MW are expected at the county level by 2030; these will increase significantly beyond 2030. Given the

long lead times involved in upgrading electric transmission and distribution systems, capacity building should start as soon as feasible. Upgrades on a project-by-project basis are unlikely to meet future needs. Rather, **investments must be made at scale and at strategic locations suitable for, or likely to experience, MHDV charging**. Electric utilities should revise their projections of expected loads from MHDV electrification to align with the latest ZEV market and policy developments.[1] (emphasis added)

Further research from Environmental Defense Fund demonstrates that not only are these investments important to meet expected load, but they also have the potential to reduce costs long-term for ratepayers. Specifically, one study finds that "[p]roactive planning for M/HDV electric load can result in capital expenditure (CAPEX) savings in the long run due to reduced need to upgrade the same station to accommodate load growth into the future, when compared to sequential planning approaches."[2]

This research continues to demonstrate the importance of thoughtful, rigorous planning processes, and proactive investment in the distribution grid to meet expected electrification load.

III. State Approaches to Proactive Distribution System Investment

As mentioned, many other states are considering proactive distribution system investment, whether driven by legislation or regulatory process. Here we highlight a few of these efforts:

- **New York (24-E-0364):** In August 2024, the Public Service Commission ordered the State's major investor-owned electric utilities (Joint Utilities) to "propose a framework for a process to proactively plan for EV and building electrification, define methods for evaluation and cost allocation of infrastructure projects, and describe the process by which this new planning framework may be integrated within other planning processes."[3] The Commission also ordered the Joint Utilities to file proposals for urgent distribution grid upgrade projects which may require

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[1] International Council on Clean Transportation. *Near-Term Infrastructure Deployment to Support Zero-Emission Medium- and Heavy-Duty Vehicles in the United States*. May 2023. https://theicct.org/wp-content/uploads/2023/05/infrastructure-deployment-mhdv-may23.pdf

[2] Black & Veach for Environmental Defense Fund. Proactive Grid Investment Assessment: Medium- and Heavy-Duty Vehicle Transportation Electrification. November 2024. https://library.edf.org/AssetLink/atal4338qv8ucl8226qok35dmm170r4e.pdf

[3] State of New York Public Service Commission. *Order Establishing Proactive Planning Proceeding*. August 2024. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={80465791-0000-C51E-B4A0-7B56E347E0F5}

deployment before the framework is finalized. The Joint Utilities have complied with these orders, and the Urgent Projects filings of ConEd[4] and National Grid[5], in particular, demonstrate a high level of analytical rigor similar to what Xcel provides in its DSP filing. Meanwhile, the Long-Term Proactive Planning Framework proposal[6] was filed in December 2024. The Framework, as well as the Urgent Projects filings, remain under review by the Commission.

- **Minnesota (24-318):** In response to Xcel's 2023 Integrated Distribution Plan in Minnesota, the Minnesota Public Utilities Commission opened an inquiry into a framework for proactive distribution grid upgrades. The draft framework[7], which is not yet finalized, echoes New York's in many ways—offering a structured, cyclical process for identifying, evaluating and proposing proactive grid upgrade proposals, along with a robust stakeholder process for input and inquiry.

These examples demonstrate the depth of consideration that Commissions around the country are giving to the idea of proactive distribution grid investment, acknowledging its importance in driving an electrified future.

IV. The Value of Bottom-Up Load Forecasting

A hallmark of proactive utility planning is bottom-up electrification load forecasting, and a rigorous approach to knitting known or projected customer loads into existing top-down forecasts that are used in traditional IRP (Integrated Resource Plan) planning. ATE views bottom-up load forecasting as an essential component of proactive planning, and an important supplement to traditional top-down load forecasting. Several excellent examples exist from other jurisdictions, including:

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[4] Consolidated Edison Company of New York. *Urgent Projects Proposal*. November 2024. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={50672793-0000-C09B-BFAB-3705801008E7}

[5] Niagara Mohawk Power Corporation d/b/a National Grid. *Urgent Upgrades Projects.* November 2024. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={60862793-0000-C755-99D5-45B99DF5AC13}

[6] Central Hudson Gas & Electric; Consolidated Edison Company of New York; Niagara Mohawk Power Corporation d/b/a National Grid; New York State Electric & Gas Corporation; Orange & Rockland Utilities; and Rochester Gas and Electric Corporation. *Joint Utilities' Long-Term Proactive Planning Framework*. December 2024. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={60C3C193-0000-C42C-9162-2B10D1624579}

[7] Minnesota Public Utilities Commission. *Notice of Comment Period In the Matter of a Commission Inquiry into a Framework for Proactive Distribution Grid Upgrades and Cost Allocation for Xcel Energy.* April 2025. https://www.edockets.state.mn.us/documents/%7BE0831096-0000-CD13-930C-1797E172AFFA%7D/download?contentSequence=0&rowIndex=19

- Kevala's 2023 study for the California Public Utilities Commission, which leveraged bottom-up load forecasting to estimate cost impacts for system-level electrification[8]
- The United States Department of Energy's Multi-State Transportation Electrification Impact Study, which examined PEV charging infrastructure and distribution grid upgrade needs for five states: California, Illinois, New York, Oklahoma, and Pennsylvania[9]

One area of concern about this approach has been customers' willingness to provide information around their load plans in advance of a formal load letter or capacity check, particularly in industries where this information might be commercially sensitive.

To obtain customer data to support bottom-up load forecasting, ATE recommends several publicly available non-utility data sources such as EPRI's eRoadMAP tool[10], which aggregates confidentially submitted data from major fleet operators to estimate future grid capacity needs on a granular basis across the United States. Utilities can then map this anonymized data against their distribution system asset maps to determine future areas of constraint.

An accompanying EPRI tool, GridFAST[11], is a secure information exchange platform that helps businesses and other organizations engage early and efficiently with utilities across the U.S. to accelerate the energization of EV charging projects. This platform can help give utilities early notice of customers' plans, aiding bottom-up load forecasting.

RMI's GridUp tool[12] offers a similar approach to eRoadMAP, with the additional advantage of estimating load shapes which can enhance utilities' understanding of coincident peak impacts. ATE understands that fleet operators and charge point operators have been forthcoming with information to these anonymized tools, given the importance of utility forecasting to their business models.

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[8] Kevala, CPUC Electrification Impacts Study Part 1: Bottom-Up Load Forecasting and System-Level Electrification Impacts Cost Estimates, 2023

[9] National Renewable Energy Laboratory, Lawrence Berkeley National Laboratory, Kevala Inc., and U.S. Department of Energy. Multi-State Transportation Electrification Impact Study: Preparing the Grid for Light-, Medium-, and Heavy-Duty Electric Vehicles. DOE/EE-2818, U.S. Department of Energy, 2024

[10] Electric Power Research Institute. *EPRI eRoadMAP.* Accessed May 2025. https://eroadmap.epri.com/

[11] Electric Power Research Institute. *EPRI GridFAST.* Accessed May 2025. https://www.gridfast.com/about

[12] RMI. *GridUp.* Accessed May 2025. https://gridup.rmi.org/

ATE can attest that Xcel Energy has an industry-leading approach to bottom-up forecasting, including reconciling this forecast with top-down modeling, and we often cite Xcel's approach to other utilities and in dockets in other states. While no forecast will ever be 100% accurate, Xcel's rigorous approach lends credence to its process for determining where proactive distribution grid investments are needed most.

V. Demand-Side Management Approaches

It is widely acknowledged that a growing number of non-wires approaches (NWAs) can help mitigate or postpone the need for capital expenditures in the distribution grid, and ATE is pleased to see the role that NWAs such as demand-side management play in Xcel's DSP. In particular, we view flexible interconnection as a leading practice to support timely energization on a temporary basis. In California, Pacific Gas and Electric Company and Southern California Edison Company both offer flexible interconnection tariffs, and we are pleased to see that Xcel intends to explore similar approaches for distributed generation and EV load. ATE's non-utility members are overwhelmingly supportive of these creative approaches, and some are active participants in these tariffs and demonstration projects around the country.

VI. Electric Service Affordability

Affordability is top-of-mind for utilities, stakeholders and Commissions across the country. Managing rates is critical not only because electric service is essential to our modern lives, but also because reasonable electric rates contribute to the economic benefits of electrification and build the business case for companies and families to make the shift to electric transportation.

As demonstrated in the EDF study cited earlier, ATE firmly believes that proactive distribution grid investment has significant potential to contribute to downward pressure on rates, both by managing grid investment costs and by drawing more load (and revenue) onto the system earlier. Flexible approaches to load management can also help utilities and customers get more out of the existing grid.

VII. Conclusion

Xcel's Distribution System Plan represents a leading effort to proactively address the myriad challenges and opportunities that an electrified future represents. More than anything, the DSP acknowledges that the processes, frameworks, policies, and solutions that served us in the past may need to evolve in order to best serve us in the future. ATE acknowledges the time and effort that Xcel has invested in this process so far, and the time and effort that will be required on behalf of stakeholders and the Commission before the

process is through. Colorado has been a leader in transportation electrification approaches that are innovative and well-designed, and this is reflected in the state's leadership position in EV adoption. ATE urges the Commission to play its part in the state, together with the Legislature, other state agencies, and utilities like Xcel Energy, in continuing this leadership, especially at a time when federal leadership is lacking. We are confident that Xcel's DSP enables proactive investment, facilitates widespread electrification, fairly allocates cost and risk, and brings benefits to all Coloradans. We look forward to continued participation in this process.

Sincerely,

/s/ Philip Jones
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