

January 30, 2026

Sudeshna Pal  
Oregon Public Utility Commission  
201 High St SE #100  
Salem, OR 97301

**Docket No. UM 2409: Investigation of Cost Effectiveness Analysis of  
Grid Enhancing Technologies in Utility Integrated Resource Plans**

**RE: Staff Proposal — Draft Review Criteria**

The Working for Advanced Transmission Technologies (WATT) Coalition and Advancing Modern Powerlines (AMP) Coalition are pleased to comment on the Oregon Public Utility Commission’s Draft Review Criteria on behalf of the Advanced Transmission Technologies (ATTs) industries, as well as some independent power producers, generation developers, and utilities. Please reach out with any questions:

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**About the WATT Coalition**

The WATT Coalition advocates for policy that supports the wide deployment of Grid Enhancing Technologies (GETs) to accelerate lower energy costs and enable economic growth. GETs are hardware and/or software that increase the capacity, efficiency, and maintain the reliability of the electric grid. Learn more at [watt-transmission.org](http://watt-transmission.org). WATT’s membership includes Dynamic Line Rating (DLR), Advanced Power Flow Control (APFC), and Transmission Topology Optimization (TTO) vendors, as well as independent power producers, investors, and utilities.

## **About the AMP Coalition**

The AMP Coalition is an ad hoc coalition of High Performance Conductor (HPC) technology vendors. AMP's goal is to further the use of HPCs as a tool for modernizing and increasing grid capacity, as well as improving the overall resilience, reliability, and energy efficiency of the grid. The coalition includes vendors of both types of HPC technologies: carbon core conductors and superconductors. Learn more at [ampcoalition.org](http://ampcoalition.org).

## **Purpose of HB 3336**

HB 3336 states that “it is the policy of this state that electric companies... create efficiencies and resilience in the transmission system” and “maintain energy affordability.” In requiring utilities to think about short-term actions in the timeframe of 2030, develop ATTs strategic plans, and conduct alternatives analyses for speed and cost-effectiveness, HB 3336 is a strong step forward for Oregon in addressing the dual challenges of skyrocketing energy demand and persistently high electricity prices.

However, the Principles Governing the Staff Review Criteria do not reflect the legislation's original focus on efficiency, resilience and affordability, and instead suggest that “visibility” and “justification for decisions not to pursue GETs solutions” are the purpose of the strategic plans. We recommend that staff clarify that the goal of the strategic plans should be to show how the utilities are using ATTs to target the stated goals of HB 3336:

- A. Increase transmission capacity
- B. Increase transmission reliability
- C. Reduce transmission system congestion
- D. Reduce curtailment of renewable and nonemitting resources; and
- E. Increase capacity to connect new renewable and nonemitting energy resources.

## **Building on Existing ATTs Progress in Oregon**

Portland General Electric (PGE) and the Bonneville Power Administration (BPA) presented in June 2025 about their work on DLR and HPCs.<sup>1</sup> These utilities, and likely others, have developed evaluation and deployment methodologies for some ATTs that could be shared with the OPUC and stakeholders through their GETs strategic plans, in addition to sharing outcomes from initial deployments.

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<sup>1</sup> <https://watt-transmission.org/wp-content/uploads/2025/06/PNW-ATTs-Presentations.zip>

PGE shared that they are considering HPCs in conductor selection studies and installing DLR on multiple transmission lines. Understanding their selection criteria and initial results, including benefits to ratepayers, will be helpful to regulators, stakeholders, and peer utilities. PGE is also exploring heat-dissipating conductor coatings, which can be highly complementary both to DLR deployments by increasing line capacity where a need is identified and measured by DLR, and to HPCs by further improving efficiency.

### **Lessons Learned From California and Minnesota**

California and Minnesota both passed laws in 2024 that require utilities to publish reports on ATTs deployments, similar to the strategic plans required in HB 3336. As regulators begin to implement these laws, we can extract lessons learned from the implementation process and apply them to inform preliminary dockets in states like Oregon.

Requirements for utility strategic plans must be clear in order to lead to cost- and emissions-saving implementations of ATTs. For example, California’s SB 1006<sup>2</sup> requires utilities to prepare a GETs feasibility study every two years and an advanced conductor reconductoring feasibility study every four years effective January 1, 2026. While the inaugural studies from California’s three largest utilities demonstrate a broad survey of commercially mature ATTs, they are not consistent in naming and acting on next steps. For several technologies, a limited number of candidate lines were chosen, but then the technologies were disqualified from resolving those constraints, resulting in no actual analysis of the technologies to resolve grid constraints. In order to meet HB 3336’s legislative mandates of efficiency and short-term actions, the OPUC should require utilities to include clear criteria for situations where they would study ATTs, apply those criteria to resolve constraints or find headroom on their systems, and evaluate the benefits, cost, and timeline of potentially beneficial deployments. Additionally, the OPUC should require utilities to provide a thorough explanation of why they disqualified any technologies from consideration. These actions would fulfill the mandate from HB 3336 “to include a timeline for deploying... where doing so is cost-effective.”

Minnesota’s HF 5247<sup>3</sup> requires utilities with more than 750 miles of transmission lines to identify highly congested lines and include a proposed implementation plan for installing GETs at each identified congestion point. The Minnesota Transmission Owners (MTO) filed their GETs Report in November 2025, but all of the information on congestion points and implementation plans were excised from the public report due to trade secret concerns.

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<sup>2</sup> [https://leginfo.legislature.ca.gov/faces/billVersionsCompareClient.xhtml?bill\\_id=202320240SB1006](https://leginfo.legislature.ca.gov/faces/billVersionsCompareClient.xhtml?bill_id=202320240SB1006)

<sup>3</sup> <https://www.revisor.mn.gov/bills/93/2024/0/HF/5247/versions/ccr/0/pdf/>

WATT members signed an NDA to obtain access to the full report and found that while the utilities did identify transmission constraints that might be solved with GETs, they did not develop implementation plans for the solutions. Transparency in the development and publication of these studies is crucial to ensure utility accountability and enable stakeholders to deliver constructive feedback in the policy implementation process. For this reason, we urge the OPUC to require utilities to make public on the OPUC website, without an NDA, the full strategic plans.

### **Strategic Plan Requirements**

WATT and AMP strongly support the policy of integrating ATTs into utility workflows. We encourage the OPUC to specifically require utilities to report on their ability to both evaluate and operate all ATTs technologies, in addition to requiring consideration of ATTs in an alternatives analysis. As utility engineers become more comfortable working with ATTs and better understand the benefits and use cases both in planning and operations through the implementation of HB 3336, we believe that ATTs will become a preferred solution for many transmission needs.

### **Least Cost/Best Fit Transmission Planning Versus Highest Net Benefit**

HB 3336 requires that the OPUC define “cost-effective” and establish criteria for determining where ATTs are cost-effective. In the Draft Review Criteria, OPUC staff propose cost-effectiveness criteria as “least cost/best fit.” WATT and AMP urge the OPUC to instead consider the criteria of “highest net benefit.” Because ATT projects are most likely to be identified as enhancements to a larger capital project or provide economic benefits to ratepayers not traditionally captured in least cost analyses (i.e. reduction in line losses), it is likely that any ATTs alternative would not meet the criteria of least cost compared to a conventional upgrade alone, even if it might unlock 50-200% more capacity for 0.5-5% of the project cost.

Using highest net benefit criteria allows the OPUC to evaluate ATTs on the merits of all the benefits they can provide across a project’s lifetime, including the benefits listed in HB 3336:

- A. Increase transmission capacity
- B. Increase transmission reliability
- C. Reduce transmission system congestion
- D. Reduce curtailment of renewable and nonemitting resources; and
- E. Increase capacity to connect new renewable and nonemitting energy resources.

These cumulative benefits can result in dramatic net savings compared to a conventional upgrade. For example, APFC was used to mitigate an outage, saving over \$70 million over a 3.5-year period. The savings induced by avoiding redispatch were estimated to be over \$20.5 million a year, while the annual costs of the modular FACTS devices were estimated to be between only \$1.5 million and \$4 million.<sup>4</sup> However, redispatching generation might have been considered the “least cost” solution in this case, since there would have been no capital cost associated with using higher-fuel-cost generation. Another example is using HPCs to replace existing infrastructure. In Texas, AEP reconductored with HPCs to save customers \$15 million annually through a reduction in line losses,<sup>5</sup> even though the conductor may have cost more up-front than a traditional ACSR conductor.

### **Tools and Trainings to Support Utility ATT Adoption**

In 2026, WATT and AMP plan to deliver virtual and in-person tutorials targeting utilities and RTOs to train specific teams on how to evaluate and deploy ATTs. There will be a focus on engaging directly with interconnection and transmission planning teams to help them achieve accurate inputs on cost and construction timelines in order to maximize the cost and efficiency benefits that ATTs can provide. As part of the curriculum, we plan to connect participants with other utilities that have successfully deployed ATTs and are eager to share stories about positive outcomes and lessons learned. We welcome the OPUC’s interest and encourage staff to reach out with any questions about this upcoming program.

Additionally, we recommend that Oregon’s utilities leverage the free and accessible ATTs resources from the Energy Systems Integration Group (ESIG) and the Electric Policy Research Institute (EPRI), both longtime, trusted technical partners to the utility sector. ESIG hosts a user group<sup>6</sup> for utilities to share lessons learned. EPRI leads the ongoing GET SET<sup>7</sup> program, which is designed to support utility implementation efforts through comprehensive evaluation, testing, aggregation of industry experiences, and the development of practical application guidance. The initiative seeks to generate and disseminate reports, webinars, and insights related to the use and benefits of these technologies, their integration into operational and planning processes, and considerations around life expectancy and reliability.

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<sup>4</sup> <https://watt-transmission.org/wp-content/uploads/2023/04/Building-a-Better-Grid-How-Grid-Enhancing-Technologies-Complement-Transmission-Buildouts.pdf>

<sup>5</sup> <https://ctcglobal.com/aep-reconductoring-case-study/>

<sup>6</sup> <https://www.esig.energy/ags-user-group/>

<sup>7</sup> <https://transmission.epri.com/getset/>

Finally, at the federal funding level, we urge the OPUC to apply for technical assistance from Lawrence Berkeley National Laboratory (LBNL)<sup>8</sup> to consider, develop, and implement regulatory sandboxes for ATTs deployment. Regulatory sandboxes allow regulators and utilities to test new regulatory processes and planning methodologies to drive innovation. This is an ideal time for the OPUC to implement a regulatory sandbox for ATTs as it works to refine and set in stone the requirements of HB 3336. The suggested deadline is February 13, 2026. LBNL also produced a report and policy toolkit to supplement this technical assistance program.

### **Further Resources**

The WATT and AMP Coalitions recommend short reports on each technology created in partnership with the American Council on Renewable Energy (ACORE).<sup>910</sup>

### **Conclusion**

The WATT and AMP Coalitions commend the OPUC for taking this step to integrate ATTs into utility workflows and state planning processes. We are eager to work with staff to ensure that utilities take full advantage of these technologies at the scale and speed required for this moment of accelerating electricity demand.

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<sup>8</sup> <https://emp.lbl.gov/regulatory-sandbox>

<sup>9</sup> <https://watt-transmission.org/wp-content/uploads/2025/05/Unlocking-Power-A-Playbook-on-Grid-Enhancing-Technologies-for-State-and-Regional-Regulators-and-Policymakers-1.pdf>

<sup>10</sup> <https://acore.org/wp-content/uploads/2024/10/Unlocking-the-Grid-A-Playbook-on-High-Performance-Conductors-for-State-and-Regional-Regulators-and-Policymakers.pdf>