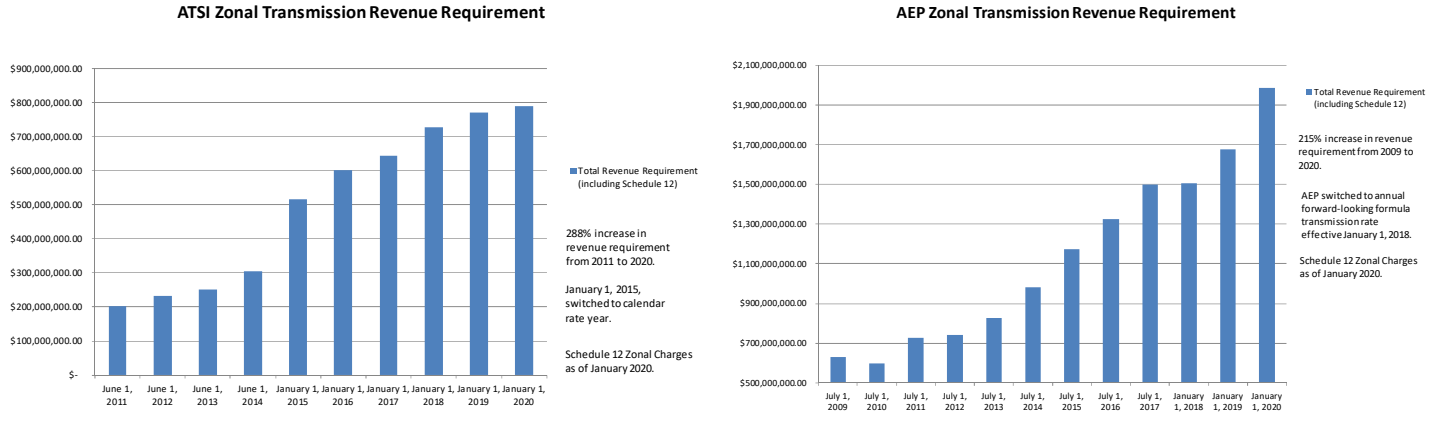
Increasing Transmission Costs: Oversight Needed

Transmission projects are on the rise across the country and associated costs have increased dramatically in recent years. According to a 2018 report by the Brattle Group, U.S. transmission investments by Federal Energy Regulatory Commission (FERC)-jurisdictional transmission providers increased from $2 billion/year in the 1990s to $20 billion/year over the last five years and the Brattle Group projects $120-160 billion of investments over the next decade. Primary drivers for this investment include replacing aging infrastructure, system hardening, improvements to meet evolving reliability and security requirements, and the integration of renewables.

Additionally, investor-owned utilities in some parts of the country have indicated their intent to shift capital from competitive wholesale power markets to invest more in regulated transmission assets.

The majority of projects are moving forward with little to no regulatory oversight. While there is certainly the need for investment in transmission infrastructure, lack of transparency and regulatory scrutiny means customers are unable to know if the amount of transmission spend is really needed or provides the most effective solution for the future.

It's imperative that customers — the ones who ultimately bear the cost of these projects — have the ability to verify that they're getting their money's worth, and that Regional Transmission Organizations and Transmission Owners (TOs) are planning cost-effective and efficient grid upgrades and expansions that take into account the future needs of a rapidly evolving industry. This means the transmission planning process must be open and transparent and take into account the changing resource mix and configurations of the future. AMP and other transmission customers have continued to work hard to ensure the TOs provide the information we need. Additional support from the FERC and Congress would provide great value.



Actual Transmission Revenue Requirements

Transmission Project Planning

In PJM Interconnection, L.L.C. (PJM), the lack of transmission planning oversight is a direct result of the current planning rules and the categorization of transmission projects as either "baseline" or "supplemental." For baseline projects — those needed for reliability and planned by PJM — there are well documented rules and data available for stakeholders to independently replicate the planning decisions and fully understand how the proposed baseline project best meets clearly identified needs going forward. However, the planning process for supplemental transmission projects — those that are not required to satisfy reliability, operational performance or economic criteria —is left up to the PJM TOs, receives minimal oversight by PJM, and is not approved by PJM or the FERC. In compliance with a recent FERC directive, the PJM TOs have implemented a process to present assumptions, needs and solutions to stakeholders. While the process provides stakeholders a minimum amount of information about

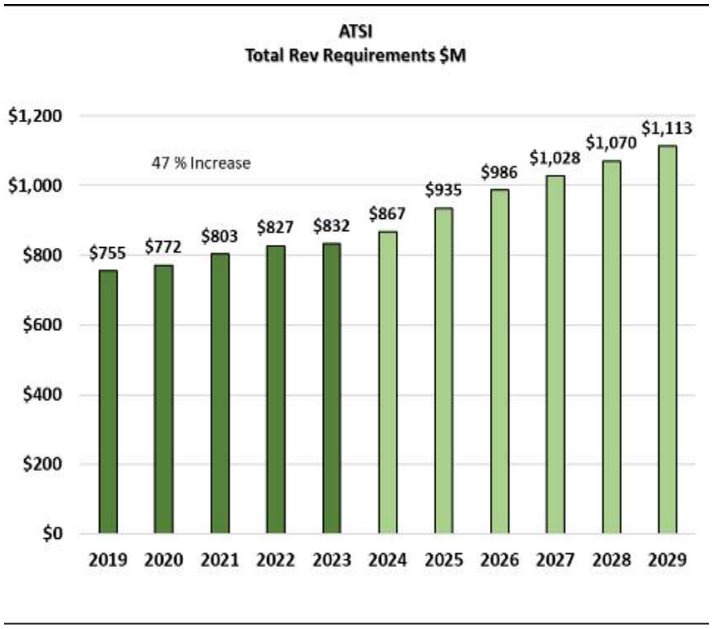
the PJM TOs' proposed plans, there is not sufficient information to enable stakeholders to replicate in order to verify the plans. Like baseline project costs, the costs of supplemental transmission projects are passed along to customers, but without a determination that they are necessary or prudent before they go into service. And, supplemental projects are not subject to competition.

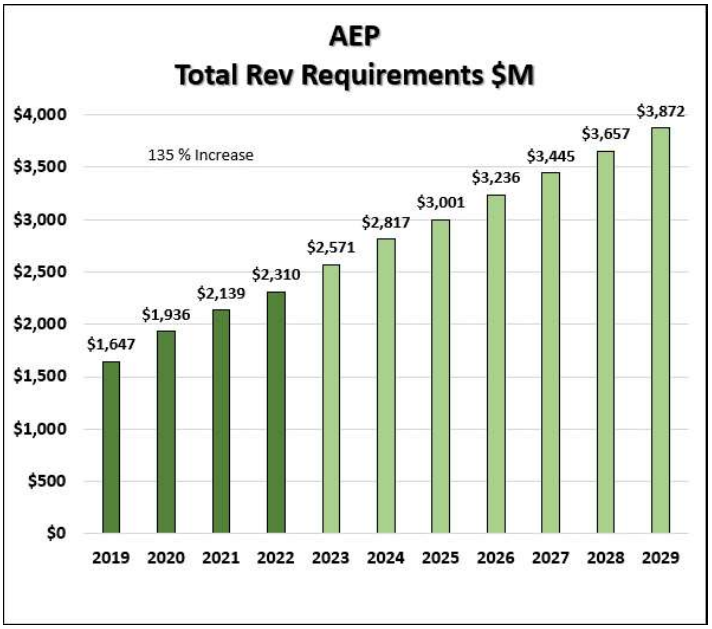
PJM Transmission Costs

AMP-compiled PJM data from 2005—2019 demonstrates some alarming trends. First, the total proposed spend on supplemental projects exceeded that of baseline spend ($31.2 billion versus $30.4 billion). In 2019, Supplemental project proposals (proposed-$1.6 billion and finalized-$3.2 billion) totaled to $4.8 billion, while TO Baseline FERC 715 criteria driven projects total to $808 million, and PJM Baseline criteria driven projects totaling to $302 million. Second, the majority of the proposed spend for supplemental projects began in 2012 after FERC Order 1000 required competition for transmission projects (supplemental projects are excluded from competition). Third, more transmission projects are being driven by individual TO-identified "local" needs, rather than by the regional reliability needs. Additionally, more transmission projects are being planned by the individual PJM TOs than PJM, the Regional Transmission Organization. In fact, more than 90 percent of all transmission projects, whether they are supplemental projects or baseline projects are based on individual TO criteria in 2018 and 2019. Fourth, the planning horizon for supplemental projects from September 2018 to present is a little less than 23 months from the time the need is identified to the date that it is required to be put into service. This means that projects are being proposed, planned and put into service within a very short window of time; significantly less than PJM's five-year planning horizon. Reactionary independent planning by PJM TOs has negative impacts on PJM's transmission planning, as well as generators seeking to interconnect. *See chart on page 3.*

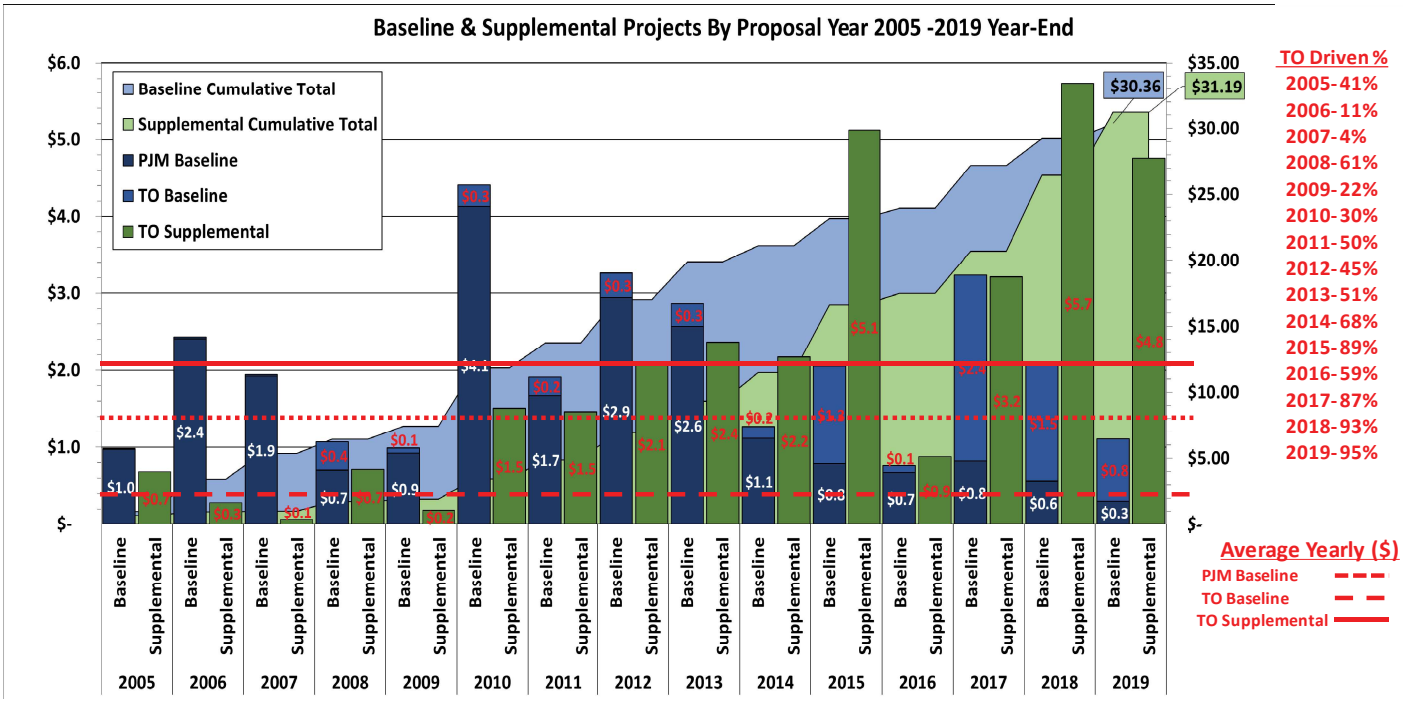
In PJM, since the beginning of 2016, there have been $13.3 billion of supplemental projects, plus another $4.7 billion of baseline projects driven by PJM TO determinations compared to only $2.3 billion of PJM-planned baseline projects for reliability. This means there were significantly more transmission projects driven by PJM TOs without any true oversight than baseline transmission projects driven by transparent criteria in the PJM footprint. 2018 was the highest single year of investment in transmission projects in PJM totaling $7.8 billion, a 22 percent increase over 2017 investments. While the supplemental projects have increased dramatically year over year, PJM-planned baseline projects required for reliability have decreased.

AMP continues to work through the PJM stakeholder process to improve the transmission planning processes. As the majority of transmission projects from 2016—2019 have been driven by aging infrastructure, AMP, along with other stakeholders, has initiated an effort to increase the transparency of the need for these projects, as well as have PJM, rather than the TOs, plan replacement facilities once the PJM TOs identify a need for replacement. Ideally, PJM members can develop a proposal to improve the transmission planning process for FERC's review and approval in 2020.





Projected Transmission Revenue Requirements



Key Considerations

Congress can be helpful by:

- Ensuring transmission investments are prudent, cost-effective and future-focused, and that hearings and briefings on the Federal Power Act (FPA) include robust discussion of transmission topics with a focus on consumer impacts and ensuring that any FPA revisions strengthen language on joint ownership;
- Instructing FERC to require regional transmission organizations to undertake the vast majority of transmission planning to ensure that transmission expansions and enhancements provide efficient, reliable and non-discriminatory service that is coordinated with the appropriate state, local and federal authorities;
- Instructing FERC to require transmission planning models that are transparent enough to demonstrate the basis, cost, timing and need for supplemental and baseline transmission projects, particularly those that are driven by TOs; and,
- Encouraging FERC to ensure that return on equity rates for transmission investments reflect current economic conditions and actual risk levels for the investments.

American Municipal Power, Inc. (AMP) is the nonprofit wholesale power supplier and services provider for 135 members, including 134 member municipal electric systems in Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia, as well as the Delaware Municipal Electric Corporation — a joint action agency with nine member communities. Combined, these member utilities serve more than 650,000 customers. AMP is one of the largest organizations of its type in the country and has total assets of more than $6.7 billion, annual revenues of approximately $1.2 billion and total annual sales of approximately 15 million MWh. For more information, please contact Jolene Thompson, AMP Executive Vice President of Member Services & External Affairs at 614-519-8901 or jthompson@amppartners.org.