

Dear Pemberton Electric Utility Ratepayer:

In the coming weeks and months, you will likely read in various news media about higher electric bills across the country. You will probably hear about “capacity charges” and the impact these charges will have in 2025 and beyond on consumer electric bills. Unfortunately, Pemberton Electric customers will not be insulated from this problem and your local electricity rates will increase commencing June 1st. More information concerning the increase is presented at the end of this bulletin. But, first, I want to present some background and context for you, especially useful for those of you that may be new to Pemberton.

Overview of the Electricity Grid

The electricity grid consists of three distinct components - generation, transmission, and distribution that eventually gets electricity from where it is generated to where it is used by consumers in their homes and businesses. Generation consists of the sources of electricity (e.g., nuclear, natural gas, coal, hydroelectric, solar and wind). Transmission involves the infrastructure that moves very large quantities of electricity, at high voltages, over long distances, getting it closer to where it will be eventually used. Distribution is the delivery of electricity to the consumer at lower voltages and shorter distances. Distribution is the most recognizable part of the electricity grid to the consumer – powerlines and poles, transformers, and other equipment that you see every day around town.

Regional transmission organizations (RTOs) work behind the scenes to ensure the reliability of the power grid. In particular, PJM Interconnection is the RTO that coordinates the movement of bulk electricity for 65 million customers through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, **New Jersey**, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. PJM does not own power lines or generators. Instead, it is a neutral, federally regulated organization that directs the operation of high voltage power lines and generators for many different owners. PJM also coordinates the continuous buying, selling and delivery of bulk wholesale electricity through an Energy Market. As the market operator, PJM balances the needs of buyers and sellers and monitors market activities to ensure open, fair, and equitable access.

The Borough of Pemberton is one of the small number of New Jersey municipalities that are members of PJM and distribute electricity, in our case through a municipally run electric utility.¹ Collectively, these ten municipalities are known as the Public Power Association of New Jersey (PPANJ). Pemberton Electric is staffed by 8 employees. The employees consist of office

¹ Pemberton, Seaside Heights, Butler, Lavallette, Park Ridge, Vineland, Madison, Milltown, South River, and Sussex Rural Electric Cooperative are members of the Public Power Association of New Jersey. The same entities, excepting Sussex, also comprise the membership of New Jersey Public Power Authority. Both organizations are managed by a full-time professional executive director who has many years of industry experience. One representative from each member entity serves on the boards that oversee the organizations. The Pemberton representative is the Municipal clerk. Vineland is the only member that operates natural gas generation and utility scale solar generation.

staff, engineers, and professional linemen who live in or near Pemberton and take pride in quickly responding to customer problems and restoring power during emergency outages. They are tasked with line repairs, distribution circuit maintenance, installation of meters, upgrading service drops, repairing, and replacing defective street lighting, and emergency and storm related restoration.

Pemberton purchases its electricity in bulk from several different wholesale electric suppliers. This electricity is bought, sold, and traded in competitive wholesale markets, similar to other commodities. PJM administers the competitive wholesale markets for large volumes of electricity across its piece of the electric grid. From the PJM wholesale market, the electricity purchased by Pemberton Electric is then distributed in smaller quantities to end users (e.g., homes and businesses). As a municipality, Pemberton's electricity rates are established via a municipal ordinance.

Capacity Costs and Peak Demand

Capacity is an important component of your electricity bill. Capacity compensates electricity generators for their ability to produce energy rather than the actual energy produced. In other words, capacity covers the cost of being instantaneously available, maintaining and operating the power plants and necessary infrastructure, particularly during peak usage times. These charges are calculated based on the customer's, (such as Pemberton Electric) highest demand for electricity during the grids peak hours either during the busiest hour (or few hours) of the summer months. This peak demand is multiplied by a set rate (in dollars per kilowatt-hour), as determined by an auction process, to establish the capacity charge. Capacity is the second largest component of your electric bill after the actual electricity supply that you use and pay for. Therefore, a significant increase in capacity charges will substantially increase your electric bill. Think of capacity as a shopping mall that builds enough parking spaces to be filled at its busiest time – Black Friday. The spaces are available when needed, but they may not be used all year round. Capacity, as it related to electricity, means there is adequate generation (“iron in the ground”) on the grid to ensure that demand for electricity can be met at all times, particularly peak periods.

PJM's capacity market is called the Reliability Pricing Model (“RPM”). PJM runs the RPM Capacity Auction where generating resources offer to supply reliable capacity to meet PJM's predicted demand. The auction clearing prices are expressed as a \$/MW-day, applicable from June 1 to May 31st of the following year. Each load serving entity, such as Pemberton Electric, is assigned a capacity obligation that coincides with this June 1 – May 31st period (“delivery year”) and determines the volume of capacity Pemberton Electric is responsible for. Pemberton Electric's obligation is determined by its contribution (meter reads) to PJM's 5 highest coincident peak hours.

The Capacity Cost Problem

Prices in PJM's latest capacity auction this past year hit record highs. For the majority of the PJM region, capacity prices for the 2025/2026 delivery year soared from \$56/MW-day to \$270/MW-day.² The impact on Pemberton for the 2025/2026 delivery year commencing June 1st is an increase from \$60,000 to \$291,000 that will unfortunately have to be passed on to consumers. As the supply and demand mix for energy changes, so will the capacity charges. We are cautiously optimistic that forces will apply downward pressure on these costs in the future. Conversely, others predict they will go even higher. As a "worst case scenario" there could potentially be an increase for the 2026/2027 delivery year from \$291,000 to \$749,000. This auction was scheduled for December 2024, but has been postponed to July 2025 due to pending litigation before the Federal Energy Regulatory Commission.

The drastic spike in capacity costs and expectations for future cost increases are due to several factors out of our control that can be best summarized as a tightening supply-demand imbalance:

- Fossil-fuel power plant retirements without adequate replacement;
- Rising demand (data center growth, transportation electrification, artificial intelligence, cryptocurrency mining, battery, and fuel cell manufacturing);
- New PJM market rules;
- Transmission cost³ and distribution cost increases;
- Anticipated rise in the price of natural gas (caused by more US natural gas being exported and unavailable to the US market)

The "capacity problem" has been exacerbated by politics. State and federal policymakers are dictating a rapid changeover to renewable energy resources before renewable energy infrastructure is available, while at the same time, these policymakers are attacking natural gas and coal generation. Currently, the electricity grid and related markets are unprepared for a renewables-only system. But leaders at the state and federal level have ignored warnings for many years. Regulators in charge of electricity markets, such as the Federal Energy Regulatory Commission, North American Electric Reliability Corp. and PJM all have been sounding the alarm that we are facing a capacity shortfall.⁴ New Federal and State

² Capacity prices will cost consumers in the PJM footprint \$14.7 billion for the 2025/2026 delivery year, up from \$2.2 billion in its previous years. According to Morgan Stanley, capacity prices for the majority of PJM's footprint could hit \$695/MW-day for the 2026/2027 delivery year.

³ Transmission costs in our transmission zone have increased by 55% over the last three years and are expected to continue rising as New Jersey rate payers will shoulder an additional \$1 billion as offshore wind transmission goes online. Transmission costs are determined by the Borough's 1 (or 5) meter reads coincident with our zonal (JCPL/PSEG/AECO) system peaks.

⁴ Over half of North America is at risk of energy shortfalls in the next 10 years amid surging electricity demand and thermal plant retirements, according to a new report from the North American Electric Reliability Corp

policies are desperately needed to support better infrastructure and more energy production. Power companies should be incentivized to build new generating resources and keep existing power plants operating until new sources come on-line to meet this increased demand.

Pemberton Electric Rate Increase

The energy market conditions discussed above require a capacity adjustment charge of approximately 3 cents per kilowatt hour commencing on or about January 1, 2025. The rate increase has been enacted through a borough ordinance at which time the public had an opportunity to comment and ask questions. The ordinance was introduced on November 18, 2024 with second reading and public hearing scheduled for December 16, 2024.⁵

Long-Term Mitigation and Demand Response

The PPANJ is actively exploring opportunities that will reduce Pemberton's costs such as peak shaving generation (on-site battery storage and other types of generators), as well as demand response programs. These endeavors will attempt to lower Pemberton's peak demand which will in turn lower customer capacity charges. However, given the lead up time needed for acquisition and installation and permitting, it is unlikely that any option can provide relief until the 2027/2028 delivery year, at best. In the interim, we ask for everyone's cooperation in turning off non-essential electric lighting and appliances, when safe to do so, especially during peak times.

In closing, the entire country is on the cusp of an energy crisis the costs of which ultimately will be shouldered by ratepayers. Together with other PPANJ members, Pemberton Electric will continue to monitor the PJM capacity market and other critical pieces of the electricity marketplace. I strongly encourage you to reach out to state and federal elected leaders and request that they immediately adopt a more balanced and objective approach to their energy goals. We need more generation - nuclear, coal, and natural gas in particular - not less.

Sincerely,

Kathy Smick

Municipal Clerk and Pemberton representative to Public Power Association of NJ

⁵ Electric rates in Pemberton have not been increased since March 19, 2012

