

October 14, 2026

VIA ELECTRONIC FILING

Matthew Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120

**Re: Pennsylvania Accelerated Transmission and Energy Redevelopment (PATER)
Study; Docket No. M-2026-3059601 - Comments of Centennial Generating
Company LLC on the PATER Part A Preliminary Assessment of Potential
Opportunities Report**

Dear Secretary Homsher:

Enclosed for filing in the above-referenced docket please find the Comments of Centennial Generating Company LLC on the PATER Part A Preliminary Assessment of Potential Opportunities Report, submitted in response to the Commission's Secretarial Letter served September 23, 2026.

Please direct any questions regarding this filing to the undersigned.

Respectfully submitted,

/s/ David John Frenkil

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Enclosure

Pennsylvania Accelerated Transmission and Energy Redevelopment (PATER) Study : Docket No. M-2026-3059601
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I. INTRODUCTION

Part A reaches a finding that should shape all of Part B: in Pennsylvania, the first limit on serving new load is not the transmission network but the supply of generation available to serve that load. Put simply, the existing wires can carry more new demand than the Commonwealth has power supply ready to meet it. The practical question for Part B is therefore which resources can add dependable supply at and near the candidate sites, at what cost, and how quickly. Battery energy storage systems ("BESS" or "storage") are among the fastest of those resources to build. Part A includes storage among the technologies considered for the candidate sites (Part A at 74), but it leaves storage out of the hosting-capacity analysis that produced its central finding and out

of the operating-spending side of its economic-impact analysis, and it does not evaluate storage paired with a large new customer such as a data center or manufacturing facility.

Centennial asks the Commission to direct that Part B evaluate storage on the same footing as every other resource. Specifically, Part B should (i) count storage in the hosting-capacity and production-cost analyses; (ii) test storage paired with large loads and at the sites where Part A's own sizing already points to it; (iii) credit storage for the new load it allows the grid to serve and for its ongoing economic activity; (iv) compare all options on the cost of capacity PJM will actually count on at peak, available by a given date; and (v) evaluate storage alongside the advanced transmission technologies Part A already reviews. Because the amount of new supply that can be built depends on more than technology choice, Centennial also asks that Part B apply two screens to every resource: whether existing interconnection rights can be reused, including at plants that are retiring, and how much land at each site is actually developable outside floodways. These changes do not prejudge which technology any site should host, consistent with Part A's statement that the study is "not intended to be prescriptive of the end use for each site." (Part A at 8, 16) They will make Part B more accurate and more useful to the policymakers who rely on it, and they will help direct private capital toward the sites and resources that can deliver reliable, affordable power soonest.

II. ABOUT CENTENNIAL

Centennial is a Mid-Atlantic developer, long-term owner, and operator of solar and battery storage projects. Founded in 2014 by David John Frenkil, a former project finance attorney, Centennial originates, develops, finances, builds, owns, and manages its projects in-house. As an owner-operator, Centennial is accountable for the long-term for each project's performance, its relationships with site owners and host communities, and its obligations to the grid for the full life of the project.

Centennial's portfolio includes more than 50 contracted projects totaling more than 80 megawatts (direct current) and over \$300 million of capital investment across Pennsylvania, Maryland, and New Jersey. Its site partners include Fortune 500 companies and publicly traded real estate investment trusts.

Centennial focuses on the same kind of land the PATER study targets: sites that already have industrial use and grid infrastructure, including brownfields, former industrial properties, and the rooftops of warehouses and commercial buildings. In Pennsylvania, Centennial is developing projects in West Mifflin, Quakertown, North Wales, and Monessen, across the Duquesne Light, PPL, PECO, and FirstEnergy service territories. Its West Mifflin project will place 12.5 MWdc of solar on a former industrial slag site. In Maryland, Centennial has bid storage projects into the utility procurements run under the Next Generation Energy Act, including those of BGE and Pepco.

Centennial's projects invest directly in the communities that host them. Each project makes long-term lease payments to a local property owner, pays property taxes, and relies on contractors and trades for construction and ongoing maintenance. Many return idle or underused land, including former industrial sites, to productive, tax-paying use. Centennial supported Senate Bill 349, Pennsylvania's solar decommissioning law signed in July 2026, because responsible developers should commit up front to restoring the sites they use.

Centennial has no ownership interest in any of the 21 candidate sites. Its interest in this proceeding is a study that accurately measures what each resource can contribute, because Part B's findings will help determine where private capital, including Centennial's, is invested in Pennsylvania's grid.

III. SUMMARY OF REQUESTS

#	What Part A does	What Centennial asks Part B to do	Part A cite
1	Leaves storage out of the resources counted as able to serve new load or absorb new generation	Add storage cases to the hosting-capacity runs and report how much new load each accredited MW of storage allows the grid to serve	pp. 63, 66–68
2	Tests generation (including batteries), large loads, and co-location, but does not separately evaluate a large load paired with storage	Add "large load plus storage" as a site configuration, consistent with the Commission's October 1, 2026 Tentative Order ¹	pp. 74, 88
3	Does not evaluate reuse of existing interconnection rights and screens out partly retired plants	Evaluate reuse of interconnection rights under PJM's January 2026 replacement process at the candidate sites, at plants expected to retire, and at partly retired plants, so new supply can connect sooner	pp. 22, 24
4	Compares technologies on cost per kW of maximum rated output (nameplate) and primarily on construction time only	Compare options on cost per MW of capacity PJM counts on at peak (accredited or "UCAP" MW) available by a target year, including equipment lead times	pp. 83–84
5	Gives storage no operating-spending multiplier, even though Table 30 lists storage operating costs	Count storage operating spending, taxes, and lease payments, and credit storage for the load it enables	pp. 84, 92
6	Sizes sites on parcel acreage, which Part A notes may differ from developable land, including floodways	Net out floodway acreage for every technology before sizing and ranking sites	pp. 36–55, 78

¹ *Elec. Distrib. Co. Interim Res. Adequacy Serv., Pre-Emergency & Emergency Response Provisions*, Docket No. M-2026-3064961, Tentative Order at 4–6 (Pa. Pub. Util. Comm'n Oct. 1, 2026), <https://www.puc.pa.gov/pdocs/1952506.pdf>. Centennial is aware that the Tentative Order depends on IRAS events as determined by PJM, which FERC rejected on October 9, 2026. See *PJM Interconnection, L.L.C.*, Docket No. ER26-3515-000 (FERC Oct. 9, 2026) (accepting PJM's Large Load definition and Large Load Registry, effective Oct. 12, 2026, and rejecting IRAS and BYONC); see also *PJM Interconnection, L.L.C.*, Proposal of PJM Interconnection, L.L.C. to Establish Interim Resource Adequacy Service and a Large Load Registry to Address System Reliability, Docket No. ER26-3515-000 (Aug. 13, 2026) (Accession No. 20260813-5118); *PJM Interconnection, L.L.C.*, Interim Resource Adequacy Service Proposal (2026), <https://www.pjm.com/-/media/DotCom/about-pjm/newsroom/fact-sheets/interim-resource-adequacy-service-proposal.pdf>. The Commission can and should continue to require electric distribution companies to curtail eligible new large loads that have not secured sufficient new capacity before other customers, keyed to PJM's existing pre-emergency and emergency load-management events rather than to IRAS, because FERC's order leaves to the states the designation of which retail customers are curtailed. That change to the Tentative Order should be mechanical and does not affect the configuration Centennial asks Part B to study. See *infra* Section V, Recommendation 2.

#	What Part A does	What Centennial asks Part B to do	Part A cite
7	Already sizes four sites using battery storage land-use assumptions; seven sites are small oil-fired peaking plants	Carry storage forward as an explicit configuration at those sites	pp. 23, 78–79, 87, 98
8	Reviews advanced transmission technologies, but not storage	Evaluate storage alongside those technologies as an advanced grid solution that can be deployed in about a year	pp. 70–71

IV. PART A'S CENTRAL FINDING: GENERATION SUPPLY, NOT TRANSMISSION, IS THE FIRST LIMIT ON NEW LOAD

Part A finds that Pennsylvania's existing transmission network could carry about 9.2 GW of new load at the candidate sites, but the generation available to serve that load is far smaller. (Part A at 67–69) Using only the unused output of flexible in-state fossil units under 400 MW, the grid can serve about 744 MW of new load. Raising renewable output lifts that to about 2.2 GW, and adding the fossil plants expected online by 2030 lifts it to about 4.2 GW. In other words, even with renewable output raised and planned fossil plants added, in-state generation can serve less than half of the new load the transmission network could carry. Part A concludes that "generation adequacy constraints emerge well before transmission constraints become binding." (Part A at 69) It also warns that the available transmission headroom may be "consumed quickly by emerging demand" (Part A at 10), which makes resources that can be built quickly at the sites all the more valuable.

The question for Part B is therefore which resources can close that gap, and how fast. The Commission's own resource adequacy study, prepared by Synapse Energy Economics and released September 14, 2026 ("Synapse study"), bears directly on that question:

- **No new gas combined-cycle capacity in Pennsylvania through 2030** in any scenario; it stays at 20.0 GW, and 5 to 12 GW of additions arrive only in the 2030s. (Synapse at 13–14, Tables 5–6)
- **Gas supply-chain constraints assumed to last until 2035.** (Synapse at 40, Table 14)
- **Battery storage in Pennsylvania rising from 0.1 GW in 2025 to 1.5 GW in 2030** in the reference scenario. (Synapse at 13–14)
- **A 2030 loss-of-load expectation of 0.59 days per year** in the reference case, nearly six times PJM's reliability standard of 0.1 days per year (one day in ten years). (Synapse at ii)

Part A's own tables point the same way. Four-hour storage takes about 12 months to build, against 22 to 23 months for gas. (Part A at 84, Table 30) Storage also uses the least land of any technology studied, about 0.07 acres per MW. (Part A at 78, Table 27) Storage can also be paired with existing and new solar to shift midday output into the late-afternoon and evening hours when demand peaks and the grid is most stressed.

The need is sharpest where Part A says new generation belongs. In the PPL zone, PJM's forecast adds roughly 6 GW of peak load from 2026 to 2036 against well under 1 GW of new installed capacity, and the PECO zone adds load while losing capacity. (Part A at 77, Figure 50) Part A's production-cost base case gives PPL the highest on-peak prices in the state in 2030. (Part A at 70)

Affordability makes the timing urgent. Part A reports that Pennsylvania residential prices rose 46.1% from 2018 to 2025, more than in Ohio, Virginia, or the rest of PJM, even though Pennsylvania exported about 89 million MWh in 2025. (Part A at 12) Each year that new supply

lags new demand is another year in which Pennsylvania households and businesses are exposed to the higher prices that scarcity brings. A Part B that does not fully model one of the fastest resources to build would understate what the candidate sites can do before 2030.

V. RECOMMENDATIONS ON MODELING

1. Count storage as a resource in the hosting-capacity runs

Part A's load-hosting cases add supply in steps: flexible fossil units, then more renewable output, then planned fossil plants, then generation outside Pennsylvania. (Part A at 66–68) Storage never appears as a step. In the generation-hosting case, which measures how much new generation the grid can absorb, storage was left out of redispatch along with nuclear, renewables, and hydro (Part A at 63), so the roughly 10.1 GW of downward flexibility Part A found comes only from fossil units. (Part A at 63–64) Storage provides that flexibility directly: when it charges, it absorbs output that would otherwise have to be curtailed. Part A's generation forecast also omits conceptual projects (Part A at 75), so storage now in PJM's interconnection queue is not counted. Part A's 744 MW to 4.2 GW range therefore reflects only the resources modeled, not the full set of resources that could be built.

Centennial asks that Part B:

- add a load-hosting case with new storage at the candidate sites and in the constrained zones, sized to each site's acreage and hosting limits;
 - report the incremental load each accredited MW of storage lets the system serve, by zone;
 - allow existing and new storage to participate in redispatch in the generation-hosting case; and
 - include storage in the PROMOD runs Part B will use to test site configurations.
- (Part A at 88)

Without these cases, Part B will tell policymakers how much new load the grid can serve without new storage, but not how much it could serve with it. Investors weighing storage at or near the candidate sites, and the officials recruiting new employers to them, would have no basis for comparison.

2. Add "large load plus storage" as a site configuration

Part A evaluates generation only (including batteries), large load only, and co-located generation and load (Part A at 74), but it does not separately evaluate a large load paired with storage. It notes that "sites with onsite generation are also less restricted with regards to resource adequacy constraints." (Part A at 88) Part B should test the same benefit for a large load paired with on-site or nearby storage.

This configuration matters more now than when Part A was scoped. PJM's proposed Interim Resource Adequacy Service (IRAS), filed at FERC on August 13, 2026, would have curtailed new large loads of 50 MW or more that had not secured new capacity before other customers, making those loads the first to lose service in a supply shortfall. Under the companion Bring Your Own New Capacity (BYONC) pathway, a large load could have avoided that exposure by contracting for new, accredited capacity, including new storage. On October 9, 2026, FERC rejected IRAS and BYONC, concluding that several provisions intruded on state authority over retail customers, but accepted PJM's Large Load definition and Large Load Registry. How large loads without new capacity are curtailed is therefore now a question for this Commission. Its October 1, 2026 Tentative Order at Docket M-2026-3064961 proposes that utilities curtail eligible new large loads that have not secured sufficient new capacity before shedding load from any other customer.

Because the Tentative Order was framed around IRAS events that PJM would have called, it will need a conforming change, but its curtail-first principle remains sound and the Commission should retain it. Storage that a large load brings to a site therefore does two things the study should value. It adds accredited capacity against the load's peak, and it lets the site respond to a curtailment directive issued under the Commission's rules. The Commission's Synapse study supports a four-hour duration for that role: the average 2030 shortfall event lasts about 47 minutes in the reference case and about 2.4 hours in the high-load case. (Synapse at 22, Table 9)

This configuration also answers Part A's concern that co-located projects are "complicating visibility into system needs." (Part A at 8) PJM's Large Load Registry, which FERC accepted effective October 12, 2026, will record the load and its associated capacity. Part B should treat registered storage paired with a large load as fully visible to the system.

For Pennsylvania, this configuration offers a way to attract large new employers without shifting reliability risk or capacity costs onto existing customers: the new load brings its own new capacity, and that capacity strengthens the system for everyone during peak hours.

3. Evaluate replacement interconnection rights and partly retired plants

How quickly new supply can reach the grid depends heavily on whether it can use an existing grid connection. Part A did not consider the transfer of Capacity Interconnection Rights, the rights a generating plant holds to deliver its output to the grid, noting that the rules are "not directly relevant" to the long-retired candidate sites and that it is unclear whether they apply to plants retired before the rules took effect. Part A said the issue "may be examined further" in Part B. (Part A at 24) Part B should examine it, for the candidate sites and for plants that have not yet retired. On January 29, 2026, FERC accepted PJM's streamlined replacement process (Docket ER26-403-001), effective January 30, 2026. A deactivating plant keeps its rights for one year, and

a replacement resource at the same substation and voltage, up to the retired output, can use an expedited study.²

Centennial asks that Part B:

- confirm, site by site, whether any interconnection rights remain at the 21 candidate sites;
- add a candidate category for Pennsylvania plants with announced or expected deactivations in the next five years, where replacement rights are still live; and
- reconsider the seven partly retired plants Part A screened out (Part A at 22), where storage could use spare interconnection capacity under PJM's Surplus Interconnection Service.

Storage is well suited to replacement and surplus interconnection because it can be sized to fit the existing rights, needs little land, and can be built in about a year once studied. Reusing existing connections also puts grid infrastructure that customers have already paid for back to work and shortens the path to new supply.

VI. RECOMMENDATIONS ON COST, ECONOMICS, AND SITING

4. Compare options on cost per accredited MW available by a target year

Table 30 compares technologies on capital cost per kW of nameplate capacity, meaning maximum rated output, and on construction months. (Part A at 84) On that basis gas looks cheapest, at about \$860 to \$1,650 per kW. (Part A at 83) Part A itself notes that wind, solar, and storage "may provide cost advantages over the project lifetime through lower operating and maintenance expenses." (Part A at 84) But the gap Part A identifies is a shortfall of accredited capacity, meaning the portion of a resource's output PJM counts on during periods of peak demand,

² *PJM Interconnection, L.L.C.*, 194 FERC ¶ 61,079, paras. 1, 4, 11, 39 (2026).

and that shortfall arrives before 2030. Nameplate cost measures neither accredited capacity nor timing.

Centennial asks that Part B:

- compare options on cost per MW of accredited capacity (UCAP), using PJM's current Effective Load Carrying Capability (ELCC)³ class ratings, which PJM uses to accredit each technology;
- add equipment procurement lead times to construction durations, and state whether Table 30's 22 to 23 months for gas include turbine delivery; and
- show which options can be in service by the 2028/2029, 2029/2030, and 2030/2031 delivery years.

A comparison that ignores timing will favor resources that cannot help in the years Part A identifies as short, and could steer policy toward options that arrive after the need.

5. Correct the economic-impact treatment of storage

Part A assigned storage a construction spending pattern but no operating one, because "literature sources indicate there is little additional OpEx beyond construction." (Part A at 92, n.5) Yet Part A's own Table 30 lists fixed operating costs for four-hour storage of \$4 to \$5 per kW-year. (Part A at 84) As modeled, the analysis would understate storage's ongoing economic contribution in the Part B ranking.

Centennial asks that Part B:

- apply an operating multiplier to storage O&M, augmentation, and site security;

³ *Effective Load Carrying Capability (ELCC)*, PJM Interconnection, L.L.C., <https://www.pjm.com/planning/resource-adequacy-planning/effective-load-carrying-capability> (last visited Oct. 13, 2026) (posting BRA ELCC Class Ratings for the 2029/2030 Delivery Year).

- count property taxes or payments in lieu of taxes and lease payments to site owners, which continue for the life of the project; and
- credit storage for the economic activity of the load it enables, where Recommendation 1 shows storage raises a zone's load-hosting limit.

6. Screen developable acreage outside floodways

Table 28 sizes each site according to its parcel acreage, which Part A notes "may differ from developable land acreage." (Part A at 78) Indeed, Part A classifies 11 of the 21 candidate sites as in a FEMA floodway. (Part A at 36–55) Accurate site sizing matters for every technology, not only storage. Part B should net out floodway acreage before it sizes or ranks sites. That will give a truer picture of what each site can host and avoid steering any project onto land that cannot be permitted.

7. Study storage at the sites where Part A's own sizing points to it

Part A's preliminary sizing in Figure 59 already points to storage at four sites. The capacities shown for West Shore, Milesburg, F R Phillips, and Elrama are equivalent to Table 28's battery estimates for each site. (Part A at 87; compare Table 28 at 78–79)

Further, seven of the 21 sites are distillate fuel oil peakers totaling about 230 MW (Table 5 at 23), mostly on parcels under 50 acres. (Part A at 98) Storage is well suited to replace a retired peaker: it serves the same peak hours, uses about a third of the land of gas per MW, and needs no fuel supply. Part B should carry storage forward as an explicit configuration at these sites, subject to the floodway screen in Recommendation 6.

8. Evaluate storage as an advanced grid technology

Part A reviews dynamic line ratings and power flow control as advanced technologies that get more out of existing transmission lines while new transmission is built. (Part A at 70–71)

Storage belongs in the same category. Sited at a constrained substation, storage can absorb power when lines are congested and release it when capacity is available. It can be installed in about a year (Part A at 84, Table 30), and because it is modular, it can be expanded as needs change. PJM stakeholders are now developing rules for storage as a transmission asset.⁴ Part B should test storage at the candidate sites as an option to relieve the constraints its PROMOD and power-flow runs identify, alongside the other technologies it already covers.

VII. WHY THESE CHANGES MATTER FOR PENNSYLVANIA

The recommendations above are technical, but their consequences are practical. Part B will inform decisions by the General Assembly, state agencies, utilities, and private investors about where and how to add supply at the candidate sites. If Part B understates what storage can contribute, those decisions will rest on an incomplete picture.

Ratepayers. Part A shows that Pennsylvania residential prices have risen faster than in neighboring states and that generation supply, not transmission, is the binding constraint. Resources that add accredited capacity within about a year can ease that shortage sooner. Storage paired with large loads lets new customers bring their own new capacity rather than relying on capacity that existing customers pay for.

Businesses and new load. Employers considering Pennsylvania need confidence that power will be available when their facilities open. A Part B that identifies where storage can expand load-hosting capacity before 2030 gives economic development officials a concrete answer.

Existing and planned solar investments. Pennsylvania hosts a growing fleet of operating and planned solar projects, including Centennial's. Storage lets that output serve the evening peak,

⁴ See, e.g., PJM Interconnection, L.L.C., Operating Committee Meeting (June 4, 2026).

reduces curtailment when the grid cannot absorb midday generation, and increases the value of the renewable output Part A already counts in its 2.2 GW case. Modeling storage accurately will help Pennsylvania get full value from investments already made and attract the next round of private capital.

Communities and the Commonwealth. Storage projects pay property taxes and lease payments for their full life, need little land, use no fuel, and produce no on-site emissions, which makes them a good fit for former power plant sites near homes and businesses. Each project built at a candidate site returns idle industrial land to productive, tax-paying use.

VIII. POLICY CONTEXT

The final PATER report will go to the General Assembly, the Governor's Office of Policy, DCED, DEP's Energy Programs Office, the Office of Small Business Advocate, and the Office of Consumer Advocate (February 19, 2026 Order). Policymakers are already weighing how much storage Pennsylvania should procure. On October 5, 2026, the House passed HB 2380, which would direct the largest utilities to procure 3,500 MW of storage by 2035 through competitive solicitations.

Whatever the outcome of that legislation, the General Assembly and the Commission would benefit from a Part B that identifies which candidate sites are suited to storage, at what size, and at what cost per accredited MW. Centennial asks that Part B include that site-level view among its findings.

IX. CONCLUSION

Part A gives Pennsylvania a sound foundation and a clear diagnosis: the supply of generation, not the transmission network, is the first limit on serving new load. Part B should test every resource that can close that gap in time, on the same terms. Centennial respectfully asks the Commission to direct the changes in Recommendations 1 through 8. Centennial appreciates the

work of Commission staff, KeyLogic, EPRI, and Team Pennsylvania on Part A, and would welcome the opportunity to serve as a resource to the study team, share project cost and schedule data, and participate in the Part B stakeholder sessions.

Respectfully submitted,

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Dated: October 14, 2026