

**Written Testimony of Romita Biswas representing Electrify DC before the District of
Columbia Public Service Commission**

**“Legislative-Style Hearing on Rising Electric Generation Costs Impacting Residents
(Formal Case No. 1186, Order No. 22774)”**

Filed for Cases: FC 1017, FC 1183, and FC 1186

June 3, 2026

Chairman Thompson, Commissioner Beverly, Commissioner Trabue and representatives of PJM, Pepco, and the local power community thank you for the opportunity to testify on the potential pathways to address energy affordability in the District.

Our energy system is the backbone of the local economy of the District of Columbia. The financial burden of the rising costs of energy has impacted the financial independence and freedom of the people of DC. The impact on financial independence encroaches on the survival of small businesses, local economies within the District, and harms the District itself through the reduction in taxes being levied.

DC is situated within the Load Deliverable Area (LDA) of the Dominion Deliverable Area (DOM), one we share with Virginia. Our capacity costs, a topic that is discussed frequently, is impacted by the exposure to Large Load Growth and shortage of capacity resources within our LDA.¹ Our energy costs - the cost to procure energy by our Load Serving Entity (LSE) is tied directly to our own consumption of energy and the lack of generation within the District. When we are unable to produce our own power or at least control the consumption of our power, we are directly exposed to market volatility. We are exposed to congestion driven by demand across the District, the cost to transport that power, and the ultimate need to meet marginal demand through procuring energy at a higher cost.

The common thread across these challenges is scarcity. When local demand grows faster than local resources, consumers become increasingly exposed to volatility in wholesale energy, capacity, and transmission markets. While there is often pressure to manage affordability by suppressing prices retroactively, affordability is ultimately determined by the local balance of supply and demand. Long-term affordability therefore requires increasing the availability of local resources while reducing the need to procure increasingly expensive power from outside the District.

1. Transitioning Regulatory Frameworks from Electric Expansion to Quality of Service

Long-term affordability cannot be managed retroactively after scarcity has occurred under the current regulatory framework. Resiliency in the face of supply chain disruptions, large load

¹ Includes ELCC Class Rating Changes from averaging to marginal with winter emphasis from 2026/27 Auctions.

growth, and electricity market volatility requires building an efficient, self-reliant system. If resiliency, efficiency, and therefore affordability are the primary objectives, then the underlying incentives to achieve those outcomes must be scrutinized.

The District's regulatory framework supports a century-old financial structure that rewards capital deployment and asset accumulation, not performance or satisfaction of the objectives that impact quality of service: efficiency, resiliency, and affordability. Customers no longer benefit from expansion of electric infrastructure, they benefit from efficient, resilient, and affordable electric service. Under cost-of-service regulation, utilities earn returns by investing in physical assets that enter rate base, while receiving limited compensation for avoiding costs through efficiency. As a result, utility incentives remain tied to capital expenditure rather than customer outcomes.

A modern regulatory framework should align utility incentives directly with those outcomes. The RIIO framework in the United Kingdom developed by their utility regulatory body, Ofgem, is one example of successful performance-based regulation aligning utility incentives with customer outcomes.² The RIIO sets multi-year revenue frameworks tied to measurable performance in the previously mentioned outcomes such as affordability, reliability, and efficiency. Utilities are able to retain a portion of efficiency gains within that multi-year revenue framework while also resetting targets periodically so that customers ultimately benefit from long-term savings. This creates a structured balance: utilities are rewarded for delivering efficiencies, while customers benefit from lower long-term costs. This type of framework is relevant for the District as it directly addresses the misalignment between utility incentive and customer service.

2. Harnessing Local Power through Distributed Energy Resources (DERs)

As an engineer working on DERs, I see every day that the most direct path to addressing efficiency, resiliency, and affordability on the distribution grid is accelerating the adoption of DERs. However, doing so has unfortunately not been that simple. Adoption in the District has not progressed at the scale or speed required to meaningfully impact system-wide costs.

Solar deployment in the District remains constrained in practice by interconnection delays, upfront capital costs, and reliance on incentives such as federal tax credits and Solar Renewable Energy Credits that do not uniformly drive adoption across all customer classes.³ Programs such as Solar for All have expanded access to rooftop solar for low- and moderate-income (LMI) households, but they do not begin to address the majority of customers nor the majority of electricity consumption in the District.

² Implementing the RIIO, Revenue using Incentives to deliver Innovation and Outputs, framework developed by Ofgem. https://www.ofgem.gov.uk/sites/default/files/docs/2010/10/riio_handbook_0.pdf.

³ OPC Report on Solar Interconnection. <https://opc-dc.gov/wp-content/uploads/2025/03/OPC-Solar-Interconnection-Report.pdf>.

Given that approximately 60% of District residents are renters,⁴ there is limited participation in rooftop solar investment and ownership. As a result, a large share of load remains fully exposed to market volatility. This exposure is most acute during the summer months when AC-driven loads cause peak demand events. Our capacity costs are determined based on our Peak Load Contribution (PLC) across the Five Coincident Peaks (5CP) - summer peak hours. These costs are applied retroactively to customer bills in subsequent rate periods. With a harsh El Niño summer approaching it is more likely that incoming heat waves will trigger unprecedented peak demand, power shortages, and price spikes.⁵

We are still in the shoulder season and have barely entered summer, yet on May 18th 2026, PJM activated emergency Demand Response programs across our LDA to LSEs including Pepco.⁶ Although the Department of Energy authorized PJM to curtail certain large loads as a last-resort reliability measure, PJM did not need to escalate to rolling blackouts or load-shedding actions.⁷ However, as the summer continues it is likely that without enough DER penetration and Demand Response participation, not only will our contribution to the 5CP and therefore allocation of capacity costs remain high, but also we will have very little control of how we are procuring expensive power from surrounding states to meet high demand.

The value of DERs then is not limited to energy production, but also includes distributing demand over time. **DERs reduce system volatility by softening or shifting peak load, thereby reducing exposure to marginal energy prices, capacity pricing, and congestion-driven costs.** This includes traditional rooftop solar and batteries and plug-in balcony solar and batteries, as well as emerging flexible load resources.

As DC is made up of approximately 60% renters and approximately 75% of LMI households are renters,⁸ plug-in balcony solar, plug-in batteries, and flexible load resources are accessible options that do not require roof ownership and do not incur the soft costs of interconnection fees, building upgrades, or electric panel upgrades. These accessible energy management devices reduce the need to procure power from the main distribution grid and therefore reduce pressure on Pepco to procure expensive power from the electricity markets.

Within the same LDA, Virginia, faced with the same grid pressure and affordability concerns, has enacted legislation (HB 395 / SB 250) enabling plug-in solar systems, allowing small-scale residential generation devices under 1.2 kW to operate without traditional interconnection

⁴ US Census Data Housing for District of Columbia.

<https://data.census.gov/table?q=rent&g=040XX00US11>.

⁵ Accuweather summer forecast 2026 heat and severe weather.

<https://www.accuweather.com/en/weather-forecasts/summer-forecast-2026-heat-severe-storms-to-shape-the-season-as-el-ni%C3%B1o-develops-strengthens/1884851>

⁶ PJM issues Maximum Generation Alert, Load Management Alert, Hot Weather Alert May 18th 2026.

<https://insidelines.pjm.com/may-18-hot-weather-operations-update/>.

⁷ PJM Request for Emergency Order Under Federal Power Act approved by DOE.

<https://www.energy.gov/documents/doe-emergency-order-no-202-26-23pdf>.

⁸ National Low Income Housing Coalition. <https://nlihc.org/oor/state/dc>

processes, intended to expand access for renters and multifamily housing.^{9,10} Similarly Maryland has also enacted the Utility RELIEF Act (HB 1532) into law, making plug-in solar legal effective immediately.¹¹ Councilmember Charles Allen has proposed a similar bill in DC under the GRID Act which includes legalizing and protecting balcony solar from interconnection requirements.¹²

In New York, Pepco's sister company Con Edison has implemented a renter-focused demand response pilot in partnership with Every Electric that deploys plug-in battery systems for to residential window air conditioners¹³. The program charges batteries during off-peak hours and uses them as power sources during peak demand events to reduce grid stress during summer heat waves. The pilot began at approximately 200 kilowatts of flexible capacity and has expanded toward roughly 2 megawatts, serving on the order of 1,000 participating households.¹⁴

DERs that can participate in demand response without requiring full interconnection, such as plug-in solar, plug-in batteries, and smart load control devices like thermostats, represent a particularly important near-term opportunity to reduce peak demand and lower energy procurement costs. But the scalability of these resources is ultimately determined by regulatory design. Under a performance-based regulatory framework, utilities would be directly incentivized to increase DER penetration, improve demand flexibility, and reduce system peak costs. Under the current structure, these outcomes are not consistently tied to utility earnings, limiting the speed at which DER-enabled efficiency and affordability gains are realized.

3. Transition Solar Carve-out program to Local Capacity/Flexibility Carve-out

The District's Solar Renewable Energy Credit (SREC) market provides a clear example of how scarcity manifests in practice. SRECs are used by the LSE, Pepco, to comply with the District's Renewable Portfolio Standard (RPS). In the absence of sufficient qualifying supply, prices have consistently remained elevated and have trended toward the Alternative Compliance Payment

⁹ A 120-volt, 20-amp branch circuit has a nominal capacity of 2.4 kW (20A × 120V). Under NEC continuous load provisions (210.19(A)(1) and 210.20(A)), continuous loading is generally limited to 80% of the circuit rating, or approximately 1.92 kW, unless the equipment is specifically listed for 100% continuous operation. Plug-in solar systems larger than 1.2 kW can be deployed onto 15 A and 20 A circuits. However under the safe harbor tier require a power meter to ensure that total capacity on a line is not exceeded.

¹⁰ Electric utilities; small portable solar generation devices, local regulation passed. <https://lis.virginia.gov/bill-details/20261/SB250>.

¹¹ Maryland and Virginia balcony solar legal. <https://washingtonian.com/2026/06/01/heres-how-maryland-and-virginia-residents-can-plug-into-newly-legal-balcony-solar-power/>

¹² Guiding Renewable Interconnection and Distribution (GRID) Amendment Act of 2026 currently In Committee. <https://www.billtrack50.com/billdetail/1982962>.

¹³ Every Electric Plug in Batteries ConEdison program fee from New Yorkers. <https://everyelectric.com/>

¹⁴ A new NYC pilot program introduces a sort of portable battery for your AC so residents don't have to run it constantly on hot days. <https://www.nbcnewyork.com/new-york-city/portable-air-conditioner-battery-nyc-con-ed-grid-stress-summer/6499345/>

(ACP),¹⁵ which functions as the effective ceiling of the market. This price behavior is not indicative of market failure requiring government intervention, but rather of a structural supply constraint: there is not enough solar generated within the District.

In such conditions, prices will naturally trend toward the compliance threshold. This behavior is similar to how PJM's capacity markets have reached the price ceiling across every LDA for the 2026/27 3rd Incremental Auction.¹⁶ Similarly as noted in PJM's recent white paper: *Power Reliability through Market Design* government interventions often focus on implementing price ceilings to minimize customer impact which can lead to further uncertainty in markets.¹⁷

The more durable solution is expanding the set of resources that can participate in meeting the District's clean energy objectives, to include not only traditional rooftop solar but also traditional storage, plug-in solar, plug-in batteries, and flexible load devices which all contribute to local capacity.¹⁸ These DERs function to reduce and distribute peak load. If the resources included under the supply expanded, then consequently the local capacity supply would increase, thereby allowing the clearing price of what is now the SREC market to naturally fall and stabilise - bolstering our local supply while meeting the District's clean energy goals.

¹⁵ Washington DC SREC Market.

<https://www.flettexchange.com/markets/washington-dc/market-dashboard/>.

¹⁶ PJM 2026/27 3IA Final Auctions. Market and all LDAs cleared at market ceiling of \$329.43.

<https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2026-2027/2026-2027-3ia-report.pdf>.

¹⁷ "In an energy-only market design, the price cap during scarcity conditions could be based on an administrative estimate of Value of Lost Load (VOLL), a theoretical ceiling that likely reaches many tens of thousands of dollars or more. While from one perspective such pricing is efficient in that it reflects a true estimate of the marginal value of reliability, it is often viewed as unsustainable by government and practically dangerous. To prevent the exercise of market power during inelastic periods and to protect consumers from extreme volatility, regulators and system operators have historically imposed administrative price caps well below VOLL, understating the cost of load shed during shortage by an order of magnitude or more. While lower price caps in the energy market protect participants in the immediate term, they create a long-term financing gap known as the "missing money" problem."

<https://www.pjm.com/-/media/DotCom/library/reports-notices/special-reports/2026/20260506-powering-reliability-through-market-design.pdf>.

¹⁸ Under the NEC there are many generation devices that the SREC market and the local capacity (solar) carve-out program do not include. NEC Article 690 governs solar photovoltaic (PV) systems, including all aspects of PV system design, installation, and interconnection with premises wiring systems. NEC Article 706 governs energy storage systems (ESS), including stationary batteries and other storage technologies used to store and discharge electrical energy in residential, commercial, and grid-connected applications. NEC Article 705 governs interconnected electric power production and distributed energy resources (DERs), including any inverter-based or onsite generation systems—such as solar PV and battery systems—operating in parallel with the utility grid and feeding power into premises wiring or back to the grid under approved interconnection methods.

Under these articles the following relevant DERs are included: Rooftop solar PV systems, Commercial rooftop solar PV, Ground-mounted solar farms, Building-integrated PV, Solar carports / canopy systems, Plug-in / modular PV systems, Home battery systems, Commercial battery storage, Plug-in residential batteries, Solar + storage hybrid systems, Virtual power plants (VPPs) as aggregated DER coordination

To wrap up in order to seriously consider energy affordability we must not look for easy wins that mask that our grid is in trouble and that we have a real scarcity issue. Discussions around:

1. Performance Based Regulation Frameworks must be considered if customer outcomes of efficiency, resiliency, and affordability are objectives deemed relevant to this regulatory body.
2. Expanding the resources we consider as local capacity and bolstering our supply can help enable more capacity, a lower SREC clearing price, and of course less reliance on procuring expensive energy from energy markets.
3. Finally, with an El Niño summer approaching, we need to pass plug-in balcony solar legislation. Renters and especially LMI households need access to affordable power that can help keep their AC and lights on through the summer without exposing them to the coincident price spikes.

With that I conclude my testimony for addressing rising generation prices in the District. Thank you all for taking the time to listen. I am happy to answer any questions you may have.

Testimony Summary Points:

- The District's rising energy costs are driven primarily by structural scarcity of local generation and increasing exposure to PJM wholesale, capacity, and congestion markets, particularly within the DOM Load Deliverable Area shared with Virginia.
- The current regulatory framework continues to incentivize capital investment over system performance, with utility earnings more closely tied to capital expansion than to outcomes such as affordability, resilience, and efficiency. A performance-based regulatory framework (i.e.: RIIO) is needed to directly align utility incentives with measurable customer outcomes.
- With approximately 60% renter population and a large share of LMI households being renters, access to rooftop solar is structurally limited, making plug-in and flexible DERs a critical equity and scalability pathway.
- The SREC market demonstrates that persistent pricing near the ACP reflects structural supply scarcity. Suppressing price ceilings alone do not resolve underlying resource constraints. Expanding eligibility beyond solar toward a broader local capacity and flexibility carve-out (plug-in solar, storage, demand response) is necessary to reduce scarcity and improve system affordability.
- Immediate policy action on balcony solar legislation is critical ahead of peak summer conditions, particularly to reduce exposure for renters and vulnerable households during extreme heat events.

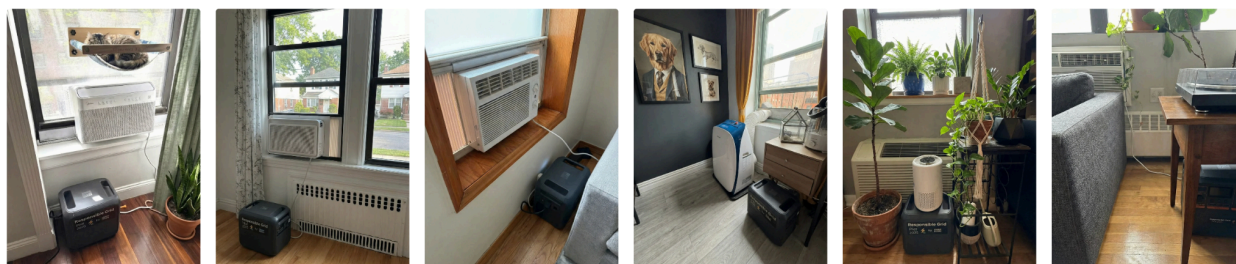


Figure 1: Every Electric Plug-in Battery for Window ACs¹⁹

¹⁹ <https://everyelectric.com/>