

INTRODUCTION

PosiGen appreciates the opportunity to submit these public comments with regards to the New Jersey Solar Successor Program Staff Straw Proposal. PosiGen is the leading low to moderate income solar provider in the nation, with a mission to increase clean energy equity and reduce energy poverty through rooftop solar and energy efficiency. PosiGen is poised to rapidly scale LMI solar in New Jersey in the coming years, but to do so, needs targeted financial incentives to overcome the numerous additional costs inherent in serving lower income ratepayers. LMI homeowners deserve access to the numerous benefits of rooftop solar that higher income New Jersey ratepayers have long enjoyed, benefits that community solar does not provide, so that historical patterns of LMI exclusion can be rectified and all citizens can enjoy the full range of clean energy options.

For the reasons set forth below, PosiGen requests an initial 3-year incentive value for rooftop solar LMI of \$95.00, so that we – and additional LMI rooftop solar providers to come with a meaningful and stable incentive adder- can overcome the additional costs to serve this market, and invest in a robust program to scale participation in this critical community. PosiGen, with offices in Ewing and soon in northern New Jersey, employs more than 30 residents and is currently hiring to double our team this year. We have sold more than 1000 rooftop solar systems in New Jersey and are currently fully prepared to focus our efforts to serve LMI ratepayers throughout the state with a supportive incentive adder.

PosiGen has installed more than 15,000 rooftop systems across markets to date, with approximately 2/3rds of those homeowners are documented low to moderate income customers and/or are living in LMI census tracts. We are increasingly being recognized for our beneficial impact and ability to scale to serve low income and historically disenfranchised ratepayers and communities. Examples of national recognition of our social impact include:

- **2020 Lawrence Berkeley Lab Study on State Income Trends on Residential Solar**
 - Louisiana, where PosiGen was founded almost 10 years ago and our national headquarters remain, significantly leads the nation with 78% of solar adopters at incomes below \$100k <https://emp.lbl.gov/solar-demographics-tool>
- **2019 U.S. Department of Energy Grant to Support National Expansion**
 - “Scaling Up Solar for Under-Resourced Communities” Project, \$1.1M over 3 years, with nonprofits Clean Energy States Alliance, Connecticut Green Bank, Inclusive Prosperity Capital and Lawrence Berkeley National Lab
<https://cesa.org/assets/Connecticuts-Solar-Program-for-LMI-Homeowners-Fact-Sheet.pdf>

- **2019 Sharing Solar Benefits Report; Reaching Households in Underserved Communities of Color in Connecticut**
 - PosiGen’s LMI rooftop solar work with the State of Connecticut counters national disparities in solar adoption among communities of color, <https://www.ctgreenbank.com/sharing-solar-benefits-in-communities-of-color/>
- **2018 State Leadership in Clean Energy Award from Clean Energy States Alliance**
 - PosiGen & CT Green Bank jointly recognized for their ground-breaking public-private partnership to leverage limited public dollars to attract sevenfold private investment to maximize social impact. <https://www.cesa.org/projects/state-leadership-in-clean-energy/2018-awards/>
- **2017 Harvard’s Innovations in American Government Award to the Connecticut Green Bank**
 - In recognition of their successful partnership with PosiGen to achieve solar parity for lower income homeowners in Connecticut in less than 4 years <https://ash.harvard.edu/news/connecticut-green-bank-wins-top-prize-harvard%E2%80%99s-innovations-american-government-awards>

LMI Rooftop Solar Benefits

Rooftop solar delivers numerous and valuable additional benefits that LMI community solar simply cannot offer, and failure to ensure meaningful incentives in the successor program will perpetuate the current inequality for LMI ratepayers. Rooftop solar benefits that community solar does not provide include:

1. Opportunity for local storage, with appurtenant enhanced energy savings, access to basic electricity needs during grid failures, and potential utility demand reduction incentives¹
2. Opportunity for targeted preventive health measures for vulnerable populations through rooftop solar and batteries sufficient to power critical medical equipment in the event of grid failure, protecting physical and mental health while reducing emergency responders’ calls, and reducing frequency and severity of emergency room visits
3. Increased efficiencies/lower load stress on transmission lines in LI/EJ communities, potentially extending lifespan/reducing replacement urgency for aged transmission
4. Improved potential for neighborhood microgrids
5. Improved potential for co-locating EV chargers in LI/EJ communities.
6. Stronger, more durable rooftops, with longer life spans that reduce ownership costs, and which are more likely to remain intact/less damaged in extreme weather events/disasters

1. ¹Note that Connecticut is implementing both an LMI solar incentivize adder as well as an LMI storage incentive program in 2022, to help ensure that LMI/EJ homeowners can access affordable rooftop solar and home storage options to reduce energy costs and increase climate resiliency in the face of growing grid and weather threats.

7. Reduced attic temperatures in the summer, reducing HVAC cycle times/expenses, increasing equipment longevity and ratepayers' comfort while lowering temperatures in urban heat islands, reducing heat wave threats to vulnerable citizens in housing with inefficient/inadequate cooling systems.
8. Increased property and resale values, increasing LI/EJ credit access and financial strength, with appurtenant neighborhood benefits of improved/more valuable housing stock

Upon information and belief, LMI community solar projects will take many years to be accessible and available to all LMI ratepayers, and even then, offer a disparity of net savings benefits while delivering none of the above co-benefits that only rooftop solar can provide. Given these delays and disparities, PosiGen encourages NJBPU to ensure that it supports an "all-of-the-above" LMI clean energy program that includes a robust LMI rooftop solar adder in the Solar Successor Program.

PosiGen's Unique LMI Residential Solar Benefits

PosiGen delivers truly unique benefits to all solar-feasible homeowners, but they accrue in particular to low to moderate income customers who struggle with high energy burdens and frequently live in older housing stock with deferred maintenance and functionally obsolete mechanical systems. Specifically, PosiGen offers:

- 100% financing approval, regardless of income or credit score
- No upfront costs, price increases over time, or price or fee differentials by income, as all customers are treated equally
- Guaranteed net savings in year 1, with the average customer across a portfolio of more than 15,000 households saving more than \$750 annually²
- Included BPI energy audit and efficiency upgrade worth \$2400, including harvesting of all available utility energy efficiency program incentives to the maximum extent possible, air quality testing for all combustion appliance homes, with all of the appurtenant demand reduction, and comfort, noise, vector and health benefits associated with best-practice efficiency and weatherization services.
- Fixed price, 20-year lease, with no escalators.
- Full system costs covered in lease, including monitoring, maintenance, repairs, insurance, inverter replacement³
- Upon information and belief, lowest lease prices in New Jersey, so as to maximize savings for those customers who currently carry the highest energy burden

LMI Rooftop Solar Reduces Customer Assistance Program Expenses for All Ratepayers

² VEIC study of PosiGen's 2019 customer portfolio in Connecticut showed a net positive benefit in excess of \$1300, but other jurisdictions, and in particular Louisiana with the majority of our installations, has no solar incentives and only avoided cost compensation for net metering outside of New Orleans, significantly dragging down our total portfolio net savings to our customers.

³ Cost-recovery fees for removal and storage of systems for roof repairs/replacement that are unrelated to solar installation.

Because PosiGen is in New Jersey and growing, a robust LMI rooftop solar incentive would enable us to rapidly scale a place-based solar installation paired with energy efficiency to dramatically reduce a growing number of lower income ratepayers' monthly utility expenses. Many these ratepayers receive subsidized utility bill assistance through the ratepayer/taxpayer-funded CAP programs, be they USF, LIHEAP, PAGE or Lifeline. Therefore, an LMI rooftop adder incentive should actually increase total ratepayer savings over time as these LMI customers enjoy significantly lower utility expenses, reducing the amount of direct subsidy needed.

LMI Rooftop Solar Supports the Climate Change Resilience Strategy

Low income/EJ ratepayers are particularly vulnerable to climate impacts such as heat waves, extreme wind and rain events, extended cold snaps and air pollution. Place-based solar paired with energy efficiency, and eventually local storage, ensures that LI/EJ ratepayers have energy demand and cost reductions, improved indoor air quality and comfort, protection from extreme weather events and grid failures, and reductions in local and regional air pollution necessitated by remote power production and transmission requirements. All of these metrics align and support New Jersey's Climate Change Resilient Strategy and goals, and therefore further support a robust LMI rooftop solar adder in the Solar Successor Program.

LMI Residential Solar Costs Are Significantly Higher Than Market Rate Residential

PosiGen works to ensure that we serve 100% of solar-feasible homeowners, and particularly LMI homeowners. We also strive to ensure that our customers save the maximum amount of money possible by offering the lowest possible fixed lease price and including a BPI energy audit and efficiency upgrade with every solar installation. This social impact mission comes with numerous and significant additional costs, however, which has constrained our growth even as the company looks to scale the services that we provide to LMI communities. Specifically, PosiGen's extra costs include:

1. Cost of Capital

Despite incredibly strong portfolio performance over time, due to the savings we deliver to our customers, PosiGen has always faced financing challenges from investors skeptical of the LMI market and our "no FICO needed" underwriting. Specifically, the company's cost of capital to serve LMI customers is 4+ times higher than market rate capital. Currently, typical market rate capital is now at sub 2% levels, while PosiGen's capital costs for serving credit and income limited ratepayers is in excess of 9%.

To document this disparity, attached please find three market rate provider reports issued from October 2020 to March 2021:

- Exhibit A: Sunnova report of February 2021, showing a first lien yield of 1.80%⁴
- Exhibit B: Sunrun report of March 2021 showing a yield of 2.46%⁵
- Exhibit C: Mosaic report of October 2020 showing a yield of 1.94%⁶
- Exhibit D: PosiGen Credit Agreement Cover Sheet and Key Definitions showing yield of 9%⁷

As these Exhibits demonstrate, capital costs to serve the LMI rooftop solar market continue to be extremely high, as market rate investors have yet to realize that when delivered a quality product with strong ongoing customer service and asset maintenance, low income/low credit score homeowners do not carry the elevated credit risk that investors perceive to be the case. If New Jersey is committed to ensuring equal and equitable access to rooftop solar for all ratepayers, including lower income homeowners who have largely been denied meaningful access to date, we request that BPU calculate these significant enhanced cost challenges into its determination of an appropriate LMI rooftop solar incentive adder.

2. Increased installation costs

Lower income ratepayers do not have sufficient income to invest in home repairs and maintenance at the level of higher income ratepayers. As a result, lower income ratepayers have higher incidences of older and damaged roofs that are in need of replacement or repair. Lower income ratepayers also have a higher incidence of electrical systems that fail to meet applicable electrical codes.

Although PosiGen is not able to internalize the additional costs associated with roof replacements/major repairs, and major electrical upgrades, we regularly cover the cost of less extensive roof and electrical upgrades on behalf of our customers so that we can serve them. Below are a few recent examples of additional installation costs of at least \$.70/w higher than our standard cost per watt on behalf of confirmed lower income customers in Connecticut here demonstrate our services:⁸

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⁵ Page 3 of 37.

⁶ Page 11 of 40.

⁷ Due to investor confidentiality requirements, PosiGen has not here provided the actual credit agreement in its entirety, but has instead provided the Cover Sheet evidencing the Agreement dated September 29, 2020, and the Key Definitions of that Agreement evidencing a total yield of 9%. If NJBPU requires that full document in order to incorporate these significant costs into an LMI rooftop solar incentive/adder, please let us know and we will work with our investors to provide the full documentation. Undersigned would also offer a notarized affidavit that the provided terms are accurate and currently effective should that be deemed sufficient.

⁸ PosiGen is partnered with the Connecticut Green Bank, which administers that state's LMI rooftop solar incentive program with adder, to offer LMI rooftop solar service to homeowners who are at or below 100% Area Median Income, and we can provide redacted proof of income for these sample customers if necessary. Because there is no LMI incentive in New Jersey, PosiGen doesn't gather or track individual income data for our New Jersey customers, but would be pleased to do so in order to access the requested LMI rooftop solar adder.

Ridgefield, Connecticut	LMI	3/20/2021	5.1kW	\$2.58/w
NEW HAVEN, Connecticut	LMI	3/18/2021	5.1kW	\$2.43/w
Bridgeport, Connecticut	LMI	3/30/2021	5.1kW	\$2.44/w

All three of these LMI jobs required significant electrical upgrades to their homes in order to make them rooftop solar feasible – the increased out-of-pocket costs of which were completely borne by PosiGen, and not these customers. All customers enjoy the exact same monthly cost based upon their system size even when PosiGen has extra installation costs to serve those in older and/or degraded housing stock.

PosiGen utilizes standardized rooftop system sizes instead of custom sizes in order to ensure we can deliver the lowest possible installation cost across portfolio, and free up capital to cover increased LMI costs, include energy efficiency, and deliver the lowest cost lease. Our standardized price efficiencies mean that PosiGen’s standard cost per watt to build is at least \$0.70/w below the above example jobs, which are representative of a large percentage of our LMI customers.

3. Increased sales costs

- a. Marketing costs: Lower income ratepayers do not know or believe that they can access rooftop solar at a financially beneficial cost. This is especially true in New Jersey, which has for many years had a large and robust market rate solar industry that has systematically rejected lower income/lower credit score ratepayers who sought rooftop solar. Lower income homeowners are also understandably suspicious of any solar provider who offers a net positive financial product, and one who requires a 20-year contract in order to offer said product. Lower income homeowners are very protective of their most valuable asset – their home, and it requires consistent, high quality community marketing engagement in order to overcome their inherent distrust and historical exclusion from rooftop solar access.
- b. Documentation/staffing costs: Proof of income for LMI programs, and degraded roof and/or electrical system challenges also add significant increased time and documentation requirements for successful LMI rooftop solar sales. Given this, it is challenging to motivate sales employees to invest this additional time and effort in serving LMI customers. To overcome this inherent LMI sales obstacle, PosiGen offers enhanced sales commissions to our sales team in Connecticut, where we have the benefit of an LMI rooftop incentive adder, in order to financially motivate them to

invest the additional time and work into successfully selling to and installing LMI homeowners.

In order to successfully sell rooftop solar to this challenging demographic, PosiGen – and any of our industry peers who could and should soon follow a robust LMI rooftop solar adder in New Jersey – needs financial recognition that LMI homeowners require significant additional investment in the transition program if New Jersey intends to provide equitable, scalable service to this underserved ratepayer group.

4. Energy Efficiency Audit and Upgrade

As discussed previously, PosiGen includes a Building Performance Institute energy audit and custom energy efficiency upgrade with energy modeling valued at an average of \$2400 for every rooftop solar customer, at no additional cost to our customers. We appreciate that NJBPU administers major utility energy efficiency programs distinct from the solar program, and would suggest that supporting innovative programs that combine two high quality LMI demand reduction interventions in order to maximize ratepayer benefits is a laudable and logical state policy goal, serves larger environmental justice commitments and could offer one innovative solution to historically-siloed LMI energy and health service programs to improve outcomes and reduce administrative costs over time. PosiGen asks that NJBPU consider the exceptional financial and quality of life value of this currently available and unique LMI benefit when determining the Solar Successor Program LMI rooftop solar incentive value that is in both LMI ratepayers' optimal interest as well as the larger public interest.⁹

5. Lowest Cost Fixed Price Lease

Upon information and belief, PosiGen has the lowest priced solar lease in New Jersey so that we can deliver outstanding net financial benefits to all our customers, but in particular for our LMI customers who struggle with extreme energy burdens.¹⁰ As evidence by the recent VEIC independent evaluation of our 2019 Connecticut customers that showed an average net annual savings of \$1315, our low price lease with included energy efficiency improvements ensures that our customers enjoy exceptional net financial benefits.¹¹ PosiGen relies upon LMI rooftop solar incentives to ensure that we can continue to offer the lowest cost/highest benefit services to all customers, and to enable us to focus our marketing, sales and installation investments into serving predominantly LMI homeowners.

PosiGen's current 20-year, fixed price lease pricing:

4 kW system: \$49.99/month
5.4 kW system: \$64.99/month

⁹ PosiGen can provide further documentation of our energy efficiency costs and benefits to support enhancement of the LMI rooftop solar adder upon request.

¹⁰ PosiGen is researching other solar provider lease offerings but notes that each company's product is slightly different, which makes side-by-side comparisons challenging. We are aware of no other company that includes energy audits and efficiency upgrades, that provides roof and electrical repairs at no additional cost, and that has no price increases over time.

¹¹ <https://www.veic.org/news/connecticut-s-energy-and-transportation-costs-are-unaffordable-for-many-households-especially-the-most-vulnerable>

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7.3 kW system: \$79.99/month
10.1 kW system: \$109.99/month

The absence of any LMI rooftop solar incentive support in New Jersey has by default led to PosiGen's focusing our sales and installation efforts on the easiest, fastest and least expensive customer base, which as evidenced above is the non-LMI customer base.

CONCLUSION

New Jersey is at an inflection point in its clean energy journey, where it can choose to ensure that lower income/EJ ratepayers can access and enjoy the full benefits of place-based power and demand reduction. PosiGen is well-established in New Jersey, is prepared and excited about the potential to help the state become a national leader in equitable clean energy in the coming years, and asks NJBPU to make the relatively small LMI rooftop solar adder investment requested to unlock that potential for tens of thousands of low income/EJ families.

Thank you for your consideration of these comments, and please let me know if PosiGen can provide additional information to support our request.

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