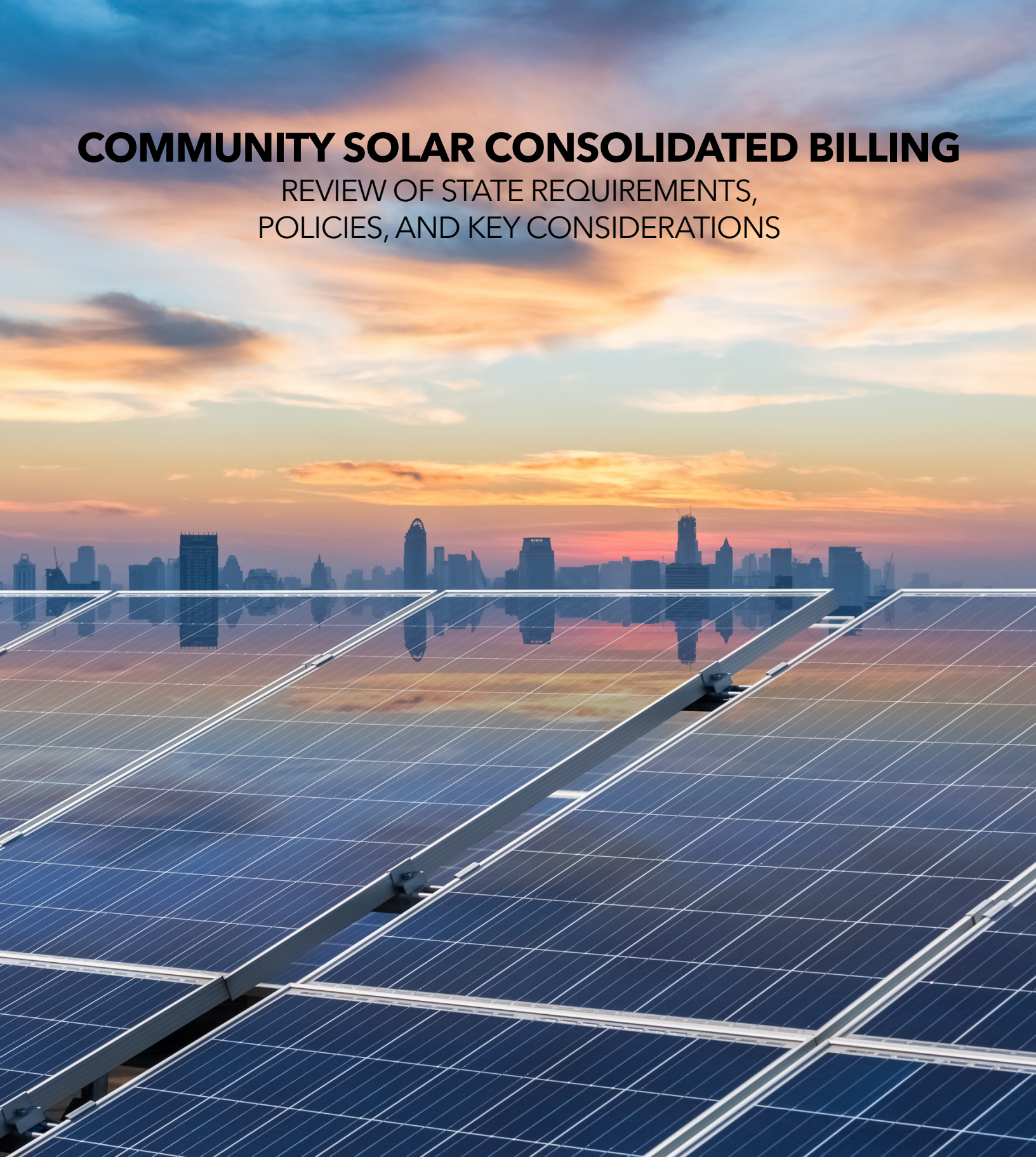


# COMMUNITY SOLAR CONSOLIDATED BILLING

REVIEW OF STATE REQUIREMENTS,  
POLICIES, AND KEY CONSIDERATIONS



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## Acknowledgements

This material is based upon work supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the Solar Energy Technologies Office Award subcontract to Lawrence Berkeley National Laboratory – subcontract number 7629792.

This paper was authored by Sandy Fazeli, NASEO Senior Managing Director, in May 2023. The author is grateful for reviews provided by Nicole Steele, Ariel Drehobl, and Anastasiya Poplavska of the U.S. Department of Energy's Solar Energy Technologies Office; Simon Sandler of the National Renewable Energy Laboratory; Cassandra Lovejoy of the National Energy Assistance Directors Association; Abbe Ramanan and Matt Ohloff of Clean Energy States Alliance; and Grace Lowe, Kirsten Verclas, and David Terry of NASEO.

Front cover image is courtesy of Adobe Stock/chungking.

## Abstract

This report aims to assist state policymakers, regulators, and program implementers involved in community solar policy development. It includes an overview of billing models, with a focus on the emerging area of consolidated billing. Next, the paper explores a review of state policies, programs, and regulations that have established or explored consolidated billing, which can help inform states in establishing community solar billing arrangements that are responsive to market, regulatory, and community needs. The conclusion synthesizes key considerations that states should keep in mind when examining consolidated billing for community solar programs.

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## Introduction

While it currently represents a small share of total U.S. solar capacity, the U.S. community solar market is experiencing – and expecting – significant growth. Since 2015, capacity has increased from 100 megawatts to nearly 5 gigawatts.<sup>i</sup> In the next five years, the market is expected to more than double in size, with another six gigawatts of total capacity.<sup>ii</sup> Adding to this momentum, the U.S. Department of Energy, through the National Community Solar Partnership, has set a goal to enable community solar systems to power the equivalent of five million households by 2025 (approximately 20 gigawatts),<sup>iii</sup> which would represent a fourfold increase in cumulative capacity from the current level. The Coalition for Community Solar Access, the national trade association for community solar companies, businesses, and nonprofits, has set a target of 30 gigawatts of capacity by 2030.<sup>iv</sup>

Community solar enables multiple consumers (also known as “off-takers,” which may include residents, businesses, organizations, and other entities) to share the output of an offsite solar installation to meet a portion of their electricity needs. In the case of multifamily community solar, it can allow multiple occupants to share the energy produced from an onsite solar array.<sup>v</sup> Once enrolled in a community solar program, participants continue to purchase electricity from their utility but receive a credit on their utility bill for the energy that is produced by their portion of the solar facility. Because community solar programs are predominantly subscription-based, most participants pay a subscription fee for their solar electricity on a regular basis (typically monthly), or sometimes have the option to pay a onetime upfront subscription payment in full. Subscription sizes and costs depend on various factors, including the consumer’s average annual electric usage, the size and production of the shared solar array, and potential discounts for low-income or other designated subscribers.

While the forecast for community solar appears strong, the success of programs and projects hinges on program design factors that affect the consumer experience. Net costs or savings (i.e., credits minus subscriptions and other fees) are an important – but not the only – factor in this experience. How subscribers are communicated with, enrolled into programs, credited for their solar production, billed for their subscription, and protected from adverse consequences also come into play. These dynamics are especially important for lower-income subscribers, who may rely on shared solar programs to reduce their energy burden but who face the greatest harms if programs and billing processes are mishandled or mistimed.

### *About this Report*

This paper explores the role of subscriber billing as a key facet of the community solar customer experience. It includes an overview of billing models, with a focus on the emerging area of consolidated billing. Because many aspects of community solar programs are governed or regulated at the state level, it reviews state policies, programs, and regulations that address community solar billing arrangements. Finally, it synthesizes key considerations and market, regulatory, and community needs that states should keep in mind when developing community solar billing arrangements through state policy, law, or regulation.

The discussion of community solar billing in this report does not necessarily apply to utility-owned community solar projects, as utilities are already uniquely positioned to combine subscriber credits and charges for these assets into one bill.<sup>1</sup> Rather, it focuses on third-party-owned and -managed projects in investor-owned utility (IOU) territories, which represent the majority of community solar projects currently operational in the United States, and which may need to rely on billing systems that do not integrate with their subscribers' existing utility bills.

Similarly, the billing concerns explored in this report may not be applicable to programs in which participants do not pay a subscription fee or charge, such as the District of Columbia's Solar for All program and Energy Outreach Colorado's community solar program, both of which serve low-income households.

Finally, it is important to note that questions around electric utility customer billing practices are not necessarily new. In deregulated electricity markets, investor-owned electric utility customers have the option to choose an electricity supplier separate from their electric utility – an option often known as retail choice or customer choice.<sup>vi</sup> These markets have grappled with issues similar to those that are explored in this report: whether to charge consumers' electricity bills for their retail supply separately, consolidate them into the electric utility bill, or combine electric charges into the suppliers' bill.<sup>vii</sup> Community solar programs introduce an important and distinct new facet to this discussion: the community solar subscription. Specifically, they cast a spotlight on questions of how community solar projects should handle subscription costs, the role (if any) of electric utilities in upgrading their billing systems to accommodate community solar subscription fees, and the potential impacts and consequences for low-income customers if community solar billing and crediting are misaligned, miscommunicated, mishandled, or mistimed.

## Community Solar Billing Models

Most community solar projects are developed, owned, and/or operated in IOU territory by private, non-utility project developers.<sup>viii</sup> These entities raise capital and oversee the construction of projects and their interconnection to utility infrastructure. On the consumer-facing side, subscription managers (sometimes also known as subscribing organizations) recruit and subscribe participants to the program, often working in close partnership with project developers to manage the number, size, and composition of off-takers. As third parties, community solar project developers and subscription managers likely do not have direct access to program participants' utility data and billing processes.

While electric utilities are usually required by law or regulation to credit community solar customers for their share of the solar generated by their subscription, in most states, they are **not** currently required to integrate the subscription costs. This dynamic means subscribers pay their subscription costs separately from their monthly utility bills, thereby receiving multiple bills

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<sup>1</sup> Some advocates argue that utility ownership departs from the true definition of community solar. See Energy News Network's article "[Is it community solar if the utility – not community – owns the panels?](#)" for a more detailed discussion of this debate.

relating to their electricity generation and usage that are not necessarily coordinated. While “dual billing” is largely the norm in most community solar programs, some states’ experiences suggest that the bifurcation of the billing process may spark confusion and distrust and create additional challenges to managing energy bills, particularly for lower-income subscribers.

In response, some states have begun implementing “consolidated billing” as a way to address and alleviate these challenges. In one version of consolidated billing, utilities are required to combine the generation credits and subscription costs into the customer’s monthly electric utility bill. The move to such an arrangement, known as “utility-consolidated billing,” can occur through the enactment of legislation, the issuance of regulation from a state Public Utilities Commission or Public Service Commission, and/or through state community solar program rules and guidance from a State Energy Office or program administrator. Conversely, some community solar companies have independently set up systems to offer “provider-consolidated billing,” where they receive payments directly from their subscribers and pay their electric bills on their behalf.

*Dual Billing*

In a typical dual billing scenario, a community solar participant receives two bills for their electricity service. One bill comes from their electric utility provider and includes metered electricity charges and fees, utility fees related to the community solar program, and credits for electricity generated by their share of the community solar system. The other bill comes from the customer’s community solar provider for the cost of their subscription (typically, in the form of dollars per kilowatt-hour of energy produced for their share of the system) and/or a membership fee to participate in the community solar program.

**Figure 1: Example of Community Solar Dual Billing**

<b>Your Community Solar Bill</b>		<b>Your Utility Bill (reduced by solar credits)</b>	
Solar energy generated from your subscription	700 kWh	Connection charge	\$10.00
Community solar subscription rate*	\$0.120/kWh	Charges for Energy Used	
Total	\$84.00	Electricity consumed	1000 kWh
		Utility rate	\$0.140/kWh
		Subtotal	\$140.00
		Total	\$150.00
		Community solar credit	
		Electricity generated	700kWh
		Community solar credit rate	\$0.14/kWh
		Subtotal	-\$98.00
		Paid to Utility	\$52.00
*Community solar subscription rate will vary by provider and project			
Amount you pay to Subscriber Organization	\$84.00		

Your total for electricity is \$136.00 (\$84.00 + \$52.00) instead of \$150.00 ←

Source: Solar United Neighbors’ *Community Solar Guide*, <https://www.solarunitedneighbors.org/go-solar/community-solar/how-community-solar-works/>

The example in Figure 1 above demonstrates the type of bills community solar subscribers in dual billing arrangements may receive. The community solar bill (on the left) provides information about the amount of electricity generated by the subscriber's share of the solar facility (in this example scenario, 700 kilowatt-hours), as well as their agreed-upon solar subscription rate (12 cents per kilowatt-hour), resulting in a total subscription cost of \$84. The subscriber's utility bill (on the right) includes standard charges for electricity connection and usage (a total of \$150), minus the community solar generation (700 kilowatt-hours) multiplied by the community solar credit rate (14 cents per kilowatt-hour), for a total of \$52 paid to the electric utility. In this scenario, the customer is saving \$14 due to their participation in the community solar program, as they are paying \$136 for their subscription and electricity versus \$150 for their electricity without participating in the community solar program.

### *Consolidated Billing*

Consolidated billing arrangements enable the community solar generation credits and program subscription charges to be combined with electric utility charges onto one bill. Consolidated billing has mostly taken the form of utility-consolidated billing, in which community solar charges appear alongside credits directly to the electric utility bill to result in a net credit or net charge to the utility account.

The presentation of subscription costs and credits in utility-consolidated bills may vary by state or utility. As one example, in Figure 2 below, the sample electricity bill from Portland General Electric includes on its front page a net credit of \$17.55 subtracted from the monthly charge of \$102.24, resulting in a balance due of \$84.69, as well as an acknowledgment of the customer's participation in Oregon's Community Solar Program. The back of the bill includes a detailed breakdown of electricity charges, including 5 cents in community solar cost recovery for the utility, as well as the subscription fee (\$70.19) and generation credit (\$87.74) for the community solar program, which together result in the \$17.55 credit that appears on the front page.

Some community solar companies offer provider-consolidated billing. For example, subscribers enrolled in Arcadia's optional Auto-Pay program no longer receive bills from their local utility, but rather receive one monthly Arcadia statement that includes all their credits, charges, and final balance. Arcadia, in turn, receives the customer's electric utility bill directly and, once it processes the automatic payment from the subscriber, pays the utility bill on the customer's behalf.<sup>ix</sup>

Figure 2: Example of Community Solar Consolidated Billing

Sample PGE Utility Bill – front

(503)228-6322 or 1-800-542-8818  
portlandgeneral.com

Account # 0097389700

Service Address:  
COMMSOLAR SUBSCRIBER  
875 MAIN ST NE  
SALEM, OR 97301-7174

069935800248

0097389700

Previous Amount Due 117.58  
Balance Forward 0.00  
Current Charges 102.24  
Add'l Charges/Credits 17.55 CR

Cycle: 17

**AMOUNT DUE \$84.69**

Due date for current bill 05/01/20

**Your energy use**  
Meter # 21754689IN  
Schedule 07

Service Period	Meter Reading
04/15/20	17900
03/15/20	17104

31 days of service 796 kWh

**This month's charges** (Turn over for details)

Meter # 21754689IN, Schedule 07

Energy Charges (796 kWh)	92.75
Adjustments	4.03
Other Charges/Credits	96.78
	0.42
<b>Total Taxes and Fees</b>	<b>5.04</b>
<b>Current Energy Charges</b>	<b>102.24</b>

**Additional Charges/Credits 17.55 CR**

Thank you for participating in Oregon's Community Solar Program. If you have questions about your subscription fees or credits, or a concern about your project, please contact **Community Solar Program at 800-481-0510 or email: info@oregoncsp.org.**

If you've already paid the balance forward amount, please subtract that from the total amount due when submitting your payment.

Period Ending	Avg Daily Temperature	Monthly kWh	Monthly Cost
Apr 2020	67	856	112.46
Apr 2019	66	832	106.84

\*Temperature source: Salem/Wolcott Field Airport

Please detach and return this portion with your payment.

P.O. Box 4438  
Portland, OR 97208-4438

COMMSOLAR SUBSCRIBER  
PO BOX 182555  
SALEM OR 97301

0097389700  
Account Number

Due Date: 05/01/20  
Amount Due: 84.69

Questions? Call 1-800-542-8818 or portlandgeneral.com

PGE

1251009738000060000002390000000002743101

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Sample PGE Utility Bill – back

**Details of this month's charges**  
Meter # 21754689IN, Schedule 07

Basic Charge	11.00
Energy Use Charge (796.000 kWh x \$0.05642)	46.50
Transmission Charge (796.000 kWh x \$0.02026)	1.84
Distributor Charge (796.000 kWh x \$0.04222)	33.61
<b>Subtotal - Energy Charges</b>	<b>92.75</b>
105 Regulatory Adjustments (796.000 kWh x \$-0.00011)	0.09 CR
109 Energy Efficiency Funding Adj (796.000 kWh x \$0.00337)	2.68
110 Energy Efficiency Customer Svc (796.000 kWh x \$0.00008)	0.06
112 Customer Engagement Transformation Adjustment (796.000 kWh x \$0.00021)	0.17
123 Decoupling Adjustment (796.000 kWh x \$-0.00037)	0.29 CR
125 Annual Power Cost Update (796.000 kWh x \$0.0016)	1.27
132 Federal Tax Reform Credit (796.000 kWh x \$-0.00151)	1.20 CR
135 Demand Response (796.000 kWh x \$0.00107)	0.85
136 Community Solar Cost Recovery (796.000 kWh x \$0.00006)	0.05
137 Solar Payment Option Cost Recov (796.000 kWh x \$0.00044)	0.35
145 Boardman Decommissioning Adj (796.000 kWh x \$0.00022)	0.18
<b>Subtotal - Adjusting Schedules</b>	<b>4.03</b>
Oregon Commercial Activities Tax Recovery (0.436%)	0.42
<b>Subtotal - Other Charges/Credits</b>	<b>0.42</b>
City of Salem Tax (1.5%)	1.45
Low Income Assistance	0.69
Public Purpose Charge (3%)	2.92
<b>Subtotal - Taxes and Fees</b>	<b>5.04</b>
<b>Current Energy Charges</b>	<b>102.24</b>

**Community Solar Program**  
APR 2020 Subscription Fee 70.19  
APR 2020 Generation Credit (781 kWh x \$-0.11234) 87.74 CR

**Additional Charges/Credits**  
17.55 CR

**Normal utility bill charges**

**Subscription fees**

**Bill credits**

**Need help? We're here for you**  
Online: portlandgeneral.com  
Phone:  
• Customer Service: 800-542-8818  
• Outages and downed lines: 800-544-1798  
• Oregon Relay: (deaf, hard-of-hearing, blind-deaf, speech-disabled): 711

**Choose your way to pay**  
• Online\*: portlandgeneral.com  
• On the PGE mobile app\* (download at your app store)  
• Automated phone system\*: 800-542-8818  
• By mail to: (include bill stub)  
P.O. Box 4438  
Portland, OR 97208-4438

• At Western Union or Check/FreePay locations (find nearby locations at portlandgeneral.com/payinperson) \*24-hour options

**Paying by check?** When you pay by check, PGE will convert your check to an electronic debit.

**Late payment:** A late payment charge of 2.1% may be applied to past-due bills. If you're struggling to pay your bill, call us at 800-542-8818, or visit certfordgeneral.com. If new assistance may also be

**Public Purpose Charge:** The Public Purpose Charge funds energy-efficiency and renewable power programs as well as energy conservation assistance to schools and low-income residents. Energy Trust of Oregon, Oregon Housing and Community Services Dept. and various education service districts administer the money.

Thank you. We appreciate your business.

**Need to stop or move service?** Go online to portlandgeneral.com/startstopmove or call us at 800-542-8818.

**Update your mailing or email address** online at portlandgeneral.com/myaccount or call us at 800-542-8818.

**Get this bill online.** Our Paperless Bill is simple, secure and sustainable. Sign up at portlandgeneral.com/paperless.

**Join us to support Oregon Energy Fund,** a statewide charitable organization that provides energy assistance to thousands of Oregonians in times of financial crisis. To give a neighbor a helping hand, visit OregonEnergyFund.org.

**We partner with Energy Trust to help you save.** We share some customer information with Energy Trust of Oregon, a nonprofit organization that helps Oregonians save energy. Energy Trust only uses this information to design, evaluate and improve service to customers. For details, visit portlandgeneral.com/datashare.

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Source: Oregon Community Solar Program's *Understanding you Utility Bill with Community Solar*, <https://www.oregoncsp.org/wp-content/uploads/2021/04/LI-Understanding-Your-Bill-Utility-Breakdown-PGE-v20201209.pdf>.



## Consolidated Billing Policies: Potential Advantages, Challenges, and Implementation Considerations

Consolidated billing seems to offer important advantages, including, foremost, transparency and predictability in community solar savings and costs as well as reduced administrative complexity – factors that can be critical to expanding access and ease of participation for low-income subscribers in particular. For these reasons, at least four states (Illinois, New York, Oregon, and Virginia) have adopted rules to require utility-consolidated billing, and utility-consolidated billing requirements are under consideration in several additional community solar programs around the country.

However, the process of implementing consolidated billing – whether utility- or provider-consolidated – can expose program participants to potential adverse consequences. If mishandled, utility-consolidated billing can result in surprise bills or mismatched credits, and provider-consolidated billing may inadvertently reduce access for lower-income, lower-credit, or unbanked households. These possibilities warrant policy attention and thoughtful program design from state policymakers, regulators, and program implementers to ensure affordability, equity, and access in community solar.

### *Advantages and Interactions with Low-Income Energy Assistance*

Many community solar programs are marketed to consumers not only as a way to “go green,” but also as an opportunity to help reduce their energy costs. Some community solar providers are required, either by statute or regulation, or may independently strive to guarantee savings. This is done by structuring community solar subscription sizes, rates, and fees to reduce costs and maximize the financial benefits of the generation credits.

While the billing method does not necessarily affect the level of savings achieved, a consolidated bill helps customers understand whether they are receiving a financial benefit from the program and can help build confidence in their choice to subscribe. In a dual billing scenario, this calculation would not be immediately apparent: subscribers would need make the effort to understand and compare their disparate utility bills, energy production rates, and subscription invoices. For income-constrained households in particular, the predictability and clarity offered in a consolidated bill can be a crucial factor in managing and timing household expenses and payments.

Community solar billing arrangements may also affect public assistance and benefits that low-income subscribers receive. One prominent example is the Low-Income Home Energy Assistance Program (LIHEAP), which provides bill assistance for households to cover electricity, natural gas, and delivered fuel bills. Prior to the start of the heating and/or cooling season, state LIHEAP programs collect applications from income-eligible households, calculate their LIHEAP benefit level based on various factors (such as the applicant’s energy providers, income, and number of people in the household), and provide payments directly to the utility or fuel vendor to lower the total household bill.

Nearly half of the states incorporate energy burden and costs into their LIHEAP benefits calculation.<sup>x</sup> In dual billing, the reduced household electric bill (which only factors in the community solar generation credits, but not the subscription costs) may inadvertently prompt a reduction in benefits during the next application period. To overcome this in a dual billing system, a LIHEAP agency would need to be made aware of the households' non-utility (i.e., community solar subscription) expenses. The state of Minnesota (which does *not* require community solar consolidated billing) has addressed this problem by including community solar subscription costs in the energy burden calculation for LIHEAP and allowing community solar providers to be listed as vendors on the LIHEAP assistance application.<sup>xi</sup> However, this accommodation in the LIHEAP process is not the norm in most states.<sup>2</sup>

In rare cases, a LIHEAP recipient in a community solar program may accumulate excess credits as a result of dual billing. Generally, LIHEAP payments are made directly to the utility. If the credits from a community solar program reduce the customer's electricity bill by an amount that is larger than the LIHEAP benefit, the excess amount may appear as a credit on the utility account. The customer would likely not be able to apply those credits toward their separate community solar subscription so, even if their community solar participation is reducing the household's overall energy cost burden, the separate bills would require the subscriber to pay for community solar at their own expense. This could potentially leave LIHEAP credits – and the energy savings benefits of community solar – unused. Utility-consolidated billing could alleviate such mismatches by ensuring that bill assistance payments to the utility lower the full cost of the customer's electricity usage, including the community solar subscription.

The potential advantages of consolidated billing can be felt not only at the household level, but also at the program and market level. Consolidated billing can ease administrative complexity and costs, and also help states ensure compliance with program billing practices and rules. For instance, the New Jersey Board of Public Utilities' Staff Straw Proposal for the state's community solar program notes that "the auditing of billing practices is more easily facilitated with utility-consolidated billing."<sup>xii</sup> Some proponents also argue that consolidated bills (whether by utilities or providers) result in higher rates of subscription payment, thus helping programs reduce costs and lost revenue associated with nonpayment and increase confidence among financial investors, enabling greater volumes of lower-cost capital for community solar market growth.<sup>xiii</sup>

### *Implementation Challenges and Consequences*

Despite the potential benefits of consolidated billing, there continues to be a need for significant policy attention to protect customers and create a positive, cost-saving experience for community solar subscribers. Several challenges may arise in implementing consolidated billing. Utilities may be resistant to the need to upgrade and integrate subscription charges into their

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<sup>2</sup> Two initiatives, DOE's Low Income Clean Energy Connector (<https://www.energy.gov/communitysolar/community-solar-subscription-tool>) and NASEO's Inclusive Shared Solar Initiative with the National Energy Assistance Directors Association (<http://www.naseo.org/issues/solar/issi>), engage states to support greater connectivity between state LIHEAP and low-income community solar programs.

billing processes and to help ensure charges and credits are billed and communicated together. In states where utilities are required to consolidate bills, it may come at a cost. For instance, New York allows utilities to charge project developers a fee of one percent of the value of the bill credit in order to upgrade billing systems and administration, which is to be subtracted from the payment to the community solar provider.<sup>xiv</sup> In Oregon, Portland General Electric estimated its “start-up program” expenses for 2023 to be \$1.4 million, including \$400,000 in incremental costs associated with bill credit payments, and was granted a tariff adjustment by regulators to recover these costs.<sup>xv</sup> While consolidated billing can help reduce administrative costs related to subscriber payments and management, these savings may be minimal in size and could even be offset by increased utility fees, so it is not guaranteed that consolidated billing requirements lead to material savings for community solar providers or subscribers compared to dual billing arrangements.

High-profile billing issues in New York, summarized below by the New York Public Service Commission, highlight the potential pitfalls of attempts to implement consolidated billing, their ramifications, and the need to consider community solar billing processes, particularly for lower-income and lower-credit consumers, carefully.

*Instances have occurred, and are still occurring, where customers do not receive a utility bill for several months and later received multiple bills within a short period, or a single very high bill for that extended period. There have also been many reports of [community solar project] members not receiving appropriate credits on their bills, fueling skepticism of the program itself. These billing deficiencies have also impacted the [Project] Sponsor’s ability to bill and collect payments from the utilities and/or customers for the generation that has been produced by these...projects. This has led to [Project] Sponsor capital issues and, in some instances, the potential for default on their contractual obligations to their customers and project funding sources.<sup>xvi</sup>*

In the District of Columbia, parallel challenges have arisen. In March 2022, the District Office of the Attorney General and Office of the People’s Counsel petitioned the Public Service Commission to investigate the investor-owned utility Pepco and investigate complaints of systematic mishandling of community solar charges, credits, and payments.<sup>xvii</sup>

The New Mexico Public Regulation Commission’s order adopting community solar references utility reluctance and market confusion as the reasons for excluding consolidated billing requirements in their ruling: “Utilities...commented that they do not want the responsibility of billing subscriber fees. They would prefer to limit their involvement to processing the solar bill credit.” Furthermore, “consolidated billing is likely to cause confusion among subscriber ratepayers as to the respective roles of utilities and subscriber organizations.”<sup>xviii</sup> These experiences in New York, the District of Columbia, and New Mexico demonstrate the potential obstacles associated with modifying utility billing functionalities in a timely, effective, equitable, and undisruptive manner.

Challenges and concerns are not limited to utility-consolidated billing. At least one state, Oregon, has identified and sought to address the potential hazards of provider-consolidated billing, particularly for lower-income customers and/or those without access to internet or bank accounts. In August 2022, the Oregon Public Utilities Commission determined that participants in provider-consolidated billing “would not be guaranteed the same level of service or protection that the Commission requires utilities to provide.” Specific areas of concern include contract stipulations allowing a community solar provider to unenroll a participant and requirements that subscribers make full, automatic payments; have an email address; and register a credit card or bank account in order to participate in the program.<sup>xix</sup>

### *Key Elements of State Consolidated Billing Requirements*

As the market continues to grow and states like New York, Oregon, Virginia, and Illinois gain operational experience in community solar and consolidated billing, more states have begun considering legislation, rules, and requirements of their own. Requirements for utility-consolidated billing typically result from the enactment of state legislation, the issuance of regulation from the state’s Public Utilities Commission or Public Service Commission, and/or state community solar program rules and guidance, which may come from a State Energy Office or program administrator. These requirements generally only apply to customers who receive electricity from an investor-owned utility. However, state and local agencies such as State Energy Offices and local sustainability offices may be well-positioned to provide guidance and assistance to non-regulated utilities, such as municipal utilities and electric cooperatives, which also host significant portions of the growing U.S. community solar market.

Currently, most states with active community solar programs do not require consolidated billing and instead operate under a dual billing regime. However, in recent years, some states have begun to enact or consider consolidated billing policy proposals and rules, highlighting a general trend toward consolidated billing. These policies and proposals may cover elements such as:

- **Requirements for Utilities to Add Subscription Costs to Customer Bills:** Utility-consolidated billing rules typically include a foundational requirement for utilities to add functionality to their billing systems to include the community solar subscription costs, and other relevant fees and costs, on subscribers’ electric utility bills.
- **Optionality for Projects to Utilize Utility-Consolidated Billing:** Consolidated billing policies typically do not oblige project developers to participate in consolidated billing. If a community solar provider requests that the utility accommodate a consolidated billing arrangement, then the utility must comply within a reasonable timeframe. Alternatively, the community solar provider may choose to use a dual billing method.
- **Presentation of Credits, Charges, Subscriptions, and Fees on Subscriber Bills:** Consolidated billing requirements may govern how credits and costs appear on a subscriber’s utility bill, whether as one net charge or credit (i.e., the sum of the renewable electricity generation credit, subscription fee, and any applicable administrative fees), or as multiple line items.
- **Consumer Savings:** In some states, savings requirements may appear in the enabling legislation or regulatory orders governing community solar. However, the consolidated billing

provision in at least one state (i.e., Virginia) explicitly requires that subscribers do not pay more in subscription fees than they receive in bill credits.

- **Cost Recovery Options:** Some consolidated billing policies allow utilities to charge fees or implement cost recovery rate to cover the costs of updating their billing systems.
- **Penalties for Utility Non-Compliance or Underperformance:** At least one state (i.e., New York) has begun considering negative revenue adjustment mechanisms for utilities’ failures to comply with consolidated billing rules.
- **Limitations on Provider-Consolidated Billing:** At least one state (i.e., Oregon) has adopted rules explicitly prohibiting provider-consolidated billing.

The tables below provide excerpts and language from enacted policies and regulations (Table 1) as well as proposed policies and regulations (Table 2) addressing community solar billing practices. While the content in Table 2 has not been enacted or passed yet, the proposals may help shed light on how lawmakers, policymakers, regulators, and advocates in more states are proposing to structure community solar billing practices. The tables are based on a review of information from policy and program design documents and regulatory dockets available online. They cover states that have supportive policies in place for community solar as well as Pennsylvania, where lawmakers have proposed community solar legislation with utility-consolidated billing requirements.

**Table 1: Enacted Consolidated Billing Policies and Regulations**

State	Consolidated Billing Status	Relevant Policy Excerpts, Descriptions, and References
Illinois	<ul style="list-style-type: none"> <li>• Utility-consolidated billing is required for utilities with more than 200,000 customers</li> <li>• Optional for project developer</li> <li>• Utility option to charge fee to recover costs</li> </ul>	<p>The <a href="#">Clean Energy Jobs Act (2021)</a> notes:</p> <ul style="list-style-type: none"> <li>• “If requested by the owner or operator of a community renewable generating project, an electric utility serving more than 200,000 customers as of January 1, 2021 shall enter into a net crediting agreement with the owner or operator to include a subscriber's subscription fee on the subscriber's monthly electric bill and provide the subscriber with a net credit equivalent to the total bill credit value for that generation period minus the subscription fee, provided the subscription fee is structured as a fixed percentage of bill credit value.”</li> <li>• “...the electric utility may charge a net crediting fee to the owner or operator of a community renewable energy generating project that may not exceed 2% of the bill credit value.”</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Utility-consolidated billing is required</li> <li>• Can present as single line item (net credit) or multiple line items</li> <li>• Optional for project developer</li> <li>• Sets minimum savings rate</li> </ul>	<p><a href="#">Case 19-M-0463 “In the Matter of Consolidated Billing for Distributed Energy Resources,”</a> issued December 2019, adopts the “net crediting” model for consolidated billing. Community solar credits and charges (including subscription costs and utility administrative fees) are to appear as a single line item (net credit), but utilities have the option to add more detailed information in the future. This order also sets a minimum savings rate of 5%. Project developers can choose to sign up for net crediting and may choose to exclude one large anchor subscriber from each project, with whom they can have a direct relationship. Utilities may charge developers a 1% discount rate on the</p>

	<ul style="list-style-type: none"> <li>• Utility option to charge discount rate to cover costs</li> <li>• Consideration of penalties for utility non-compliance or underperformance</li> </ul> <p>total value of the credits, to cover costs associated with the operation of the net crediting arrangement.</p> <p><a href="#">Order Establishing Process Regarding Community Distributed Generation Billing</a>, issued September 2022, recognizes ongoing billing issues and timing delays. It requires a stakeholder convening on crediting and billing performance metrics, as well as negative revenue adjustment mechanisms for underperforming or non-compliant utilities. Finally, it requires utilities to submit implementation plans detailing progress, constraints, and timelines for the automation of consolidated billing.</p>
<p><b>Oregon</b></p> <ul style="list-style-type: none"> <li>• Utility-consolidated billing is required</li> <li>• Limitations placed on provider-consolidated billing</li> </ul>	<p><a href="#">Order 17-232 “In the Matter of Rules Regarding Community Solar Projects,”</a> issued June 2017, notes:</p> <ul style="list-style-type: none"> <li>• “We require...each electric company work with the program administrator to develop and obtain our approval of an on-bill payment model that allows for multiple ownership and subscription configurations to assess and remit fees owed by participants.”</li> <li>• “An electric company, in addition to crediting participants on their monthly electricity bill, will first deduct from that monthly credit any ownership or subscription fees owed by the participant to the project manager as well as any program administrative fees. The proposed rules require that the electric company then remit these amounts to the program administrator, who will then distribute them accordingly.”</li> </ul> <p><a href="#">Docket No. UM1930</a>, issued August 2022, limits the ability of third-party subscription managers to consolidate bills because of the barriers and risks it could pose to participants, particularly lower-income and lower-credit subscribers. It notes that participants in provider-consolidated billing “would not be guaranteed the same level of service or protection that the Commission requires utilities to provide.” Specific areas of concern include contract stipulations allowing a community solar provider to unenroll a participant and requirements that subscribers make full, automatic payments; have an email address; and register a credit card or bank account in order to participate in the program. The docket also notes that since utility-consolidated billing is already required in Oregon, provider-consolidated billing would be duplicative in addition to presenting unwarranted risks.</p>
<p><b>Virginia</b></p> <ul style="list-style-type: none"> <li>• Utility-consolidated billing is required</li> <li>• Option for utilities to charge net crediting fee</li> <li>• Optional for project developers</li> <li>• Credits must exceed subscription costs</li> </ul>	<p><a href="#">Virginia Code 56-594.3 Shared solar programs</a> notes:</p> <ul style="list-style-type: none"> <li>• “Require net crediting functionality as part of any new customer information platform approved by the Commission. Under net crediting, the utility shall include the shared solar subscription fee on the customer's utility bill and provide the customer with a net credit equivalent to the total bill credit value for that generation period minus the shared solar subscription fee as set by the subscriber organization. The net crediting fee shall not exceed one percent of the bill credit value. Net crediting shall be optional for subscriber organizations, and any shared solar subscription fees charged via the net crediting model shall be set to ensure that subscribers do not pay more in subscription fees than they receive in bill credits.”</li> </ul>

**Table 2: Proposed Consolidated Billing Policies and Regulations**

State	Consolidated Billing Status	Relevant Policy Excerpts, Descriptions, and References
Maryland	<ul style="list-style-type: none"> <li>Consolidated billing is not currently required</li> <li>Utility-consolidated billing proposal under consideration by legislature</li> <li>Would be optional for project developer</li> </ul>	<p><a href="#">HB818, “Electricity – Community Solar Energy Generation – Consolidated Billing</a>, passed March 2022 by Maryland House of Delegates, notes:</p> <ul style="list-style-type: none"> <li>“A subscriber organization may, in conjunction with the electric company serving the territory of the community solar energy generating system, participate in utility consolidated billing provided by the electric company.”</li> </ul>
New Jersey	<ul style="list-style-type: none"> <li>Utility-consolidated billing is not currently required</li> <li>Regulation under consideration for permanent community solar program; staff report recommends utility-consolidated billing</li> </ul>	<p>As part of <a href="#">Docket No. QO22030153</a>, the New Jersey Board of Public Utilities invited stakeholder input via April 2022 <a href="#">Request for Comments</a> as it develops Community Solar Permanent Program. In May 2021, a coalition of electric distribution companies submitted a <a href="#">Consolidated Billing recommendations report</a> in favor of utility-consolidated billing. Staff Straw Proposal in April 2023 recommends utility-consolidated billing using net crediting model.</p>
Pennsylvania	<ul style="list-style-type: none"> <li>Consolidated billing is not currently required</li> <li>Community solar enabling legislation is under consideration</li> <li>Legislation would require utility-consolidated billing if requested by a community solar provider</li> </ul>	<p><a href="#">H.B. 1555 “An Act Amending Title 66 of the Pennsylvania Consolidated Statutes, providing for Community Solar Facilities”</a> in Committee as of June 2021, notes:</p> <ul style="list-style-type: none"> <li>“If requested by a community solar organization, an electric distribution company shall enter into a net crediting agreement with the community solar organization to include a subscriber’s subscription fee on the monthly bill and provide the customer with a net credit equivalent to the total bill credit value for that generation period minus the subscription fee, provided the subscription fee is structured as a fixed percentage of the bill credit value.”</li> </ul>

## Conclusions and Key Considerations for States

As the community solar market continues to grow across the country, many states are examining ways to improve the customer experience by refining and streamlining customer crediting and subscription billing processes. The emerging field of consolidated billing can offer a promising alternative to dual billing, an arrangement which, some advocates argue, increases the likelihood of subscriber confusion, nonpayment, and inability to manage bills, especially for lower-income participants.

A few states have begun to implement or explore consolidated billing. The laws, regulations, and guidance that have emerged from their efforts cover a wide variety of issues, starting with the foundational requirement that utilities adopt consolidated billing practices and progressing to more detailed provisions related to utility cost recovery, the appearance of credits and charges on the bill, and limitations on provider-consolidated billing, among others.

This analysis examines how states have developed these policies and rules. While it is still a nascent field, the early experience of states and community solar programs in implementing consolidated billing highlights six key considerations:

***1 - On its own, consolidated billing does not necessarily translate into savings for subscribers.***

While proponents of consolidated billing argue that it can reduce administrative costs and lost revenue related to subscriber nonpayment, these soft cost reductions do not immediately, or necessarily, translate into or get passed through as cost reductions for program participants. For one, these savings may be minimal in size, as project developers and subscription organizations will still need to dedicate resources to customer acquisition, management, and turnover. Additionally, these savings could be offset by fees or rate discounts that utilities may be permitted to charge project developers and/or subscribers to cover the costs of updating their own billing processes and systems.

***2 - Consolidated billing can serve an important educational and expense management function by helping community solar subscribers understand the size and timing of the financial benefit they receive.*** By providing a full accounting of the benefits (i.e., generation credits) and costs (i.e., subscription and program fees) in one bill, consolidated billing can help subscribers better understand their net benefit (or loss) more readily than if they were to receive two separate bills. This consolidation can also help subscribers manage household expenses by increasing predictability and transparency in the billing process.

***3 - Utility-consolidated billing can make it easier for customers in low-income bill assistance programs to access community solar benefits and cost savings.*** Utility-consolidated billing in particular can help ensure that bill assistance payments to the utility lower the full cost of the customer's electricity usage, including community solar generation and program participation costs, rather than just the net costs of electricity usage minus the generation credit.

***4 - Consumers and communities should be actively engaged in explorations of consolidated billing.*** Decisions made by states, project developers and subscription managers, and utilities about community solar billing processes can play a make-or-break role in whether and how consumers participate and benefit from community solar programs. Yet, many consolidated billing requirements stem from legislation or regulation, complex policymaking processes that are typically inaccessible to individual constituents. Community-based organizations, citizens utility boards, consumer advocacy organizations, and other consumer-representing groups are often effective at elevating underrepresented and community voices in these forums and should be included in decision-making processes on consolidated billing. Additionally, in their role as policymaking (as opposed to regulatory, judicial, or lawmaking) bodies, State Energy Offices may be well-positioned to convene and bring together these and other stakeholders to inform and support participation in formal lawmaking and rulemaking processes.

***5 - Utilities should be consulted and actively engaged in explorations of utility-consolidated billing.*** Changing and updating utility billing systems is a complex and costly endeavor. Experiences in New York and the District of Columbia suggest that community solar subscribers –



particularly lower-income participants – as well as the community solar market in general can face great harm if there are delays, difficulties, or mishandling of crediting and billing processes. To smooth implementation hurdles, utilities should be engaged early and often in the development of policies, programs, and rules requiring consolidated billing.

***6 - In states where utility-consolidated billing is not required, provider-consolidated billing offers a promising alternative, but needs careful design.*** Provider-consolidated billing can help ease many of the challenges commonly associated with dual billing, without requiring utility investment or involvement. Even so, as demonstrated by Oregon, states should closely examine community solar providers’ billing methods to ensure alignment with equity, access, and low-income participation goals. Provider requirements around auto-pay, the use of credit cards, and penalties for partial payment or late payment may pose undue risks or burdens on lower-income, lower-credit participants. Proactive engagement and collaboration with community solar providers and subscription managers may help states reach an acceptable provider-consolidated billing arrangement when utility-consolidated billing is not an option.

State policies and regulations can be critical in continuing to shape customer experiences in community solar development. Thoughtful planning and attention to community and stakeholder needs can ensure that consolidated billing policy design and implementation can help spur further growth in the growing field of community solar.

## Endnotes

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<sup>iv</sup> Coalition for Community Solar Access, “CCSA Announces New Vision and 2030 Goal,” January 18, 2023, <https://communitysolarnews.org/2023/01/vision-2030-democratizing-solar-energy/>.

<sup>v</sup> Low-Income Solar Policy Guide, “Multifamily Housing,” accessed May 8, 2023, <https://www.lowincomesolar.org/practices/multifamily/>.

<sup>vi</sup> Warwick, W.M., *A Primer on Electric Utilities, Deregulation, and Restructuring of U.S. Electricity Markets*, Pacific Northwest National Laboratory, revised May 2002, [https://www.pnnl.gov/main/publications/external/technical\\_reports/PNNL-13906.pdf](https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-13906.pdf).

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- <sup>xii</sup> New Jersey Board of Public Utilities, “Docket No. QO22030153,” accessed May 8, 2023, <https://nj.gov/bpu/pdf/publicnotice/Notice%20%20Community%20Solar%20Straw%20Proposal%20with%20Draft%20Rules.pdf>.
- <sup>xiii</sup> New York Solar Energy Industries Association, “Comments Filed by Clean Energy Parties Regarding Utility Consolidated Billing,” September 2, 2019, <https://www.nyseia.org/policydocuments/utilityconsolidatedbillingcomments>.
- <sup>xiv</sup> State of New York Public Service Commission, “Case 19-M-0463 – In the Matter of Consolidated Billing for Distributed Energy Resources,” December 12, 2019, <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=19-M-0463>.
- <sup>xv</sup> Oregon Public Utility Commission, “Docket No. ADV 1454: PGE Advice No. 22-37 Schedule 136 Oregon CSP Cost Recovery Mechanism,” accessed May 8, 2022, <https://apps.puc.state.or.us/edockets/docket.asp?DocketID=23532>.
- <sup>xvi</sup> State of New York Public Service Commission, “Order Establishing Process Regarding Community Distributed Generation Billing,” September 15, 2022, <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=19-M-0463>.
- <sup>xvii</sup> District of Columbia Office of the People’s Council, “In the Matter of the Complaint and Investigation into Potomac Electric Power Company’s Community Renewable Energy Facility Practices,” March 23, 2022, <https://oag.dc.gov/sites/default/files/2022-03/Pepeco-CREF-Petition-.pdf>.
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