

THE SOL SOURCE

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WELCOME

The Sol SOURCE is a publication that the Sol Systems team distributes to our network of clients and solar stakeholders. This publication contains current trends, expert observations, and statistics from real-life renewable projects. The news and resources here reflect information collected from trusted industry sources and interviews with our team.



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STATE MARKETS



California

Environmental Groups Challenge NEM 3.0 Order

On May 3, 2023, several environmental groups, including the San Diego-based Protect Our Communities Foundation (PCF), filed a [lawsuit](#) challenging the California Public Utilities Commission's decision on the third iteration of Net Energy Metering (NEM) rules for customers of California's three investor-owned utilities (PG&E, SCE, and SDG&E). The decision, known as [NEM 3.0](#), changed the compensation rate for excess energy generated by solar systems. The lawsuit argues that the new rule discourages solar adoption and makes installations economically unattractive, especially for working-class Californians. NEM 3.0 took effect on April 15, 2023.



Connecticut

Governor Lamont Signs Regulatory Omnibus Bill

On June 29, 2023, Governor Ned Lamont (D) signed SB7 into law. SB7 marks the second time in three years that the Connecticut Legislature has revised the policies governing oversight of the State's electric utilities by the Public Utilities Regulatory Commission (PURA). [SB7](#) specifically allows for greater oversight on the decoupling mechanism used by Connecticut's two publicly traded electric utilities, Eversource and United Illuminating, in the rate-making process and prohibits them from recovering costs through ratepayer charges.

SB7's provisions also amend certain class eligibility rules of Connecticut's Renewable Portfolio Standard. Specifically, nuclear energy is reclassified as a Class I renewable energy source and the Department of Energy and Environmental Protection (DEEP) must study the development of a small modular nuclear reactor in Connecticut.



District of Columbia

DC Water Begins Solar Procurement

On May 4, 2023, the District of Columbia Water and Sewer Authority (DC Water) issued a [request for interest \(RFI\)](#) to obtain industry input and feedback for procurement of solar energy services. The RFI process will help DC Water develop strategies for a forthcoming request for proposals (RFP) while planning for adequate resource allocation. DC Water is seeking up to 41 MW of solar power to be developed in two phases, constructed on or around DC Water infrastructure, and potentially offered under one or more 20-year power purchase agreements (PPA). Proposals are due on August 1, 2023.

On June 26, 2023, the DC Public Service Commission (PSC) [ordered](#) Pepco to reimburse their customers roughly \$800,000 for violating community solar billing practices. In 2022, the Office of People's Council (OPC) and the Office of the Attorney General (OAG) filed a complaint against Pepco, claiming non-compliance with Community Renewable Energy Facilities (CREF) regulations. Pepco had unlawfully installed meters at CREFs and passed the \$800,000 cost onto ratepayers. The Commission has now ruled that Pepco must reimburse ratepayers.

STATE MARKETS



Illinois

IPA Publishes Updated Program Guidebook

On April 17, 2023, the Illinois Power Agency (IPA) published an updated version of the Illinois Shines (Adjustable Block Program) [Guidebook](#) along with updated renewable energy credit (REC) [prices](#) for the 2023-2024 program year. The Guidebook provides existing and prospective Program participants with necessary guidance about application requirements, participation requirements, Program processes, and other elements of the Program. The IPA also published a [rationale document](#) further explaining changes in pricing, as well as the full [model](#) used to produce these updated prices. The updated Program rules have been in effect since June 1, 2023, when the 2023-2024 Program Year opened.

The IPA issued two requests (on May 26 and June 8) for stakeholder feedback as they begin developing the 2024 Long-Term Renewable Resources Procurement Plan (LTRRPP). The draft of the 2024 LTRRPP will be released for public comment on August 15, 2023.



Maine

Net Energy Billing Reform Debate Continues

The State Legislature, Office of Public Advocate (OPA), environmental groups, and solar developers have recently engaged in a contentious debate regarding legislation that would amend or substantially scale back the state's Net Energy Billing (NEB) program for new and existing projects with executed NEB agreements in Maine.

If enacted, [LD1986](#) would create a successor program to NEB called the Distributed Solar and Energy Storage (DSES) program. The bill would require the Governor's Energy Office (GEO) to develop the program, no later than July 1, 2024, in consultation with the Maine Public Utilities Commission (PUC). Under LD1986, existing NEB projects between 1-2 MW that meet certain requirements would have the option to exit the NEB program but continue to move forward through a competitive solicitation administered by the PUC. A similar bill, [LD1347](#), would allow the PUC to retroactively adjust the tariff compensation rate for exiting NEB projects. The contentious nature of the debates suggests that net energy billing reform could be punted to a future legislative session.

STATE MARKETS



Maryland

**Governor Moore
Appoints New
Commissioner to
Maryland PSC**

On May 31, 2023, former Montgomery County delegate Kumar P. Barve was officially sworn in as a member of the Maryland Public Service Commission (PSC). Commissioner Barve was appointed by Governor Wes Moore (D) to succeed Commissioner Patrice M. Bubar, who had served since May 18, 2022. Prior to his appointment, Commissioner Barve was a member of the Maryland House of Delegates from 1991 until May 1, 2023, holding leadership roles including chair of the Environment and Transportation Committee, Majority Leader, Majority Whip, and chair of the Montgomery County House delegation.

While we expect to see a larger push for broad clean energy legislation next session, a handful of narrower bills were signed into law by Governor Moore this year. Among the energy-related bills enacted this session, HB908, HB793, and HB910 will be crucial for Maryland to achieve its ambitious climate goals. These laws make Maryland's community solar pilot program permanent; set a statewide goal of achieving 8.5 GW of offshore wind energy by 2031; and set a target of 3 GW of energy storage capacity in Maryland by 2033, respectively.



Massachusetts

**Healey Administration
Leading Regional
Transmission
Collaborative**

On June 16, 2023, the Healey Administration (D) sent a letter to the U.S. Department of Energy (DOE) on behalf of the New England states, New York, and New Jersey, requesting that the DOE assist the states in forming a Northeast States Collaborative on Interregional Transmission. The states are proposing that the DOE, in collaboration with the three regional transmission organizations (ISO-NE, NYISO, PJM), lead a regional initiative to increase transfer capacity between three different planning regions in the Northeast. According to the Administration's letter, other states or Canada could be invited to join the effort at later stages of the collaborative.



Michigan

**Potential for 100%
Clean Energy by 2035**

A group of Democratic lawmakers introduced [HB4759](#) on June 14, 2023, aiming to enhance Michigan's renewable portfolio standard (RPS). If enacted, the bill would increase the RPS to 60 percent by 2030 and set a target of achieving 100 percent carbon-free energy by 2035. Michigan's current RPS notably flatlined at 15 percent in 2021.

STATE MARKETS



New Jersey

Clean Energy Standard Bill Delayed

The latest iteration of [S2978](#) – a bill that would require that 100 percent electricity sold in New Jersey be sourced from clean energy by 2035 – is facing delays due to concerns from environmentalists, labor groups, and solar developers. The initial version of S2978 would have modified the state's renewable portfolio standard, which currently includes a 50 percent by 2030 target, with a new requirement for 100 percent clean energy by 2045. The bill is now expected to align with climate priorities Governor Phil Murphy (D) outlined in a February [executive order](#) also requiring that 100 percent of the state's electricity be derived from clean sources by January 1, 2035.

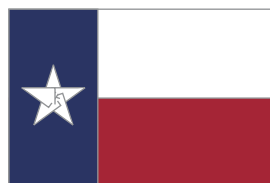
Bill sponsor Senator Bob Smith (D), who chairs the Senate Environment and Energy Committee, planned to bring S2978 before the Committee prior to the summer recess but will now consider additional feedback from the Governor's Office and Board of Public Utilities (BPU) on how it can be improved. The bill has consequently been postponed to after the November election.



Pennsylvania

Energy Bills Tabled Amid Budget Negotiations

On June 30, 2023, the Pennsylvania State Senate recessed until September 18, 2023, without passing a FY 2024 budget. Deliberations on several energy-related bills are therefore tabled until the fall. [HB1467](#) was recently introduced by Representative Danielle Otten (D) and referred to the Environmental Resources and Energy Committee on June 28, 2023. Among other provisions, HB1467 would expand the AEPS Tier I requirement from 8 percent to 30 percent by 2030, including specific targets for in-state grid-scale solar, community solar, and in-state distributed generation solar. The bill would also create a path for community solar projects that are not currently permitted in Pennsylvania. HB1467 is a companion bill to [SB230](#), introduced in the Senate by Senator Steve Santarsiero (D).



Texas

2023 Session Hampers Clean Energy

A brief but eventful Texas legislative session concluded on May 29, 2023, with the passage of several significant energy-related bills. Notably, [HB1500](#), which initially focused on Public Utility Commission (PUC) and Electric Reliability Council of Texas (ERCOT) sunset requirements, incorporated previously filed, passed, and dead legislation through 25 amendments by the Senate Business & Commerce Committee. These amendments include provisions from [SB2014](#), which repealed Texas's Renewable Portfolio Standard (RPS), and [SB624](#), which imposed extensive permitting requirements on wind and solar facilities. Following substantial industry advocacy, the language from SB624 was ultimately excluded. Governor Greg Abbott (R) signed HB1500 into law on June 9, 2023.

TRENDS & OBSERVATIONS



Overcoming the Interconnection Bottleneck

By Mak Nagle

In the pursuit of a more sustainable future, those of us involved in renewable energy have become pioneers of the green revolution. We build renewable energy projects, partner with environmentally progressive companies, and support renewable offtake in communities across the United States. However, despite these efforts, our near-term progress is threatened by the interconnection bottleneck.

The issue of interconnection—the process of connecting all projects to the grid—is the single biggest obstacle holding back the U.S. energy

transition. Oversubscribed transmission lines, high transmissions system upgrade costs, and cumbersome interconnection processes have all impeded the growth of renewable energy over the last decade. This must change.

Together, we can usher in a new era and help craft solutions to reduce the interconnection bottleneck and improve our aging transmission infrastructure.

Growing demand for new renewable energy—and interconnection

At the federal level, the Inflation Reduction Act (IRA) and a multitude of state policies strive to position the U.S. at the forefront of clean energy innovation. According to American Clean Power's (ACP) [2022 Market Report](#), with the injection of federal funding and tax incentives (i.e., the 10-year Investment Tax Credit or ITC), renewable development is likely to more than triple over the next decade.

TRENDS & OBSERVATIONS

The massive investment in renewable energy has led to unprecedented growth in renewable development. This has also spiked demand for interconnection with more than 400 GW of capacity entering the queues of just four markets – PJM, MISO, ERCOT, and SPP. This flurry of applications is exacerbating the existing interconnection bottleneck and worsening issues with transmission infrastructure.

While federal incentives and commercial demand speak to the promise and importance of increasing renewable energy capacity, the capacity of existing lines falls short of meeting demand, and ideal locations for renewable generation often lack proper transmission infrastructure. We need independent system operators (ISOs, who manage the grid) to be proactive and work with the energy sector and the federal government to pick up the pace to upgrade our aging infrastructure.

ISO Response to Aging Infrastructure and Long Interconnection Queues

U.S. grid operators have all taken different approaches to managing interconnection. It's a delicate task of balancing speed, risk, and cost: while ERCOT uses a “connect and manage” approach, other grid operators take an “invest and connect” approach. However, the failure to marry these approaches has meant no operator has landed on the optimal approach for managing interconnection—or the risk-prone request process for interconnection studies.

Many ISOs use the cluster-study approach. During a time period known as an “open window,” all generators—including several renewable energy generators—put in a request for an interconnection study as a cluster, adding their request to an extensive queue. All projects within a cluster have equal standing and ISOs have dedicated phases during which they carry out a series of interconnection studies and system impact studies. These studies help them determine the final set of systems upgrades and costs for all

projects within the cluster that are necessary to reliably interconnect to the grid.

But ISOs are lagging in analyzing these clusters. The process can take anywhere between three to five years (Southwest Power Pool is currently evaluating projects that entered their interconnection queue in 2018) and during this time most projects may be withdrawn, usually due to cost implications. For context, only 21% of projects that were in the queue between 2000-2017 reached commercial operations by 2022.¹

The process is painful for everyone. Lengthy wait times in interconnection queues lead to later-stage withdrawals that are costly and may trigger a restudy for the cluster. The enormous burden on utility companies and ISOs has also led to suggestions that the entire interconnection process be paused in some jurisdictions like PJM. As a result, only a fraction of the proposed capacity will come online. Although renewable industry remains hopeful after PJM's new interconnection reform has now officially kicked off based on “First Ready – First Served” principle, it's going to take several years before they can [clear all the backlog](#).

Collaboration and innovation is necessary to break the interconnection bottleneck

Those of us in the renewable energy space have always been pioneering collaborators and innovators. We have an opportunity—even a responsibility—to leverage our partnerships and innovative thinking to tackle this challenge. By embracing our role as builders and innovators we can offer interconnection solutions, contributing to the overall improvement of the transmission grid.

Renewable developers can collaborate to advance new solutions and develop new policy ideas. Sol Systems has partnered with stakeholders like Working for Advanced Transmission Technologies (WATT) to reimagine the near-term solution to allow for the longer-term transmission system interconnection overhaul.

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Instead of relying on the construction of new transmission infrastructure to be built (which takes several years), we can develop and leverage technology and innovation to optimize the existing system as an interim solution. It is critical that we include the benefits of technological advancement in energy storage as we craft future interconnection and system upgrades policy. Storage can serve as an energy generator—one that can be both a shock absorber and an energy producer. This will help bridge the gap when building new transmission lines may be unrealistic in the near-term.

Finally, federal support can alleviate funding debates between states and enable the delivery of renewable energy to under-served communities and communities disproportionately impacted by climate change.

In conclusion, the issue of interconnection has posed significant challenges to the growth of renewable energy, hindering progress and thwarting necessary transmission system upgrades. To break the cycle, we need more proactive and collaborative action from ISOs and non-ISO utilities to be able to make the necessary grid upgrades and to create innovative solutions that will not only enable the rapid expansion of renewable energy across the U.S. but will bring American clean energy to the communities that need it the most.

1 Lawrence Berkeley National Laboratory:
https://emp.lbl.gov/sites/default/files/queued_up_2022_04-06-2023.pdf

TRENDS & OBSERVATIONS



SOME (So Others Might Eat): Driving Impact through Meaningful Community Engagement

By Adaora Ifebigh

“Impact through Infrastructure” - While succinct, these words encapsulate Sol Systems’ commitment to driving positive societal impact. They are a call to action – a mission to empower and elevate the communities we serve as part of an equitable transition to a sustainable energy future. This effort is rooted in Sol Systems’ engagement with local leaders and partners to foster an approach to sustainable infrastructure that pairs solar energy projects with long-term investments in ecosystems and communities disproportionately impacted by climate change.

In this edition of our Infrastructure + Impact Spotlight Series, we pay homage to our partner, SOME, an interfaith community-based service organization whose mission is to break the cycle of poverty and homelessness through programs and services that help transform lives of individuals and families, their communities, and the systems and structures that affect them. Each day, SOME strives to restore hope and dignity one person at a time through its integrated “Whole Person Care” approach. What began as a lunch line on the corner of North Capitol and K Street more than 50 years ago has flourished into an esteemed leader for affordable housing, healthcare, rehabilitative services, education, employment training, and food security throughout Washington, D.C.

SOME is actively redefining affordable housing in the District by creating a stable foundation where its residents can explore their potential. SOME provides transitional housing programs for those earning 30% or less of the Family Median Income (\$38,700 for a family of four as of 2021) while

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ensuring that residents progress by teaching them to create budgets, financial goals, and sustainable payment plans. Since opening its first transitional housing program in 1986, SOME now operates a portfolio of over 1,300 affordable housing units for single adults, families, and senior citizens, preparing them for homeownership or market-rate rents through a step-by-step process.

Take the Bonner Family, for example. Their time living in SOME's two-year accelerated housing program helped them make great strides. During the pandemic, with the program's help, the Bonners saved over \$14,000 in housing costs and more than \$800 in emergency savings, all while paying off their credit card debt and maintaining a good credit score, allowing them to move into a new home in the District in 2022.



Photo credit: The Bonner Family

This dynamic approach to care is especially critical in a city like Washington, D.C., where in the past two decades, the number of affordable housing units has decreased while the number of high-cost housing units has multiplied.¹ The resulting structural barriers continue to affect low-income residents' ability to afford safe and healthy housing, food, and utilities, among other necessities.

It is because of these realities that Sol Systems remains committed to supporting community leaders like SOME to fill critical gaps by leveraging

the benefits of sustainable infrastructure such as solar energy, energy efficiency, and critical home health and safety upgrades to drive positive environmental and community impacts beyond the carbon reduction inherent in clean energy. In the spirit of this partnership, on May 17th, 2022, Sol Systems, FedEx, and SOME announced a special arrangement that spreads the benefits of the [Sol Systems-developed 915 kW rooftop community solar project](#) at the FedEx Express Eckington Place facility even further into the District. FedEx is allocating the bill credits generated from the solar installation, along with a supplemental cash donation, to SOME to offset the annual electricity costs at two of its facilities located in Ward 5 – Weinberg House, an affordable housing facility that is home to 28 families and Isaiah House, home to a day program for homeless adults with severe and persistent mental illness. Beyond this immediate impact, reducing the energy burden of these facilities will enhance SOME's ability to devote additional resources to initiatives that empower its clients to create long-term, sustainable change.

Sol Systems' commitment to under-resourced communities is a priority shared by the leadership and staff. On April 20th, 2022, we joined SOME to celebrate Earth Day by working on beautification projects at Zagami House – one of SOME's housing sites where Sol Systems had previously made [contributions](#) toward HVAC and energy efficient appliance upgrades. The projects, which included planting of seasonal flowers, assembly of raised garden beds, and mulching of playground areas, revitalized Zagami's grounds for residents to enjoy. Partnering with organizations like SOME shows how meaningful collaboration with communities can help to tackle local challenges and ensure that all communities participate in the clean energy economy. To learn more about how SOME drives impact through meaningful community engagement, please visit SOME's website at: [SOME.org](https://www.somesystems.org).

¹ District of Columbia DHCD 2019

SOLAR CHATTER



Global risk management firm DNV predicts that solar will [become the cheapest source of new electricity](#) by 2050, with renewables comprising 70% of the energy mix. Coal and gas will decrease in share, making up just over 10% of the mix. DNV expects a 22-fold increase in solar capacity and projects the levelized cost of energy for solar to drop from \$50 to \$30 per MWh by 2050. Solar installations are projected to reach 550 GW per year, accounting for 54% of installed capacity and 30% of global on-grid electricity generation by mid-century.



A new report by ACP entitled *The Clean Energy Investing in America* reveals that, since the passage of the Inflation Reduction Act (IRA) in August, capital investment for utility-scale clean energy projects and manufacturing facilities has exceeded \$150 billion--surpassing investments made between 2017 and 2021. The publicly available report also highlights savings of over \$4.4 billion for 24 million utility customers. However, despite this growth, the report highlights that barriers to development persist, citing the need for permitting reform to prevent costly delays for these projects.



The IEA predicts that solar energy investment will surpass oil production in 2023, with an anticipated \$1.7 trillion invested in clean energy technologies this year. However, the majority of this investment is concentrated in advanced economies and China, raising concerns about global energy disparities. IEA also expects increased oil and gas investments driven by Middle Eastern national oil companies.



According to a recent report by Grid Strategies, the expenses linked to a congested power grid in organized electricity markets reached an unprecedented \$13.4 billion in 2021, doubling from the previous year. This highlights the urgent requirement for additional transmission infrastructure.

COMPANY NEWS



Sol Systems Customers Can Now Sign-up for Monthly SREC Payments!

June 28, 2023

By Callie Sofis-Scheft

Starting month, June 2023, Sol Systems' SREC customers in PJM-GATS markets are eligible for monthly payments! We are excited to expand our service to include monthly payments for our customers and installer partners.

How does a system qualify for monthly payments?

In order to receive monthly payments, customers must [sign up for direct deposit](#) through the Sol Systems Customer Dashboard. Customers who do not sign up for direct deposit will receive one check a year in November.

Monthly payments are available to customers with active Sol Annuity, Sol Brokerage, or Sol Profit Share agreements. Sol Upfront payments will continue to be paid within 15 business days after Sol Systems receives full system approval from PJM-GATS or NEPOOL. For Sol Brokerage customers, a generated SREC must still be sold on the spot market by Sol Systems to receive payment.

Massachusetts customers who are signed up for direct deposit will continue to receive quarterly payments due to NEPOOL's quarterly SREC minting schedule.

COMPANY NEWS

What is the new monthly payments schedule?

Monthly payments will be processed by the last business day of each month. As with all electronic payments, it may take a few days for the payment to reach a customer's bank account depending on the bank. Customers may view their payment statement at any time by logging into their [Sol Systems Dashboard](#).

The following schedule outlines the SREC generation month that coincides with the SREC payment month. Therefore, for the June 2023 payment cycle, SRECs generated in or before April 2023 will be eligible for payment.

Sol Systems Monthly Payment Schedule	
SREC Generation Month	SREC Payment Month
January	March
February	April
March	May
April	June
May	July
June	August
July	September
August	October
September	November
October	December
November	January
December	February

What happens if a system does not generate an SREC each month?

If a system does not generate an SREC during a given generation month, a payment will not be provided during the associated SREC payment month. For example, if a system with a Sol Annuity contract generates one SREC in January and one SREC in May, then the customer will receive a payment for one SREC in March and a payment for one SREC in July.

Why has Sol Systems switched to offering monthly payments?

Sol Systems has received feedback from our SREC customers and installer partners that more frequent payments are preferred. We know that SREC revenue can be a critical financial component of the decision to go solar, and we are pleased to provide our customers and partners with more frequent SREC payment options. Furthermore, to reduce the use of paper to print checks, we encourage all customers to enroll in direct deposit.

For questions regarding monthly payments, please email info@solsystems.com.

EVENTS



Meet us at RE+ Mid-Atlantic!

July 26-27
Philadelphia, PA

Sol Systems will be attending RE+ Mid-Atlantic next week and speaking on three fantastic panels. Shoot us a line if you'd like to meet up at the conference.

SPEAKERS



ADAORA IFEBIGH
Senior Director of Impact

Session Title:
Expanding Access to Clean
Energy & Advancing
Environmental Justice in the
Mid-Atlantic (Part 1)

Session Date:
Wednesday, July 26, 2023

Session Time:
9:00 – 9:30 AM ET



ANDREW WILLIAMS
VP, Policy & Corporate Affairs

Session Title:
QuickTalk: In the Trenches:
IRA Implementation and State
Policy Opportunities

Session Date:
Wednesday, July 26, 2023

Session Time:
11:25 – 11:45 AM ET



JILL RATHKE
*Business Development
Manager, Enterprise*

Session Title:
QuickTalk: From Net-Zero to
Carbon Free: Navigating REC's
and Other Trends in Corporate
Procurement

Session Date:
Thursday, July 27, 2023

Session Time:
11:15 – 11:40 AM ET