



State Commission Staff Surge Call: Community Solar

July 30, 2018

Rooftop solar panels for residential and commercial customers have been a growing bright spot for clean energy. However, rooftop solar can be out of reach – in terms of cost or technical feasibility – for low- to moderate-income (LMI) ratepayers, renters, apartment dwellers, and other populations. Community solar programs make solar energy accessible to more customers by enabling multiple community subscribers to share in a local solar facility. In exchange for subscribing to the facility upfront, customers receive credit on their electricity bills corresponding to their share of electricity generated by the facility.

According to the [NC State Clean Energy Center](#)'s presentation at the July 2018 NARUC summer policy summit, 19 states plus the District of Columbia have a statewide community solar policy requiring utilities to offer programs. In other states, utilities voluntarily offer programs. Overall, community solar has led to more than 1 GW of connected capacity nationwide. State public utility commissions play an important role in defining objectives and working with utilities to design programs to meet those goals. On this call, staff from Illinois, North Carolina, and the District of Columbia shared how their Commissions are utilizing community solar to increase access to renewable energy.

Illinois

Illinois had no statewide community solar requirement until the beginning of 2017, when a newly passed state law mandated that regulated utilities and alternative retail electricity suppliers offer community renewable energy programs to their customers. Eligible projects have to be located off of customer property and powered by renewables such as solar, wind, fuel cells, or renewable fuel-driven microturbines. Further, eligible projects must be interconnected at the distribution level and have a capacity of no more than 2 MW. Subscribers must sign up for at least 200 W of the project, with no individual customer owning more than 40 percent of total capacity. Illinois law allows subscriptions to be portable and transferable anywhere within the utility's service area. If a portion of the project is unsubscribed, it may be sold as a qualifying facility under the federal Public Utility Regulatory Policies Act (PURPA).

Community solar projects and their subscribers are potentially eligible for three forms of support: (1) subscribers are eligible to receive a net metering credit against their bills in association with their share of the project's output; (2) projects or subscribers to the projects are eligible for distributed generation rebates that are initially set at \$250 per kW of nameplate DC capacity; and (3) projects or subscribers to the projects are eligible to sell renewable energy credits associated with the projects to Illinois utilities through the Illinois renewable energy credit procurement process including through the Illinois adjustable block program. Through the adjustable block program, projects or subscribers to the projects can sell their renewable energy credits at posted prices and can receive up to 15 years' worth of RECs in the first five years of operation.

Illinois has a specific community solar program targeted to low-income communities, defined as less than 80 percent of area median income. Solar for All gives an additional incentive to community solar projects that serve low-income subscribers. These projects can also deliver 100% of RECs upfront to reduce or eliminate immediate subscriber fees. These rewards are expected to attract developers to invest in low-income areas.



North Carolina

House Bill 589, passed in August 2017, required North Carolina's two regulated utilities to implement community solar programs. The implementation plans are currently pending before the Commission in dockets [E-7 Sub 1168](#) and [E-2 Sub 1169](#). HB 589 states that “it is in the interest of the State to encourage the leasing of solar energy facilities for retail customers and subscription to shared community solar energy facilities.” The legislation prohibits any cross-subsidization, meaning that the costs of implementing community solar programs must not be borne by non-subscribing ratepayers. The legislation does not include a specific component to target low- and moderate-income (LMI) ratepayers. Further, the statute allows any residential or non-residential retail customer to participate, and grants the Commission authority to approve, modify, or reject the proposed community solar implementation plans. After the plans were filed in January 2018, the Commission received comments and is currently considering both proposals.

The proposed plans place a capacity limit on each community solar facility of 5 MW per project and 20 MW overall per utility. These limits are expected to result in mostly residential and small commercial customers. Subscribers will receive a credit against their electricity bills at an avoided cost rate. Upfront fees and other payments, as well as marketing budgets and LMI outreach, are still under consideration by the Commission. While many details are still being decided, one of the Commission's biggest challenges in considering the proposals is designing a successful program that will be fully subscribed while also preventing cross-subsidization from non-subscribers to subscribers.

District of Columbia

Community solar has broad support in the nation's capital. DC's 68 square mile area is a uniquely favorable jurisdiction for community solar. Because municipal and state government functions are handled through the mayor and council, both of whom are highly enthusiastic about renewable energy, DC has an aggressive environmental agenda and a flourishing community solar program.

DC's Renewable Energy Act of 2013 created the city's community solar program. The legislation's objectives were to (1) support renewable energy deployment; (2) encourage participation across DC's eight wards; (3) allow renters, LMI, and retail consumers to own interest in renewables, and (4) lower the barriers to market entry to spread the benefits of renewables. The second objective is particularly important given DC's long-standing wealth divide. Poverty is concentrated in certain sections of the city, particularly in neighborhoods east of the Anacostia River in Wards 7 and 8. While economic development is rapidly pushing into previously underdeveloped neighborhoods, Wards 7 and 8 in particular have not by and large shared equally in the city's emergent prosperity. The Commission and the District of Columbia Department of Energy and Environment are interested in encouraging community solar development in these overlooked areas.

Nine solar community renewable energy facilities (CREFs) are currently operational, with 45 applications in the review process. Under the law, community solar projects must have at least two subscribers within the district producing no more than 5 MW of energy. The city offers an incentive of Solar Renewable Energy Credits (SRECs) for system owners and developers. The current SREC price is approximately \$350. The high SREC price enables residential systems to achieve payback in five to eight years, with the payback for commercial systems being significantly shorter. The incentive is paid for through compliance payments by electricity suppliers with the District Renewable Energy Portfolio Standards program. The



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Department of Energy and Environment provides grants to develop community solar on top of the subsidy that SRECS provide. So far, grants have totaled \$3.4 million and have reached 520 LMI households. CREFs deliver credits to subscribers for free electricity.

The program includes flexibility for imaginative projects. CREFs can be subscribed by community organizations sharing building space with neighbors, multi-level condo buildings, basement apartments joining single-family homes, and other arrangements. The district has limited empty space or brownfields for development, requiring creative thinking about where to site projects. DC has one investor-owned utility, PEPCO, which assumes the responsibility of interconnecting CREFs and setting up virtual net metering. PEPCO submits a report on all operating CREFs to the Commission twice a year. Interconnection and upgrade costs to accommodate CREFs are currently higher than typical rooftop solar systems, and the District's government is currently working with stakeholders to better understand and address the issue.

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