



September 25, 2017

Via Electronic Mail

Christine Knapp, Director of the Office of Sustainability
Adam Agalloco, Energy Manager, Office of Energy
One Parkway Building
1515 Arch Street, 13th Floor
Philadelphia, PA 19102

**Re: Green Justice Philly Comments on City of Philadelphia's Office of Sustainability
Power Purchase Agreement**

Dear Ms. Knapp and Mr. Agalloco,

Green Justice Philly submits these comments regarding the Philadelphia Energy Authority's intent to issue a Request for Proposal (RFP) for a power purchase agreement (PPA) for renewable energy. Green Justice Philly has previously written to the City about our *Solar Justice Philly* campaign and our Coalition's support for actions taken by the City to transition Philadelphia from fossil fuels to renewable energy.

The *Solar Justice Philly* campaign calls for a commitment by the City of Philadelphia to secure 100% of its energy from renewable sources by 2030, generating at least 30% of the electricity used in government-owned buildings, departments and street lights from solar projects in the 5-county region, including installations on City-owned buildings and property and on properties in under-resourced neighborhoods.

Our coalition urges the Office of Sustainability to finalize (by mid-2019) a 20 year PPA for 40 MW of renewable energy sourced from the 5-county Philadelphia region that requires a diverse workforce that matches the racial demographics of the city and provides fair wages under union conditions. Building solar in the 5-county region will result in a lot more direct and indirect economic activity in the region than there would be if solar were installed outside the area.

A commitment to regional energy sources for Philadelphia and a Power Purchase Agreement (PPA) with locally generated renewable energy sources would create jobs for Philadelphia residents and would create wealth in the City's neighborhoods.

Green Justice Philly urges the Office of Sustainability to incorporate the following recommendations into its power purchase agreement request for proposals.

1. Give strong preference to suppliers that are 1) headquartered in Philadelphia or the 5-county region, 2) contract with installers headquartered in the 5-county region and/or 3) proposals to build *new* renewable infrastructure in the 5-county region to generate electricity for the PPA. Applicants should provide information to adequately assess the local nature of the project. The Office of Sustainability should make every effort to communicate with companies interested in building projects in the 5-county region to make sure they are aware of the opportunity.
2. The RFP should send a strong signal that the City of Philadelphia is ready to invest in renewable energy through this rare opportunity, and that in order for the highly-preferred local projects to win the contract, they need to be as cost-competitive with other bids from outside the region as possible, even if they are ultimately more expensive.
3. Give strong preference to suppliers proposing to install new solar generating capacity, rather than sell electricity from existing projects in the region or the state.
4. Give strong preference to solar projects over wind as solar projects are more likely to be sited in the 5-county region than wind projects.
5. Give strong preference to projects that incorporate 1) government-owned buildings and properties and 2) properties not owned by the City in under-resourced neighborhoods, including residential rooftops.
6. The RFP should include detailed site information about the government-owned building roof types and roof types or conditions of properties in under-resourced neighborhoods used by the PPA supplier. The RFP should include a GIS analysis of all City-owned roof space and other properties in the region available for siting solar.
7. The RFP should include specific evaluation criteria for assessing proposal responses. In order to properly assess the responses, the RFP should provide clear instructions about what type of information is needed to uniformly assess and score the applications.

8. The RFP should require the use of local union labor for installations for installation projects. This will help increase local expertise, provide opportunities for training and advancement for residents in need of family-supporting employment and potentially lower costs for subsequent solar installations within the region. It will also build real and measurable wealth in neighborhoods.
9. The RFP should require the PPA supplier to commit, and be held accountable to, specific diversity goals such as those set in the Rebuild Philadelphia July 2017 RFQ. In addition, Green Justice Philly believes that the City should commit to contracting with a specific percentage of minority-owned and women-owned businesses. The RFP should ask for specific diversity goals and evaluation methods.
10. In addition, the Office of Sustainability should consider incorporating recommendations from *Solar Power Purchase Agreements - A Toolkit for Local Governments*, (by Interstate Renewable Energy Council) into the design of its solar RFP.
11. When evaluating the costs and benefits of PPA proposals, especially between on-site versus remotely-sited solar, the Office of Sustainability should include potential cost savings for energy, but also reduction of demand charges (and other non-energy charges for transmission or capacity).

Justification for Green Justice Philly's Recommendations:

Local solar projects can create more local jobs. Typically, a 1-megawatt solar project creates about 20 jobs (direct and indirect jobs, but not induced). About half of these jobs are in construction and the other half are in related sectors (trade, legal, professional services). A 40-megawatt PPA, as Green Justice Philly is advocating for, could result in approximately 800 jobs. Using local labor for these projects will help increase local expertise and potentially lower costs for subsequent solar installations within the region.

Local solar projects would distribute economic benefits more locally. In addition to using City-owned building roof space, Green Justice Philly is advocating for the Office of Sustainability to analyze the use of properties not owned by the City and residential rooftops in under-resourced neighborhoods in order to bring some of the economic benefits of the PPA to low and moderate-income residents and neighborhoods. While not an exact comparison to a Philadelphia PPA, the Arizona Public Service Company, Arizona's largest electric utility, paid \$30/month for a roof rental fee for its residential program, which had an average solar array size of about 7 kilowatts. If this model could be applied to a Philadelphia PPA, the money paid to homeowners would likely get re-spent in the local economy. In addition, for every megawatt of

solar installed, about \$500,000 is paid in wages for installation labor and another \$11,000 per year in maintenance. For local projects, the local workforce would reap those economic impacts rather than workers from another area.

Local solar projects capture more local economic growth. Many states and cities have local purchasing preferences (e.g. from locally owned businesses) because the jurisdiction will enjoy significantly higher economic benefits from local purchases. For example, a study conducted for the City of Phoenix, AZ, found that for "a one-year, \$5 million contract for office supplies, with the local company, an additional \$1 million would stay in the area economy. With the national company, just \$580,000 of that \$5 million would recirculate locally."

Local solar generation could reduce the amount of energy that the City of Philadelphia needs to purchase from PJM, and could reduce electric bills and associated demand charges. Additionally, local solar can incorporate behind-the-meter battery storage, providing local resiliency and increasing demand charge savings through an effective demand-management strategy. As with solar, battery storage costs have experienced a rapid decline over the past few years and are projected to prompt a reduction in demand charge rates. Demand charges (based on the peak energy use of a facility in any interval, typically 15 minutes, in a billing cycle) can represent 30-70% of a building's energy bill.

Designing a large enough solar PPA closer to load could provide economies of scale that reduce the cost per unit of electricity generated. According to a large dataset from SunShot and Berkeley Lab, the sweet spot for obtaining a low cost of electricity solar projects is between 5-100 megawatts - a plus for the 40 megawatt PPA Green Justice Philly is advocating for.

Thank you for your consideration of Green Justice Philly's *Solar Justice Philly* campaign and our specific recommendations for provisions to be included in a RFP for a city power purchase agreement.

Sincerely,

Green Justice Philly Steering Committee:

Clean Air Council: Matt Walker, Community Outreach Director (mwalker@cleanair.org)

Delaware Riverkeeper Network: Tracy Carluccio, Deputy Director
(tracy@delawareriverkeeper.org)

Food & Water Watch: Sam Rubin (srubin@fwwatch.org)

Interfaith Power and Light: Rabbi Mordechai Liebling (Lieblingm@gmail.com)

Pennsylvania Federation BMWED-Teamsters: Jed Dodd, General Chairman, Pennsylvania Federation BMWED-Teamsters (doddjed@verizon.net)

Green Justice Philly Coordinating Committee:

Green Justice Philly Member Organizations:

Supporting Organizations: