



# Sustainability Stewards of Broward

## SOLAR ENERGY

### Workshop Summary

On Feb 7, 2018, the Sustainability Stewards of Broward (SSB) held a joint workshop with the Corporate Sustainability Network, the Jr. SSB's, and the Urban League of Broward County focused on 100% Solar Energy! Hosted by Broward County's Environmental Planning and Community Resilience Division, the workshop explored multi-jurisdictional and cross-sector approaches to expand the utilization of solar energy in Broward.

Forty-eight (48) participants came together to share their experiences, expand their knowledge, and help guide the future of renewable and sustainable energy sources in our community.

Major concepts explored were:

- Bulk Purchasing
- Self Sufficiency
- Financial Support
- Technological Breakthroughs
- Return on Investment Rates
- Storage, Microgrids & Integration
- Collaboration & Analyses
- Scalability

The four-hour workshop began with introductory presentations from Susan Glickman from the Southern Alliance for Clean Energy (SACE) on historical trends and current prices and politics, and Broward County's Jill Horwitz and Dr. Samantha Danchuk on Broward's Solar Energy Analysis and our County and community-wide goals.

Experts from across the state and U.S. joined us, both in-person and virtually, to share best practices and new opportunities in collaboration, funding, data tracking and technology. On our Community Initiatives Panel, Angela DeMonbreun from FL SUN gave us an update on the two Broward Solar Co-ops administered last year. In total, 204 individuals signed up, installing 449.11 Total KW which has a Lifetime Carbon Offset of 18,942,609 lbs.

Zelalem Adefris, chair of the Clean Energy Working Group in the Miami Climate Alliance shared how over 80 organizations in her community are engaging the public to influence the upcoming FPL franchise agreement contract update. Priorities include production of more renewable energy, expanding low-income energy efficiency and energy assistance programs, mandatory climate change vulnerability analysis of infrastructure, community solar projects that provide direct benefits to residents, and reducing the contract length from 30-years to 10-years.



Next, Emily Gorman from Sierra Club talked about their Ready for 100% Campaign. So far, fifty-six (56) cities have committed to have 100% clean and renewable energy by 2035, including nine (9) from Broward County. She talked about the importance of prioritizing justice, equity, affordability and access. The campaign is also working to assist communities transition from a commitment into action and achievement of goals. Jennifer Barenholtz added to the conversation, sharing her experience as the previous Palm Beach Advisor under the federal SolSmart Program. The U.S. DOE program offers technical assistance to communities who want to reduce soft costs and other barriers and recognizes local governments that can demonstrate through standard metrics that their community is “open for solar business”.



On the Public-Sector Investments Panel, Stevie Freeman-Montes of the City of Sarasota and Lee Hayes Byron from Sarasota County shared what it’s like to transition from goal setting to implementation. Two steps taken of note: a solar feasibility assessment of city buildings and a county-wide roundtable on solar permitting.

Next, Chris Castro from the City of Orlando chimed in, with several best practices and innovative strategies they are employing to share, such as:

- In-house ESCO - energy efficiency program uses municipal bond; energy savings repay loan and fund future investments. (potential solar bond next)
- Building benchmarking, audits and transparency
- Community Solar - offsets consumption through virtual net metering
- Solar Aggregation – Municipal Utility purchases the panels in bulk to achieve economies of scale, makes it more affordable for homeowners to put solar on their roofs

On our last panel, on Market Forces & Technical Innovations, Dylan Cutler from the National Renewable Energy Laboratory (NREL) shared recent advancements in solar plus storage optimization and integration, and how this can be utilized to create more resilient systems. Appropriately sizing generation and storage is important when designing a microgrid, especially as one considers post-storm power outages and compares the number of hours a site could survive with a diesel generator and fixed fuel supply vs. generator augmented with PV and battery. NREL evaluated thousands of random grid outage occurrences and durations throughout the year, results: PV and battery gave sites a 90% probability of surviving an additional 1 day at no cost and an additional 4 days at minimal additional cost. The REopt Lite Web Tool offers a no-cost subset of the more comprehensive REopt Energy System Integration and Optimization Tool. <https://reopt.nrel.gov/tool>

Finally, Duanne Andrade and Doug Coward from the Solar Energy Loan Fund (SELF) talked about funding options they have successfully piloted in St. Lucie County and now are offering throughout the state. Their mission is to rebuild and empower underserved communities by providing access to affordable and innovative financing for sustainable property improvements, including: energy efficiency; renewable energy; wind-hazard mitigation; and, water conservation projects. Beyond a local PACE program, SELF offers residential loans statewide as a CDFI and KIVA crowdfunding administrator. So far, SELF has completed 1,069 energy assessments and closed more than 700 loans totaling \$6 million. With a focus on equity, SELF’s numbers are right on target: 70% of loans have been in Low- and Moderate-Income

(LMI) census tracts, 50% for seniors, 40% for women, and 20% for veterans. On average, clients have reduced household energy consumption by 25% and made much-needed home improvements that enhance comfort, health and quality of life, increase home equity, reduce operating costs, and safeguard against storms.



The workshop concluded with a discussion on how to identify and prioritize locations as potential Resiliency Hubs. These sites could be augmented with solar energy and battery back-up for greater resilience after a storm, lower ongoing expenses, and expanded service capacity to the community. Next steps for resource sharing and collaboration were also discussed.

Materials from the workshop, including the agenda, summary, presentation documents and videos, will be posted on the County's GoGreen webpage, under [Sustainability Stewards](#). If you have additional ideas or questions, the speakers have kindly made themselves available for event follow-up. Their contact information is below.



Thank you again to our wonderful speakers, facilitators, and participants. Fantastic information and ideas were presented, and the group left inspired to take new concepts and best practices back to their realms of practice to implement. By sharing our knowledge, experiences, and thoughts we advance all of our programs and help to move sustainability forward in our entire community.

<a href="#">Jill Horwitz</a>	Broward County, SSB	JHORWITZ@broward.org
<a href="#">Samantha Danchuk</a>	Broward County, EPCRD	SDANCHUK@broward.org
<a href="#">Susan Glickman</a>	SACE	susan@cleanenergy.org
<a href="#">Carrie Kashar</a>	Broward County, PACE	CKASHAR@broward.org
<a href="#">Angela DeMonbreun</a>	FL SUN	angela@solarunitedneighbors.org
<a href="#">Zelalem Adefris</a>	Miami Climate Alliance	zelalema@catalystmiami.org
<a href="#">Emily Gorman</a>	Sierra Club, Ready for 100%	emily.gorman@sierraclub.org
<a href="#">Jennifer Barenholtz</a>	SolSmart	jenbarenholtz@yahoo.com
<a href="#">Stevie Freeman-Montes</a>	City of Sarasota	Stevie.Freeman-Montes@sarasotaFL.gov
<a href="#">Lee Hayes Byron</a>	Sarasota County	lhbyron@scgov.net
<a href="#">Chris Castro</a>	City of Orlando	chris.castro@cityoforlando.net
<a href="#">Dylan Cutler</a>	NREL	Dylan.Cutler@nrel.gov
<a href="#">Duanne Andrade</a>	SELF	duannea@solarenergyloanfund.org

Together, through the Sustainability Stewards of Broward, we are making Broward a more energy efficient, climate resilient, and sustainable community. We hope to see you at the next informative and inspiring event!

*Jill Horwitz*

Environmental Planning and  
Community Resilience Division  
Broward County  
954-519-1287  
[jhorwitz@broward.org](mailto:jhorwitz@broward.org)

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