

I. Introductions

- A. Maribel Feliciano introduces herself and the Go SOLAR Program
1. Attendee's introduce themselves (see attached sign in sheet)

II. Go SOLAR Program

- A. DOE Solar Grant Overview by Maribel Feliciano - 4 Committees
1. Online permitting system committee – standardized online permitting system objective
 2. Best Practices for financing and financing options
 3. Zoning and planning – removal of zoning barriers
 4. Outreach committee – market the program
- B. Online Permitting System Overview
1. Solar PV projects approval online with preapproved design plans
 2. Contractors must pre-register to use the 24/7 system
 3. Many selections within the system to select a type of solar system design
 4. Agreement on one flat fee for online permitting system - \$552 flat fee (includes processing fee)
 5. The fee was based on a compromise of all participating cities; based on the anticipated number of inspections.
 6. Re-inspections require a \$50 fee
 7. System capacities of 2 to 15 kW systems available for selection in the system
 8. Permit will be issued in minutes
 9. No other system in the US like the BC Go SOLAR online permitting system with pre-approved design plans
 10. BC worked with partners (cities, building officials, fire marshals, solar industry, etc.) to develop the online permitting system
 11. 30-minute webinar of permitting system on our website at www.broward.org/gogreen/gosolar
- C. Responses to Questions
1. System is only for solar rooftop PV systems as of right now – for residential and small commercial
 2. Scope of the grant may be expanded in the future to include other types of solar systems
 3. Storage installation is not included but may be considered in the future
 4. The designs in the system are generic based on size of panel
 5. The Florida Solar Energy Center is a partner with BC – all PV modules need to be certified by FSEC. BC will submit the final permit package to FSEC for review.
 6. Calculations on high wind resistance are calculated in the pre-approved, pre-designed plans.
 7. Ground mount and pull mount systems are not part of the scope of the grant. However, it may be a part of the system in the future.
 8. Designs are up to 15 kW but can go higher if necessary. BC is open to reviewing designs of higher kW.
 9. The grant only dictates “rooftop designs” for now but at the next Building Officials meeting BC will address other types of pseudo-rooftop designs.
 10. The permitting system streamlines the permitting process of 15 cities. Solar contractors will be able to use the system 24/7 to apply for solar rooftop projects.
 11. Comment: Zoning should also review the online permitting system.
 12. Comment: Cutting trees down for the sake of solar may be an issue.
 13. Currently grant ends in February but BC will continue the program.
 14. There are going to be detailed specifications for contractors to follow upon issuing a permit.

15. The permitting system covers 6 different roof types.
 16. The structural design specifications address wind requirements.
 17. Certificate of occupancy can be obtained for new construction that is off-grid in Broward County.
 18. Comment: Selling point for solar – start with 3 kW system and add on, meaning upgrade and/or expand.
 19. Comment: FPL rebates are a one-time rebate *per account*. See FPL website for rebate information.
- D. Online permitting system training is tentatively scheduled for:
1. October 16th for partner agencies/cities.
 2. October 31st for solar contractors and interested parties
 3. Both trainings will occur at BC Government Center West. Notifications and agenda(s) to follow via email. Spread the word.
- E. Six inspections are required after a solar PV permit is issued. Any thoughts of consolidating inspections? (9 solar contractors present) Note: each city handles the inspections
1. Accepting roof attachment photographs would help. Goal is to have system installed in 1 day.
 2. 3 of the 6 inspections can be completed in 1 visit
 3. Rough-in building and electric inspections can get done in one day.
 4. Structural integrity, proper markings, final inspection can be done in one day as well; meaning all 6 inspections can be done in 2 days.
 5. Structural load and roof punctures/leaks are part of the system design plans and inspectors will be verifying this.
- F. Fire marshal signage requirements will be attached to the permit issued online
- G. Net Metering and Interconnection application (from FPL) will be available at the end of the online permitting system application process. An email is submitted to FPL when permit is issued. – Has anyone had any challenges with the FPL Net Metering and Interconnection application?
1. No problems
 2. Tier 2 or 3 with fee attached takes a little longer but otherwise no problems.
 3. Application forms are available online but are not key enterable.
 4. Application forms can be emailed to FPL.
 5. Comment: Rebates from FPL is a challenge.
- H. For financing information and/or suggestions please contact Dr. Nancy Gassman the lead for the Go SOLAR financing committee. Her contact information is on our website.
- I. As part of the DOE grant we are not allowed to use grant dollars to advocate for policy changes at the state level although we are aware of the challenges in certain areas/certain aspects of this program.
- J. Q: When you build a house or major renovation, a building official will give you a certificate of occupancy. Do you need grid connection to get a certificate of occupancy? No.
1. There are a lot of grey areas.
 2. Verify zoning and franchise agreements; code requirements; franchise laws.
- K. Go SOLAR outreach and marketing is on-going. The next 4 months will be heavy with public relations Ex. Public service announcements, bus ads, newsletters, solar rights, online permitting system, etc.
1. The 15 partner cities will be involved in the outreach efforts.
 2. We can invite other cities to join the Go SOLAR program! We are seeking the 17 other cities which haven't joined to partner with Go SOLAR. BC is contacting these cities to urge them to join.

3. The Model Zoning Ordinance and Inter-Local Agreement documents are on our website for public use in order to get your city to join.
 4. Comment: Residents may get into more money if they install solar due to upgrades to their roofs, electrical systems, insurance, etc., so suggest that BC perform outreach and notification on this end.
 5. Please contact Ken Dobies with BC Go SOLAR if you need marketing materials. Including design of marketing materials and any outreach efforts including Go SOLAR speakers.
- L. Go SOLAR Kiosk Information:
1. The kiosk will be available at GCW. It will highlight all aspects of the Go SOLAR program and will be available for the online permitting applications.
- M. SolarFest will happen in January to end the grant and celebrate final accomplishments of the Go SOLAR program.

III. US Solar Institute (USSI) Host Facility & Presentation from Mr. Ray Johnson

- A. About the US Solar institute: The facility is a net positive energy facility with has 105 solar panels; currently producing the equivalent of \$500 per month in the electric cost
- B. Presentation:
1. Mr. Ray Johnson (President) founded USSI, an educational institution in 2008.
 2. The USSI provides solar certification examinations and a Florida Department of Education Diploma in Photovoltaics.
 3. The USSI is also a manufacturer representative and offers pre-packaged systems.
 4. Florida does not have a Renewable Portfolio Standard (RPS) – why?
 5. Florida ranks last in US for renewable energy policy but ranks in the top 10 for solar installation because of FPL’s huge solar farms.
 6. Major components of a PV system:
 - (a) Solar panels
 - (b) Racking system
 - (c) Inverter
 - (d) Charge Controller/Batteries
 - (e) BOS (anything not listed above other than solar panels wiring, grounding, over current protection, etc.)
 7. Most PV systems are grid interactive systems
 8. UPS – Uninterrupted Power Source contains a battery that controls the switch components of inverters. This is called Off Grid
 9. With the UPS we have only Four solar panels are required to operate a 1 ton air conditioning unit
 10. Market factors:
 - (a) RPS – Renewable Portfolio Standard: Florida does not have one
 - (b) Net Metering & Interconnection: Florida Power and Light Pays only 2 cents per kilowatt hour for over production
 - (c) PPAs – Power Purchase Agreements: Everyone has one with a utility company but not for selling solar energy without an additional contract
 - (d) FIT – Feed in Tariff: Power company will pay you a premium for your solar energy
 - (e) UIA – Utility Interconnection Agreement



- (f) Franchise Utility Law: Designates a single user; managed by the Public Service Commission with focus is on the cheapest/best energy solution

IV. Myth Busting – Presentation by Mr. Ray Johnson

- A. Laws of thermodynamics applied to solar PV systems:
 - 1. Volts x Amps = Watts
 - 2. To raise volts we connect solar panels in series
 - 3. Connecting and combining negative and positive conductors together (called paralleling) increases Amps
 - 4. Solar panels collect energy; most of the energy is converted into heat the rest is converted into electron flow
- B. The price of PV panels has dropped 400 percent over the past 3 years
- C. Energy costs historically increase 5% to 10% annually
- D. Solar panels CAN stand up to hurricane winds
 - 1. Solar panels can make your building stronger if installed properly
 - 2. Solar panels are tested to over 204 mph (made in the USA)
 - 3. Wind load/pressure is more important than wind speed