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**To:** [Lee Eng Tan](#)  
**Subject:** Comments on Solar Energy in Florida  
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Answers to questions posted by FPSC on April 23, 2015:

1. An effective means of promotion of demand-side solar energy systems would be if the state would post the required compliance standards for consumer grade grid-tie equipment such that residential use volume production equipment manufacturers could produce lower cost products that would be available in consumer grade home equipment stores (Home Depot, Lowes, HHGregg, Harbor Freight, etc.). Homeowners can already purchase their own solar panels, mounting facilities, batteries, and wiring. Assuming compliance to local codes they can either self-install or engage local contractors to perform the install. However, the dual metering and grid-tie equipment cost and associated contractor services remains unduly burdensome. Given the decreasing costs of the renewable power generation components (panels, batteries, mounting facilities, etc.), the costs for dual metering, grid-tie equipment, and installation of that equipment is growing by percentage of the total cost of ownership and is a hindrance to adoption of renewable energy production at the consumer level.
2. Promotion of supply-side renewable energy production
  - a) An effective means of promotion of supply-side renewable energy production systems would be to make it permissible for adjoining residential properties to share excess power generated by one or more of those properties.
  - b) Another effective means of promotion of supply-side renewable energy production systems would be to make sure that third parties can offer solutions to consumers as near zero entry cost and pay for the solution over time through revenue from generation in excess of demand. These are very significant programs in states other than Florida.
- a) Not being a lawyer I can't speak as to whether or not the above would require the Florida legislature to adjust existing statutes.
- b) None of the above can be implemented without FPSC review and accommodation in 25-6.065 Interconnection and Metering of Customer-Owned Renewable Generation.
- c) So long as FPSC specifies the compliance standards for consumer grade grid-tie equipment there should be no additional impacts to system reliability. In reality it should improve system reliability by making it easier and more cost effective for consumers to make use of renewable energy sources at lower costs thereby reducing the probability of rogue generation operation.
- d) If the FPSC would alter their rules to eliminate specifically calling out renewable energy generation sources (solar, wind, etc.) and instead simply refer to renewable energy generation sources it would simplify the rules and be inclusive without further modification as new renewable energy generation technologies come onto the scene, such as thermovoltaic from solar concentration which is not the same as production from waste heat.
- e) Answer 1 above would reduce the total cost of ownership for consumer renewable energy

production thereby increasing the ROI over a shorter period of time. Answer 2 a above would allow excess power generation to be shared which can share total cost of ownership across multiple residences. Answer 2 b above would significantly reduce consumer initial outlay. As technology improves and if the FPSC alters its rules to allow greater adoption the long term cost-effectiveness should be improved over traditional forms of generation. This would be particularly true for the more suburban to rural residential locations where traditional grid distribution tie can cost thousands of dollars just to have poles run down a road and a large scale distribution transformer installed for a small number of residences.

- f) There is no change in this regard.
  - g) If a consumer of residential electrical power is not penalized for far greater consumption than their neighbors then a producer of excess power should not be penalized by unduly burdensome costs for production.
- 3) Accomplish 1 and 2 above and check back again in a couple of years to see if any new efforts are needed to promote adoption.

Regards,

Monroe Pattillo