Putting Solar Energy To Work with the RPS

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The Vote Solar Initiative is a non-profit organization with the goal of fighting global warming and developing energy independence by bringing solar energy into the mainstream.

Key Points

- Distributed solar provides real & quantifiable benefits to the grid & people of Florida
- Florida should establish a solar roofs program aimed at creating self-sufficient solar industries
- With support, unsubsidized costs of PV (per kWh) will approach retail grid prices in the next decade

The Problem for Distributed Generation Solar

- Traditional RPS (whereby all eligible resources compete) can be effective in supporting least-cost projects
- Cost issues: wholesale rates versus customer-side retail rates
- Solicitation barriers for smaller projects

Governor Crist's Executive Order 127:

EO 127: open the market to clean, renewable energy technologies, thus avoiding future GHG through an RPS with "strong focus on solar"

DG Solar Should Receive Differential Treatment

- Why Distributed Generation?
  - Reliability & security
  - Reduce monthly energy bill
  - Systems located near loads helps defer T&D
  - Systems located near loads reduces T&D losses
  - With enough penetration, can defer capacity
- Why Solar?
  - Peak power benefits
  - Florida's best zero-emission energy generation resource
  - Unlimited technical potential: ubiquitous fuel, empty rooftops
  - In-state jobs

To be successful, support for solar must…

1. Long-term commitment (e.g. 10 years)
2. Predictable / reliable
3. Easy-to-use for all customers
4. Leverage private investment
5. Include large-scale commercial & small residential systems

. . . to encourage the private sector to invest significant capital to build the PV infrastructure for FL

Suggested Solar Requirement & Ramp-Up

- Start small in early years (0.003% PV + 0.117% ST in Y1)
- Ramp-up as costs decline and market builds momentum
- Reach 2% PV + 2% ST by Y12

RPS Target for Solar Electricity

Yearly Target	Total Solar Electricity Produced (MWh)	% of Total Retail Sales	Cumulative Solar Capacity Additions (MW)
Y1	6,603	0.003%	17
Y2	41,791	0.018%	43
Y3	88,017	0.038%	84
Y4	160,506	0.067%	149
Y5	274,257	0.113%	251
Y6	452,834	0.182%	411
Y7	733,255	0.289%	662
Y8	1,173,679	0.454%	1057
Y9	1,865,479	0.708%	1677
Y10	2,952,202	1.098%	2652
Y11	4,659,369	1.699%	4183
Y12	5,579,776	1.995%	4184

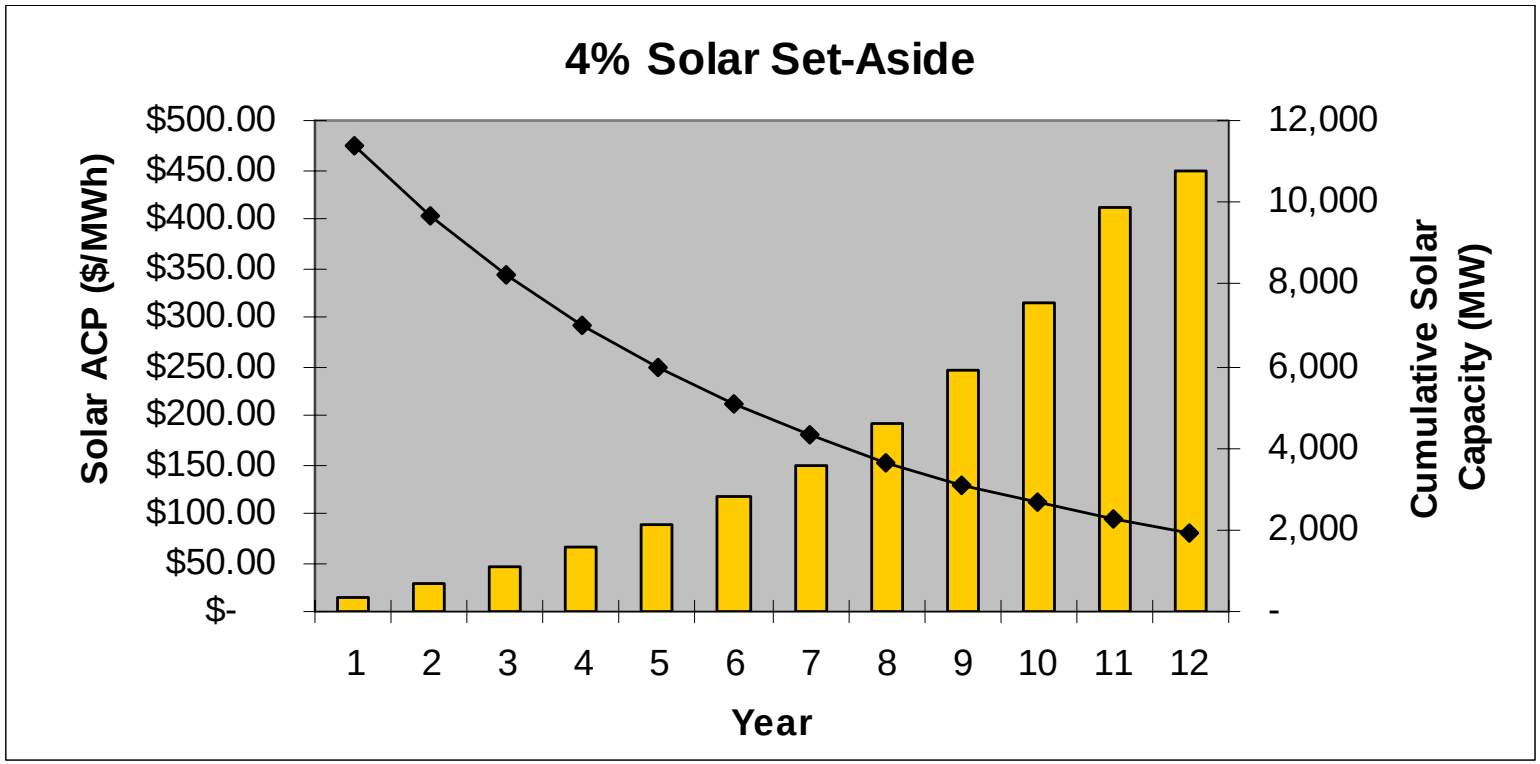
RPS Target for Solar Thermal

Yearly Target	Total Solar Electricity Produced (MWh equivalent)	% of Total Retail Sales	Cumulative Solar Capacity Additions (MW equivalent)
Y1	262,500	0.117%	313
Y2	550,471	0.240%	655
Y3	866,383	0.370%	1,031
Y4	1,212,949	0.508%	1,444
Y5	1,593,143	0.654%	1,897
Y6	2,010,227	0.809%	2,393
Y7	2,467,781	0.974%	2,938
Y8	2,969,732	1.149%	3,535
Y9	3,520,388	1.336%	4,191
Y10	4,124,474	1.534%	4,910
Y11	4,787,176	1.746%	5,699
Y12	5,514,180	1.971%	6,564

Key Elements

- Explicit annual renewable energy targets
- Compliance using Solar Renewable Energy Credits (SRECs)
- Safety valve: Solar Alternative Compliance Payment (SACP), set at a level higher than expected market price of SRECs and paid for each MWh shortfall
- Affordability cap provision – recommend a 1% “affordability cap” (i.e. no more than 1% of total electric revenues over life of the program)

Solar Objectives of 12-Year Solar Program



Design Objectives

- Stimulate demand
- Create self-sufficient industry
- Keep costs as low as possible

Funding for Small Commercial & Residential Systems

These customers would need an upfront incentive. Options for funding:

- Combination of an upfront rebate* & revenue from sale of RECs (NJ & CO)
- SRECs purchased upfront for lifetime production (MD)

* Rebate may be funded through a rider, SBC, or rates.

SBC funds and linkages the RPS/RE development:

- Directly fund above-market costs of RPS
- Support financing of projects
- Fund projects that RPS will not adequately support

What this Solar Program Would Achieve

- 4 GW of solar PV + 105 Million SF of ST
- Self-sufficient solar industry that can deliver systems that are competitive with retail electricity prices
- 60k + new jobs in the state
- Help meet climate change goals in EO 127
- Ratepayer protection by diversifying the energy mix, reducing expensive peak power costs, and hedging against increasing and volatile NG & oil prices
- Further protect ratepayers by capping total solar program costs at 1% of total revenues

Support for a large-scale solar rooftop program

Endorsements from:

- Union of Concerned Scientists
- Environment Florida
- Sierra Club
- Public Trust- Environmental Law Institute of Florida
- Republicans for the Environment
- Southern Alliance for Clean Energy
- Big Bend Climate Action Network
- Sarasota Network for Climate Action
- FlaSEIA
- Solar Alliance
- Ted Turner Enterprises
- Sebring Builders
- Avalon Plantation
- Davis, Pickren & Seydel, LLP
- Florida Green Building Coalition
- Environmental Law Society, University of Miami School of Law

- 11,000 individual supporters and growing...
- Mason-Dixon Poll