

Composite - RPS Response Sheet - August, 15th Meeting

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<b>SOURCE</b>	Company Name:		<b>Composite</b>	Florida Solar Coalition
	Applicable Utility Service Area (if any)		<b>Statewide</b>	Statewide
	Energy Resource: (Individual Type)		<b>Solar PV</b>	Solar - Photovoltaic
	Energy Resource Type: (Category)		<b>Renewable</b>	Commercial 10kW-30kW
	Resource Scale (Unit or Aggregate)		<b>Unit</b>	UNIT
	Unit Status (Existing or Planning)		<b>Planning</b>	existing
<b>COMMERCIAL AVAILABILITY</b>	Typical Unit Annual Capacity Rating (MW)		<b>0.1</b>	0.01-0.03
	Earliest Commercial In-Service Date (Year)		<b>2009</b>	2009
	Typical Construction & Permitting Time (Years)		<b>0.5</b>	.167 - .33
	Useful Life of Unit (Years)		<b>30</b>	30
	Fuel Type		<b>Solar Energy</b>	Sun
<b>PERFORMANCE CHARACTERISTICS</b>	Contribution to Summer Peak Demand (MW)		<b>0.06</b>	0.0055MW - 0.0165MW*
	Contribution to Winter Peak Demand (MW)		<b>0</b>	0.0015MW-0.0045MW*
	Average Annual Heat Rate (BTU/kWh)		<b>n/a</b>	N/A
	Equivalent Availability Factor (%)		<b>100</b>	90.00%
	Average Annual Generation (MWH)		<b>177.3</b>	14.32-43.96
	Resulting Capacity Factor (%)		<b>20</b>	16.34%**
<b>ENVIRONMENTAL CHARACTERISTICS</b>	Emission Rates	Carbon Dioxide (CO <sub>2</sub> ) (lb/kWh)	<b>0</b>	0
		Sulfur Dioxide (SO <sub>2</sub> ) (lb/kWh)	<b>0</b>	0
		Nitrogen Oxide (NO <sub>x</sub> ) (lb/kWh)	<b>0</b>	0
		Mercury (Hg) (lb/kWh)	<b>0</b>	0
		Water Usage (gal/kwh)	<b>0</b>	N/A
<b>ESTIMATED COST DATA</b>	Installed Capital	First Year of Commercial Operation (Year)	<b>2009</b>	2009
		Cost <sup>(1)</sup> (\$/kw)	<b>7000</b>	\$7,750.00
		Escalation Rate (%)	<b>-2.5</b>	N/A (Prices decline as project size increases)
	O & M - Fixed	Cost <sup>(1)</sup> (\$/kw-year)	<b>10</b>	\$17.59
		Escalation Rate (%)	<b>3</b>	3%
	O & M - Variable	Cost <sup>(1)</sup> (\$/kwh)	<b>n/a</b>	N/A
		Escalation Rate (%)	<b>n/a</b>	N/A
	Fuel	Cost <sup>(1)</sup> (\$/kwh)	<b>0</b>	Zero
		Escalation Rate (%)	<b>n/a</b>	N/A
		Discount Rate (%)	<b>6</b>	6%
	Levelized Cost <sup>(2)</sup> - Life of Unit (cents/kwh)	<b>30.6</b>	18.62/28.5***	

Composite may include edits

**Solar Coalition FOOTNOTES / ADDITIONAL NOTES**

Projected costs are based on the following assumptions:

- 1- A minimum 40% annual market growth year over year.
- 2- Raw materials and equipment manufacturing plants that are being upgraded or built will have ramped up to meet global demand
- 3- More installers will enter the market and they will increase their install efficiency so that their cost of installation per system would decrease
- 4- Cell efficiencies will be higher, which would increase the kWh production and reduce the levelized cost of energy.

\*55% in summer and 15% in winter - <http://www.asrc.cestm.albany.edu/perez/2006/elcc-06.pdf>

\*\*Capacity Factor based on midstate - Tampa FL

\*\*\* with/without federal investment tax credit, includes inverter replacement at 15 years

**PHOTOVOLTAIC - commercial**

Florida Solar Coalition	Florida Solar Coalition	Florida Solar Coalition	FL Solar Coalition
Statewide	Statewide	Statewide	Statewide
Solar - Photovoltaic	Solar - Photovoltaic	Solar - Photovoltaic	Solar - Photovoltaic
Commercial 30KW-100kW	Commercial 100kW-1MW	Commercial 1MW-2MW	Commercial 10kW-30kW
UNIT	UNIT	UNIT	UNIT
existing	existing	existing	Planning 2016
0.03-0.1	0.2-1.0	1.0-2.0	0.01-0.03
2009	2009	2009	2016
0.33-0.5	.5 - 1	.5-1	.167 - .33
30	30	30	30
Sun	Sun	Sun	Sun
0.0165MW-0.055MW	0.11MW-0.55MW*	0.55MW-1.1MW*	0.0055MW - 0.0165MW*
0.0045MW-0.015MW*	0.015MW-0.15MW*	0.15MW-0.3MW*	0.0015MW-0.0045MW*
N/A	N/A	N/A	N/A
90.00%	90.00%	90.00%	90.00%
43.96-143.2	296.4-1432	1432-2964	14.32-43.96
16.34%**	16.34%**	16.34%**	16.34%**
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
N/A	N/A	N/A	N/A
2009	2009	2009	2016
\$7,250.00	\$7,000.00	\$6,750.00	\$3,750.00/kW**
N/A (Prices decline as project size increases)	N/A (Prices decline as project size increases)	N/A (Prices decline as project size increases)	N/A (Prices decline as project size increases)
\$17.59	\$10.00	\$10.00	\$17.59
3%	3%	3%	3%
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
Zero	Zero	Zero	Zero
N/A	N/A	N/A	N/A
6%	6%	6%	6%
17.62/26.89***	16.53/25.46***	16.03/24.64***	9.27/14.05***

and the unit-cost production will be lower.  
 Id also be lower than it is today.