

RPS Data Form 1: Renewable Generating Technologies

Company Name: Florida Crystals

Applicable Utility Service Area: N/A

<b>Renewable Technologies</b>	
<b>Solar</b>	Photovoltaic (PV)
	Photoelectrochemical (H2)
	Thermal Electric Plant
<b>Wind</b>	Inland
	Coastal
	Offshore
<b>Hydroelectric</b>	Dam (Incremental)
	Diversion (Run of the River)
	Pumped Storage
<b>Geothermal</b>	Dry Steam
	Flash
	Binary
<b>Ocean Energy</b>	Wave Action
	Tidal Change
	Thermal Gradients (OTEC)
	Ocean Currents
<b>Biomass - Direct Combustion</b>	Plant Matter
	Animal Waste
	Vegetable Oil
<b>Biomass - Conversion to Liquid</b>	Biodiesel / Renewable Diesel
	Ethanol - Cellulosic
	Ethanol - Non-Cellulosic
	Pyrolysis
<b>Biomass - Conversion to Gas</b>	Anaerobic Digester
	Gasification
	Renewable Natural Gas
<b>Landfill Gas</b>	Methane Combustion
<b>Municipal Solid Waste</b>	Biogenic
	Non-Biogenic
<b>Hydrogen, renewable</b>	Fuel Cells
	Combustion
<b>Waste Heat</b>	Sulfuric Acid Manufacturing
<b>Other</b>	Other

RPS Data Form 2: Conventional Generating Technologies

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Company Name: Florida Crystals

Applicable Utility Service Area: N/A

<b>Conventional Technologies</b>	
<b>Natural Gas</b>	Combustion Turbine
	Combined Cycle
<b>Coal</b>	Integrated Gasified Combined Cycle
	Supercritical Pulverized Coal
<b>Nuclear</b>	Steam Generation
<b>Other</b>	Other

RPS Data Form 3: Commercial Availability Data

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Company Name:

Florida Crystals

Energy Resource:

Biomass Direct Combustion - Plant Matter

Typical Unit Annual Capacity Rating (MW)	80 MW
Earliest Commercial In-Service Date (Year)	2012
Typical Construction & Permitting Time (Years)	4 yrs.
Useful Life of Unit (Years)	30 yrs.
Fuel Type	Biomass

RPS Data Form 4: Performance Characteristics Data

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Company Name: Florida Crystals

Energy Resource: Biomass Direct Combustion - Plant Matter

Contribution to Summer Peak Demand (MW)	80 MW
Contribution to Winter Peak Demand (MW)	80 MW
Average Annual Heat Rate (BTU/kWh)	13,500 BTU/kWh.
Equivalent Availability Factor (%)	90%
Average Annual Generation (MWh)	630,000 MWh
Resulting Capacity Factor (%)	90%

RPS Data Form 5: Environmental Characteristics Data

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Company Name: Florida Crystals

Energy Resource: Biomass Direct Combustion - Plant Matter

Emission Rates	Carbon Dioxide (CO <sub>2</sub> ) (lb/kWh)	0
	Sulfur Dioxide (SO <sub>2</sub> ) (lb/kWh)	0.0008 lbs/kwh
	Nitrogen Oxide (NO <sub>x</sub> ) (lb/kWh)	0.002 lbs/kwh
	Mercury (Hg) (lb/kWh)	$7.3 \times 10^{-8}$ lbs/kwh
	Water Usage (gal/kwh)	design dependent 0.5 gals/kwh

RPS Data Form 6: Estimated Cost Data

Company Name:  
Energy Resource:

Florida Crystals  
Biomass Direct Combustion - Plant Matter

	First Year of Commercial Operation (Year)	2012
Installed Capital	Cost <sup>(1)</sup> (\$/kw)	\$2,700
	Escalation Rate (%)	3%
Fixed O & M	Cost <sup>(1)</sup> (\$/kw-year)	\$135
	Escalation Rate (%)	3%
Variable O & M	Cost <sup>(1)</sup> (\$/kwh)	0.5
	Escalation Rate (%)	3%
Energy	Cost <sup>(1)</sup> (\$/kwh)	4.4
	Escalation Rate (%)	3%
	Levelized Cost <sup>(2)</sup> - Life of Unit (cents/kwh)	12.0

(1) Expressed in year dollars associated with the first year of commercial operations

(2) Cumulative Present Value Total Revenue Requirements levelized over the life of the unit expressed in year dollars associated with the first year of commercial operation