

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:	OUC	
	Applicable Utility Service Area (if any)	Orlando	
	Energy Resource: (Individual Type)	Solar Photovoltaic (Utility Scale)	
	Energy Resource Type: (Category)	Renewable	
	Resource Scale (Unit or Aggregate)	UNIT	
	Unit Status (Existing or Planning)	Planning (not representative of specific project being considered by OUC)	
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating (MW)	3 MW	
	Earliest Commercial In-Service Date ⁽¹⁾ (Year)	2008	
	Typical Construction & Permitting Time ⁽²⁾ (Years)	N/A	
	Useful Life of Unit (Years)	20	
	Fuel Type	None	
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand (MW)	Dependant upon facility location and time of utility peak demand.	
	Contribution to Winter Peak Demand (MW)	Dependant upon facility location and time of utility peak demand.	
	Average Annual Heat Rate (BTU/kWh)	None	
	Equivalent Availability Factor (%)	19% (equal to capacity factor)	
	Average Annual Generation (MWh)	4,993	
	Resulting Capacity Factor ⁽³⁾ (%)	19.00%	
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂) (lb/kWh)	0
		Sulfur Dioxide (SO ₂) (lb/kWh)	0
		Nitrogen Oxide (NO _x) (lb/kWh)	0
		Mercury (Hg) (lb/kWh)	0
		Water Usage (gal/kwh)	0
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽⁴⁾ (Year)	N/A
		Cost (\$/kw)	\$5,640 - \$8,200 (2008 \$)
		Escalation Rate (%)	2.5%
	O & M - Fixed	Cost (\$/kw-year)	N/A - Refer to Variable O&M \$/kWh
		Escalation Rate (%)	2.5%
	O & M - Variable	Cost ⁽⁵⁾ (\$/kwh)	\$0.017 (2008 \$)
		Escalation Rate (%)	2.5%
	Fuel	Cost (\$/kwh)	\$0.00
		Escalation Rate (%)	2.5%
		Discount Rate (%)	8.0%
		Levelized Cost ⁽⁶⁾ - Life of Unit (cents/kwh)	37 ¢ - 53 ¢ (2008 ¢)
FOOTNOTES / ADDITIONAL NOTES			

(1) Solar PV is considered to be a demonstrated renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) Based on fixed (non-tracking) axis system. Single- or dual-axis tracking would likely increase capacity factor while increasing system costs.

(4) First year of commercial operation is dependant on the permitting and construction time.

(5) Data presented represents total O&M costs.

(6) The range of levelized costs is based on the capacity factor and O&M presented in the table above as well as the range of capital cost. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC
	Applicable Utility Service Area	(if any)	Orlando
	Energy Resource:	(Individual Type)	Wind (Onshore)
	Energy Resource Type:	(Category)	Renewable
	Resource Scale	(Unit or Aggregate)	UNIT
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating		(MW) 50 MW - 100 MW
	Earliest Commercial In-Service Date ⁽¹⁾		(Year) 2008
	Typical Construction & Permitting Time ⁽²⁾		(Years) N/A
	Useful Life of Unit		(Years) 20
	Fuel Type		None
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand		(MW) Dependant upon facility location and time of utility peak demand.
	Contribution to Winter Peak Demand		(MW) Dependant upon facility location and time of utility peak demand.
	Average Annual Heat Rate		(BTU/kWh) None
	Equivalent Availability Factor		(%) 10% - 15% (equal to capacity factor)
	Average Annual Generation		(MWh) 87,600 - 131,400 (for 100 MW facility) 43,800 - 65,700 (for 50 MW facility)
	Resulting Capacity Factor		(%) 10% - 15%
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh) 0
		Sulfur Dioxide (SO ₂)	(lb/kWh) 0
		Nitrogen Oxide (NO _x)	(lb/kWh) 0
		Mercury (Hg)	(lb/kWh) 0
		Water Usage	(gal/kwh) 0
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾	(Year) N/A
		Cost	(\$/kw) \$1,640 - \$1,950 (2008 \$)
		Escalation Rate	(%) 2.5%
	O & M - Fixed	Cost	(\$/kw-year) N/A - Refer to Variable O&M \$/kWh
		Escalation Rate	(%) 2.5%
	O & M - Variable	Cost ⁽⁴⁾	(\$/kwh) \$0.010 (2008 \$)
		Escalation Rate	(%) 2.5%
	Fuel	Cost	(\$/kwh) \$0.00
		Escalation Rate	(%) 2.5%
		Discount Rate	(%) 8.0%
		Levelized Cost ⁽⁵⁾ - Life of Unit	(cents/kwh) 14 ¢ - 24 ¢ (2008 ¢)
FOOTNOTES / ADDITIONAL NOTES			

(1) Onshore wind is considered to be a demonstrated renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) The range of levelized costs is based on the O&M presented in the table above as well as the ranges of capital costs, capacity factors, and unit capacity. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC	
	Applicable Utility Service Area	(if any)	Orlando	
	Energy Resource:	(Individual Type)	Wind (Offshore)	
	Energy Resource Type:	(Category)	Renewable	
	Resource Scale	(Unit or Aggregate)	UNIT	
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)	
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating		(MW) 20 MW	
	Earliest Commercial In-Service Date ⁽¹⁾		(Year) 2008	
	Typical Construction & Permitting Time ⁽²⁾		(Years) N/A	
	Useful Life of Unit		(Years) 20	
	Fuel Type		None	
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand		(MW) Dependant upon facility location and time of utility peak demand.	
	Contribution to Winter Peak Demand		(MW) Dependant upon facility location and time of utility peak demand.	
	Average Annual Heat Rate		(BTU/kWh) None	
	Equivalent Availability Factor		(%) 34% - 38% (equal to capacity factor)	
	Average Annual Generation		(MWH) 63,072	
	Resulting Capacity Factor		(%) 34% - 38%	
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh) 0	
		Sulfur Dioxide (SO ₂)	(lb/kWh) 0	
		Nitrogen Oxide (NO _x)	(lb/kWh) 0	
		Mercury (Hg)	(lb/kWh) 0	
		Water Usage	(gal/kwh) 0	
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾		(Year) N/A
		Cost ⁽⁴⁾		(\$/kw) \$2,460 - \$2,870 (2008 \$)
		Escalation Rate		(%) 2.5%
	O & M - Fixed	Cost		(\$/kw-year) N/A - Refer to Variable O&M \$/kWh
		Escalation Rate		(%) 2.5%
	O & M - Variable	Cost ⁽⁵⁾		(\$/kwh) \$0.015 (2008 \$)
		Escalation Rate		(%) 2.5%
	Fuel	Cost		(\$/kwh) \$0.00
		Escalation Rate		(%) 2.5%
		Discount Rate		(%) 8.0%
		Levelized Cost ⁽⁶⁾ - Life of Unit		(cents/kwh) 9 ¢ - 12 ¢ (2008 ¢)
FOOTNOTES / ADDITIONAL NOTES				

(1) Offshore wind is considered to be in the early stages of commercial demonstration.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Does not include capital costs related to transmission.

(5) Data presented represents total O&M costs.

(6) The range of levelized costs is based on the O&M presented in the table above as well as the ranges of capital costs and capacity factors. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC	
	Applicable Utility Service Area	(if any)	Orlando	
	Energy Resource:	(Individual Type)	Incremental Hydroelectric	
	Energy Resource Type:	(Category)	Renewable	
	Resource Scale	(Unit or Aggregate)	UNIT	
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)	
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating	(MW)	1 MW - 160 MW	
	Earliest Commercial In-Service Date ⁽¹⁾	(Year)	2008	
	Typical Construction & Permitting Time ⁽²⁾	(Years)	N/A	
	Useful Life of Unit	(Years)	30	
	Fuel Type		None	
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand	(MW)	1 MW - 160 MW	
	Contribution to Winter Peak Demand	(MW)	1 MW - 160 MW	
	Average Annual Heat Rate	(BTU/kWh)	None	
	Equivalent Availability Factor	(%)	40% - 60% (equal to capacity factor)	
	Average Annual Generation	(MWh)	560,640 - 840,960 (for 160 MW facility) 3,504 - 5,256 (for 1 MW facility)	
	Resulting Capacity Factor	(%)	40% - 60%	
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh)	0
		Sulfur Dioxide (SO ₂)	(lb/kWh)	0
		Nitrogen Oxide (NO _x)	(lb/kWh)	0
		Mercury (Hg)	(lb/kWh)	0
		Water Usage	(gal/kwh)	Not Available
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾	(Year)	N/A
		Cost	(\$/kw)	\$630 - \$3,050 (2008 \$)
	O & M - Fixed	Escalation Rate	(%)	2.5%
		Cost	(\$/kw-year)	\$5.20 - \$26.20 (2008 \$)
	O & M - Variable	Escalation Rate	(%)	2.5%
		Cost	(\$/kwh)	\$0.0037 - \$0.0064 (2008 \$)
	Fuel	Escalation Rate	(%)	2.5%
		Cost	(\$/kwh)	\$0.00
		Discount Rate	(%)	8.0%
		Levelized Cost ⁽⁴⁾ - Life of Unit	(cents/kwh)	2 ¢ - 11 ¢ (2008 ¢)
FOOTNOTES / ADDITIONAL NOTES				

(1) Hydroelectric is considered to be a demonstrated renewable technology. However, Florida does not have the natural resources required to develop any new hydroelectric generation facilities.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) The range of levelized costs is based on the ranges of O&M presented in the table above as well as the ranges of capital costs, capacity factors, and unit capacity. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE		Company Name:	OUC
		Applicable Utility Service Area (if any)	Orlando
		Energy Resource: (Individual Type)	Geothermal (Binary)
		Energy Resource Type: (Category)	Renewable
		Resource Scale (Unit or Aggregate)	UNIT
		Unit Status (Existing or Planning)	Planning (not representative of specific project being considered by OUC)
COMMERCIAL AVAILABILITY		Typical Unit Annual Capacity Rating (MW)	30 MW
		Earliest Commercial In-Service Date ⁽¹⁾ (Year)	2008
		Typical Construction & Permitting Time ⁽²⁾ (Years)	N/A
		Useful Life of Unit (Years)	20
		Fuel Type	None
PERFORMANCE CHARACTERISTICS		Contribution to Summer Peak Demand (MW)	30 MW
		Contribution to Winter Peak Demand (MW)	30 MW
		Average Annual Heat Rate (BTU/kWh)	None
		Equivalent Availability Factor (%)	70% - 90% (equal to capacity factor)
		Average Annual Generation (MWh)	183,960 - 236,520
		Resulting Capacity Factor (%)	70% - 90%
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂) (lb/kWh)	0
		Sulfur Dioxide (SO ₂) (lb/kWh)	0
		Nitrogen Oxide (NO _x) (lb/kWh)	0
		Mercury (Hg) (lb/kWh)	0
		Water Usage (gal/kwh)	Not Available
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾ (Year)	N/A
		Cost (\$/kw)	\$3,075 - \$4,100 (2008 \$)
	O & M - Fixed	Escalation Rate (%)	2.5%
		Cost ⁽⁴⁾ (\$/kw-year)	\$25.60 - \$30.75 (2008 \$)
	O & M - Variable	Escalation Rate (%)	2.5%
		Cost (\$/kwh)	N/A - Refer to Fixed O&M \$/kW-yr
	Fuel	Escalation Rate (%)	2.5%
		Cost (\$/kwh)	\$0.00
		Discount Rate (%)	8.0%
		Levelized Cost ⁽⁵⁾ - Life of Unit (cents/kwh)	4.5 ¢ - 7.5 ¢ (2008 ¢)

FOOTNOTES / ADDITIONAL NOTES

(1) Geothermal is considered to be a demonstrated renewable technology. However, there are minimal geothermal resources available east of the Mississippi River, and no resources suitable for power generation or direct heat applications in Florida.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) The range of levelized costs is based on the range of O&M costs presented in the table above as well as the ranges of capital costs and capacity factors. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC	
	Applicable Utility Service Area	(if any)	Orlando	
	Energy Resource:	(Individual Type)	Ocean Wave	
	Energy Resource Type:	(Category)	Renewable	
	Resource Scale	(Unit or Aggregate)	UNIT	
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)	
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating	(MW)	10 MW	
	Earliest Commercial In-Service Date ⁽¹⁾	(Year)	N/A	
	Typical Construction & Permitting Time ⁽²⁾	(Years)	N/A	
	Useful Life of Unit ⁽¹⁾	(Years)	N/A	
	Fuel Type		None	
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand	(MW)	Dependant upon facility location and time of utility peak demand.	
	Contribution to Winter Peak Demand	(MW)	Dependant upon facility location and time of utility peak demand.	
	Average Annual Heat Rate	(BTU/kWh)	None	
	Equivalent Availability Factor	(%)	40% (equal to capacity factor)	
	Average Annual Generation	(MWh)	35,040	
	Resulting Capacity Factor	(%)	40%	
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh)	0
		Sulfur Dioxide (SO ₂)	(lb/kWh)	0
		Nitrogen Oxide (NO _x)	(lb/kWh)	0
		Mercury (Hg)	(lb/kWh)	0
		Water Usage	(gal/kwh)	Not Available
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾	(Year)	N/A
		Cost	(\$/kw)	\$3,590 - \$4,610 (2008 \$)
		Escalation Rate	(%)	2.5%
	O & M - Fixed	Cost	(\$/kw-year)	N/A - Refer to Variable O&M \$/kWh
		Escalation Rate	(%)	2.5%
	O & M - Variable	Cost ⁽⁴⁾	(\$/kwh)	\$0.046 - \$0.062 (2008 \$)
		Escalation Rate	(%)	2.5%
	Fuel	Cost	(\$/kwh)	\$0.00
		Escalation Rate	(%)	2.5%
		Discount Rate	(%)	8.0%
	Levelized Cost ⁽⁵⁾ - Life of Unit	(cents/kwh)	16 ¢ - 21 ¢ (2008 ¢)	
FOOTNOTES / ADDITIONAL NOTES				

(1) Wave energy technology has not yet been demonstrated and is therefore not considered a commercially available renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) The range of levelized costs is based on the range of O&M costs presented in the table above as well as the range of capital costs. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC
	Applicable Utility Service Area	(if any)	Orlando
	Energy Resource:	(Individual Type)	Ocean Thermal Energy Conversion (Onshore)
	Energy Resource Type:	(Category)	Renewable
	Resource Scale	(Unit or Aggregate)	UNIT
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating		(MW) 10 MW
	Earliest Commercial In-Service Date ⁽¹⁾		(Year) N/A
	Typical Construction & Permitting Time ⁽²⁾		(Years) N/A
	Useful Life of Unit ⁽¹⁾		(Years) N/A
	Fuel Type		None
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand		(MW) Dependant upon facility location and time of utility peak demand.
	Contribution to Winter Peak Demand		(MW) Dependant upon facility location and time of utility peak demand.
	Average Annual Heat Rate		(BTU/kWh) None
	Equivalent Availability Factor		(%) 90% (equal to capacity factor)
	Average Annual Generation		(MWH) 78,840
	Resulting Capacity Factor		(%) 90%
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh) 0
		Sulfur Dioxide (SO ₂)	(lb/kWh) 0
		Nitrogen Oxide (NO _x)	(lb/kWh) 0
		Mercury (Hg)	(lb/kWh) 0
		Water Usage	(gal/kwh) Not Available
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾	(Year) N/A
		Cost	(\$/kw) \$10,500 - \$15,760 (2008 \$)
		Escalation Rate	(%) 2.5%
	O & M - Fixed	Cost	(\$/kw-year) N/A - Refer to Variable O&M \$/kWh
		Escalation Rate	(%) 2.5%
	O & M - Variable	Cost ⁽⁴⁾	(\$/kwh) \$0.014 - \$0.026 (2008 \$)
		Escalation Rate	(%) 2.5%
	Fuel	Cost	(\$/kwh) \$0.00
		Escalation Rate	(%) 2.5%
		Discount Rate	(%) 8.0%
		Levelized Cost ⁽⁵⁾ - Life of Unit	(cents/kwh) 14 ¢ - 24 ¢ (2008 ¢)
FOOTNOTES / ADDITIONAL NOTES			

(1) Ocean thermal energy conversion technology has not yet been demonstrated and is therefore not considered a commercially available renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) The range of levelized costs is based on the range of O&M costs presented in the table above as well as the range of capital costs. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC	
	Applicable Utility Service Area	(if any)	Orlando	
	Energy Resource:	(Individual Type)	Ocean Thermal Energy Conversion (Offshore)	
	Energy Resource Type:	(Category)	Renewable	
	Resource Scale	(Unit or Aggregate)	UNIT	
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)	
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating	(MW)	100 MW	
	Earliest Commercial In-Service Date ⁽¹⁾	(Year)	N/A	
	Typical Construction & Permitting Time ⁽²⁾	(Years)	N/A	
	Useful Life of Unit ⁽¹⁾	(Years)	N/A	
	Fuel Type		None	
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand	(MW)	Dependant upon facility location and time of utility peak demand.	
	Contribution to Winter Peak Demand	(MW)	Dependant upon facility location and time of utility peak demand.	
	Average Annual Heat Rate	(BTU/kWh)	None	
	Equivalent Availability Factor	(%)	90% (equal to capacity factor)	
	Average Annual Generation	(MWh)	788,400	
	Resulting Capacity Factor	(%)	90%	
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh)	0
		Sulfur Dioxide (SO ₂)	(lb/kWh)	0
		Nitrogen Oxide (NO _x)	(lb/kWh)	0
		Mercury (Hg)	(lb/kWh)	0
		Water Usage	(gal/kwh)	Not Available
ESTIMATED COST DATA		First Year of Commercial Operation ⁽³⁾	(Year)	N/A
	Installed Capital	Cost	(\$/kw)	\$2,630 - \$5,250 (2008 \$)
		Escalation Rate	(%)	2.5%
	O & M - Fixed	Cost	(\$/kw-year)	N/A - Refer to Variable O&M \$/kWh
		Escalation Rate	(%)	2.5%
	O & M - Variable	Cost ⁽⁴⁾	(\$/kwh)	\$0.014 - \$0.026 (2008 \$)
		Escalation Rate	(%)	2.5%
	Fuel	Cost	(\$/kwh)	\$0.00
		Escalation Rate	(%)	2.5%
		Discount Rate	(%)	8.0%
	Levelized Cost ⁽⁵⁾ - Life of Unit	(cents/kwh)	5 ¢ - 10 ¢ (2008 ¢)	
FOOTNOTES / ADDITIONAL NOTES				

(1) Ocean thermal energy conversion technology has not yet been demonstrated and is therefore not considered a commercially available renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) The range of levelized costs is based on the range of O&M costs presented in the table above as well as the range of capital costs. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

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SOURCE	Company Name:	OUC
	Applicable Utility Service Area (if any)	Orlando
	Energy Resource: (Individual Type)	Direct-Fired Biomass
	Energy Resource Type: (Category)	Renewable
	Resource Scale (Unit or Aggregate)	UNIT
	Unit Status (Existing or Planning)	Planning (not representative of specific project being considered by OUC)
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating (MW)	35 MW
	Earliest Commercial In-Service Date ⁽¹⁾ (Year)	2008
	Typical Construction & Permitting Time ⁽²⁾ (Years)	N/A
	Useful Life of Unit (Years)	20
	Fuel Type	Wood Waste
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand (MW)	35 MW
	Contribution to Winter Peak Demand (MW)	35 MW
	Average Annual Heat Rate (BTU/kWh)	13,500
	Equivalent Availability Factor (%)	70% - 90% (Equal to capacity factor)
	Energy Resource: (Individual Type)	Direct-Fired Biomass
	Energy Resource Type: (Category)	Renewable
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	
	Resource Scale (Unit or Aggregate)	UNIT
	Unit Status (Existing or Planning)	Planning (not representative of specific project being considered by OUC)
	Typical Unit Annual Capacity Rating (MW)	35 MW
	Earliest Commercial In-Service Date ⁽¹⁾ (Year)	2008
ESTIMATED COST DATA	Typical Construction & Permitting Time ⁽²⁾ (Years)	N/A
	Useful Life of Unit (Years)	20
	Installed Capital	
	Fuel Type	Wood Waste
	O & M - Fixed	
	Contribution to Summer Peak Demand (MW)	35 MW
	Contribution to Winter Peak Demand (MW)	35 MW
	Average Annual Heat Rate (BTU/kWh)	13,500
	O & M - Variable	
	Equivalent Availability Factor (%)	70% - 90% (Equal to capacity factor)
	Average Annual Generation (MWH)	214,620 - 275,940
	Fuel	
	Resulting Capacity Factor (%)	70% - 90%
Carbon Dioxide (CO ₂) (lb/kWh)	3.0 (biomass may be considered CO ₂ neutral)	
Sulfur Dioxide (SO ₂) (lb/kWh)	0.0014	
Nitrogen Oxide (NO _x) (lb/kWh)	0.002	
Mercury (Hg) (lb/kWh)	Negligible	

FOOTNOTES / ADDITIONAL NOTES

(1) Direct-fired biomass is considered to be a demonstrated renewable technology. Water Usage (gal/kWh) 0.7

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependent on the permitting and construction time. First Year of Commercial Operation (Year) N/A

(4) The range of levelized costs is based on the range of O&M presented in the table above as well as the range of capital costs and capacity factors. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

Escalation Rate (%) 2.5%

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC	
	Applicable Utility Service Area	(if any)	Orlando	
	Energy Resource:	(Individual Type)	Biomass IGCC	
	Energy Resource Type:	(Category)	Renewable	
	Resource Scale	(Unit or Aggregate)	UNIT	
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)	
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating	(MW)	35 MW	
	Earliest Commercial In-Service Date ⁽¹⁾	(Year)	N/A	
	Typical Construction & Permitting Time ⁽²⁾	(Years)	N/A	
	Useful Life of Unit	(Years)	20	
	Fuel Type		Wood Waste	
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand	(MW)	35 MW	
	Contribution to Winter Peak Demand	(MW)	35 MW	
	Average Annual Heat Rate	(BTU/kWh)	10,000 - 11,500	
	Equivalent Availability Factor	(%)	60% - 80% (Equal to capacity factor)	
	Average Annual Generation	(MWH)	183,960 - 245,280	
	Resulting Capacity Factor	(%)	60% - 80%	
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh)	2.2 @ 10,000 Btu/kWh (biomass may be considered CO ₂ neutral) 2.5 @ 11,500 Btu/kWh (biomass may be considered CO ₂ neutral)
		Sulfur Dioxide (SO ₂)	(lb/kWh)	0.0005 - 0.001 @ 10,000 Btu/kWh 0.0006 - 0.001 @ 11,500 Btu/kWh
		Nitrogen Oxide (NO _x)	(lb/kWh)	0.001
		Mercury (Hg)	(lb/kWh)	Negligible
	Water Usage	(gal/kwh)	0.7	
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾	(Year)	N/A
		Cost	(\$/kw)	\$3,075 - \$4,100 (2008 \$)
	O & M - Fixed	Escalation Rate	(%)	2.5%
		Cost	(\$/kw-year)	\$85.00
	O & M - Variable	Escalation Rate	(%)	2.5%
		Cost	(\$/kwh)	\$0.011 (2008 \$)
	Fuel	Escalation Rate	(%)	2.5%
		Cost	(\$/kwh)	0.023 (2008 \$) @ 10,000 Btu/kWh 0.026 (2008 \$) @ 11,500 Btu/kWh
		Discount Rate	(%)	8.0%
		Levelized Cost ⁽⁴⁾ - Life of Unit	(cents/kwh)	10 ¢ - 14.5 ¢ (2008 ¢)
	FOOTNOTES / ADDITIONAL NOTES			

(1) Biomass IGCC is not yet considered to be a demonstrated renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) The range of levelized costs is based on the O&M presented in the table above as well as the range of capital costs, capacity factors, and heat rates. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE	Company Name:		OUC
	Applicable Utility Service Area	(if any)	Orlando
	Energy Resource:	(Individual Type)	Farm Scale Anaerobic Digestion
	Energy Resource Type:	(Category)	Renewable
	Resource Scale	(Unit or Aggregate)	UNIT
	Unit Status	(Existing or Planning)	Planning (not representative of specific project being considered by OUC)
COMMERCIAL AVAILABILITY	Typical Unit Annual Capacity Rating		(MW) 0.150 MW
	Earliest Commercial In-Service Date ⁽¹⁾		(Year) 2008
	Typical Construction & Permitting Time ⁽²⁾		(Years) N/A
	Useful Life of Unit		(Years) 20
	Fuel Type		Animal Manure
PERFORMANCE CHARACTERISTICS	Contribution to Summer Peak Demand		(MW) 0.150 MW
	Contribution to Winter Peak Demand		(MW) 0.150 MW
	Average Annual Heat Rate		(BTU/kWh) 10,000
	Equivalent Availability Factor		(%) 70% - 90% (Equal to capacity factor)
	Average Annual Generation		(MWH) 214,620 - 275,940
	Resulting Capacity Factor		(%) 70% - 90%
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂)	(lb/kWh) 2.3 (may be considered CO ₂ neutral)
		Sulfur Dioxide (SO ₂)	(lb/kWh) 0.00028 - 0.033 (depends on fuel source)
		Nitrogen Oxide (NO _x)	(lb/kWh) 0.002
		Mercury (Hg)	(lb/kWh) 0
		Water Usage	(gal/kwh) Not Available
ESTIMATED COST DATA	Installed Capital	First Year of Commercial Operation ⁽³⁾	(Year) N/A
		Cost	(\$/kw) \$4,100 - \$6,150 (2008 \$)
		Escalation Rate	(%) 2.5%
	O & M - Fixed	Cost	(\$/kw-year) N/A - Refer to Variable O&M \$/kWh
		Escalation Rate	(%) 2.5%
	O & M - Variable	Cost ⁽⁴⁾	(\$/kwh) \$0.017 (2008 \$)
		Escalation Rate	(%) 2.5%
	Fuel	Cost ⁽⁵⁾	(\$/kwh) \$0.00
		Escalation Rate	(%) 2.5%
		Discount Rate	(%) 8.0%
	Levelized Cost ⁽⁶⁾ - Life of Unit	(cents/kwh) 7.4 ¢ - 12.4 ¢ (2008 ¢)	
FOOTNOTES / ADDITIONAL NOTES			

(1) Farm-scale anaerobic digestion is considered to be a demonstrated renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) Assumes no fuel cost as animal manure would be burned on-site.

(6) The range of levelized costs is based on the O&M presented in the table above as well as the range of capital costs and capacity factors. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.

RPS Response Sheet - General Information and Technology Characteristics

SOURCE		Company Name:	OUC
		Applicable Utility Service Area (if any)	Orlando
		Energy Resource: (Individual Type)	Landfill Gas
		Energy Resource Type: (Category)	Renewable
		Resource Scale (Unit or Aggregate)	UNIT
		Unit Status (Existing or Planning)	Planning (not representative of specific project being considered by OUC)
COMMERCIAL AVAILABILITY		Typical Unit Annual Capacity Rating (MW)	2 MW - 10 MW
		Earliest Commercial In-Service Date ⁽¹⁾ (Year)	2008
		Typical Construction & Permitting Time ⁽²⁾ (Years)	N/A
		Useful Life of Unit (Years)	15
		Fuel Type	Landfill Gas (methane)
PERFORMANCE CHARACTERISTICS		Contribution to Summer Peak Demand (MW)	2 MW - 10 MW
		Contribution to Winter Peak Demand (MW)	2 MW - 10 MW
		Average Annual Heat Rate (BTU/kWh)	10,000
		Equivalent Availability Factor (%)	70% - 90% (Equal to capacity factor)
		Average Annual Generation (MWH)	12,264 - 15,768 (for 2 MW facility) 61,320 - 78,840 (for 10 MW facility)
		Resulting Capacity Factor (%)	70% - 90%
ENVIRONMENTAL CHARACTERISTICS	Emission Rates	Carbon Dioxide (CO ₂) (lb/kWh)	2.3 (may be considered CO ₂ neutral)
		Sulfur Dioxide (SO ₂) (lb/kWh)	0.00028 - 0.033 (depends on fuel source)
		Nitrogen Oxide (NO _x) (lb/kWh)	0.002
		Mercury (Hg) (lb/kWh)	0
		Water Usage (gal/kwh)	Not Available
ESTIMATED COST DATA		First Year of Commercial Operation ⁽³⁾ (Year)	N/A
	Installed Capital	Cost (\$/kw)	\$1,370 - \$2,840 (2008 \$)
		Escalation Rate (%)	2.5%
	O & M - Fixed	Cost (\$/kw-year)	N/A - Refer to Variable O&M \$/kWh
		Escalation Rate (%)	2.5%
	O & M - Variable	Cost ⁽⁴⁾ (\$/kwh)	\$0.016 (2008 \$)
		Escalation Rate (%)	2.5%
	Fuel	Cost ⁽⁵⁾ (\$/kwh)	\$0.00
		Escalation Rate (%)	2.5%
		Discount Rate (%)	8.0%
		Levelized Cost ⁽⁶⁾ - Life of Unit (cents/kwh)	3.7 ¢ - 6.7 ¢ (2008 ¢)
FOOTNOTES / ADDITIONAL NOTES			

(1) Landfill gas is considered to be a demonstrated renewable technology.

(2) Construction and permitting time depends on location selected for construction.

(3) First year of commercial operation is dependant on the permitting and construction time.

(4) Data presented represents total O&M costs.

(5) Assumes no fuel cost as costs of gas collection system are included in the capital cost.

(6) The range of levelized costs is based on the O&M presented in the table above as well as the range of capital costs and capacity factors. Levelized costs are calculated by taking the annual cost per kWh of generation, discounting each year's annual costs back to 2008 dollars and summing the annual present worth costs, and then dividing through by the sum of the present worth factors.