Public Service Company of New Hampshire
Docket No. DE 10-195

Data Request OCA-02

Dated: 10/25/2010
Q-OCA-001

Witness: Richard C. Labrecque
Request from: Office of Consumer Advocate

Question:
Referring to PSNH's response to OCA 1-3, pages 7-8, please expand the forecasts for Energy Service and Capacity through the year 2020, and include the Energy and Capacity amounts to be acquired from Laidlaw.

Response:
PSNH does not have the Energy and Capacity forecasts available through 2020 since the analysis was performed in support of the 2010 Least Cost Integrated Resource Plan filing, DE 10-261. However, PSNH has revised the analysis previously provided to include the energy and capacity amounts with and without Laidlaw.

Claimed Capability Rating by Unit

	Fuel Type	Renewable	REC-Eligible	Winter Rating (MW)	Summer Rating (MW)	Interest (%)	Winter Entitlement (MW)	Summer Entitlement (MW)	Expiration Date
Fossil Detail									
Merrimack Unit 1	Coal	No	No	114.000	112.500	100%	114.000	112.500	
Merrimack Unit 2	Coal	No	No	337.200	320.000	100%	337.200	320.000	
Newington	Oil/Natural Gas	No	No	400.200	400.200	100%	400.200	400.200	
Schiller Unit 4	Coal/Oil	No	No	48.000	47.500	100%	48.000	47.500	
Schiller Unit 6	Coal/Oil	No	No	48.580	47.938	100%	48.580	47.938	
Total Fossil				947.980	928.138		947.980	928.138	
Hydro Detail									
Amoskeag	Hydro	Yes	No	17.500	15.818	100%	17.500	15.818	
Ayers Island	Hydro	Yes	No	9.080	7.899	100%	9.080	7.899	
Caanan	Hydro	Yes	No	1.100	1.100	100%	1.100	1.100	
Eastman Falls	Hydro	Yes	No	6.470	5.132	100%	6.470	5.132	
Garvins Falls/Hooksett	Hydro	Yes	No	14.000	11.595	100%	14.000	11.595	
Gorham	Hydro	Yes	No	2.050	1.951	100%	2.050	1.951	
Jackman	Hydro	Yes	No	3.305	2.362	100%	3.305	2.362	
Smith	Hydro	Yes	Yes - Upgrade portion only	17.600	11.469	100%	17.600	11.469	
Total Hydro				71.105	57.326		71.105	57.326	
Biomass Detail									
Schiller Unit 5	Biomass	Yes	Yes - Sold in MA	45.816	43.082	100%	45.816	43.082	
Total Biomass				45.816	43.082		45.816	43.082	

Jet Detail	Fuel Type	Renewable	REC-Eligible	Winter Rating (MW)	Summer Rating (MW)	Interest (%)	Winter Entitlement (MW)	Summer Entitlement (MW)	Expiration Date
Merrimack CT 1	Jet Fuel	No	No	21.676	16.826	100%	21.676	16.826	
Merrimack CT 2	Jet Fuel	No	No	21.304	16.804	100%	21.304	16.804	
Schiller CT	Jet Fuel	No	No	19.500	17.621	100%	19.500	17.621	
Lost Nation	Jet Fuel	No	No	18.082	14.069	100%	18.082	14.069	
White Lake	Jet Fuel	No	No	22.397	17.447	100%	22.397	17.447	
Total Jet				102.959	82.767		102.959	82.767	
Jointly Owned Purchase Power Contracts									
Vermont Yankee	Nuclear	No	No	628.000	604.250	3.32%	20.878	20.088	Apr-2012
Wyman 4	Oil	No	No	610.375	603.488	3.14%	19.186	18.970	
Total Joint Ownership				1,238.375	1,207.738		40.064	39.058	
Long-Term IPP Contracts									
West Hopkinton Hydro	Hydro	Yes	No	1.250	0.396	100%	1.250	0.396	Oct-2012
Garland Mill	Hydro	Yes	No	0.000	0.000	100%	0.000	0.000	Oct-2012
Rollinsford Hydro	Hydro	Yes	No	4.615	2.803	100%	4.615	2.803	Sep-2013
Penacook Lower Falls	Hydro	Yes	No	1.500	0.774	100%	1.500	0.774	Sep-2013
Great Falls Lower	Hydro	Yes	No	1.100	0.366	100%	1.100	0.366	Apr-2014
Newfound Hydro	Hydro	Yes	No	1.367	0.649	100%	1.367	0.649	Aug-2014
Nashua Hydro	Hydro	Yes	No	0.840	0.803	100%	0.840	0.803	Dec-2014
Steels Pond Hydro	Hydro	Yes	No	0.975	0.190	100%	0.975	0.190	Dec-2014
Watson Dam	Hydro	Yes	No	0.250	0.049	100%	0.250	0.049	Dec-2014
Sugar River Hydro	Hydro	Yes	No	0.150	0.000	100%	0.150	0.000	Jan-2015
Four Hills Landfill	Landfill Gas	Yes	No	0.307	0.000	100%	0.307	0.000	Dec-2015
Peterborough Lower Hydro	Hydro	Yes	No	0.284	0.000	100%	0.284	0.000	Mar-2016
Peterborough Upper Hydro	Hydro	Yes	No	0.400	0.000	100%	0.400	0.000	Dec-2017
WES Concord MSW	Trash	No	No	12.761	12.159	100%	12.761	12.159	Dec-2017
Penacook Upper Falls	Hydro	Yes	No	3.600	1.938	100%	3.600	1.938	Dec-2018
Briar Hydro	Hydro	Yes	No	5.000	2.588	100%	5.000	2.588	Dec-2021
Errol Dam	Hydro	Yes	No	3.000	2.101	100%	3.000	2.101	Dec-2022
Total Long-Term IPPs				37.399	24.816		37.399	24.816	Dec-2023

	Fuel Type	Renewable	REC-Eligible	Winter Rating (MW)	Summer Rating (MW)	Interest (%)	Winter Entitlement (MW)	Summer Entitlement (MW)	Expiration Date
Power Purchase Agreements									
Bethlehem Power	Biomass	Yes	Yes - NH Class III	15.700	15.524	100%	15.700	15.524	Dec-2010
Tamworth Power	Biomass	Yes	Yes - NH Class III	19.892	20.106	100%	19.892	20.106	Dec-2010
Lempster Wind	Wind	Yes	Yes - NH Class I	23.500	2.629	90%	21.150	2.366	Sep-2027
Laidlaw	Biomass	Yes		58.000	58.000	100%	58.000	58.000	Dec-2030
Total Power Purchase Agreements				117.092	96.259		114.742	95.996	
IPP Replacement Power Contracts									
BioEnergy Buyout		No	No	10.00	10.00	100.00%	10.00	10.00	2015
Total Replacement IPPs				10.000	10.000		10.000	10.000	
Short Term IPPs:									
Franklin Falls	Hydro	Yes	No	0.800	0.498	100%	0.800	0.498	
Salmon Falls Hydro	Hydro	Yes	No	0.880	0.393	100%	0.880	0.393	
Swans Falls Hydro	Hydro	Yes	No	0.410	0.410	100%	0.410	0.410	
Stevens Mill	Hydro	Yes	No	0.225	0.184	100%	0.225	0.184	
Cocheco Falls	Hydro	Yes	No	0.458	0.299	100%	0.458	0.299	
China Mills Dam	Hydro	Yes	No	0.734	0.174	100%	0.734	0.174	
Milton Mills Hydro	Hydro	Yes	No	1.510	0.958	100%	1.510	0.958	
Sunapee Hydro	Hydro	Yes	No	0.591	0.159	100%	0.591	0.159	
Greggs Falls	Hydro	Yes	No	2.735	0.958	100%	2.735	0.958	
Mine Falls	Hydro	Yes	No	2.372	0.827	100%	2.372	0.827	
Hillsboro Mills	Hydro	Yes	No	0.568	0.088	100%	0.568	0.088	
Lakeport Dam	Hydro	Yes	No	0.720	0.484	100%	0.720	0.484	
Lisbon Hydro	Hydro	Yes	No	0.800	0.293	100%	0.800	0.293	
Lower Robertson Dam	Hydro	Yes	No	0.900	0.562	100%	0.900	0.562	
Marlow Hydro	Hydro	Yes	No	0.150	0.150	100%	0.150	0.150	
Great Falls Upper	Hydro	Yes	No	2.075	0.150	100%	2.075	0.150	
Waterloom Falls	Hydro	Yes	No	0.080	0.020	100%	0.080	0.020	
Hosiery Mill Dam	Hydro	Yes	No	1.250	0.307	100%	1.250	0.307	
Wyandotte Hydro	Hydro	Yes	No	0.150	0.007	100%	0.150	0.007	
Clement Dam	Hydro	Yes	No	2.400	1.115	100%	2.400	1.115	
Lochmere Dam	Hydro	Yes	No	1.025	0.657	100%	1.025	0.657	

Short Term IPPs (cont'd):	Fuel Type	Renewable	REC-Eligible	Winter Rating (MW)	Summer Rating (MW)	Interest (%)	Winter Entitlement (MW)	Summer Entitlement (MW)	Expiration Date
Ashuelot Hydro	Hydro	Yes	No	0.930	0.578	100%	0.930	0.578	
Pembroke Hydro	Hydro	Yes	No	1.515	0.520	100%	1.515	0.520	
Bell Mill/Elm St. Hydro	Hydro	Yes	No	0.078	0.078	100%	0.078	0.078	
Otis Mill Hydro	Hydro	Yes	No	0.119	0.119	100%	0.119	0.119	
River Bend Hydro	Hydro	Yes	No	1.790	0.965	100%	1.790	0.965	
Campton Dam	Hydro	Yes	No	0.472	0.195	100%	0.472	0.195	
Kelleys Falls	Hydro	Yes	No	0.400	0.004	100%	0.400	0.004	
Goodrich Falls	Hydro	Yes	No	0.332	0.428	100%	0.332	0.428	
Chamberlain Falls	Hydro	Yes	No	0.130	0.130	100%	0.130	0.130	
Monadnock Paper Mills	Hydro	Yes	No	1.854	0.000	100%	1.854	0.000	
Contoocook Hydro	Hydro	Yes	No	0.250	0.159	100%	0.250	0.159	
Hadley Falls	Hydro	Yes	No	0.250	0.250	100%	0.250	0.250	
Noone Falls	Hydro	Yes	No	0.150	0.078	100%	0.150	0.078	
Otter Lane Hydro	Hydro	Yes	No	0.090	0.040	100%	0.090	0.040	
Salmon Brook Station #3	Hydro	Yes	No	0.250	0.119	100%	0.250	0.119	
Fiske Hydro	Hydro	Yes	No	0.810	0.155	100%	0.810	0.155	
Avery Dam	Hydro	Yes	No	0.479	0.226	100%	0.479	0.226	
Weston Dam	Hydro	Yes	No	0.524	0.285	100%	0.524	0.285	
Sunnybrook Hydro #2	Hydro	Yes	No	0.050	0.021	100%	0.050	0.021	
Pettyboro Hydro	Hydro	Yes	No	0.000	0.004	100%	0.000	0.004	
Sugar River #2	Hydro	Yes	No	0.200	0.082	100%	0.200	0.082	
Alexandria Power	Biomass	Yes	No	13.882	13.882	100%	13.882	13.882	
Zilka Biomass	Biomass	Yes	No	0.000	0.000	100%	0.000	0.000	
Middleton Building Supply	Biomass	Yes	No	0.025	0.021	100%	0.025	0.021	
Wheelabrator Claremont	Trash	No	No	4.065	3.235	100%	4.065	3.235	
Dunbarton Road	Landfill Gas	Yes	No	0.421	0.342	100%	0.421	0.342	
Turnkey	Landfill Gas	Yes	No	3.045	2.807	100%	3.045	2.807	
Four Hill Load Reducer	Landfill Gas	Yes	No	1.549	0.000	100%	1.549	0.000	
Eastman Brook	Hydro	Yes	No	0.100	0.026	100%	0.100	0.026	
Bath Hydro	Hydro	Yes	No	0.400	0.321	100%	0.400	0.321	
Celley Mill	Hydro	Yes	No	0.140	0.000	100%	0.140	0.000	

Converting from Long-Term to Short-Term	Fuel Type	Renewable	REC-Eligible	Winter Rating (MW)	Summer Rating (MW)	Interest (%)	Winter Entitlement (MW)	Summer Entitlement (MW)	Expiration Date
West Hopkinton Hydro	Hydro	Yes	No	1.250	0.396	100%	1.250	0.396	Oct-2012
Garland Mill	Hydro	Yes	No	0.000	0.000	100%	0.000	0.000	Oct-2012
Penacook Lower Falls	Hydro	Yes	No	1.500	0.774	100%	1.500	0.774	Sep-2013
Rollinsford Hydro	Hydro	Yes	No	4.615	2.803	100%	4.615	2.803	Sep-2013
Great Falls Lower	Hydro	Yes	No	1.100	0.366	100%	1.100	0.366	Apr-2014
Newfound Hydro	Hydro	Yes	No	1.367	0.649	100%	1.367	0.649	Aug-2014
Nashua Hydro	Hydro	Yes	No	0.840	0.803	100%	0.840	0.803	Dec-2014
Steels Pond Hydro	Hydro	Yes	No	0.975	0.190	100%	0.975	0.190	Dec-2014
Watson Dam	Hydro	Yes	No	0.250	0.049	100%	0.250	0.049	Jan-2015
Sugar River Hydro	Hydro	Yes	No	0.150	0.000	100%	0.150	0.000	Dec-2015
Four Hills Landfill	Landfill Gas	Yes	No	0.307	0.000	100%	0.307	0.000	Mar-2016
Peterborough Lower Hydro	Hydro	Yes	No	0.284	0.000	100%	0.284	0.000	Dec-2017
Peterborough Upper Hydro	Hydro	Yes	No	0.400	0.000	100%	0.400	0.000	Dec-2017
WES Concord MSW	Trash	No	No	12.761	12.159	100%	12.761	12.159	Dec-2018
Penacook Upper Falls	Hydro	Yes	No	3.600	1.938	100%	3.600	1.938	Dec-2021
Briar Hydro	Hydro	Yes	No	5.000	2.588	100%	5.000	2.588	Dec-2022
Errol Dam	Hydro	Yes	No	3.000	2.101	100%	3.000	2.101	Dec-2023
Total Renewable Short Term IPPs				92.532	58.579		92.532	58.579	

Energy Forecast by Unit

	2011	2012	2013	2014	2015
Coal:					
Merrimack Unit 1	841,454	901,238	841,454	772,448	898,776
Merrimack Unit 2	2,341,488	2,462,682	1,933,367	2,256,856	2,270,031
Schiller Unit 4	296,901	324,657	315,528	315,528	323,770
Schiller Unit 6	325,481	307,169	333,979	306,246	327,299
Total Coal (MWh)	3,805,325	3,995,747	3,424,328	3,651,078	3,819,876
Wood:					
Schiller Unit 5	288,298	305,917	305,042	305,042	305,626
Total Wood (MWh)	288,298	305,917	305,042	305,042	305,626
Oil/Gas/Jet:					
Newington	105,120	105,120	105,120	105,120	105,120
Merrimack CT1	0	0	0	0	0
Merrimack CT2	0	0	0	0	0
Schiller CT	0	0	0	0	0
Lost Nation	0	0	0	0	0
White Lake	0	0	0	0	0
Wyman 4	0	0	0	0	0
Total Oil/Gas/Jet (MWh)	105,120	105,120	105,120	105,120	105,120
Hydro:					
Amoskeag	89,943	90,189	89,943	89,943	89,943
Ayers Island	44,098	44,219	44,098	44,098	44,098
Caanan	7,456	7,476	7,456	7,456	7,456
Eastman Falls	24,745	24,813	24,745	24,745	24,745
Garvins Falls/Hooksett	51,411	51,552	51,411	51,411	51,411
Gorham	12,044	12,077	12,044	12,044	12,044
Jackman	9,404	9,430	9,404	9,404	9,404
Smith	103,848	104,133	103,848	103,848	103,848
Total Hydro (MWh)	342,949	343,889	342,949	342,949	342,949
Nuclear:					
Vermont Yankee	168,403	40,116	0	0	0
Total Nuclear (MWh)	168,403	40,116	0	0	0
Long Term IPP:					
West Hopkinton Hydro	2,987	2,738	0	0	0
Garland Mill	33	28	0	0	0
Rollinsford Hydro	6,258	6,258	4,693	0	0
Penacook Lower Falls	24,194	24,194	18,146	0	0
Great Falls Lower	4,302	4,302	4,302	1,434	0
Newfound Hydro	6,618	6,618	6,618	4,412	0
Nashua Hydro	4,988	4,988	4,988	4,988	0
Steels Pond Hydro	1,193	1,193	1,193	1,193	0
Watson Dam	1,128	1,128	1,128	1,128	1,128
Sugar River Hydro	563	563	563	563	563
Four Hills Landfill	1,644	1,644	1,644	1,644	1,644
Peterborough Lower Hydro	625	625	625	625	625
Peterborough Upper Hydro	564	564	564	564	564
WES Concord MSW	102,000	102,000	102,000	102,000	102,000
Penacook Upper Falls	17,551	17,551	17,551	17,551	17,551
Briar Hydro	25,007	25,007	25,007	25,007	25,007
Errol Dam	17,474	17,474	17,474	17,474	17,474
Bethlehem Power	0	0	0	0	0
Tamworth Power	0	0	0	0	0
Lempster Wind	59,638	59,854	59,638	59,638	59,638
Laidlaw (65 MW @ 85% capacity factor)	0	0	227,760	483,990	483,990
BioEnergy Buyout	75,840	75,840	75,840	75,840	37,920
Total Long Term IPP/PPA Contracts (MWh)	352,605	352,567	569,732	798,050	748,103
Total Energy Resources (MWh)	5,062,700	5,143,356	4,747,171	5,202,239	5,321,874
High ES Forecast - 31% Migration	5,764,330	5,817,434	5,890,710	5,945,322	6,152,851
Low ES Forecast - 31% Migration	5,654,720	5,639,696	5,671,310	5,660,060	5,740,773
High ES Forecast - 0% Migration	8,357,356	8,446,313	8,563,555	8,652,144	8,960,346
Low ES Forecast - 0% Migration	8,198,757	8,190,492	8,250,944	8,249,844	8,382,229

Without Laidlaw	GWh				
	2011	2012	2013	2014	2015
Expected Generation	5,063	5,143	4,519	4,718	4,838
Migration Level: 31%					
Total ES Requirement – High scenario	5,764	5,817	5,891	5,945	6,153
Supplemental ES Purchases – High scenario	702	674	1,371	1,227	1,315
Total ES Requirement – Low scenario	5,655	5,640	5,671	5,660	5,741
Supplemental ES Purchases – Low scenario	592	496	1,152	942	903
Migration Level: 0%					
Total ES Requirement – High scenario	8,357	8,446	8,564	8,652	8,960
Supplemental ES Purchases – High scenario	3,295	3,303	4,044	3,934	4,123
Total ES Requirement – Low scenario	8,199	8,190	8,251	8,250	8,382
Supplemental ES Purchases – Low scenario	3,136	3,047	3,732	3,532	3,545

With Laidlaw	GWh				
	2011	2012	2013	2014	2015
Expected Generation	5,063	5,143	4,747	5,202	5,322
Migration Level: 31%					
Total ES Requirement – High scenario	5,764	5,817	5,891	5,945	6,153
Supplemental ES Purchases – High scenario	702	674	1,144	743	831
Total ES Requirement – Low scenario	5,655	5,640	5,671	5,660	5,741
Supplemental ES Purchases – Low scenario	592	496	924	458	419
Migration Level: 0%					
Total ES Requirement – High scenario	8,357	8,446	8,564	8,652	8,960
Supplemental ES Purchases – High scenario	3,295	3,303	3,816	3,450	3,639
Total ES Requirement – Low scenario	8,199	8,190	8,251	8,250	8,382
Supplemental ES Purchases – Low scenario	3,136	3,047	3,504	3,048	3,061

Capacity Forecast

Without Laidlaw

		2011	2012	2013	2014	2015
ISO-New England Installed Capacity Resources (ICR)	High	33,534	33,413	33,298	33,732	34,641
	Reference	33,317	33,112	32,975	33,361	33,883
	Low	33,110	32,830	32,667	33,001	33,707
PSNH Controlled Resources		1,163	1,106	1,094	1,087	1,080
PSNH's Share of ICR		6.50%	6.50%	6.50%	6.50%	6.50%
PSNH's Share of ISO-New England Installed Capacity Resources (ICR)						
Migration Level: 31%						
ES Capacity Share	High	1,503	1,498	1,493	1,512	1,553
Net capacity obligation	High	340	392	398	425	473
ES Capacity Share	Reference	1,493	1,484	1,478	1,496	1,519
Net capacity obligation	Reference	330	379	384	409	439
ES Capacity Share	Low	1,484	1,471	1,464	1,480	1,511
Net capacity obligation	Low	321	365	370	393	432
Migration Level: 0%						
ES Capacity Share	High	2,178	2,171	2,163	2,191	2,250
Net capacity obligation	High	1,015	1,065	1,069	1,104	1,170
ES Capacity Share	Reference	2,164	2,151	2,142	2,167	2,201
Net capacity obligation	Reference	1,001	1,045	1,047	1,081	1,122
ES Capacity Share	Low	2,151	2,133	2,122	2,144	2,190
Net capacity obligation	Low	988	1,027	1,028	1,057	1,110

With Laidlaw (61 MW Summer, 65 MW Winter)

		2011	2012	2013	2014	2015
ISO-New England Installed Capacity Resources (ICR)	High	33,534	33,413	33,298	33,732	34,641
	Reference	33,317	33,112	32,975	33,361	33,883
	Low	33,110	32,830	32,667	33,001	33,707
PSNH Controlled Resources		1,163	1,106	1,094	1,118	1,134
PSNH's Share of ICR		6.50%	6.50%	6.50%	6.50%	6.50%
PSNH's Share of ISO-New England Installed Capacity Resources (ICR)						
Migration Level: 31%						
ES Capacity Share	High	1,503	1,498	1,493	1,512	1,553
Net capacity obligation	High	340	392	398	394	419
ES Capacity Share	Reference	1,493	1,484	1,478	1,496	1,519
Net capacity obligation	Reference	330	379	384	378	385
ES Capacity Share	Low	1,484	1,471	1,464	1,480	1,511
Net capacity obligation	Low	321	365	370	362	378
Migration Level: 0%						
ES Capacity Share	High	2,178	2,171	2,163	2,191	2,250
Net capacity obligation	High	1,015	1,065	1,069	1,073	1,116
ES Capacity Share	Reference	2,164	2,151	2,142	2,167	2,201
Net capacity obligation	Reference	1,001	1,045	1,047	1,049	1,068
ES Capacity Share	Low	2,151	2,133	2,122	2,144	2,190
Net capacity obligation	Low	988	1,027	1,028	1,026	1,056

Class I REC Forecast

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Delivery Sales Forecast w/EE/DSM (MWh)	7,743,046	7,788,024	7,877,125	7,903,333	7,995,366	8,064,644	8,141,016	8,199,342	8,271,759	8,329,217	8,432,844	8,477,761	8,520,150	8,562,751	8,605,564	8,648,592
<u>RPS Requirement (%)</u>																
Class I (%)	1.00%	2.00%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%	13.00%	14.00%	15.00%	16.00%
<u>31% Migration:</u>																
Energy Service Forecast w/EE/DSM (MWh)	5,653,653	5,686,494	5,751,552	5,770,688	5,837,886	5,888,470	5,944,234	5,986,821	6,039,697	6,081,651	6,157,315	6,190,111	6,221,062	6,252,167	6,283,428	6,314,845
Class I REC Requirement (MWh)	56,537	113,730	172,547	230,828	291,894	353,308	416,096	478,946	543,573	608,165	677,305	742,813	808,738	875,303	942,514	1,010,375
RECs Under Contract	58,073	102,684	94,625	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638
Additional RECs Needed	0	11,046	77,922	163,190	224,256	285,670	348,458	411,308	475,935	540,527	609,667	675,175	741,100	807,665	874,876	942,737
<u>0% Migration:</u>																
Energy Service Forecast w/EE/DSM (MWh)	8,193,699	8,241,295	8,335,582	8,363,315	8,460,705	8,534,015	8,614,832	8,676,552	8,753,184	8,813,986	8,923,644	8,971,176	9,016,032	9,061,112	9,106,417	9,151,949
Class I REC Requirement (MWh)	81,937	164,826	250,067	334,533	423,035	512,041	603,038	694,124	787,787	881,399	981,601	1,076,541	1,172,084	1,268,556	1,365,963	1,464,312
RECs Under Contract	58,073	102,684	94,625	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638	67,638
Additional RECs Needed	23,864	62,142	155,443	266,895	355,397	444,403	535,400	626,486	720,149	813,761	913,963	1,008,903	1,104,446	1,200,918	1,298,325	1,396,674