

Electricity Resource Planning Form S-1
Capacity Resource Accounting Table (CRATs)
 City of Roseville, Electric Department

2011 peak MW numbers are illustrative.

Bold font cells sum automatically.

line	Capacity Resource Accounting Table Form S-1	2009	2010	2011	2012	2013	2014
	PEAK LOAD CALCULATIONS (MW):						
1	Forecast Total Peak-Hour 1-in-2 Demand	336	324	328	334	336	339
2a	ESP Peak Load: Existing Customer Contracts						
2b	ESP Peak Load: New and Renewed Contracts						
2c	ESP Peak Load in PG&E service area						
2d	ESP Peak Load in SCE service area						
2e	ESP Peak Load in SDG&E service area						
3	Uncommitted Energy Efficiency (-)						
4	Demand Response / Interruptible Programs (-)	(4)	(4)	(5)	(5)	(5)	(5)
5	Adjusted Peak-Hour Demand: End-Use Customers	332	320	323	329	331	334
6	Coincidence Adjustment (-)						
7	Coincident Peak-Hour Demand JP	332	320	323	329	331	334
8	Required Planning Reserve Margin	50	48	48	49	50	50
9	Credit for Imports That Carry Reserves (-)	(7)	(7)	(7)	(7)	(7)	(7)
10	Firm Sales Obligations						
11	Firm LSE Peak-Hour Resource Requirement	375	361	364	371	374	377
	CAPACITY SUPPLY RESOURCES						
12a	Total Fossil Fuel Dependable Capacity	223	223	223	223	223	223
12b	Natural Gas, Roseville Energy Park	154	154	154	154	154	154
12c	Natural Gas, Roseville Combustion Turbines	48	48	48	48	48	48
12d	Natural Gas, NCPA STIG	21	21	21	21	21	21
13a	Total Dependable Nuclear Capacity	0	0	0	0	0	0
13b							
13c							
14a	Total Dependable Hydroelectric Capacity	92	92	92	91	91	91
14b	Total: Hydro Plants larger than 30 MW	91	91	91	90	90	90
14c	Total: Hydro Plants 30 MW or less	1	1	1	1	1	1
15a	Total Utility-Controlled Renewable Capacity	11	11	11	21	38	37
15b	Geothermal, NCPA Geysers	9	9	9	8	7	7
15c	Landfill Gas, Energy 2001	2	2	2	2	2	2
15d	Modesto Biomass - Biomass					15	15
15d	North Geysers - Geothermal				7	7	7
15d	US Geothermal - Geothermal				4	6	6
16a	Total Capacity from DWR Contracts	0	0	0	0	0	0
16b							
16c							

Yellow fill relates to an application for confidentiality.

Cells with dark green font require data inputs.

2015	2016	2017	2018	2019	2020
341	343	346	349	351	354
(5)	(5)	(5)	(5)	(5)	(5)
336	338	341	344	346	349
336	338	341	344	346	349
50	51	51	52	52	52
(7)	(7)	(7)	(7)	(7)	(6)
380	382	386	389	392	396
223	223	223	223	223	223
154	154	154	154	154	154
48	48	48	48	48	48
21	21	21	21	21	21
0	0	0	0	0	0
91	91	91	91	91	91
90	90	90	90	90	90
1	1	1	1	1	1
37	35	38	37	37	37
7	7	7	6	6	6
2	0	0	0	0	0
15	15	15	15	15	15
7	7	7	7	7	7
6	6	9	9	9	9
0	0	0	0	0	0

line	Capacity Resource Accounting Table Form S-1	2009	2010	2011	2012	2013	2014
16d							
17a	Total Qualifying Facility (QF) Capacity	0	0	0	0	0	0
17b	Biofuels						
17c	Geothermal						
17d	Small Hydro						
17e	Solar						
17f	Wind						
17g	Natural Gas						
17h	Other						
18a	Total Capacity from Renewable Energy Contracts	0	0	0	0	0	0
18b	Renewable DG Supply						
18c							
18d							
18e							
19a	Total Capacity from Other Bilateral Contracts	50	50	25	25	25	25
19b	Non-Renewable DG Supply						
19c	Western System Reserves	25	25	25	25	25	25
19d	Morgan Stanley Purchase	25	25				
19e							
19f							
20	Short-Term and Spot Market Purchases						
CAPACITY BALANCE SUMMARY							
21	Total: Existing and Planned Capacity	375	375	350	359	376	376
22	Firm LSE Peak-Hour Resource Requirement	375	361	364	371	374	377
23	(Capacity Need) or Capacity Surplus	(1)	14	(14)	(12)	2	(1)
24	Generic Renewable Resources				25	5	
25	Generic Non-Renewable Resources						
26	Specified Planning Reserve Margin			15%			

line	Historic LSE Peak Load:	Year 2009	Year 2010
27	Annual Peak Load / Actual Metered Deliveries	325.0	331.0
28	Date of Peak Load for Annual Peak Deliveries	6/29/09	8/25/10
29	Hour Ending (HE) for Annual Peak Deliveries	1700	1800
30	Interruptible Load called on during that hour (+)	0.0	0.0
31	Self-Generation and DG Adjustments	0.0	0.0
32	Adjustments for Major Outages	0.0	0.0
33	Adjusted Annual Peak Load	325.0	331.0

line **Notes**

19c The City purchases 10 MW of Regulation and Frequency Response Service from Western, plus its contractually obligated share (currentl

line	Capacity Resource Accounting Table Form S-1	2009	2010	2011	2012	2013	2014
20	The City purchases CAISO exports in the Day ahead Market and bilateral WSPP Sch C capacity to meet 100% of its load not met with local generation						
29	Hours are in Pacific Standard Time						

2015	2016	2017	2018	2019	2020
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n and Western base Resource. Line 19C is increased by 10 MW representing the 10 MW of REP held back to meet load following requirements.

Administrative Information - Electricity Resource Planning Forms

Name of Load Serving Entity ("LSE")

City of Roseville, Electric Department
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Name of Resource Planning Coordinator

Mike Wardell, Acting Power Supply Manager

Persons who prepared Supply Forms

S-1 CRATS

S-2 Energy Balance

S-3 Small POU Hourly Loads

Name:

Gregory Woods	Gregory Woods	
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Title:

Electric Resources Analyst	Electric Resources Analyst	
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Email:

gwoods@rosweville.ca.us	gwoods@rosweville.ca.us	
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Telephone:

916-774-5699	916-774-5699	
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Address:

2090 Hilltop Circle	2090 Hilltop Circle	
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Address 2:

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City:

Roseville	Roseville	
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State:

California	California	
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Zip:

95747	95747	
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Date Completed:

3/30/2011	3/30/2011	
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Date Updated by LSE:

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Back-up / Additional Contact Persons for Questions about these Forms (Optional):

Name:

Susan Gill-Zobitz (Data Collection Coordination)	James Takehara (Additional Technical Contact)	
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Title:

Compliance Officer	Electric Resource Analyst	
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Email:

sgill@roseville.ca.us	jtakehara@roseville.ca.us	
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Telephone:

916-774-5660	916-746-1666	
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Address:

2090 Hilltop Circle	2090 Hilltop Circle	
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Address 2:

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City:

Roseville	Roseville	
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State:

CA	CA	
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Zip:

95747	95747	
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Electricity Resource Planning Form S-2
 Energy Balance Accounting Table
 City of Roseville, Electric Department

2011 GWh numbers are illustrative.
 Bold font cells sum automatically.

line	Energy Balance Table Form S-2	2009	2010	2011	2012	2013	2014
	ENERGY DEMAND CALCULATIONS (GWh)	(â Actual Supply â)					
1	Forecast Total Energy Demand / Consumption	1,234	1,208	1,260	1,280	1,289	1,297
2a	ESP Energy Demand: Existing Customer Contracts						
2b	ESP Energy Demand: New and Renewed Contracts						
2c	ESP Energy Demand in PG&E service area						
2d	ESP Energy Demand in SCE service area						
2e	ESP Energy Demand in SDG&E service area						
3	Uncommitted Energy Efficiency (-)						
4	Demand Response / Interruptible Programs (-)						
5	Adjusted Energy Demand / Consumption	1,234	1,208	1,260	1,280	1,289	1,297
6	Firm Sales Obligations			0			
7	Firm LSE Energy Requirement	1,234	1,208	1,260	1,280	1,289	1,297
	ENERGY SUPPLY RESOURCES						
8a	Total Fossil Energy Supply	768	514	885	926	847	856
8b	Natural Gas, Roseville Energy Park	734	500	854	889	810	825
8c	Natural Gas, Roseville Combustion Turbines	1	1	8	8	4	4
8d	Natural Gas, NCPA STIG	33	13	23	30	33	28
9a	Total Nuclear Energy Supply	0	0	0	0	0	0
9b							
9c							
10a	Total Hydroelectric Energy Generation	164	189	223	219	215	215
10b	Total Energy: Hydro Plants larger than 30 MW	162	187	221	217	213	213
10c	Total Energy: Hydro Plants 30 MW or less	3	2	2	2	2	2
10d	Hydroelectric Energy in Dry-Year Conditions			172	172	172	172
10e	Hydroelectric Energy in Wet-Year Conditions			397	397	397	397
11a	Total Utility-Controlled Renewable Energy	87	84	88	85	83	82
11b	Geothermal, NCPA Geysers	71	67	69	66	64	63
11c	Landfill Gas, Energy 2001	15	18	19	19	19	19
11d							
12a	Total Energy Supply from DWR Contracts	123	123	0	0	0	0
12b							
12c	Other Bilateral Contracts	123	123				
12d							
13a	Total Energy Supply from QF Contracts	0	0	0	0	0	0
13b	Biofuels						
13c	Geothermal						

Yellow fill matches an application for confidentiality.

Cells with dark green font require data inputs.

2015	2016	2017	2018	2019	2020
1,324	1,305	1,316	1,323	1,328	1,334
1,324	1,305	1,316	1,323	1,328	1,334
1,324	1,305	1,316	1,323	1,328	1,334
884	908	849	913	934	984
845	869	809	868	889	938
6	6	5	9	9	9
33	33	34	35	37	37
0	0	0	0	0	0
215	215	215	215	215	215
213	213	213	213	213	213
2	2	2	2	2	2
172	172	172	172	172	172
397	397	397	397	397	397
79	65	58	57	56	55
60	60	58	57	56	55
19	5	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

Includes losses on import

line	Energy Balance Table Form S-2	2009	2010	2011	2012	2013	2014
13d	Small Hydro						
13e	Solar						
13f	Wind						
13g	Natural Gas						
13h	Other						
14a	Total Energy Supply from Renewable Contracts	0	0	0	0	0	0
14b	Renewable DG Supply						
14c							
14d							
14e							
15a	Total Energy Supply from Other Bilateral Contracts	55	132	72	131	165	231
15b	Non-Renewable DG Supply						
15c	Powerex	55	132	66	55		
15d	Modesto Biomass - Biomass				0	62	124
15e	North Geysers - Geothermal				43	58	58
15f	US Geothermal - Geothermal			6	33	45	49
16	Short Term and Spot Market Purchases	(86)	44	(8)	(81)	(21)	(87)
ENERGY BALANCE SUMMARY							
17	Total Energy: Existing and Planned Resources	1,111	1,085	1,260	1,280	1,289	1,297
18	Firm LSE Energy Requirement	1,234	1,208	1,260	1,280	1,289	1,297
19	(Energy Need) or Energy Surplus			0	0	0	0
20	Generic Renewable Energy			25	35	25	
21	Generic Non-Renewable Energy						
RENEWABLE ENERGY ACCOUNTING							
22	Utility-Controlled Small Hydro	3	2	2	2	2	2
23	Other Hydroelectric Energy Deemed Renewable						
24	Utility-Controlled Renewable Resources (non-hydro)	87	84	88	85	83	82
25	QF Renewable Contract Resources for IOUs	0	0	0	0	0	0
26	Renewable Energy Contractual Resources	0	0	0	0	0	0
27	Other LSE-Defined Renewable Energy			6	76	165	231
28	Private Supply Renewable Resources						
29	Tradeable REC Purchases	55	132	66	55		
30	Generic Renewable Energy Additions			25	35	25	0
31	Total Actual / Expected Renewable Energy	144	218	187	253	275	314
32	Total Retail Sales	1,233	1,177	1,201	1,214	1,228	1,243
33	Renewable Energy as a Percentage of Retail Sales	11.7%	18.5%	15.5%	20.8%	22.4%	25.3%

line [Notes](#)

x	Dry-year and wet year hydro conditions:
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2015	2016	2017	2018	2019	2020
0	0	0	0	0	0
231	231	255	255	255	256
124	124	124	124	124	124
58	58	58	58	58	58
49	50	74	74	74	74
(85)	(114)	(61)	(116)	(132)	(177)
1,324	1,305	1,316	1,323	1,328	1,334
1,324	1,305	1,316	1,323	1,328	1,334
0	0	0	0	0	0
15	45	50	75	90	115
2	2	2	2	2	2
79	65	58	57	56	55
0	0	0	0	0	0
0	0	0	0	0	0
231	231	255	255	255	256
15	45	50	75	90	115
327	343	365	389	403	428
1,252	1,260	1,270	1,279	1,290	1,301
26.1%	27.2%	28.8%	30.4%	31.2%	32.9%

line	Energy Balance Table Form S-2	2009	2010	2011	2012	2013	2014
x	<p>The City does not use wet and dry expected conditions in its planing. Instead, current forecast conditions are used based on NCPA and WAPA forecasts. Future years are based on average precipitation. For this filing, WAPA is based on FY05-06 (wet) and FY07-08 (dry). Calaveras is per NCPA, CY05 (wet) and CY07 (dry)</p>						

2015	2016	2017	2018	2019	2020
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ELECTRICITY RESOURCE PLANNING FORM S-3**RECORDED LSE HOURLY LOADS FOR 2010****NOT APPLICABLE TO ROSEVILLE ELECTRIC**

For Publicly Owned LSEs with Annual Peak Loads under 200 MW not submitting demand forms
Scheduling coordinators reporting load for multiple LSEs should report load for each entity separately.

Report actual hourly demand in calendar year 2010, in megawatts, for each hour of each day.

Begin with the hour that ended at 1 a.m. on January 1, 2010.

Show the load measured at the balancing authority load take-out point (or points).

Add columns for any additional metered take-out points.

The time basis should be Pacific Standard Time (PST) throughout the entire year.

Scheduling Coordinators should report demand for each utility within a SCID separately.

Note: This form is a truncated version for printing and review purposes.

Printing this entire form for all 8,760 hours will use 197 pages and is not recommended.

LSE Name:		City of Roseville, Electric Department
Scheduling Coordinator ID:		
Balancing Authority / TAC Area:		
Date (PST)	Hour Ending (PST)	Recorded Demand at Take Out (MW)
1/1/2010	1	
1/1/2010	2	
1/1/2010	3	
1/1/2010	4	
1/1/2010	5	
1/1/2010	6	
1/1/2010	7	
1/1/2010	8	
1/1/2010	9	
1/1/2010	10	
1/1/2010	11	
1/1/2010	12	
1/1/2010	13	
1/1/2010	14	
1/1/2010	15	
1/1/2010	16	
1/1/2010	17	
1/1/2010	18	
1/1/2010	19	
1/1/2010	20	
1/1/2010	21	
1/1/2010	22	
1/1/2010	23	
1/1/2010	24	

Electricity Resource Planning Form S-4
Wind Resource Nameplate Capacity
 City of Roseville, Electric Department

line	Wind Energy Project Names	Physical Location of Project	Interconnection Point (substation & state)	Project Nameplate MW as of 1/1/11	Non-Operating Nameplate MW as of 1/1/11	LSE's Nameplate MW as of 1/1/11	Dependable MW for LSE as of 1/1/11
1	[existing utility owned]	NOT APPLICABLE TO ROSEVILLE ELECTRIC					
2	[planned utility owned]						
3	[existing joint ownership]						
4	[planned joint ownership]						
5	[existing contractual supplies]						
6	[planned contractual supplies]						
7							
8							

line **Notes**

x	
x	

Yellow fill matches an application for confidentiality.

Expected Project Nameplate MW by 1/1/16	Owner's Name	Owner's Address	Owner's Contact Information	line
				1
				2
				3
				4
				5
				6
				7
				8

Electricity Resource Planning Form S-5
Bilateral Contracts and Power Purchase Agreements
 City of Roseville, Electric Department

GW

Yellow pattern cells are used to apply for confidentiality.

Contract Name:	Powerex
Supplier / Seller:	Powerex Corp
Start Date:	July 1, 2010
Expiration Date:	March 31, 2012
Contract / Agreement Capacity:	0, contract is energy only
Scheduling Coordinator:	Powerex
Fuel Type:	System Power
Delivery Points:	CAISO NP15
Locational Attributes of Unit:	CAISO NP
Contract / Agreement Products:	
Availability of Products:	7x24 Q3 2011, 7x24Q1 2011
Must Take:	Yes
Generating Units Specified:	none
Capacity of the Units:	na
Availability of the Units:	na
Unit Contingent / LD Contract:	na
Firm:	Yes
Firming or Shaping:	none
Contract / Agreement Type:	Daily Index
Transmission Contingent & Path:	na
Termination & Extension Rights:	none
Performance Requirements:	none
Notes:	(1)
	(2)