

# WATER & POWER

Serving Central California since 1887

## Short Run Marginal Cost Daily Average

Date	On-Peak (\$/KWH)	Off-Peak (\$/KWH)	Date	On-Peak (\$/KWH)	Off-Peak (\$/KWH)	Date	On-Peak (\$/KWH)	Off-Peak (\$/KWH)
9/22/2017	0.0315	0.0299	8/20/2017	-	0.0309	7/18/2017	0.0400	0.0296
9/21/2017	0.0305	0.0292	8/19/2017	-	0.0310	7/17/2017	0.0457	0.0286
9/20/2017	0.0325	0.0286	8/18/2017	0.0385	0.0280	7/16/2017	-	0.0248
9/19/2017	0.0323	0.0286	8/17/2017	0.0371	0.0281	7/15/2017	-	0.0328
9/18/2017	0.0352	0.0281	8/16/2017	0.0358	0.0274	7/14/2017	0.0338	0.0280
9/17/2017	-	0.0280	8/15/2017	0.0333	0.0289	7/13/2017	0.0344	0.0269
9/16/2017	-	0.0310	8/14/2017	0.0341	0.0261	7/12/2017	0.0248	0.0265
9/15/2017	0.0330	0.0276	8/13/2017	-	0.0285	7/11/2017	0.0361	0.0286
9/14/2017	0.0349	0.0298	8/12/2017	-	0.0309	7/10/2017	0.0198	0.0272
9/13/2017	0.0425	0.0306	8/11/2017	0.0471	0.0308	7/9/2017	-	0.0282
9/12/2017	0.0515	0.0325	8/10/2017	0.0481	0.0305	7/8/2017	-	0.0369
9/11/2017	0.0584	0.0322	8/9/2017	0.0487	0.0313	7/7/2017	0.0697	0.0311
9/10/2017	-	0.0359	8/8/2017	0.0467	0.0310	7/6/2017	0.0487	0.0297
9/9/2017	-	0.0324	8/7/2017	0.0481	0.0315	7/5/2017	0.0444	0.0290
9/8/2017	0.0405	0.0309	8/6/2017	-	0.0313	7/4/2017	-	0.0271
9/7/2017	0.0443	0.0329	8/5/2017	-	0.0339	7/3/2017	0.0190	0.0241
9/6/2017	0.0487	0.0330	8/4/2017	0.0484	0.0324	7/2/2017	-	0.0213
9/5/2017	0.0633	0.0363	8/3/2017	0.0873	0.0364	7/1/2017	-	0.0235
9/4/2017	-	0.0436	8/2/2017	0.1674	0.0382	6/30/2017	0.0352	0.0244
9/3/2017	-	0.0473	8/1/2017	0.1732	0.0365	6/29/2017	0.0341	0.0245
9/2/2017	-	0.0644	7/31/2017	0.0588	0.0317	6/28/2017	0.0310	0.0225
9/1/2017	0.1781	0.0385	7/30/2017	-	0.0321	6/27/2017	0.0365	0.0256
8/31/2017	0.1314	0.0379	7/29/2017	-	0.0331	6/26/2017	0.0420	0.0269
8/30/2017	0.0784	0.0368	7/28/2017	0.0455	0.0303	6/25/2017	-	0.0296
8/29/2017	0.1520	0.0369	7/27/2017	0.0488	0.0299	6/24/2017	-	0.0333
8/28/2017	0.2178	0.0404	7/26/2017	0.0443	0.0301	6/23/2017	0.0495	0.0296
8/27/2017	-	0.0429	7/25/2017	0.0448	0.0336	6/22/2017	0.0047	0.0267
8/26/2017	-	0.0375	7/24/2017	0.0478	0.0333	6/21/2017	0.2171	0.0345
8/25/2017	0.0463	0.0325	7/23/2017	-	0.0343	6/20/2017	0.0829	0.0327
8/24/2017	0.0382	0.0302	7/22/2017	-	0.0338	6/19/2017	0.0711	0.0319
8/23/2017	0.0416	0.0302	7/21/2017	0.0423	0.0292	6/18/2017	-	0.0200
8/22/2017	0.0441	0.0327	7/20/2017	0.0427	0.0284	6/17/2017	-	0.0317
8/21/2017	0.0418	0.0331	7/19/2017	0.0395	0.0279	6/16/2017	0.0455	0.0261



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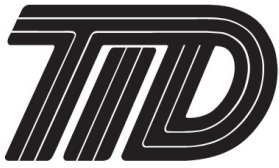
## Short Run Marginal Cost Daily Average

Date	On-Peak (\$/KWH)	Off-Peak (\$/KWH)	Date	On-Peak (\$/KWH)	Off-Peak (\$/KWH)	Date	On-Peak (\$/KWH)	Off-Peak (\$/KWH)
6/15/2017	0.0366	0.0235	5/13/2017	-	0.0168	4/10/2017	0.0279	0.0280
6/14/2017	0.0325	0.0225	5/12/2017	0.0206	0.0256	4/9/2017	-	0.0177
6/13/2017	0.0271	0.0222	5/11/2017	0.0319	0.0298	4/8/2017	-	0.0191
6/12/2017	0.0158	0.0165	5/10/2017	0.0311	0.0286	4/7/2017	0.0313	0.0305
6/11/2017	-	0.0051	5/9/2017	0.0373	0.0280	4/6/2017	0.0314	0.0283
6/10/2017	-	0.0132	5/8/2017	0.0360	0.0286	4/5/2017	0.0302	0.0269
6/9/2017	0.0233	0.0230	5/7/2017	-	0.0237	4/4/2017	0.0250	0.0235
6/8/2017	0.0289	0.0264	5/6/2017	-	0.0227	4/3/2017	0.0178	0.0164
6/7/2017	0.0355	0.0256	5/5/2017	0.0376	0.0289	4/2/2017	-	0.0118
6/6/2017	0.0359	0.0258	5/4/2017	0.0606	0.0337	4/1/2017	-	0.0199
6/5/2017	0.0367	0.0219	5/3/2017	0.0631	0.0320	3/31/2017	0.0162	0.0156
6/4/2017	-	0.0215	5/2/2017	0.0524	0.0322	3/30/2017	0.0156	0.0154
6/3/2017	-	0.0249	5/1/2017	0.0391	0.0284	3/29/2017	0.0204	0.0212
6/2/2017	0.0357	0.0234	4/30/2017	-	0.0215	3/28/2017	0.0185	0.0205
6/1/2017	0.0280	0.0227	4/29/2017	-	0.0230	3/27/2017	0.0158	0.0172
5/31/2017	0.0319	0.0236	4/28/2017	0.0239	0.0266	3/26/2017	-	0.0116
5/30/2017	0.0365	0.0237	4/27/2017	0.0276	0.0252	3/25/2017	-	0.0116
5/29/2017	-	0.0232	4/26/2017	0.0246	0.0224	3/24/2017	0.0183	0.0220
5/28/2017	-	0.0189	4/25/2017	0.0289	0.0270	3/23/2017	0.0174	0.0180
5/27/2017	-	0.0190	4/24/2017	0.0284	0.0216	3/22/2017	0.0294	0.0242
5/26/2017	0.0265	0.0229	4/23/2017	-	0.0163	3/21/2017	0.0294	0.0263
5/25/2017	0.0295	0.0238	4/22/2017	-	0.0254	3/20/2017	0.0268	0.0231
5/24/2017	0.0344	0.0249	4/21/2017	0.0418	0.0276	3/19/2017	-	0.0219
5/23/2017	0.0265	0.0254	4/20/2017	0.0274	0.0239	3/18/2017	-	0.0250
5/22/2017	0.0284	0.0228	4/19/2017	0.0262	0.0267	3/17/2017	0.0356	0.0272
5/21/2017	-	0.0072	4/18/2017	0.0299	0.0291	3/16/2017	0.0311	0.0248
5/20/2017	-	0.0173	4/17/2017	0.0331	0.0314	3/15/2017	0.0340	0.0269
5/19/2017	0.0215	0.0187	4/16/2017	-	0.0202	3/14/2017	0.0377	0.0293
5/18/2017	0.0271	0.0263	4/15/2017	-	0.0228	3/13/2017	0.0400	0.0281
5/17/2017	0.0220	0.0244	4/14/2017	0.0193	0.0181	3/12/2017	-	0.0170
5/16/2017	0.0230	0.0245	4/13/2017	0.0181	0.0249	3/11/2017	-	0.0213
5/15/2017	0.0196	0.0204	4/12/2017	0.0283	0.0295	3/10/2017	0.0277	0.0194
5/14/2017	-	0.0103	4/11/2017	0.0274	0.0324	3/9/2017	0.0312	0.0223



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3/8/2017	0.0306	0.0235	2/3/2017	0.0352	0.0310	1/1/2017	-	0.0316
3/7/2017	0.0285	0.0267	2/2/2017	0.0403	0.0321	12/31/2016	-	0.0359
3/6/2017	0.0251	0.0207	2/1/2017	0.0364	0.0318	12/30/2016	0.0397	0.0342
3/5/2017	-	0.0191	1/31/2017	0.0369	0.0338	12/29/2016	0.0386	0.0334
3/4/2017	-	0.0195	1/30/2017	0.0362	0.0329	12/28/2016	0.0402	0.0345
3/3/2017	0.0234	0.0199	1/29/2017	-	0.0306	12/27/2016	0.0407	0.0357
3/2/2017	0.0235	0.0228	1/28/2017	-	0.0322	12/26/2016	0.0380	0.0337
3/1/2017	0.0260	0.0255	1/27/2017	0.0361	0.0340	12/25/2016	-	0.0326
2/28/2017	0.0254	0.0223	1/26/2017	0.0393	0.0351	12/24/2016	-	0.0331
2/27/2017	0.0317	0.0265	1/25/2017	0.0399	0.0364	12/23/2016	0.0399	0.0338
2/26/2017	-	0.0195	1/24/2017	0.0396	0.0328	12/22/2016	0.0420	0.0344
2/25/2017	-	0.0215	1/23/2017	0.0401	0.0333	12/21/2016	0.0429	0.0352
2/24/2017	0.0275	0.0265	1/22/2017	-	0.0337	12/20/2016	0.0387	0.0347
2/23/2017	0.0252	0.0253	1/21/2017	-	0.0312	12/19/2016	0.0392	0.0352
2/22/2017	0.0262	0.0218	1/20/2017	0.0363	0.0323	12/18/2016	-	0.0350
2/21/2017	0.0306	0.0241	1/19/2017	0.0364	0.0307	12/17/2016	-	0.0375
2/20/2017	-	0.0273	1/18/2017	0.0373	0.0328	12/16/2016	0.0398	0.0330
2/19/2017	-	0.0184	1/17/2017	0.0382	0.0337	12/15/2016	0.0456	0.0338
2/18/2017	-	0.0277	1/16/2017	0.0378	0.0332	12/14/2016	0.0456	0.0362
2/17/2017	0.0357	0.0281	1/15/2017	-	0.0337	12/13/2016	0.0469	0.0385
2/16/2017	0.0295	0.0245	1/14/2017	-	0.0344	12/12/2016	0.0471	0.0369
2/15/2017	0.0311	0.0261	1/13/2017	0.0401	0.0356	12/11/2016	-	0.0335
2/14/2017	0.0339	0.0285	1/12/2017	0.0430	0.0355	12/10/2016	-	0.0360
2/13/2017	0.0386	0.0317	1/11/2017	0.0387	0.0311	12/9/2016	0.0424	0.0349
2/12/2017	-	0.0304	1/10/2017	0.0392	0.0304	12/8/2016	0.0462	0.0364
2/11/2017	-	0.0275	1/9/2017	0.0409	0.0336	12/7/2016	0.0483	0.0371
2/10/2017	0.0370	0.0287	1/8/2017	-	0.0328	12/6/2016	0.0427	0.0338
2/9/2017	0.0381	0.0303	1/7/2017	-	0.0356	12/5/2016	0.0423	0.0334
2/8/2017	0.0386	0.0307	1/6/2017	0.0389	0.0327	12/4/2016	-	0.0326
2/7/2017	0.0365	0.0278	1/5/2017	0.0423	0.0352	12/3/2016	-	0.0325
2/6/2017	0.0362	0.0285	1/4/2017	0.0420	0.0356	12/2/2016	0.0356	0.0308
2/5/2017	-	0.0286	1/3/2017	0.0492	0.0388	12/1/2016	0.0395	0.0320
2/4/2017	-	0.0274	1/2/2017	0.0424	0.0340	11/30/2016	0.0425	0.0351



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11/29/2016	0.0412	0.0320	10/27/2016	0.0458	0.0369	9/24/2016	-	0.0354
11/28/2016	0.0370	0.0284	10/26/2016	0.0423	0.0345	9/23/2016	0.0387	0.0307
11/27/2016	-	0.0256	10/25/2016	0.0409	0.0333	9/22/2016	0.0347	0.0297
11/26/2016	-	0.0281	10/24/2016	0.0395	0.0318	9/21/2016	0.0432	0.0333
11/25/2016	0.0339	0.0266	10/23/2016	-	0.0335	9/20/2016	0.0475	0.0324
11/24/2016	-	0.0295	10/22/2016	-	0.0333	9/19/2016	0.0478	0.0325
11/23/2016	0.0336	0.0270	10/21/2016	0.0487	0.0343	9/18/2016	-	0.0343
11/22/2016	0.0396	0.0294	10/20/2016	0.0544	0.0349	9/17/2016	-	0.0317
11/21/2016	0.0328	0.0242	10/19/2016	0.0495	0.0350	9/16/2016	0.0398	0.0307
11/20/2016	-	0.0271	10/18/2016	0.0408	0.0317	9/15/2016	0.0378	0.0306
11/19/2016	-	0.0276	10/17/2016	0.0409	0.0340	9/14/2016	0.0368	0.0307
11/18/2016	0.0386	0.0295	10/16/2016	-	0.0328	9/13/2016	0.0338	0.0297
11/17/2016	0.0416	0.0311	10/15/2016	-	0.0326	9/12/2016	0.0338	0.0286
11/16/2016	0.0348	0.0248	10/14/2016	0.0353	0.0300	9/11/2016	-	0.0310
11/15/2016	0.0363	0.0248	10/13/2016	0.0385	0.0305	9/10/2016	-	0.0345
11/14/2016	0.0406	0.0237	10/12/2016	0.0369	0.0308	9/9/2016	0.0434	0.0329
11/13/2016	-	0.0233	10/11/2016	0.0389	0.0313	9/8/2016	0.0389	0.0299
11/12/2016	-	0.0258	10/10/2016	0.0458	0.0314	9/7/2016	0.0435	0.0317
11/11/2016	-	0.0296	10/9/2016	-	0.0363	9/6/2016	0.0406	0.0316
11/10/2016	0.0419	0.0275	10/8/2016	-	0.0373	9/5/2016	-	0.0303
11/9/2016	0.0455	0.0283	10/7/2016	0.0486	0.0322	9/4/2016	-	0.0276
11/8/2016	0.0420	0.0277	10/6/2016	0.0408	0.0311	9/3/2016	-	0.0297
11/7/2016	0.0372	0.0268	10/5/2016	0.0338	0.0288	9/2/2016	0.0371	0.0304
11/6/2016	-	0.0248	10/4/2016	0.0353	0.0317	9/1/2016	0.0417	0.0312
11/5/2016	-	0.0259	10/3/2016	0.0349	0.0292	8/31/2016	0.0480	0.0321
11/4/2016	0.0346	0.0267	10/2/2016	-	0.0287	8/30/2016	0.0466	0.0316
11/3/2016	0.0341	0.0263	10/1/2016	-	0.0314	8/29/2016	0.0425	0.0303
11/2/2016	0.0339	0.0270	9/30/2016	0.0390	0.0292	8/28/2016	-	0.0313
11/1/2016	0.0335	0.0259	9/29/2016	0.0442	0.0309	8/27/2016	-	0.0293
10/31/2016	0.0344	0.0302	9/28/2016	0.0491	0.0334	8/26/2016	0.0386	0.0300
10/30/2016	-	0.0305	9/27/2016	0.0544	0.0342	8/25/2016	0.0419	0.0299
10/29/2016	-	0.0336	9/26/2016	0.0629	0.0352	8/24/2016	0.0418	0.0306
10/28/2016	0.0428	0.0339	9/25/2016	-	0.0368	8/23/2016	0.0399	0.0299



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8/22/2016	0.0417	0.0295						