

Resource Adequacy Advisory Committee

Estimating Availability of Imports from California and Desert Southwest

Steering Committee Meeting
December 6, 2013



Topics

- What's Needed
- Approach used for last year's estimate
- Goals for future estimates
- Outline of framework
- Contacts and information sources
- For the 2019 Assessment



What's Needed

- On-peak import capacity for summer and winter
- Off-peak purchase-ahead capacity for summer and winter
- Energy limits (if any) to on-peak or off-peak market purchases



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Approach Used for Last Year's Estimate of California Market Supply

1. Gathered resource changes through 2017
 - Plant retirements
 - New construction
2. Assumed no winter load growth
3. Adjusted current-year CA winter surplus for resource changes
4. Limited market to minimum S-to-N capacity, averaged between 2006-10



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Modified RA Assessment + Transfer Capability 2017 Analysis (SONGS on-line)

2010 - California PUC Adequacy Report (April 2011)							S. to N. Transfer (AC + DC) (2006 to 2010)	
A	B	C	D	E	F	G	Average	Min
2010	Demand 1:2	Adequacy Requirement (AR)	Total Resources Reported	Net Gas-Fired Plants (2017)	Import Assumption*	"Surplus" (D+E) - (C+F)		
		B=D*1.15						
Jan	29,930	34,420	34,845	1,224	-	1,650	4761	3764
Feb	29,053	33,411	33,858	1,224	-	1,671	4732	3304
Mar	28,648	32,945	33,105	1,224	-	1,384	4213	3310
Apr	30,094	34,608	34,571	1,224	-	1,187	4101	3466
May	34,623	39,816	39,668	1,224	2,662	(1,586)	4213	3605
Jun	38,236	43,971	43,455	1,224	3,718	(3,010)	4551	3471
Jul	41,872	48,153	47,184	1,224	5,717	(5,462)	5078	3885
Aug	45,105	51,871	50,438	1,224	7,719	(7,928)	5073	4311
Sep	40,200	46,230	45,210	1,224	5,513	(5,309)	4019	2912
Oct	33,407	38,418	38,790	1,224	-	1,596	3402	2885
Nov	29,893	34,377	35,411	1,224	-	2,258	4136	3243
Dec	31,406	36,117	36,538	1,224	-	1,645	4565	3998

* No Import Assumptions given for other months

Assumptions used for 2017 Assessment:

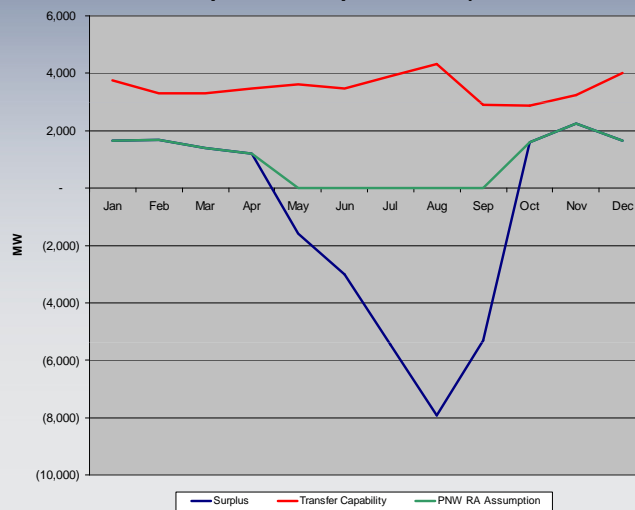
Winter: on-peak 1,700 MW off-peak 3,000 MW

Summer: on-peak 0 MW off-peak 3,000 MW



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SW Import Assumption 2017 (SONGs On-Line)



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Goals for Future Assessments

- Framework for systematic, sound analysis
- Open, transparent process
- Reliable data sources
- Identify and assess uncertainties
- Ongoing relationships and information exchange with entities in California



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DRAFT Framework for Assessing SW Market

1. California load forecast for N and S California
2. California resources for N and S California
3. Adjust for dispatch limitations (e.g. air quality)
4. Surplus by node
5. Adjust for intra-California transmission constraints
6. Adjust south-to-north intertie capacity for firm contracts between NW and California
7. Estimate on-peak and off-peak market availability by month



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Contacts and Information Sources

- California Energy Commission
- California Public Utilities Commission
- California Independent System Operator
- Other California balancing authorities
- California utilities
- Western Electricity Coordinating Council
- Trade publications
- Consultants?



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For the 2019 Assessment

- Obtain California load and resource forecasts from CEC, CAISO or other entities **Waiting for response**
- Estimate available surplus from Southern and Northern California
- Adjust surplus for transmission limitations and existing firm contracts
- Calculate expected on-peak market availability
- Estimate minimum and maximum range for sensitivity studies



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