



Proposed Method to Calculate the Amount of Renewable Generation Required to Comply with Policy Goals

2011 Integrated Energy Policy Report Staff Workshop

March 8, 2011, 10:00 a.m.

WebEx Participation:

- <https://energy.webex.com>
- Meeting Number: 922 586 170
- Passcode: CEC@030811
- Call-In Number: 1-866-469-3239
- Telephone Only: 1-866-229-3239

DOCKET

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C A L I F O R N I A E N E R G Y C O M M I S S I O N

Proposed Method to Calculate the Amount of Renewable Generation Required to Comply with Policy Goals

2011 Integrated Energy Policy Report Staff Workshop

California Energy Commission
March 8, 2011, 10:00 a.m.

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Workshop Purpose

- Public review of the methods, variables and data sources for calculating the renewable net short
- Seeking comments and suggestions on the staff analysis
- Goal is to develop a standard method and coordinated approach for applied assumptions
- Promote consistency and analytical links between different electricity system infrastructure studies
- Analytical effort in support of *2011 IEPR*



Definition of Renewable Net Short

- The incremental amount of new renewable energy needed to meet policy goals
- Focus on statewide requirements to meet a 33 percent goal for 2020
- Apply the Renewable Portfolio Standard metric
 - Amount of renewable generation as a percent of electricity retail sales
 - Not include electricity for water pumping and self-generation



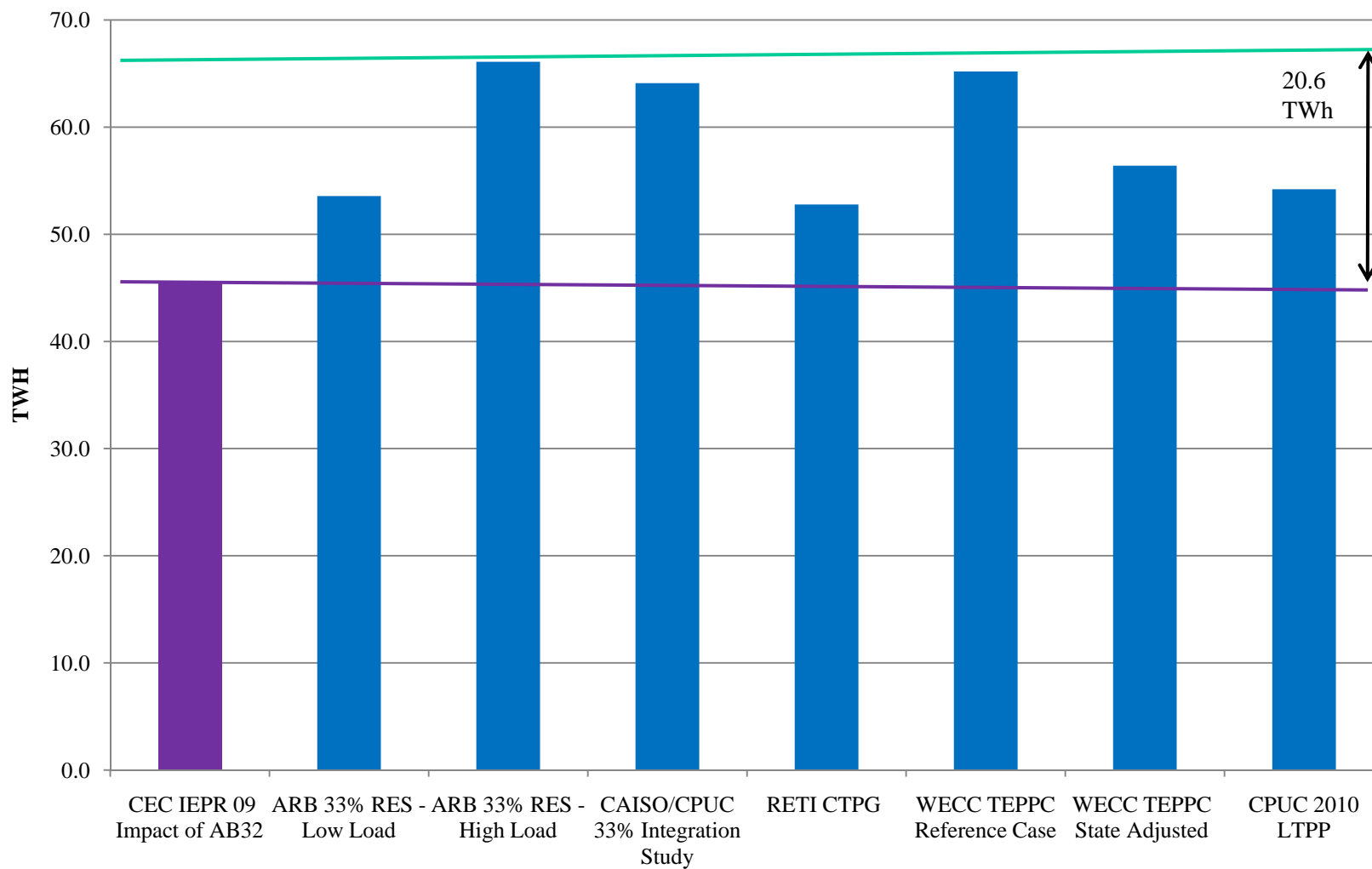
Comparison of Different Studies

- Different renewable integration and infrastructure need studies use renewable net short estimates
- Studies used different accounting assumptions
- Observed differences in assumed policy goals and programs that will affect retail electricity sales
- Some differences due to vintage of studies
- Recognize that there are legitimate reasons for studies to differ



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Comparison of 33% Renewable Net Short Estimates



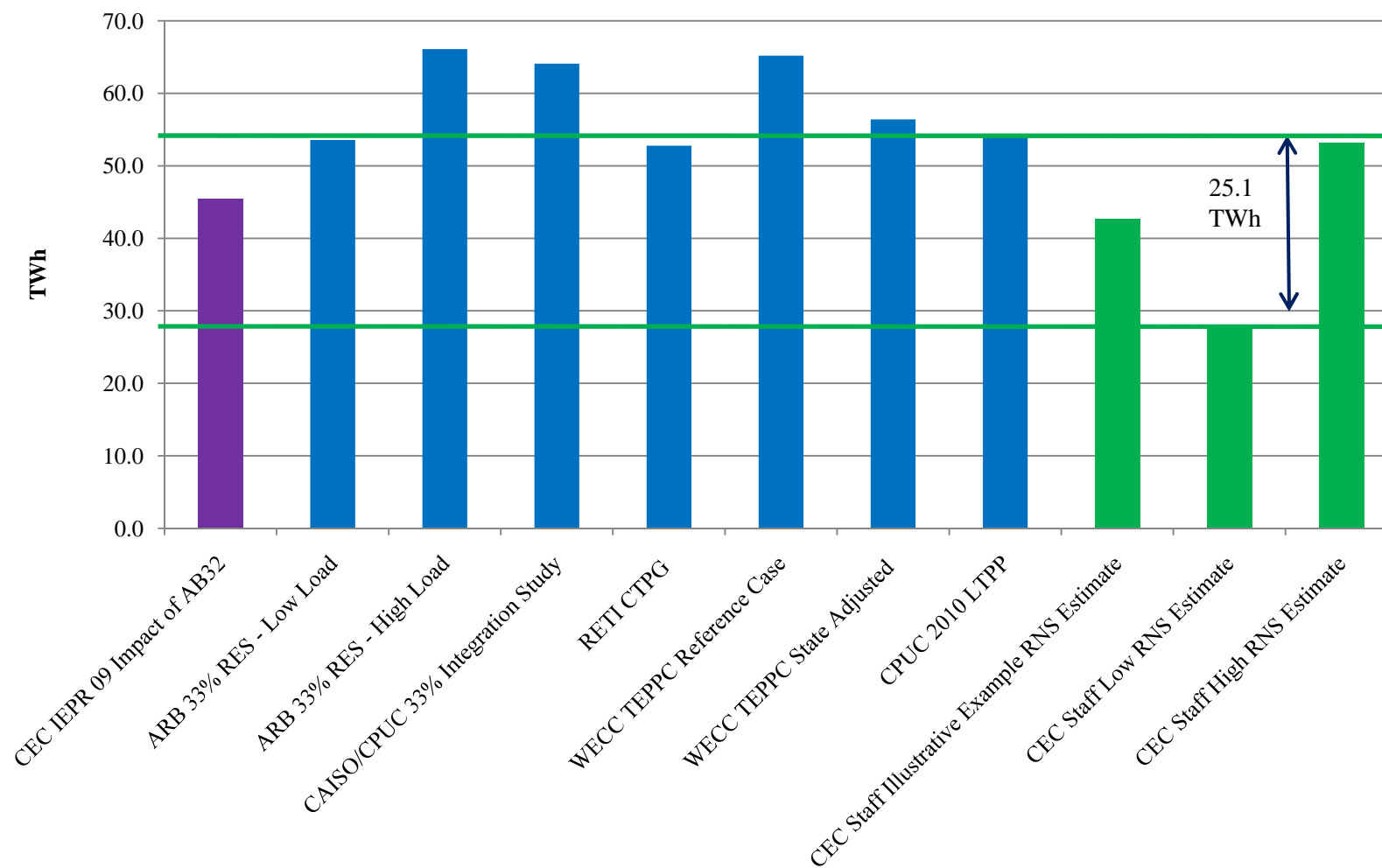


Reason for Staff Analysis

- Difficulty in sorting different study assumptions
- Links to ongoing Commission electricity studies
 - Electricity demand analysis
 - Load reduction programs
 - Electricity system dispatch scenarios
- Improve ability to understand context for studies and transfer findings from one research area to another
- ***Consideration of key uncertainties associated with variables used for renewable net short calculation***



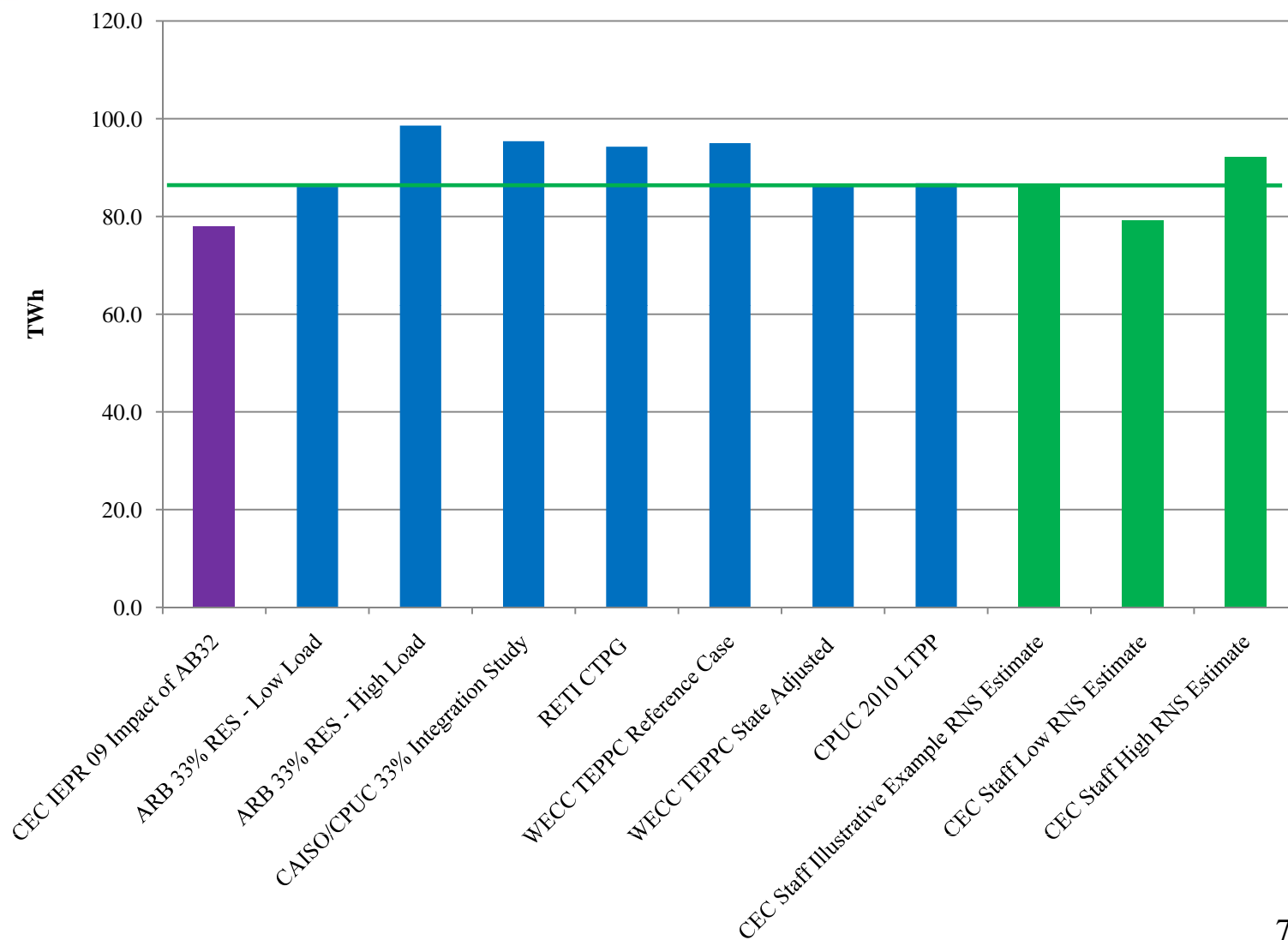
Evaluating Implications of Key Uncertainties Affecting Renewable Net Short Estimates





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Total Renewable Generation for 33% Target





Staff Overview and Discussion

- Proposed equation for renewable net short calculation
- Key variables and uncertainties that affect the renewable net short
- Resulting range of renewable net short estimates
- ***What should be considered to address associated uncertainties and narrow the range of net short estimates for electricity system infrastructure studies?***



Questions to Consider

- 1. Given a range of incremental uncommitted energy efficiency estimates, how should the Commission choose among the high, mid, and low values?**
- 2. Should the renewable net short estimate include small utilities (Less than 200 GWh) and non-RPS deliveries (CDWR, WAPA, MWD)?**
- 3. How should the Commission select from a range of incremental CHP values given the slow historical development juxtaposed with the recent CHP settlement at the CPUC?**
- 4. How should the Governor's DG goals be reflected in a renewable net short estimate?**
- 5. How should the Commission choose among existing renewables methodologies given the variation in renewable generation inherent in using actual generation?**



Questions to Consider

- 6. To what degree should renewable generation that is in some stage of construction be included in the renewable net short estimate?**
- 7. What is the best way to handle short term and out of state renewables contracts that are likely to be redirected to other state's renewable goals?**
- 8. What developments are expected in the near future that may minimize the uncertainties associated with key renewable net short variables?**
- 9. What types of proceedings or studies utilize a renewable net short estimate, and how should the Commission integrate these end uses into its choices of renewable net short methods?**
- 10. Should the method and assumptions for a renewable net short estimate be allowed to vary depending on the type of study?**



Next Steps

- Staff will consider stakeholder comments to modify renewable net short calculations
- Updated electricity demand forecast for *2011 IEPR* under way
- Further evaluation of load reduction programs
- Coordination with Energy Agencies
- Present renewable net short findings to Commissioners for consideration in *2011 IEPR*



Written Comments on Staff Paper

- Please submit no later than 5 p.m. on **March 18, 2011**
- Email comments to [\[docket@energy.state.ca.us\]](mailto:docket@energy.state.ca.us)
- One paper copy must also be sent to the Energy Commission's Docket Unit:

California Energy Commission

Dockets Office, MS-4

Re: Docket No. 11-IEP-1D

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