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California Legislature

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Assembly Committee on Natural Resources

WESLEY CHESBRO
CHAIR

AGENDA

Monday, March 7, 2011
State Capitol - Room 447
1:30 pm

Item #	Bill #	Author	Summary
1.	SB 2 X1	Simitian	Energy: renewable energy resources.

Date of Hearing: March 7, 2011

ASSEMBLY COMMITTEE ON NATURAL RESOURCES
Wesley Chesbro, Chair
SB 2 X1 (Simitian) – As Introduced: February 1, 2011

SENATE VOTE: 26-11

SUBJECT: Energy: renewable energy resources

SUMMARY: Increases California's Renewables Portfolio Standard (RPS) goal from 20 percent by 2010 to 33 percent by 2020 and revises specified provisions of the existing RPS statutes.

EXISTING LAW:

1) The RPS requires investor-owned utilities (IOUs) and certain other retail sellers of electricity to achieve a 20 percent renewable energy portfolio by 2010 and establishes a detailed process and standards for renewable energy procurement.

   a) Requires local publicly-owned utilities (POUs) to implement and enforce their own RPS programs, and report their activities to the California Energy Commission (CEC). POUs are not subject to the same detailed process and standards as IOUs and other retail sellers subject to the jurisdiction of the Public Utilities Commission (PUC).

   b) Provides that eligible renewable technologies are biomass, solar thermal, photovoltaic, wind, geothermal, renewable fuel cells, small hydroelectric (30 megawatts or less), digester gas, limited non-combustion municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, and tidal current.

   c) Provides that renewable resources located outside the state are eligible if the facility commences operation after January 1, 2005 and is connected to California's transmission grid or delivers energy to California.

   d) Defines and permits the use of unbundled/tradable renewable energy credits (RECs) for RPS compliance, subject to PUC approval, and authorizes the PUC to limit the amount of RECs a retail seller may use for RPS compliance.

   e) Requires IOUs to submit annual RPS procurements plans and meet a one percent per year annual procurement target.

   f) Requires the PUC to adopt a market price referent (MPR) as a benchmark for reasonable prices for RPS procurement by IOUs.

   g) Designates funds (approximately $165 million per year) available to cover IOUs' RPS procurement costs which exceed the MPR. Once these funds are exhausted, IOUs are relieved of their obligation to buy additional renewable energy through the RPS procurement process, but may build or continue to buy renewable energy through bilateral contracts, notwithstanding this RPS "cost cap."

h) Permits specified multi-state IOUs with 60,000 or fewer California customers to count renewable energy delivered in other states under specified conditions.

2) Requires the PUC to certify the public convenience and necessity require a power plant or transmission line before an IOU may begin construction (Certificate of Public Convenience and Necessity, or CPCN). The CPCN process includes environmental review of the proposed project under the California Environmental Quality Act (CEQA).

3) Grants the CEC exclusive authority to license thermal power plants 50 megawatts and larger and requires consultation with specified agencies. The CEC process is a certified regulatory program under CEQA.

4) The California Global Warming Solutions Act (AB 32) requires the Air Resources Board (ARB) to adopt a statewide greenhouse gas (GHG) emissions limit equivalent to 1990 levels by 2020 and adopt regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions. Pursuant to AB 32, ARB has adopted a Scoping Plan which includes achieving a 33 percent RPS by 2020 as a key measure to achieve the 2020 GHG emissions limit and, pursuant to Governor's Executive Order S-21-09, ARB has adopted a 33 percent Renewable Energy Standard by rulemaking.

THIS BILL:

1) Replaces the existing 20 percent by 2010 RPS target and one percent annual procurement targets applicable to "retail sellers", which include IOUs, energy service providers and community choice aggregators, with the following targets:

   a) 20 percent on average from January 1, 2011 to December 31, 2013.

   b) 25 percent by December 31, 2016.

   c) 33 percent by December 31, 2020 and each year thereafter.

   Instead of regular annual procurement targets, the 25 and 33 percent targets are preceded by a compliance period where the quantity of renewable energy procured must reflect reasonable progress in the intervening years sufficient to meet the next target.

2) Repeals existing provisions requiring POUs to implement and enforce their own RPS programs and instead applies to POUs the same targets and dates listed above.

3) Requires the CEC, in consultation with ARB, to adopt regulations for enforcement of the RPS on POUs, including providing for the imposition of penalties by ARB pursuant to AB 32, upon referral by the CEC, for failure to comply with the RPS. Requires penalties imposed on POUs to be comparable to penalties imposed by the PUC on retail sellers. Requires penalties collected by ARB to be expended for reducing air pollution or greenhouse gases within the same geographic area as the penalized POU.

4) Permits retail sellers to take credit for future compliance surpluses by requiring the PUC to adopt "banking" rules permitting retail sellers apply excess procurement to subsequent

compliance periods. Prohibits banking of procurement associated with contracts of less than 10 years, as well as RECs and other undelivered products.

5) Excuses retail sellers from current and future accumulated compliance deficits by prohibiting the addition of compliance deficits from the existing RPS (for any retail seller procuring at least 14 percent in 2010), as well as deficits associated with the compliance periods created by the bill, to a future compliance period.

6) Excuses retailer sellers from enforcement for failure to meet targets if the retail seller demonstrates that any of the following conditions are beyond its control and will prevent compliance:

   a) Inadequate transmission capacity for delivery of sufficient renewable energy.

   b) Permitting, interconnection or other delays for renewable energy projects, or an insufficient supply of available renewable energy.

   c) Unanticipated curtailment of renewable energy necessary to address the needs of a balancing authority (e.g. the Independent System Operator).

7) Repeals existing MPR, above-market funds and cost cap provisions and instead requires the PUC to establish a cost limit for each IOU according to specified criteria, requires the PUC to report to the Legislature by 2016 regarding whether IOUs can achieve 33 percent within the adopted cost limit, authorizes the PUC to revise the cost limit once after 2016 if necessary, and authorizes IOUs to stop procuring renewable energy beyond the cost limit, unless additional renewable energy can be procured without exceeding a de minimis increase in rates.

8) Sets aside 25 percent of the 33 percent renewable market for IOU-owned generation by requiring the PUC to approve an application by an IOU to construct, own and operate a renewable energy facility until IOU-owned renewable facilities equal 8.25 percent of the IOU's anticipated 2020 retail sales.

9) Revises eligibility conditions to establish "balanced portfolio" requirements for future procurement based on the following three categories of renewable energy products:

   a) Renewable energy interconnected to the grid within, scheduled for direct delivery into, or dynamically transferred to, a California balancing authority (i.e., real renewable energy supplied to the California grid, located within or directly proximate to the state). Of the total renewable energy contracts executed after June 1, 2010, the following percentages must fall into this category:

      i) At least 50 percent for the 2011-2013 compliance period.
      ii) At least 65 percent for the 2014-2016 compliance period.
      iii) At least 75 percent thereafter.

   b) Renewable energy where substitute non-renewable energy is used to provide a reliable delivery schedule into a California balancing authority (i.e., firmed and shaped energy where substitute energy is used to compensate for delivery problems due to intermittent

generation or inadequate transmission capacity from a remote renewable resource).

c) Renewable energy products not meeting either condition above, including unbundled RECs (i.e., the original source of renewable energy must be located within the western grid, but otherwise need not have a physical connection to California). Of the total renewable energy contracts executed after June 1, 2010, the following percentages may fall into this category:

i) Not more than 25 percent for the 2011-2013 compliance period.
ii) Not more than 15 percent for the 2014-2016 compliance period.
iii) Not more than 10 percent thereafter.

10) Requires the PUC to authorize the use of RECs, subject to the percent limits described above, and limits the use of RECs to 36 months from the initial date of generation of the associated electricity.

11) Increases eligibility for existing small hydroelectric generation units from 30 megawatts to 40 megawatts, if the unit is operated as part of a water supply or conveyance system.

12) Revises existing exceptions for multi-state IOUs with 60,000 or fewer California customers and adds new exceptions for certain small IOUs and POUs, relaxing these utilities obligations to procure eligible renewable energy resources, according to their particular circumstances.

13) Amends existing "feed-in tariff" statute for small renewable generators, which relies on the RPS MPR for pricing, to account for this bill's repeal of the MPR, by requiring the PUC to set a similar market price specifically for purposes of the feed-in tariff statute.

14) Requires the ISO and other California balancing authorities to work cooperatively to integrate and interconnect renewable energy resources according to specified criteria.

15) Requires the PUC to determine the effective load carrying capacity of wind and solar energy resources and use those values in establishing the contribution of those resources toward meeting resource adequacy requirements.

16) Requires the Department of Fish and Game to establish an internal division to perform comprehensive planning, streamlined environmental compliance services, and ensure timely completion of Natural Community Conservation Plans related to development of renewable energy projects.

17) Requires an applicant for certification by the CEC of a power plant that is proximate to a military installation to notify the Department of Defense (DOD) and include any comments provided by DOD with its application.

18) Requires the CEC to study, and report to the Legislature by June 30, 2011, "run-of-river" hydroelectric facilities in British Columbia to consider specified environmental impacts and determine whether the facilities are, or should be, eligible for RPS compliance.

19) Requires the PUC and CEC to report every other year regarding procurement and permitting progress, and requires the PUC to report annually regarding specified RPS compliance issues, including rate and cost impacts.

20) Requires the PUC to approve an application to construct a transmission line within 18 months under specified conditions.

21) Appropriates $322,000 from the PUC Utilities Reimbursement Account to the PUC for additional staffing related to transmission lines.

FISCAL EFFECT: Unknown

COMMENTS:

The existing RPS statute requires IOUs and certain other retail energy providers, collectively referred to as "retail sellers," to buy renewable electricity to the extent funds are available to pay for any costs exceeding a market price set by the PUC. Each IOU is required to increase its renewable procurement each year by at least one percent of total sales, so that 20 percent of its sales are renewable energy sources by December 31, 2010. Once a 20 percent portfolio is achieved, no further increase is required. The PUC is required to adopt comparable requirements for direct access energy service providers and community choice aggregators. Each local POU is required to implement and enforce its own RPS, and report its progress to the CEC.

For retail sellers, the RPS requires the PUC to adopt processes for determining market prices, ranking renewable bids according to cost and fit, flexible compliance rules and standard contract terms. The RPS requires IOUs to offer contracts of at least 10 years, unless the PUC approves shorter contracts. This is intended to support the development of new renewable energy resources.

The original RPS bill, SB 1078 (Sher), Chapter 516, Statutes of 2002, set a goal of 20 percent by 2017. SB 107 (Simitian), Chapter 464, Statutes of 2006, accelerated the deadline for 20 percent to 2010. In the eight years since the RPS was enacted, IOUs have advanced beyond their 2002 average starting point of 12 percent RPS, but none achieved 20 percent by the end of 2010. According to the PUC, in 2010, the three largest IOUs served 17.9 percent of their load with renewable energy on average, up from 15 percent in 2009. PG&E achieved 17.7 percent, SCE 19.4 percent and SDG&E 11.9 percent. POUs have adopted a range of RPS standards and achieved a range of results. The largest POUs, Los Angeles Department of Water and Power and Sacramento Municipal Utility District, have adopted 20 percent by 2010 targets and goals of at least 33 percent RPS by 2020. They report achieving 14 percent and 21 percent respectively through 2009.

In 2009, the Governor vetoed companion bills passed by the Legislature to establish a 33 percent RPS – SB 14 (Simitian) and AB 64 (Krekorian). Following the vetoes, the Governor issued an executive order directing ARB to implement a 33 percent RPS as a GHG reduction measure pursuant to its authority under AB 32. ARB adopted its 33 percent "renewable electricity standard" (RES) on September 23, 2010. The ARB rules are more stringent than this bill with respect to compliance (e.g. ARB permits fewer compliance and enforcement excuses), but less stringent with respect to eligibility (e.g. ARB does not limit the use of unbundled RECs). On paper, the ARB rules promise to yield more renewable energy procurement by 2020. However,

questions have been raised regarding the permanence and legality of an RES regulation based on an executive order.

This bill is nearly identical to the final version of SB 722 (Simitian), which passed the Assembly in the final hour of the 2009-2010 session, but was held in the Senate for lack of a vote before the session adjourned at midnight.

REGISTERED SUPPORT / OPPOSITION:

Support

AES
American Federation of State, County and Municipal Employees
American Lung Association
Amonix
Breathe California
BrightSource Energy
CalEnergy
California Apollo Alliance
California Association of Sanitation Agencies
California Biomass Energy Alliance
California Coalition of Utility Employees
California Conference of Carpenters
California Interfaith Power & Light
California Labor Federation
California League of Conservation Voters
California State Pipe Trades Council
California Wind Energy Association
Calpine
Catholic Charities, Diocese of Stockton
City of Santa Clara
Clean Air Now
Clean Power Campaign
CleanTECH San Diego
Coalition for Clean Air
Construction Employers' Association
Covanta
Division of Ratepayer Advocates
Ella Baker Center for Human Rights
Energy Independence Now
Environmental Defense Fund
Environmental Entrepreneurs
enXco
First Solar
Glendale Water & Power
Horizon Wind Energy
Iberdrola Renewables
Independent Energy Producers Association
Large Scale Solar Association

National Parks and Conservation Association
Natural Resources Defense Council
NextEra Energy Resources
Planning and Conservation League
Power Company of Wyoming
San Diego Gas and Electric
Sanitation Districts of Los Angeles County
Sierra Club California
Southern California Edison
State Association of Electrical Workers
State Building & Construction Trades Council of California, AFL-CIO
Sun Power Corporation
Terra-Gen Power
The Solar Alliance
The Utility Reform Network (TURN)
Union of Concerned Scientists
Vestas
Vote Solar Initiative
Western States Council of Sheetmetal Workers

Opposition

Alliance for Retail Energy Markets
California Alliance for Choice in Energy Solutions
California Business Properties Association
California Grocers Association
California Manufacturers & Technology Association
California Retailers Association
California League of Food Processors
Chemical Industry Council of California
Direct Energy Services, LLC
School Project for Utility Rate Reduction
Western States Petroleum Association

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. / (916) 319-2092

CALIFORNIA ENERGY COMMISSION

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**

CALIFORNIA ENERGY COMMISSION

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.

Al Alvarado
Electricity Analysis Office
Electricity Supply Analysis Division
(916) 654-4749
aalvarad@energy.state.ca.us

CALIFORNIA ENERGY COMMISSION

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

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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

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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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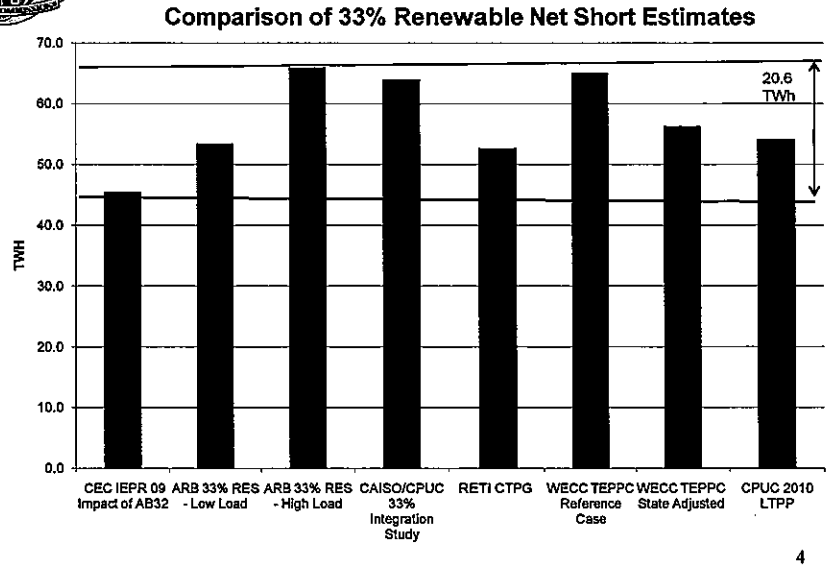

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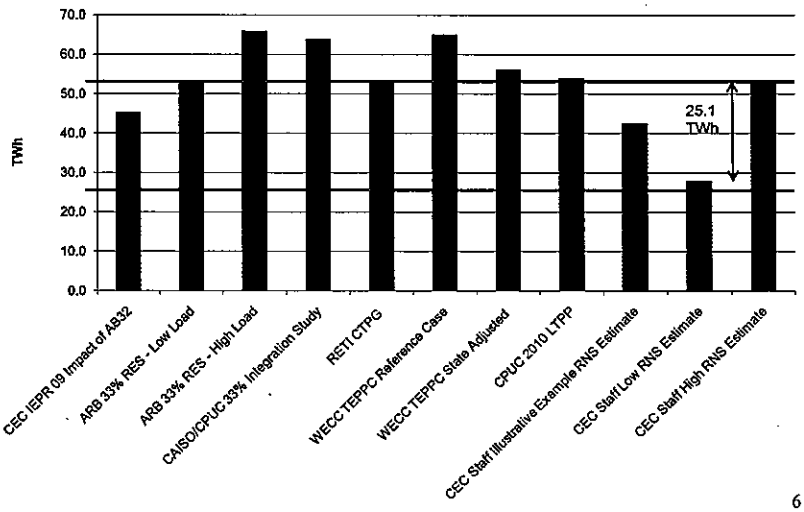
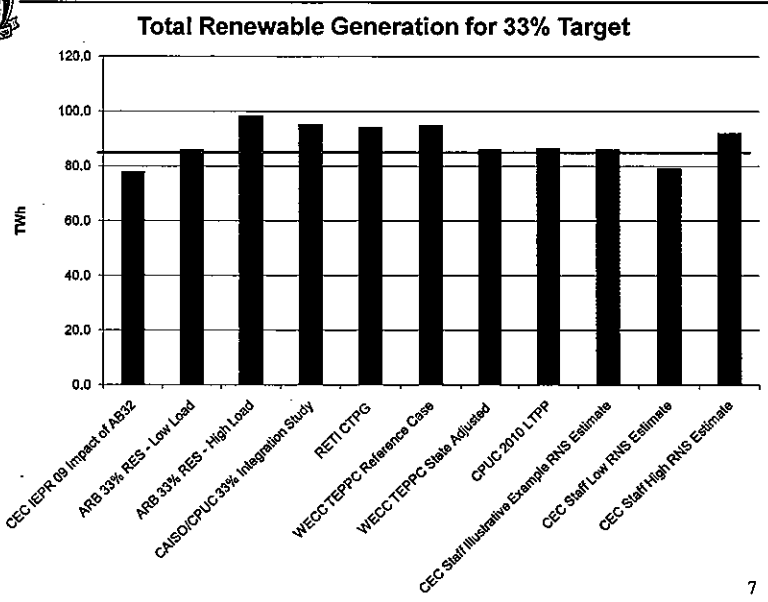
Reason for Staff Analysis

- 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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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?***

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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?

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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]
- 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
1516 Ninth Street
Sacramento, CA 95814-5512