

Index

AltEnergy eMagazine  
Apr / May 11

Cover Page

Featured Articles

SB X 1-2 and California's New Energy Future

Mechanical ventilation and heat recovery System with integral heat pump

International Wind Energy Development: World Market Update 2010

Echo Captures More Untapped Solar Energy

Suppliers Converging on Electricity Distribution Automation Opportunity

The ESD (Engineering Society of Detroit) Ride and Drive of the Chevy Volt

Optimal yields with photovoltaic systems – MLD technology most efficient

A Catch-22 in the PV Connector Industry?

Lufftusa.com

Wind Direction & Speed Sensors



More Articles

Introduction to JOINT IMPLEMENTATION – JI

Careers in the Clean-Tech Industry

Renewable Energy Home Design

Plug-In Electric Vehicle Infrastructures USA 2011

India Renewable Energy Market Trends Analysis and Forecasts

Oregon's Electric Vehicle Charging Infrastructure Comes Along – But Slowly

Introduction to Emission Trading

SANYO-Powered Solar Bike Port Helps Boulder's Casey Middle School Gear Up for LEED Certification

Bioenergy: Impediments and Plausible Solutions

Case Study - Minneapolis Convention Center

Belgian Solar Market Cooling Down Following End of 2009 Boom

Design Race in Wind Turbine Drivetrains

*This law, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33% of their energy from renewable resources by the year 2020. This requirement constitutes the most aggressive renewable portfolio standard in the country.*

## SB X 1-2 and California's New Energy Future

David Nahai - [Lewis Brisbois Bisgaard & Smith](#)

Filed Under - [General Industry Articles](#) - [Analysis and Trends](#)

### LEADERS IN RENEWABLE ENERGY LAW

California Governor Jerry Brown recently signed SB X 1-2 into law, marking a new milestone in California's electricity history.

This law, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33% of their energy from renewable resources by the year 2020. This requirement constitutes the most aggressive renewable portfolio standard in the country.

This article provides an overview of SB X 1-2, and examines its path to implementation.

SB X 1-2 is the latest in a raft of California laws enacted over the last 5 years which are designed to radically change the State's energy profile, reduce its greenhouse gas emissions, and reinforce its position as a global environmental leader. At the same time, these measures are intended to attract capital to the State, drive economic activity and produce jobs here at home. These laws include California's landmark AB 32 (2006), which obligates the State to decrease its emissions down to 1990 levels by 2020; SB 1368 (2008) which prohibits the importation into California of electricity from plants failing to meet certain environmental standards; and AB 2021 (2006) which imposes energy efficiency mandates on utilities.



The passage of SB X 1-2 further underscores California's dominance with respect to environmental initiatives, which are rapidly becoming viewed here as indistinguishable from economic growth policies. While the Federal government remains paralyzed on energy matters, California is forging ahead. Last year, for the first time, China surpassed the U.S. in renewable energy investment and other countries are progressing at a more aggressive pace than the U.S. These trends signal the erosion of U.S. leadership, a vacuum that the individual States, led by California, are moving to fill.

SB X 1-2 symbolizes California's environmental preeminence and represents a triumph for California. However, the law is also painfully complicated, a product of its delicate dance between competing priorities: on the one hand, achieving the 33% target (with the intention that the bulk of projects are to be generated in California); and, on the other hand, minimizing rate impacts. In an effort to resolve these conflicting interests, SB X 1-2 employs tortuous formulae that generally favor in-state development, but open the door to some out-of-state power, and which try to mitigate rate effects by (i) requiring limits to be placed on the cost of renewables; (ii) providing for waivers and exemptions for electricity providers unable to reach the targets; and (iii) seeking to streamline permitting for renewables projects and transmission infrastructure. The result is a dizzyingly dense document which is sometimes hard to decipher.

SB X 1-2 covers all electricity providers, including investor owned utilities ("IOUs") and publicly owned utilities ("POUs"). IOUs and POUs will continue to be governed by separate regulatory regimes: the IOUs, by the California Public Utilities Commission ("CPUC"); and the POUs, primarily by their local governing bodies, with enforcement powers being vested in the California Energy Commission and the California Air Resources Board.

The law contains interim targets: 20% by 2013; 25% by 2016, and dictates that in order to qualify, the power must come from a "renewable electrical generation facility", which generally means a plant that meets *all* of the following criteria:

1. The facility uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion (not utilizing combustion), landfill gas, ocean wave, ocean thermal, or tidal current. *And*
2. The facility satisfies *one* of the following requirements:
  1. The facility is located in California or near the border of California with the first point of connection to the transmission network of a balancing authority area primarily located within California; *or*
  2. The facility has its first point of interconnection to the transmission network outside California, but within the Western Electricity Coordinating Council (WECC) service area, and satisfies certain other conditions.

The law recognizes that a California balancing authority operates the transmission grid within its metered boundaries, which may not be coterminous with the State's political borders. The law also grandfathers contracts (including those for out-of-state power) entered into before June 1, 2010. Further, SB X 1-2 contains numerous statements that embrace out-of-state power: "This electricity may be generated anywhere in the interconnected grid that includes many states, and areas of both Canada and Mexico"; and "This article requires generating resources located outside of California, but [which] are able to supply that electricity to California end-use customers, to be treated identically to generating resources located within the state, without discrimination".

However, SB X 1-2 also includes Section 399.16, which imposes a "loading order". Section 399.16 provides that each provider must attain a "balanced portfolio" of renewables, falling under three categories:

1. Products that meet *either* of the following criteria:
  1. Have a first point of interconnection with a California balancing authority, or with distribution facilities used to serve end users within a California balancing authority area, or which are scheduled into a California balancing authority without substituting electricity from another source; *or*

2011 Renewable Energy World Conference & Expo Report
Ecotech Institute Applauds Colorado for its Leadership in the Cleantech Industry
Global Small Hydro Projects in Development
2010 Solar Deal Volume Comparison
Alternate Ways to Overcome Energy Crisis in Pakistan
Choosing a Portable Renewable Energy Generator
<b>Interviews</b>
Microwave-induced Plasma Gasification
ISO 9001 Helps White Construction Grow in the Alternative Energy Industry
Using OnGreen.com for Cleantech Investment Deals
Turning clean energy ideas into reality
Single vs. Dual Axis Solar Tracking
Sanyo Smart Energy System
Doing Business with China & Creating American Jobs


2. Have an agreement to dynamically transfer electricity to a California balancing authority.
2. Firmed and shaped products providing incremental electricity and scheduled into a California balancing authority.
3. Other products (including unbundled renewable energy credits).

For ease of reference, we will refer to the power referred to in paragraph (1) above as the "California Content" and the products referred to in paragraph 3 as the "REC Content".

Under Section 399.16, each provider must ensure that by the end of 2013, no less than 50% of its renewables consist of California Content, with such percentage increasing to 65% by the end of 2016, and 75 percent thereafter. Further, each provider must ensure that by the end of 2013, no more than 25% of its renewables portfolio comprises REC Content, with such percentage declining to 15% by the end of 2016, and 10% thereafter.

In essence, then, starting in 2017, all providers must procure not less than 75% of their renewables from in-state and in-state equivalent products and not more than 10% from unbundled RECs, with the remainder from firmed and shaped products that provide incremental power.

While the foregoing provisions are considerably more welcoming to out-of-state generation than a previous version of the bill which was vetoed by Governor Schwarzenegger in 2009, the "loading order" in Section 399.16, nevertheless, necessarily affects out-of-state facilities which must now revisit their strategies regarding sales to California.

The law's 33%/2020 mandate, coupled with its slant towards in-state production, make cost containment a paramount consideration, especially since in-state development is generally considered to be more expensive and time-consuming than out-of-state construction. SB X 1-2 addresses that challenge in a number of ways: by providing escape clauses for providers in certain circumstances, and by attempting to contain the cost of renewables and facilitate the building of plants and transmission in-state.

First, the law requires the Department of Fish and Game to establish an "internal division with the primary purpose of performing comprehensive planning and environmental compliance services with priority given to [renewables] projects..." Whether this division will be able to simplify permitting processes, overcome NIMBYism, and combat the growing practice of misusing environmental regulations to derail renewables projects, remains to be seen. What appears certain is that ways must be found to reduce regulatory impediments without sacrificing environmental protections.

Second, the statute recognizes that new transmission will be needed: "New and modified electric transmission facilities may be necessary to facilitate the state achieving its... targets", a tacit acknowledgement that while distributed generation must play an essential part, it alone cannot satisfy the law's objectives. Consistent with the foregoing, the statute (i) requires the CPUC to determine applications for Certificates of Public Convenience and Necessity within 18 months; and (ii) admonishes the California Independent System Operator ("ISO") and the POUs to work cooperatively to interconnect renewables to the grid in an efficient and cost-effective manner. Collaboration between the ISO, IOUs and POUs is crucial to avoid duplicative transmission development and it is hoped that new leadership at the ISO, working together with the IOUs and POUs, will move swiftly and resolutely to effectuate joint transmission construction under legal structures that respect their respective business models. Such joint transmission could prove critical to enable full access to renewables in areas such as the Imperial Valley, which is rich in resources, but currently lacks adequate transmission capacity to export them.

Finally, the statute requires the CPUC to establish a limitation for each seller on procurement expenditures for renewables. The law requires the CPUC to submit a report to the legislature by January 1, 2016, assessing whether each entity can achieve the 33% goal by December 31, 2020, and maintain that level thereafter, within the cost limitations. In developing the cost limitation, the CPUC must avoid "disproportionate rate impacts" and must "ensure rates are just and reasonable, and are not significantly affected by the procurement requirements of this article." The governing bodies of POUs are accorded the right to adopt similar cost control measures. The law also provides that the CPUC shall waive enforcement as to a provider if it finds certain circumstances, including, inadequate transmission, permitting or interconnection hurdles, or insufficiency of renewables available to the seller. Additionally, "if the cost limitation...is insufficient to support the projected costs of meeting the renewable... procurement requirements, the [seller] may refrain from entering into new contracts or constructing facilities beyond the quantity that can be procured within the limitation..." In other words, then, if resources or transmission prove lacking, or regulatory issues arise, a provider may obtain a waiver or assert immunity from the law's dictates.

SB X 1-2 clearly sets a high bar for others emulate. However, in positing the 33% standard, with the added slant in favor of in-state development, SB X 1-2 also recognizes the need to ameliorate the possible downside of its ambitions; namely, increased rates. The success of the law will ultimately depend on whether it has struck the right balance, and whether the provisions to contain costs, accelerate transmission, and streamline development will work in practice, or whether the plethora of clauses that authorize waivers and exemptions for providers will be invoked, thus jeopardizing the realization of SB X 1-2's laudable objectives.

*David Nahai is a partner at the law firm of [Lewis, Brisbois, Bisgaard & Smith](#) and co-chairs the firm's energy, water, environment and real estate practice. Nahai is the former Commission President and General Manager of the Los Angeles Department of Water and Power. [www.davidnahai.com](http://www.davidnahai.com)*



## Comments (0)

This article does not have any comments. Be the first to leave a comment below.

## Post A Comment

You must be logged in before you can post a comment. [Login now.](#)

## Alternative Energy Partners and Sponsors



[List Your Company - FREE](#)

[Fresnel Control to Concentrate the Sun's Energy](#)

[Trojan Battery Company - Energy Storage Solutions for Renewable Energy and Backup Power](#)

[Apricus - Solar Hot Water and Hydronic Heating Products](#)

[KR Wind - Your Worldwide Wind Partner](#)

[Unirac - Bright Thinking in Solar](#)



German engineering.  
American ingenuity.



[Site Search](#)

[Site Map](#)

[Contact Info](#)

[Privacy & Refund Policy](#)

[Advertise](#)

[Subscribe](#) | [Submit Products](#) | [Submit Company](#) | [Submit News](#) | [Advertise](#)

[Articles](#) | [News](#) | [Products](#) | [Industry](#) | [Resources](#)

[Ads by Google](#)

[Solar Power Energy](#)

[Renewable Energy](#)

[Alternative Energy](#)

[Energy Transmission](#)

[Wind Energy](#)