3Degrees

Presidio of San Francisco
38 Keyes Avenue, Suite 300
San Francisco, CA 94129

T: 866.476.9378
F: 415.680.1561
3degreesinc.com

August 11, 2011

Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Proposed 15-day Modifications to Regulations for the California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms

Dear Chairman Nichols and Members of the Board:

3Degrees Group, Inc (3Degrees) appreciates the opportunity to offer comments on the Air Resources Board's (ARB) modified text for proposed California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms regulation (Regulation), released July 25, 2011. 3Degrees is a leading environmental commodities sales, trading, and advisory firm that markets renewable energy certificates (RECs) and carbon offsets in compliance and voluntary markets in California and across the United States. 3Degrees serves hundreds of businesses, utilities, and other load serving entities, along with many thousands of residential customers through our utility green power program marketing services.

3Degrees supports ARB in its leadership to develop regulations to reduce greenhouse gas emissions, and particularly commends ARB for implementing a market-based cap and trade program that encourages the cost-effective reduction of greenhouse gas (GHG) emissions. 3Degrees fully supports a system that uses high-quality carbon offsets to drive emission reductions in uncapped sectors of the economy as a method of adding flexibility to the compliance obligations of entities within capped sectors.

3Degrees also supports ARB's recent addition of language in the Regulation for a Voluntary Renewable Energy Allowance (VRE) Set-Aside. If implemented correctly, the VRE set-aside will ensure that businesses and residents that voluntarily purchase renewable energy above and beyond what is required by law are protected and maintain their ability to reduce GHGs.

The following comments are intended to provide ARB with recommendations on how to improve specific areas of the Regulation to ensure the protection and growth of both mandatory and voluntary markets for renewable energy. 3Degrees' comments are structured to first address the potential for double counting emissions associated with electricity imports from specified facilities and how ARB can prevent this double counting and, second, to offer recommendations for improvement and technical clarifications on specific sections.

Specified Electricity Imports and the Potential for Double Counting

In section 95852(b), ARB discusses the emission categories used to calculate compliance obligations for first deliverers of electricity. In the case of electricity imports from a specified source, the compliance obligation is reported as the exact emissions from the specified facility. If examined purely within the proposed Regulation, this approach is understandable. However, if placed within the context of voluntary and other regional market-based initiatives intended to reduce greenhouse gas emissions through increased generation of renewable energy, then the Regulation, as written, will have the unintended consequence of compromising the environmental integrity of ARB's cap and trade program *and* the voluntary and compliance renewable energy programs of other states throughout the region by allowing double counting of GHG emissions reductions. As described in greater detail below, 3Degrees proposes ARB insert brief additional language that would protect the GHG emission reduction efforts of all parties participating in ARB's cap and trade program and voluntary and compliance renewable energy markets.

Though the problem is fairly easy to correct, understanding the problem and the solution is much easier with a small amount of background information. Eight Western states have renewable portfolio standards (RPS) requiring electric load serving entities to purchase renewable energy for their customers. Operating alongside these compliance markets, there is also a vibrant voluntary market for renewable energy. These voluntary and compliance RPS markets were created with the intent to capture and claim the environmental benefits of the renewable energy to achieve GHG reduction goals and other objectives. In these markets, all of the environmental benefits (including emission characteristics) of the renewable energy are contained and conveyed to the end purchaser through renewable energy certificates (RECs). Examples of state and voluntary market REC definitions are included in Appendix A. To maintain the integrity of these markets, and promote the construction of new renewable energy resources, only the entity that owns the REC may claim the environmental benefits. When the electricity is sold separately from the REC, it is no longer allowed to be claimed as renewable or as containing any of the environmental benefits sold with the REC. To do otherwise is double counting.

As written, Section 95852(b) would allow the double counting of the emissions characteristics if the electricity from an out-of-state renewable energy generator was imported into California and specified as zero-emissions under ARB's cap and trade program while, at the same time, the REC associated with the electricity was sold into the voluntary market or a RPS market outside of California. Both the party importing the REC-less electricity, and the party owning the REC would be claiming the same MWh of electricity as zero or reduced emission electricity. This double counting would undermine the environmental integrity of ARB's program and that of the renewable energy market.

Imagine the following examples of electricity imports from an out-of-state specified source of renewable energy:

1. Renewable energy generator sells RECs (containing the zero emission attributes) into the voluntary market or a non-California RPS market and then sells the null power[1] into California where it is claimed as having zero-emissions under ARB's cap and trade

[1] Electricity that has been stripped of its REC is commonly known as "null power."

program. This is double counting.

2. A third-party purchases bundled (REC + electricity) renewable energy from a generator. It sells the REC into the voluntary market or a non-California RPS market, then sells the electricity into California where it is assigned zero-emissions under ARB's cap and trade program. This is double counting.

3. A California compliance entity purchases bundled renewable energy from out-of-state, imports it into California, sells the REC into the voluntary market or a non-California RPS market, and then keeps and claims the null power as zero emissions under ARB's cap and trade program. This is double counting.

This potential for two claims on the environmental attributes associated with one megawatt-hour (MWh) is concerning for 3Degrees. We strongly believe that the proposed Regulation should protect against these double claims on emissions characteristics. 3Degrees acknowledges that there are technical difficulties in implementing some proposals to track and assign emissions to null power, but we believe there is simple solution that avoids these difficulties.

To protect against double counting, 3Degrees strongly urges ARB to insert the following language as new subparagraph (b)(5) in Section 95852:

> ***Section 95852(b)(5).*** *To report imported electricity from a specified source of renewable energy, the electricity importer must own all property rights to the emissions, or lack of emissions, associated with the imported electricity.*

The above language offers protection to non-California RPS and voluntary renewable energy markets, conforms to existing definitions in the proposed Regulation, does not create a new compliance instrument, does not conflict with current California RPS statute, and does not require that ARB create new systems or processes.

Recommendations and Technical Clarifications on Specific Sections

Section 95802(a). Definitions

(a)(280) Voluntary Renewable Electricity
The first clause of the definition is slightly confusing and refers to RECs as *REDs*. Also, the use of "voluntary program" in this context creates some confusion. Renewable electricity and RECs purchases are reported by voluntary consumers in voluntary recognition programs, such as the U.S. Environmental Protection Agency's Green Power Partnership.[2] As written, this definition would appear to prohibit this sort of activity.

3Degrees recommends amending the definition to read:

> "*Voluntary Renewable Electricity or 'VRE' means electricity, or RECs associated with electricity, produced by a voluntary renewable electricity generator, and which has not and will not be sold or used to meet any other mandatory requirements in California or any other jurisdiction."*

[2] More information on the Green Power Partnership may be found at www.epa.gov/greenpower/

Section 95831. Account Types

(b)(6) Voluntary Renewable Electricity Reserve Account.
As stated in previous comments, 3Degrees urges ARB not to adopt a pre-determined cap and to allow the budget adjustment to be determined solely by the ex-ante estimate of need based on demonstrated demand. This will send a clear market signal and promote the continuing future growth of voluntary renewable energy purchases. Should ARB decide to pursue a cap on the number of allowances that can be placed in the holding account, 3Degrees strongly recommends that the cap be subject to annual review and adjustment rather than at the start of each compliance period, or that an automatic review be triggered whenever demand exceeds the cap for two years in succession.

Section 95841.1. Voluntary Renewable Electricity

3Degrees supports the inclusion of a voluntary renewable energy set-aside and wishes to thank ARB for its recognition of the valuable role played by voluntary purchaser of renewable energy. We also commend ARB staff on their transparency and willingness to engage with stakeholders in the development of its VRE set-aside regulation.

(a) Program Requirements

- 3Degrees wishes to express its support for the inclusion of a generator online date. Although this date is inconsistent with the new date for the voluntary renewable energy market, 3Degrees understands ARB's rational for its choice.
- Given ARB's recent elimination of the allowance distribution and compliance obligation for 2012, 3Degrees recommends that ARB amend the language to read "*Allowance retirement for purposes of voluntary renewable electricity will begin in 2014 for 2013 generation.*"

(b) Reporting Requirements

- (b)(1)(A)
  It appears there is an incorrect reference in this paragraph. 3Degrees suggests amending this paragraph to reference "…*section 95841.1(b)**(2)** or **(3)**…"*
- (b)(1)(C) and (D)
  To allow for the use of industry standard renewable energy tracking systems and reporting documentation, 3Degrees suggests amending (C) and (D) to read "*Contract, settlement**, or renewable energy tracking system** data…*"
- (b)(1)(E)
  The attestation is unclear on what is meant by "any claims for electricity", leaving room for unwanted interpretation. 3Degrees recommends amending the attestation to read "…*any claims to the emissions, or lack of emissions, for the electricity…*"
- (b)(2)(A) and (b)(3)(B)
  It is slightly unclear what exact piece of information ARB is seeking. 3Degrees suggests amending the language to read "*Provide the generator's RPS certification identification number…*"
- (b)(2)(B) & (C) and (b)(3)(C) & (D)
  These requirements could be interpreted as requiring the VRE participant to submit information on the total MWhs and RECs generated by the facility, as opposed to just the MWhs or RECs for which the VRE participant is seeking allowance retirement. As it is often impossible for a REC purchaser to know total generation if the purchaser bought the REC from an entity other than the generator, 3Degrees believes ARB's intent is to

require only the latter. As such, 3Degrees recommends ARB clarify its intent by appending the sentences with the following: *"…for which the VRE participant is seeking allowance retirement…*"

- (c) [VRE allowance retirement]
  As stated previously, 3Degrees urges ARB not to adopt a pre-determined cap and to allow the budget adjustment to be determined solely by the ex-ante estimate of need based on demonstrated demand. Should ARB decide to cap the number of allowances that can be retired each year, 3Degrees strongly recommends that the language in this sub-section be amended such that:
    - In the case that demand for VRE allowances *exceeds* supply in a given year, ARB should distribute and retire VRE allowances distribution equally among qualifying MWhs and/or RECs. As written, the proposed regulation is unclear on this point.
    - In the case of demand for VRE allowances for not equaling supply, then ARB should roll over excess allowances into future compliance years. This, at the very least, will create a slim buffer to allow for VRE market growth in the succeeding years.

Conclusion

3Degrees is grateful for the chance to offer its support for ARB's cap and trade regulation, and for the opportunity to provide recommendations for structuring a VRE set-aside. Incorporating these recommendations will ensure that ARB protects its cap and trade program and renewable energy markets outside California from potential double counting, while simultaneously encouraging meaningful purchases of renewable energy that allow individuals and businesses to go above and beyond statutory obligations. We welcome the opportunity to discuss any of these recommendations with ARB.

Sincerely,

Ian McGowan
Manager, Regulatory Affairs
3Degrees
imcgowan@3degreesinc.com

Appendix A. Renewable Energy Certificate Definitions

Montana[3]

"Renewable energy credit" means a tradable certificate of proof of 1 megawatt hour of electricity generated by an eligible renewable resource that is tracked and verified by the commission and **includes all of the environmental attributes associated** with that 1 megawatt-hour unit of electricity production. [Emphasis added.]

Oregon[4]

“Renewable Energy Certificate” (REC or Certificate) means **a unique representation of the environmental, economic, and social benefits associated with the generation of electricity from renewable energy sources** that produce Qualifying Electricity. One Certificate is created in association with the generation of one megaWatt-hour (MWh) of Qualifying Electricity. While a Certificate is always directly associated with the generation of one MWh of electricity, transactions for Certificates may be conducted independently of transactions for the associated electricity. [Emphasis added.]

Washington[5]

"Renewable energy credit" means a tradable certificate of proof of at least one megawatt-hour of an eligible renewable resource where the generation facility is not powered by fresh water, the certificate includes all of the **nonpower attributes** associated with that one megawatt-hour of electricity, and the certificate is verified by a renewable energy credit tracking system selected by the department. [Emphasis added.]

"Nonpower attributes" means all environmentally related characteristics, exclusive of energy, capacity reliability, and other electrical power service attributes, that are associated with the generation of electricity from a renewable resource, including but not limited to the facility's fuel type, geographic location, vintage, qualification as an eligible renewable resource, and **avoided emissions of pollutants to the air, soil, or water, and avoided emissions of carbon dioxide and other greenhouse gases.** [Emphasis added.]

[3] Montana Code Annotated (MCA) 2009: 69-3-2003. Available at: http://data.opi.mt.gov/bills/mca/69/3/69-3-2003.htm
[4] Oregon Administrative Rules (OAR): 330-160-0015. Available at: http://arcweb.sos.state.or.us/rules/OARs_300/OAR_330/330_tofc.html
[5] Revised Code of Washington (RCW): 19.285.030. Available at: http://apps.leg.wa.gov/RCW/default.aspx?cite=19.285&full=true#19.285.030

Green-e Energy[6]

Environmental Attributes. An environmental attribute is an instrument used to represent the environmental costs or benefits associated with a fixed amount of electricity generation, usually from a specific generating plant. **For renewable facilities, environmental attributes represent the general environmental benefits of renewable generation such as air pollution avoidance.** The exact quantity of the environmental benefit (e.g. pounds of emission reductions of a given pollutant) is not indicated by an environmental attribute, though it can be quantified separately in pollution trading markets and through engineering estimates. **The environmental attribute represents all environmental benefits, whether or not trading markets for such pollutants or benefits exist.** [Emphasis added.]

Renewable Energy Certificates (RECs). […] To help facilitate the sale of renewable electricity nationally, a system was established that separates renewable electricity generation into two parts: the electricity or electrical energy produced by a renewable generator and the renewable "attributes" of that generation. **(These attributes include the tons of greenhouse gas that were avoided by generating electricity from renewable resources instead of conventional fuels, such as coal, nuclear, oil, or gas.)** These renewable attributes are sold separately as renewable energy certificates (RECs). One REC is issued for each megawatt-hour (MWh) unit of renewable electricity produced. **The electricity that was split from the REC is no longer considered "renewable" and is cannot be counted as renewable or zero-emissions by whoever buys it.**

RECs contain specific information about the renewable energy generated, including where, when, at what facility, and with what type of generation. **Purchasers of RECs are buying the renewable attributes of those specific units of renewable energy**, which helps offset conventional electricity generation in the region where the renewable generator is located. Green-e Energy Certified RECs are not sold more than once or claimed by more than one party, and since they are sold on the voluntary market, they cannot count towards a state's renewable-energy mandate […]. [Emphasis added.]

[6] Green-e Energy is a program of the non-profit Center for Resource Solutions and is the dominant standard for ensuring environmental integrity in the voluntary renewable energy market. Definitions may be found at: http://www.green-e.org/learn_dictionary.shtml