

June 26, 2009

Mr. Kevin Kennedy  
Assistant Executive Officer  
Office of Climate Change  
California Air Resources Board  
1001 I Street  
Sacramento, California 95812

Dear Mr. Kennedy:

PacifiCorp is a regulated multi-jurisdictional utility serving 1.7 million retail electricity customers, in Utah, Oregon, Wyoming, Washington, Idaho and California. PacifiCorp owns, or has interests in, 74 thermal, hydroelectric, wind-powered and geothermal generating facilities, with a net owned capacity of 10,188 megawatts. PacifiCorp also owns, or has interests in, electric transmission and distribution assets, and transmits electricity through approximately 15,800 miles of transmission lines. PacifiCorp also buys and sells electricity on the wholesale market with public and private utilities, energy marketing companies and incorporated municipalities as a result of excess electricity generation or other system balancing activities.

PacifiCorp has been active in the California Air Resources Board (“CARB”) proceedings for Assembly Bill 32, the joint agency proceedings of the California Public Utilities Commission (“CPUC”) and the California Energy Commission (“CEC”), as well as the Western Climate Initiative (“WCI”) proceedings for developing a regional cap-and-trade program. PacifiCorp has long advocated that California and the WCI program be preempted by a comprehensive national program provided by federal legislation. Regulating greenhouse gases in a broader framework will increase program efficiency and effectiveness given the global nature of climate change. PacifiCorp continues to strongly encourage states to support the enactment of a comprehensive national program instead of attempting to establish an inherently inefficient regional climate program. A national program will result in a greater likelihood of fulfilling the WCI’s stated purpose of reducing this region’s contribution to global climate change.

### **General Observations**

On June 5, 2009, PacifiCorp participated in the CARB public meeting on “Including Imported Electricity in a California Cap-and-Trade” program via webcast. The meeting discussed linking the California cap-and-trade program with the WCI and what approach is preferred for assigning compliance obligations under the first jurisdictional deliverer (“FJD”), particularly when the electricity is imported from a state outside the WCI but consumed by a state within the WCI. The CARB staff is asking for stakeholder preferences for the different FJD approaches. The Board asked that comments be submitted by June 26, 2009.

Unlike other California investor-owned utilities (“IOUs”), PacifiCorp remains a vertically-integrated multi-jurisdictional utility owning approximately 80 percent of its generation portfolio, and utilizing the majority of the electricity generated from those assets to serve customer retail load. PacifiCorp’s owned-generation portfolio is a mix of assets located both within the WCI states (AZ, CA, MT, OR, UT, and WA) and states that are not currently members of the WCI (ID, CO, and WY).

PacifiCorp also maintains a transmission and distribution system and is the Balancing Authority for the areas known as PacifiCorp West and PacifiCorp East.<sup>1</sup> The Balancing Authority is the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.

### **Approaches for Electricity Imports Compliance Obligation**

#### *PacifiCorp Role as a Retail Electricity Provider*

PacifiCorp’s primary function is to serve retail load. As a regulated multi-jurisdictional utility, PacifiCorp is the load-serving entity<sup>2</sup> for 1.7 million retail electricity customers, in Utah, Oregon, Wyoming, Washington, Idaho and California. To serve retail load, PacifiCorp owns, or has interests in, 74 thermal, hydroelectric, wind-powered and geothermal generating facilities, with a net owned capacity of 10,188 megawatts. All energy produced by PacifiCorp-owned resources, as well as energy delivered pursuant to a power purchase agreement is referred to as “system” power. System power is electricity that is not assigned by PacifiCorp for use within a particular state or balancing authority area.<sup>3</sup>

A useful analogy would be to think of PacifiCorp’s multi-jurisdictional system as a reservoir holding water. There may be a pipe bringing water into the system from one end (representing power generated in Wyoming) and a pipe of water flowing out of the system on another end (represented by power delivered to California). However, PacifiCorp does not track the physical delivery of power used to serve retail load from one end of the system to another. Rather, PacifiCorp combines all of the costs for generating and maintaining the appropriate level of the power within the system,

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<sup>1</sup> A Balancing Authority is defined as the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time. A Balancing Authority Area is defined as the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load resource balance within this area.

<sup>2</sup> A Load-Serving Entity is defined as the entity that secures energy and transmission service (and related Interconnected Operations Services) to serve the electrical demand and energy requirements of its end-use customers.

<sup>3</sup> An exception is the assigning of the power produced by Qualifying Facility (“QF”) contracts that mandate utility purchases under federal law (i.e., Public Utility Regulatory Policies Act). The output from QF projects is usually assigned to the state where the project is physically located.

calculates a cost for doing so, and allocates these costs to each of the states based upon retail load served.

A system power cost allocation factor referred to as a System Energy (“SE”) factor is used. As a result of this shared resources approach, PacifiCorp’s states receive the various benefits created by resource diversification. The SE factor is part of a more comprehensive cost allocation methodology referred to as the PacifiCorp Multi State Process (“MSP”) revised protocol. The revised protocol is a cost allocation methodology agreed to by the various utility commissions that regulate PacifiCorp.

There are two important points to emphasize about PacifiCorp’s use of a SE cost allocation factor. First, unlike other California IOUs, PacifiCorp assigns power produced by its various system resources using a cost allocation factor, and thus power used to serve retail customers is not based upon location and physical delivery (i.e., transmission). Second, by relying upon the SE cost allocation factor, PacifiCorp is likewise able to assign greenhouse gas emissions attributable to its various system resources to the states it provide retail electricity service.

PacifiCorp’s compliance obligation for imported system power used to serve customer retail load is ultimately tied to an existing cost allocation methodology. PacifiCorp will be able to identify which system assets are physically located within a regulated jurisdiction (either California or a WCI partner jurisdiction). The amount of the power output generated by that system asset and the amount of power ultimately assigned to California using a SE factor will be reportable on an annual basis. Again, PacifiCorp does not currently track the power flows within the PacifiCorp system that serve retail load. Power moves within the PacifiCorp system in accordance with the laws of physics to meet load demand or to maintain transmission line reliability.

During the CARB public meeting on June 5, 2009, two FJD approaches were discussed, “Individual Boundary” and “Common Boundary” approaches, respectively. PacifiCorp supports the Common Boundary approach. However, it should be noted that the Common Boundary approach has been further developed as part of the WCI deliberations and a white paper discussing the various FJD approaches has been released for public comment.<sup>4</sup> The WCI white paper titled, “Discussion of FJD Boundary Options”, which identifies four possible options, not just the two identified by CARB. The nuance between the different options is relevant to PacifiCorp’s multi-jurisdictional utility status and its status as a Balancing Authority. PacifiCorp’s preference is for option #2 as outlined in the WCI’s white paper.

“Option 2 is a common boundary approach whereby the entity holding title to non-WCI generated power when it is initially imported into any WCI jurisdiction is financially liable for GHG allowances regardless of where within the WCI the power is ultimately consumed. The entity holding title to the non-WCI generated power when it is imported into the WCI must surrender the appropriate quantity of GHG allowances to the

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<sup>4</sup> <http://www.westernclimateinitiative.org/component/remository/func-startdown/31/>

WCI jurisdiction where the power is consumed. The jurisdiction where the power is consumed is responsible for monitoring power delivered to its jurisdiction and is responsible for collecting GHG allowances from liable entities.” page 2. Western Climate Initiative’s *Electricity Committee Discussion Paper on FJD Boundary Options for Regulating Electricity Imports* (January 12, 2009).

Option #2 appears flexible enough to allow PacifiCorp to rely upon its existing cost allocation methodology (i.e., the SE factor) to assign system power output and greenhouse gas emissions associated with system power, while the other options may not. For example, for power generated in Wyoming, PacifiCorp would be financially liable for greenhouse gas allowances for its system power, whether used to serve customer retail load or for wholesale system power transactions to a WCI jurisdiction. PacifiCorp would also have the flexibility to identify the jurisdiction where its system power is consumed, as well as impute greenhouse gas emissions associated with the system power, using its existing MSP revised protocol cost allocation methodology.

#### *PacifiCorp Role as a Seller of Wholesale Electricity*

At this point, it is important to distinguish between PacifiCorp system power used to serve retail customer load and system power sold by PacifiCorp into the western wholesale electricity market. PacifiCorp’s primary function is to serve retail load although from time to time it does sell excess power into the wholesale markets when it exists or when system reliability warrants it. Unlike retail system power sales where PacifiCorp acts as the load-serving entity, PacifiCorp’s wholesale system power sales are transactions where power delivery is scheduled and each transaction explicitly identifies a final point of delivery.<sup>5</sup> In Attachment 1, PacifiCorp has provided a detailed GIS map illustrating the various transmission connections between the different service areas.

For wholesale electricity transactions, PacifiCorp’s commercial and trading group conducts transactions with an identified counterparty and a scheduled point of delivery. For example, in 2008 several PacifiCorp wholesale system power exports into California were transmitted from Four Corners to the SP15 Cal ISO service area (see map in Attachment 1). In those transactions the counterparty, amount of electricity and point of delivery are all recorded and available. For staff’s convenience, within Attachment 2, PacifiCorp has provided a list of points of delivery within California, as well as a list of points of delivery where a counterparty took delivery from PacifiCorp and may have ultimately gone on to import the power into California.

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<sup>5</sup> A Point of Delivery is defined as a location that the Transmission Service Provider specifies on its transmission system where an Interchange Transaction leaves or a Load-Serving Entity receives its energy. An Interchange Transaction is defined as an agreement to transfer energy from a seller to a buyer that crosses one or more Balancing Authority Area boundaries.

## **Identifying Obligated Entities and Sources of Imported Power**

Air Resources Board staff identified three potential tracking approaches to identify obligated entities: NERC E-tags, contracts data, and tracking by emission attributes (similar to WREGIS). PacifiCorp does not necessarily support the CARB in the development of an attribute tracking system because such a system may potentially conflict with PacifiCorp's existing, utility commission approved cost allocation methodology used to characterize retail electricity sales. Such a system would need to recognize the unique circumstances of a multi-jurisdictional utility using a cost allocation methodology. However, such an attribute tracking system would be useful for tracking wholesale system transactions, even from PacifiCorp. However, it is unlikely the CARB would be able to develop and implement an attribute tracking system in time for the first cap-and-trade program compliance period (2012-2015).

On the possible use of NERC E-tags, such tags are a good source of information for PacifiCorp's wholesale electricity transactions. However, E-tags are not fully used within PacifiCorp's balancing system. Since not all of PacifiCorp's counterparties are under federal jurisdiction, particularly small generators, E-tags are not used by some entities due to the extra cost. As a result, contract data is likely to be the most successful tracking approach for PacifiCorp's various electricity transactions.

## **Emission Factors for Unspecified Power**

PacifiCorp does engage in wholesale electricity transactions where most of the transactions are for unspecified power. That is, the counterparties in these transactions are not required to supply power from specific units. The counterparty is only required to deliver the contracted amount of power. The contracts are structured this way to ensure liquidity in the market. For example, PacifiCorp may have a wholesale transaction with a counterparty that operates a power plant in a non-WCI state, like Colorado. This counterparty is obligated to deliver a certain amount of power at a specified time. However, on the day they are obligated to deliver the power, it may be more cost-effective for the counterparty to use a different source for the power, perhaps produced by an asset located within a WCI partner jurisdiction, such as Utah, or from a purchase on the open market. Under this type of contract, the buyer has no right to information on the underlying source of power.

Rather than impute a regional default emission factor, PacifiCorp supports the use of a hierarchy of emission factors for characterizing unspecified power. That is, allow counterparties to provide evidence in support of a default emission factor to be used to characterize a particular unspecified power transaction. The hierarchy would be:

1. Underlying generating resource;
2. Portfolio of underlying generating resources;
3. Counterparty default emissions factor;
4. State of origin default emissions factor;
5. Balancing Authority Area of origin default emissions factor; and

6. Western Electricity Coordinating Council regional default emission factor.

If the counterparties do not have the evidence or there is no way of identifying the underlying source of power then imputing a single regional default emissions rate may be appropriate. In that circumstance, PacifiCorp would support the use of 1100 pounds carbon dioxide-equivalent per megawatt-hour as the single western regional default emission rate.

**Summary**

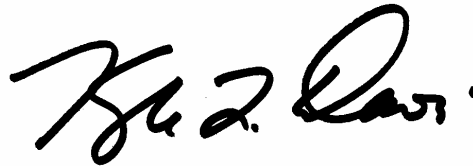
In summary, PacifiCorp supports the use of a Common Boundary approach for electricity imports or CARB developing an attributes tracking system as long as they accommodate PacifiCorp's existing system power cost allocation methodology. Lastly, PacifiCorp supports the use of a hierarchy of default emission factors for unspecified power that allows counterparties to provide evidence to justify emission factors for unspecified power transactions. If information is unavailable and the source is unknown then the use of a single regional default emission rate for unspecified power may be appropriate.

Thank you for your consideration of these comments.

Dated: June 26, 2009

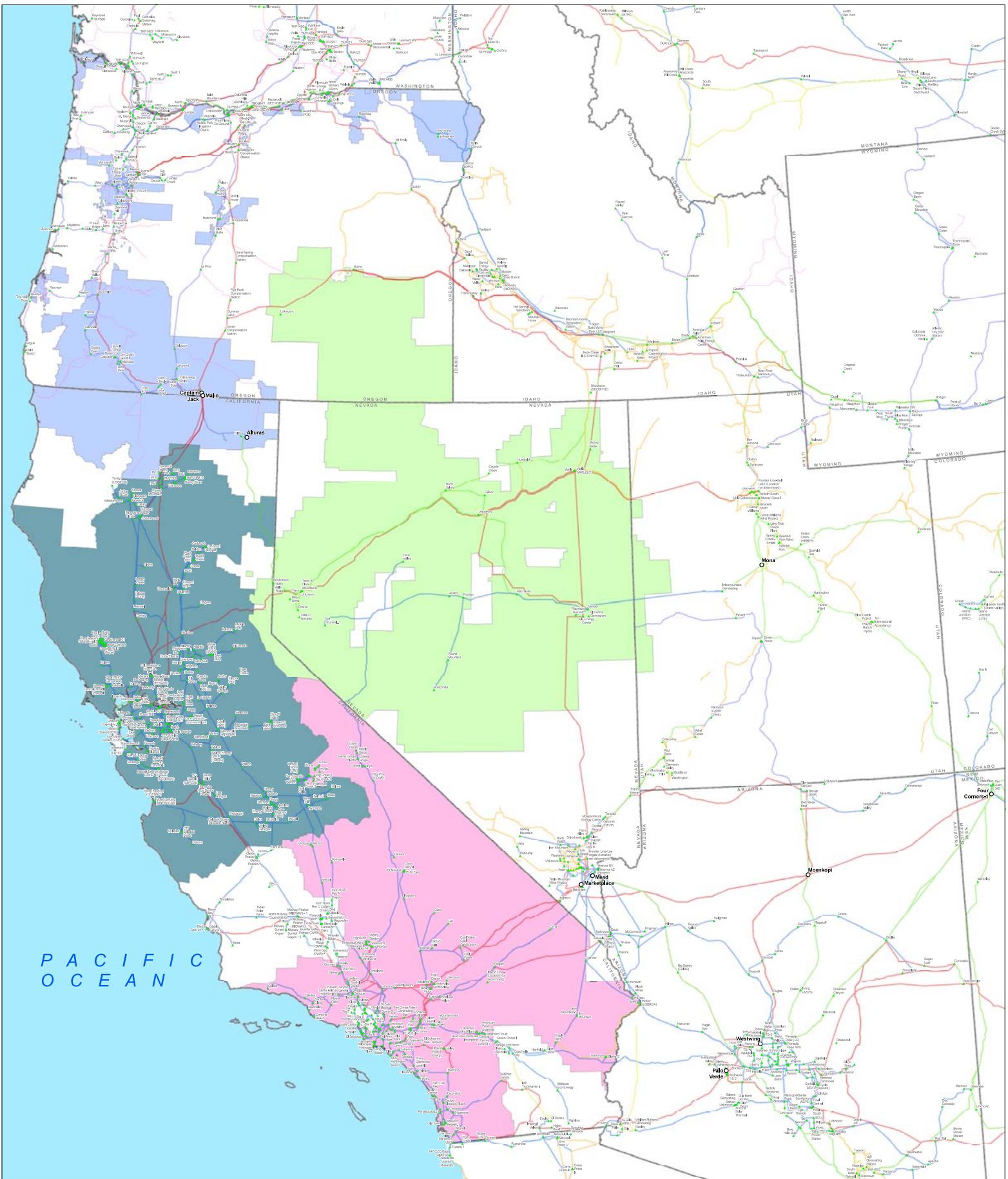
Respectfully submitted,

By



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Attachments



California ISO Transmission  
DRAFT

- Transmission Lines**  
VOLTAGE (kV)
- 115
  - 138
  - 230
  - 345
  - 500
- Delivery Points  
● Substations

- ISO Areas**
- North Path 15
  - South Path 15
  - Sierra Nevada
  - PAC West
  - State Boundary
  - Ocean

**Attachment 1**



0 75 150 Miles



Data Management/  
Geographic Information Systems  
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Data are projected in UTM Zone 15 units meters, NAD83. Pacific Corp. collects data from a variety of government and private sources. PacificCorp makes no warranty as to the accuracy, reliability, or completeness of these data for individual or aggregate use without their data. For complete validation, the source organization should be contacted to verify the lineage of this product.

Parts of the transmission line data used in this map and notes of ISO areas are property of El Paso, a division of The McGraw-Hill Companies, Inc. and should not be made public by any means.

## **Attachment 2**

Points of delivery within California where PacifiCorp has had wholesale system power sales in the past five years:

NP15  
SP15  
Alturas

Points of delivery at the border of California where PacifiCorp has had wholesale sales in the past five years and the counterparty may have imported the PacifiCorp system power into California:

PacifiCorp West (OR)  
California/Oregon Border (OR)  
Captain Jack (OR)  
Malin (OR)  
Nevada/Oregon Border (NV)  
Sierra Pacific (NV)  
Mead (NV)  
MarketPlace (NV)  
Mona (UT)  
Four Corners (NM)  
Westwing (AZ)  
Moenkopi (AZ)  
Palo Verde (AZ)