



November 4, 2016

VIA ELECTRONIC SUBMISSION

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

Re: Comments of PacifiCorp on the October 21, 2016 Workshop on Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation and the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

PacifiCorp respectfully submits these comments on the October 21, 2016 workshop hosted by staff of the California Air Resources Board (“ARB”) on proposed amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (“Cap-and-Trade Program”) and the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (“MRR”).

PacifiCorp does not own or operate emitting resources in California and is subject to the Cap-and-Trade Program and MRR solely as an electricity importer: PacifiCorp imports energy into California through service to its California retail load, bilateral wholesale sales, and the Energy Imbalance Market (“EIM”). PacifiCorp’s comments are provided in two parts: one from its perspective as a Multi-Jurisdictional Retail Provider (“MJRP”) serving retail load in California and one from its perspective as an electricity importer via the EIM.

I. MJRP Comments

A. As an MJRP, PacifiCorp is uniquely situated in California

PacifiCorp is a multi-state utility that provides retail electric service to approximately 1.8 million retail customers located in California, Idaho, Oregon, Utah, Washington and Wyoming. In California, PacifiCorp serves approximately 45,000 customers in Del Norte, Modoc, Shasta and Siskiyou counties. PacifiCorp’s service territory is predominantly rural and approximately 39 percent of California customers are eligible for PacifiCorp’s California Alternate Rates for Energy (“CARE”) low-income assistance program. PacifiCorp is regulated under the state jurisdictions of each of the states in which PacifiCorp has retail service territory. PacifiCorp operates two Balancing Authority Areas (“BAAs”) that span its six-state service territory and as a load-serving entity it operates its multi-state territory as a single, integrated system. Consistent with its integrated system operations, the majority of its system generating resources (both PacifiCorp-owned and contracted generation) are allocated across the entire system rather than on a state-by-state basis.

Currently, PacifiCorp is the only MJRP under the Cap-and-Trade Program and MRR—its compliance obligation as an MJRP is calculated differently from other utilities in California in that it is based on a system emission factor. Each year, PacifiCorp reports its total emissions to ARB including a calculated system emission factor which is then multiplied by PacifiCorp's retail load to determine the compliance obligation. Further, PacifiCorp, due in large part to the nature of its multi-jurisdictional service territory, has unique compliance requirements under California's renewable portfolio standards ("RPS"). For example, PacifiCorp and the other small and multi-jurisdictional utilities are not required to comply with the product content category requirements of the RPS. The California Legislature and the California Public Utilities Commission ("CPUC") have adopted such provisions for small and multi-jurisdictional utilities to ensure that the utilities are not disadvantaged simply by the location of assets and that their customers are not unduly burdened due to relatively small size of their home utility.

B. Post-2020 electrical distribution utility allowance allocation

PacifiCorp reiterates its support of ARB's "cost burden" approach to post-2020 utility allowance allocations. As defined by ARB, the cost burden is the anticipated incremental cost of power to serve load due to the requirement to surrender compliance instruments in the Cap-and-Trade Program. PacifiCorp supports this approach because, as noted above, a large number of PacifiCorp's California customers are eligible for PacifiCorp's low-income assistance program. It is critically important to ensure that PacifiCorp's customers in California are protected from significant rate increases over time as well from sharp increases from one year to the next.

Any methodology developed to calculate the true cost burden on PacifiCorp's retail customers associated with the Cap-and-Trade Program must take into account the manner in which PacifiCorp's compliance obligation is calculated and the manner in which PacifiCorp complies with the California RPS. Specifically, the methodology should take into account PacifiCorp's unique regulatory requirements in California, including the fact that PacifiCorp is not required to file an S-2 resource plan or meet the product content category requirements of the RPS. Failure to take these considerations into account will result in an allowance allocation that is not aligned with the cost burden.

Though PacifiCorp is not subject to the product content category requirements of the California RPS, PacifiCorp is subject to RPS requirements in two other of its state jurisdictions—Oregon and Washington. In developing its Integrated Resource Plan ("IRP"), PacifiCorp forecasts a preferred portfolio of resources representing how PacifiCorp anticipates it will serve load over time as well as meet the RPS requirements of its respective jurisdictions, including California. In its IRP, PacifiCorp also takes into account planned coal retirements. The emissions intensity of PacifiCorp's preferred portfolio multiplied by its California load forecast is therefore the best forecast of PacifiCorp's compliance obligation, and therefore cost burden, under the Cap-and-Trade Program. The proposed formula included in ARB's informal proposal does not reflect PacifiCorp's unique circumstances.

In its informal proposal, ARB staff put forth proposed allowance allocations for all California electrical distribution utilities. PacifiCorp's allowance allocation in 2020 is approximately 770,000 allowances. In its informal proposal, PacifiCorp's allowance allocation in 2021 would

be approximately 380,000. PacifiCorp's allocation would be reduced by approximately 50 percent from 2020 to 2021. ARB has not provided justification for the "cost burden" approach that would justify such a dramatic single year reduction. Regardless, ARB should avoid dramatic cliff-type reductions in order to protect customers and allow utilities time to develop compliance strategies.

C. Post-2020 program elements

At the October 21, 2016 workshop, ARB staff presented new concepts for a post-2020 program that consider: 1) a shift away from the Cap-and-Trade Program to more prescriptive regulations in lieu of a post-2020 Cap-and-Trade Program; and 2) assuming a market-based program continues, retiring a portion of the unsold state-owned allowances of vintage year 2020 or earlier. The latter is justified, according to ABR staff, in part, to recognize that emissions are declining faster than anticipated and discussion at the workshop implied that mandatory retirements could be part of wrapping up the market-based program.

With respect to the adoption of a more prescriptive program, it is unclear how such a shift would impact PacifiCorp's customers because those customers' cost burden is entirely based on emissions associated with imported electricity. However, from a policy perspective, a program designed to reduce greenhouse gas emissions aimed at mitigating the global problem of climate change should not be redesigned to address local air quality concerns. In particular, a more prescriptive approach to regulating imported emissions, which are by definition emissions that occur outside of California, would not address the local air quality concerns raised. In general, PacifiCorp supports efforts to address local air quality concerns; however, the mechanism for doing so is not via an existing greenhouse gas program. Rather, adherence to the federal Clean Air Act and continuation of the State's work on its State Implementation Plan serves as a more direct and meaningful mechanism to address local air quality impacts. PacifiCorp looks forward to reviewing and commenting on further refinements to the concepts raised at the October 21 workshop.

With respect to the proposal to retire unsold allowances of pre-2020 vintage, PacifiCorp is concerned that in the long-term this will make the aggressive post-2020 goals more difficult and expensive to achieve. As explained at the October 21, 2016 workshop, retiring unsold allowances is responsive to the fact that emissions are falling faster than expected. However, the fact that emissions are declining faster than expected in the early years does not mean that emissions will continue to decline as quickly in future years, nor does it mean that unsold allowances will not have value in the future or be needed to meet the more aggressive reductions contemplated through 2030 and beyond. Removing unsold allowances because emissions are currently declining could also be seen as penalizing entities who took action early to reduce emissions in an effort to reduce a future burden. The state has not modified its greenhouse gas goals to reflect its overachievement. ARB should not unilaterally take it on itself to effectively do so.

II. Energy Imbalance Market Reporting Requirements

With respect to accounting for emissions associated with energy imported into California via the EIM, PacifiCorp's interest is in preserving the value and integrity of the EIM including the

associated customer cost savings and renewable integration benefits. PacifiCorp is concerned that the adoption of the currently proposed regulatory amendments, as well as the options most recently presented at an October 13, 2016 CAISO technical meeting and the October 21, 2016 ARB workshop, would needlessly jeopardize continued interest and participation in the EIM as well as continued interest in the development of a regional organized energy market. PacifiCorp is strongly opposed to such an outcome and therefore provides comments urging a different approach by both the CAISO and ARB than is currently underway. PacifiCorp has provided similar comments to the CAISO as part of its current stakeholder process addressing greenhouse gas emissions accounting in a regional independent system operator. Those comments are attached hereto as Attachment A.

A. CAISO and ARB stakeholder processes

At a technical meeting held October 13, 2016, the CAISO indicated that it is working with ARB staff through this stakeholder process to address greenhouse gas accounting concerns in the current EIM design. PacifiCorp believes that the ARB and CAISO stakeholder processes should be aligned. It is PacifiCorp's understanding that the CAISO is planning on making any necessary changes to the EIM optimization and market rules by January 1, 2018, which is when ARB also plans to implement proposed changes to greenhouse gas reporting for EIM imports. However, ARB's current schedule includes a final board hearing in Spring 2017 for changes that will take effect beginning in 2018. Assuming final adoption of the reporting changes by ARB in the spring of 2017, there is unlikely to be sufficient time for the CAISO to implement market changes including obtaining any necessary approvals from the Federal Energy Regulatory Commission ("FERC") needed to implement any required market changes. As will be discussed in detail below, PacifiCorp is concerned that the current options for market changes outlined during the technical meeting and the October 21, 2016 workshop may raise Federal Power Act and competitive concerns that may not be approved by FERC. If FERC does not approve the EIM market changes implemented to reflect regulatory amendments already adopted by ARB, EIM entities may be in the position of needing to comply with ARB reporting requirements that are inconsistent with the EIM optimization and FERC mandates. This uncertainty could lead to diminished interest in participating in the EIM and negatively impact current participants.

PacifiCorp strongly urges the CAISO and ARB to conduct a joint stakeholder process so that the issues and timelines associated with these complex issues can be resolved in the most efficient and definitive manner. PacifiCorp is also concerned that ARB staff is not providing sufficient process and clear communication given the complexity of the issues it has raised. No other cap-and-trade program in the United States regulates imported emissions. Attempting to accurately and fairly incorporate carbon price signals into an interstate energy market when only one state regulates imports is highly complex. The inaccurate or unfair incorporation of carbon costs and obligations can disrupt the market and in the worst case, cease its effective operation altogether. Given the complexity of this issue and the potential severity and consequences associated with failing to resolve it effectively, ARB staff should either delay the implementation of these amendments or adopt a simplified approach that is unlikely to disrupt the market. If ARB staff continues on the current path, multiple workshops should be held focused solely on this issue to give stakeholders the opportunity to fully discuss the issue, potential resolutions, and t ramifications.

B. ARB's authority to regulate "secondary" or "backfill" emissions

In the October 21, 2016 workshop, ARB described the problem that it is attempting to solve as associated with a potential for "secondary emissions" or "backfill effect" which is when higher-emitting resources are dispatched to serve EIM load when the EIM market optimization attributes lower-emitting resources to serve California load. The legal basis for ARB's potential regulation of this perceived phenomenon, which by definition involves emissions that occur outside of California that are not imported into California but are used to serve load outside of California, is questionable. ARB's directive under Assembly Bill ("AB") 32 is to account for greenhouse gas emissions from all electricity consumed in the state from electricity generated within the state or imported from outside the state. By their definition, "secondary emissions" and "backfill emissions" are not associated with energy consumed in California—there may be an indirect causal connection between energy consumed in California and these emissions, but fundamentally the "secondary" or "backfill effect" transaction is occurring wholly outside of California.

ARB has also stated that the problem associated with way the current EIM optimization model deems resources as imported to California is that it results in emissions leakage. Under AB 32, ARB has broad direction to "minimize leakage" in designing greenhouse gas limits. Leakage is defined in AB 32 as a reduction in emissions of greenhouse gases within the state that is offset by an increase in emissions of greenhouse gases outside the state. AB 32's extraterritorial reach to minimize leakage under AB 32 is unlikely to extend to the regulation of transactions occurring wholly outside of California, simply because these transactions may now be identifiable via the EIM. The legislative language is clear—the definition of emissions leakage only applies to emissions reductions "in California". The "secondary" or "backfill effect" emissions do not occur in California and thus, there are no emissions reductions in California that are offset.

There are also potential constitutional infirmities if ARB expands its regulation of transactions wholly outside the state of California. Even if there is an indirect causal connection between energy consumed in California and "secondary" or "backfill effect" emissions, ARB must have a methodology to accurately distinguish between those emissions with a causal connection to California load and those emissions associated with load service outside of California. As discussed below, none of the options presented thus far by ARB or the CAISO are likely to accomplish this.

ARB has also not sufficiently addressed how "backfill effect" emissions are addressed in the bilateral market. In the existing bilateral energy market, the same "backfill effect" emissions identified by ARB may be associated with specified sales to California. If energy from a hydroelectric resource is sold to California on a wholesale basis, there may be emissions associated with any "backfill" energy that is incremented to serve load that would not have occurred but for that sale to California. In fact, this scenario, likely based on the economics of resource dispatch options, could have occurred in the absence of the Cap-and-Trade Program and the market signals it engenders. ARB does not currently require a counterfactual analysis to identify "secondary" or "backfill effect" emissions associated with specified sales. These emissions are not captured by applying the default emissions rate to unspecified sales any more

than they would be in the EIM. It is not appropriate to regulate “backfill effect” emissions in the EIM but not in the bilateral market. The reality is that to the extent there is a “backfill effect” it would exist in the bilateral market in precisely the same way it would exist in the EIM—the EIM, operated as single integrated footprint, simply makes it easier to see and potentially identify.

Given the potentially significant financial and market consequences associated with the proposed options for resolving this issue, which will be more fully described below, PacifiCorp requests that ARB staff clearly examine and articulate the legal and constitutional authority to adopt the currently proposed regulatory amendments with respect to EIM reporting.

C. The magnitude of any “backfill effect” emissions does not warrant the complex and challenging options proposed as solutions

ARB staff has yet to provide any indication or assessment of the potential magnitude of any perceived “backfill effect” or “secondary emissions” that may be occurring in EIM. Only a small fraction of the overall energy market is settled through the EIM. Any “backfill effect” emissions that may have an indirect causal link to California load are likely to be relatively small as compared to the total quantity of emissions associated with energy consumed in California. The counterfactual analysis prepared by the CAISO seems to bear this out: the largest monthly increase in emissions outside of California was approximately 12 thousand metric tons.¹ As compared to the overall California greenhouse gas emissions cap, which exceeds 400 million metric tons, this number is very small. Regardless, it is critically important to understand ARB’s assessment of the magnitude of the issue because this should be consistent with the magnitude of the response.

The current options presented at the October 21, 2016 workshop are highly complex and potentially disruptive to the market. It is likely to take significant effort on the part of the CAISO, stakeholders, and FERC staff to evaluate the technical and legal merits of these proposals. It is highly unlikely that the incremental emissions that are to be captured through these options warrant the complexity and potential market disruption that may lead to decreasing the financial and environmental benefits currently being realized in the EIM. PacifiCorp strongly recommends that if ARB will not delay or abandon regulatory amendments associated with EIM reporting, that ARB and the CAISO seek simpler approaches that can be adopted (and modified) easily without requiring FERC approval or changes to the existing EIM optimization.

As extensively described PacifiCorp’s comments submitted on September 21, 2016 in this proceeding, the EIM is providing environmental benefits through the greater integration of renewable energy and reduced curtailment of California over-generation. If ARB does not take a more measured and thoughtful approach to this issue, the “solution” to this inarticulate and

¹ https://www.caiso.com/Documents/EIMGreenhouseGasCounter-FactualComparison-PreliminaryResults_Jan-Jun_2016_.pdf

unsupported problem could pose an existential threat to the EIM and the associated financial and environmental benefits being realized across the West.

D. Discussion of options presented by ARB and the CAISO

PacifiCorp has concerns with ARB's authority to regulate "backfill effect" emissions. Nonetheless, PacifiCorp provides the following comments on the options for modifying how EIM imports are reported to illustrate the challenges associated with this issue. At the October 21, 2016 workshop, ARB presented potential options for modifying the way it requires reporting of emissions associated with energy imported into California via the EIM. It refers to these options as: 1) incremental above-economic base deeming (CAISO Option 2); and 2) modified optimization with a dynamic hurdle rate and renewable contracts for external resources (modified CAISO Option 3). Though not mentioned by ARB in the October 21st workshop, the CAISO also presented another option—Option 1—which is to calculate the overall greenhouse gas impact based on a comparison to a counterfactual dispatch outside of the market optimization.

As discussed more extensively in its September 21, 2016 comments, PacifiCorp disagrees with ARB's position that it cannot account for emissions associated with exported energy. Nonetheless, PacifiCorp understands that ARB staff interprets the language of AB 32 as prohibiting ARB from netting emissions over time and that Option 1, as proposed by the CAISO, may be politically unpopular for a number of reasons. However, assuming that the objective is to identify emissions associated with the existence of EIM transfer capability between California and external EIM entity BAAs, Option 1 has the potential to at least reach a reasonable approximation of those emissions. Option 1 also would avoid the extreme difficulty associated with incorporating accurate and fair greenhouse gas price signals to the entire multi-state EIM footprint when only California regulates imported power. In light of the complexity of these issues and potential vulnerabilities associated with Options 2 and 3 (described below), the least disruptive solution to the leakage concern identified by ARB is Option 1. Given the timing constraints imposed by ARB for adopting regulatory amendments, if Option 1 is not acceptable on a long-term basis, it also could be implemented on a temporary basis while more complex options are finalized. Even if ARB staff rejects Option 1, PacifiCorp urges ARB staff to consider alternatives that are simpler and that estimate emissions outside of the market optimization.

Under Option 2, referred to by ARB as incremental above-economic base deeming, the ISO would perform a two-step process to identify incremental emissions associated with California load. The first step would be to perform the optimization without transfers between CAISO and EIM entity BAAs and the second step would perform optimization with transfers between the CAISO and EIM entity BAAs. The second step would be compared with the first to identify the incremental emissions associated with California load. The CAISO has indicated that this may be the preferred long-term solution but that it does not expect to have the computational power to implement this option by January 2018. While the appeal of this option is presumably that it would correctly identify the emitting resources that have been incrementally dispatched as a result of transfer capability between the CAISO BAA and EIM entity BAAs, it is problematic as a long-term solution as the use of a counterfactual optimization will inherently incorporate assumptions and lack precision. This issue may be exacerbated over time as the EIM footprint

expands. For instance, the treatment of energy that is wheeled through California—wheels through California would not occur but for transfer capability between California and EIM entity BAAs—but energy wheeled through California does not serve California load. This is just one concern that may arise from the use of a counterfactual analysis.

With respect to Option 3, which ARB refers to as a modified optimization with a dynamic hurdle rate, PacifiCorp believes that this option may increase prices outside of California as well as disadvantage resources outside of California as compared to identical resources inside California. For example, it would appear that the hurdle rate would apply to a zero-emitting resource (making it less likely to be dispatched) outside of California while the hurdle rate would not apply to zero-emitting resources inside California. As a result, pursuing this option may increase the vulnerability of the California Cap-and-Trade Program to challenges under the dormant commerce clause as well as increase the risk that FERC will not approve this option. This may also decrease interest from entities outside of California from participation in the EIM and reduce the benefits of current EIM participants. It also could lead to responsive measures by California's neighbors to protect their customers that would result in effects that are the opposite of what ARB says it is seeking to achieve. In certain instances, it also appears that Option 3 could result in overall increased emissions as compared to the current resource specific attribution methodology. This could occur if an emitting resource inside California is dispatched before a zero-emitting resource outside of California because of the additional hurdle rate applied to the zero-emitting resource. Since the CAISO has not yet released its straw proposal, it is not yet known how the application of a residual hurdle rate would impact EIM dispatch and prices. PacifiCorp will continue to engage with the CAISO to further understand the potential impacts of this option.

The discussion of the options above highlights the complexity and potential for unintended consequences of attempting to dispatch a single EIM footprint while only applying greenhouse gas costs to resources that are imported into California. It is unlikely that a perfect solution or perfect methodology will be achieved. The CAISO's existing EIM optimization solves the market on a least-cost basis and is responsive to California's policy preference for zero-emitting generation. If any modified EIM optimization reduces or eliminates the economic and environmental benefits currently realized by PacifiCorp's customers through participation in the EIM, PacifiCorp may be forced to limit or entirely discontinue its participation in the EIM. PacifiCorp is strongly opposed to this outcome given the substantial financial and environmental benefits that are being realized by all EIM participants. The loss of these benefits is not warranted by the issue ARB has raised regarding "backfill effect" emissions. ARB therefore should not modify the existing EIM reporting requirements. If ARB does modify its EIM reporting requirements it should seek to do so in a way that does not prevent continued participation and interest in the EIM.



Comments of PacifiCorp on the Regional Integration California Greenhouse Gas Compliance 10/13 Technical Meeting

Submitted by	Company	Date Submitted
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Introduction

PacifiCorp hereby submits the following comments to the California Independent System Operator Corporation (ISO) on its Regional Integration Greenhouse Gas Compliance Technical Meeting held October 13, 2016. PacifiCorp's principal interest in these comments is in preserving the value and integrity of the energy imbalance market (EIM) including the associated customer cost savings and renewable integration benefits. Ensuring the success of the EIM, and the treatment of greenhouse gas accounting therein, is also of central importance to the ultimate success of a Regional Independent System Operator (RISO). If California adopts policies that unduly burden entities outside of California, it jeopardizes continued interest and participation in EIM as well as continued interest in the development of an RISO. PacifiCorp is strongly opposed to such an outcome and therefore provides comments urging a different approach by both the ISO and the California Air Resources Board (ARB) than is currently in process.

Procedural Comments

PacifiCorp has significant concerns with respect to the manner in which this policy initiative is proceeding. This stakeholder process has been presented by the ISO as based in a need to modify how the market will identify resources serving load in various states in the context of an RISO. As noted in prior comments, PacifiCorp agrees that a different approach for tracking and reporting greenhouse gas emissions will be needed in the context of an RISO, when e-Tags will no longer be utilized for supporting energy schedules into California. However, what is evident from the October 13, 2016 technical meeting is that the purpose of this stakeholder process is ultimately to address concerns raised by ARB staff regarding emissions leakage that it believes is occurring in the EIM. The question of addressing ARB's concerns with respect to leakage is a much narrower topic, currently on a much different timeline and trajectory, than the development of the RISO. PacifiCorp is concerned that individual stakeholders who may be interested in the EIM topic are not participating in this stakeholder process because they are not aware of the substantial impact the ISO's proposals could have on EIM. While clearly any modifications to



greenhouse gas accounting in EIM will have implications for the RSO, these issues should be separate—not the least because the ISO’s proposals have significant potential consequences for EIM in the near-term. The ISO should not undertake or make changes such as those proposed without more clearly articulating its specific objectives and purposes. PacifiCorp recommends that the ISO separate the EIM process from the RSO process.

At the technical meeting, the ISO indicated that it is working with ARB through its stakeholder process to address greenhouse gas accounting concerns in the current EIM design. PacifiCorp has some concerns that the ARB and ISO stakeholder processes are not aligned. PacifiCorp understands that the ISO is planning on making any necessary changes to the EIM optimization and market rules by January 1, 2018, which is when ARB also plans to implement proposed changes to greenhouse gas reporting for EIM imports. However, ARB’s current schedule includes a final board hearing in Spring 2017 for changes that will take effect beginning in 2018. This may not be enough time for the ISO to implement market changes including obtaining any necessary approvals from the Federal Energy Regulatory Commission (FERC). As will be discussed in detail below, PacifiCorp is concerned that the current options for market changes outlined during the technical meeting may raise Federal Power Act and competitive concerns that may not be approved by FERC. If FERC does not approve EIM market changes implemented to reflect regulatory amendments already adopted by ARB, EIM entities may be in the position of needing to comply with ARB reporting requirements that are inconsistent with the ISO optimization and FERC mandates. In the worst case, this uncertainty could lead to diminished interest in participating in EIM and negatively impact current participants. PacifiCorp strongly urges the ISO and ARB to conduct a joint stakeholder process so that the issues and timelines associated with these complex issues can be resolved in the most efficient and certain manner.

General Comments

PacifiCorp provides below comments on the specific ISO proposals presented at the technical meeting; however, PacifiCorp notes that ARB has yet to definitively identify its legal ability and technical justification for the proposed changes to its mandatory reporting and cap-and-trade programs. ARB staff has not identified the magnitude of the emissions leakage it believes is occurring in the EIM. Nor has ARB staff addressed significant potential legal concerns associated with effectively regulating emissions outside of California that by the very definition of emissions leakage are not imported into California. Under the existing bilateral energy market, the same “secondary dispatch” emissions identified by ARB may be associated with specified sales to California. If energy from a hydroelectric resource is sold to California on a wholesale basis, there may be emissions associated with any “backfill” energy that is incremented to serve load that would not have occurred but for that sale to California. ARB does not currently require a counterfactual analysis to identify “secondary dispatch” emissions associated with specified



sales. It is not clear on what basis it is appropriate to regulate emissions leakage in EIM but not in the bilateral market.

Due to these issues, it is unclear whether a complex solution such as those proposed by the ISO is actually needed or justified to address a problem that has not been carefully articulated or supported with technical analysis. PacifiCorp therefore in general continues to oppose changes to the existing greenhouse gas accounting methodology and the need for any changes to the ISO optimization which could ultimately pose an existential risk to the EIM. Therefore, PacifiCorp's specific comments provided below do not represent an agreement that emissions leakage is occurring in EIM, that ARB has specific authority to regulate emissions leakage in the manner proposed, or that changes to the market optimization are ultimately necessary.

Technical Comments on ISO Proposed Options

With respect to any changes proposed to EIM to address emissions leakage, PacifiCorp agrees with the principles articulated by the ISO at the technical meeting, but would modify the principles to more clearly articulate objectives. With respect to treatment of greenhouse gases in the EIM, under the current framework where only California regulates imported emissions, it is of critical importance that: 1) resources outside of California may continue to choose not to import energy to California to avoid regulation under California's cap-and-trade program; 2) greenhouse gas costs do not impact prices external to the ISO balancing authority area; and 3) resources internal to California are treated comparably with resources external to California. Though PacifiCorp agrees with these principles, it is not clear from the discussion at the technical meeting exactly whether and how the proposals set forth by the ISO ensure that these principles are maintained. PacifiCorp recommends that, in its straw proposal, the ISO specifically articulate how its proposal will preserve these principles.

In the technical meeting, the ISO presented three options for addressing potential emissions leakage in EIM: 1) calculate overall greenhouse gas impact based on a comparison to a counterfactual dispatch outside the market optimization (Option 1); 2) modify the ISO optimization but maintain a resource specific cost and attribution (Option 2); and 3) modify the ISO optimization to add a residual emission rate for EIM transfers into the ISO (Option 3). Conceptually, if a change becomes necessary, PacifiCorp would prefer Option 1 because it would involve the least disruption to EIM. It is the most straightforward and simple approach, likely would not require FERC approval, and could be implemented with minimal market changes or disruption. Though PacifiCorp has some concerns with the use of a counterfactual analysis to identify emissions leakage, as will be discussed below, an accounting outside of the market optimization is less problematic in that it could be periodically updated and improved without FERC approval and with less potential disruption to the market.



PacifiCorp understands that ARB staff interprets the language of Assembly Bill (AB) 32 as prohibiting ARB from netting emissions over time and that Option 1 may be politically unpopular for a number of reasons. However, the reality is that Option 1 has the potential to reasonably approximate the greenhouse gas emissions associated with the existence of EIM transfer capability between California and external EIM entity BAAs. Option 1 also would avoid the extreme difficulty associated with incorporating accurate and fair greenhouse gas price signals to the entire multi-state EIM footprint when only California regulates imported power. In light of the complexity of these issues and potential vulnerabilities associated with Options 2 and 3 (described below), the least disruptive solution to the leakage concern identified by ARB is Option 1. Given the timing constraints imposed by ARB for adopting regulatory amendments, if Option 1 is not acceptable on a long-term basis, it also could be implemented on a temporary basis while more complex options are finalized. PacifiCorp understands that the ISO cannot change ARB staff's interpretation of AB 32 and therefore needs to focus on what it might consider more viable alternatives. However, PacifiCorp urges the ISO to keep Option 1 on the table and part of the stakeholder discussion rather than dismissing it based on ARB staff's interpretation. In this way, stakeholders have the opportunity to continue to urge ARB to adopt this simpler approach.

Under Option 2, the ISO would perform a two-step process to identify incremental emissions associated with California load. The first step would be to perform the optimization without transfers between CAISO and EIM Entity BAAs and the second step would perform optimization with transfers between CAISO and EIM Entity BAAs. The second step would be compared with the first to identify the incremental emissions associated with California load. The ISO has indicated that this may be the preferred long-term solution but that it does not expect to have the computational power to implement this option by January 2018. PacifiCorp understands the appeal of this option because it would appear to correctly identify the emitting resources that have been incrementally dispatched as a result of California's participation in EIM. However, in terms of the development of a long-term solution, PacifiCorp has potential concerns with the use of a counterfactual optimization, which will inherently incorporate assumptions and lack precision. This issue may be exacerbated over time as the EIM footprint expands. For instance, it is unclear how the optimization will treat energy that is wheeled through California—wheels through California would not occur but for transfer capability between California and EIM entity BAAs but energy wheeled through California does not serve California load. It is unclear whether emissions associated with wheels through California should appropriately be considered emissions leakage under California's cap-and-trade program. This is just one concern that may arise from the use of a counterfactual analysis. The challenge will be in designing the counterfactual such that it correctly identifies emissions that are imported to California and therefore appropriately regulated under AB 32. PacifiCorp encourages the ISO to continue to explore this option but whether or not it is ultimately supportable will depend on the mechanics of the counterfactual analysis, when they are developed.



With respect to Option 3, PacifiCorp is concerned that it may violate the principles articulated above: it appears that this option may increase prices outside of California as well as disadvantage resources outside of California as compared to identical resources inside California. For example, it would appear that the hurdle rate would apply to a zero-emitting resource (making it less likely to be dispatched) outside of California while the hurdle rate would not apply to zero-emitting resources inside California. As a result, pursuing this option may increase the vulnerability of the California cap-and-trade program to challenges under the dormant commerce clause as well as increase the risk that FERC will not approve this option. This may also decrease interest from entities outside of California from participation in the EIM and reduce the benefits of current EIM participants. In certain instances, it also appears that Option 3 could result in overall increased emissions as compared to the current resource specific attribution methodology. Nonetheless, the technical meeting included a relatively small amount of information regarding how this option would function in practice. It is not yet clear how exactly the application of a residual hurdle rate would impact EIM dispatch and prices. PacifiCorp recommends that in the straw proposal the ISO specifically address competitive concerns and vulnerability to dormant commerce clause and Federal Power Act challenges.

Conclusion

PacifiCorp appreciates the opportunity to submit these comments and looks forward to continuing to work with the ISO on resolving this complex and challenging issue.