INDEPENDENT ENERGY PRODUCERS ASSOCIATION

December 16, 2016

The Independent Energy Producers Association
Comments on CARB's Discussion Draft
2030 Target Scoping Plan Update

The Independent Energy Producers Association (IEP) submits these comments on the California Air Resources Board (CARB) Discussion Draft 2030 Target Scoping Plan Update, released December 2, 2016. In these comments IEP supports the continuation of a post-2020 cap-and-trade program. In addition, IEP asks that the Final 2030 Target Scoping Plan Update (1) remove the goal to "reduce energy demand" as a means to reduce GHG emissions in the electric sector; and, (2) compel additional renewable procurement in the 2017-2020 timeframe to take advantage of expiring federal tax credits that reduce the cost of the Renewable Portfolio Standard (RPS) while aiding to achieve additional cumulative GHG emission reductions.

IEP Supports the Continuation of a Post-2020 Cap-and-Trade Program. IEP supports a cap-and-trade program as the mechanism to ensure emission reductions actually occur and meet the targets in the most cost-effective manner. The trajectory to achieve the 2030 and the 2050 greenhouse gas targets are much steeper and will likely be more difficult to achieve than the 2020 targets. Consequently, as we frame the plan for reaching the 2030 GHG targets and beyond, it will become increasingly important to ensure that the "cost-effective" requirement of both AB 32[1] and SB 32[2] is satisfied to give compliance entities the necessary flexibility to meet their obligations in a cost-effective manner.

[1] Statutes of 2006, Chapter 488.
[2] Statutes of 2016, Chapter 249.

CARB's Goal to "Reduce Energy Demand" as a Means to Reduce GHGs in the Electric Sector Is Misplaced and Contradicts Broader GHG Emission Reduction Policies. In the Discussion Draft 2030 Target Scoping Plan Update, one of the high level objectives for reducing GHGs in the electric sector is to "reduce energy demand."[3] However, GHG emissions reductions in the electric sector have more to do with other factors than simply a requirement to reduce demand. For example, "Since 2008, renewable generation almost doubled, coal generation reduced by more than half, and greenhouse gas emissions reduced by a quarter."[4] Furthermore, in a case where there are no emissions associated with electric generation, reducing energy demand will not grant further GHG emission reductions. Importantly, reducing energy demand is not the same as increasing energy efficiency.

The goal to reduce energy demand within the electric sector conflicts with a more holistic approach to GHG emission reductions which may actually result in an increase in electricity demand. In fact, the goal to "reduce energy demand" seems to be missing a huge opportunity that the electric sector can play in terms of reducing emissions from other sectors of the economy. For example, CARB has certain goals for electric vehicle penetration in California and notes that the transportation sector is the largest emitting sector in California.[5] The electric sector has been successful at achieving the GHG reduction goals ahead of schedule and should be a viable option for helping reduce emissions in other sectors of the economy, namely the transportation sector. Such activities will likely result in an actual increase in electric demand due to a new reliance on the electricity sector as a primary fuel source. Accordingly, an increase in electricity demand could result in more total emission reductions statewide, through the use of fuel switching and emissions free power, than would otherwise occur. Given these realities, *IEP*

[3] Discussion Draft 2030 Target Scoping Plan Update, page 40.
[4] Discussion Draft 2030 Target Scoping Plan Update, page 37.
[5] Discussion Draft 2030 Target Scoping Plan Update, page 20 Figure I-3.

recommends that the CARB strike the goal to "reduce energy demand" on page 40 of the Discussion Draft.[6]

Procure Additional Renewable Resources Now to Achieve Cost-Effective Outcomes and Cumulative GHG Reductions. Additional renewable procurement is warranted now, in the 2017-2020 timeframe, to take advantage of expiring federal tax credits that reduce the cost of the RPS and to achieve additional cumulative GHG emission reductions in the near-term. What's missing is a vision, consistent with statutory authority, to conduct RPS procurement over the next 3-5 years to exceed the *minimum* quantities of RPS products prescribed by statute, *i.e.*, to not only meet but accelerate and exceed SB 350's RPS targets of 40% of retail sales by 2024 and 50% of retail sales by 2030. The Legislature intended the RPS procurement targets to serve as a floor, rather than a ceiling, on RPS procurement.[7]

The federal Production Tax Credit (PTC), Investment Tax Credit (ITC), and depreciation incentives continue to fuel renewable energy growth in California by driving down the cost of RPS resource development. California ratepayers benefit from these incentives, particularly in the highly competitive renewable energy market, as Sellers pass this savings through to Buyers in the form of lower bids and contract prices. Federal legislation passed in December 2015 extended these benefits, but with a phase-out over time.

The potential impact of the pending phase-out of the federal ITC, PTC and bonus depreciation on renewable energy costs may be estimated with the RPS Calculator that the California Public Utilities Commission (CPUC) developed for use for resource procurement and transmission planning. This model contains a detailed *pro forma* financial model that takes into

[6] See Discussion Draft 2030 Target Scoping Plan Update, page 40.
[7] Pub. Util. Code § 399.15(a) directs the Commission to establish an RPS that requires "all retail sellers to *procure a minimum quantity* of electricity products from eligible renewable energy resources as a specified percentage of total kilowatt hours sold to their retail end-use customers." (Emphasis added.)

account federal tax incentives when calculating levelized costs of renewable energy technologies. IEP's technical consultant, MRW & Associates (MRW), performed an analysis of the value of the PTC, ITC, and bonus depreciation using Version 6.2 of the RPS Calculator and the baseline cost assumptions contained therein.

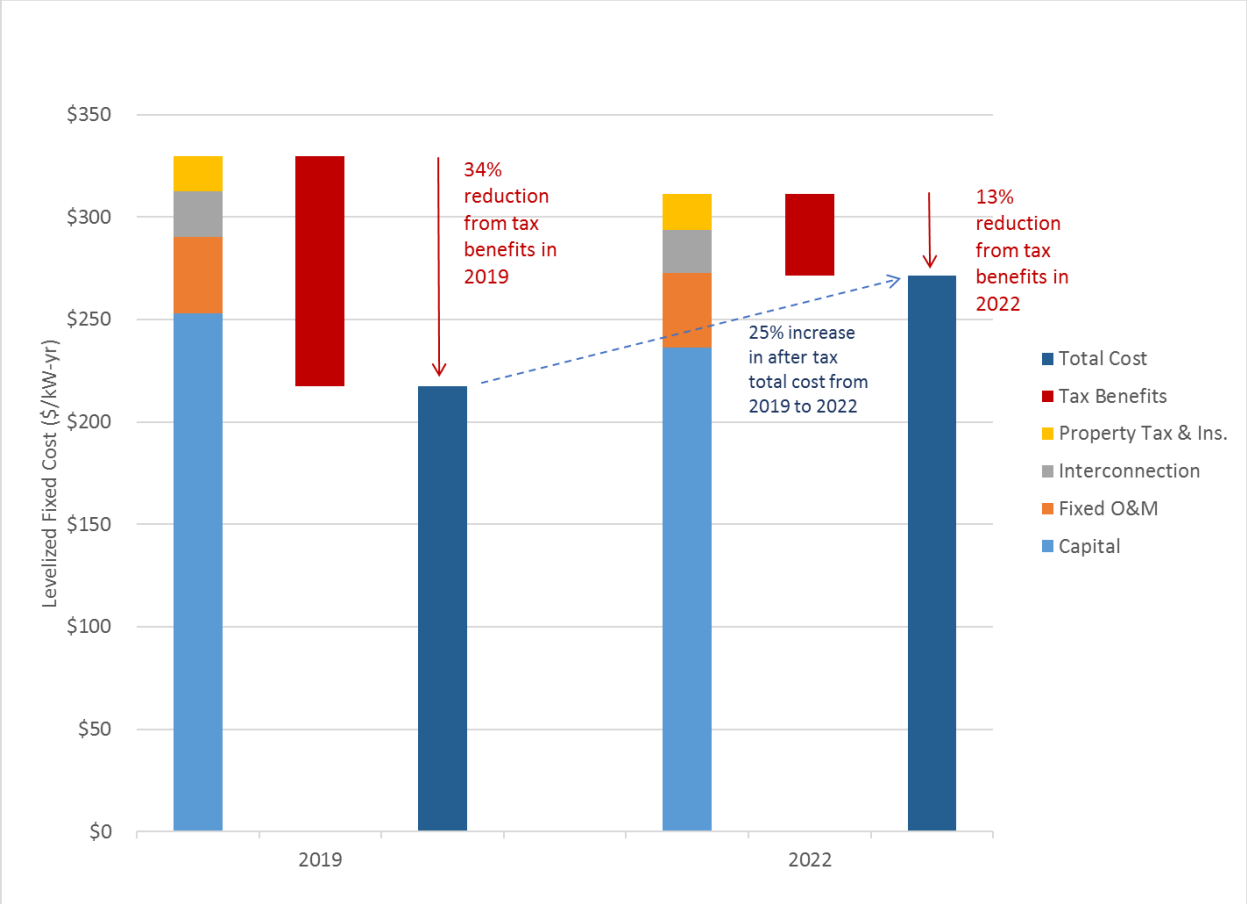
For solar generators, the federal legislation extended the 30% ITC through 2019, at which point the percentage steps down each year until it reaches 10% for projects that begin construction in 2022. The phase-out of tax credits for wind energy facilities begins immediately, with 2019 being the last year that the PTC will be available. Likewise, bonus depreciation is available only to projects placed in service before the end of 2019, with the value dropping from 50% through 2017 to 30% in 2019.

To evaluate the impact of federal tax incentives on solar and wind costs, MRW used the RPS Calculator to analyze costs in 2019, which is the last year that projects are eligible for bonus depreciation. According to the RPS Calculator, the ITC and bonus depreciation contribute to a 34% reduction in the levelized costs of a large solar photovoltaic (PV) project with single axis trackers. In this scenario, the federal incentive is worth $112/kW-yr. In 2022, when the solar ITC reaches its minimum level of 10%, project capital costs are assumed to be slightly lower due to reductions in PV panel costs, but the value of the federal incentives falls to just $40/kW-yr or 13% of the total project costs without the incentives. *Comparing the RPS Calculator results for the two years shows that the reduction in federal tax incentives between 2019 and 2022 increases the levelized costs for solar plants by 25% (see Figure 1).*

By 2019, the PTC for wind projects will have been reduced by 60% compared to the 2016 PTC of $23/MWh. Even so, the federal incentives reduce the 2019 levelized costs of wind in the RPS Calculator by $40/kW-yr, or 15%. *With no federal incentives available to wind*

projects in 2022, the RPS Calculator shows levelized fixed costs that are 13% higher than in 2019.

Figure 1. RPS Calculator Estimate of Solar PV Cost Components, 2019 vs. 2022



A project's eligibility for the ITC or the PTC depends on the timing of "commencement of construction." To access the bulk of the federal tax credits, a project must commence construction in 2018 or 2019. To meet that deadline, the project must receive a final and nonappealable Commission approval of its power purchase agreement (PPA) by 2018 or early 2019. Because it typically takes 18-24 months to move from the initial conduct of an RPS RFO to final Commission approval of the PPA,[8] the RPS procurement process prudently ought to begin in early to mid-2017.

[8] *E.g.*, in recent CPUC meetings, the Commission has approved PPAs resulting from the 2014 RPS solicitations. Achieving final and nonappealable status requires at least another 30 days after approval.

However, the California Public Utilities Commission (CPUC) just approved the utilities RPS plans which indicate no anticipated new renewable procurement in the near-term. In fact, in comments to the CPUC, SCE and SDG&E have indicated no near-term need for RPS resources; with SCE not having a net short position for RPS resources until 2028 with the use of bank, and SDG&E not having a net short position through 2034 with the use of bank.[9] As a result, additional, early cumulative emission reductions may not occur and the actual expected emission reductions from the RPS program between 2021 and 2030 may look more like the emission reductions in the *uncertainty scenario* from CARB's Draft 2030 Target Scoping Plan Strategy[10] rather than the *ideal scenario*, where policies and measures begin today. IEP is very concerned about this approach. While CARB is modeling the trend lines to get to the 2030 GHG emission targets and showing the ideal paths to get there, the agencies responsible for procurement (i.e. the CPUC) are taking contradictory actions that may not put California on the trajectory to the ideal scenarios. IEP is concerned that this will cause California to lose early, additional cumulative emission reductions, which could result in higher GHG compliance costs than would otherwise be necessary.

In conclusion, IEP continues to support a cap-and-trade program as a cost-effective means to achieve our GHG targets. IEP also stresses the need to disassociate GHG emission reductions in the electricity sector from reduced energy demand. Finally, IEP urges additional renewable procurement action in the near-term as a means to achieve additional cumulative emissions reductions, reduce unnecessary uncertainty related to achieving the GHG targets, and

[9] Joint Reply Comments of Southern California Edison Company (U 338 E) and San Diego Gas & Electric Company (U 902-E) on Proposed Decision Accepting Draft 2016 Renewables Portfolio Standard Procurement Plans, December 12, 2016.
[10] See Discussion Draft 2030 Target Scoping Plan Update, page 88.

take advantage of the mechanisms that exist today for lowering the cost of renewable energy projects including federal tax credits.

Respectfully Submitted,

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