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Mary Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95184

Re: ***Comments of the Northern California Power Agency on 2030 Target Scoping Plan Workshop***

Dear Ms. Nichols:

The Northern California Power Agency[1] (NCPA) appreciates the opportunity to provide these comments to the California Air Resources Board (CARB) and its sister agencies on the October 1, 2015 Joint Agency Workshop on 2030 Target Scoping Plan. California's vision of reducing greenhouse gas emissions to 40% below 1990 levels by 2030 will require continued coordination between the various state agencies represented at the Workshop, as well as close collaboration with the California citizens, businesses, and industries that will be called upon to effect the aggressive reduction targets. To meet the 2030 reduction goals, the State has outlined the goals of a 50% renewable electricity mandate, a 50% reduction in petroleum use in vehicles, a doubling of energy efficiency savings in existing buildings, greater reliance on carbon sequestration in the land base, reduced short-lived climate pollutants, and the safeguarding of California by taking key actions now to avoid the disruptions from climate change.

NCPA is a California Joint Action Agency established in 1968 by a consortium of locally owned electric utilities to make joint investments in energy resources that would ensure an affordable, reliable, and clean supply of electricity for customers in its member communities. NCPA members include municipalities, a rural electric cooperative, and other publicly owned entities for which the not-for-profit agency provides such services as the purchase, aggregation,

1 NCPA is a not-for-profit Joint Powers Agency, whose members include the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, and Ukiah, as well as the Bay Area Rapid Transit District, Port of Oakland, and the Truckee Donner Public Utility District, and whose Associate Member is the Plumas-Sierra Rural Electric Cooperative.

scheduling, and management of electrical energy. NCPA owns, operates and maintains a fleet of power plants that is among the cleanest in the nation, providing reliable and affordable electricity to more than 600,000 Californians. NCPA made a major investment in renewable energy in the 1980s when it developed two geothermal power plants and financed and built a 250 megawatt hydroelectric facility. Thirty years later, these resources continue to generate reliable, emission-free electricity for its member communities. NCPA's mix of geothermal, hydroelectric, and natural gas resources is well positioned to help its members achieve California's goal of a 33% Renewable Portfolio Standard (RPS) by 2020, and will provide the foundation to help NCPA members reach the 50% RPS threshold. Complementing these efforts is a strong commitment to energy efficiency. The agency's 14 retail utilities have collectively spent more than $100 million on energy efficiency programs over the past decade, reducing demand for electricity by more than 350 gigawatt hours during that time. NCPA and its member utilities are committed to working with CARB and its sister agencies in achieving the State's emissions reduction goals while continuing to provide clean, reliable, and affordable electricity to their customers owners.

The 2030 GHG emission target of 260 MMT CO_2e and the even more aggressive 2050 GHG target cannot be achieved without significantly increasing the rate at which the emissions reductions are currently realized. As such, it is imperative that the State utilize the Scoping Plan process not just to identify the environmentally optimal means by which to meet these aggressive reductions, but also to ensure that the means employed are both cost-effective and technologically feasible. The Workshop presentation focused on the fact that State is looking at sector-oriented measures and multi-agency collaboration, which will certainly facilitate efficiencies in the process of delivering reductions. The value of this collaboration would be greatly enhanced if it were extended to the various sectors of the California economy that are subject to CARB's climate program. The multi-agency Scoping Plan efforts must also be coordinated with the proposed amendments to the Cap-and-Trade Program Regulation for purposes of extending the current program beyond 2020, and with CARB's work on the State Plan for implementation of the U.S. Environmental Protection Agency's Clean Power Plan.

During the Workshop, five focus areas for achieving the projected GHG reductions were identified: (1) Short-Lived Climate Pollutants; (2) Energy Efficiency; (3) Natural and Working Lands; (4) Electricity; and (5) Transportation and Land Use. In the following comments, NCPA focuses its comments on factors that impact its electric utility members: energy efficiency, natural working lands, electricity, and transportation and land use; as well as the economic analysis that overlays the entire Scoping Plan process.

Energy Efficiency

Energy efficiency is a key GHG reduction tool and will continue to play an important part in achieving the state's GHG reduction goals. Indeed, NCPA's members offer a myriad of

programs aimed at reducing energy consumption through efficiency measures. Additional measures will be employed as utilities work to meet the increased energy efficiency requirements included in Senate Bill (SB) 350 and Assembly Bill (AB) 802. These measures will help ensure that GHG emissions are reduced through energy efficiency programs to the greatest extent possible. Despite the importance of energy efficiency as a tool to reduce GHG emissions, it is important to recognize it may not be the most cost-effective solution for all individuals and companies, nor is it always feasible to deploy, particularly in existing buildings. To a large extent, even with the aid of government subsidies and utility rebates, energy efficiency deployment is governed by individual consumer choices and financial investments. Not all energy users - regardless of whether they are building owners or tenants, commercial or residential electricity customers - are willing or able to invest in energy efficiency technologies for a variety of both financial and nonmonetary reasons that may have little to do with utility bills or environmental concerns. The state's vision and benefits of energy efficiency, however, can only be realized to the extent that electricity customers and consumers employ these tools.

NCPA supports measures that continue efforts to educate customers on the benefits of energy efficiency and develop ways to increase the penetration of energy efficiency technologies in both new and existing buildings. As the process for target setting moves forward, the State must ensure that the emission reduction targets from energy efficiency reflect the limitations inherent in deploying energy efficiency and factor these limitations into the projection of total achievable reductions from energy efficiency. While the state reviews the AB 758 Action Plan and looks to the additional reductions that can be achieved through the increased efficiency requirements of SB 350, it is also necessary to keep in mind the "human factor" and how that impacts the efficacy and penetration of energy efficiency measures. NCPA urges CARB and its sister agencies to include this element in its analysis of the emissions reductions that can realistically be achieved by energy efficiency measures.

Natural and Working Lands

The role that California's natural and working lands play in achieving the State's GHG reduction goals is an important one, and one that impacts the ability of other sectors – such as electricity – to achieve the necessary reductions. As noted during the Workshop, California's natural and working land base stores carbon; provides sustainable public benefits in addition to carbon sequestration, such as water filtration, improved air quality, wildlife habitat, temperature moderation through shading, and soil fertility that supports food production; supports sustainable communities; and provides jobs that drive regional economies and improve the quality of life for all California residents.

Without question, proper preservation and management of natural lands will be crucial to California meeting its 2030 GHG target, as well as the continued safe and reliable provision of

renewable electricity resources located in forested areas. NCPA has first-hand experience in this regard. In September, the Valley Fire in and around Middletown, California burned more than 70,000 acres, releasing significant levels of GHG emissions into the atmosphere. The fire also damaged several geothermal electric generation facilities as well as transmission lines at the Geysers, reducing the availability of clean, renewable energy to California consumers and jeopardizing a highly-successful wastewater disposal mechanism for Lake County. While NCPA was able to bring its geothermal plant operations back online with a week of the fire, many of the geothermal facilities operated by other organizations in the Geysers are still too damaged to operate and may be offline for several months, adversely impacting the availability of geothermal power for some time to come.

The situation could have been the same at NCPA's hydroelectric facility located in Calaveras County. The Butte Fire, which affected Amador and Calaveras Counties, emitted significant levels of GHG into the air while threatening to shut down and potentially destroy a 250 megawatt hydroelectric plant. Aside from the personal human toll associated with the wildfires[2], there is a huge environmental toll in terms of GHG emissions that has yet to be fully understood. Instead of serving as a sink for carbon, the forest lands were rather emitters of additional emissions due to the fires. Moreover, these fires disrupted the supply of renewable energy to California consumers, which would likely need to be replaced with fossil fueled generation. California cannot meet its GHG emission reduction goals without a concerted, coordinated, and statewide effort to improve the approaches used to manage the forests and other wildlands and the assurance of adequate resources to fight these wildfires and prevent undue emissions.

Electricity

The electricity sector plays a crucial role in the State's GHG reduction strategy. NCPA and its members have consistently increased their procurement of renewable energy and have invested in the cleanest and most technologically advanced gas-fired generation. NCPA's member utilities will now be called on to meet an increasing renewable energy target, while continuing to ensure the safe and reliable provision of electricity to their customers-owners. These challenges can be met, but it is imperative that the goal setting take into account the constraints faced by the electricity sector.

During the Workshop, Ms. Charles of the California Public Utilities Commission identified the need for the state to address over-generation and integration challenges that result from increasing levels of renewable generation. The state must ensure that the focus on GHG emission reductions does not have the unintended consequence of jeopardizing the safe and

2 Several NCPA employees who work at the geothermal facilities were among the hundreds of Californians that lost their homes in the Valley Fire.

reliable delivery of electricity to California's residents and businesses. California has successfully all but eliminated the use of coal-fired generation in its resource mix. However, fossil-fuel generation, such as highly efficient natural gas generation facilities like the Lodi Energy Center, play a crucial role in ensuring both the reliability and the ability to integrate renewable resources into the grid. The Lodi Energy Center includes "fast start" combined-cycle natural gas turbines that not only are highly efficient but also are designed to facilitate the integration of new intermittent renewables, such as solar and wind, and help California meet its ambitious renewable portfolio standard targets. Entities like NCPA that invest in state-of-the-art generation facilities like the Lodi Energy Center should not be penalized by emission reduction targets that do not acknowledge the important role such facilities play in the overall provision of electricity.

The Workshop presentation identified several potential solutions for addressing reliability challenges inherent in increased renewable energy procurement. (Slide 56) Many of these measures, however, are not currently available, are contingent upon third parties, or are not cost effective to deploy. For example, energy efficiency measures would reduce overall electricity demand, but as discussed above, it is primarily incumbent upon customers and consumers to deploy these measures, and not something that is solely within the control of the utilities. Increasing energy storage and demand response are ongoing efforts, but both are limited by technological feasibility and may not be cost effective in all instances. Likewise, retrofitting existing power plants requires significant capital investments, which may make the efforts economically infeasible.

State reduction goals for the electricity sector must also account for the increasing interactions between California and its neighboring states, and how the expanding Energy Imbalance Market might impact the tracking and accounting of renewable resources. Indeed, deepening regional coordination is presented as potential solution to addressing reliability concerns.[3] However, neither the workshop presentation, nor the subsequent agency presentations addressed this interaction.

Transportation and Land Use

In order to meet the State's GHG reduction goals, the state will need to significantly decarbonize the transportation sector. While part of these reductions can be achieved by such measures as increasing the efficiency of vehicles, reducing the carbon intensity of fuels, reducing overall vehicle miles traveled, and integrating innovative land use solutions, the majority of these reductions are expected to come from electrification of key transportation elements. Increased electric railways, even greater penetration of electric vehicles and electrification of the State's

3 This issue is also inexorably linked with CARB's proposed amendments to the Cap-and-Trade Program and implementation of the U.S. Environmental Protection Agency's Clean Power Plan.

ports will all result in an increased demand for electricity. While electrification of the transportation sector is still expected to result in a net reduction in statewide GHG emissions, this increase will put more pressure on the electric sector to reduce GHG emissions. This disproportionate impact to the power sector needs to be addressed and accounted for when looking at overall emissions targets for 2030. This upward pressure on electricity sector emissions will also impact the State Plan for CPP implementation, and it will factor into the cap-setting that will necessarily be part of the 2016 Cap-and-Trade program amendments. As such, NCPA urges CARB and its sister agencies to fully address this issue in the 2030 Target Scoping Plan.

Economic Analysis

In order for the State to make informed decisions about the various policies and measures that will be employed to achieve the 2030 emission reduction targets, there must be a comprehensive and robust economic analysis. During the Workshop, Mr. Gibbs noted CARB is undertaking an economic analysis taking the total view of the Scoping Plan and evaluating the economic impact of options for achieving the 2030 GHG target with the goal of: estimating the economic impact of various technology pathways and carbon pricing; informing measure development; and assessing the economic impact of options for achieving the 2030 GHG emission target on the California economy, California business, and individuals.

The economic analysis should lead the way for determining the reduction path, guiding decisions on what measures to pursue and further develop. NCPA appreciates CARB's recognition that the proposed approach that focuses on technologies and carbon pricing does not account for actual practices and behaviors, and its commitment to seeking ways to ensure that these important variables are incorporated into the overall analysis. As noted above, several of the key focus areas that are being relied upon to effect emissions reductions are highly contingent upon personal choice and human behaviors from a wide and extremely diverse population throughout the state. An economic analysis that does not take these factors into account will not be able to convey the whole picture or accurately measure the cost impacts associated with achieving the state's climate change strategies.

While the Scoping Plan process is expected to last 12-18 months, CARB's proposed schedule for the Clean Power Plan implementation and amendments to the Cap-and-Trade Program Regulation are anticipated to be substantially complete in less than a year. Accordingly, NCPA urges CARB to accelerate the economic analysis so that the results can be meaningfully incorporated into CARB's development of the 2016 Cap-and-Trade Program amendments, and relied upon to inform the deliberations regarding the State Plan for implementation of the CPP.

Conclusion

The State of California has established a very aggressive GHG emissions reduction target that can only be accomplished by a coordinated, state-wide effort. NCPA and its member public agencies are committed to doing their part to help achieve those reductions. NCPA appreciates the opportunity to provide these comments to CARB on the 2030 Target Scoping Plan Update and hopes that these comments assist in framing the issues to be further addresses as the Scoping Plan process moves forward.

If you have any questions regarding these comments, please do not hesitate to contact the undersigned or Scott Tomashefsky at 916-781-4291 or scott.tomashefsky@ncpa.com.

Respectfully submitted,

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