Pathway to Zero-Carbon: Reducing Emissions While Maintaining Safe, Reliable, and Affordable Electricity

The Northern California Power Agency (NCPA) and our 16 members are diligent in doing our part to reduce emissions to achieve the State's goal of 40% below 1990 greenhouse gas emissions levels by 2030. According to the California Air Resources Board's *Greenhouse Gas Emissions Inventory*, the State reached its 2020 greenhouse gas emissions target level in 2016. The electricity generation sector is a significant contributor to the State's progress. In 2017, the electricity generation sector procured 52% of its generation from zero-carbon sources. As we push for even greater emissions reductions, NCPA members are proactively taking strides in the areas of zero-carbon energy, electric vehicles, energy efficiency, and advanced technologies.

Investing in Zero-Carbon Energy

NCPA and its members have long supported the use of local, zero-carbon and renewable energy generation to serve our member communities. NCPA owns and operates a geothermal facility at the Geysers in Lake County and a hydroelectric facility in Calaveras County. These projects provide clean, renewable power to our member communities and will do so for decades to come. Our commitment to clean energy continues to shape our procurement decisions today, with hydropower playing a key role in our members' long-term zero-carbon strategies.

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In 2018, approximately 54 percent of NCPA members' retail electricity sales were sourced from zero-carbon and renewable energy sources, with members meeting or exceeding the State's mandated 33% Renewables Portfolio Standard target for 2020 and well-positioned to meet the 60% by 2030 requirement.

NCPA is currently working with members on the potential procurement of up to a combined 38.5 megawatts of solar to serve several NCPA member communities. These projects will supplement our members' renewable energy portfolios and, in some instances— through the use of community-scale solar—will allow utility customers who may not have otherwise been able to install solar directly on their homes or businesses to access generation from a centralized solar project via their utility. Economies of scale are achieved by working through NCPA, providing members with access to clean energy at a lower cost.

As technologies advance, our members are continually assessing options for the use of innovative technologies like energy storage and microgrids in their utility operations. NCPA continues to work with its members to analyze technological and market trends to determine which cost-effective energy storage technologies could be used to meet their system needs and support long-term policy goals while

maintaining reliability. To this end, some NCPA members are already using energy storage to support ramping needs and integrate intermittent renewable resources. Others are evaluating the potential for pairing their solar with onsite energy storage to capture additional renewable capacity that can be dispatched when the sun is not shining.

Promoting Electric Vehicles

NCPA members are actively supporting the deployment of electric vehicles and charging infrastructure in their communities through engagement in State policymaking and use of customer incentive programs. Today, NCPA member communities have roughly 10,000 battery-electric and plug-in hybrid vehicles registered in their service areas.

Because of our commitment to progress in transportation electrfication, NCPA members are actively engaged in the California Air Resources Board's Cap-and-Trade and Low Carbon Fuel Standard (LCFS) program. The program provides critical funding for publicly owned utility (POU) transportation electrification efforts and plays an instrumental role in facilitating the State's transition to five million zero-emission vehicles on the road by 2030. Through the LCFS, NCPA members can collectively generate more than one million dollars in revenues that can be used to reinvest in local transportation electrification efforts and achieve both local and state policy objectives.

Achieving Energy Efficiency Savings

NCPA members collectively spend over $15 million annually on energy efficiency programs, reducing electricity consumption by over 45 gigawatt-hours each year. Members offer programs to serve the residential, commercial, and industrial sectors, including programs for appliance, lighting, and HVAC rebates; free energy audits; support for low-income customers; and customer education efforts. By sharing best practices with one another, NCPA members evaluate new customer programs that could lead to even greater energy savings.

Supporting Policy Solutions that Acknowledge Local Responsibility

Some of the State's most successful energy and climate policies acknowledge the diversity of electric utilities across the State. NCPA supports policies that promote localized solutions to address policy direction in the most cost-effective and feasible manner. Our members work with the oversight of their locally-elected or appointed governing boards to ensure that operational and procurement decisions are made, taking into account the specific needs of the community. Through this process, our members make certain that their investments result in direct benefits for their customer-owners.

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One-size-fits-all policies and resource procurement mandates do not take into account the unique circumstances of a given community. These types of prescriptive policies are problematic for POUs, as they will often result in significant costs for POU customers, even in the absence of an identified need, and without known benefits.