

651 Commerce Drive
Roseville, CA 95678

(916) 781-3636

www.ncpa.com

April 6, 2016

Director Ken Pimlott
California Department of Forestry and Fire Protection
1416 9th Street
Sacramento, CA 95814

SUBJECT: California Forest Carbon Plan Concept Plan

Dear Director Pimlott:

NCPA thanks you for the opportunity to offer comments on the Forest Climate Action Team's (FCAT) *California Forest Carbon Plan Concept Plan* (Concept Plan), which we generally support. This letter provides (1) background information on why NCPA is interested in FCAT's efforts and (2) comments to help improve the Concept Plan. We appreciate the time and effort that went into preparing the Concept Plan and we look forward to working with you in the future on this high priority issue.

I. Background

A. NCPA and Impact of 2015 Fires

NCPA is a Joint Powers Agency that has been actively involved in the development of the state's climate program. We represent 15 utilities in northern and central California, including 13 public power municipal utilities and one rural electric cooperative—some of these utilities are in communities that are high risk fire zones. NCPA is focused on providing our member utilities with clean, affordable, and reliable power. The agency does this in large part through our member-owned geothermal power plant at the Geysers in Lake County and hydroelectric operations in Calaveras County.

Catastrophic wildfires—which are increasing in number and intensity each year in California—pose a real threat to the reliability of our state's energy supply. Additionally, any loss of renewable energy caused by wildfires has a direct impact on the ability of utilities to meet the state's energy and environmental standards.

Last September, the Valley Fire in Lake County burned more than 70,000 acres. In addition to several NCPA employees experiencing the loss or damage to their homes, the fire damaged several geothermal electric generation facilities as well as transmission lines at the Geysers. This reduced the availability of baseload renewable energy to California consumers, not to mention jeopardizing a highly-successful wastewater disposal system for Lake County that has helped extend the life of the Geysers by delivering treated wastewater to the steam fields.

With the aid of NCPA members who sent crews to Lake County to help, we were able to bring our geothermal plant operations back online within a week of the fire; however, we lost the ability to generate approximately 9,400 megawatt hours of renewable power during the time the plant was down. Our geothermal neighbors, however, were not so fortunate. Five of the 14 units operated by Calpine at the Geysers are too damaged to operate and may be offline for several months if not longer, which reduces the availability of clean geothermal power to California consumers by about 100 megawatts.

Simultaneously, the Butte Fire, which affected Amador and Calaveras Counties, threatened to shut down and potentially damage our 250 megawatt hydroelectric plant located in Calaveras County. For a few days, fire damage to transmission lines severed ties between NCPA's six megawatt New Spicer Meadow's hydroelectric powerhouse and the California Independent System Operator grid.

B. Impact of Fire on Renewable Energy

As the Concept Plan explains, "Decades of fire suppression, coupled with limited forest management activity, have left many of California's forests with higher densities of small trees and fewer large trees on the landscape overall compared to historic forest conditions." These forest conditions are unnatural, and when combined with climate change, prolonged periods of drought, and bark beetle infestation, substantially increase the risk of catastrophic wildfires and complicate response efforts.

Unfortunately, this fire issue poses a major threat to the state's renewable energy infrastructure. A significant amount of the state's GHG-free hydroelectric power and eligible RPS geothermal energy is generated in "very high fire hazard severity zones" according to CAL FIRE (see the attached maps). As the state experiences more frequent catastrophic wildfires, it is inevitable that more renewable energy will be lost and replaced with spot market purchases, which predominately consists of energy from fossil fuel power plants (this was the case when NCPA lost renewable generation due to the Valley Fire and Butte Fire). These types of impacts, if not addressed, will hinder efforts to comply with the state's ambitious 2030 GHG reduction and RPS goals.

C. Severe Wildfires Compromise the Energy Sector's Climate Efforts

In 2015, the Valley Fire, Butte Fire, Jerusalem Fire, and Rocky Fire burned a combined 241,491 acres of land. This equals approximately the same amount of land burned by the Rim Fire in 2013 (the third largest wildfire in California history). Initial estimates indicate that the Rim Fire released 11,352,608 metric tons of GHG emissions. Based on the US EPA's website, those emissions are roughly equivalent to each of the following:

- Annual greenhouse gas emissions from 2.3 million cars;
- Carbon dioxide emissions from 1.2 billion gallons of gas consumed;
- Carbon dioxide emissions from the electricity use of 1.5 million homes for one year; and,
- Annual carbon dioxide emissions of 3.2 coal fired power plants.

These fires compromise the significant efforts and resources utilities have put into reducing GHG emissions in the state. And the intensity and frequency of wildfires will only worsen. In fact, we are seeing this trend now, with 13 of the 20 largest fires in state history taking place in the last 15 years. This is a critical challenge that warrants immediate action.

D. Severe Wildfires Can Reduce Hydropower Generation

Wildfires such as the Rim Fire in 2013 and the King Fire in 2014 are already having impacts on hydroelectric generation in California, producing hundreds of thousands of fire-ravaged acres of runoff each year, with the sediments from these fires finding their way into the reservoirs that make up California's extensive system of hydroelectric resources. This can reduce hydroelectric generating capacity that provides critical operational flexibility to a grid more reliant than ever on intermittent resources to meet the needs of the California economy.

E. The State's Black Carbon Policy

Short-lived climate pollutants, such as black carbon, are powerful climate forcers and dangerous air pollutants that remain in the atmosphere for a much shorter period of time than longer-lived climate pollutants, such as CO₂.

Black carbon emitting resources include wildfire, fuel combustion in the industrial and power sector, fireplaces and wood stoves, off-road mobile, and on-road diesel vehicles. Among these, wildfire is by far the largest source of black carbon emissions in California. An average wildfire season contributes two-thirds of current black carbon emissions in the state.

The California Air Resources Board (ARB) recently released its *Draft Short-Lived Climate Pollutant Reduction Strategy*. In this document, ARB proposes targets to reduce black carbon emissions by 50 percent below current levels by 2030. This target, however, purposely excludes reductions in black carbon from wildfires. Without considering wildfires in ARB's strategy, the 50 percent target becomes arbitrary and places a disproportionate burden on the energy sector, which is already making great strides in reducing overall carbon emissions.

F. NCPA Supports State Policies That Reduce the Risk of Wildfires

Reducing catastrophic wildfires in the state has multiple public benefits. It helps protect the reliability of much of the state's baseload renewable energy generation. From a GHG perspective, preventing wildfires reduces the risk of losing renewable energy generation and avoids harmful emissions, such as black carbon. To that end, NCPA supports policies and programs that address the wildfire issue, including promoting fuel treatment (e.g., forest thinning, prescribed fire) and biomass projects. NCPA supports funding these efforts with resources such as the Greenhouse Gas Reduction Fund (i.e., cap and trade auction revenues), as proposed earlier this year by the Governor.

II. Comments on the Concept Paper

A. Preamble

The preamble of the Concept Paper explains that “the Air Resources Board will use the information developed in this process as the basis for goals for forest carbon sequestration and for reduction of greenhouse gas and black carbon emissions in the 2016 Scoping Plan Update.” The Concept Paper and any other work on FCAT’s Forest Carbon Plan should also be shared with ARB to be incorporated in ARB’s goal of reducing black carbon by 50 percent by 2030.

Pursuant to SB 605 (Lara, Chapter 523, Statutes of 2014), ARB was required to complete, no later than January 1, 2016, a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state. As discussed above, ARB released a draft strategy on short-lived climate pollutants that calls for reducing anthropogenic black carbon by 50 percent by 2030. The draft strategy excludes a goal for reducing black carbon from wildfires; however, this exclusion was not authorized by SB 605. To complete its strategy, ARB should incorporate FCAT’s plan to reduce black carbon from wildfires.

B. Introduction

NCPA agrees with FCAT’s vision of forest protection, enhancement, and innovation, especially those related to healthy forests that are resilient to higher wildland fire risk; increasing water supplies; working forests that are managed to maintain forest health (this includes biomass for energy); and integrating wildfire protection goals.

Based on the impact fires have on energy reliability and renewable energy infrastructure—which is essential to meeting the state’s GHG emission reduction goals—NCPA recommends including “the protection of the state’s energy infrastructure” as part of FCAT’s vision in the Concept Paper.

C. Purpose and Scope of the Forest Carbon Plan and this Concept Paper

NCPA agrees with FCAT’s intent that the Forest Carbon Plan “[e]stablish forest health and resiliency conditions needed to reach targets for carbon sequestration and net reductions in emissions of greenhouse gases (GHGs) and atmospheric black carbon.” As discussed above, catastrophic wildfires hinder the energy sectors efforts to reduce GHG emissions. Moreover, two-thirds of the state’s black carbon comes from wildfires.

NCPA suggests that FCAT also lists “Promoting co-benefits, such protecting the state’s energy infrastructure” as one of its intent items for the Forest Carbon Plan.

D. Forests of California

NCPA agrees with FCAT’s statement that “[f]orest losses due to climate change not only threaten carbon storage and emissions from forests, but also threaten water resources, energy transmission, the survival of fish and wildlife, and human health.” NCPA, however, suggests replacing “energy

transmission” with “energy infrastructure (e.g., transmission lines and power plants),” especially in light of the effects the Valley Fire and Butte Fire had on NCPA’s renewable energy power plants.

E. Goals and Management Strategies

NCPA strongly agrees with FCAT’s goals and management strategies to enhance wildland forests, especially related to the following management parameters and actions that will help reduce the risk of severe wildfires:

- Align and or integrate cross-jurisdictional management goals to optimize carbon storage and stewardship efforts, including wildfire protection strategies and actions (e.g., location and management of fuel breaks);
- Increase the pace and scale of the use prescribed fire for fuels reduction and restoration of ecological processes; and,
- Increase the pace and scale of mechanical and manual fuel reduction treatments.

NCPA also agrees with FCAT’s strategies to innovate by “[p]romoting research and development of appropriate bioenergy, biofuels, product manufacturing and waste management technologies that serve to support sustainable resource management.” As the Concept Paper explains, this involves supporting “existing and new facilities or infrastructure that provide utilization pathways for excess woody biomass removed from forest health treatments on private and public lands.” This is a vital piece of an all-the-above strategy to reduce the risk of sever wildfires and climate pollutants. This is also has several co-benefits, such as creating renewable energy and support of rural economies.

III. Conclusion

Again, NCPA appreciates this opportunity to comment on the Concept Paper and looks forward to working with FCAT on these important issues. If you have any questions or require additional information, please contact Mario De Bernardo at (916)781-4222.

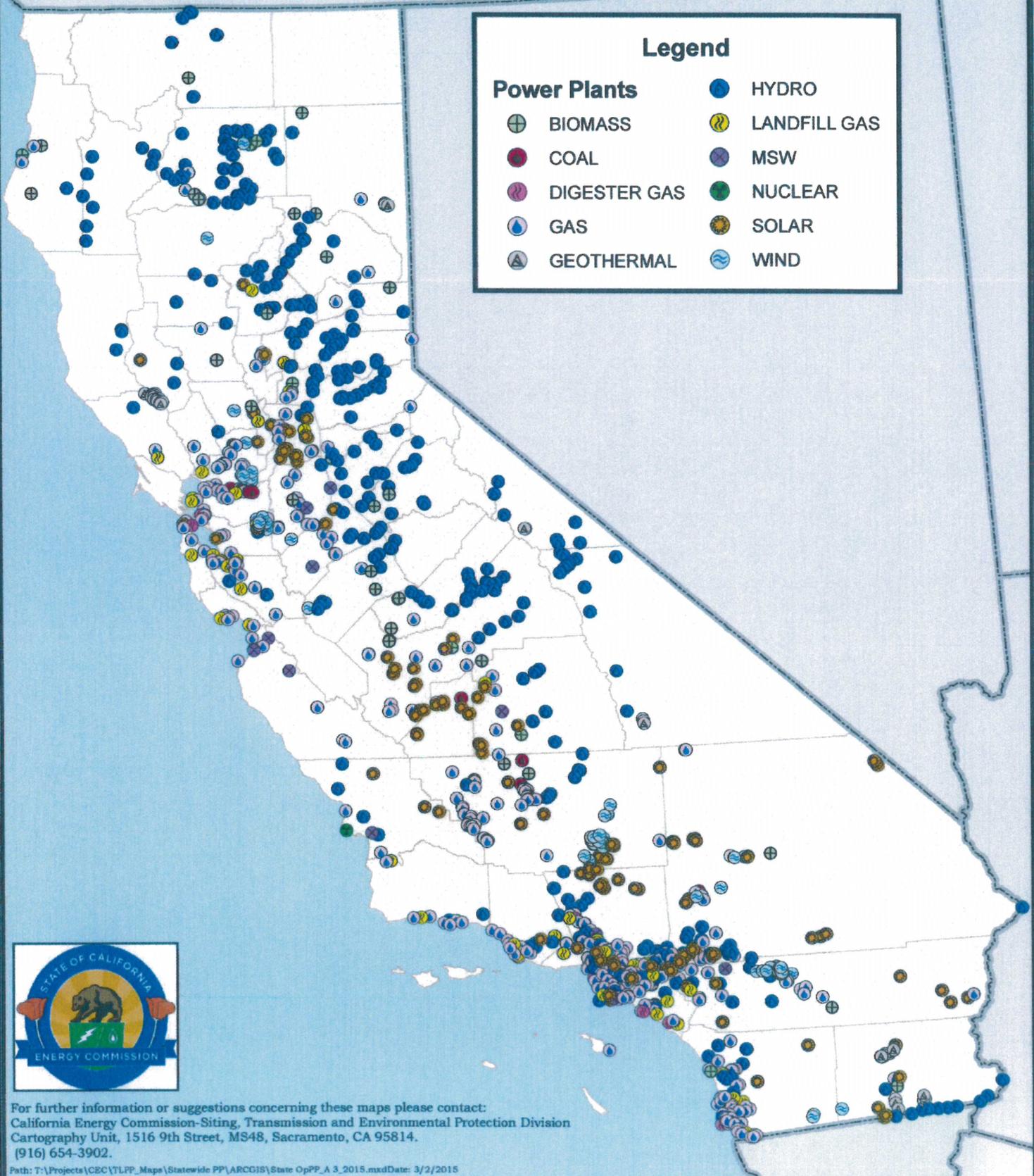
Sincerely,



RANDY S. HOWARD
General Manager

California Power Plants

(Power Plants shown are Operational Only .1 mw and above)



Legend

- | | |
|---------------------|----------------|
| Power Plants | ● HYDRO |
| ⊕ BIOMASS | ⊕ LANDFILL GAS |
| ● COAL | ⊕ MSW |
| ● DIGESTER GAS | ● NUCLEAR |
| ● GAS | ● SOLAR |
| △ GEOTHERMAL | ● WIND |



For further information or suggestions concerning these maps please contact:
California Energy Commission-Siting, Transmission and Environmental Protection Division
Cartography Unit, 1516 9th Street, MS48, Sacramento, CA 95814.
(916) 654-3902.