

December 16, 2016

Ms. Rajinder Sahota, Branch Chief
Climate Change Program Evaluation Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: AB 32 Scoping Plan Update Workshop: Energy System (Electric) Comments

Dear Ms. Sahota,

CTC Global, a California company headquartered in Irvine, appreciates the opportunity to comment on this DISCUSSION DRAFT of the 2030 Target Scoping Plan Update (DRAFT Update). While the DRAFT Update covers many areas and actions that will be called on to meet the GHG reduction targets such as the hugely important shift to renewable generation and away from carbon intensive generation, the DRAFT Update fails to mention actions to improve the efficiency of the electric transmission and distribution (T&D) system which delivers electricity from the generating plants to the consumer. This often overlooked system, could be a source of removing 1 – 2 million tons of CO² emissions per year¹, if its current losses were reduced by 25% or more. The ability to reduce current losses by 25% or more can be done using currently available technologies. One can expect that if improving the T&D system efficiency is a recognized objective, even more technologies capable of improving the T&D system efficiency will become available over the coming decades.

Recommended Actions for the DISCUSSION DRAFT language

- The T&D system and its potential for contributing to meeting the GHG reduction targets should be explicitly mentioned in the discussion of the electric system such as the following example language for page 37 of the current DRAFT. Example follows (added language in italics):

Renewable energy and energy efficiency measures *including increased efficiency of the electric transmission and distribution system* can result in significant public health and climate benefits by displacing air pollution and GHG emissions from fossil fuel based energy sources (Buonocore, et al., 2015), as well as by reducing the health and environmental risks associated with the drilling, extraction, transportation, and storage of fossil-fuels, especially for communities living in close proximity to fossil-fuel based energy operations.

¹ 2014 Energy Information Administration (EIA) data for electric losses in California shows 7% transmission and distribution (T&D) losses. With total California 2014 generation (minus direct use) of 199,996,478 MWh, this equals about 13,999,753 MWh of T&D losses in the 2014 electric grid. 25% T&D loss reduction equals 3.5 million MWh that did not have to be generated which would save fuel costs to customers, free-up 500 MW of generating capacity, and reduce CO² emissions by more than 1.0 million tons per year (at 2014 California emission rate).

- Insert a new “Sectors Measure” item that states: “Increase the efficiency of the electric transmission and distribution system” (page 42). [This objective COULD be listed in the “Potential New Measures”, if it is believed that the objective may face “legal, technological, feasibility, cost, and regulatory barriers that make them difficult or impossible to deploy in the near term”. CTC does not see any such barrier.] Example follows (added language in italics):

Sector Measures

- *Increase the efficiency of the electric transmission and distribution system.*
- Adopt a post 2020 Cap-and-Trade Program that covers the energy sector.
- Implement SB 185 (De Leon, Chapter 605, Statutes of 2015), which requires the California Public Employees' Retirement System (CalPERS) and the California State Teachers' retirement System (CalSTRS) to sell their holdings in coal producing companies by June 1, 2017, and explore extending requirements for additional fossil-fuel assets.

Because of the losses in the electric delivery system, more generation (MWhs) is required than the load it serves. These losses can be reduced using products from the class of High Performance Transmission Conductors (HPTCs) that are available today. Some of these products, such as the ACCC conductor developed by CTC Global, can directly replace the existing old, inefficient conductor, using the same towers, and immediately decrease losses by 25% or more. This is the reality today. Significant GHG emission reductions can be achieved with attention to a more efficient electric T&D system.

CTC Global appreciates the opportunity to comment on this important Scoping Plan document and to raise the visibility of an often overlooked source for significant GHG emission reductions.

Thank-you,

David Townley
Director of Public Affairs
CTC Global Corporation
818-416-4745
dtownley@ctcglobal.com