Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

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Memo

To: Bryan Garcia, President and CEO, Connecticut Green Bank

CC: Lucy Charpentier, Manager of Evaluation, Measurement and Verification, Connecticut Green Bank; Eric Shrago, Director of Operations, Connecticut Green Bank

From: Keri Enright-Kato /S/, Director of the Office of Climate Change, Technology, & Research

Date: Oct. 12, 2017

Re: Request by the Connecticut Green Bank on August 25, 2017 for Review and Approval of the use of CoBRA to Calculate Health Impacts of Air Quality Changes Measurement and Societal Perspective/ Evaluation Framework Draft Fact Sheet

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Background

At the Environmental Protection Agency (EPA)'s suggestion, the Connecticut Green Bank ("Green Bank") reviewed available tools for estimating public health benefits associated with the organization's contribution to support emissions reductions and is now seeking to adopt the Environmental Protection Agency's model Co-Benefits Risk Assessment (CoBRA) as their official tool for measuring these impacts. The Green Bank assembled the following materials for DEEP's review and approval:

- Memo (August 25, 2017);
- Quick Start Tutorial: How to Use CoBRA (June 2015);
- CoBRA User Manual (June 2015);
- Evaluation Framework: Societal Perspective (Public Health) – Draft Fact Sheet by the Green Bank.

Review

The Connecticut Green Bank wants to estimate the extent to which investments in clean energy create value from a societal perspective as it relates to the public health benefits associated with the mitigation of greenhouse gas emissions and other air pollutants. For Green Bank programs the resulting renewable energy produced and energy saved from its projects, will be examined using the previously approved EPA AvERT based methodology to quantify the amounts of Carbon Dioxide (CO_2), Nitrous Oxide (NOx), Sulfur Dioxide (SO_2) and particulate matter ($PM_{2.5}$) that will not be emitted due to generation from existing sources being offset due to, for example, Green Bank supported projects. The outputs are in tons of CO_2 and pounds of NOx, SO_2, and $PM_{2.5}$. These offset emissions will be used as inputs into the CoBRA model resulting in numbers of health-related incidents avoided and their associated cost savings.

Findings

DEEP reviewed The Green Bank's Memos, CoBRA Manual, Quick Start Tutorial: How to Use CoBRA, and Draft Fact Sheet. Our view is that the CoBRA is a well-developed tool that accurately describes the impacts of Green Bank projects to support the reduction of regional emissions. DEEP approves the use of CoBRA for emissions benefit calculations and the summary fact sheet.