

# 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, Director, Office of Climate Change, Technology, & Research, Connecticut Department of Energy and Environmental Protection

**Date:** March 15, 2017

**Re:** Request by the Connecticut Green Bank on February 6, 2017 for Review and Approval of the use of AVERT to Calculate Air Pollution Avoidance Measurement and Societal Perspective/ Evaluation Framework Draft Fact Sheet

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## Background

At the Department of Energy and Environmental Protection's (DEEP) suggestion, the Connecticut Green Bank ("Green Bank") reviewed available tools for estimating the organization's contribution to support emissions reductions and is now seeking to adopt the Environmental Protection Agency's model AVoided Emissions and geneRation Tool (AVERT) as their official tool for measuring these impacts. The Green Bank assembled the following materials for DEEP's review and approval:

- Memo (February 6, 2017);
- AVERT Overview and Step-by-Step Instructions (July 2016);
- AVERT User Manual (March 2017);
- Evaluation Framework: Societal Perspective (Environment) – Draft Fact Sheet by the Green Bank;
- Letter from EPA (March 15, 2017).

## 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 mitigation of greenhouse gas emissions and other air pollutants. For Green Bank programs this will be measured as the amount of clean energy deployed and the resulting renewable energy produced and energy saved. At DEEP's suggestion, the Green Bank examined the AVERT model from the EPA. The tool considers regional generation fleets and profiles to quantify the amounts of Carbon Dioxide (CO<sub>2</sub>), Nitrous Oxide (NO<sub>x</sub>), and Sulfur Dioxide (SO<sub>2</sub>) 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<sub>2</sub> and pounds of NO<sub>x</sub> and SO<sub>2</sub>.

The Green Bank, working with DEEP and the EPA, has developed a process to operationalize running the AVERT model and will create and update estimates for all their projects on an annual basis.

**Findings**

DEEP reviewed The Green Bank's Memos, AVERT Manual, AVERT Overview, and Draft Fact Sheet. Our view is that the AVERT 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 AVERT for emissions benefit calculations and the summary fact sheet.