



The Alliance for Industrial Efficiency

December 5, 2013

c/o Charles P. Nicholson
National Environmental Policy Act Project Manager
Tennessee Valley Authority
400 West Summit Hills Dr., WT 11D
Knoxville, TN 37902

Re: TVA Integrated Resource Plan

Dear Mr. Nicholson:

I am writing on behalf of the Alliance for Industrial Efficiency to urge TVA to support increased deployment of combined heat and power (CHP) and waste heat to power (WHP) in its 2015 Integrated Resource Plan (IRP). The Alliance is a diverse coalition of labor, contractor, business and environmental groups committed to increasing deployment of CHP and WHP. Our membership includes nearly 500 contractors in the states TVA serves. We appreciate TVA's stated goal of leading the region and the nation toward a "cleaner and more secure energy future, relying more on ... energy efficiency and relying less on coal," and write to ensure that CHP and WHP are part of this clean energy future.

Conventional, central power generation is woefully inefficient. In fact, on average, only 33 percent of energy inputs are converted into electricity, with roughly two-thirds lost as wasted heat. Additional line losses occur during the transmission and distribution of power from the central generator to the end user. This inefficiency means we waste the majority of the fuel used to produce electricity – leading to greenhouse gas emissions and unnecessary expenses for end users.

CHP and WHP turn this inefficiency on its head. By generating both heat and power from a single fuel source, CHP can operate at efficiencies of 70 to 80 percent. WHP captures otherwise wasted heat from industrial processes to generate additional electricity, likewise improving efficiency. In this way, both CHP and WHP can reduce the fuel that is needed to generate heat and electricity at universities, hospitals, and industrial facilities throughout the TVA service territory. And because they reduce energy inputs, these technologies dramatically lower carbon emissions. Moreover,

because CHP projects are able to function independent of the grid, they can provide a stable source of power despite extreme weather events, which might compromise electric reliability.

To date, there are 250 projects, totaling nearly 8,900 megawatts (nearly 9 gigawatts) in the seven-state region TVA serves.¹ The potential, however, is far greater. In fact, in 2010, ICF consulting projected that nearly 23,000 megawatts of CHP could be deployed in this same region.² Strikingly, in August 2012, the White House issued an Executive Order setting the goal of increasing CHP deployment by 40 gigawatts by 2020.³ Full-scale deployment in this seven-state region could singlehandedly achieve half of this goal. TVA can help jumpstart this deployment by reducing barriers, like discriminatory standby rates and burdensome interconnection standards that have historically discouraged manufacturers from investing in CHP. TVA can also encourage new CHP and WHP projects by providing up-front financial assistance and by offering long-term power purchase agreements with efficient CHP and clean WHP projects.

We would welcome an opportunity to work with TVA to discuss favorable policies that would support additional investments in CHP and WHP in your service territory.

Sincerely,



David Gardiner
Executive Director
Alliance for Industrial Efficiency

¹ DOE CHP Database (visited Nov. 26, 2013) (<http://www.eea-inc.com/chpdata/>) (note that this estimate is not limited to TVA's service territory, but reflects statewide deployment in the region).

² ICF-USCHPA-WADE, Oct. 2010, *Effect of a 30 Percent Investment Tax Credit on the Economic Market Potential for Combined Heat and Power*, at 11-12 (Tables 3 & 4).

³ The White House, Aug. 30, 2012, Executive Order 13264: "Accelerating Investment in Industrial Energy Efficiency" (<http://1.usa.gov/TzmAcC>)