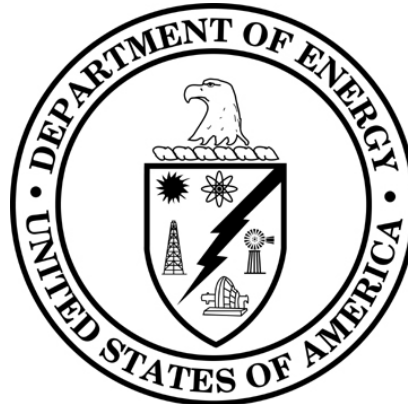
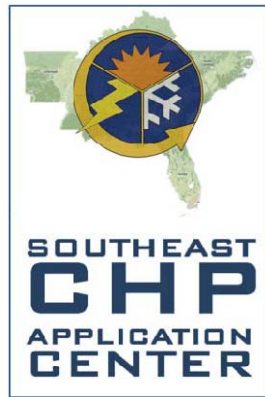


Cooper Tire and Rubber Company (Tupelo, MS) Clean Heat and Power System



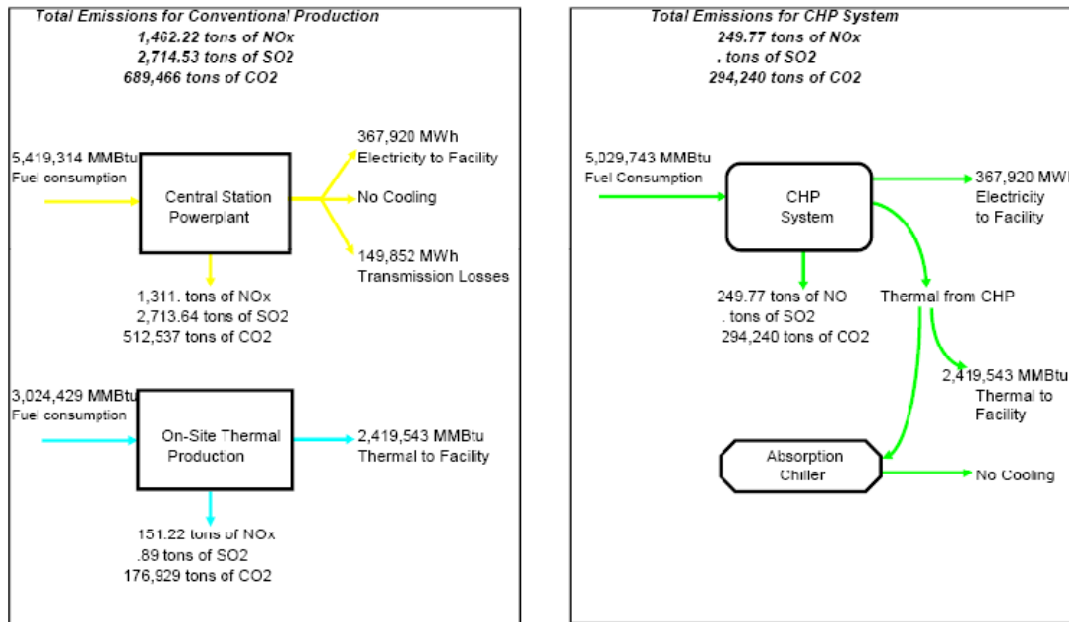
Project Profile

Project Overview:

On September 14, 2007, the Mississippi State Industrial Assessment Center (IAC) performed an industrial assessment of Cooper Tire's Tupelo plant. One of the recommendations from that assessment was for the installation of a combined heat and power (CHP) system. A first-order CHP analysis was performed by the Industrial Assessment Center. This analysis showed that the facility loads appeared favorable for a CHP installation. This information was forwarded to the Southeast CHP Regional Application Center (RAC) at Mississippi State for further analysis. A meeting was held on October 8, 2007 between the IAC, RAC and representatives for Cooper Tire. The results of the first-order analysis were presented and the decision was made to have the RAC further investigate the economic viability of a CHP installation. The RAC agreed to develop an hourly model of a CHP system that could be used for the Tupelo facility. The RAC conducted a feasibility study and found that Cooper Tire would have to purchase 21,000 kW of natural-gas-fired generating capacity to meet its electrical and thermal loads with the following costs associated with the project:

Project Cost	\$16,800,000
Revenue from Sale of CO2 Credits	\$425,000
EPACT 2005 Incentives	\$900,000 (\$180,000/yr for 5 years)
Project Cost after Incentives	\$15,475,000
Energy Savings (projected rates)	\$1,108,652/yr
Simple Payback	14 years

A description of the existing system and proposed CHP system can be obtained from the following figures:



CHP Project:

The results of the hourly model of a CHP system for Cooper Tire’s Tupelo facility are as follows:

Inputs	Value	Units
Rated Turbine Output	21,000	kW
Rated Turbine Heat Rate	11,000	kJ/kWh
Heat Recovery Efficiency	50%	
Boiler System Efficiency	85%	

As a result of the hourly model and feasibility study performed by the Southeast RAC, it was determined that the installation of a CHP system at Cooper Tire and Rubber Company’s Tupelo facility was not economically attractive. This cost analysis also included any incentives available for the installation of CHP systems, such as EPACT 2005 incentives and revenue from carbon credit sales, and found that even when these incentives were applied, the CHP system proposed still resulted in a 14 year simple payback. Therefore, the Southeast RAC determined that installation of a CHP system at Cooper Tire and Rubber Company’s Tupelo facility is not economically viable, even when CHP incentives are considered, and consequently should not be considered.