

Environmental Benefit Calculations



Historical Total Statewide - June 2004

Energy Saving Performance Contracting Projects
by the Department of General Administration, State of Washington

GA ENERGY TEAM

Environmental Impact/Emissions Reduction

INPUT

Annual Electrical Savings

143,408,346 kWh

Annual Natural Gas Savings

5,929,268 Therms

Air Pollutants and Emission Factors

Electricity Generation (lbs. per kWh)

CO₂

WECC Marginal (2002-2010)

0.986

Source: NPPC 2/20/04 Final

Heating Fuels (lbs. per MBTU)

CO₂

SO₂

Nox

Particulate

VOCs

Gas

126

0.0006

0.09

0.01

0.007

Fuel Oil

167

0.65

0.15

0.02

0.006

Wood

130

0.01

0.08

0.8

0.78

Source: EERE Website

Output

Reduction in CO₂ (lbs. CO₂)

216,109,406 pounds

or

108,055 tons

The CO₂ numbers above represent:

An average car emits 15,000 lbs of CO₂ per year

Planting an acre of trees consumes 7,333 lbs of CO₂ per yr.

removing **14,407** cars from the road
or planting **29,471** acres of trees

