

Appendix A

Definitions

Carbon Equivalent Emissions Displaced - estimate of the amount of the carbon equivalent emissions displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit. (See *Appendix B* for more details on calculating this metric).

CO Displaced - estimate of the amount of carbon monoxide displaced annually due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

Consumer Investment - net addition investment by purchasers of the advanced EERE technology as compared to the next best alternative technology, for all technologies penetrating the market. Includes incremental changes in annualized capital costs and O&M costs. Investments that are higher than the next best alternative technology should be entered as negative values. (See *Appendix B* for more details on calculating this metric).

Direct Biomass Displaced - total direct biomass that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct biomass consumed by the EERE technologies. Biomass includes energy crops, wood, wood waste, wood liquors, peat, railroad ties, wood sludge, and spent sulfite liquor.

Direct Coal Displaced - total direct coal that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct coal consumed by the EERE technologies. Coal includes metallurgical coal, steam coal, and net coal coke imports.

Direct Electricity Displaced – total direct electricity that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct electricity consumed by the EERE technologies.

Direct Energy Displaced from Feedstocks - total direct energy from feedstocks that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct energy from feedstocks consumed by the EERE technologies. Feedstocks include combustible fuels forms used for non-energy products such as asphalt or petrochemicals.

Direct Energy Displaced from Wastes - total direct energy from wastes that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct energy from wastes consumed by the

EERE technologies. Wastes include municipal solid waste, landfill gas, agricultural waste, straw, tires, fish oils, paper pellets, tall oil, sludge waste, and waste alcohol.

Direct Natural Gas Displaced - total direct natural gas that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct natural gas consumed by the EERE technologies. Natural gas includes pipeline fuel natural gas and compressed natural gas.

Direct Petroleum Displaced – total direct petroleum that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct petroleum consumed by the EERE technologies. Petroleum includes distillate fuel, jet fuel, motor gasoline, residual fuel, liquid petroleum gasoline, and other petroleum.

EERE Expenditures - anticipated EERE expenditures for the program. Levels will depend on the case being considered – base case, increment case, or decrement case. Expenditures should be entered as negative.

Energy Cost Savings - estimate of dollar savings resulting from fuel related cost reductions that are due to planning unit actions. Net savings should be entered as positive values, and net costs as negative values. (See *Appendix B* for more details on calculating this metric.)

HC Displaced - estimate of the amount of hydro-carbons displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

Net Economic Benefit - the summation of energy cost savings, non-energy cost savings, consumer investment, EERE expenditures and other government expenditures for a particular year. (See *Appendix B* for more details on calculating this metric).

Non-Energy Cost Savings - dollar savings or costs related to non-fuel related operations that are due to program actions. This should include items such as productivity improvements resulting from the introduction of a new technology or process. Savings should be entered as positive values, and costs as negative values.

NO_x Displaced - estimate of the amount of nitrogen oxides displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

Other Direct Energy Displaced - total direct energy from other sources that would have been consumed by conventional technologies had not the EERE technologies comprising the planning unit entered the market, minus the direct energy from other sources consumed by the EERE technologies. Other direct energy sources include those not covered by electricity, natural gas, petroleum, coal, biomass, feedstocks, and wastes.

Other Environmental Benefits - estimate of the amount non-emission pollutants displaced annually due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

Other Government Expenditures - anticipated expenditures by other government agencies (including DOE offices outside EERE) directly related to a program's technologies or projects. Expenditures should be entered as negative.

Other Greenhouse Emissions Displaced - estimate of the amount of greenhouse emissions other than SO₂, NO_x, CO, C, particulates, VOCs displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

PM10 Displaced - estimate of the amount of particulate matter smaller than 10 microns in diameter displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

SO₂ Displaced - estimate of the amount of sulfur dioxide displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.

Total Primary Energy Displaced - the sum total primary equivalent amount of fuel, electricity, and other energy forms being directly displaced by the planning unit (e.g., improved refrigerators displacing electricity; PV for peak load displacing natural gas or oil generation for peak load electricity; electric vehicles displace oil but use electricity; improved process heating displaces the industry fuel mix; etc.). If the planning unit causes fuel switching from one energy source to another (e.g., natural gas vehicles displacing petroleum fueled vehicles), record the increase in energy source consumption as a negative figure (i.e., if the planning unit increases natural gas consumption by 60,7000 cubic feet, while displacing 500 gallons of automobile gasoline, place a negative sign in front of the 60,700 cubic feet of natural gas). (See *Appendix B* for more details on calculating this metric).

VOCs Displaced - estimate of the amount of volatile organic compounds displaced due to fuel switching or the energy displaced from the EERE technologies comprising the planning unit.