

Table 1. Summary of AEO2008 Cases

Case name	Description	Integration mode
Reference	Baseline economic growth (2.4 percent per year from 2006-2030), world oil price, and technology assumptions.	Fully integrated
Early Release Reference	Released in 12/2007, excludes EISA2007 and other changes in reference case.	Fully integrated
Low Economic Growth	Gross domestic product grows at an average annual rate of 1.8 percent from 2006 through 2030. Other assumptions are the same as in the reference case.	Fully integrated
High Economic Growth	Gross domestic product grows at an average annual rate of 3.0 percent from 2006 through 2030. Other assumptions are the same as in the reference case.	Fully integrated
Low Price	More optimistic assumptions for worldwide crude oil and natural gas resources than in the reference case. World light, sweet crude oil prices are \$43 per barrel in 2030, compared with \$72 per barrel in the reference case (2006 dollars). Other assumptions are the same as in the reference case.	Fully integrated
High Price	More pessimistic assumptions for worldwide crude oil and natural gas resources than in the reference case. World light, sweet crude oil prices are about \$117 per barrel (2006 dollars) in 2030. Other assumptions are the same as in the reference case.	Fully integrated
Residential: 2008 Technology	Future equipment purchases based on equipment available in 2008. Existing building shell efficiencies fixed at 2008 levels.	With commercial
Residential: High Technology	Earlier availability, lower costs, and higher efficiencies assumed for more advanced equipment. Building shell efficiencies for new construction meet ENERGY STAR requirements after 2016.	With commercial
Residential: Best Available Technology	Future equipment purchases and new building shells based on most efficient technologies available by fuel. Building shell efficiencies for new construction meet the criteria for most efficient components after 2008.	With commercial
Commercial: 2008 Technology	Future equipment purchases based on equipment available in 2008. Building shell efficiencies fixed at 2008 levels.	With residential
Commercial: High Technology	Earlier availability, lower costs, and higher efficiencies assumed for more advanced equipment. Building shell efficiencies for new and existing buildings increase by 8.75 and 6.25 percent, respectively, from 2003 values by 2030.	With residential
Commercial Best Available Technology	Future equipment purchases based on most efficient technologies available by fuel. Building shell efficiencies for new and existing buildings increase by 10.5 and 7.5 percent, respectively, from 2003 values by 2030.	With residential
Industrial: 2008 Technology	Efficiency of plant and equipment fixed at 2008 levels.	Standalone
Industrial: High Technology	Earlier availability, lower costs, and higher efficiencies assumed for more advanced equipment.	Standalone
Transportation: High Technology	Reduced costs and improved efficiencies assumed for advanced technologies.	Standalone

Table 1. Summary of AEO2008 Cases (cont.)

Case name	Description	Integration mode
Electricity: Low Nuclear Cost	New nuclear capacity assumed to have 10 percent lower capital and operating costs in 2030 than in the reference case.	Fully Integrated
Electricity: High Nuclear Cost	Costs for new nuclear technology are assumed not to improve over time from 2006 levels in the reference case.	Fully Integrated
Electricity: Low Fossil Technology	Costs and efficiencies for advanced fossil-fired generating technologies improve by 10 percent in 2030 from reference case values.	Fully Integrated
Electricity: High Fossil Cost	New advanced fossil generating technologies assumed not to improve over time from 2008.	Fully Integrated
Renewable Fuels: High Renewable Cost	New renewable generating technologies assumed not to improve over time from 2008.	Fully integrated
Renewable Fuels: Low Renewable Cost	Levelized cost of energy for nonhydropower renewable generating technologies declines by 10 percent in 2030 from reference case values.	Fully integrated
Oil and Gas: Rapid Technology	Cost, finding rate, and success rate parameters adjusted for 50-percent more rapid improvement than in the reference case.	Fully integrated
Oil and Gas: Slow Technology	Cost, finding rate, and success rate parameters adjusted for 50-percent slower improvement than in the reference case.	Fully integrated
Oil and Gas: High LNG Supply	LNG imports exogenously set to a factor times the reference case levels from 2010 forward, with remaining assumptions from the reference case. The factor starts at 1.0 in 2010 and linearly increases to 3.0 by 2030.	Fully Integrated
Oil and Gas: Low LNG Supply	LNG imports help constant at 2009 levels, with remaining assumptions from the reference case.	Fully Integrated
Oil and Gas: ANWR	The Arctic National Wildlife Refuge in Alaska is opened to Federal oil and natural gas leasing, with remaining assumptions from the reference case.	Fully Integrated
Coal: Low Coal Cost	Productivity for coal mining and coal transportation assumed to increase more rapidly than in the reference case. Coal mining wages, mine equipment, and coal transportation equipment costs assumed to be lower than in the reference case.	Fully Integrated
Coal: High Coal Cost	Productivity for coal mining and coal transportation assumed to increase more slowly than in the reference case. Coal mining wages, mine equipment, and coal transportation equipment costs assumed to be higher than in the reference case.	Fully integrated
Integrated 2008 Technology	Combination of the residential, commercial, and industrial 2008 technology cases, electricity high fossil cost case, high renewable cost case, and high nuclear cost case.	Fully integrated
Integrated High Technology	Combination of the residential, commercial, industrial, and transportation high technology cases, electricity low fossil cost case, low renewable cost case, and low nuclear cost case.	Fully integrated
Integrated Alternative Weather Case	Assumes future weather resembles 30-year average, as opposed to 10-year average.	Fully integrated
Low Energy Project Cost	Recent cost increases are assumed to revert back to lower levels of a few years ago. Base costs for new electric generating capacity decreases by 15 percent over ten years, then remain flat. Capital costs for oil and natural gas exploration and production fall back toward their pre-2003 levels over time. Refining costs are set to 2004 levels.	Fully integrated

Table 1. Summary of AEO2008 Cases (cont.)

Case name	Description	Integration mode
High Energy Project Cost	Recent cost increases are assumed to continue. Base costs for new electric generating capacity increase throughout the projection. Capital costs for oil and natural gas exploration and production activities remain at increased levels as experienced since 2003. Refining costs increase from current costs.	Fully integrated
Limited Electricity Generation Supply	New coal plants are not built unless they include sequestration. Other non-natural gas capacity sources are restricted to reference case levels or assumed to have higher costs. Existing nuclear units are assumed to have lower output than in the reference.	Fully integrated
Limited Natural Gas Supply	No Arctic natural gas pipelines are in operation by 2030. LNG import values are held constant at 2009 levels from 2010 forward. Oil and natural gas resources are 15 percent lower, and the technological progress is set to half the rate of the reference case.	Fully integrated
Combined Limited	This case combines all the assumptions of the Limited Electricity Generation Supply and Limited Natural Gas Supply cases.	Fully integrated