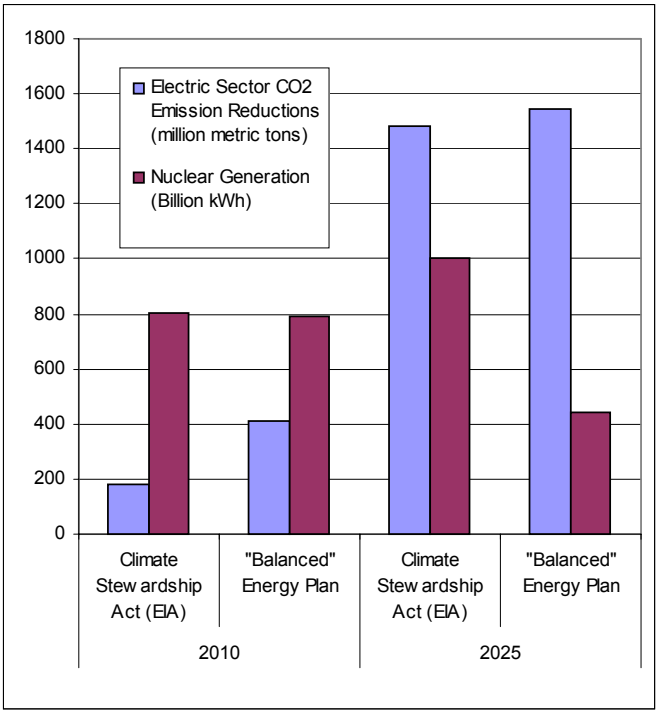
Nuclear Power Is Not the Solution To Global Warming

Keep the Climate Stewardship Act Clean

The nuclear industry is running an aggressive public relations campaign to promote nuclear power as the solution to global warming. It has been 30 years since the last new nuclear power plant was ordered and built in America – and with good reason. Nuclear power is expensive, dangerous, and unnecessary to meet our nation's energy needs. And research shows that we can get well beyond the goals of Senators McCain and Lieberman's Climate Stewardship Act (S.342), which would cap global warming emissions from power plants and other industries at 2000 levels starting in 2010, with *less* rather than more nuclear power – and do it far more cheaply – by taking advantage of America's vast supplies of renewable energy and energy efficiency.

Nuclear power is unnecessary to combat global warming: A report by Synapse Energy Economics, Inc. shows that a "balanced" energy plan that relies more on energy efficiency improvements and renewable energy (without capping carbon dioxide emissions) could achieve the goals of the Climate Stewardship Act while *reducing* dependence on nuclear power and saving billions of dollars.[1] By 2010, the balanced energy plan delivers twice the electric-sector emission reductions needed to meet the Climate Stewardship Act goals (according to an analysis of the Act by the Energy Information Administration), while saving $3 billion a year. By 2025, the balanced plan reduces carbon dioxide emissions from power plants by 47 percent – enough to meet the goals of the Act – while reducing nuclear generation by nearly half, and saving $36 billion annually compared to business-as-usual (see Figure 1).

Figure 1. A Balanced Energy Plan Can Meet the Act's Goals With Less Nuclear Power

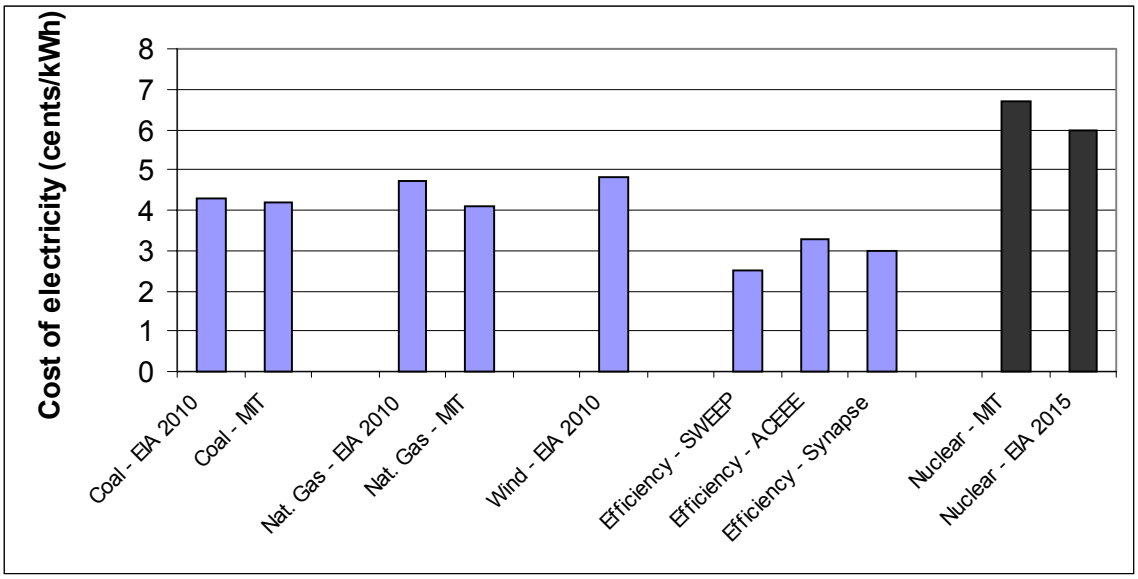


[1] Bruce Biewald, David White, Geoff Keith, Tim Woolf, Synapse Energy Economics, *A Responsible Electricity Future: An Efficient, Cleaner and Balanced Scenario for the U.S. Electricity System*, 11 June 2004.

Nuclear power is expensive: Nuclear power is expensive, even when not counting the more than $70 billion the nuclear industry has received in direct federal subsidies over the last 50 years. In February 2005, the Energy Information Administration projected that, without additional federal subsidies, no new reactors will be built in the U.S. by 2025. The nuclear industry has traditionally low-balled cost estimates for new nuclear plants. For example, the Congressional Research Service found that General Electric (GE) underestimated the cost of new nuclear reactors in Japan by roughly half, with the first plant costing $3,236 per kilowatt (compared to GE's estimate of $1,528/kW) and the second unit costing $2,800/kW (all in 1997 dollars).

Energy efficiency and wind power are far cheaper ways to combat global warming than the expansion of nuclear power (see Figure 2).

Figure 2. Cost of Electricity from Various Technologies[2]



Nuclear power is risky: The nation's 103 existing commercial nuclear reactors at 65 plant sites in 31 states already put surrounding communities at risk for radiation exposure in the event of a terrorist attack or accident. The Government Accountability Office has repeatedly criticized the Nuclear Regulatory Commission, the nation's chief nuclear watchdog, for failing to identify safety problems at nuclear reactors and failing to ensure that reactors can be adequately defended against terrorist attack.

Nuclear plants also produce highly radioactive waste that remains dangerous for hundreds of thousands of years. The National Academy of Sciences recently warned of the grave dangers posed by our current on-site storage system for nuclear waste in the event of a terrorist attack. And centralized storage – such as the proposed Yucca Mountain storage site in Nevada – is no better, requiring high-level radioactive waste to be trucked through populated areas to a geologically unstable site.

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[2] "MIT" = Massachusetts Institute of Technology, The Future of Nuclear Power: An Interdisciplinary MIT Study, 2003; table 5.1. Nuclear and other technology costs based on 40-year lifetime and 85% capacity factor. "EIA" = U.S. Department of Energy, Energy Information Administration, Annual Energy Outlook 2005, Table 22 and Figure 71. All EIA figures represent levelized costs for technologies in 2010 except for nuclear power, which is based on 2015 figure. Estimates do not include transmission-related costs. "SWEEP" from Howard Geller, Southwest Energy Efficiency Project, *Utility Energy Efficiency Programs and Systems Benefit Charges in the Southwest*, April 2002. "ACEEE" from Bill Prindle, et al, American Council for an Energy-Efficient Economy, *Cleaner Air Through Energy Efficiency: Analysis and Recommendations for Multi-Pollutant Cap-and-Trade Policies*, April 2005. "Synapse" from Bruce Biewald, David White, Geoff Keith and Tim Woolf, *A Responsible Electricity Future: An Efficient, Cleaner and Balanced Scenario for the U.S. Electricity System*, 11 June 2004.

The world's best scientific minds have worked for 50 years to design fool-proof nuclear reactors and to solve the radioactive waste storage problem. Thus far, they've failed. Expanding nuclear power before these problems are solved represents a massive gamble with our safety and health.

We do not need new nuclear power subsidies to meet the modest goals of the Climate Stewardship Act. Instead of throwing more money at expensive and risky nuclear power, we should focus on energy efficiency and clean renewable energy options that are safer, less expensive and that benefit the American economy. Senators should oppose nuclear subsidies in the Climate Stewardship Act and prevent a good bill from going bad.

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