



## **NUCLEAR POWER: "THE OTHER GREEN ENERGY"**

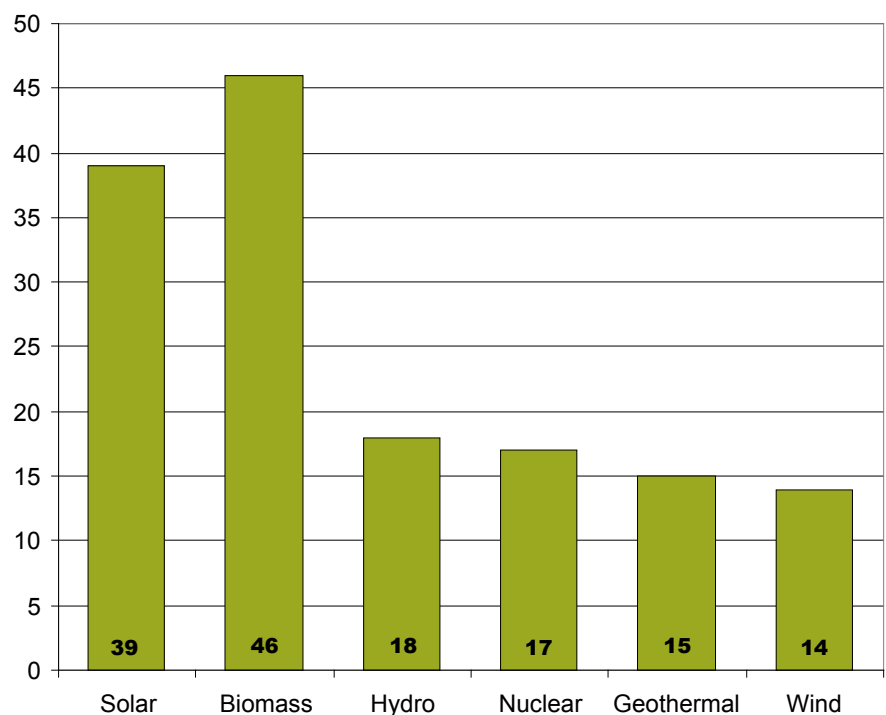
Nuclear power is an environmentally-friendly approach to meeting Utah's growing energy demands.

**FACT: NEARLY 97 PERCENT OF NUCLEAR WASTE CAN BE RECYCLED TO PRODUCE MORE NUCLEAR FUEL**

Nuclear energy provides an environmentally-friendly way to generate power in Utah. Renewable energy advocates object to this assertion based on the fact that nuclear power plants generate nuclear waste, but their objections are without merit. The problem of nuclear waste in Utah is, first and foremost, a problem of unnecessary federal government regulations.

Approximately 97 percent of the materials in spent fuel from nuclear reactors can be recycled to produce more nuclear fuel.<sup>1</sup> To understand what this could mean for nuclear power production, consider this: If the United States recycled all of its existing spent nuclear fuel, it could fuel all of its nuclear power plants (which supply 20 percent of US electrical needs) for 30 years without requiring any new uranium.<sup>2</sup>

Air Pollution From Green Energy



Unfortunately, federal policy has made nuclear-fuel recycling illegal in the United States since 1977.<sup>3</sup> Instead, the US “solution” has been to prepare a facility in Nevada for long-term storage of spent nuclear fuel. In essence, the federal government has created its own nuclear waste problem. If nuclear-fuel recycling was allowed to occur, the radioactivity and storage-space requirements of nuclear waste would dramatically decrease. Additionally, current research and technological development promise further mediation of nuclear waste concerns.<sup>4</sup>

In addition to properly dealing with nuclear waste, nuclear power is environmentally friendly in that the process to generate it creates absolutely no air pollution. While other activities related to producing nuclear power (e.g. building the power plant, transporting fuel, mining, etc.) do produce emissions, several studies have found that this pollution is less than comparable types of pollution created by some renewable energy sources (biomass and hydro power) and only slightly more than others (wind and geothermal).<sup>5</sup>

By mitigating both nuclear waste and air pollution concerns, nuclear power is quickly becoming one of the most environmentally-friendly forms of energy available. Further, because of the reliability problems of renewables, nuclear energy may be the only form of “green energy” that can produce a majority of Utah’s electricity.<sup>6</sup> Clearly, nuclear power will have to be a part of any realistic plan

to reduce the environmental impact of powering Utah’s homes and businesses.

## ENDNOTES

1. World Nuclear Association. 2008. “Processing of Used Nuclear Fuel for Recycle.” At <http://www.world-nuclear.org/info/inf69.htm>.
2. *Ibid.* See also Energy Information Administration. 2007. *Annual Energy Review 2006*. US Department of Energy: Washington, D.C.
3. Carter, Jimmy. 1977. “Nuclear Non-Proliferation Policy.” *Presidential Directive NCS-8*. Issued March 24, 1977.
4. Office of Nuclear Energy, Science, and Technology. 2006. *Report to Congress – Advanced Fuel Cycle Initiative: Status Report for FY 2005*. US Department of Energy: Washington, D.C.
5. The findings mentioned were from an academic study at the University of Wisconsin-Madison. Another study by the International Energy Agency found that only hydro power ranked lower than nuclear energy in life-cycle emissions. See Nuclear Energy Institute. 2007. *Nuclear Energy: A Key Tool in Reducing Greenhouse Gas Emissions*. Policy Brief - October 2007.
6. Sutherland Institute. 2008. *Natural Resources: Lighting Our Future*. Fact Sheet – April 2008. At [http://www.sutherlandinstitute.org/uploads/natural\\_resources\\_lighting\\_our\\_future.pdf](http://www.sutherlandinstitute.org/uploads/natural_resources_lighting_our_future.pdf).