

Energy Efficiency vs. Nuclear

It's easy to see who the winner is

A lot has been said recently about the viability of CPS Energy's resource options and which of them should be pursued. CPS has said that building two more nuclear reactors is the best option to meet San Antonio's future electric demand. Let's consider some facts.



Energy Efficiency

- The undisputed cheapest energy resource is energy efficiency—making available energy go farther by sealing leaky buildings and replacing old appliances with new more efficient ones.
- Energy efficiency is often treated differently because it is an energy resource inside people's homes and in businesses. Utilities call this "demand-side management" because the resource is behind the electric meter, counter-acting the need to "supply" electricity.
- **Cheap Resource:** The average cost of tapping the energy efficiency resource is 1-4 cents/kilowatt-hour.¹ By comparison, new nuclear power costs 12-20 cents.
- **Low-Hanging Fruit:** CPS Energy has embarked on a plan to save 771 megawatts of power through energy efficiency by 2020. This amount of power is the size of a large coal plant at a fraction of the cost.
- **Big Potential:** In 2004, CPS commissioned a study to find out how much energy efficiency is available and cost-effective. The results were massive: 1220 megawatts.² Since the city has grown so much, and CPS Energy's efficiency programs are still small, this number is probably even larger today.
- **Jobs:** Investing in energy efficiency requires work to be done in San Antonio. Thus it creates local green jobs that cannot be outsourced.
- **Dynamic:** San Antonio continues to grow but the pace has slowed due to the recession. Energy efficiency is an optimal resource because it comes in smaller chunks and is more easily tailored to meet incremental growth in electric demand. Nuclear reactors only come in one size: extra large.



Nuclear Power

- CPS Energy touts its current nuclear assets as a good investment, but history shows they were anything but cheap. The South Texas Project cost 6 times more than expected.
- **Cost:** New reactors are predicted to cost between 12-20 cents/kilowatt-hour.³ Compare this cost to energy efficiency at 1-4 cents.
- **Waste:** Nuclear reactors are not clean. They produce radioactive waste that is dangerous for thousands of years. Adding more reactors in Texas adds to a problem no one has been able to solve. The waste will remain in Texas.
- **Today vs. Yesterday:** CPS Energy tells us that the reactors at South Texas Project are producing cheap power. However, they often include the costs of operating the plant and not the capital costs. The construction of STP 1 & 2 became a boondoggle in the 70s and 80s as the city had to endure cost overruns. Ratepayers are still paying for the construction of the plant in the form of non-bypassable surcharges.
- **Security:** Nuclear plants remain potential terrorist targets. According to the 9/11 Commission, Al Qaeda's original plan was to hijack ten planes and crash two of them into nuclear plants. Even with improved security tests, the risk is too great when there are non-lethal forms of energy available.
- **Radiation:** Low-level radiation from nuclear plants, like the high-level waste it produces, is dangerous to humans. The NRC allows nuclear power plants to emit low-level radiation as part of their normal operations, but also acknowledges that prolonged exposure to low-level radiation can increase the risk of different types of cancer, like lymphoma. The nuclear industry attempts to persuade the public and government that long-term exposure to low-level radiation is harmless.
- **Not Local:** San Antonio has the opportunity to develop energy resources in and around the city, like energy efficiency and small and mid-scale renewable energy. If CPS invests in new nuclear reactors, it will forgo the chance to create lasting green collar jobs in San Antonio because they would have given their energy dollars to Bay City and Japan—where the reactors would be built and operated.

Energy efficiency, any way you look at it, is preferable to nuclear power. Investment in efficiency and a variety of renewable energy resources and technologies will position San Antonio to be a 21st century city, with reliable sources of power and stable energy bills.

Tell Mayor Castro you want more energy efficiency and renewable energy instead of nuclear reactors. Call his office, visit, or send an email (210-207-7060; mayorjuliancastro@sanantonio.gov) and let your councilmember know too: (www.sanantonio.gov/council/). City council will decide as soon as this Fall on whether to lock San Antonio into more nuclear reactors. It's up to the people to tell them they don't want it because better options are ready and waiting.

¹ PUC Report, 2008.

² KEMA Report, 2004.

³ Cooper, 2009.