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Part 1: Comments on Nuclear Power

Even with billions of dollars of subsidies over the years, 1] the nuclear industry has not and will not build nuclear power plants without subsidies. If nuclear power is so wonderful, why does it not stand the test of the open market? 2] The TVA, in spite of past subsidies, pays over a billion dollars a year interest on a 25 billion dollar debt from its nuclear construction from the 1980s. 3] It was not only cost overruns which killed TVA's ambitious nuclear plans: the TVA's exemplary conservation program of the 70s and early 80s reduced electricity needs so much that nuclear power plants became irrelevant.

To say that nuclear power is either "clean" energy or "carbon-free" is utterly dishonest. Apart from plant construction (and any startup energy plant), the long and complicated nuclear fuel cycle consumes immense amounts of carbon fuel and electricity viz. mining, milling, conversions to UF₄, enrichment, fabrication, transportation of fuel and wastes, decommissioning, cleanup and storage of wastes.

Another factor never mentioned by happy-faced nuclear proponents is that nuclear power plants are UTTERLY DEPENDENT on vast amounts of cooling water from rivers and lakes. This process is threatened in hot months and/or droughts when there is less water available and water temperatures are higher. (In the French heat wave of 2006, some reactors were shut down for this reason, unable to control their cooling.) And clearly, this cooling water leaves the reactor considerably hotter, further heating the environment and altering aquatic ecosystem stability.

Not only is the nuclear cycle NOT carbon-free, it leaves toxic wastes at every step from millions of tons of mining tailings- to wastes from power generation- to the contaminated power plants themselves.

In sum, nuclear power generation has numerous hidden COSTS, WASTES and DRAWBACKS WHICH MUST BE ACKNOWLEDGED IN PUBLIC DEBATE. ANYTHING LESS IS A LIE.

Part 2: Comments on Conservation and Efficiency

It is clear from history and current studies that reduction of power needs by conservation and efficiency measures is our most cost effective source of energy. The TVA's exemplary conservation program of the 1970s cut down electrical power needs so much that it had to be killed for the benefit of the coal and nuclear industries. It is noteworthy that the TVA has NOT led the way in the current and long overdue promotion of fluorescent light bulbs to replace incandescent.

A new generation of smart technologies and long-term investments in efficiency must be identified and funded. Examples range from the reduction of electric transmission losses, co-generation, insulation programs, and altering rate structure so that higher use is NOT

encouraged-- to fluorescent and LED lighting; Energy Star appliances; LEED certified building techniques and other energy efficiencies. Subsidies are needed now to encourage these efficiencies— not in the fossil fuel industries.

Overall energy efficiency is called energy intensity, measured by the amount of energy it takes to produce one dollar of GDP. Most of Europe and Japan use half as much energy as the US, per unit production, yet their standard of living is no less comfortable than our own.

Part 3: Alternative Sources of Power

For many years, coal, nuclear and petroleum lobbies have fought successfully to convince policymakers that their own large industries deserve subsidies, and that solar, methane-from-waste and wind power are “not ready”. In doing so they have retarded the development of the renewable energies we need now, and for the future.

Today, on the market, new construction of wind energy costs less per KWH than new nuclear power. Costs of all these alternative forms of power are dropping, and would be even lower if hidden costs and “externalities” of coal, petrol and nuclear power were taken into the accounting.

While wind and solar plants are carefully sited, they do not work on the occasional still or cloudy days. But in today’s reality, there are many sources and they are complementary.

Part 4: Summation

TVA and Congressional decision makers must assess all options and PRESENT a clear, fair and transparent comparison of costs and benefits of power generation and conservation/efficiency.

Hidden costs, called “externalities,” are typically paid by innocent bystanders, including future generations citizens. These costs include debt, the burden of toxic wastes, lack of, and higher costs for non-renewable resources (including fossil fuels).

These hidden costs are, of course, ignored in modern accounting.

It costs \$.47 to save a KWH that takes \$1 to produce. And that figure is from today’s incomplete accounting, not including aforesaid externalities.

If the TVA is investing \$7 billion for new power production, it could actually double its return by investment in conservation and efficiency.

It is high time for the TVA-- a public utility, not a mere profit-maximizing machine-- to lead the way to a safer, cleaner and, not coincidentally, more efficient world. In order to do this, the TVA needs more true public education—for example the explanation that nuclear power is NOT, by far, carbon free, more citizen input and decisions based on honest, long term accounting.