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on

**Advanced Cost Recovery for Nuclear Reactor Construction:
North Carolina Should Follow Iowa and Reject Nuclear Socialism**

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In the past couple of weeks we have witnessed significant construction delays and massive cost overruns on all nuclear reactor construction projects in the Southeast. This will cost consumers billions because policymakers gave utilities a blank check when they approved legislation that granted utilities the right to charge consumers for nuclear reactors before they actually produce power. Consumers are paying for Construction Work in Progress (CWIP) for nuclear reactors in three states – Florida, Georgia and South Carolina. Efforts to enact similar legislation have been defeated in several other states, most recently in Iowa, where the Senate had the good sense to let a CWIP bill die last week.

North Carolina should reject the Annual Rate Hike or "Super CWIP" bill that Duke and Progress energy corporations are planning to spring on the legislature. Given the disastrous economic consequences demonstrated of CWIP in other Southeast states, the North Carolina legislature should refuse to consider any Annual Rate Hike Bill and repeal the partial CWIP law they put on the books in 2007.

CWIP Doesn't Save Customers Money, It Raises Bills and Robs Consumers of the Use of Their Money.

Utilities claim that CWIP will save consumers money by reducing the rate shock that results when the huge costs of expensive nuclear reactors hit the utility bill. The truth is consumer bills will be much lower if utilities do not build the nuclear reactors in the first place. In fact, CWIP has nothing to do with helping the consumer; it is solely intended to help the utilities, who have made it clear that they will not build new reactors if they cannot charge consumers years or even decades before reactors come on line. The choice is not between "paying for the nuclear reactor now, or paying for it later;" the choice is between paying for an expensive reactor now or relying on lower cost alternatives including renewables, and efficiency.

Additional Considerations:

- When consumers give up use of their funds (i.e. deposits in the bank), they expect a return. Under CWIP consumers are not compensated by the utility for giving up the use of their funds. The utilities say rates won't rise as much if CWIP is in place. For cash-strapped consumers, taking after-tax dollars out of their pockets to cover the rate increases resulting from CWIP can be a serious burden.
- Legislation designed to induce the electric utilities to undertake risky behaviors that they would not otherwise have engaged in is clearly not in the public interest. When those undertakings go bad, the costs of the failures will be borne by ratepayers in the form of expenditures on facilities

that do not produce a flow of goods and services.

- The risk is high that these expensive and complex reactor projects will be abandoned or cancelled and never come on line. Ratepayers are not reimbursed for their forced investment. The pre-approval process for CWIP reduces scrutiny over cost escalation and overruns, with the result that ratepayers will end up paying a higher price than anticipated for the facility. Utilities steadfastly resist proposals to protect ratepayers from the risk of cost overruns.
- Even with subsidies, these projects are so risky and large that they tend to have adverse impacts on the utility's financial rating, which by itself results in substantial increases in the cost of service.

When the Iowa Utility Board looked at the CWIP bill being pushed in that state, it concluded that consumers would be hurt in a number of ways.

- The proposal for advanced cost recovery alters the most fundamental principle of rate setting by shifting the risk of construction¹ so dramatically that the resulting scheme of cost recovery can best be described as “nuclear socialism.”²
- By conferring a special advantage on nuclear power,³ it threatens to distort the utility and regulatory decision making process⁴ and gives utilities an incentive to choose investments and make construction decisions that harm ratepayers.⁵
- Beyond the initial choice of projects, shifting the risk of nuclear reactor construction onto the backs of ratepayers creates an ongoing problem because, since utilities derive a higher return on investment for more expensive projects, CWIP diminishes the incentive to drive a hard bargain with vendors to get the best deal for ratepayers⁶ or to recover costs from joint owners.⁷
- By excusing nuclear reactors from rigorous comparative analysis of alternatives, it all but guarantees less costly alternatives will be passed over.⁸
- Because nuclear reactors are so risky and impossible to finance in normal capital market, the utilities are pushing for advanced and guaranteed recovery of all costs.⁹ But this certainty denies

¹ *Staff Comments on HF 561 as Amended by S3380*, Utilities Division, Department of Commerce, December 23, 2011, “House File 561 relates to the permitting, licensing, construction and operation of potential new nuclear-related electric generation facilities in Iowa. It also affects the way that customers would pay for those facilities by shifting the allocation of risk between the utility and the customers (p.1).”

² *Id.*, “HF561 (as amended) would shift nearly all of the construction, licensing, and permitting risk associated with one or more nuclear plants from the company to its customers. This is done, in part by pre-approving the company's spending in annual proceedings throughout the construction, licensing, and permitting period and then guaranteeing recovery of pre-approved prudent costs including a profit on capital investments (p. 3).”

³ *Id.*, “Staff believes some provisions of HF 561 go beyond leveling the playing field and could give nuclear power plant unintended advantage over alternative sources of electric power (p. 6).”

⁴ *Id.*, “Prudent planning for these long-term investments should involve consideration of all reasonable alternatives. It appears that current and future developments may make carbon-emitting generating resources uneconomical and, as a result, make nuclear power plants a more viable alternative for serving customer needs than they have been in the last few decades. However, it may be that additional regulatory certainty is required to create a level playing field for all of the reasonable alternative (p. 1).”

⁵ Some of these provisions could create incentives for the company to engage in behavior that could be contrary to the public interest in certain situations (p. 3).

⁶ One of the effects of guaranteed cost recovery is that the utility will have a reduced incentive to write contracts that place appropriate amounts of risk with vendors. (p. 4)”

⁷ *Id.*, “For example, a utility that owns and operates a nuclear plant would not have a strong incentive to pursue a joint owner for nonpayment if the joint owner claimed mismanagement of the facility and refused to pay all or part of its share of the cost of the facility, given that the owner-operator utility would be held harmless by its customers. The utility could avoid litigation with its joint owner without losing money (p.4)”

⁸ *Id.*, “The provision would exempt nuclear plants from the existing requirement that a public utility that proposes a new plant must show that it has considered other feasible source of long-term supply and the proposed plant is reasonable when compared to those alternatives (p. 7)”

⁹ *Id.*, “It is staff's understanding that the companies looking to invest in nuclear energy argue that it would be difficult, if not impossible to finance one or more new nuclear plants without a greater level of assurance of cost recovery than is provided by traditional utility regulation. However, the precise extent of the required risk shifting may be difficult to determine. (p. 1) “

regulators the flexibility that is needed in a rapidly changing environment¹⁰ and ties the hands of the regulator in its efforts to balance the interest of ratepayers and utility shareholders.¹¹

- The need to accelerate cost recovery creates severe intergenerational inequities in cost recovery, violating the fundamental principle that those who consume the output of a plant should bear its costs.¹²
- Having guaranteed utilities cost recovery on an annual basis, the regulator will be under greater pressure to approve “incremental” additions to cost even when those costs are the result of utility error.¹³

The reactors in the Southeast , particularly those that have construction contracts have begun to exhibit the problems that have long afflicted the nuclear industry – design and license modifications, construction delays, cost overruns, and disputes with vendors.

Progress Energy Florida just added \$2 billion to the cost estimate for Levy, pushing it to as high as \$24 billion. Ironically, it had negotiated a guaranteed \$1.1 billion exit price, should it decide not to continue with the project. In the Progress Florida service territory, some ratepayers will have been paying for the Levy nuclear reactors for fifteen years before it produces one kilowatt of electricity, if it ever does actually produce any.

Florida Power and Light, which is collecting hundreds of millions of dollars of CWIP charges for two new Turkey Point reactors, even though it says it has not decided to build the reactors, has seen its license application review halted because it improperly excluded evidence dealing with potential seismic hazards, a major concern after Fukushima.

In Georgia, the owner of the new Vogtle reactors, which were the first out of the block, are now in a dispute over cost overruns approaching \$1 billion, with a delay of at least six months. Worse still, the construction process is starting to look exactly like the fiasco of nuclear construction in the 1970s. The utilities got into a dispute with the NRC over the quality of the backfill that was being extracted from the construction site and now the first layer of concrete has settled so unevenly that the Southern company has had to seek numerous modifications to the construction license.

The VC Summer reactor project in South Carolina is having problems in site

¹⁰ Id., “The inflexible nature of some of the bill’s provisions may be a problem if the market develops in an unforeseen manner, particularly if rapid adjustments are needed to respond to the unpredicted changes. (p.3)”

¹¹ Id., “Proper rate treatment of early retirements is usually a rate case issue and in the past the Board has typically allowed recovery of the remaining investment in a prudently retired plant but has not always allowed the company to earn a return on the investment, effectively balancing the interests of customers and stakeholders. This provision would prohibit consideration of that balancing of interests (p.7).”

¹² Id., “This provision requires that all costs associated with US NRC permitting or licensing must be recovered over a period not to exceed the estimated construction period. Under normal ratemaking principles, these costs would typically be capitalized and recovered over the useful life of the facility, so that the customers who benefit from the plant pay the costs associated with obtaining the benefit (p. 7).”

¹³ Id., “For example, imagine that at some point a few years into the project the utility has spent \$1 billion, on the proposed plant, all of which was determined to be prudent during the annual review proceedings. That year the company makes a mistake during construction that is entirely the company’s responsibility and will cost \$50 billion to correct. Normally, the cost of correction would most likely be paid by the company and its shareholders. However, with this provision the company could come to the board for preapproval of the recovery of the cost of correction. The company would be guaranteed a profit on all spending up to that point. This could create a stronger incentive to walk away from the plant than to complete it. Given that knowledge, the Board would be faced with the choice of (a) making customers pay for the utility’s mistake (in order to receive the future benefit of a plant for which customers have already been committed to the tune of \$1 billion) or (b) making retail customers pay \$1 billion (plus profits), to the utility for a plant that will be abandoned. Under the circumstances, this would likely cause the Board to approve recovery of the \$50 billion cost of correction, even though it is entirely a result of the company’s own error in the hypothetical example (pp. 3-4).”

preparation and in the fabrication of major components, which is likely to cause a substantial delay and cost overruns of almost \$400 million.

Watts Bar 2 in Tennessee is having severe problems on the other end of the construction process. The Tennessee Valley Authority fired the contractor and pulled the project in-house a while back. Recently, although TVA claims it is 80% complete, it added \$2 billion to the cost and a lengthy delay in completing the project. Adding those costs to money sunk into Watts Bar 2 in the 1980s, without taking into account the lost value of the money sunk into the plant twenty years ago, it will be one of the most expensive nuclear projects in the U.S., and still might not be completed.

Nuclear Socialism does not benefit consumers.

When you shift the risk of nuclear reactors onto the public, requiring them to pay years or even decades in advance for facilities that may never be built or put into service and eliminate the incentives to control costs in a regulated monopoly industry, where consumers have no choice of who their supplier will be, you have abandoned all of the fundamental elements of a capitalist, market system. The only term that fits advanced cost recovery is “nuclear socialism,” which has inevitably failed in the past and is failing in the few places where it is now being tried.

Twenty-five years ago the cover of *Forbes* magazine described the nuclear building boom in the harshest possible terms.

The failure of the U.S. nuclear power program ranks as the largest managerial disaster in business history, a disaster on a monumental scale... only the blind, or the biased, can now think that most of the money has been well spent. It is a defeat for the U.S. consumer and for the competitiveness of U.S. industry, for the utilities that undertook the program and for the private enterprise system that made it possible.¹⁴

The same problems that afflicted nuclear reactor construction in the past are rapidly emerging for the new crop of reactors and advanced cost recovery is the mechanism that ensures consumers will pay a heavy price. Consumers and public officials in North Carolina would be foolish to ignore the demonstrated perils of making consumers pay in advance for risky financial investments in new power plants.

A copy of *Nuclear Socialism Comes to the Heartland of America* can be found at:

<http://www.vermontlaw.edu/Documents/Cooper%20Feb%2014%2C%202012%20Iowa%20Advanced%20Cost%20Recovery%20report%20FINAL.pdf>

¹⁴ Cook, J, “Nuclear Follies,” *Forbes*, February 11, 1985.