A Tale of Two Policy Initiatives:
Low Carbon Portfolio Standard versus FY16 Budget Cut Proposals

Background

The result was a 262 report and analysis published in January, entitled “Potential Nuclear Power Plant Closings in Illinois: Impacts and Market-based Solutions”.

The Report
Using detailed economic modeling, the report determined the total economic output of each plant, including number of primary and secondary jobs, spending and other cascading economic consequences.

Our Message
Why isn’t the same diligence being applied to the potential consequences of human services cuts, which will impact every community in Illinois, as was applied to the potential economic consequences of nuclear plant closures?

Before considering the pending legislation for a Low Carbon Portfolio Standard, various state agencies were directed to produce detailed analysis on the consequences if Illinois nuclear plants were closed. These agencies took more than six months to conduct this investigation and left no stone unturned so that lawmakers would have a clear-eyed view before setting an energy policy.
The possible closure of three financially struggling Exelon nuclear plants in Illinois could deal an economic blow to the state, but increased investments in renewable energy and energy efficiency might mitigate much of those "near-term" impacts.

That's one of the key findings of a recent study by four state agencies exploring how the economy and environment as well as electric prices, generation capacity and service reliability could be impacted in Illinois if Exelon retires three of its six local nuclear plants prematurely. The nuclear giant has warned that the closures could happen if measures are not put in place to help boost its supposedly unprofitable facilities.

The report -- issued earlier this month by the Illinois Commerce Commission (ICC), the Illinois Power Agency (IPA), the Illinois Environmental Protection Agency (IEPA) and the Illinois Department of Commerce and Economic Opportunity (DCEO) -- came in response to Exelon's warnings about potential shut-downs and was requested in a resolution adopted by the legislature in late May.

As part of that resolution, spearheaded by powerful House Speaker Michael Madigan, the agencies were also asked to outline "potential market-based solutions that will ensure that the premature closure of these nuclear power plants does not occur and that the dire consequences to the economy, jobs, and the environment are averted."

Exelon, the parent company of ComEd, claims its Byron, Clinton and Quad Cities plants in the state are struggling in part because of competition from natural gas and subsidized renewables.

Kathleen Barron, Exelon's senior vice president of federal regulatory affairs and wholesale market policy, told the ICC in September that the company requires an estimated $580 million more in revenue to stabilize its Illinois nuclear fleet. To justify possible intervention from the state legislature, Exelon maintains that its low-emission nuclear plants will be central to Illinois' compliance with new carbon emission regulations under the U.S. Environmental Protection Agency's proposed Clean Power Plan.

In its portion of the state report, the ICC said it is "not entirely clear whether or not Exelon's Illinois plants earn sufficient revenues to cover their operating costs." ICC was, however, able to determine that Exelon's Quad Cities plant is the company's least profitable facility in the state, and its revenues under a "worst-case scenario" would have to rise by nearly 50 percent to restore profitability.

Critics of a potential state "bailout" for Exelon say the report indicates that legislative action designed to rescue the ailing facilities is not as urgent as the Chicago-based corporation and others have suggested.

Dave Kraft, director of the Nuclear Energy Information Service, a Chicago-based non-profit focused on ending nuclear power, said that while the study shows that "there will be some serious, expected short-term effects from Exelon closing its five uneconomic reactors [at the three plants], the Illinois economy will not be irreparably harmed, and the lights will stay on."
"In short - there is no crisis demanding quick action by the legislature to grant Exelon a $580 million bailout of the five reactors," he added in a statement. "Even though Exelon did their best to convince everyone that the sky is falling here in Illinois, even a poorly mandated, non-funded, public discounting and disenfranchising, abstract-model-heavy analysis could not reach that conclusion."

For its part, Exelon says the report confirms that its nuclear power plants in the state "provide substantial economic and environmental benefits to Illinois residents and businesses" and that "the future of Illinois' nuclear power plants should be an issue of statewide concern."

"We continue to believe that the best, most cost-effective approach for preserving the benefits these plants provide is a market-based solution that properly values the emissions-free, always-on energy they generate," Exelon said in a statement. "The report presents several potential policy solutions and is a good starting point for discussions with lawmakers and other stakeholders about the right path forward for continuing to meet Illinois' energy needs."

The "potential market-based solutions" detailed in the report include reliance on "existing competitive forces and pending market changes," establishment of a cap and trade policy for carbon emissions, a tax on carbon emissions and the creation of a "low-carbon portfolio standard" or a "sustainable power planning standard."

"Solutions adopted to prevent the premature closure of Illinois nuclear plants should be designed with the goal of raising the tide of the Illinois energy sector," the 269-page report reads. "When evaluating the solutions included in this report and any alternatives offered by stakeholders, holistic solutions aimed at solving fundamental market challenges are preferable. The right energy policy has the potential to minimize rate increases to families and businesses while positioning Illinois as a national leader in the development of clean energy."

In a statement offering his take on the state report, Howard Learner, executive director of the Environmental Law and Policy Center, said that "Exelon's nuclear plants that aren't economically competitive can be retired without added costs to Illinois consumers, without hurting reliability, and with more job creation by growing clean renewable energy and energy efficiency."

"This report confirms that the competitive power market is working to hold down Illinois energy costs," he added. "We shouldn't bailout Exelon's old, uncompetitive nuclear plants. Instead, we should invest in new renewable energy, like wind and solar, and energy efficiency to grow a cleaner Illinois energy future."

Nearly half of the state's electricity comes from nuclear sources, followed by coal, natural gas and renewables. The six nuclear power plants in Illinois, owned by Exelon, are "large reliable sources of electricity" and also represent a quarter of the state's electric-generating capacity, according to the report. Illinois is also a net exporter of electricity in the Midwest region.

If the nuclear giant's three plants shut down prematurely, DCEO's analysis shows that the following negative economic impacts would occur: "2,500 direct job losses at the nuclear plants; 4,431 indirect job losses at local businesses that do business with the plants; $1.8 billion in annual lost economic activity for the state of Illinois; and 10-16 percent increase in wholesale power prices, which will cause another 896 job losses and cost the state another $45 million in lost economic activity."
But DCEO writes that "much of the immediate negative economic impact can be mitigated through a concerted initiative to fully develop all economically viable energy efficiency and potential wind and solar resources," a move that could create 9,600 new jobs by 2019 and save $120 million in annual energy costs. The process of decommissioning nuclear plants also comes with some economic benefits, the department said.

However, DCEO explained that the job gains in renewable energy would be "strong in the early years" during construction of wind and solar infrastructure, but less so after projects are completed.

"Once wind and solar installations are complete in 2020, net job losses will total 5,539," the report says, noting that "nuclear power generation requires more jobs per unit of output than renewable energy sources."

Meanwhile, if fossil-fuel generated power is increased to some extent to replace the electricity produced by the three nuclear plants, the IEPA says the societal costs of carbon emissions could range between $2.5 billion to $18.6 billion over the 2020 to 2029 decade, depending "upon the timing and amount of generation retired, and the carbon intensity of the mix of generation sources that replace the lost nuclear generation."

Regarding reliability and capacity, the IPA said there could be some negative effects if the plants close, but that the "reliability impacts remain below industry standard thresholds" and "impacts appear to be more significant in other states than in Illinois."

"Taken alone, there may not be sufficient concern regarding reliability and capacity to warrant the institution of new Illinois-specific market-based solutions to prevent premature closure of nuclear plants," the IPA writes.

That being said, the General Assembly may still "want to consider taking measures that would prevent the premature closure of at-risk nuclear plants" based on the "totality" of potential impacts detailed in the report, the IPA noted.