

Study finds too few baseload power plants being built

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Far too few baseload power plants are being built to allow timely replacement of aging nuclear and coal plants when they are ready to be retired, according to a new report. "Baseload power plants produce about 80% of the nation's electricity so it is particularly alarming how few baseload plants are under construction or have been completed recently," said Build Energy America, a not-for-profit research group. "At this rate, the aging baseload fleet will not be completely replaced with modern nuclear, coal and natural gas combined-cycle plants for 70 years or longer."

No baseload plants are under construction or have been completed since 2009 in most of New England, the mid-Atlantic, upper Midwest and Pacific Northwest, said the report, "States' Best Practices Attracting Baseload Investment."

"Some relish that U.S. electricity supply could become less baseload and more non-baseload," the study said. "They would consign the country to a supply mix that is more expensive and less controllable and reliable."

Only 44 baseload plants are currently under construction in the continental United States, the report said. If all 44 are completed, which is hardly certain, they would add no more than 24,000 MW of capacity. Regulated utilities are currently constructing only 17 baseload plants that will bring on-line only around 12,000 megawatts of capacity, the study said. The National Energy Technology Laboratory "sees a virtual shutdown in coal construction in the next two years with very few projects under construction (12 projects, 7,600 MW), near construction (one project, 300 MW), or even in the permitting stage (eight projects, 6,400 MW)."

"To put into perspective how sluggish this level of construction is, total continental U.S. baseload generating capacity is presently about 650,000 megawatts," the report said. "This rate of modernizing the baseload fleet is actually more alarming when other factors are taken into account like demand growth for power, expiring licenses of the oldest nuclear plants and air emissions of the oldest coal plants."

Texas and North Carolina alone account for one-quarter of all the new baseload capacity. Aside from Texas and North Carolina, baseload construction activity is vibrant in several southeastern states including Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, and Tennessee. Six other states attracting baseload investment are Missouri, Nebraska, Nevada, North Dakota, West Virginia and Wyoming. Nebraska and Tennessee "are primarily public power states," the report said. "Healthy baseload construction in those two states has been based on the credit strength of government entities."

Regional transmission organizations "can be another increasingly insurmountable barrier to baseload proposals," the study said. Through its market design and FERC-approved tariff, an RTO can bias a region of states away from building baseload and towards favored resources such as demand response. "Can a power plant developer finance a coal plant or even a less capital-intensive natural gas combined cycle plant based solely on market capacity and energy prices? The revealed answer is no; virtually no baseload plants are under construction or have been recently completed on a market basis," the study said. "One potential answer is long-term contracting between utilities and developers for the output of a baseload plant to be built, pre-approved by regulators."

Wholesale market purists that favor increasing the authority of the Federal Energy Regulatory Commission and regional transmission organizations "will protest such long-term contracts as market interventions that corrupt the free market," the report said. "Notwithstanding these expected criticisms, states certainly have it within their rights to once again deploy their utilities and utility regulation to jump-start needed baseload construction. The value of long-term contracts is especially evident to support the most capital-intensive baseload proposals such as nuclear and advanced coal projects."

The allowance of construction work in progress costs in rate base can be decisive for a state to attract baseload investment by regulated utilities, the study said.

"It was astonishing how pathetic the nation has become in modernizing the vital baseload fleet outside of a few states like Texas and North Carolina," Build Energy America President Steve Mitnick said. "This should be a wake-up call, especially for the many states that are treating baseload as if it's passé."