Section 111(d) of the Clean Air Act — the Clean Power Plan — the Environmental Protection Agency’s Carbon Emission Reduction Plan

PART 1

Many in the electric power industry, including SPP and its members, are spending considerable effort trying to understand and evaluate a highly complex and impactful draft rulemaking known as the Clean Power Plan.

The Clean Power Plan (CPP) is the Environmental Protection Agency’s proposed rule to reduce and regulate carbon emissions from existing electric utility generating units (EGUs). It is being enacted under Section 111(d) of the Clean Air Act. The CPP is expected to reduce EGU carbon emissions 30 percent nationwide by 2030 compared to 2005 levels. The EPA invites comments on the CPP, recently extending its deadline for comments to Dec. 1. A final rule is expected by June 2015 and, as proposed, states will have until as late as June 2018 to develop compliance plans.

EPA’s Clean Power Plan Milestones

The EPA proposes to assign each state a carbon-emission-reduction goal established through application of four building blocks that the EPA believes comprise the Best System of Emission Reductions. The starting point for application of these building blocks is the average 2012 emissions rate of all fossil-fueled EGUs.
The EPA proposes both interim goals and final goals. The interim goals are to be applied and measured over a 10-year period beginning in 2020, with the final goals effective by 2030.

**Some of My Concerns**

Although the EPA offers flexibility in how a state develops a plan for meeting its assigned goal, it is important for the assigned goals to be achievable. If the assigned goals are not based on realistic assumptions, excessive costs will be unnecessarily incurred to reach goals that can’t be met, with system reliability sacrificed in the process. To illustrate, let’s assume a 350-pound, 7-foot-tall man was given a goal to lose 20 pounds a month over 12 months, so he would weigh 110 pounds by the year’s end. Most of us would recognize that even if he was given flexibility to use whatever means possible to achieve the goal, a targeted weight of 110 pounds is not appropriate for a 7-foot-tall man. He would spend a lot of time and money sacrificing his health in pursuit of such an ill-advised goal. The EPA’s assumptions about what is achievable need to be thoroughly evaluated and challenged, if, in fact, those assumptions result in goals that cannot be met both reliably and affordably.

One such assumption used to establish state goals that I find particularly troubling is the assumption that natural-gas combined-cycle (NGCC) generators can achieve a 70 percent capacity factor\(^1\). In 2012,

\(^1\)As applied by the EPA, meaning that NGCCs can operate at an annual average of 70% of their **nameplate** rating. Nameplate ratings may not be equivalent to net dependable capacity.
NGCCs within the SPP region achieved a 28 percent capacity factor. To expect NGCCs will more than double their production means cheaper baseload, coal-burning generators will be offline significantly more than they are today. Many utilities may simply retire their coal-fired generators rather than incur the expense to continue to maintain and operate them at a much reduced capacity factor. In fact, the EPA projects the SPP region will experience almost 9,000 megawatts (MW) of EGU retirements by 2020, based on their simulations. That is almost 6,000 MW more than SPP is currently expecting within the same timeframe!

The EPA’s interim goals are very close to its final goals which means significant measures have to be taken very early in the compliance period (by 2020). Because states have as late as 2018 to develop their implementation plans, many electric utilities will have to make massive changes in a short period of time in order to begin compliance in 2020.

Our power grid has been developed and improved in a very incremental, reliable fashion over the last 40-plus years. The EPA’s proposal will influence dramatic changes to the way our power system is currently planned and operated, and expects most of these changes to materialize in as short as two years!

Don’t get me wrong, I am generally supportive of what the EPA is trying to do as long as it is done in a responsible way. The EPA should develop rules that allow electric utilities to continue to provide reliable and affordable service. Changing power-grid operation too much, too fast will be disastrous, unnecessarily expensive, and irresponsible. SPP’s mission is “helping our members work together to keep the lights on ... today and in the future.”

It is because we take our mission seriously that we are carefully evaluating the EPA’s proposed rulemaking and have filed comments with the EPA so that the rule can be proactively shaped in a way that supports reliability. (SPP released a reliability impact assessment of the CPP on Oct. 9.)

Stay tuned for my next blog, when I will provide an overview of SPP’s evaluation of the CPP’s impacts on reliability.

Questions and comments can be emailed to communication@spp.org.