Hi Bob,

Here are high level comments on the last draft we received. I'll be sending over more later today, and redlines today or tomorrow.

Regards,
Cortney
The interagency reviewers recognize the tremendous effort that EPA has undertaken and appreciate the effort as well as the outreach program that they've undertaken. Below are interagency comments, grouped by topic area.

**Preamble**

**New Option.** Take comment on a new option that applies Option 1 BSER assumptions over a 5-year period rather than a 10-year period: EPA usefully requests comment on a nested approach to Option 1 that would require compliance within the 2020-2024 period (reflecting application of BSER for that period) as well as the overall 2020-2029 period (p. 398 in redline version). As a variant on this approach, EPA should propose a modification of Option 1 which uses the same assumptions as Option 1 for each building block, but reaches and maintains its final fixed emissions rate by 2025 instead of 2030. Introduction of this option could be handled in the same way as the new “Building Blocks 1 and 2 Only” alternative BSER. Full technical details on this option could be provided later, but EPA should provide relevant state targets through 2025 to inform commenters. Moreover, relevant tables summarizing this new option should end in 2025 (note: we make a similar request to present projections for EPA’s existing option 2 only through 2025).

**Increased Stringency in Option**

**Take comment on strengthening individual BSER building blocks within Option 1**: EPA should at least take comment on the potential to strengthen each of the underlying BSER factors, including:

**Capacity utilization**: EPA should remove the specific reference to taking comment on “75 percent” to encourage comment on the full range of capacity utilization above 70 percent. EPA should also include a more balanced presentation regarding the viability of higher utilization rates for NGCCs. For example, EPA should highlight that individual NGCC units are designed to operate as baseload capacity and consider omitting the following text: “Combining the results of the modeling with the factors likely to be present in the real world reinforces the support we expressed above for the 70 percent utilization rate. We remain concerned, however, that higher NGCC utilization rates could be harder to sustain and could exert further upward pressure on prices.”

**New NGCC**: EPA should request comment on including all cost-effective new NGCC potential, considering any state-specific constraints. Alternatively, EPA could take comment on a range of deployment rates consistent with historical experience (e.g. ranging from the minimum annual rate since 2000 of 3.8 GW/year to the 15 GW/year average over the period from 2000-2013) with state-specific allocations based on weighted average share of national generation. An assessment of state-specific new NGCC potential could be released later as a supplementary document and any analysis should consider state-specific constraints (e.g. long-term natural gas availability).

**Renewables**: EPA should follow through on its plan to request comment on more ambitious renewables assumptions. In particular, it should include state-specific estimates of cost-effective
renewables potential, subject to any state-specific constraints. An assessment of state-specific renewables potential could be released later as a supplementary document.

**Efficiency:** EPA should retain its current language that requests comment on efficiency improvement at rates of up to 2% per year versus the current rate of 1.5% per year.

**More Stringent Option out to 2030.** Take comment on a new option that strengthens BSER assumptions through 2030: EPA should ask for comments on a stronger version of Option 1 that includes the capacity utilization, new NGCC and renewables strengthening options discussed above.

**Mass-Based Compliance:** In its current draft, EPA helpfully discusses the potential for states to use mass-based strategies for compliance purposes. Given the advantages of this approach, and for consistency, EPA should also take comment on using a mass-based trading system to define BSER. EPA should also take comment on strategies that could encourage adoption of efficient market-based approaches. For example, EPA could take comment on requiring that states pursue either mass-based or price-based regional strategies in order to be eligible for a 2-year extension for submission of their plans. At a minimum, EPA should take comment on the potential to require a mass-based demonstration of compliance for all state plans.

- EPA should take comment on additional provisions to bolster the interim plans that are required by 2016. For example, EPA should take comment on potentially requiring that interim plans include commitment to reach required emissions rates and enumeration of all measures that do not require state legislation. Also, can EPA address or solicit comment on how the agency should judge what would be considered an adequate demonstration of "steps the state has already taken in furtherance of actions needed to finalize a complete plan" for an interim state plan to justify an extension for submittal of a final plan?
- For clarity and to avoid misinterpretation of what state targets mean, can EPA provide a formula/equation in the preamble that should be used by states for demonstrating that state plans will achieve emissions rate targets (compliance equation, as opposed to a BSER target-setting equation)?

**Locking in Progress in Interim State Plans:**

- EPA should take comment on additional provisions to bolster the interim plans that are required by 2016. For example, EPA should take comment on requiring that interim plans include commitments from each state to: 1) enumerate and implement by 2020 all measures available to them under existing state authorities; and, 2) seek new state legislation as required to meet their required emissions rates.
• Can EPA address or solicit comment on how the agency should judge what would be considered an adequate demonstration of “steps the state has already taken in furtherance of actions needed to finalize a complete plan” for an interim state plan?

• Similarly, can EPA address or solicit comment on how EPA would judge whether adequate progress has been made among states pursuing a regional approach (could an “executed agreement” be a requirement, for example)?

**Distributed Clean Energy Production.** Provide explicit language on distributed clean energy production as an eligible measure under Building Block 3 (p.107 and p 186ff).

The proposed rule is currently silent on the overall contribution of distributed clean energy in meeting the carbon emissions goals proposed in Tables 6 and 7, and whether it is specifically captured under Building Block 3. Building Block 4, as described on p.107 and elsewhere clearly refers to “demand-side energy efficiency” which would typically exclude renewable energy generation, whereas Building Block 3 is described as “substituting generation at those EGUs with expanded low or zero carbon generation,” without any reference to distributed generation of renewable energy production.

We acknowledge that, while there may be a tension between large-scale point sources that contribute to meeting carbon emissions goals and a large number of smaller sources located across the consumer, residential, and industrial sectors, intermediaries and state RPS programs offer models for aggregation among multiple community-scale and on-site renewable energy sources. Under this framework, EPA could avoid transactions with every distributed renewable energy generation provider, while still including distributed generation as a recognized method of delivering low- or zero carbon generation under this rule.

Our recommendation is to add explicit references to on-site (rooftop, open land) and community-scale distributed generation under the Building Block 3 section. In addition, this section would benefit from examples of solar and other renewable energy sources that would contribute to the RPS targets, while providing direct benefits to states and local governments associated with lower-cost renewable energy deployment, job creation, and energy security.

We recommend adding language that includes distributed generation under Building Block 3, including the following:

• P.107, line 11, add the following text (underlined):

  3. Reducing emissions of affected EGUs in the amount that results from substituting generation at those EGUs with expanded low- or zero carbon generation, as well as from distributed renewable energy production, represented by community-scale and on-site generation serving the residential, commercial, and industrial building sectors.

• p. 187, Building Block 3, add the following text, beginning on line 17 (underlined):

  using an expanded amount of lower-carbon generating capacity, from on-site, community-scale, and utility-scale sources, to produce replacement generation.
• Beginning on p. 188, “a. Renewable generating capacity,” add a discussion of distributed generation from solar and other renewable energy sources. While large, centralized power plants still supply almost all of our energy, smaller scale systems for delivering clean energy much closer to consumers – including their own homes, schools and businesses – are rapidly gaining adoption.

Distributed renewable energy has seen a significant increase in its contribution to clean energy production over the past decade. According to the most recent (May 2014) White House Solar Progress Report, “(l)ast year was a record-breaking year for new solar installations, and the amount of solar power installed in the United States has increased nearly eleven fold – from 1.2 gigawatts in 2008 to an estimated 13 gigawatts today, which is enough to power more than 2.2 million American homes.” With the dramatic drop in the price of solar PV, some 90,000 homeowners and businesses in the U.S. installed rooftop photovoltaic systems in 2012.

Cities and states have developed a variety of initiatives and programs in support of distributed generation. These policies include state and local rebates and financial incentives for utility customers installing on-site solar or other renewable energy, property tax incentives for homes that include solar panels, net metering programs to allow the generators of distributed energy to sell power back to the utility via the electricity grid at retail rates, and explicit allowance of third-party lease or power-purchase agreements (PPAs) – a popular and growing tool to facilitate on-site renewable energy generation. Currently, 43 states and the District of Columbia have policies supporting net metering, 22 states have policies that allow PPAs, and 38 states have property tax incentive programs.

The White House Progress Report also recognized the employment impacts of solar: “according to industry analysis, solar now employs nearly 143,000 workers in the United States, a growth of more than 50% since 2010. Jobs in the solar industry increased by more than 20% last year alone.” The American Solar Energy Society estimates that an “aggressive deployment” of renewable energy and energy efficiency together could net 4.5 million new jobs by 2030. These jobs would span a diverse range of skills and experience.

Finally, on-site renewable energy is playing an increasingly important role in the affordable housing sector, helping low and moderate income residents take advantage of this technology. The Department of Housing and Urban Development (HUD) recently announced commitments from affordable housing providers and service providers across the nation to install more than 150 megawatts of on-site renewable energy, more than doubling the amount of renewable energy on federally assisted multifamily buildings. This initiative is targeted at HUD’s multifamily assisted and public housing assets, as well as housing developed and supported by the

Department of Agriculture’s Rural Development programs and the Department of Treasury’s Low Income Housing Tax Credit program. Meeting this target will make use of on-site generation potential of tens of thousands of roofs constructed with federal assistance. This initiative will help expand the renewable energy market for multifamily residential housing, while also promoting grid resilience and energy security. 

**Indicate Collaboration with Other Federal Agencies.** Include other agencies as appropriate in the review of state plans (pp. 448 ff) We recommend adding a provision that would engage subject matter experts from relevant federal agencies in the review of relevant portions of the state plans. We suggest including following sentence (underlined) after line 17, p.449, “under section 110 of the Act:”

EPA will utilize subject matter expertise of other federal agencies in the review of relevant portions of state plans, including, but not limited to the Department of Energy, the Department of Housing and Urban Development, the Department of the Interior, the Department of Defense, and the Department of Agriculture.

**Offsets.** The treatment of offsets within the rule and the TSD is not clear. We believe that it is EPA’s intension is to exclude offsets when considering compliance with Section 111(d) EGU GHG requirements. However, in several places in the text, EPA states that offsets can be used for compliance. In these instances, we believe that EPA is referring to compliance with independent state programs, not programs used to for compliance under Section 111(d). For example, the following text appears in the Preamble.

P. 416-417

We are proposing that states may demonstrate such emission performance by affected EGUs either on an individual state basis or jointly on a multi-state basis. All of the emission reduction measures included in the agency’s determination of BSER reduce CO₂ emissions from affected EGUs. As a result, the EPA is not proposing that out-of-sector GHG offsets could be applied to demonstrated CO₂ emission performance by affected EGUs in a state plan.

However, states could still include in their plans emission limits for affected EGUs that include the ability to use GHG offsets for compliance, provided those emission limits would achieve the required level of emission performance in a state plan. All existing state emission budget trading programs addressing GHG emissions include out-of-sector project-based emission offsets, which may be used to cover a portion of the compliance obligation of affected sources. Other states may want to take a similar approach, for example, to incentivize GHG emission reductions from land use and agricultural waste management. How to address GHG offsets included in EGU emission limits when projecting emission performance under a state plan is addressed in the Projecting EGU CO₂ Emission Performance in State Plans TSD.

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One could conclude from this text that offsets could be used for compliance and that the EPA encourages states to consider similar approaches. However, the TSD makes it clear that the EPA’s intention is to exclude offsets from BSER.
Summary of Interagency Working Comments on Draft Language under EO12866 Interagency Review. Subject to Further Policy Review.