EPA's Proposed Greenhouse Gas Rule

August 18, 2014

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On June 2, the EPA released its proposed “Clean Power Plan”

- The proposed rule establishes carbon dioxide (CO_2) emissions performance standards for existing power plants under Clean Air Act section 111(d).
  - A national requirement by 2030 of reducing CO2 emissions from the power sector by 30 percent from 2005 levels, with significant reductions, via very aggressive interim targets, beginning in 2020.
  - Final rule expected by June 2015.
  - States must develop implementation plans by mid-2016 or, if they choose to participate in a multi-state plan, by mid-2017(with possible 1 year extensions).
  - Emission limits encompass the entire electric grid, not just emission sources (i.e., power plants).
  - 2012 was used as the baseline year to establish state level emission rate targets…action taken prior to 2012 is included in the baseline and not credited toward achieving the target rate
  - Actions taken between now and 2020 are only credited if they result in CO2 reductions after 2020

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- EPA issued guidelines on what constitutes “Best System of Emissions Reduction” (BSER)
- Each State is required to develop a plan to comply with EPA’s BSER rate
- EPA’s determination of BSER is made up of four “building blocks”.
  1) Improvement of power plant efficiency – assumed 6% improvement achievable
  2) Use of "environmental dispatch” vs. economic dispatch, whereby existing natural gas-fired combined cycle (NGCC) plants are utilized more and coal-fired plants less – assumed NGCC units increase operation to 70% capacity factor
  3) Expanded use of low and zero-carbon generating capacity – assumed increase in Missouri renewable generation from 1.3 million MWh to 2.8 million MWh by 2029, assumed continued operation of 6% of nuclear fleet, “at risk” generation
  4) Expanded use of demand-side efficiency – assumed 1.5% increase in penetration of EE annually and a cumulative 9.92% of electricity sales in 2030
- State can decide to comply on a rate or mass (tonnage) basis as well as join other states in establishing regional compliance plan

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Ameren Missouri has a plan to responsibly transition our generating fleet to a cleaner and more diverse portfolio

- Ameren Missouri is executing a plan we have been working on for years, in conjunction with our Integrated Resource Planning (IRP) process, to transition our generation fleet to a cleaner and more diverse portfolio in a responsible fashion. This plan is focused on several key objectives:
  - Optimizing use of existing low cost coal plants by retiring them at the end of their useful lives.
  - Continuation of significant energy efficiency programs.
  - Adding additional levels of renewable energy to meet Missouri's Renewable Energy Standard.
  - Adding natural gas combined cycle generation to the portfolio.
  - Maintaining the option for nuclear generation.
- Our 2014 IRP will be filed with the Missouri PSC in October 2014.

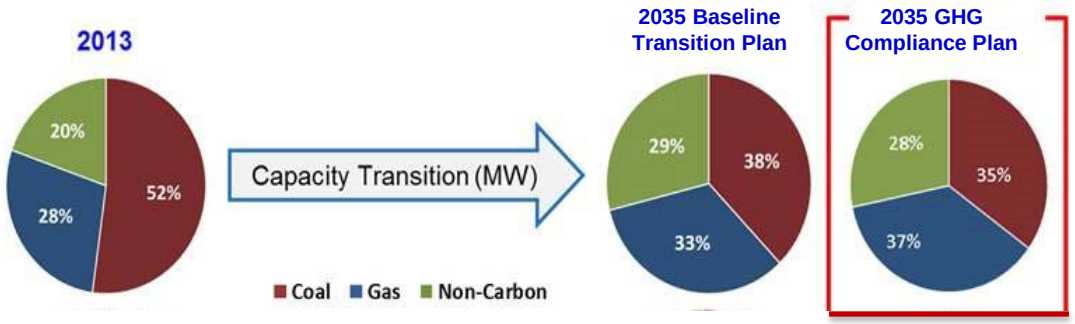
Our baseline transition plan results in dramatic changes to the fuel diversity of our generation fleet and to our carbon footprint

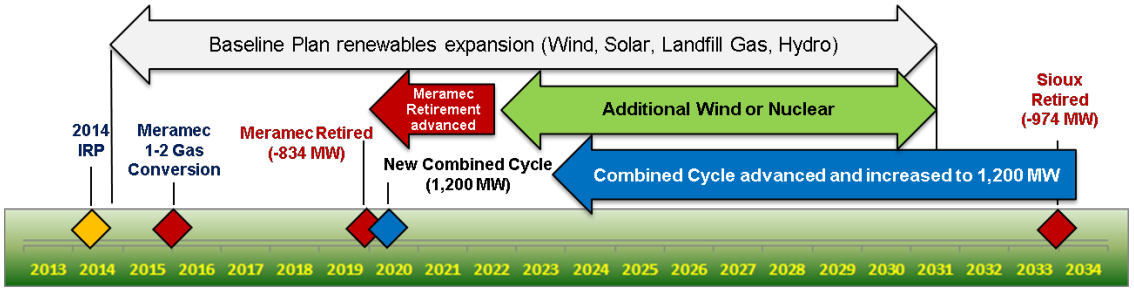
Baseline Transition Plan

- Balanced fuel mix within 20 years
- Annual CO2 reductions equivalent to the EPA plan by 2035
- Responsible and managed transition with minimal risk, cost and reliability impacts

GHG Compliance Plan

- Similar fuel mix to Baseline Plan
- Costly earlier coal retirements
- Unneeded acceleration and addition of gas-fired combined cycle generation by 2020
- Additional capacity reserves not needed for customer demand or RTO reliability requirements
- Uneconomic dispatch resulting in significantly higher net fuel costs to customers





Retaining option for Nuclear generation

Compared to the Baseline Transition Plan, the GHG Compliance Plan results in significantly increased costs to customers

The GHG Compliance Plan results in reliability concerns and significant increased costs to customers estimated at this time to be approximately $4 billion over the next 20 years

- This $4 billion increase in costs to our customers to comply with the GHG rule is being driven by:
  - capital expenditures to build more capacity than we would build under our baseline transition plan,
  - building capacity years ahead of when it is needed to serve customers, and
  - uneconomic dispatch of natural gas vs. coal capacity.
- On a net present value basis compliance with the proposed GHG rule would cost our customers about **four times** what it would cost them under our baseline transition plan.
- Compliance with proposed GHG rule would cause significant rate increases by 2020.

In addition to the cost impact on consumers we believe the EPA's proposal is based on flawed assumptions

- EPA's building blocks contain flaws associated with how the emission rate targets were calculated:
  - Additional generation plant efficiency improvements of 6% were assumed where realistically only about 1 to 2% percent may be achievable on Ameren's system, and at significant costs.
  - Combined cycle gas utilization ("environmental dispatch") is assumed to be 70% which is not economic when compared to the current dispatch of the system and assumes firm natural gas pipeline capacity reservations are available.
  - The EPA's baseline calculations include overly aggressive assumptions on customer energy efficiency programs.
- The proposed rule is fraught with legal issues that will result in numerous lawsuits. This will create additional financial and operational risks and uncertainties.

Recommended Changes to EPA's Proposed Clean Power Plan

- States should be given flexibility to implement the rule, including establishing reasonable milestones that provide a glide path toward the final emission goal that is reflective of individual state conditions, instead of EPAs interim targets (2020-2029).
- Credits should be provided in the rate-based calculation for shutting down coal plants that are not replaced. These units should be treated as a zero-emitting resource similar to the way energy efficiency is treated.
- Missouri should be allowed to extend the compliance date in order to allow for orderly retirement of coal plants.

With these adjustments we can execute our baseline plan and reach EPA's ultimate emissions reduction targets without imposing unnecessary high costs on consumers or significantly impacting Missouri's economy.

Conclusions

- For many years, Ameren Missouri has been taking steps to address the climate issue with the goal of transitioning our fleet to a cleaner and more diverse portfolio.
- Ameren Missouri has a Plan that can ultimately reduce CO2 emissions to the same levels targeted by EPA.
- Ameren Missouri's plan does take about 5 years longer, but it will save our customers $4 billion over what they would have to pay under the EPA's proposed rule.
- Ameren Missouri’s plan helps mitigate the negative impact of the EPA’s proposed rule on our customers, especially low/fixed income customers, on reliability, and on the economic competitiveness of our region.
- We will continue to work in a constructive fashion with key stakeholders, including the EPA, to develop energy policies for the benefit of all our stakeholders and the environment

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