

Senate Utilities Committee
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KCC Staff's Response to EPA's Clean Power Plan
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The CPP Requires the Electric Grid to be Re-dispatched

Dispatch is defined as the operating control of an integrated electrical system involving operations such as: (1) the assignment of load to specific generating stations and other sources of supply to effect the most *economical* supply as the total or significant area loads rise and fall; (2) the control of operations and maintenance of high-voltage lines, substations, and equipment; (3) the operation of principle tie lines and switching; and (4) the scheduling of energy transactions with connecting electric utilities.

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- Economic dispatch is the process of assigning load to generating units based on the cost to run the unit. Lowest cost units are dispatched first and are – with the exception of wind – usually base-load units.
- Base-load units are defined as: A plant, usually housing high-efficiency steam-electric units, which is normally operated to take all or part of the minimum load of a system, and which consequently produces electricity at an essentially constant rate and runs continuously. These units are operated to maximize system mechanical and thermal efficiency and minimize system operating costs.

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- Kansas' coal plants are base-load units.
- The CPP sets a carbon emission limit for each state and sets out four building blocks that combined constitute the “best system of emission reduction”. The building blocks are:
 1. Heat rate improvements on affected coal units.
 2. Use of natural gas-fired combined cycle plants.
 3. Use of renewable generation.
 4. Use of demand-side management & energy efficiency.

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- In order to achieve carbon reductions at coal plants, the CPP requires re-dispatching away from coal to natural gas combined cycle plants, renewable generation resources, and demand-side management & energy efficiency.
- Re-dispatch may be accomplished through a single-state plan or a multi-state plan.
- The EPA's selection of re-dispatch as its method to reduce carbon emissions requires the expertise of both KDHE and the KCC.

KCC Staff Issues with CPP

- Under the Federal Power Act, states retain jurisdiction and control over generating facilities and intrastate electric reliability. The CPP invades Kansas' right to determine an appropriate generation mix for the state.
- The EPA is required to “adequately demonstrate” that the CPP will be reasonably reliable, reasonably efficient, and not exorbitantly costly. The EPA has not done so.
- The EPA's calculations to determine Kansas' carbon emission limits using the four building blocks are flawed and, as a result, are set too low.

KCC Staff Issues with CPP

- The carbon limits established by EPA for Kansas will create reliability issues:
 - The EPA's use of its Integrated Planning Model cannot establish grid reliability.
 - The Southwest Power Pool's Reliability Impact Assessment of the CPP indicates the potential for significant reliability issues.
 - The EPA intends for its four building blocks to be legally severable.
 - The EPA's proposed timeline for compliance is not possible.
 - Increased reliance on NGCC will increase the cost of natural gas and could create reliability issues.
 - Shifting generation from coal to renewables and DSM / EE creates reliability concerns.

KCC Staff Issues with CPP

- The Carbon limits set for Kansas will be exorbitantly expensive:
 - SPP's Reliability Impact Assessment indicates significant new investment in generation and transmission assets will be required.
 - The CPP will lead to environmental dispatch rather than economic dispatch.

KCC Staff Issues with CPP

- The CPP does not recognize investments that states and utilities are already making:
 - The emission limit set for Kansas will result in stranded costs for existing coal generation resources as well as transmission resources.

KCC Staff Issues with CPP

- Other concerns:
 - The EPA's use of a state-wide emission guideline creates cross-subsidy issues between ratepayers.
 - The EPA's use of a state-wide emission guideline creates cross-subsidy issues between states as well as reliability issues.
 - The EPA's option to use a market-based approach is not feasible.
 - The EPA's CPP is essentially a federally mandated energy policy.

Questions?