**MEMORANDUM**

**To:** Carbon Power Plan for Existing Power Plants; Docket id: OAR-2013-0602

**From:** Region 5, EPA

**Summary**: The following questions were submitted to EPA prior to an 8/28/14 conference call between EPA the Indiana Department of Environmental Management about the proposed carbon power plan for existing power plants.

**Indiana Questions on 111(d)**

**8-28-2014**

Does EPA have a model of plans that would be acceptable to them for RE and EE?  That is, IDEM is struggling with the documentable, measurable, and enforceable aspects of these requirements and an example may help us formulate a plan of our own.

How is nuclear factored in for goal calculations?  A lot of northern Indiana citizens have paid increased rates to keep Michigan at risk nuclear facilities operating so they can continue to get energy from those plants.

We are interested in hearing more about the heat rate BSER of 6%.  Our research indicates that many facilities in Indiana already have applied dense pack to the facilities and less than 1% heat rate efficiencies can be achieved after those efficiencies have been applied.  Also, research indicates that efficiency measures become less effective over time, making it difficult to maintain any set percentage of improvements over 15 years.

Additionally, our information indicates that using block 2 to redistribute from coal-fired EGUs on an as needed basis would also drastically impact the heat rates achievable by those units.  It would cause more coal units to act as “peakers” and thus be even less efficient during those high demand times.  Would the loss in efficiencies by the coal units be offset by the greater use of natural gas or would the net CO2 rate actually go up?  Has EPA looked into this issue?  It appears to us that block 1 and block 2 could work against each other in application.

We are interested in hearing more about why a net CO2 rate was used instead of gross.  This seems to provide coal plants the ability to turn off criteria pollutant control devices to increase efficiency to meet the CO2 standard and could cause areas to not meet a NAAQS.  Using a gross rate for both the baseline and goal would not put the different set of pollution control measure against each other.

On that same gross vs. net discussion:  It appears that the CAMD data used by EPA is a mixture of both net and gross MWhrs.  Would EPA expect/like states to submit their own baseline and goal calculations based on all net outputs?

Has EPA considered using a multi-year approach for determining the base year as opposed to 2012? That is, using a method similar to that used in CAIR, CASPR, NOx SIP Call, etc.   Is EPA open to the idea of using a multi-year evaluation for base year determination?

Can EPA provide an explanation as to how to treat facilities that sell part of their energy to the grid and part of their energy to specific industries?

Is there consideration of developing a national trading program for CO2?

How would being a net exporter of energy affect the development of a state plan for the rule?

Has EPA evaluated the reliability issue concerning power on peak demand days? A recent MISO evaluation indicates that beginning in 2015 capacity of Indiana’s fleet will not meet demand for peak summer days. During those same days in the past Indiana has had surplus capacity that was necessary to meet excess demand in the NE. If there is insufficient capacity to meet our own needs, has there been an evaluation to show that there will be sufficient added capacity to meet the nation’s need?   We would be interested in seeing that study.

Can EPA explain the methodology as to how they calculated the “State Generation as a % of sales” value in Step 5 of the goal sheet? We have not been able to replicate EPA’s numbers.

How will EPA handle the potential triggering of NSR requirements if a facility decides to make improvements?  The current set up seems to be a stumbling block for facilities to make changes because it could require them to take new, more stringent limits for criteria pollutants or potentially have to install very expensive controls.  There would be very little incentive for facilities to do this.

Would EPA allow states to use the rules alternative goal approach (higher CO2 rate but faster compliance deadline) even if that is not the primary approach adopted in the rule?  That is, the rule allows States to propose and submit their own goal for EPA approval. Would using the alternative approach as laid out in the rule be something EPA envisions as being the type of state derived plan that would be approvable?

Timeframes:  IDEM is very concerned about timing with this rule.  Primarily IDEM is concerned that there is not enough time to get state rules in place to enforce the new EGU rule.  Additional state legislative action may have to take place which may not be able to happen in time too. IDEM would also like to incorporate a stakeholder process into the development of the state plan since so many stakeholders are involved but IDEM is worried that there is not time to actually do this, thus opening IDEM up to potential lawsuits when our plan is released without stakeholder involvement.  Is EPA considering extending deadlines back by a year or two to allow for more input given the extreme complexities both legislatively and logistically?

Would purchase power agreements made by utilities meet the requirement under the rule for enforceable?