COLORADO
Department of Public Health & Environment

February 5, 2016

REQUEST FOR INFORMATION REGARDING CLEAN POWER PLAN MODELING

The Colorado Department of Public Health and Environment (CDPHE) wishes to evaluate a range of Clean Power Plan (CPP) compliance scenarios. CDPHE envisions a two step modeling process that initially uses a gap analysis tool to identify and screen CPP compliance options, followed by production cost modeling to evaluate compliance options in more detail. CDPHE is early in this process and is currently working with a gap analysis tool prepared by Energy Strategies on behalf of the Center for the New Energy Economy. Colorado seeks input on the compliance scenarios to evaluate in more detail, the most appropriate production cost modeling tools to use, and the data to input. Please consider the following information when commenting.

Stakeholders have requested CDPHE to:

1. Identify available CPP compliance options;
2. Identify CDPHE's key principles to guide CPP decisions; and
3. Identify a set of potential rules to guide CPP modeling efforts for consistency.

In turn, CDPHE requests stakeholders to:

1. By March 11, 2016, identify compliance scenarios for the gap analysis;
2. By March 11, 2016, identify stakeholder preferences on production cost models to be used in evaluating compliance options;
3. By March 11, 2016, identify standard input data categories to be used for production cost modeling; and
4. By April 15, 2016, identify values and assumptions associated with the standard input data categories to be used for production cost modeling.

IDENTIFICATION OF AVAILABLE COMPLIANCE OPTIONS

The compliance options available to CDPHE, as identified by EPA, include:

- Do nothing/EPA administers Federal Plan
- Adopt Federal Model Rule
- Develop state-specific plan (some or all elements differ from Federal Model Rule), deciding:
    - Mass or Rate
        - If Mass:
            - State measures approach or not
            - How to address leakage
            - An allowance allocation methodology and any set asides
        - If Rate:
            - Statewide, varied or subcategorized CO_2 emission rates
    - Availability of trading
    - Participation in CEIP

See EPA's decision tree at:
http://www.epa.gov/sites/production/files/2015-08/documents/flow_chart_v6_aug5.pdf

CDPHE'S KEY PRINCIPLES

- State Implementation: develop a Colorado-specific plan to meet or exceed carbon dioxide reduction targets
- Reliability: maintain electric grid reliability
- Support Growth: allow the electric grid to fulfill future demand growth
- Affordability: minimize cost impacts to utilities and bill impacts to ratepayers
- Economics: minimize disruptions and provide opportunities to workers, while strengthening Colorado's diverse economy
- Collaboration: work with sister agencies and engage with stakeholders

TEMPLATE FOR IDENTIFYING COMPLIANCE SCENARIOS - TO BE USED FOR DISCUSSION PURPOSES ONLY; NOT INDICATIVE OF ANY FINAL POSITION

Colorado's state plan will establish a regulatory framework for compliance with federal CO_2 reduction goals, but CDPHE will not dictate resource planning decisions. Owners and operators of affected electric generating units will decide how to comply within the regulatory framework of the state plan. The Colorado Public Utilities Commission will exercise its authority over jurisdictional utilities regarding compliance measures and resource acquisitions through its Electric Resource Planning process or other appropriate proceedings. Other utilities will determine individual compliance measures through their planning processes.

The first table below provides two potential regulatory frameworks. One is mass-based and one is rate-based. CDPHE asks stakeholders to identify additional regulatory frameworks for consideration and to provide any initial preferences regarding these frameworks. The second table identifies several potential compliance measures. CDPHE asks stakeholders to identify any additional compliance measures and to estimate the potential quantity and timing of each measure that should be modeled. Respondents might wish to bundle compliance measures together, with different combinations of compliance measures for mass or rate plans. In that case, please identify the regulatory framework applicable to each bundle of compliance measures.

CDPHE will use stakeholder responses only to select a range of compliance scenarios for evaluation. Stakeholder responses are not binding, and CDPHE will not interpret the responses as indicating a preference for any particular compliance scenario. CDPHE anticipates that the responses it receives may overlap to some degree. Depending on the number of responses received and the degree of overlap, CDPHE might consolidate the compliance scenarios into a representative range. Through this process, CDPHE hopes to gain insights into the potential costs and feasibility of various compliance scenarios, and to make more informed decisions when designing the regulatory framework.

POTENTIAL REGULATORY FRAMEWORKS

	MASS EXAMPLE*	RATE EXAMPLE*
Mass or Rate	Mass	Rate
Leakage	No new source complement; address leakage using EPA's proposed set-asides	N/A
Trading	Trading ready	Trading ready
Participation in CEIP	Yes	Yes
Allowance allocations	Model Rule allocations (based on average generation from 2010 through 2012) and set-asides	N/A
Emission rate goals	N/A	Subcategorized
State measures	No	No

* Examples are provided for instructional purposes only, and are not indicative of any position on available options.

POTENTIAL COMPLIANCE MEASURES

COMPLIANCE MEASURE	QUANTITY	TIMING
Improve heat rate		
Increase utilization of existing NGCC		
New renewable energy capacity		
Retire units or reduce utilization		
Energy efficiency		
Convert coal units to natural gas		
Reduce transmission and distribution losses		
Combined heat and power		
Trading		
Other		

STANDARD INPUT DATA CATEGORIES

CDPHE requests stakeholders to identify the categories of data that the production cost model should take into account, and to provide numeric inputs. For example, the data categories could include:

- Coal prices
- Gas prices
- New RE costs (per RE type)
- O&M costs (per generation type)
- Sales per consumer category
- Cost of emissions measurement and verification (EM&V)
- Costs of energy efficiency measures
- Other

For consistency, it would be helpful for stakeholders to reach consensus on generic values for each category of input data, and to summarize the following information model runs using:

- Known retirements
- Conversions
- New generation being brought online
- Heat rate improvements
- Planned energy efficiency projects
- Other

SUBMIT COMMENTS

Please submit the requested information to CDPHE at cdphe.commentsapcd@state.co.us