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**Climate Change and State Utility Commissions:
What is the Public Interest?**

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Introduction

State utility commissions have generally defined the public interest in electricity regulation as achieving the best possible tradeoff between low rates and reliable supply. Meeting environmental goals – for air, water, and land quality – has been treated as a constraint: state and federal policies under the Clean Air Act, The Federal Water Pollution Control Act, and the Resource Conservation and Recovery Act placed obligations on generators that affected the commission strategy and regulation in pursuit of reasonable rates and reliable supply.

Climate change poses a different challenge to the electricity sector in magnitude and nature than have traditional forms of environmental regulation. Key elements of this challenge include

1. Policies which limit carbon emissions in a comprehensive and mandatory fashion – whether they are cap-and-trade policies or tax policies – will cause electricity to become more expensive – relative to almost all other goods and services – than it is now. This increase could be by a little or a lot, and depends on a host of policy and technology factors that are inherently unpredictable ex-ante.
2. The way that these over-arching policies are designed and implemented will affect electricity rates, but could also create significant changes in corporate and personal wealth, channel investment toward specific areas, and become an integral part of the U.S. fiscal system. In short, climate change policy has the potential to be a major component of economic policy and the fiscal system.
3. There will be a wide range of opinion on whether the price signals for electricity inherent in climate change (and other energy-related) policies are adequate to bring forth an adequate or efficient response from consumers and institutions. Commissions will be in the middle of setting the balance between price-based greenhouse gas (GHG) reduction efforts and those that

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depend on specific programmatic policies and expenditure programs (for example, direct public investment in home energy efficiency technologies).

4. Long-term policies will be subject to revision in light of future scientific information, international agreements, domestic politics, technological developments, costs, etc. While such revision is always the case, the tension between the desirability of long-term certainty and the flexibility to revise policy given new information will be particularly pronounced and complex for climate change policy.

Commissions' responses to these ongoing challenges will be shaped by their view of the public interest – specifically, the ways (if any) that they incorporate pursuit of collective goals toward reducing climate change risk as an element to be balanced against cost and reliability, and their concern about overall efficiency relative to low rates.

This essay lays out three distinct views of the public interest that commissions (and commissioners) could pursue in making decisions with respect to climate change policy and risks. My belief is that commissions are influenced by all three of these views, which can imply distinctly different regulatory action from each other. I will label these views as *activist*, *efficient*, and *traditional*. This essay proceeds by defining these views, and then applying them to examples of specific regulatory contexts important in the climate change policy debate.

My purpose is not to argue that any of these three views is somehow superior or correct. Neither do I believe that individual commissioners hold and act on one of these three versions of the public interest to the exclusion of the others – real-world attitudes are more likely to be some combination of these views. What I hope to accomplish is to demonstrate that different plausible versions of the public interest lend support to competing commission regulatory and advocacy decisions. Clarifying the desirability of commission responses to the array of challenges presented by climate change requires corresponding clarity in what version of the public interest is being sought and served.

Three Versions of the Public Interest

One version of the public interest is that of an *activist* commission that incorporates overall collective attitudes and goals toward GHG reduction into its decision-making (and not just the letter of the law as expressed in current policy). Commissioners would be motivated by a belief that reducing GHGs is in and of itself an essential part of the public interest. Such a commission would still balance cost and reliability with GHG emissions in making policy and specific decisions, but would view GHG reduction as a goal rather than a constraint.

The second version is that of an *efficient* commission – one that takes GHG reduction goals as given by legislative and other policy-making bodies, but attempts to meet these goals in a way that minimizes costs to the overall economy over time, rather than the way that best meets the goals of low rates and reliable supply. This approach is consistent with a view that regulation should work toward correcting imperfect markets so that they carry information and coordinate choices that maximize economic productivity and welfare.

The third version is that of a *traditional* commission, which takes GHG reduction goals as given by legislative and other policy-making bodies and seeks to meet the twin goals of low rates and reliable supply. Low rates are not always consistent with maximum GHG reduction, and can also be at odds with overall efficiency. Commissions have traditionally viewed ensuring low rates as the central aspect of consumer protection, and there has been substantial political support for this view from consumer advocacy institutions.

Three Public Interest Concepts Applied: Examples

Example 1: Siting New Coal Generation

No matter which version (or more accurately, what combination of characteristics) is held by individual commissioners and by commissions as a whole, all decisions will have to be made under uncertainty about key policy, technology, and strategic variables. As an example, consider a situation that has faced a number of commissions in recent years and will continue to be important in the short run: commission positions on generation owners' applications to site and build conventional coal-fired generation. Regardless of commission definition of the public interest, the wisdom of supporting or opposing such an action depends on an assessment of federal and/or state policies – particularly cap-and-trade policies – that will be enacted. It also depends on the course and speed of technology development: what will be the availability, efficiency, and cost of wind, solar, carbon capture and storage from coal, energy storage and transmission, etc.? It will depend on strategic factors as well – for example, if state A sites three new coal plants, will it affect how many are sited and built in state B? Will it affect allowance allocation in a federal or state/regional cap-and-trade system? Commissions are used to making decisions under uncertainty, but climate change presents new challenges that may well make new thinking and new tools useful.

In this situation, *activist* commissions will tend to oppose any new conventional coal generation on the grounds that CCS-compatible coal generation or other sources are more consistent with collective responsibility to reduce climate change risks. *Efficient* commissions will tend to base their assessment on their expectation about future climate policy and the resulting carbon price: the higher the expected price, the less likely they are to view conventional coal as an efficient choice. *Traditional* commissions might base their decision on whether the construction of new generation will bring about no-cost allowance allocations or other policies designed to protect consumers of high-GHG energy.

Example 2: Ratemaking and Allowance Allocation

A second illustration relates to how these views apply to the issue of ratemaking and allowance allocation. An *activist* commissions would tend to seek to use the value of allowances for investments in GHG reduction – through demand-side management or subsidization / investment in low-GHG energy. An *efficient* commission would argue for passing on the full marginal cost of GHG allowances to all consumers in order to achieve the lowest-cost combination of generation and end-use reduction – which implies passing through the marginal cost of GHG allowances to consumers. A *traditional* commission would try to use allowance value to keep end-user prices as low as possible by applying that allowance value to reducing the revenue requirement.

Example 3: Different States Have More Aggressive, Less Aggressive, or No Renewable Portfolio Standard (RPS) Policies

RPS policies require a minimum percentage of electricity used in a state to be generated by specified (and usually low-GHG) technologies. Leakage can occur when a state with an RPS imports electricity from a state without such a policy. For example, if already-existing wind generation from the Dakotas were used to meet Minnesota RPS requirements, additional GHGs could be emitted if coal generation were used to replace that exported power in supplying customers in the Dakotas. *Activist* commissions will tend to try to find ways to avoid leakage of emissions from RPS states to non-RPS states (a difficult regulatory challenge). Their focus would be on making sure that the full effect of RPS policies go to maximize financial incentives for renewable electricity generation. *Efficient* commissions will focus on making RPS policies as transparent and flexible as possible while still meeting statutory objectives. They would tend to be against leakage, but would pay more attention to making sure differences in rules did not create perverse incentives or opportunities to increase profits by gaming the system. *Traditional* commissions will tend to encourage the importation of low-carbon energy from out of state, even if leakage is occurring, in order to minimize the impact on end-user rates.

Example 4: States Differ in Their Resource Endowments in Alternative Energy Generation

Some states have good geographical and climatic conditions for generating electricity from wind and solar resources, while others are less favorably endowed. This creates differences in the costs of generation in moving to a less GHG-intensive generation mix. An *activist* commission would seek to maximize (while balancing costs and reliability) the development of low-carbon electricity. This might entail significant changes in both relative costs among regions and in the location of new generation plant and equipment. The location of resources for low-GHG generation might justify greater investment in transmission and load management.

An *efficient* commission would want to equalize the marginal cost of production across sources (including the explicit or implicit anticipated price of GHG emissions), and would accept changes in regional differential pricing as part of that process.

A *traditional* commission would seek to insulate consumers as much as possible from the costs of more expensive low-carbon generation, and might pursue cross-subsidization or advocate public generation subsidies to help achieve that purpose.

Example 5: States Differ in Their Political Environments for Climate Change Policy

States experience internal debate on climate change (governors vs. legislatures) and also have differing levels of citizen, industry, and NGO support for different kinds of GHG reduction policies. Commissions making proactive regulatory decisions will have to take their cues on policy expectations in a complex environment. *Activist* commissions will tend to participate in the debate and interpret likely policy in favor of aggressive GHG reduction. *Efficient* commissions will tend to participate in the debate to try to avoid overly expensive policies – and should consider costs not just to ratepayers but also to taxpayers and to the economy as a whole. *Traditional* commissions will be less likely to be part of this policy debate – but will tend toward narrow advocacy for lower rates.

Conclusion

This essay argues that all three motivations discussed above are plausible interpretations of the public interest, but can bring about very different attitudes and decisions on the electricity industry's response to climate change risk and climate change policy. It explicitly recognizes that commissions (and commissioners) can be influenced by multiple motivations in different contexts. Helping commissions think clearly about larger issues in the medium and long term requires clarity and specificity with respect to regulatory and policy objectives.

My conversations with commissioners over the past year have led me to think that it will be difficult to frame key issues without also framing the public interest. I believe that state commission response to the ongoing challenge of climate change would be well served by careful analysis and discussion of how their environment and decisions affect tradeoffs (and possible synergies) between climate change mitigation, economic welfare, and end-user electricity rates.