

Air Quality Management Agency Engagement with State Energy Agencies

Prepared for the National Council on Electricity Policy (NCEP), administered by the National Association of Regulatory Utility Commissioners (NARUC) Center for Partnerships & Innovation (CPI)

Prepared by Matthew McDonnell, Joe Goodenbery, and Jennifer Gorman, Strategen Consulting Inc., February 2024

Air quality management agencies, also known as air pollution or air quality control agencies, fulfill a unique role in the energy ecosystem. As set forth by state law and the Clean Air Act (CAA), air quality agencies' responsibilities include development and implementation of air quality plans to achieve National Ambient Air Quality Standards (NAAQS) and other federal and state standards. Air quality management agencies also have responsibility over permitting and assuring compliance of certain stationary emissions sources (e.g., power plants), regulating emissions from vehicles and other mobile sources, operating air quality monitoring networks, developing emissions inventories, and related activities.

With a growing focus on air quality as it relates to decarbonization, state air quality management agencies are facing increased obligations on the federal and state level to monitor greenhouse gas emissions and create and implement climate and greenhouse gas policies and programs. These factors mean that air quality management agencies are more frequently interfacing and collaborating with other state agencies involved in the energy ecosystem, notably territory and state energy offices, public utility commissions (PUCs), and departments of transportation (DOTs).¹ The need for cross-agency engagement is familiar to air regulators, who are accustomed to working on problems in collaboration with other agencies because of the cross-sectoral sources and impacts of air pollution.

The relationship among air quality management agencies, state energy offices and PUCs differs in each state based on organizational configurations, institutional norms, priority energy topics within the state, and how each agency views its role within the energy ecosystem. This mini guide describes ways in which air quality management agencies, state energy offices, and PUCs interact, identifies topics for coordination, and provides examples of effective collaboration. To inform the guide, the authors conducted interviews with utility commissioners, state energy and air quality directors, and staff within states that have been successful in forming effective working relationships across agencies. The three states interviewed for this mini guide offer different perspectives and approaches to collaboration and the maintenance of valuable interagency relationships.

The History and Structure of Air Quality Management Agencies

The CAA is the primary federal statute that regulates air emissions from stationary and mobile sources.² The CAA requires the Environmental Protection Agency (EPA) to establish minimum national standards for air quality and requires implementation of specified air pollution control measures in areas that do not obtain these national standards. It establishes federal standards for mobile sources of air pollution, their fuels, and for sources of 187 hazardous air pollutants. It also institutes a comprehensive permit system for all major sources of air pollution.

1 For more information on the roles of state energy offices and PUCs and their interagency coordination, see: NCEP, 2020, "Engagement between Public Utility Commissions and State Energy Offices," <https://pubs.naruc.org/pub/BE0CB9C4-155D-0A36-3145-B283C4207921>.

2 42 USC §§ 7401-7671q

About the NCEP Mini Guide Series

The National Council on Electricity Policy (NCEP) is a platform for all state-level electricity decision-makers to share and learn from diverse perspectives on the evolving electricity sector. The NCEP mini guide series promotes this dialogue by highlighting examples of successful engagement across its members. Each mini guide features collaborative approaches, lessons learned, and interviews with leading state and local decision-makers.

component of state and local air agencies' NAAQS implementation efforts is the development of emission reduction strategies and programs to attain and maintain the NAAQS for criteria pollutants.⁴ These strategies are set forth in SIPs, which must be approved by EPA.

Air quality management agencies are also responsible for issuing air quality permits prior to the construction or modification of stationary sources. These sources may include power plants and certain commercial and industrial facilities, such as factories and backup generators at commercial facilities. Air permits are legally binding documents that include enforceable limits on air emissions, specify how facilities must operate pollution control equipment, and detail how to monitor and report emissions. The agencies also regulate smaller unpermitted area sources (e.g., gasoline stations, dry cleaners, and small commercial emitters) and certain processes and products, such as the volatile organic compound (VOC) content of paints. Air quality management agencies may also conduct inspections to determine compliance with air quality rules.

Furthermore, air quality management agencies have major responsibilities for regulating and managing transportation-related emissions, such as oversight of vehicle emission testing, fuel formulations (like reformulated gasoline), and planning and implementation of transportation control measures (e.g., highway planning, public transit, traffic signal timing, pedestrian and bicycle modes, and roadway charges) in conjunction with state DOTs, Metropolitan Planning Organizations (MPOs), and others. Air quality management agencies increasingly interact with state energy offices, PUCs, localities, and others on transportation electrification.

Starting in 2017-2018, many air quality management agencies were responsible for administering Volkswagen (VW) settlement funds to mitigate excess emissions of nitrogen oxides (collectively known as "NOx") from diesel vehicles.

Most of the nation's ambient air monitoring networks are operated and maintained by state and local agencies, in accordance with design and operational criteria established by the EPA. These networks measure ground-level concentrations of criteria pollutants and their precursors, air toxics, meteorological conditions, and other parameters. A significant portion of state and local air program resources are devoted to routine monitoring and reporting tasks.⁵ Many air quality management agencies also maintain online maps tracking local air quality. Further, in states that have adopted California's Clean Car Standards under § 177 of the CAA, the state air quality management agencies are, in most cases, the regulatory agencies tasked with designing and implementing zero-emission vehicle regulations.

State Energy Offices

The 56 state and territory energy offices throughout the U.S. have broad policy and programmatic responsibilities related to many aspects of the energy sector in their states. State energy offices often play a key role in developing and implementing energy policies and programs at the state level by advising governors and legislators on energy issues, informing regulatory processes, and supporting energy technology research, demonstration, and deployment. Most state energy offices conduct comprehensive state energy policy planning at the direction of their governors to establish a strategy or framework to meet current and future energy needs in a cost-effective manner, enhance energy system reliability, expand economic opportunity, and address environmental quality. Thus, state and territory energy offices play a major role in the development of policies, investments, and partnerships that support clean energy technology deployment and energy infrastructure expansion and modernization. State energy offices may infuse investments into local economies through grant, incentive, or financing programs, manage technology incubation and business development programs focused on clean energy technologies, and utilize their technical expertise and convening power to ensure stakeholder input informs policies and programs.

State energy office organizational configurations differ, but they are generally housed in executive branch agencies or set up as independent agencies to provide policy development leadership and help set the goals or requirements in each state's energy economy. Additionally, state energy office directors are typically appointed by the governor. State energy offices can be key intervenors and participants in PUC proceedings and working groups and important collaborators for air quality management agencies.

"One of the strengths of air agencies is that we're accustomed to working on problems in collaboration with other agencies. Air quality is a problem that doesn't respect state boundaries, so we have to coordinate regionally and nationally. We have this built-in experience that spans decades."

— Tracy Babbidge, Air Bureau Chief, Connecticut Department of Energy and Environmental Protection

4 Criteria pollutants are particulate matter, ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide and lead. The EPA calls these pollutants "criteria" air pollutants because it sets NAAQS for them based on health-based or environmentally based criteria. See United States Centers for Disease Control and Prevention, "Air Pollutants," <https://www.cdc.gov/air/pollutants.htm>.

5 NACAA (February 17, 2017), "Improving Our Nation's Clean Air Program," https://www.4cleanair.org/wp-content/uploads/Documents/2-16-2017_NACAA_Recommendations.pdf.

Public Utility Commissions

PUCs – also known as Public Service Commissions or Divisions, Regulatory Commissions, Corporation Commissions, Departments of Public Service, or Utility Commissions, depending on the state – are quasi-judicial regulators of utility services. These utility services include, at a minimum, the delivery of electricity, natural gas, telecommunications, and water to customers. In this role, they ensure that utility services are safe and reliable and that those services are provided at rates and conditions that are fair, just, and reasonable for all consumers. PUCs typically oversee utility services by adjudicating utility rate setting, approving construction and siting for utility infrastructure (e.g., power plants, pipelines, distribution wires, substations) and overseeing investments in customer services and programs across a utility’s territory. Depending on the state, commissions may also engage in rulemaking or regulation-writing processes and/or non-contested investigatory matters.

PUCs are generally comprised of two main components: the commissioners and staff. PUCs have between three and seven commissioners each, whose terms range from four to six years. Most commissioners are appointed by the governor and approved by the state senate; in 13 states commissioners are elected by the public or selected by the legislature. Commissioners carry out the duties and exercise the authority of the PUC, along with its executive, legislative, and judicial functions. Commissioners’ actions are driven by their interpretation of state statute and evidence brought before them when determining “the public interest” in quasi-judicial proceedings.

“The Energy Office is a regular intervenor before the PUC. They provide perspectives within the regulatory process just as many other state agencies and stakeholders do. We have a close working relationship with the Energy Office, but are a bit more distant from the air regulator. They have their regulatory sphere, and we have ours.”

– Chairman Eric Blank, Colorado Public Utilities Commission

State PUCs play a key role in shaping energy infrastructure and policy. They oversee utility planning processes, set consumer rates, and review utility-led customer programs. These topics are typically addressed in PUC proceedings, which may be contested or uncontested. For contested cases, commissioners are strictly limited in their communications with anyone who could become a party to the case—referred to as *ex parte* communications—to insulate the commission against the perception of partiality. To address new and evolving issues, PUCs often utilize non-adjudicatory processes such as rulemakings, technical conferences, working groups, or other collaborative processes with stakeholders.

Departments of Transportation

State DOTs are state agencies that oversee programs and policies related to intermodal transportation networks. The purview of state DOTs can be vast. Most are responsible for building, maintaining, and operating their state’s roads, bridges, and tunnels and can have oversight over programs affecting urban and rural public transportation, airports, railroads, ports, and waterways. In addition to managing multimodal infrastructure, state DOTs are charged with managing the safety and efficiency of the transportation systems. While this mini guide primarily focuses on coordination among other agencies, it is worth noting that DOTs are key collaborators regarding statewide electrification plans or efforts to prepare for increased electric vehicle (EV) deployment.⁶ DOTs can lend important transportation subject matter expertise and are typically the lead state agencies for the federal National Electric Vehicle Infrastructure (NEVI) funding, in many cases in coordination with state energy offices.

Avenues for Engagement Among State Agencies

PUCs, state energy offices, and air quality management agencies collaborate on a range of topics both formally and informally. Collaboration among these agencies can support the achievement of state energy system goals in an efficient manner, with better informed agency decision making, and by leveraging scarce resources. Despite differences in agency structures across states, some avenues and opportunities for engagement are common.

Formal Engagement

Formal agency collaboration occurs within rulemakings and docketed proceedings, formal working groups, advisory boards, and similar forums. PUC docketed proceedings provide a key intervention point for stakeholders to provide analysis and insights on resource planning, utility-led customer programs, rate design, and other energy-related topics. The state energy office is often a formal intervenor in these proceedings and may submit testimony that represents the position of the governor or their own agency. The air quality management agency may also formally intervene in PUC dockets, but that is less common. The air quality

⁶ NCEP, 2022, “Mini Guide on Transportation Electrification: State-Level Roles and Collaboration among Public Utility Commissions, State Energy Offices, and Departments of Transportation,” <https://pubs.naruc.org/pub/131FFF33-1866-DAAC-99FB-D86EE13B1709>.

management agency may also provide its subject matter expertise to the state energy office and collaborate to inform sections of the agency's testimony. In formal docketed proceedings, communication between the PUC and intervenors is limited by ex parte rules. Whether or not the state energy office is a formal intervenor, it might still provide research and analysis to the PUC.

The agencies will also frequently participate in working groups led by their counterparts or participate in interstate working groups led by national organizations, such as the Association of Air Quality Management Agencies (AAPCA), the National Association of Clean Air Agencies (NACAA), National Association of Regulatory Utility Commissions (NARUC), the National Association of State Energy Officials (NASEO), and the National Council on Electricity Policy (NCEP).

State energy offices often convene workshops and working groups to inform state policy development or program implementation, whereas PUCs frequently solicit input from energy stakeholders through working groups as part of a docketed case or as a stand-alone docket used for education and information gathering. Air quality management agencies are typically participants in these working groups rather than convenors. Additionally, advisory boards, such as Connecticut's Hydrogen and Electric Automobile Purchase Rebate Program or South Carolina's Energy Advisory Council, may be composed of representatives from the state energy office, PUC, and air quality management agency, and can facilitate conversations on a variety of topics.

“For effective collaboration, it is important to understand the regulatory processes that some agencies need to adhere to. Decisions in PSC cases need to be solely based on evidence in the record. While informal engagement with the air regulator can give the PSC the situational awareness to know what discovery to ask for in a proceeding, informal conversations cannot be cited in a decision.”

— Chairman Kent Chandler, Kentucky Public Service Commission

The agencies also work together to implement new statutory requirements or executive orders that direct the completion of research studies or the formation of new programs and incentives. Prior to implementation of legislative requirements, the agencies may also coordinate on legislative policy-setting and align on testimony or comments on proposed bills.

Informal Engagement

Informal agency collaboration provides a supplement to formal avenues for engagement. Agencies may provide early access to reports or presentations to their counterparts for peer review or request information and expertise on a particular topic to inform a section of a plan or program. Staff may also reach out to subject matter experts within other agencies to learn more about a specific topic or to verify information. Regular interagency debriefs provide key forums to inform other agencies about emerging areas of focus and identify where efforts may be overlapping or where expertise from the other agencies may be beneficial. Establishing and maintaining points of contact across agencies enables efficient outreach and ease of access when collaborators or experts are needed.

Collaboration Topics

Based on interviews conducted for this mini guide, six topical areas for collaboration emerged, which are not exhaustive. When one agency is approaching a new topic, it can be valuable to loop in points of contact at other agencies to explore how their expertise and statutory authorities may be informative and applicable.

- **Stationary source permitting.** Major stationary sources, such as power plants, must obtain operating permits from the air quality management agency. Power plants and related energy infrastructure necessitate a certificate of public convenience and necessity (CPCN) from the PUC.⁷ Air quality permits may specify fuel use and fuel quality, parameters and rates for equipment operations, and necessary emissions control equipment. Limits on power plant pollution within these permits may restrict the operations of power plants, thus impacting state resource adequacy and informing PUC decisions in integrated resource plans (IRPs). Additionally, the necessity of emissions control equipment, depending on the ownership structure of a given power plant, may require utility investment. The PUC must approve the cost recovery and prudence of such investments and can conclude that the economics do not justify the investment, which can lead to the retirement of facilities. Recently, hybrid resources (e.g., energy storage paired with oil or gas units) have been proposed for development

“Our agency emphasizes that if we start going down a specific policy or regulatory path and realize there are implications for other state agencies, it is very important to proactively reach out. You cannot assume that they know what is going on or know how to best engage.”

— Joshua Walters, Staff Attorney, Connecticut Department of Energy and Environmental Protection

⁷ These permitting processes may happen serially or in parallel. For example, a project may enter an interconnection queue and apply for an air permit prior to seeking a CPCN from the PUC.

by state energy offices and utilities. Should they be deployed, this would require existing power plants to apply for permit changes. The air quality management agency can also provide expertise regarding land impacts and stormwater prevention to inform the deployment of energy resources led by the state energy office or before the PUC.

- **Siting.** In most states, the PUC oversees the siting of utility resources. Some states have independent siting boards, which may be administratively supported by PUCs or state energy offices.⁸ Some state energy offices also provide mapping tools to inform developer siting.⁹ Despite this procedural variation, several common variables are considered in a siting application, namely public health, safety, and environmental impacts. Air quality management agencies can provide insights for siting processes, including marginal emissions impacts from locational differences and stormwater impacts.
- **Resource planning.** Integrated resource planning is typically led by the PUC in formal dockets. In a few states (e.g., Connecticut), this effort is led by the state energy office. State energy offices frequently intervene in PUC-led IRP dockets and, often in collaboration with air quality management agencies, provide the PUC with research and analysis in testimony to inform decisions. The air quality management agency may also be asked to verify that the utility resource plan scenarios achieve adequate emissions reductions and air quality improvements. On the state level, joint road mapping exercises have also been undertaken at the direction of a governor or legislature that incorporate expertise from multiple state agencies.
- **Equity and environmental justice.** Air quality management agencies and environmental regulators have considered environmental justice (EJ) for years, developing mapping tools and incorporating EJ criteria into their decision making. Recently, a broader focus on energy justice has been driven by state legislative mandates, state programs and policies, focused federal investments, and societal recognition of inequities. More than 10 PUCs are required by state law to consider equity broadly within their decision making and nearly as many must support equity in specific programming.¹⁰ Many state energy offices have led state efforts to design equity-focused stakeholder engagement on energy topics. Further, approximately half of the state energy offices manage the Low-Income Weatherization Assistance Program, and around a quarter of them also manage the Low-Income Home Energy Assistance Program. Combining state agency efforts to approach disadvantaged and frontline communities for their input on energy-related decisions can enable meaningful engagement that considers community member time, accessibility, and resources.
- **Zero-emission vehicles.** Air quality management agencies are responsible for implementing EPA's mobile source emissions standards (or in the case of the 18 § 177 states, California's Clean Car Standards), which have been an important driver for zero-emission vehicle adoption. Non-utility rebates and infrastructure incentive programs are typically implemented by the state energy office with input from the air quality management agency and the PUC. State energy offices and DOTs, with significant implementation experience in this space, administer EV infrastructure programs and can provide valuable and impartial information to their PUCs to aid in their regulatory decision-making process. State energy offices may also lead zero-emission vehicle road mapping or policy and planning activities. PUCs lead formal proceedings that determine the role of the utility with respect to electric vehicle infrastructure deployment and oversee all utility investments to supply power to charging stations. PUC processes gather information from diverse stakeholder interests to consider the impacts of new tariffs, rate designs, and performance metrics associated with EV charging infrastructure and EV adoption.
- **Building performance.** Indoor air is not regulated under the CAA and is often addressed through building energy codes or other local actions. A few states have adopted green building performance standards that define how buildings should be designed, constructed, and operated to minimize environmental impact. While these are often adopted by the state legislature and locally enforced, they are informed by air quality concerns and the expertise of the air quality management agency. Further, implementation of some building performance standards can be assigned to the state energy office,

“When approaching coordination, there is a matter of unknown unknowns. There could be more overlap between the air bureau and us that I’m just not aware of, but I’m sure that there are things that we are each working on that could benefit from another agency’s expertise. In this sense, regular structured meetings and points of coordination between Commissioners, agency directors, and subject area experts can provide the forum to purposefully unpack these unknowns.”

— Joshua Ryor, Managing Director, Office of Technical & Regulatory Analysis, Connecticut Public Utilities Regulatory Authority

8 For more information on transmission siting, see NCEP, 2021, “Mini Guide on Transmission Siting: State Agency Decision Making,” <https://pubs.naruc.org/pub/C1FA4F15-1866-DAAC-99FB-F832DD7ECFF0>.

9 See the Renewable EnerGIS Mapping Tool developed by the Hawaii State Energy Office, <https://energy.hawaii.gov/information-center/project-development-center-tools/renewable-energis-mapping-tool/>.

10 NARUC, 2023, “State Energy Justice Roundtable Series: Energy Justice Metrics,” <https://pubs.naruc.org/pub/2BD402A3-1866-DAAC-99FB-446FA2E021B9>.

which also administers programs to enhance energy efficiency and building performance, supports the adoption of energy codes, and informs the design and implementation of programs for distributed energy resources. Related utility investment decisions, ratepayer-funded energy efficiency programs, and performance incentive mechanisms are under the purview of the PUC.

Examples of Effective Collaboration

During interviews for this mini guide, interviewees discussed several approaches they have taken to enhance collaboration and communication across their organizations, which could be replicated in other states.

- Establish a comprehensive understanding of the expertise and responsibilities covered by the other agencies. To support this objective, agencies can share their onboarding materials with other agencies to support a baseline understanding.
- Schedule regular meetings (e.g., once a month or quarterly) between the leadership of each organization to inform each other of priorities and staffing needs and identify areas for potential coordination. Staff may also be included.
- When a new employee is hired, set up coffee chats or introductory meetings for them with their cross-agency counterparts or key subject matter experts with whom they may be expected to interface.
- When a new commissioner or agency director comes on board, establish a personal relationship early and discuss norms for interagency outreach and coordination.
- Identify a lead contact for key issues so that staff know who to contact when that topic arises.
- Hold “101” trainings or lunch and learns monthly across the agencies. These meetings can cover regular proceeding processes, deep dives into areas of agency expertise, and briefings on the implications of emerging state or federal policies. Regular activities can help to establish informal dialogue and cross-agency information sharing and awareness.
- Consider staff exchange or rotation programs, where and when possible, to enable staff to develop an in-depth understanding of the viewpoint and responsibilities of the other agencies. A formal program, similar to the rotation program at federal agencies, can increase cross-training and ensure continuity of engagement.
- Develop interagency processes for proactive information sharing, which may occur through regular leadership or staff meetings, topic-based memos, working groups, or other informal channels. Even if information may not seem directly relevant to other agencies, proactive communication may spark ideas or uncover areas of unknown overlap.
- When new topics arise, identify the agency that will take the lead and define the support or expertise needed to complement this effort. Define checkpoints and methods to share information.
- Hold planning meetings and workshops outside of formal proceedings to share ongoing agency work and provide an opportunity for the other agencies to ask questions.
- Directly invite other agencies to participate in ongoing processes that your agency is leading. This may include requesting informational presentations, designating a dedicated representative within working groups, or seeking participation in a docket.
- Normalize a process for pre- and post-docket debriefs with other agencies. Noting that ex parte rules restrict communications with the PUC during an ongoing docket, this process can help set a common foundation and expectations ahead of a docket and lead to an increased understanding of successes or pain points following a final order.
- Understand ex parte and open meeting rules that restrict communications with PUC commissioners and staff and develop methodologies to communicate while following these rules. It should be noted that the state energy office and air quality management agency do not typically have rules that limit communications between them.

Participate in regional or national working groups or convenings led by AAPCA, NACAA, NARUC, NASEO, and NCEP. These convenings can provide opportunities to meet counterparts from other states and learn from the experiences of others. Develop debriefs to share with the other agencies when a representative is sent to relevant convenings.

Mini Guide Examples

To illustrate how these relationships work in practice, the following section presents condensed excerpts from interviews with state air quality management agencies, PUCs, and state energy offices from three states: Colorado, Connecticut, and Kentucky.

Table 1. Mini Guide Interviewees

Name	Position	Organization	Organization Type
Claybourne Clarke	Climate Change Program Director	Colorado Department of Public Health and Environment	Air Quality Management Agency
Michael Ogletree	Director, Air Pollution Control Division	Colorado Department of Public Health and Environment	Air Quality Management Agency
Keith Hay	Senior Director, Policy	Colorado Energy Office	State Energy Office
James Lester	Senior Policy Lead on Transmission, Climate and Energy	Colorado Energy Office	State Energy Office
Eric Blank	Chairman	Colorado Public Utilities Commission	Public Utility Commission
Tracy Babbidge	Air Bureau Chief	Connecticut Department of Energy and Environmental Protection – Air Bureau	Air Quality Management Agency
Joshua Walters	Staff Attorney	Connecticut Department of Energy and Environmental Protection – Bureau of Energy and Technology Policy	State Energy Office
Joshua Ryor	Managing Director, Office of Technical & Regulatory Analysis	Connecticut Public Utilities Regulatory Authority	Public Utility Commission
John Lyons	Deputy Secretary	Kentucky Energy and Environment Cabinet	Air Quality Management Agency/ State Energy Office
Kent Chandler	Chairman	Kentucky Public Service Commission	Public Utility Commission

Each person interviewed expressed his or her own opinions. Inclusion in this document does not indicate an author's or organization's endorsement of any statement or suggestion.

Colorado

The following text is an abridged transcript of interviews conducted with Claybourne Clarke and Michael Ogletree, the Climate Change Program Director and the Director of the Air Pollution Control Division, respectively, at the Colorado Department of Public Health and Environment; Keith Hay and James Lester, the Senior Director of Policy and the Senior Policy Lead on Transmission, Climate, and Energy, respectively, of the Colorado Energy Office; and Chairman Eric Blank of the Colorado Public Utilities Commission.

Please describe the working relationship between the Public Utility Commission, State Energy Office, and Air and Environmental Regulator in your state.

Chairman Eric Blank, Colorado Public Utilities Commission: The Commission has a close working relationship with the Colorado Energy Office (CEO). Because they are deeply involved in legislative policy setting, we need to interface with them to ensure that legislation being developed is workable for the PUC to implement. The CEO also ensures that as the PUC, we are implementing relevant legislation in a sensible manner. Our relationship is more distant from the Colorado Department of Public Health and Environment (CDPHE), but the CDPHE is responsible for verifying emissions reductions in electric utility Clean Energy Plans and in gas utility Clean Heat Plans.

Keith Hay, Senior Director, Policy, Colorado Energy Office: The executive directors of the CEO and the CDPHE are appointed by the state governor and serve in their cabinet. One of the things that has been very effective in Colorado is having a climate cabinet and multiple sub cabinets that regularly meet to discuss the Governor's vision and are bought into that top level direction. This common framework helps to provide a strong basis for interagency coordination. Our working relationship with CDPHE is really a partnership. Also, because of this configuration, we are able to share ideas with the Governor's Office in a pretty direct and immediate way.

What types of engagement do you have with your counterparts?

Chairman Eric Blank: In Colorado, we have open meeting rules that forbid me from having substantive communications with my peer Commissioners, as well as stringent ex parte rules within our proceedings. The CEO and the Air Quality Division of CDPHE are common intervenors or limited special intervenors in most of the PUC's cases, which limits our ability to engage with them outside of these forums. Thus, most of the coordination that the PUC has with the CEO and CDPHE are within our formal proceedings. One interesting thing the PUC does is have CDPHE show up as a limited intervenor in our utility resource planning cases to verify emissions reductions within the utility's proposed scenarios. During the most recent resource planning proceeding, the PUC and CDPHE were able to meet and CDPHE presented their emissions measurement and verification methodology that they were going to apply in the case.

Keith Hay: The CEO often appears as an intervenor before the PUC. While we may be on opposing sides of the table during these proceedings, my staff is able to work with the trial staff at the PUC, and our agency can provide support to the PUC, as needed. With regard to CDPHE, our agencies have a regular cadence of leadership meetings that occur at least monthly. We also work together either through air quality proceedings at the Air Quality Control Commission or through the legislative policy setting. The CEO has developed a strong set of personal relationships with Colorado's government agencies. I know exactly who to call across several different state agencies – including the PUC, CDPHE, the DOT, and the Department of Agriculture – and I feel empowered to do that.

Claybourne Clarke, Climate Change Program Director, Colorado Department of Public Health and Environment: To provide a specific example, Colorado is currently working on the second iteration of its Greenhouse Gas Roadmap led by the CEO. My division is working on the technical modeling for this effort including the development of a greenhouse gas inventory and emissions projections. We meet with the CEO no less than twice weekly and communicate over email close to daily to discuss the Greenhouse Gas Roadmap.

Were there any precipitating events that led to your current level of interaction or engagement?

Keith Hay: In 2019, the state adopted greenhouse gas emissions reduction targets, and the Governor directed the CEO to lead a multi-agency effort to produce a Greenhouse Gas Roadmap. While the CEO was in the driver's seat, it was clear to us that we were not going to do this work alone – this was intended to be an all of government approach. To conduct this effort, five core partner agencies collaborated, including the CEO, CDPHE, the DOT, the Department of Natural Resources, and the Department of Agriculture. This began with the Governor's Cabinet setting a tone for the working relationship, which flowed down to the senior staff within the agencies. We had regular weekly meetings for over a year. The road mapping effort extended into the legislative session, where the CEO and CDPHE were cocreating some of the legislative agenda. This collaborative relationship, which has a strong foundation from the road mapping effort, has continued.

What can you do together by collaborating that you couldn't accomplish on your own?

Keith Hay: Colorado set up a vehicle for coordination through its road mapping process. Our process focused both on the sources of emissions, as well as the complementary policies needed to meet the state's targets. This holistic vision could only be achieved with the expertise of all of our departments.

Claybourne Clarke: Colorado has been able to demonstrate that an economy our size, with a significant industrial presence, can pursue a path of emissions reductions while continuing to grow the economy. This would not have been possible without interagency collaboration and a shared vision.

How have you worked to continue this culture of communication when new staff are onboarded?

Michael Ogletree, Director, Air Pollution Control Division, Colorado Department of Public Health and Environment: As much as possible, when we have senior folks leaving, we try to build in a bit of a buffer period. We try to have a few months where we bring new employees into those new positions prior to an employee departing to ensure continuity and effective onboarding, while there is some crossover. Additionally, we have been able to bring back multiple employees on a part-time basis after they retire, with a specific focus on training new employees. This enables organizational knowledge to be passed down and frees up time for current employees, as they do not need to be responsible for the entire onboarding process.

Connecticut

The following text is an abridged transcript of interviews conducted with Tracy Babbidge, the Air Bureau Chief of the Connecticut Department of Energy and Environmental Protection (DEEP); Joshua Walters, a Staff Attorney for the Connecticut Department of Energy and Environmental Protection; and Joshua Ryor, the Managing Director of the Office of Technical and Regulatory Analysis for the Connecticut Public Utilities Regulatory Authority.

Please describe the working relationship between the Public Utility Commission, State Energy Office, and Air and Environmental Regulator in your state.

Joshua Ryor, Managing Director, Office of Technical & Regulatory Analysis, Connecticut Public Utilities Regulatory Authority: The Connecticut Public Utilities Regulatory Authority (PURA) is actually administratively under the umbrella of the Connecticut Department of Energy and Environmental Protection (DEEP), the State Energy Office. The Air Bureau and the Bureau of Energy Technology and Policy (BETP), which develops integrated and comprehensive state-wide energy policy and plans, is also housed within DEEP. The fact that we have that system in place, where DEEP's BETP and the Air Bureau are under one agency and they can make sure that they're actively collaborating and participating in PURA proceedings, has been incredibly helpful. Both BETP and PURA are actually co-located in one building, which makes it straightforward to informally approach a colleague and ask a quick question. Additionally, because the Commissioners representing DEEP and PURA are political appointees of the Governor, they frequently attend meetings together and coordinate. Although, I would say that historically PURA has typically collaborated more with BETP than the Air Bureau.

Looking at our interagency working relationship, I do think that Commission engagement with other agencies depends on how the Commission views its own role. In Connecticut, PURA sees our role as being vital in the policymaking process. On the other hand, some Commissions see their role as being the judge and calling balls and strikes. Because we see part of our role as advancing public policy objectives, this necessitates communication to understand the objectives of other agencies and determining how PURA can help advance common goals.

Joshua Walters, Staff Attorney, Connecticut Department of Energy and Environmental Protection – Bureau of Energy and Technology Policy: DEEP contains both BETP and the Air Bureau, so we are able to represent both of those perspectives within formal proceedings and find alignment within DEEP before the proceeding. In theory, either bureau could testify before PURA, but typically we will coordinate to provide one set of testimony led by BETP that incorporates the expertise of the Air Bureau.

What types of engagement do you have with your counterparts?

Joshua Ryor: Formally, the main touchpoints that PURA has with DEEP are within docketed proceedings and on the Connecticut Hydrogen and Electric Automobile Purchase Rebate Advisory Board. Approximately quarterly, we will have interagency meetings, but these are set organically when topics that necessitate discussion arise. Of course, due to our co-located offices, it is easy to stay in contact with BETP. Casual conversations in the office may reveal topics that the Air Bureau has mentioned to BETP and spur additional discussion. We also have occasional lunch and learns, but attendance is not required.

Joshua Walters: DEEP's legal team is divided between energy and environmental topics, and we have check-ins on a weekly cadence where we identify priority areas of focus. This conversation allows us to co-optimize our efforts across these teams – and across BETP and the Air Bureau – and identify where there are dual implications for the energy and environmental sides of our agency. This team coordination point can lead to more formalized conversations when the need is identified.

Tracy Babbidge, Air Bureau Chief, Connecticut Department of Energy and Environmental Protection – Air Bureau: I have frequent interaction with the Bureau Chief for Energy and Technology Policy, and some of the strategies that have been most helpful are identifying opportunities for coordination and collaboration between our teams. This includes frank discussions about resources and team priorities. If there's something that's a priority and one team is experiencing resource challenges, our goal is to work together to advance collective solutions.

What are you able to achieve by this coordination and collaboration that you know otherwise would be much more challenging or impossible alone?

Joshua Ryor: It's hard to understate the value of reduced barriers and increased coordination. I have the ability to efficiently reach out to my counterparts and understand when communication is needed. We are all also experiencing an overload of information regarding emergent policies, incentives, and requirements, so having collaborators that are working on similar things but may have another perspective or insights on a similar topic has been very helpful.

Joshua Walters: DEEP's environmental offices can provide insights regarding land use and stormwater prevention related to our clean energy programs. Our version of community solar is called the Shared Clean Energy Facility (SCEF) Program, and DEEP is involved in setting up the rules for how that program will function. One insight that we got from the environmental side of the agency was that when some of these solar projects have been developed, they were not engaging in best practices for stormwater prevention and had resulted in unfortunate incidents involving soil loss on slopes greater than 15%. We were able to utilize these insights and provide evidence in a PURA proceeding to amend the SCEF program rules. Another example that has

come up frequently is related to permits for oil burning plants. BETP has issued a storage procurement that contemplates pairing storage with an existing fossil resource, so the fossil resource runs less frequently. This may necessitate permit changes and consideration of marginal emissions reductions, particularly during ozone season, so the Air Bureau and BETP have been having these conversations.

Tracy Babbidge: In Connecticut, EVs are a key topic for expertise sharing. BETP and the Air Bureau jointly provide information on policy considerations, as well as regulatory requirements to support a holistic approach to EV deployment. Information can be shared as part of joint filings, testimony, or presentations at technical meetings before PURA. Additionally, the state has an established vehicle incentive program – the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program – and an advisory board to provide feedback and recommendations on the program. PURA serves on the advisory board, and the quarterly advisory board meetings have provided a forum for continued collaboration and optimization of Connecticut’s EV strategy.

Kentucky

The following text is an abridged transcript of interviews conducted with Chairman Kent Chandler of the Kentucky Public Service Commission, and John Lyons, the Deputy Secretary of the Kentucky Energy and Environment Cabinet.

Please describe the working relationship between the Public Utility Commission, State Energy Office, and Air and Environmental Regulator in your state.

Chairman Kent Chandler, Kentucky Public Service Commission: Myself and the Energy and Environment Cabinet (EEC), which includes the air quality division, have a recurring meeting approximately monthly to discuss emergent issues that can range from lead service lines to methane rulemakings. We also discuss expected impacts and compliance with federal rulemakings, such as 111(d) of the CAA. Additionally, the air quality management agency will give the Public Service Commission (PSC) a heads-up about public information that may be relevant to our office. For example, they will notify us about utility air quality permit applications. The PSC processes so many cases and applications that we often don’t have the time to proactively inform ourselves without support from other agencies. Our relationship is a self-starting and self-sustaining line of communication.

John Lyons, Deputy Secretary, Kentucky Energy and Environment Cabinet: The EEC has about 1,300 employees across several different offices, with expertise spanning natural resources, environmental protection, and the energy system. The Energy Policy Office serves as Kentucky’s State Energy Office, and the Division for Air Quality covers air quality permitting, reporting, and more. Energy policy has everything to do with air quality, so having these two offices within the same administrative structure provides helpful expertise overlap. The Kentucky PSC is also administratively connected to the EEC, but for all intents and purposes, they operate with autonomy.

About three years ago, I created a regular monthly meeting where the Secretary of the Cabinet, the Chair and Commissioners of the PSC, staff from the Division for Air Quality, and staff from the Energy Policy Office discuss topics of interest. We don’t have a set agenda but generally we will talk about upcoming federal rules and their potential impact on Kentucky. Within the EEC, the Secretary also hosts biannual meetings, open to individuals across the EEC. These provide forums for employees to share what they are working on and are an important interface with the Secretary.

What types of activities are enabled by your relationship with your counterparts?

Chairman Kent Chandler: The situational awareness that is provided to us by the Kentucky EEC helps the PSC put together informed discovery questions in proceedings. For example, the PSC had a case where our largest utilities were proposing to retire and replace four coal generators with two combined cycle plants. They filed a notice of intent with the PSC to build something, but the type of generation was unknown. At the same time, the utility had filed an application for air permits for two natural gas combined cycle plants with the Kentucky EEC. The air quality office gave the PSC a heads up, and this is how the PSC was informed of the plans of the utility. Much of our communication with the air quality office provides high-level situational awareness.

John Lyons: The philosophy that I try to instill is that when approaching an issue, you need to consider what other agency this may be impacting or who else may have expertise that can help you. What I have found that is over the years, nine times out of ten, when something arises, we have already investigated it and came to a conclusion. Breaking down siloes across agencies allows this information to be shared. For example, I recently got a call from an employee at the PSC about odor complaints. She knew the source was not a gas leakage, so she reached out to me to tap my expertise. Having built knowledge, I was able to deduce and share that the odor may be from coalbed methane, which is usually odorless, but in temperature inversions, old, deep mines can off gas that includes sulfur.

How have you worked to maintain a culture of interagency collaboration when new staff are onboarded?

Chairman Kent Chandler: State governments experience a significant amount of turnover at the senior and general staff levels, which can be a challenge. Personal relationships are critical for open communication, so when somebody new is hired, I will proactively reach out to them and invite them to come to the PSC for a day and learn about what we do and how we do it. These interactions are important because you need to know one another and have an appreciation for what the other agency does to enable a culture of communication.

John Lyons: We started a recruitment and retention program that provides summer internship opportunities for university students. This past year, we had 65 or so interns and, invariably, we've hired some of those young individuals to work for the EEC full time. This opportunity provides potential employees with the opportunity to build experience within the EEC and graduate with the prospect of a great government job. This early training also gives us the ability to hire employees who can hit the ground running, have built relationships, and have firsthand knowledge of the culture at our agency.

This material was authored by Matthew McDonnell, Joe Goodenbery, and Jennifer Gorman of Strategen Consulting Inc. on behalf of the National Association of Regulatory Utility Commissioners (NARUC) Center for Partnerships and Innovation (CPI) and is based on work supported by the U.S. Department of Energy (DOE) under award number DE-OE0000925.

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately-owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Acknowledgments

The author wishes to thank the following individuals for contributing their time and expertise to the development of this paper.

- Tracy Babbidge, Connecticut Department of Energy and Environmental Protection – Air Bureau
- Chair Eric Blank, Colorado Public Utilities Commission
- Chair Kent Chandler, Kentucky Public Service Commission
- Claybourne Clarke, Colorado Department of Public Health and Environment
- Sarah Fitzpatrick, NARUC
- Keith Hay, Colorado Energy Office
- Miles Keogh, NACAA
- James Lester, Colorado Energy Office
- John Lyons, Kentucky Energy and Environment Cabinet
- Michael Ogletree, Colorado Department of Public Health and Environment
- Joshua Ryor, Connecticut Public Utilities Regulatory Authority
- Danielle Sass Byrnett, NARUC
- Jason Sloan, AAPCA
- Rodney Sobin, NASEO
- Kirsten Verclas, NASEO
- Joshua Walters, Connecticut Department of Energy and Environmental Protection – Bureau of Energy and Technology Policy



About the National Council on Electricity Policy

The National Council on Electricity Policy (NCEP) is a platform for all state-level electricity decision makers to share and learn from diverse perspectives on the evolving electricity sector. Our community includes over 200 representatives from public utility commissions (PUCs), air and environmental regulatory agencies, governors' staffs and state energy offices, legislatures, and consumer advocates. We are an affiliate of the National Association of Regulatory Utility Commissioners (NARUC) Center for Partnerships and Innovation (CPI).

NCEP serves as a forum for collaboration around grid-related topics at state, regional, and national levels, offering a unique opportunity for state electricity decision makers throughout the country to examine the ways new technologies, policies, regulations, and markets impact state resources and the bulk power system.

NCEP facilitates an annual meeting, connections to virtual resources, and ongoing learning opportunities for members to explore multiple perspectives on complex electricity system issues.



NARUC

National Association of Regulatory Utility Commissioners

About the NARUC Center for Partnerships & Innovation

The NARUC Center for Partnerships and Innovation (CPI) identifies emerging challenges and connects state utility commissions with expertise and strategies to navigate complex decision-making. We accomplish this goal by building relationships, developing resources, and delivering training that provides answers to state commissioners' questions. CPI works across four key areas on a wide range of projects: energy infrastructure modernization; electricity system transition; critical infrastructure, cybersecurity, and resilience; and emerging issues. CPI is funded by cooperative agreements with the U.S. Department of Energy (DOE), the U.S. Department of Commerce's National Institute of Standards and Technology (NIST), and charitable sources.