

## **ENERGY** DIALOGUES



### **ENERGY DIALOGUES SUMMARY**

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## Introduction

Energy Dialogues, in partnership with the Payne Institute for Public Policy at Colorado School of Mines, organized a Denver meeting as part of its City Series on September 10th, 2019. The event saw substantial involvement from Colorado regulators, policymakers, and industry professionals, who were seeking to understand the state's developing role as an energy leader. The event was centered around three interrelated roundtable discussions:

- Climate and Environment
  - Defining priorities and building rational dialogue
- Energy Transition Scenarios and Public Perception
  - Where should companies and other key stakeholders focus their attention?
- Changing Consumer Trends in a Transitioning Energy Landscape
  - How will changing consumer trends and sustainable development concepts directly influence energy markets?

The event was organized to maximize interaction between the participants, and context for these discussions were provided by interspersed panels with regulatory officials and industry leaders. The focus and participants were:

- Colorado's Energy Future
  - Are developments in the region signaling what domestic trends will emerge?
  - Panelists:
    - **Chip Blue**, Principal, Boston Consulting Group
    - **Joe Lima**, Global Director, Environmental Sustainability, Schlumberger
    - **Adam Peltz**, Senior Attorney, Energy, Environmental Defense Fund
    - **Mike Leonard**, Community Relations Manager, Colorado Oil & Gas Conservation Commission
- Utility Spotlight, Infrastructure, and zero-carbon pathways
  - Electricity outlook, grid interconnectivity, and the future fuel mix
    - **Brooke Tucker**, Managing Director of Energy Efficiency and Renewable Energy, Governor's Office of Energy Development, Utah
    - **Keith Hay**, Director of Utility Policy, Colorado Energy Office

The day concluded with an open exchange of ideas based on the roundtable conversations, and an informal dialogue on conclusions and key takeaways.

*The remainder of the brief considers each of the principal themes in greater detail.*

## **Climate and Environment - Defining priorities and building rational dialogue**

The opening discussion followed the first panel on Colorado’s energy future. With the signing of Colorado SB 19-181 on April 16, 2019, and the traditional role that oil and gas has played in Colorado, a key focal point was the evolving relationship between stakeholders and energy providers. From SB-19-181, counties/municipalities would have “local control” and greater freedom to tailor their energy needs. For areas such as Weld County, where 9/10 Colorado barrels of crude are drilled, public sentiment could have drastic, long-term effects. From this, there were concerns that policy changes could inhibit dialogue across political parties and energy ideologies. As a “purple” state, policies in Colorado have often been based on a collaborative effort of developing economic and social practices that represent broader energy needs. For more localized control, and the prevalence of a “not in my backyard” mentality, overtly partisan policies were seen as a major concern.

With the goal of maintaining the best possible energy environment, many discussions turned to the feasibility of possible energy mixes and their potential costs and benefits. Colorado Governor Jared Polis publicized his plans to cut emissions 50% by 2030, and 90% by 2050. To achieve these goals, the majority of the state’s energy would have to come from renewables by 2040. With this in mind, technical challenges and the uncertainty of logistical pathways were mentioned numerous times. Many states and cities have pledged renewable targets, but the federal government’s avoidance of large-scale investments and skepticism from private investors, have created uncertainty. From this, many representatives from the oil and gas industry discussed their investment and focus on natural gas as a bridge fuel. This strategy was seen as a positive middle ground approach that would help mitigate emissions while other reduction pathways were explored and implemented.

Discussions on how to progress the “dialogue” of emission reduction goals and the uncertainties of the energy transition revolved around breaking through generalizations related to the future of energy. Public perception of the oil and gas industry was discussed as a major limitation of natural gas’s role in sustainable development. While advocacy groups are dismissive of the oil industry’s ability to operate effectively, natural gas is readily available and consistently produces lower emissions. To further this point, participants also discussed the complications/uncertainties surrounding electrical grids, peak loads, and even future technologies that might upend the already volatile energy market. What was agreed upon, and mentioned numerous times at different tables, was the importance of not being dismissive of ambitious goals, and not being dismissive of the established energy industry’s ability to support those goals.

## **Energy Transition Scenarios and Public Perception - Where should companies and other key stakeholders focus their attention?**

When discussing infrastructure developments, there were numerous questions on the different impacts that energy grids play in the development of a low-carbon environment. For many participants, they were not aware of the true costs of adapting energy grids, the cost of building new infrastructure, or what an adaptive approach might actually look like. Estimates by the National Renewable Energy Laboratory show that high-voltage transmission lines for renewable energy could cost as much as \$70 billion. In a more localized context, the 2018 Rush Creek Wind Project in Eastern Colorado was used as an example of what these types of projects might entail, and the relative costs of tie-lines and asset management. From these estimates, the consensus was that incorporation of existing infrastructure and solid developmental pathways need to be better understood, as these costs and time frames can be prohibitive to development.

Addressing how groups can successfully anticipate and adapt to the transition, discussions revolved around awareness of both economic and social trends. Pueblo, Colorado was highlighted as a positive example of how energy companies can adapt to the transition with positive economic and social benefits. The closing of Xcel Energy's Comanche Coal plants, and the city's history of involvement with the steel industry, demonstrated a valuable case study of how rural communities can proactively respond to rapid transitions to low-carbon technology. Grand Junction was also mentioned in conversations for its use of alternative fuels and diversification. With seed funding from the Energy Department's State Energy Program, the city successfully implemented developing technology. From these examples, renewable advocates and concerned policy makers were able to demonstrate that there were beneficial ways to consider and address the externalities associated with the transition.

Discussion of industrial perspectives and their anticipation of the energy transition also focused on drawing from existing examples. The consequences of ignoring technological trends have had tremendous effects on entire industries and geographic areas, as seen with manufacturing changes in Detroit. Historically, the oil and gas industry has been uniquely affected by major economic drivers. The idea of "peak oil" and numerous economic downturns have led to major developmental changes, most notable the advent of fracking and horizontal drilling. With this understanding, the actuality of the transition was almost universally acknowledged, and that "business as usual" was not a viable tactic. Instead, to move forward and adapt to the on-going energy transition, the focus must be on developmental changes that benefit companies in the short term and address global challenges in the long term. Furthermore, beyond the early adopters, such as Colorado, it is also necessary to consider the domestic, regional and global developments. How industries can collaboratively use this context to contribute to reducing energy poverty was commonly discussed. In a global context, being able to provide environmentally sustainable oil and natural gas, either due to Colorado regulations, or stakeholder pressures, is a valuable opportunity. The ability to be one of the first sustainable suppliers in an increasingly scrupulous market is not without its own benefits. In a more localized context, the numerous environmental start-ups seen across Colorado, and the tremendous optimization of operational costs seen in the industry, demonstrate that there are new ways for companies to thrive in the changing market.

## Changing Consumer Trends in a Transitioning Energy Landscape

When discussing consumer trends and investor pressures, participants focused on the future shape of the industry. Of particular interest was the management of supply chains in the United States. With some operators not being able, or willing to, reevaluate their strategy, there were numerous discussions on consolidation. Examples of this trend have already been seen downstream in oil and gas refineries. Companies such as Valero, Phillips 66, and Marathon Petroleum have already begun large-scale acquisitions. The prevailing sentiment seemed to be that as consolidation continues, it will be because of complex value chains and greater restrictions/pathways of development. The result being the gradual disassembly of “free-for-all” markets and “operational hubs” in favor of more flexible developers that can adapt to specific needs of the transition. Participants almost unanimously agreed that there would be fewer companies in the future, as the capability and access to capital is limited.

Through discussions of consolidation in the United States came interests in emerging markets and the importance of global supply chains. While the United States and other first world nations have begun to focus on sustainability concepts, much of the world is industrializing and increasing their energy needs. India and Africa were mentioned across discussions, as India’s oil growth is soon set to overtake China’s, and many parts of Africa still struggle to maintain accessible energy. In these areas, the interest of environmental sustainability is not as prominent as the need for proven and established energy sources. Figuring out and developing infrastructure plans for renewable technologies might not be the best approach in areas where long term projects are not backed by secondary goals.

From these trends, and general expectations of the oil and gas industry, it was speculated that increased regulations in Colorado, and global environmental pressures, wouldn’t necessarily inhibit growth. Instead, the transitioning landscape was thought of as a call to adapt and change with global developments in energy security. Participants viewed the role of the oil and gas industry as part of a holistic approach that is more than capable of being part of the solution rather than part of the problem. This can best occur through the industry rising to the challenge of producing and optimizing in ways that demonstrate how they can cooperate and support the transition. Regulation of methane emissions, partaking in stakeholder discussions, and demonstrating a willingness to adapt, were all viewed as important steps to succeed in a changing energy environment.

## Key Takeaways

- The costs and implementation of renewable technologies has unknowns that need to be considered. These include: passing the burden of mitigation to developing economies, the developmental challenges for fossil fuel-based communities, and potential capital constraints of large-scale implementation.
- The energy concerns and market trends exhibited in first world economies are not indicative of developmental trends in areas that need consistent, reliable energy.
- The dual pressure of reducing their carbon footprint, while also providing the necessary resources to fuel energy growth is creating complexity for the oil and gas industry.
- From an international perspective, natural gas still maintains great potential as a bridge fuel, and the oil and gas industry should work towards both operating within sustainable confines, and operating at capacity to help the world's transition.
- There are numerous operational changes that can enable the oil and gas industry to successfully navigate the energy transition. Being aware and taking advantage of these opportunities are essential for successfully implementing a new system.

# *The Payne Institute* for Public Policy



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