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Critical Path Energy Summit

A Truly Multi-partisan Energy Summit

Convening such a broad spectrum of stakeholders in the Natural Gas arena was an innovative experiment in itself, and, hearing from all the participants included in this “odd bedfellows” gathering, made this a highly successful one.

It was immediately apparent that various groups were at odds not because of fundamental irreconcilable differences, but rather

- Some miscommunication, because of jargon, definitions that conflated several inconsistent meanings, preconceptions, attributed motives.
- Unfamiliarity with the other’s contexts, motives and point of view
- Lack of outreach, education, and multilateral gatherings like the Aspen Science Center’s “Odd bedfellows “ Best Practices Summit in DC.
- Vulnerability to spin—because these groups don’t convene often (or ever) to discuss and jointly problem solve fundamental issues, they don’t have a common lexicon of language, understanding, or appreciation of each others goals, processes, philosophies, etc.----so they are susceptible to red herrings, rumors, anecdotal evidence, and the point/counterpoint media format that exaggerates conflict.

Once the tables were set, each with a multi-spectrum team tasked with SOLVING issues rather than bickering about them, the energy in the room immediately became collaborative and constructive--an alchemy that attests to individuals’ ability to rise above their group affiliation in pursuit of a higher common goal.

What follows is a brief Summary of the most actionable insights from the two days: solutions proposed by the group to what appeared to be the most critical issues and intractable problems facing the extraction of natural gas, followed by a highly detailed, table-by-table breakdown of the issues discussed.

This discussion is just the beginning; we are assured that these high-level collaborative gatherings will continue--to advance mutual understanding, common goals, inspired solutions, and the commitment to make them real in the world.

Agenda

Day 1 (May 6)

State and Federal Initiatives

8:00 to 10:00 Realizing a lower-carbon Energy Future: State-by-State

Leader: Governor Bill Ritter

State-by-State Goal: Explore critical paths to accelerate the replacement of carbon-intensive power plants with less carbon-intensive ones through political, economic, environmental and social incentives. (Explore recently-passed Colorado House Bill 1365 as an example)

10:00 – 12:00 Natural Gas in the Transportation sector

Leader: Boyden Gray

Transportation sector Goal: Explore critical paths to replacing current high-carbon fuel sources with low-carbon ones—leading with mass transit buses, heavy-duty and fleet vehicles

13:00 – 15:00 Realizing a low-carbon Energy Future: Federal

Leader: Timothy Wirth

Goal: Develop well-considered, environmentally conscious, forward-thinking proposals to support and augment the current spectrum of Federal energy policies, all designed to deliver a lower carbon energy

system.

15:00 – 17:00 Realizing a low-carbon Energy Future: EPA

Leader: Boyden Gray

Goal: Examine closely the EPA's potential role as a major driver of this low-carbon energy transformation. Based upon our group's experience and expertise, develop well-considered recommendations as to how to maximize the EPA's potential as a force for a lower-carbon future.

DAY 2 (May 7)

Elegant Solutions to Obtaining Low-Carbon Energy:

Best Practices below and above ground-- creating collaborations that everyone can live (and thrive) with.

8:00-10:00 Natural Gas Production Best Practices: Subsurface

Leader: Paul Hagemeyer

10:00-12:00 Natural Gas Production Best Practices: Surface

Leader: Chris Smith

Production Best Practices Goal: Develop critical paths-- through best practices, environmental/community/industry collaborations, new mechanisms and guidelines -- to developing natural gas in a collaborative intelligent, environmentally sound manner. Build in efficient compliance mechanisms, dissemination of new technology, community education etc. to ensure continuous improvement.

13:00-14:00 The Essential Role of Science: Where are the gaps?

Leader: Melanie Kenderdine

Goal: To take a comprehensive scientific look at the myriad components that get this resource from the source to its optimal use (in a low-carbon, environmental context), and to highlight where additional research is required to optimize the process.

14:00-17:00 Making It Real: Next Steps--

Prioritizing programs, goals/deliverables, metrics of success, commitment of resources, timelines etc.

Goal: Determine which of the critical path goals/strategies that have emerged in the last 2 days have top priority. Delineate critical paths for each, taking advantage of synergies: Outline programs, (goal, strategy, team etc) commit resources, (human and funding) tangible results expected, measurement of success, timeline.

Participants

Bios [[Download PDF](#)]

Scott Anderson

Scott Anderson is Senior Policy Advisor to the Energy Program of the Environmental Defense Fund and Environmental Defense's point person on policies relating to natural gas development and to the geological sequestration of carbon dioxide. He is a Member of the Ground Water Protection Council, CO₂ Sequestration Committee, the Interstate Oil and Gas Compact Commission Carbon Capture and Storage Task Force, World Resources Institute Stakeholder Group on CCS, and the Federal Advisory Committee on Unconventional Resource Technology. Anderson spent many years in the oil and gas industry. He was Executive Vice President and General Counsel of the Texas Independent Producers and Royalty Owners Association (IIPRO), Secretary of the LIAISON Committee of Cooperating Oil and Gas Associations, and member of the governing Council of the State Bar of Texas Oil, Gas and Mineral Law Section. Anderson earned a B.S. from University of Texas at Austin, and J.D. from the University of Texas School of Law. He is a Member of the State Bar of Texas.



(Environment, Energy and Resources and Business Law Sections), Arkansas (Natural Resources Law Section) and Texas (Oil, Gas & Mineral Law and Corporate Counsel Sections) Bar Associations. He holds a Juris Doctorate degree from Southern Methodist University and a Bachelor of Science degree in Geology from DePaul University.

David Beelbinder

David Beelbinder is Chief Climate Counsel for the Sierra Club. After several years on Wall Street he began practicing public interest environmental law first in Boston and then in Washington DC. He has litigated cases under most of the federal environmental statutes and, after joining Sierra Club in 2002, is now responsible for the Club's climate litigation and legal issues arising from global warming legislation. Beelbinder is a graduate of Princeton University and the University of Chicago Law School.



Howard L. Beigon

Howard Beigon is a partner in the Denver office of Hogan Lovells, a global law firm with over 40 offices around the world. He has represented the oil and gas industry on numerous regulatory and legislative matters, most recently in connection with the comprehensive rule making of the COGCC. He was general counsel for two Denver-based publicly traded E&P companies and a principal author of the industry's standard form joint operating agreement. Beigon co-chaired the natural resources committee of the transition team for Governor Robert Bill Ritter, is a past president and current board member of the Colorado Oil and Gas Association, was a trustee of the Rocky Mountain Mineral Law Foundation, and chaired the Mineral Law Section of the Colorado Bar Association. He is a graduate of the University of Michigan for both college and law school and clerked for Judge Wade McCree of the U.S. Court of Appeals for the Sixth Circuit.



Michael Brune

Michael Brune is the new Executive Director of the Sierra Club. He earned degrees at West Chester University in Pennsylvania in Economics and Finance and worked for Greenpeace before moving to the Rainforest Action Network. He led RAN's campaign to protect British Columbia's forests by ending the logging industry's top executives to lobby for their protection. Under Brune's leadership, RAN won key commitments from America's largest corporations, including Home Depot, Citic, Goldman Sachs, Bank of America, Kinle's, Beise, and Leew's. Time magazine called the victory with Home Depot the most important environmental story of 1999. He is the author of Coming Clean-- Breaking America's Addiction to Oil and Coal (Sierra Club Books, 2008).



Reid Detchen

Reid Detchen is Vice President for Energy and Climate at the United Nations Foundation. He also serves as Executive Director of the Energy Future Coalition, a non-partisan public policy initiative focused on three critical energy challenges - oil dependence, climate change, and global energy access. Detchen previously served as Principal Deputy Assistant Secretary for Conservation and Renewable Energy at the U.S. Department of Energy from 1989 to 1993; as principal speechwriter for Vice President George H. W. Bush; and as legislative director for U.S. Senator John Danforth of Missouri.



Mark K. Beling

Mark Beling is Executive Vice President and General Counsel of Southern Energy Company. Before joining Southern in January of 2002, he was in private practice in Houston, Texas, specializing in oil and gas transactional work. Beling was a partner with the law firm of Fulbright & Jaworski L.L.P. where he practiced in the firm's Oil & Gas/Real Estate Section from 1982 to 1993. He is a member of the American



Colleen Doyle

Colleen Doyle is Director of Operations at the Aspen Science Center, continuing her work championing excellence in policy and education. Doyle founded and served as Executive Director of a Minnesota non-profit which developed holistic student-directed programs, fostering interest in science and mathematics. She created the Minnesota Excel-



Jacquelyn Francis

Jackie Francis is Director of Energy Program Operations at the Aspen Science Center, bringing together leaders in all sectors to work toward a cleaner energy future. She has been creating and producing programs and events specifically designed to promote energy sustainability for more than fifteen years. Some of her successes have been



The Critical Path Energy Summit Out-brief

This Executive Summary synthesizes the major insights and strategic plans that emanated out of the Summit:

During the highly successful strategic summit in Aspen, NGO, government and Industry leaders recognized that there is tremendous value in working together to fast track increased demand for natural gas in the power and transportation sectors through federal, EPA and state by state initiatives (4 TCF of increased demand offsetting 400 million tons of CO₂).

It also became clear that the current social discord in the shale gas fields needs a new approach to change the frame. Even with significant expenditures for advertising and public relations, the industry has not been successful in changing public opinion. Only with the help of credible NGOs will a shift be possible. Done right, new socially and environmentally acceptable production practices could actually speed up gas development at a lower cost while protecting the environment and helping the communities.

The assembled NGO, government and Industry leaders agreed that the only way to unleash the economic, social and environmental benefits of natural gas was to work much more closely together. The Critical Path Energy Project will provide a program of projects to help enable the best environmental use for Natural Gas. The Aspen Science Center will serve as a catalyst to help members to define and design the work program.

Execution of the work program

NGO and Energy Leaders set the vision, the strategy and agree on the work program and meet every six months to review and revise work. Most importantly, commit resources to get things done.

Project Teams drive to the solution following an agreed-upon, optimized map of activities that outlines what must be accomplished by whom and when. Each team will define a set of deliverables, with a production schedule and metrics to chart success. These teams--composed of the top aides from our leadership--will leverage the enormous knowledge, experience and resources of our group to optimize, course-correct, and deliver meaningful solutions.

Objectives

Despite the clear benefits (energy, economic, and security) of natural gas, currently there is limited political will, policy, or urgency to expand its environmentally beneficial use. The Critical Path Energy Project proposes to attack this problem on two fronts to deliver on six objectives.

Realizing a secure, cleaner and lower-carbon energy future

1. **State-by-State**
Goal: accelerate the replacement of carbon-intensive power plants with less carbon-intensive ones through political, economic, environmental and social incentives. Radically expand efficiency and renewable resources backed up by natural gas
2. **Federal**
Goal: Develop well-considered, environmentally conscious, forward-thinking proposals to support and augment low carbon energy in the current spectrum of Federal energy policies.
3. **EPA**
Goal: Activate well-considered recommendations and legal action to maximize the Clean Air Act as an instrument to substitute renewables and natural gas for oil and coal.
4. **Low carbon and cleaner fuels in transportation sector**
Goal: Implement policies to replacing current polluting high-carbon fuel sources with cleaner low-carbon ones—leading with mass transit buses, heavy-duty and fleet vehicles.

Achieve clean and green natural gas production

5. **Subsurface –**
Goal: Proactively mitigate the risks of groundwater contamination from well construction, hydraulic fracturing and production of natural gas.

6. Surface

Goal: Proactively mitigate the impacts of natural gas production to community, landscape, biodiversity, surface water and air.

Significant Insights from the Summit

The Current Frame

As one of our more insightful participants pointed out - the current national meta-narrative (thanks to rogue operators, actual practices and incidents, anecdotal evidence, successful Coal Industry spin and Natural Gas Industry inaction) is that natural gas:

1. Is a secretive industry
2. Has enormous environmental impacts
3. Puts poisons/chemicals in the ground and water
4. Does not play well with others (ie the affected communities and States)
5. Avoids or co-opts any meaningful regulation
6. Has price volatility that makes it an unreliable energy source
7. Has huge infrastructural barriers making switching to gas cost prohibitive
8. Cannot extract new supply without environmental devastation (ie means limited supply)
9. Uses up all the water in the world

The New Frame (Restoring Trust, Proving the Case for NG)

To create a social, legislative and regulatory environment that accelerates the adoption of Natural Gas and the switch to Natural Gas from coal, this “current” frame has to be turned on its head. To do so, committed multilateral groups (like the one convened here in Aspen) must get out AHEAD of the meta-narrative, with

Local Action - Meaningful, high profile collaborative ACTIONS that NGOs, Nat Gas, politicians, regulators can note as a “sea change” in the current environment. As it was pointed out, for Nat Gas, playing “wait and see” is a disastrous choice—Big Coal is way out ahead, inflaming the current meta-narrative.

The critical goal is to establish a new level of TRUST through words and deeds with NGOs and industry standing shoulder-to-shoulder --which will enable the change in perception (and concomitant on-the-ground progress) to occur more rapidly. Collaborative good deeds and progress should be highlighted by NGOs to (get rid of the “we/them” frame.)

Examples of meaningful actions included the following:

1. Proactively developing Best Management Practices (BMPs). Working with regulators to develop optimal regulations, paying for the hiring and training of more regulators
2. Transparency—revealing the composition of frackwater, incident reports, etc.—be proactive! Don’t wait to be “forced to do the right thing”. Publicize good behavior.
3. Proactive community engagement - Nat Gas has to be a “good neighbor” Taking the lead in NG/Community partnership : National and Local environmental NGOs have to be committed partners
 - Hire a trusted local interlocutor
 - Create community development board
 - Involve all stakeholders
 - Offer immediate benefits—jobs network (combat the “switching off coal kills jobs” argument)
 - Off-the-shelf Pooling/unitization templates (can be tailored to community)
 - Surface use BMPs
 - “Boom and Bust” primers
 - Involve community in BMPs, generate goodwill

Aggressive Top-Down Conversion of Coal & Oil to Gas

State-by-State

Establish criteria for choosing/converting each state (ie friendly governor, old coal plants, receptive PUCs)

- Identify interlinked targets (PUCs industry, dispatch regulators, etc.)
- Make compelling case for change (economic, environmental, political, societal)

- Use non-compliance with healthy air standards to force urgency
- Create success by deploying the right tactics at the right time through competent people
- Establish early wins, build on them.
- Use successful programs as templates to accelerate change in other areas

Transportation

- Use “prompt letter”
- Aromatic rules for fleets
- Narrative: National security, not climate
- Make case (ie 280K/ton benefits)

Fed/EPA

- Use EPA, Clean Air Act to encourage cleaner energy
- Petition EPA to exercise rule-making authority
- Use BETX (benzene, ethyl-benzene, toluene and xylene) non-compliance as a forcing function for aromatic free fleet vehicles in cities
- Use the administration to influence EPA action
- Provide unbiased bullet-proof scientific and economic analysis to support fuel switching in stationary and transportation sources
- Sue for clarification/enforcement re CO₂, etc

Education/Communication

The acts/deeds/successes must be communicated by NGOs, Nat Gas, politicians, academics in a broadband, multilateral national effort that is credible, reasoned, and compelling....and coordinated. Highlight proactive good practices like green fracking, transparency, innovative environmental solutions to create this new frame.

The benefit of multiple credible sources: People Must Trust the New Frame. Hearing about encouraging developments/reasoned results from our highly credible “odd bedfellows” and numerous other respected groups (from all over the environmental spectrum) will open a new chapter of good faith, willingness to cooperate, and acknowledge each others contributions in the effort to transition out of the dirty coal and oil chapter of our country’s energy story. (PS We do not foresee a “Clean Coal” chapter in this book--after all, it’s a non-fiction book!-)

Earning Public Trust by On-the-Ground Actions

The license to operate is premised on the society’s acceptance that the operator will do the right thing in “exploiting the resources of the Commons”. Day 2 was all about restoring trust by ensuring enforcement that communities could believe in (as opposed to the current system, which elicits keen skepticism). Earning community trust HAS TO BE LED BY THE NGOS!

So what can our group of NGOs, Operators, legislative leaders and academics do to drive this change? Following are some concrete tasks that would move the frame significantly:

Setting the Bar:

1. Delineate criteria for minimum “bar level”
 - Have to be established by collaboration of Operators, NGOs, Regulatory Agencies, Community representatives.
2. Build in flexibility
 - Acknowledge/account for regional geological differences
 - Must represent all of the stakeholders-have to engage the Operators
 - Be able to evolve criteria as technology evolves
 - Design to enhance innovation/ don’t be static/proscriptive
 - Don’t inadvertently become a hindrance to evolving best practices
3. Build in cross-communication/sharing of *meaningful* data between Operators, NGOs, Regulatory Agencies, and Communities.
4. The bar is for *everyone* - not just majors (who have a huge reputational incentive to perform flawlessly). “Mom and

pops” must achieve the level of excellence, or lose permits or licenses.

Delivering Best Practices

Industry Enforcement-

Operators must commit to adhering to Best Practices, enact state/operator standards, should self-monitor with vigor and communicate efforts to NGOs, community

Certification for Operators

- BMP based on industry bar
- Includes community outreach
- Includes environmental input
- Includes safety training
- Must commit to continuous education
- Continuous technology improvement

Certification for Operator Subs

In the eyes of the community, the operator is fully responsible for the process A-Z. Can't blame the subs. Therefore, must establish certification/enforcement process for subs. Use buying power to force Operators to adopt standards that help the industry in general

Regulators/Inspectors Enforcement:

Inspectors- Inspectors need to have **deeper knowledge, which** has to evolve with tech/new practices. Need **many more** inspectors

Certification for Inspectors

- Require more rigorous certification criteria
- Ongoing education program required
- More transparent/meaningful data management required
- Fund program with dedicated permit fees

Bonding/Permitting

- Employ BMP cross-communication throughout Nat Gas Industry
- Build into permitting process—driller has to agree to minimum bar level
- Permitting fees should designate significant portion to pay for ongoing training/education
- Operator has to post bond to insure performance
- Permit requirements run with the land, responsibility can't be traded away.

Communication/Community engagement—Rebuild trust by open, good faith useful engagement

Operators must be “better neighbors” committing to continuous engagement with the community in a way that is proactive, transparent, jargon-free, and in good faith. NGOs have to be supportive collaborators in this effort.

1. Green Completion—industry can and should be proactive—start the program!
 - • Operator commits to green completion
 - Uses stipulated BMPs
 - Be proactive –invite community, exceed expectations, transport BMPs to other areas

2. Share more information (get electronic) and push that info out into the public—it helps the cause!
 - • Speak the same language: develop shared definitions
 - Create understanding (ie “abandoned” doesn't mean abandoned, “flowback” doesn't mean flowing back.)

3. Disclosure- Transparency is the key to credibility: All operator should be proactive communicating what it is in frac fluid.
 - - Operators should compel vendors to reveal the composition of their frackwater as a pre-condition of getting the job
 - Subs have to reveal chemical/ material content of frac fluid as a pre-condition to getting the job
 - List chemicals/materials/portions per well, attach to well completion report
 - Communicate clearly to interested NGOs, communities
 - This would be a HUGE PR victory, and start fresh transformational thinking among NGOs and communities
4. Use best practices EVERYWHERE—not just high-media or high population areas. Create presumption of excellence/benefit of the doubt for NG among the general public.

The Summit through Pictures

Signing SB 100



Governor Bill Ritter, who kicked off the Critical Path Energy Summit the following day by delineating all of the elements that went into his New Energy Economy Initiative (including almost 50 bills, many initiated by our own Senator Gail Schwartz, known by friends and foes alike as "the Green Machine" in the Colorado Senate), made Aspen the location for signing SB 100 (backing low-cost loans for high-efficiency investments) as part of a suite of bills designed to make the transition to the New Energy Economy smoother for consumers.



Some of the ASC team (Colleen Doyle, Jackie Francis, Kevin Ward, Mike Simmons, George Stranahan and Steve Pinsky) share paparazzi time with Senator Gail Schwartz

Welcome Reception at the Little Nell



Senator Timothy E Wirth makes a point to ASC President Kevin Ward as Gov. Bill Ritter prepares to pitch in



Gov Ritter, Isa Catto and Kevin Ward telling tall tales

Mezzaluna



Ambassador C Boyden Gray concurring with Robert F Kennedy Jr



Andy Weissman (Editor-in-Chief, Energy Business Watch) and Don McClure (VP EnCana Oil and Gas (USA) Inc) talking shop



Carl Pope (Chairman, Sierra Club) speaking with Saya Kitasei (Worldwatch)



Daniel Weiss (Center for American Progress) conferring with David Hawkins (NRDC)



Illustrious Aspenites Karinjo DeVore, Amy Margerum, Daniel Shaw, and John McBride



Local Doug Graybeal, green architect, discussing building efficiency with Chris Smith (US Department of Energy)



Fred Julander (Pres, Julander Energy) and David Bookbinder (Chief Climate Counsel, Sierra Club) paying close attention to Melanie Kenderdine (Executive Director, MIT Energy Initiative)