SUGGESTED BREAKOUT SESSION TOPICS
CRYSTAL LEVEL SPONSOR

Celebrating its twelfth year, SHALE INSIGHT® 2022 is proud to offer continuing educational technical and public affairs Breakout Sessions created and presented by subject matter experts. Sponsorship is available on a first-come, first-served basis for eleven 60-minute sessions from the suggested topics below or from a timely and relevant industry issue that may arise. The sponsoring company will be required to take a leading role in building the session and recommend a breakout format from those outlined beginning on page three. To inquire about sponsorship, please contact Robert Petrilli at rpetrilli@marcelluscoalition.org or 412-706-5173.

TECHNICAL SESSIONS

1. “A Technical Session Topic of Your Choosing”
   This is an opportunity for you to select a topic and provided a title, short description and session format. Please submit to the MSC for consideration with the sponsorship form.

2. Technology Showcase
   The annual Technology Showcase provides suppliers of emerging technologies an opportunity to introduce their innovation to the natural gas producer, midstream/pipeline, downstream and service community. The MSC Research Collaborative solicits applications for these technologies and awards top applicants with an opportunity to present.
   ➢ Suggested Session Format: Workshop / Demonstration

3. Big Data: The Benefits and Caveats to Understanding your Competition
   There is a massive amount of industry data out there from compiled public and sometimes non-public sets with information on well designs, frac designs etc., that help inform what competitors are up to and the direction that the industry is heading with these various designs/trends. This session will provide an overview on how this data can be collected and utilized.
   ➢ Suggested Session Format: Excerpt Lecture or Panel

4. Plugging the Past: Orphaned and Abandoned Wells in Pennsylvania
   According to state records, Pennsylvania has thousands of abandon and orphaned oil and gas wells that need to be plugged properly. This session will feature experts that discuss the issue and how an industry / agency partnership has developed to plug these wells. In addition, representatives from PA DEP will discuss the implementation of the federal stimulus monies.
   ➢ Suggested Session Format: Expert Lecture or Panel

5. PHMSA and the New Gas Gathering Rules: Building Pipelines Under New Rules
   This session will include an update on the recent federal pipeline safety developments, specifically the recently adopted Class I Gathering Line Regulations and how it will impact building and maintaining new pipelines. It will also include operator case studies highlighting safe pipeline construction and integrity management. Suggested Session Format: Expert Lecture or Panel

6. The Electrification of the Natural Gas Industry
   Recently there has been a push to electrify drilling equipment and operations onsite in an effort to reduce emissions and carbon footprint. This session will feature industry experts describing the shift to electric equipment, including skids, drilling rigs, wireline, etc. and the benefits to the industry and the environment.
   ➢ Suggested Session Format: Expert Lecture, Roundtable or Panel

7. “Net Zero” Methane Emissions: Calculating, Capturing and Controlling from a Technical Perspective
   Over the past several years industry innovation has led to a reduction in methane emissions, through leak detection and repair of facilities, as well as capturing fugitive emissions. Additionally, Pennsylvania and other states have developed more stringent regulations to reduce methane emissions. In combination, companies are utilizing new technologies to achieve “net zero” methane emissions while still producing and transporting record levels of natural gas. This session will feature experts that will discuss this evolution and the use of technologies to achieve it.
   ➢ Suggested Session Format: Expert Lecture, Roundtable, Thinktank or Panel
8. **Evaluating Carbon Reduction Projects: The Return and Social Cost of Carbon**
   In an effort to meet Environmental, Social and Governance (ESG) Goals, the industry is implementing and evaluating projects that reduce their carbon footprint. Natural gas industry experts will provide an overview of these efforts and projects and discuss the return on investment and the social cost of carbon.
   - Suggested Session Format: Expert Lecture, Panel or Roundtable

9. **SRBC and the Natural Gas Industry: Operating Together**
   Shale gas development began in the Susquehanna River Basin in 2008. SRBC implemented a program that monitors the development and a process for the use of water within the basin. They have issued several monitoring reports over the years which have shown no discernable impacts to the water and resources within the basin. This session will feature experts from industry and the SRBC that will discuss how a successful partnership developed since drilling began in 2008.
   - Suggested Session Format: Roundtable or Panel

10. **Building and maintaining a reliable grid in the 21st century**
    As we exit the pandemic and the economy begins to rebuild, several forces, political and self-induced, are poised to affect the reliability of the US electrical grid. Central to this is the development of natural gas and getting it to market. During this session experts will discuss the reliability of the grid and what must be done to maintain US energy independence by producing and transporting clean, affordable and abundant natural gas to power the grid.
    - Suggested Session Format: Expert Lecture, Roundtable or Panel

11. **Threatened & Endangered Species: Tracking Birds, Bats, Butterflies and Bees**
    This session will focus on the protection of threatened & endangered species during industry activities. Agency and industry experts will share updated information for how these species are identified, tracked, and protected. Over time new innovations and tools have been developed to protect these species. The session will provide a focus on the soon to be relisted Northern Long-eared Bat and the possible implications of an endangered listing.
    - Suggested Session Format: Roundtable, Thinktank or Panel

12. **Induced Seismicity: How is it Caused, Measured and What do you Feel?**
    Numerous human activities result in induced seismicity. It is important to understand how induced seismicity is caused, measured and felt before making a connection to operations of the oil and gas industry, specifically underground injection wells and hydraulic fracturing. This session will cover the basics of induced seismicity and specifically the connection to the oil and gas industry. In addition, technical experts will explain maximum moment data from microseismic analysis performed in the field.
    - Suggested Session Format: Expert Lecture or Panel

    As the “play” has matured, trends in water procurement, management and transfers have changed with increase automation and a reduction in personnel. Similarly, water treatment technologies have improved using new technologies and larger centralized treatment facilities. Hear from industry experts on the latest trends in water management.
    - Suggested Session Format: Expert Lecture or Panel

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**PUBLIC AFFAIRS SESSIONS**

1. **“A Public Affairs / Legal Session Topic of Your Choosing”**
   This is an opportunity for you to select a topic and provided a title, short description and session format. Please submit to the MSC for consideration with the sponsorship form.

2. **The Importance of S & G in ESG**
   This session will provide an overview of ESG and discuss the importance of the S, social and G, governance and how the industry is working with local communities and all stakeholders during project proposal, development, and completion.
   - Suggested Session Format: Expert Lecture, Panel or Roundtable

3. **FERC and Pipelines: The Everchanging Landscape to Build Pipelines to Get Gas to Market**
   Recent challenges have mounted for obtaining permits to construct pipelines to connect markets, from both FERC and anti-groups. Recently FERC proposed a Climate Policy review as part of their permit application requirements and delays on current permits continue to mount. Industry experts will present a snapshot of current projects awaiting approval and what must be done to connect markets with pipelines.
   - Suggested Session Format: Expert Lecture, Panel or Roundtable

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Breakout Session Opportunities as of 5/3/2022
4. **Workforce Development: An Evolving Industry needs an Evolving Workforce**
   As the Marcellus and Utica Shale development matures and focuses on downstream and end use development, the needs of the workforce change. This session will include presentations from colleges and universities in the region and how they are evolving and preparing their students to meet these needs. In addition, industry and labor experts will provide input on where future workforce needs will be.
   ➢ Suggested Session Format: Panel

5. **Cryptocurrency Mining: An Opportunity and Partnership with Industry**
   Cryptocurrency mining has found a partnership with the oil and gas industry in Pennsylvania. Industry experts will discuss the opportunity it presents and how a partnership has been developed through successful case studies, utilizing “stranded” natural gas, keeping in mind working with local, county and state governments.
   ➢ Suggested Session Format: Expert Lecture. Panel or Roundtable

6. **Municipal Ordinances: Mounting Local Government Regulatory Challenges to the Industry**
   This program will provide an overview of the increasingly aggressive (but still uncertain legal authority of) local government efforts to restrict unconventional shale development throughout the Appalachian Basin. It will address the continued fallout from Pennsylvania’s Robinson Township and Ohio’s Munroe Falls decisions, as well as increasing attempts to limit and even ban industry activity through the adoption of “Community Bill of Rights” ordinances and Home Rule Charter referenda.
   ➢ Suggested Session Format: Expert Lecture or Panel

7. **Communicating Effective Industry Compliance to the Public**
   Since unconventional shale development began in Pennsylvania the natural gas industry has operated at a high level of compliance through a combination of innovation and adherence to Pennsylvania DEP stringent regulatory and inspection standards. One of the largest challenges is effectively communicating this high level of compliance and engaging the public, from local officials to regular citizens. This session will feature public affairs experts that have kick started communication successful campaigns to highlight this compliance effectively.
   ➢ Suggested Session Format: Expert Lecture or Panel
Session Formats

### Expert Lecture (60 Minutes)

Expert Lectures are presentations by a SINGLE acknowledged expert in the field who will share conceptual or methodological innovations through a lecture followed by response to audience questions. The lecturer must be able to demonstrate and provide proof of expertise on suggested topic.

*Required: 1 Presenter | Optional: PowerPoint; Handouts; Hands-on visual aids*

### Panel (60 Minutes)

Panels are structured, thematic presentations focusing on an issue facing the field of evaluation. A moderator will introduce two to three panelists delivering coordinated presentations within set timeframes. The moderator will observe each presentation and offer a brief response to the content, and facilitate question and answer at the end of the session. Others employ a more discussion-oriented format with the panelists responding to each other and to audience inquiries throughout the session. The sponsor/moderator is responsible for coordinating the presentations in advance.

*Required: 1 Moderator; 2-3 Panelists | Optional: PowerPoint; Handouts; Hands-on visual aids*

### Roundtable (60 Minutes)

Roundtables are presentations that include in-depth discussion with attendees. Roundtable presentations typically include 45 minutes of presentation on 1-2 pertinent topics, followed by 30 minutes of feedback and engaging in in-depth discussions. Roundtable presenters should bring targeted questions to pose to others at the table and audience in order to learn from and with those attending.

*Required: 1 Moderator; 2-3 Presenters | Optional: PowerPoint; Handouts; Hands-on visual aids*

### Skill-Builder (60 Minutes)

Skill-builders teach a specific skill needed by many in the field and include one or more exercises that let attendees practice using this skill. This session differs from a Demonstration in that attendees will have a hands-on opportunity to practice the skill. Attendees should be ready to get involved as these sessions are not passive, but rather active opportunities for learning.

*Required: 1-2 Presenters; Handouts; Hands-on visual aids (for demonstration and attendee use) | Optional: PowerPoint*

### Think Tank (60 Minutes)

A think tank is a session focusing on a single, pre-determined issue or question. Initially, a subject expert/moderator orients attendees to the issue or question and relevant context. Then, attendees break into small groups to explore the issue or question and finally reconvene to share their enhanced understanding through a discussion facilitated by the subject expert/moderator. The roles of the individual breakout groups will be pre-determined and executed on-site (Will they each address the overall topic or question? A particular facet of the topic or question? Or examine the topic or question from a particular viewpoint?). Each breakout group may have individual facilitators pre-appointed by the subject expert/moderator.

*Required: 1 Subject expert/Moderator | Optional: 2-5 facilitators; PowerPoint; Handouts; Hands-on visual aids*

### Workshop/Demonstration (2 Hours)

Demonstrations are presentations including hands-on visual aids that show how to use or apply an evaluation concept or tool. The presenter will walk attendees through a clear, step-by-step explanation of the concept or tool, how it compares to other evaluation concepts or tools, its strengths and weaknesses, and how it can best be applied. Various workstations manned by subject-matter facilitators may aid in the hands-on learning experience. Question and answer will be facilitated throughout session.

*Required: 1-2 Presenters; Hands-on visual aids | Optional: 2-5 facilitators; PowerPoint; Handouts*