



U.S. DEPARTMENT OF
ENERGY

Office of
Indian Energy

TRIBAL LEADER FORUM SERIES

TRIBAL LEADER FORUM: U.S. DEPARTMENT OF ENERGY OIL AND GAS TECHNICAL ASSISTANCE CAPABILITIES

August 18, 2015

Magnolia Hotel
818 17th St.
Denver, Colorado 80202
(303) 607-9000

The twelfth in a series of planned United States Department of Energy (DOE) Office of Indian Energy-sponsored strategic energy development forums, this Tribal Leader Forum will focus on presenting NETL's Oil and Gas Program overview and overall capabilities related to program management, system analysis, and applied research in oil and gas.

The forum will give Tribal leaders and staff an opportunity to interact with other Tribes, federal agencies, and experts in the energy industry to learn more about solving energy and environmental problems related to oil and gas.

Objectives:

- *Familiarize Office of Indian Energy and Tribal Leaders with NETL oil and gas management and operations*
- *Review unconventional gas technology development history with Industry*
- *Review in house research capability and ongoing research within NETL.*
- *Review in house systems, engineering and policy analyses within NETL.*

AGENDA

CONFERENCE ROOM – TBD

<p>8:30 a.m. – 9:00 a.m.</p>	<p>BREAKFAST</p>
<p>9:00 a.m. – 9:30 a.m.</p>	<p>WELCOME, INTRODUCTIONS AND OPENING REMARKS</p> <p>Christopher Clark Deschene, Director, Office of Indian Energy Policy and Programs, U.S. Department of Energy</p> <p>Sarai Geary, Program Manager, Office of Indian Energy Policy and Programs, U.S. Department of Energy</p> <p>Area Tribal Leader, [TBD]</p>
<p>9:30 a.m. – 10:30 a.m.</p>	<p>Invitee introductions: with preempted questions to answer.</p>
<p>10:30 a.m. – 10:45 a.m.</p>	<p>NETWORKING BREAK</p>
<p>10:45 a.m. – 12:30p.m.</p>	<p><u>Roundtables: Fossil Energy’s Natural Gas & Oil Program</u></p> <div data-bbox="370 1035 735 1308"></div> <p>Jared Ciferno, Director of NETL Strategic Center for Natural Gas and Oil Detailed overview of the NETL SCNGO Program to cover: 1.) Program Mission & Objectives, 2.) Program Implementation/Business Operations, 3.) Project Management, 4.) Existing Project Portfolio. 5.) Capabilities</p> <p>Al Yost, Senior Manager Technical Advisor, NETL SCNGO Case History Technology Successes: 1) Electromagnetic Telemetry, 2) Wired Pipe, 3) Fracture Mapping, 4) Appalachian Devonian Shale Gas, 5) Horizontal Air Drilling, 6) High Resolution 3D Vertical Seismic Profiling</p> <p>Open Discussion: What are the challenges for improving recovery efficiency for unconventional oil & gas? Does re-stimulation make sense for partially depleted wells? What are the near and long term environmental challenges and what R&D is being pursued to overcome these challenges?</p>

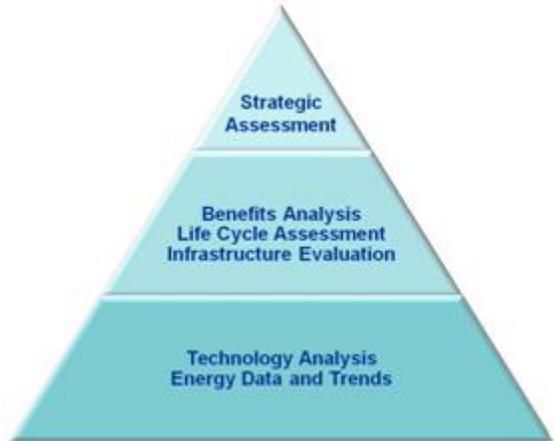
<p>12:30 p.m.– 1:30 p.m.</p>	<p>LUNCH</p>
<p>1:30 p.m. – 3:00 p.m.</p>	<p><u>Roundtable: NETLs Office of Research and Development</u></p> <p>Richard Hammack, Engineered Natural Systems, NETL Daniel Soeder, Engineered Natural Systems, NETL</p> <p>Onsite researchers at NETL develop processes, techniques, instrumentation, and relationships to collect, interpret, and disseminate data in an effort to characterize and understand the behavior of engineered natural systems. Research includes investigating theoretical and observed phenomena to support program needs and developing new concepts in the areas of analytical biogeochemistry, geology, and monitoring.</p>   <p>Analytical- Bio- and Geo- Chemistries</p> <ul style="list-style-type: none"> • Developing tools and the supporting science base needed to evaluate biological and chemical processes in engineered-natural systems. • Evaluating complex field samples and identifying chemistries important for understanding the behavior of the systems. • Evaluating changes to natural conditions due to resource development and environmental mitigation strategies. • Developing methods for analysis of field samples collected from complex geologic and environmental systems. <p>Geology</p> <ul style="list-style-type: none"> • Understanding and constraining the geologic framework associated with a variety of energy-related, engineered-natural systems, including hydrocarbon, CO₂ storage, natural gas hydrate, and geothermal systems. • Characterizing and evaluating geologic systems, which includes field-based studies, laboratory characterization of geologic samples and media, as well as capabilities in support of wellbore to regional-scale subsurface interpretation of geologic systems through the utilization of petroleum systems, basin analysis, and geospatial and geostatistical approaches utilizing key geologic, geophysical, and engineering datasets for engineered-natural systems. <p>Monitoring</p> <ul style="list-style-type: none"> • Monitoring air quality; conducting remote sensing; performing geophysical surveys; sampling gases, liquids, and solids; performing tracer investigations; measuring stream flow; and conducting geospatial investigations.
<p>3:00 p.m. – 3:15 p.m.</p>	<p>NETWORKING BREAK</p>

Roundtable: NETLs Strategic Energy Analysis and Planning (SEAP)

Peter Balash, Deputy Director, NETL SEAP

NETL conducts a variety of energy analysis studies to identify promising research and development (R&D) opportunities that provide balanced solutions enabling economic sustainability, energy supply security, and technology solutions that mitigate global climate change and improve environmental performance.

Energy Data and Trends analysis assesses near- and long-term trends within the energy industry and in the U.S. and world economy that may impact energy price, availability, and security while influencing the choice of fuels and energy production technologies.



Technology analysis evaluates the performance and cost of energy technologies. NETL analysts use process engineering simulation software to develop mass and energy balances for energy technologies. Other computer-based tools are used to develop and track cost estimates and compare alternative financial options. Technology analysis provides input to decisions on issues such as national R&D programs, resource use, environmental and energy security policies, and deployment of energy technology.

Life Cycle Assessment quantifies cradle to grave environmental and economic impacts. Results of analyses are used for planning DOE's energy related R&D program, and ensuring that it is comprehensive, well-balanced, and framed to yield significant contributions to the country.

**3:15 p.m. –
4:45 p.m.**

**4:45 p.m. –
5:00 p.m.**

CONCLUSION & WRAP-UP