

2017 NORTH AMERICA NATURAL GAS MONETIZATION FORUM

Tuesday, February 28, 2017
ABB Automation & Power Center, 3700 West Sam Houston Parkway South, Houston, TX 77079

ADI Analytics is organizing a one-day forum focused on all options to monetize North American natural gas and NGLs. The shale and unconventional revolution has dramatically increased the supply of oil, natural gas, and natural gas liquids (NGL) in North America. That coupled with limited domestic demand is offering opportunities to monetize the new natural gas and NGL supplies. However, a number of factors – commodity prices, global demand and supply dynamics, technology and innovation, workforce changes, and government policies and regulations – will impact the natural gas and NGL monetization landscape creating a need for this comprehensive forum.

Our primary goal is to facilitate robust conversations, meaningful networking, and actionable insights on the current state and outlook for natural gas demand and options to profitably monetize North American gas. We have structured the forum as a series of discussions where attendees can ask questions and engage speakers during presentations which will include insights from ADI's North American Natural Gas Monetization Advisory service.

AGENDA

The forum will cover a wide range of natural gas monetization options including the following:

- Oil and gas outlook in 2017: Supply, demand, and pricing
- Natural gas demand for power generation and transportation
- Natural gas exports via pipeline and small- to large-scale LNG projects
- Natural gas conversion into liquid fuels and chemicals (GTL/MTG)
- Emerging markets: LNG and methanol as marine fuels
- Natural gas liquids (NGLs) monetization developments
- Capital spending outlook for gas and NGL monetization
- Regulatory issues, perspectives, scenarios, and impacts
- New technologies and innovations in gas and NGL utilization

WHO SHOULD ATTEND?

PARTNERS

- Oil and gas producers
- Midstream players
- Refiners and fuel producers
- Natural gas buyers

- Electric utilities
- Equipment manufacturers
- Technology licensors
- Investors

- XTL & DME Institute
- ABB

CONTACTS

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2017 NORTH AMERICA NATURAL GAS MONETIZATION FORUM Preliminary Agenda

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7:00 am	Registration and breakfast
8:00 am	 Welcome and introduction Forum goals and logistics Ron Sills, Executive Advisor, ADI
8:05 am	 Oil and natural gas supply, demand, and pricing outlook How much further can shale plays reduce well costs and breakevens? Will commodity exports continue to be the primary demand driver? What price scenarios are likely for oil and natural gas through 2020? Uday Turaga, CEO, ADI
8:35 am	 Gas monetization 101: A tutorial on natural gas monetization options and technologies What are the major options to monetize natural gas supplies? Which are the key technologies and processes for gas monetization? How are choices around gas monetization options made and why? Ron Sills, Executive Advisor, ADI
9:15 am	 Capital spending outlook for natural gas and NGL monetization What gas and NGL monetization projects are moving forward and why? How is capital spending on gas and NGL monetization likely to evolve? Which factors are the most important for advancing various projects? Tyler Wilson, Analyst, ADI
9:45 am	 Natural gas in power and industrial markets Can natural gas-fired power generation grow further? Where and at whose expense? How will the new presidential administration impact gas-based power generation? Will natural gas demand in the industrial sector pick up steam in the near future? Elliott Smith, Executive Advisor, ADI
10:15 am	Break
10:45 am	 Large-scale LNG and natural gas pipeline exports What is the state of the global LNG market and its outlook through 2020? Which large-scale LNG export projects are best positioned to move forward? How will pipeline flows of gas into the Northeast, Mexico, and Canada change? Martin Mahaley, Executive Advisor, ADI
11:15 am	 Small- and mid-scale LNG opportunities How are technology, customers, and financing driving small- and mid-scale LNG? Which small- and mid-scale LNG projects are likely to move forward? Why? What markets are most competitive for small- and mid-scale LNG? W. Blake Roberts, Director, Business Development, IHI E&C
11:45 am	Lunch and tour of the ABB Automation and Power Center

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1:00 pm Natural gas conversion to fuels and chemicals What is the state of various technologies for gas conversion to fuels and chemicals? Which are the promising emerging technologies and what are their strengths / challenges? How are the various proposed projects in GTL, MTG, and other options moving forward? Ron Sills, Executive Advisor, ADI 1:30 pm Natural gas liquids (NGL) supply and pricing outlook Will there be sufficient ethane supply into the U.S. Gulf Coast? What will happen to propane and butane beyond LPG exports? How will prices evolve in the medium term and impact NGL demand? Brandon Johnson, Analyst, ADI 2:00 pm Natural gas liquids (NGL) monetization options and projects Where are the first wave of ethane cracker and LPG export projects currently? What is the outlook for other ethane crackers and NGL monetization projects? Which new technologies are likely to have an impact on NGL monetization? Vishakha Shembekar, Executive Advisor, ADI 2:30 pm LNG and methanol for marine fuels and power generation What is driving new interest in alternative marine and power generation fuels? How do alternative fuels compete in marine and power generation segments? Which regions are most attractive for LNG and methanol in these markets? Vis Viswanathan, Executive Advisor, ADI 3:00 pm **Break** 3:30 pm Regulatory outlook for natural gas monetization Will there be new or stricter regulations on natural gas flaring? What will happen to regulations on fugitive methane emissions? How will the regulatory climate impact operators and equipment vendors? Tyler Wilson, Analyst, ADI 4:00 pm Opportunities for original equipment manufacturers (OEMs) in the gas value chain How can OEMs benefit from opportunities in the natural gas value chain? Which OEMs are best positioned to succeed in the gas value chain and why? How will regulations and new technology impact operators and equipment vendors? Vikki Dunn, EVP, CSA Group 4:30 pm New technology and innovation panel

- · What new technologies are emerging to leverage surplus natural gas?
- How will distributed power generation drive demand for natural gas?
- Are new innovations or advances in gas conversion for liquid fuels likely?
- Is there a greater role for natural gas as fuels for vehicles and transportation?
- What are promising start-ups and technologies in these areas?

Moderated by Tulio Scacciati, Executive Advisor, ADI

5:30 pm Reception

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2017 NORTH AMERICA NATURAL GAS MONETIZATION FORUM Speakers

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Uday Turaga brings 18 years of industry experience gained at ConocoPhillips, ExxonMobil, Booz & Company, and ADI Analytics. He specializes in corporate strategy, market research, economic analysis, competitive intelligence, and technology assessments with rich domain expertise spanning oil and gas exploration, production, and refining, coal and power, and chemicals. Turaga holds a PhD in fuel science from Penn State and an MBA from the UT Austin.



Ron Sills is an internationally recognized expert on energy conversion technologies in the natural gas/coal/biomass to products value chain. Prior experiences include Gas Conversion Network Leader at BP, manager of Mobil's Research Planning and Evaluation Group, and member of the commercialization team of the Methanol-to-Gasoline process. He co-authored a National Research Council report entitled *Fuels to Drive Our Future*. Sills holds a PhD and M.S. in chemical engineering from MIT and a B.S. in chemical engineering from Columbia. He is the co-inventor for 10 patents.



Elliott Smith has over 20 years of experience in the Power and Energy Industries through a variety of roles including serving as Vice President of Business Development and Strategy for Voith's Power, Oil & Gas division for the Americas region for the multinational technology enterprise. Prior stints included directing Global Engineering Services & Consulting teams for CH2M's Power and Energy division and various roles at Siemens Energy. Smith holds a B.S. in Mechanical Engineering from University of Central Florida, and an MBA from the University of North Carolina.



W. Blake Roberts is a senior energy professional with diversified experience in leadership roles in the global energy and petrochemical industries. Roberts had several leadership roles with operating companies, EPC contractors and consulting companies. Roberts is experienced in management, business development, project development, commercial development, operations, strategy development and value chain financial analysis. Roberts holds B.S. in chemical engineering from UT Austin, and an MBA from Rice University.



Tulio Scacciati is an executive with 20 years of experience in the Energy Industry developing clear strategies with deep domain knowledge in the technology and business models. Most recently Scacciati was the VP of Strategy, M&A and Marketing for a Global leader in the O&G equipment and service industry covering, surface pressure control, pressure pumping, drilling and production equipment and services. He has worked previously with GE and Exelon as well. Scacciati holds M.S. in industrial engineering and received an MBA from UT Austin.

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Martin Mahaley brings over 30 years of experience in US heavy-duty and freight transportation markets. He has previously worked with Black & Veatch and Prometheus Energy. Mahaley is also experienced in budgeting / operations plannings, cost reduction, process improvement, alt fuel analysis, real option analysis, equipment lease structuring, pricing, and yield analysis. Mahaley holds B.S. in finance and economics from University of Akron.



Vishakha Shembekar brings experience in conventional and unconventional resources in oil and gas, renewables, biofuels, and chemicals. Shembekar has used a mix of primary and secondary research to size segments, assess technology penetration, and forecast growth outlook. Shembekar holds a PhD in organic chemistry from the Indian Institute of Technology, and brings nearly 15 years of experience in leading companies such as Dow.



Vis Viswanathan brings over 35 years of oil and gas, coal, and chemical industry experience in roles spanning corporate strategy, technology assessments, innovation and R&D, and process economics and modeling. He is renowned for his deep expertise and broad experience in shale gas and unconventional resources, natural gas processing and monetization, coal gasification and utilization, biofuels and bioenergy, chemicals, and materials. Viswanathan holds a PhD from the University of Minnesota and a B.S. from the Indian Institute of Technology, Chennai.



Vikki Dunn has a 30-year career in technology commercialization and marketing within the energy, oil and gas, chemicals. Dunn has held various roles including EVP at CSA Group, Vice President of Strategic Marketing at Gardner Denver; Chief Marketing Officer for GE Oil & Gas; and numerous executive roles at Royal Dutch Shell. She began her career as an engineer at Ericsson and was a product manager at Compaq Compute. Dunn graduated with a degree in Engineering from SMU in the USA, and is a graduate of the IMD Executive Leadership program in Switzerland.



Tyler Wilson brings consulting experience in oil and gas, energy, power, and chemicals. He has led several voice-of-customer research projects for new technologies and has added value in various market research, competitive landscaping, financial modeling, and due diligence projects along with conducting research for ADI's flagship subscription service on natural gas monetization including large- and small-scale LNG, GTL, gas conversion to chemicals, and power. Wilson holds a B.A. in economics and business administration from Coe College.



Brandon Johnson's expertise includes technology assessments, competitive benchmarking, market size modeling, and risk analysis using Monte Carlo uncertainty analysis in the oil and gas, chemical, power generation, and mining industries. He has utilized these skills to understand the economics, investment attractiveness, and competitive landscape of the engineered pump, wet gas and multi-phase compressor, bearing, seal, and heat exchanger markets. He holds a B.S. in physics from Stephen F. Austin State University.

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2017 NORTH AMERICA NATURAL GAS MONETIZATION FORUM Registration

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	Fee before Feb 6	Fee after Feb 6
Industry	\$595	\$895
Government and academia	\$495	\$695
Students and professionals in transition	\$195	\$395

REGISTER >>

Terms

- Registration fee includes forum materials, lunch, refreshments, and admission to the reception.
- Registration does not include hotel accommodations or travel expenses.
- Discounts are available for multiple attendees from same organization.
- Limited registrations available for students and professionals in transition.
- Substitutions may be made at any time prior to February 27, 2017 at no charge. Cancellations received in writing by January 28, 2017 will receive an 80% refund. Registrants who do not attend and fail to cancel by January 28, 2017 will not receive a refund. If the forum is cancelled, registrants will receive a full refund.
- If you have a disability or diet restrictions, please contact us to discuss accommodations. We will make every reasonable attempt to make available appropriate accommodations but cannot guarantee them.
- We reserve the right to change the program and agenda. We also reserve the right to refuse admission to anyone. If such an event occurs we will refund any admission fee paid.

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