



LET'S MAKE A DEAL!

CEE 20th Annual Meeting, December 9-10, 2015

Houston Branch – Federal Reserve Bank of Dallas Conference Center

<http://www.dallasfed.org/houston.cfm>



As a reminder, by tradition our meetings are conducted on a non-attribution basis. "Chatham House" rules apply. Agenda is always subject to change.

Session	Agenda Item Thought Leaders/Commentators
Wednesday, December 9	
8:00AM	Arrival, registration, refreshments – Brazos Ballroom
8:30	<p>Welcome Agenda for annual meeting and workshop Michelle Michot Foss, BEG/CEE Chief Energy Economist and Program Manager</p> <p>"What Keeps Me Up at Night" All participants are invited to submit your "Up at Night" contributions on note cards for collection by noon. CEE program staff will summarize and add to analysis from previous years.</p> <p>2015 – Wheeling and Dealing Through Cycles How should we think about the evolution of business models, policy and regulation relative to what we believe we understand about the economics of energy industries and value chains? What drives what? Shifts in technology can impact the economics of energy businesses, creating new opportunities, destroying others. Ordinarily policy (and regulation) should reflect these transitions. Interactions are complex. Commodity prices, cost of money, and other (including non-financial) motivations and behaviors can push business models farther than technology or markets can fully support, creating new risks and uncertainties. Governments can intervene, creating winners and losers in ways that seem disconnected from purely economic fundamentals. Market participants are motivated to influence policy and regulation in directions that favor their interests.</p> <p>For our 20th annual meeting and conference, we review the health of the key energy industry segments and look ahead in light of policy and regulatory overtones. Within the context of CEE research we revert to some basic questions about what we know, and don't know.</p> <ul style="list-style-type: none"> • What is the "fit" between economics, business models, policy and regulation? • How do intrinsic and extrinsic driving forces interact to create, destroy business models and what are the implications? <p>What can energy economics research do to help inform thinking about business organization, structure, funding and policy/regulatory approaches for commercial/bankable projects and longer term outlooks?</p>
9:30	<p>Big Moving Parts – Do Accidents "Happen"? NEW – CEE Book Club <i>We read, a lot.</i> It's our business. The best way to share some of the more provocative items that come across the desk is to invite the authors to tell us themselves. For this year's kick off to the new CEE Book Club, we invited Peter Zeihan, Zeihan on Geopolitics. Peter's work covers the interplay of geography, demographics, history and culture in driving global distributions of power. He is a geopolitical strategist, author of The Accidental Superpower, and former vice president of Stratfor. http://zeihan.com/</p>





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10:30	Break
10:45	<p>Upstream Part 1 – *Unconventionally Conventional</p> <p>Would the “shale gale” have happened without cheap money? What have we learned, what do we need to learn, from the technology “space”? (*We acknowledge a contribution of ideas from Christine Economides, University of Houston Petroleum Engineering, on how unconventional plays and drilling/production practices may benefit conventional fields.) What is same, what is different about upstream cost structures and finance? What are the special risks and uncertainties associated with national oil companies? How will Mexico, Iran, and other producers fit into the picture?</p> <p>Bob Skinner, University of Calgary/CEE Global Advisors, chair and leader (confirmed) – scene setting</p> <p>Remarks:</p> <ul style="list-style-type: none"> • Bob Kleinberg, Schlumberger/Doll (confirmed), the technology “white space” • Paul Ziff, Solomon Associates/Ziff Energy (confirmed), upstream models and the long term Ziff cost benchmarks • Miranda Wainberg, BEG/CEE Senior Energy Advisor, insights from CEE NOC research <p>Discussion:</p> <ul style="list-style-type: none"> • Arthur L. Smith, Triple Double Advisors (confirmed) • Luis Giusti, CSIS/CEE Global Advisors (confirmed) • Luis Labardini, Marcos y Asociados on Mexico (confirmed) • David Knapp, Energy Intelligence Group/CEE Modeling Advisors (confirmed) • Svetlana Ikonnikova, BEG/CEE Energy Economist
12:30PM	<p>Lunch/Networking</p> <p>CEE team collects “Up at Night” submissions</p> <p>Energy Opportunities</p> <p>Resource riches and development challenges – the microcosm of extractive industry, alternative energy, land management businesses within a milieu of market dynamics, cross-border flows and public perception.</p> <p>Mark Houser, CEO, University Lands (confirmed)</p>
1:30	<p>Upstream Part 2 – Navigating the Midstream Rapids</p> <p>What have we learned about the complexity of production streams and monetization? Can the industrial renaissance survive dampened expectations of global growth and currency ructions? How are costs and business models evolving?</p> <ul style="list-style-type: none"> • Les Deman, Coastsides/CEE Modeling Advisors (confirmed) • Deniese Palmer-Huggins, BEG/CEE Senior Energy Advisor • Discussion with Upstream 1 panel
2:45	Break
3:00	<p>Big Ticket Projects – Special Economics, Special Regions and Very Special Frameworks</p> <p>From mega-LNG to nuclear to oil sands, cost management and out/comes are challenged as project scale and scope expand. What are the drivers, risks, uncertainties for large cap energy projects – do large cap projects create their own, inherent risk profiles? How do large cap cycles affect expectations for exports, longer term supply-demand balances and price signals? What are some specific regional considerations? Can competitive market designs accommodate large cap projects and if not, what are the alternatives?</p> <p>Luis Giusti, chair and leader – scene setting (confirmed)</p>





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	<p>Remarks:</p> <ul style="list-style-type: none"> Howard Rogers, Oxford Institute for Energy Studies (confirmed), LNG and gas pipelines Hisanori Nei, GRIPS/CEE Global Advisors (confirmed), Japan/Asia energy projects Bob Skinner, oil sands and Canadian LNG <p>Discussion:</p> <ul style="list-style-type: none"> Michelle Michot Foss, project management/development trends and drivers Chen-Hao Tsai, BEG/CEE Senior Economist/Research Associate, nuclear costs
5:00	Closing Thoughts for Day 1, Look Ahead to Day 2 CEE Advisors Panel – Dave Knapp, chair
5:30	Open Reception – Buffalo Bayou Room
6:30-8:00	Donor/Advisor Dinner – By Invitation Only Wheeling and Dealing in Washington in 2016 Sheila Hollis, Duane Morris/CEE Global Advisors (confirmed)
Thursday, December 10	
8:30AM	Arrival, registration, refreshments – Trinity Room
9:00	<p>Power and Utilities Part 1 – Fuzzy Logic? Thinking Outside the Houston Box (Carefully) Conflicting objectives? Competing agendas!</p> <ul style="list-style-type: none"> Cost efficiency: best delivered via well-designed competitive markets but price formation encumbered with price caps and other measures to mitigate price volatility. High reliability: mandated reserve margins and capacity markets because economically optimal reliability might allow for outages. Maximize the share of renewables: for a mix of reasons, including emissions reduction, energy security, local job creation but cost and balancing problems can be acute. Grid security: including against physical or cyber-attacks complicates the “centralization” “decentralization/distributed energy” tradeoffs. <p>In the meantime, technology evolves: utility-scale solar PV is gaining ground while residential PV associated with smart grid applications and storage is encouraging distributed generation. Large-scale storage faces technical and financial challenges.</p> <p>What does it all mean for the future of the electricity business? How are the economics of power value chains shifting? What is the impact of policy and regulation (energy, environment) on utility business models? What is “real” in the technology space? A wide-ranging exploration on the most unpredictable segment and ramifications across the energy business and economics landscape.</p> <p>Juan Eibenschutz, CNSNS/CEE Global Advisors (tentative), chair and leader – scene setting</p> <p>Remarks:</p> <ul style="list-style-type: none"> Gürçan Gülen, BEG/CEE Senior Energy Economist/Research Scientist and Chen-Hao Tsai, insights from CEE/UTEI research Jim Caldwell, CEERT, economics of renewables (confirmed; see http://lowcarbongrid2030.org/) Christi Tezak, Clearview Energy Partners (confirmed), range of issues facing utilities in an increasing complex market encumbered by federal intervention and state-by-state rules Ed Kelly, IHS/CEE Modeling Advisors (confirmed) <p>Discussion:</p> <ul style="list-style-type: none"> Bruce Stram Erice Group/CEE Modeling Advisors (confirmed) Terry Thorne IGU/CEE Modeling Advisors (confirmed)
10:30	Break





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10:45	<p><i>Power and Utilities Part 2 – Transmission and Storage</i> Rapid expansion of PV and energy storage will have implications up the supply chain from manufacturing to mining. What are the requirements for minerals and materials? Discussion:</p> <ul style="list-style-type: none"> • Michelle Foss/Rahul Verma, BEG/CEE Graduate Student Researcher, insights from CEE research on critical minerals for energy storage • Daniel Crotzer, Fractal Business Analytics, the potential for batteries (confirmed) • Shawn Patterson, Apex, the case for CAES (confirmed) • Discussion with Power and Utilities 1 panel on transmission and other issues
11:45	<p><i>Closing Thoughts for Day 2, Comments on/Recommendations for CEE Research</i> CEE Advisors Panel – Terry Thorn, chair</p>
12:15PM-1:30	<p><i>Closing Lunch Discussion</i> Technology Disruptions – Gas and Power Deep Dive Ed Kelly (confirmed)</p>
1:30	<p><i>Adjourn</i></p>

BEG/CEE Program Financial Support FY15-16
UT Jackson School of Geosciences Endowment
BEG State of Texas Advanced Resource Recovery Program/Office of the Comptroller
And
Cedigaz ▪ Chevron Corporation (Global Gas, Africa/Latin America) ▪ Electric Power Research Institute (EPRI) ▪ Ernst & Young ▪ ExxonMobil (PGA, GPM/UT-McCombs) ▪ Frost Bank ▪ GE Oil & Gas ▪ Haddington Ventures ▪ Southern Company ▪ McKinsey & Company ▪ SUEZ Energy North America ▪ Toyota Motor North America ▪ UT McCombs Texas Executive Education Programs (ExxonMobil, CNOOC)
And
U.S. Department of State, Bureau of Energy Resources – Support to Government of Mexico on Upstream Oil and Gas Sector





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