**RBN** Energy LLC

# School of Energy

## Renewed! Restructured! Rebuilt!

Today's energy markets are being rocked by new technologies, massive flow shifts to exports, and the continuing onslaught of new infrastructure development. It is more important than ever to understand how the markets for natural gas, NGLs and crude oil are tied together, and how the interdependencies between the commodities will impact the future of energy supply, demand and prices.

Making sense out of energy market fundamentals is what RBN's School of Energy has always been about. And now we have renewed, restructured and rebuilt our curriculum to CONNECT THE DOTS across our content, data and models. We have designed our coursework to step you through the individual components in the analysis of a midstream infrastructure investment.

It's the kind of project work we do all the time in RBN's consulting business, and requires that we stitch together production economics and forecasting, an understanding of gathering, processing and transportation infrastructure, announced plans for new infrastructure development, end-use demand, and a wide range of other market components.

This is nothing like other natural gas, crude oil or NGL conferences!

**March
27 – 28**

**The Houstonian**
111 North Post Oak Lane
Houston, Texas 77024

Tues, March 27 – 8am – 5pm
(Cocktail reception)

Wed, March 28 – 8am – 5pm

# Making connections across energy markets

In RBN's highly respected blog, industry conference presentations and consulting practice, we explain the how and why of the most important developments in the markets for crude oil, natural gas and NGLs.

At the School of Energy, we will bring this perspective to an intense two day curriculum of energy market fundamentals. Your instructors will apply down-to-earth, understandable concepts, real world examples and usable economic models toward the goal of understanding energy markets.

There will be no industry luminaries waxing eloquent about the hottest infrastructure project or game changing developments. Instead, RBN instructors will lead you through a tightly scheduled curriculum designed for maximum learning.

This is not a course for complete newbies. We assume you have some working knowledge of at least one of the three energy markets we are targeting: crude oil, natural gas or NGLs.

- You will need a laptop computer with internet access and Microsoft Office 2010 or higher. Yes that means you will be downloading several RBN energy economic models and working with them in class. That's what hands-on means.

- This is not about networking. The breaks are short, and the work is demanding. You can hang out at the Cocktail Reception on Tuesday evening.

- You will have access to both the Power Point slides and spreadsheet models used in the coursework in real-time. At the end of the course you will walk away with all of these materials annotated with your own notes taken during the course.

- There will be math. But nothing beyond your basic spreadsheet formulas and functions.
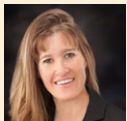
# Faculty

E. Russell "Rusty" Braziel – *President, RBN Energy*
Previously with Bentek, Texaco (Chevron), Williams, Altra

Scott Potter – *RBN Managing Director, Business Development*
Former energy trading manager Previously with Aquila, Texaco, Altra

Kelly Van Hull – *RBN Director, Energy Analytics*
Most recently with Bentek Energy. Previously with a midstream company developing greenfield projects in the Williston Basin

Rick Smead– *RBN Managing Director, Advisory Services*
Previously with Navigant, El Paso Pipeline Group, Colorado Interstate Gas Company
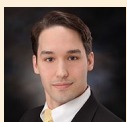
David Braziel –
*RBN Managing Director of Financial and Fundamental Analysis*
Previously with Direct Energy and Apache Corporation

Jason Ferguson –
*RBN Manager, Energy Fundamental Analysis*
Previously with Koch Energy Services, Shell and ExxonMobil

## Register Now!
www.rbnenergy.com/school-of-energy

### Discounted Lodging:
RBN Energy has reserved a limited number of rooms at The Houstonian for a discounted rate of $229 per night, not including taxes.

This rate will be honored through March 4, 2018, depending on availability.

Hotel reservations must be made directly through The Houstonian. Please mention this event (800) 231-2759.

### Registration Fees

| | |
|---|---|
| Early Bird | $ 2,450 |
| After March 2nd | $ 2,950 |

### How to Register:
rbnenergy.com/school-of-energy

Phone: 888-612-9488

Email: school@rbnenergy.com

# Curriculum

**MODULE #1:** *Fundamentals*

The Shale Revolution and Drill Bit Hydrocarbons

Connecting the Dots – Market Events and Responses

Fundamentals of Fundamentals

Understanding Energy Fundamentals Models

Modeling Midstream Infrastructure Projects

**MODULE #2:** *Production*

Production Economics – The Basics

Unconventional and Conventional Production

Price Scenarios, Type Curves, and Investment Returns

Well Cost, Production Rates, Decline Curves
and Other Variables

Production Economics and Forecasting

**LAB**

**Model 2.1 – Production Economics**

**Model 2.2 – Production Forecasting**

**MODULE #3:** *Natural Gas Markets*

North America Natural Gas Market Overview

Natural Gas Transportation, Rates and Regulation

Northeast Supply Surge – The Big U-Turn and New Projects

The Demand Markets: Sectors, Expectations,
Issues and LNG

**LAB**

**Model 3.1 – Flow Data Analysis; Production and Demand**

**Model 3.2 – Estimating Rates for Natural Gas Pipelines**

**Model 3.3 – Coal versus Natural Gas – Displacement
Economics**

**MODULE #4:** *Crude Oil Markets*

North America Crude Oil Market Overview

Oil Markets: Hubs, Quality and Transportation

Fundamentals of Refining

Condensate and Crude Exports

Production Forecast

**LAB**

**Model 4.1 – Crude Oil Transportation Rates
and Netbacks**

**Model 4.2 – Crack Spreads and Refinery Yields**

**Model 4.3 – Refinery Yields**

**MODULE #5:** *Natural Gas Liquids Markets*

North America NGL Market Overview

The Basics

NGL Production Forecast

Processing and Transporting NGLs

NGL Price Forecast

**LAB**

**Model 5.1 – Frac Spread**

**Model 5.2 – Processing Balance**

**Model 5.3 – Ethane Rejection**

**Model 5.4 – Petrochemical Feedstock Selection –
Calculations and Price Impact**

**MODULE #6:** *Production Economics Deep Dive*

Multi-Commodity Producer Economics: Crude Oil,
Natural Gas and NGLs

Type Curves; Initial Production Rates and Decline Curves

Modeling NGLs and Natural Gas Shrinkage

**LAB**

**Model 6.1 – Production Economics and Breakevens**

**MODULE #7:** *Connecting the Dots:
Midstream Fundamental Analysis*

Integrating Supply, Demand, Processing,
Transportation and Pricing

Modeling Midstream Cash Flows

Investment Returns

**LAB**

**Model 7.1 – Natural Gas Processing: Material Balance,
Yield, and Economics**

**MODULE #8:** *What It All Means*

Handicapping Forecasts

A New Energy Future

*All Modules Subject to Change*

# Reviews

## Some of the comments from School of Energy



"I had an incredible experience at RBN SOE. I read the blog every day and have found the information from the conference very helpful"

**Claire Behar, Freepoint Commodities**

"What a phenomenal course! Enjoyed every minute of it and am thankful for the opportunity. Look forward to more classes in the future!."

**Alan Hoover II, Rangeland Energy**

"The conference was terrific. Very thorough. Food was great, facility is terrific. We will be back."

**John Waggoner, StratGas Energy Solutions**

"Excellent course! Content for individual commodities was concise but practical. More importantly the course took an integrated approach showing inter-relationships, key fundamental drivers, and likely direction for the energy market moving forward."

**James R. Randall, ONEOK**

"Very good school/seminar. At times it was like drinking from a fire hose. Excellent job by all!"

**Bob Haydock, Protégé Energy**

# Earn CPE credits at School of Energy!

**Program Level:** Intermediate

**Delivery Method:** Group -Live, External Participation only



Conference participants can earn up to 12 CPE credits of specialized knowledge and application (Microsoft Excel).

**Prerequisites:** Previous experience in Energy Industry. No advance preparation is required.

## Objectives:

The goal of this conference is to educate and inform participants on the important aspects of the energy markets. At the end of the conference, participants will be able to:

- Identify at least three energy market fundamentals (supply and demand, market infrastructure, pricing)

- Describe how market fundamentals affect natural gas, crude oil and natural gas liquids markets

- Demonstrate excel skills by using the excel spreadsheet models to enter market data and interpret the results

- Apply skills learned in labs to cases that will test the participants knowledge of how market models work

## Conference Policies:

Refunds and Cancellations: Requests for refunds must be received in writing by March 16, 2018 and will be subject to a $195 cancellation fee. No refunds will be granted after March 16, 2018.

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This program has been approved by GARP and qualifies for 12 GARP CPD credit hours. If you are a Certified ERP or FRM, please record this activity in your credit tracker at **www.garp.org/cpd**