School of Energy

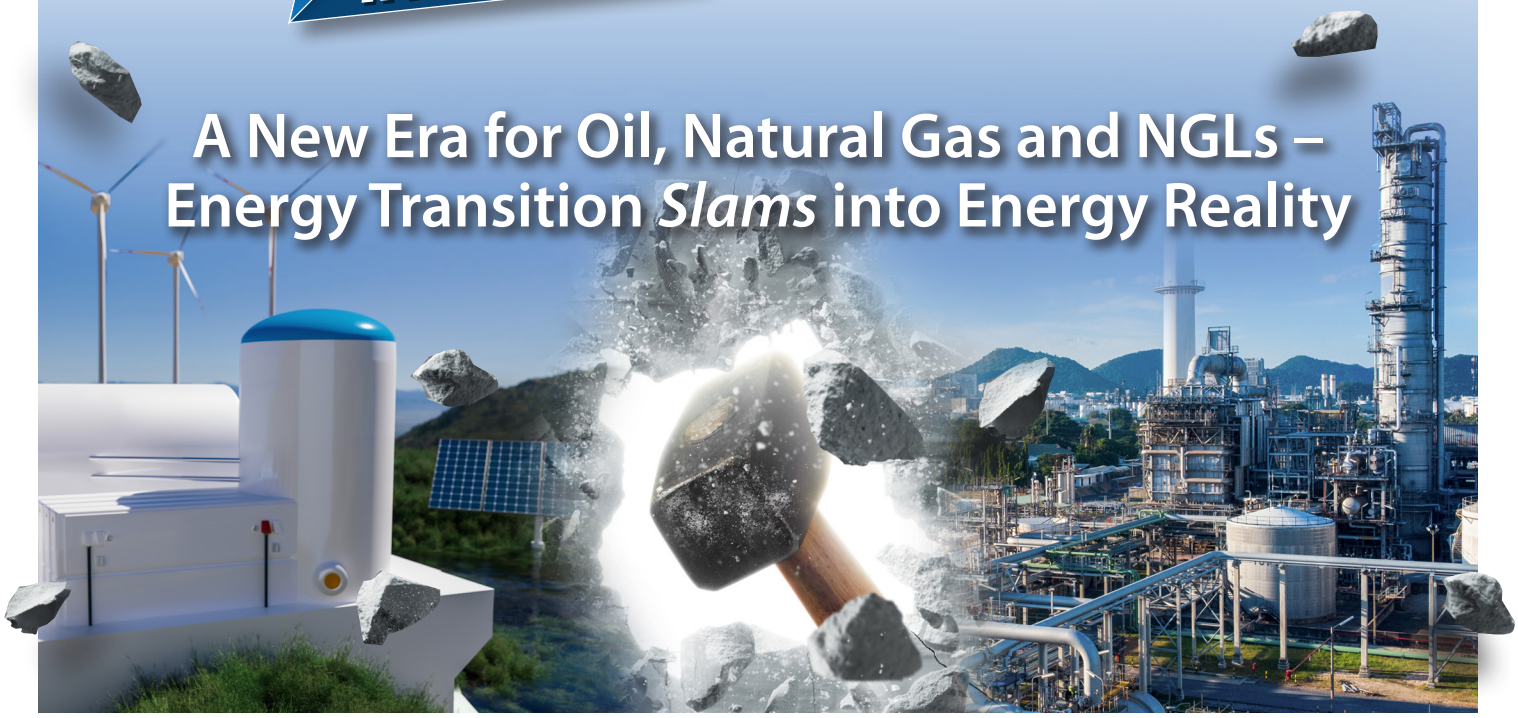
LIVE IN PERSON

May 17-18, 2022

RBN's Latest Crude, Gas and NGL Curriculum

PLUS

Making The Energy Transition: CO_2, H_2, Renewable Fuels



A New Era for Oil, Natural Gas and NGLs – Energy Transition *Slams* into Energy Reality

The illusion of a smooth energy transition was swept away in 2021, with the drive toward decarbonization running headlong into the reality of energy markets. It is now clear that the transition and its effects are permeating all aspects of supply and demand, from the chaos in European natural gas, to producer capital restraint in the oil patch, to the rising impact of renewable fuels and, of course, to the escalating roadblocks in pipeline construction. Gone are the days when traditional energy markets operated independently of the energy transition. Today the markets for crude oil, natural gas and NGLs are inextricably tied to renewables, decarbonization, and sustainability. It's simply impossible to understand energy market behavior without a solid grasp of how these market factors are tied together.

That is what School of Energy – Spring 2022 is all about! We will consider the most important developments that energy markets must deal with in the real world of today but do so in the context of a greener future that could represent radical changes in how energy commodities are produced, transported and used.

And for the first time in over two years, we are LIVE and IN PERSON! That's right. Our 2022 Spring School of Energy will be held at the Houstonian in Houston May 17-18, 2022. We have updated our content to reflect the massive changes we've seen over the past six months, along with additional faculty and upgraded models. And the curriculum includes an entire half day dedicated to what we believe are the most important hydrocarbon-related issues in the energy transition. That means CO_2, hydrogen and renewable fuels.

This is nothing like other natural gas, crude oil or NGL conferences! The course work is hands-on. In each module we'll drill down on an important aspect of the market, explain how it works, download a spreadsheet model and learn how to use it. You walk out the door with the how-to Power Points and the Excel models on your hard drive.

A Special thanks to our sponsor **PROJECT CANARY**

RBN Energy LLC

Making Connections **Across Energy Markets**

In RBN's highly respected blog, industry 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 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 traditional energy markets we target: crude oil, natural gas or NGLs.

You will need a laptop computer with internet access and Microsoft Office 2013 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. There will be math. But nothing beyond your basic spreadsheet formulas and functions.

You will have access to both the Power Point slides and spreadsheet models used in the coursework in real-time. Additionally, we have added supplemental videos for extra model instruction to give us more time to discuss energy transition topics on day two. At the end of the course, you will walk away with all of these materials.

School of Energy **Faculty**

Rusty Braziel,
Executive Chairman
Previously with Bentek Energy, Texaco (Chevron), Williams and Altra

David Braziel,
President and CEO
Previously with Direct Energy and Apache Corporation

Scott Potter,
Managing Director, Business Development, RBN Energy
Previously with Aquila, Texaco and Altra

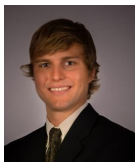
Jason Lindquist,
Managing Editor, RBN Energy
Previously with Platts

Rick Smead,
Managing Director, Advisory Services, RBN Energy
Previously with Navigant, El Paso Pipeline Group and Colorado Interstate Gas Company

Jason Ferguson,
Director, Energy Fundamental Analysis, RBN Energy
Previously with Koch Energy Services, Shell and ExxonMobil

Todd Root,
Director, NGLs and Petrochemicals , RBN Energy
Previously with Westlake Chemical and Lyondell Petrochemical

TJ Braziel,
Director of Client Services, RBN Energy
Previously with Bentek Energy, Genscape and RigData



Robert Auers
Manager
Refined Fuel Analytics (RFA)
Previously with Turner Mason and Western Refining

Simon Hill,
Chief Executive Officer at CAZBAA LTD
Previously with Petredec, Texaco (Chevron) and BNOC

Jeremy Meier,
Production Analyst
RBN Energy

Lindsay Schneider,
Senior Analyst and Consultant Previously with Wood Mackenzie and Exelon Generation

Noel Copeland,
Director of GIS Services, RBN Energy
Previously with Bentek Energy and Platts

Martin King,
Senior Analyst and Consultant, RBN Energy

Register Now!

https://rbnenergy.com/soe

Registration Fees for Event: $1,950 Early Bird | $2,450 after April 18th

Phone: 888-612-9488 | Email: school@rbnenergy.com

Revised: 02-17-22

RBN School of Energy Curriculum: May 17-18, 2022

Day 1

Welcome, Introductions

Hydrocarbon Markets in a Decarbonizing World

The Dynamics of Supply/Demand Balances, Capacity Constraints and Prices

Energy Transition Slams into Energy Reality

Module #1: Fundamentals

The Fundamentals of Fundamentals

North American NGL Fundamentals

Break

Understanding Energy Fundamentals Models

LAB Model 1.5b – Propane to Crude Ratio

Module #2: Production

Production Economics – The Basics

Price Scenarios, Type Curves, and Investment Returns

Well Cost, Production Rates, Decline Curves and Other Variables

LAB Model 2.1b – Production Economics

Lunch

Production Forecast Concepts and Methodologies

LAB Model 2.2b – Production Forecasting

Oil, Gas and NGL Production Forecasts

Module #3 – Crude Oil Markets

Crude Oil Market Overview, Export Drivers and Constraints

Permian Crude Infrastructure, Flows, Constraints

Break

Crude Quality: Implications for Prices, Pipelines and Refining

Fundamentals of Refining: Units, Processes and Products

LAB Model 3.4b– Petroleum Product Prices and Crack Spreads

LAB Model 3.4c– Refinery Yields and Representative Margins

Module #4 – Natural Gas Markets

North America Gas Market Overview, Price and Demand

Appalachian Gas Balance, Egress, and Basis

Happy Hour Reception

Day 2

Welcome Back

Module #4 – Natural Gas Markets (Cont.)

Natural Gas Pricing and Demand Factors

LNG Exports, Feedgas and Projects

Permian Gas: Flow, Capacity and Pricing Developments

Natural Gas Transportation, Rates and Regulation

Module #5: Natural Gas Liquids Markets

NGL Production, Demand, Exports and Price Volatility

Break

Natural Gas Processing

Ethane Recovery and Rejection Economics

Petrochemical (Steam Cracker) Feedstock Margins

International LPG Markets: Destinations, Terminaling, Shipping and the Arb

Lunch

Module #6: Navigating the Energy Transition

Making the Most of the Energy Transition

Legacy CO_2, Enhanced Oil Recovery, Pore Space

CO_2 Regulation: 45Q Tax Credits, Carbon Intensity Scores, Injection Well Permits

Break

Understanding Hydrogen Markets and Metrics

Existing refinery, petrochemical and merchant Hydrogen markets

Hydrogen Infrastructure

Green, Blue and Other Colors of Hydrogen Projects

The Emergence of Renewable Diesel

Module #7: Where Do we Go From Here?

Adjourn

Bonus Material and Lab Modules - Prerecorded

Lab Model 4.2b: Gas Market Analytics Using Pipeline Flow Data
Lab Model 4.4b: Key Driver of Demand: Coal to Gas Switching
Lab Model 4.7b: Estimating Rates for Natural Gas Pipelines
Lab Model 5.1b: The NGL Frac Spread
Lab Model 5.2b: Natural Gas Processing Model
Lab Model 5.3b: Ethane Recovery and Rejection Economics
Lab Model 5.4b: Petrochemical (Steam Cracker) Feedstock Margins
Lab Model 6.4b: Hydrogen Unit Conversion Calculator

Revised: 02-17-22