

School of Energy VIRTUAL!

RBN's Latest
U.S. Curriculum
Including
New Content
and Models

Oil, Gas and a Special Focus on NGLs

The energy market turmoil of 2020 has been unprecedented, with COVID, a crude price collapse below zero, steep production declines, and now what appears to be an uncertain recovery driving crude oil, natural gas and NGLs toward new market realities.

There has never been a more important time to reassess market analytics in the context of these tectonic shifts in the energy industry. That is what School of Energy – Fall 2020 is all about!

But of course, we are living through this era of social distancing, so our conference has GONE VIRTUAL!! We will webcast the entire School in real-time, October 20-21. We will have updated content to reflect the massive changes we've seen over the past six months, along with additional faculty and updated models. We'll do everything we can to make the experience just like the in-person conference, including live Q&A, real-time access to presentation materials, and downloadable models.

Even before COVID, global energy markets were shifting due to slowing production growth, relief of pipeline takeaway constraints, the tightening of capital markets, and long-delayed infrastructure projects coming online. Then we went through a few weeks of total chaos in the Spring before entering a period of relative stability today. But what about tomorrow? New supply/demand balances and flow patterns have huge implications for infrastructure utilization and price relationships for oil, natural gas, and NGLs.

Buffeted by oil and gas, petrochemicals and their own unique value chain, NGLs are particularly vulnerable to these turbulent shifts in flow patterns and price differentials and that is just what is over the horizon. School of Energy Fall 2020 will build on our oil and gas curriculum to do a Special Focus on NGLs. We've updated and expanded all our NGL models to fit the new realities of today's NGL markets. This is nothing like other natural gas, crude oil or NGL conferences!

October 20-21, 2020

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 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 computer with internet access and Microsoft Office 2010 or better. Yes that means you will be downloading several RBN energy economic models and working with them in class. That's what hands-on means.
- The webcast will be hosted on the RBN Energy website. You will need to be logged in under a profile with an active School of Energy License to access the videos and material.
- 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.
- There will be math. But nothing beyond your basic spreadsheet formulas and functions.

School of Energy Faculty



Rusty Braziel, CEO, RBN Energy
Previously with Bentek Energy, Texaco (Chevron), Williams and Altra



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



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



Sheetal Nasta, Managing Editor, RBN Energy
Previously with Bentek Energy and 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



Manfred Jeske, Analyst, Energy Intelligence, RBN Energy
Previously with capSpire, Anadarko and Northville Industries



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



John Hall, Senior NGL and Natural Gas Advisor
Previously with Tenaska Capital Management and Northern Natural Gas



Simon Hill, Chief Operating Officer of Energy Trading Analytics, Inc. (ETAI)
Previously with Petredec, Texaco (Chevron) and BNO



Martin King, Senior Analyst and Consultant, RBN Energy
Previously with Bank of Canada in Ottawa, National Energy Board in Calgary, FirstEnergy Capital Corp. and GMP FirstEnergy in Calgary



Amy Kalt, Consultant, Manager of Analytical Services, Baker & O'Brien



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

Register Now!

www.rbnenergy.com/school-of-energy

Registration Fees for Event: \$1,250

Phone: 888-612-9488

Email: school@rbnenergy.com

RBN School of Energy Class Schedule: October 20–21, 2020

Day 1

Welcome and introduction

Module #1: Fundamentals

COVID Era 2020: Prices, Production, Demand, Exports
Fundamentals of Fundamentals
Dynamics of North America NGL Markets

Break

Understanding Energy Fundamentals Models

- ▶ LAB Model – 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 – Production Economics

Lunch

Production Forecast Concepts and Methodologies

- ▶ LAB Model – Production Forecasting

U.S. Oil, Gas and NGL Production Forecasts

Module #3 – Crude Oil Markets

Crude Oil Market Overview, Exports, Constraints
Infrastructure Projects: Pipelines, Export Terminals
and a deep dive on Cushing, OK

Break

Permian Crude Infrastructure, Flows, Constraints

Crude Quality: Implications for Prices, Pipelines,
and Refining

U.S. Condensates: The Next Phase

Fundamentals of Refining: Units, Processes, Products

What's cooking in oil markets?

- ▶ LAB Model – Petroleum Product Prices
& Crack Spreads
- ▶ LAB Model – Refinery Yields and Margins

End Day 1

Day 2

Welcome Back

Module #4: Natural Gas Markets

North America Gas Market Overview

- ▶ LAB Model – Gas Market Analytics Using
Pipeline Flow Data

Natural Gas Transportation, Rates and Regulation

- ▶ LAB Model – Estimating Rates for Natural Gas Pipelines

Break

Natural Gas Prices and Demand Factors

LNG Exports, Feedgas and Projects

Permian Gas, Flow/Capacity and Pricing Developments

- ▶ LAB – Model – Key Driver of Demand:
Coal to Gas Switching

Lunch

Module #5: Natural Gas Liquids Markets

The Tectonic Shift in NGL Markets: Surpluses, Exports,
Price Volatility

- ▶ LAB Model – The NGL Frac Spread
- ▶ LAB Model – Natural Gas Processing Model

NGL Supply and Demand by Product

Moving U.S. LPG to Overseas Markets: Destinations,
Terminal, Shipping, Arbitrage

Canadian NGL Markets

Break

- ▶ LAB Model – Ethane Recovery and Rejection Economics

Permian NGL Production and Flows

- ▶ LAB Model – Petrochemical (Steam Cracker)
Feedstock Margins

NGL Price Forecasts

What Does it All Mean?

End Day 2

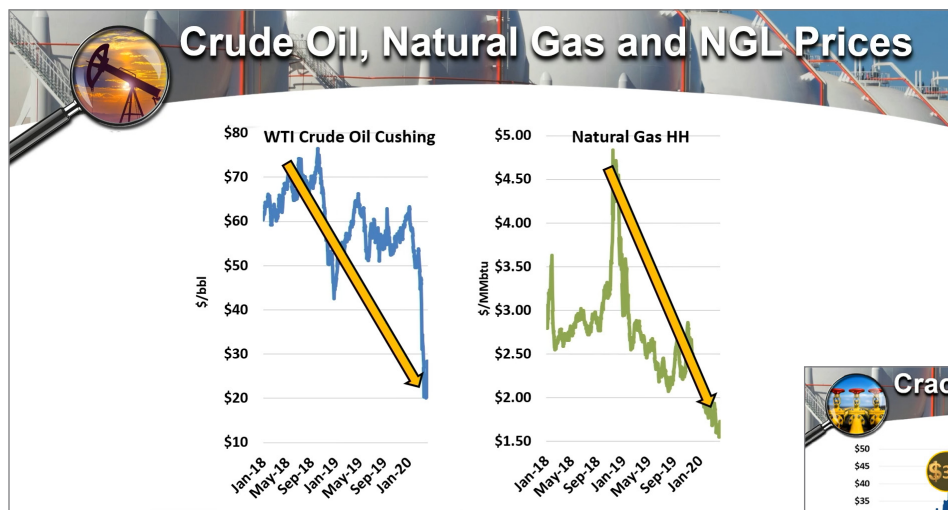
All Modules Subject to Change

Reviews

RBN Virtual School of Energy

★★★★★

Some of the comments from the Spring Virtual School of Energy



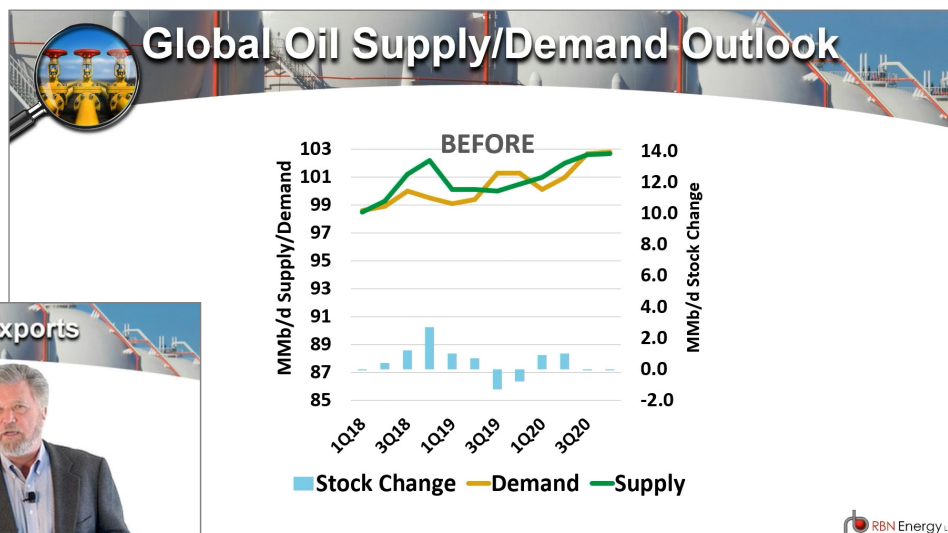
"Excellent! The course took an integrated approach showing inter-relationships, key fundamental drivers, and likely direction for the energy market moving forward."

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



"Good information, clearly presented by experts in their fields."

"Your slides for taking people through the spreadsheets were terrific!"



"I am a beginner to the energy industry, so I appreciate how there were fundamentals classes."