School of Energy VIRTUAL!

November 9-10, 2021

RBN's Latest Crude, Gas and NGL Curriculum

PLUS

Making The Energy Transition: CO_2, H_2, Renewable Diesel

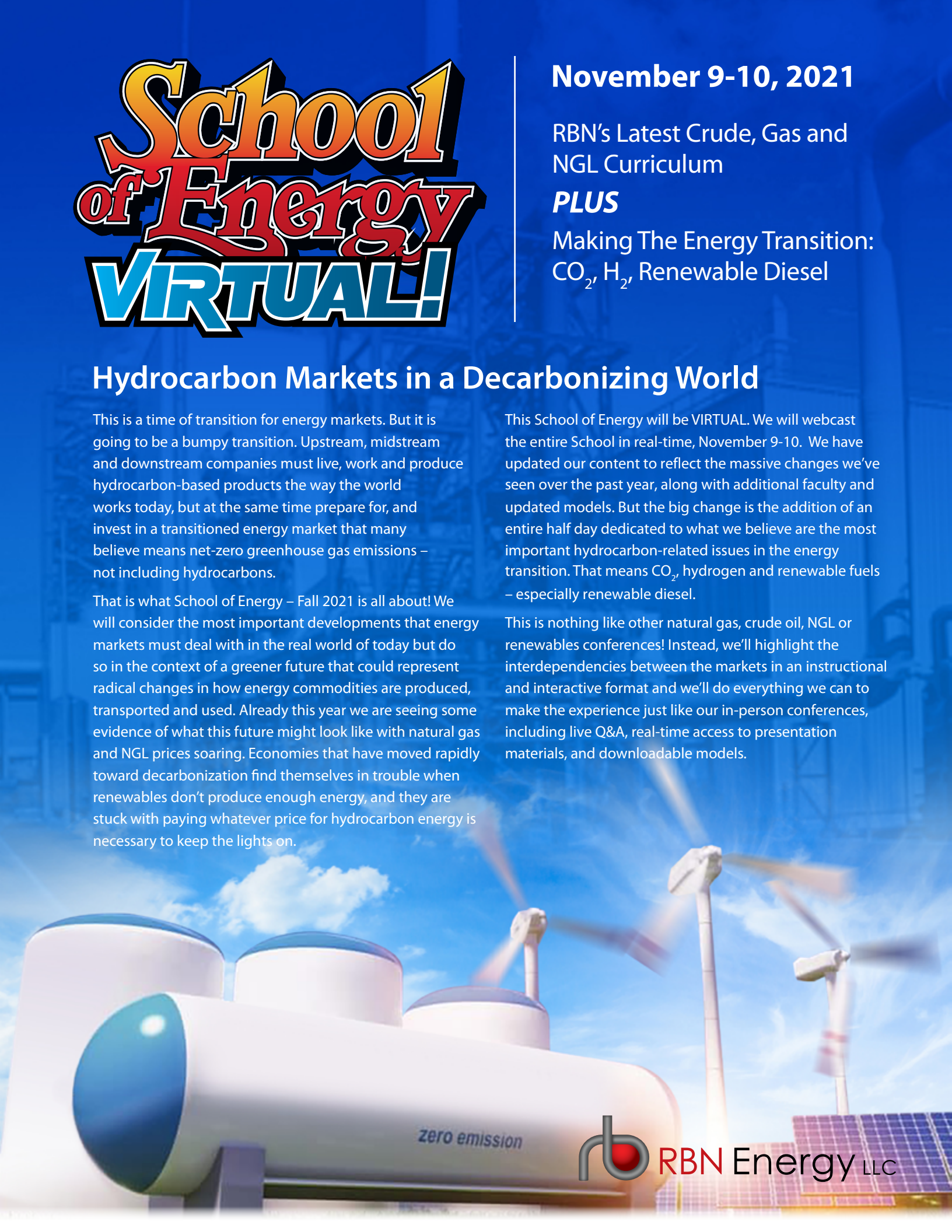
Hydrocarbon Markets in a Decarbonizing World

This is a time of transition for energy markets. But it is going to be a bumpy transition. Upstream, midstream and downstream companies must live, work and produce hydrocarbon-based products the way the world works today, but at the same time prepare for, and invest in a transitioned energy market that many believe means net-zero greenhouse gas emissions – not including hydrocarbons.

That is what School of Energy – Fall 2021 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. Already this year we are seeing some evidence of what this future might look like with natural gas and NGL prices soaring. Economies that have moved rapidly toward decarbonization find themselves in trouble when renewables don't produce enough energy, and they are stuck with paying whatever price for hydrocarbon energy is necessary to keep the lights on.

This School of Energy will be VIRTUAL. We will webcast the entire School in real-time, November 9-10. We have updated our content to reflect the massive changes we've seen over the past year, along with additional faculty and updated models. But the big change is the addition of 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 – especially renewable diesel.

This is nothing like other natural gas, crude oil, NGL or renewables conferences! Instead, we'll highlight the interdependencies between the markets in an instructional and interactive format and we'll do everything we can to make the experience just like our in-person conferences, including live Q&A, real-time access to presentation materials, and downloadable models.



RBN Energy LLC

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 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.
- The webcast will be hosted on the RBN Energy website. You will need to be logged in under an 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

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
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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

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

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

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

Martin King,
Senior Analyst and Consultant, RBN Energy

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: November 9-10, 2021

Day 1

Welcome, Introductions

Hydrocarbon Markets in a Decarbonizing World

- New Market Realities: More Exports, Higher Prices, Global Influence
- Enough Hydrocarbons to Make it Through the Energy Transition?

Module #1: Fundamentals

- The Fundamentals of Fundamentals
- North American NGL Fundamentals

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
- Oil, Gas and NGL Production Forecasts

Module #3 – Crude Oil Markets

- Crude Oil Market Overview, Export Drivers and Constraints
- Infrastructure Projects: Pipelines and Export Terminals

Break

- Permian Crude Infrastructure, Flows, Constraints
- Crude Quality: Implications for Prices, Pipelines and Refining
- Fundamentals of Refining: Units, Processes and Products
  - LAB Model – Petroleum Product Prices and Crack Spreads
  - LAB Model – Refinery Yields and Representative Margins

Module #4 – Natural Gas Markets

- North America Gas Market Overview
- Appalachian Gas Balance, Egress, and Basis

Adjourn

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
- Permian NGL Production and Flows
- 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

- The Energy Transition Imperative: Can We Get There From Here
- Legacy CO2 and Permian CO2
- CO2 Regulation (45Q, Class VI injection wells, ect.)

Break

- Understanding Hydrogen Markets and Metrics
- Existing refinery, petrochemical and merchant Hydrogen markets
- Green and Blue Hydrogen Projects
- The Emergence of Renewable Diesel

Module #7: Where Do we Go From Here

Adjourn

All Modules Subject to Change

Revised: 10.1.21