



**Monday, October 20**  
**4:30 pm-6:00 pm**

## **306 Buying Energy**

**Charlie San Miguel**

*Legal Counsel*  
Direct Energy

**Paul Scoff**

*Vice President, Law and General Counsel*  
Sprague Energy Corp.

**Tracey Steiner**

*Senior Corporate Counsel*  
NRECA

## Faculty Biographies

### Charlie San Miguel

Charlie San Miguel is legal counsel for Direct Energy Business, the commercial and industrial segment of Direct Energy, one of the largest retailers of energy and related services in North America.

Mr. San Miguel has previously served as commercial counsel for Huntsman International LLC and as an associate in the corporate and securities group of Locke Lord Bissell & Liddell LLP, with a focus in the area of mergers and acquisitions.

### Paul Scoff

Paul Scoff is the vice president, general counsel, and secretary of Sprague Energy Corp. His responsibilities include serving as a key member of the executive team, providing legal counsel and regulatory compliance oversight to all areas of the business (terminal operations, petroleum/natural gas sales, marketing, and trading).

Prior to joining Sprague, Mr. Scoff was the general counsel and secretary for Genesis Energy LP, a publicly traded master limited partnership. Mr. Scoff provided legal guidance to the general partner and limited partnerships on all matters and was responsible for all regulatory matters as well as his responsibilities for the board of directors. Before joining Genesis, Mr. Scoff worked in various capacities for Phibro Energy U.S.A., Inc. and, prior to Phibro, The Coastal Corporation as senior counsel providing legal advice on various domestic and international business and regulatory matters. Mr. Scoff started his legal career at the admiralty litigation firm Sharpe & Kajander P.C.

Mr. Scoff is a member of the State Bar of Texas, the Pennsylvania Bar Association, the US District Court for the Southern District of Texas, the US Court of Appeals for the 5<sup>th</sup> Circuit, the US Court of Appeals for the Federal Circuit, and the US. Court of International Trade.

Mr. Scoff received his BA from Washington & Jefferson College and is a graduate of the University of Houston Law Center.

### Tracey Steiner

Tracey Steiner is a senior corporate counsel at NRECA, where she assists electric cooperatives and NRECA staff with general corporate/cooperative law issues, corporate governance, intellectual property matters, federal marketing and consumer protection regulations, and Internet/e-commerce legal issues. She shares responsibility for writing and editing NRECA's monthly *Legal Reporting Service* and also writes articles on legal, regulatory, and policy issues for other NRECA publications. She is an instructor for

NRECA's Legal Seminars and the Robert I. Kabat Management Internship program and assists in preparing and presenting other NRECA educational programs.

Ms. Steiner began her career at NRECA in communications and marketing. She then moved to NRECA's energy policy department.

Ms. Steiner is also a member of the Virginia Bar, ABA, Energy Bar Association, ACC, and the American Society of Association Executives.

Ms. Steiner received a BS from the University of Maryland at College Park. She graduated with honors from George Washington University Law School.



### Overview of Presentation

- Finding the Right Pricing Option
- Power Contracts 101 - Considerations and Caveats
- “Green” Power and RECs – What They Are and What They Are Not



### Finding the Right Product (Pricing) Option

- The purchase drivers applicable to your company will largely determine the “product” option that works best for you.
- Customers with greater need for stable pricing tend to favor fixed pricing. Larger customers that are better suited to deal with market fluctuation tend to favor non-fixed pricing.
- Purchase agents or associations may be desirable for some customers.



### Finding the Right Pricing Option

*Key drivers for power purchasing decisions may include the following:*

- Price
- Budgeting reliability
- Environmental concerns/marketing
- Financial risk tolerance
- Geographic needs



### Product (Pricing) Options

**General “product” (i.e., pricing) categories include:**

- Fixed Price
- Index Priced
- Combination of Index/Fixed
- Managed Portfolio



## Product (Pricing) Options

### What makes "products" different?

- Contract Terms and Conditions
- Pricing algorithms
- Purchasing Methods
- Billing Configurations
- Scheduling Decisions
- Flexibility



## Index Priced

### What it means:

Price is based on a designated market index plus an agreed fixed adder

- *Pros* – simple price setup; enables customer to benefit from downward market movement.
- *Cons* – subjects customers to market volatility; lack of budget certainty.



## Fixed Pricing

### What it means:

Set price applies during term of contract

- *Pros* – simple pricing setup; price stability; enables price lock when market is favorable.
- *Cons* – limited flexibility; no opportunity to benefit from market drops after contract date.



## Combination of Variable/Fixed

### What it means:

Pricing is index-based, but customer has conversion options available during term of contract

- *Pros* – customer has flexibility to convert to fixed pricing if and when desired, and in some cases, for less than full load; where partial conversion is available, enables customer to diversify its pricing profile.
- *Cons* – customer is subject to market volatility during index period and is locked in during fixed periods.



## Managed Portfolio

### What it means:

Retailer actively purchases power during contract term for customer and sells it to customer at cost; management fee applies.

- *Pros* – customer has access and visibility to wholesale market; eliminates pricing premiums on market transactions; enables quick response to market changes; can be customized to meet customer needs.
- *Cons* – subjects customer to market volatility; generally available only to large customers; products are complex.



## “Green” Power and RECs - what they are and what they are not

- “Green” power is generally understood to refer to power generated through means with lower environmental impact (e.g., wind, solar, biomass).
- Even the generation of “green” power has some environmental impact.
- Possible benefits of buying “green” power may include:
  - Reduced environmental impact
  - Public image enhancement
- Possible drawbacks may include higher costs.



## Power Contracts 101 - Considerations and Caveats

- Pricing calculation methodology
- Product flexibility (if needed)
- Usage considerations
- Renewal terms
- Force Majeure
- Default/Termination



## Renewable Energy Certificates (RECs)

- A REC is a commodity that represents the environmental attributes associated with power generated by a renewable resource such as wind, solar or biomass. RECs are normally measured in MWhs (1 REC = 1MWh of power generated from a renewable resource). The number of RECs may be denoted on a Certificate or Affidavit.
- Purchase of a REC is not in itself a purchase of “green” power. It is the purchase of a carbon offset, reflected in a certificate or affidavit that represents the environmental attributes associated with renewable resource generation. RECs can be purchased as a commodity separate from power, “green” or otherwise.
- Purchase of a REC can be used by a power purchaser to help offset the environmental impacts arising from its purchase of conventionally generated power.

### "Green" Power and RECs - Caveats

- If you plan to market news of your "green" power or REC purchases, be sure you understand what you purchased in order to avoid overstatement.
- Consider using certified sources.

In this session you should gain an awareness of the different opportunities that exist to benefit your company in its energy purchasing decisions

### What to purchase and Why

- What energy products does your company purchase and for what purposes
- What are the key drivers for the energy purchasing decisions, price, budgeting decisions, fuel switching opportunities, environmental concerns, process units?

For most companies price is a key driver

- In markets that constantly move up and down how does your company view price
- How do you meet budget objectives
- How do you take advantage of market opportunities

## Physical vs. Financial Natural Gas Markets

- **Physical Markets**
- Transactions are a commitment to buy or sell physical natural gas
- Physical delivery can occur the next day, the balance of the current month, the next month, or any combination of future months
- The price can be a fixed amount or can be based on a published index price (e.g., Gas Daily, Inside F.E.R.C., etc.)
- The point of sale agreed to by traders is usually a pipeline zone or pool. After the traders agree on a deal, schedulers determine the precise location where natural gas will be delivered
- Physical gas is transacted "over the counter" either over the phone, through brokers or on unregulated exchanges like the Intercontinental Exchange ("ICE")
- **Financial Markets**
- Transactions are not a commitment to buy or sell physical natural gas, they are settled financially based on published index prices
- Financial transactions include futures, forwards, options and swaps (derivatives)
- Financial transactions can be conducted on regulated exchanges (e.g., NYMEX, CBOT, KCBOT) or over the counter
- The delivery points of financial transactions are limited to liquid markets where there are reliable, published index prices
- Financial positions can be converted into physical ones ("Exchange for Physical" or "EFP")

How does all this work?

- There are numerous pricing options
- How do you determine what is best for your company in terms of price/risk
- What factors make up the price
- How do marketers/sellers provide secure pricing options as opposed to the daily market rate
- What are the essential contractual terms

## Natural Gas Futures

- Futures allow traders to buy or sell a fixed price for a specified quantity of an underlying commodity to be delivered at a specified place and time
- Most Natural Gas futures are traded on the New York Mercantile Exchange ("NYMEX")
- One standard NYMEX Natural Gas futures contract represents 10,000 MMBTU of physical gas
- The point of delivery for the NYMEX Natural Gas futures contract is the Henry Hub, a major pipeline interconnect in Louisiana operated by Sabine Pipe Line Company
- Natural Gas futures are traded for delivery months beginning with the first future month and extending 72 months (6 years) into the future
- Each natural gas futures contract expires on the third-to-last business day of the month preceding delivery (i.e. - the December 2007 contract expired on Wednesday, November 28th)
- Based on the trading activity in the final 30 minutes before each contract expires, NYMEX calculates a "Last Day's Settlement" price for that contract which is used as a benchmark price for most physical gas delivered in the contract month
- When most people talk about "the price of natural gas," they're talking about the current price of the prompt month NYMEX futures contract

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### Natural Gas Basis

- Depending on the context, the term basis can mean:
  - The difference in value between two physical locations
  - The difference in value between two points in time
- In Natural Gas Marketing, basis usually refers to the premium over the Gulf Coast commodity price that a marketer charges to deliver physical gas to the point of sale
- NYMEX Natural Gas Futures prices are used as the proxy for the Gulf Coast commodity price
- The cost of physical delivery basis is based on what Natural Gas Trading can buy in the wholesale market and is influenced by factors including Natural Gas Futures prices, weather, power generation demand and the prices of alternate fuels (particularly distillate and residual fuel oil)

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### Step 2, add commodity cost

- + Fixed NYMEX Price Commodity cost locked in at the time of deal execution
- -- or --
- + NYMEX Trigger Commodity cost locked in between deal execution and last day's settle
- -- or --
- + NYMEX Last Day's Settle Commodity cost defaults to NYMEX Last Day's Settlement price

• Step 1 + Step 2 = Total Contract Price

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### Building a Customers Contract Price

**Costs that are built into the customer's contract basis price: Step 1**

Physical Delivery Basis	Cost of delivered baseload gas purchased from Natural Gas Trading
+ Balancing Up-charge	Cost of managing daily swings in customer's requirements
+ Margin Interest	Cost of hedging the fixed price component of customer's price
+ LDC-related Charges	Cost of LDC tariff fees and assigned asset costs
+ Consultant/Broker Fees	Pass-through of any consultant or broker fees paid by Sprague
+ Contract Sales Margin	Marketer's contract margin

**= Contract basis price**

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### Common Pricing Strategies

- The "Floating" Price – Spot and Monthly
  - Price floats 100% with the market
    - Subject to high levels of market volatility and no upward price protection.
- The "All or Nothing" Price LOCK
  - May be tiered
    - Price is fixed once and is protected from upward market moves
      - Provides no participation in downward market moves and potential lost opportunity.



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### Floating Price – NYMEX or Gas Daily

- Floats with market
- Does not provide commodity price protection or price certainty
- 100% downside participation
- No quantity limitations
- Priced on NYMEX expiration
  - 3 business days prior to first of the month

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### OTHER OPTIONS

#### A Portfolio Approach

Similar to a balanced investment portfolio, you can create a price portfolio that includes a variety of price structures with different characteristics

- Customers derive the benefits of each type of pricing structure spread over their entire natural gas requirements

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### Fixed Price

- Provides commodity price protection & price certainty
- No downside participation
- May be executed in quantities less than 10,000 MMBtu per month
- Priced anytime prior to NYMEX expiration
  - 3 business days prior to first of the month
- Can be layered in as part of a portfolio

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### Alternative Price Products

- Floats with market
- Provides commodity price protection & price certainty within established limits
- Provides various levels of downside participation
- Must be executed in 10,000 MMBtu increments per month (5,000 minimum – back to back)
- Priced on options (penultimate) expiration day
  - 4 business days prior to first of the month (Day before NYMEX expiration)
- Can be layered in as part of a portfolio

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### Alternative Price Products

- **Ceiling**
  - Provides upside price protection and 100% downside participation
  - Is not "costless" to customer
    - Upfront premium payment required
  - Can be converted to a fixed price at any time up to the NYMEX expiration date
- **Collar**
  - Provides upside price protection with limited downside participation
  - Can be "costless" to customer
    - Protection configuration will determine upfront premium payment required (if any)
  - Can be converted to a fixed price at any time up to the NYMEX expiration date

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### Collar

- **Winter Futures Strip (Nov 07 - Mar 08) @ \$8.16**
- Ceiling \$10.26
- **Current Market \$8.16**
- Floor \$7.49
- If a respective months contract expires:
  - Above \$7.49 but below \$10.26, the customer is priced at market.
  - Above \$10.26, the customer is priced at \$10.26.
  - Below \$7.49, the customer is priced at \$7.49.
- **COSTLESS for customer (in this example).**

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### Ceiling

- **Winter Futures Strip (Nov 07 - Mar 08) @ \$8.16**
- Ceiling \$10.26
- **Current Market \$8.16**
- Floor None
- If a respective months contract expires:
  - Above \$10.26, the customer is priced at \$10.26.
  - Below \$10.26, the customer is priced at market.
- **Management Fee is \$0.58/MMBtu (in this example).**

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### Green Alternatives in Petroleum Products

- Biodiesel
- Bioheat
- E85/ethanol alternatives
- Natural gas vehicle conversion
- Green electric



### Reasons to buy green fuels

- Environmental mandates
- Corporate policy
- Customer preferences
- Product Marketing Advantages
- Tax Incentives
- Reducing Dependency on Foreign Oil



### Standard Contractual Provisions – Natural Gas

- A seller/marketer of natural gas will have several primary concerns that will be included in a standard contract
  - Transaction Procedure/Confirmations
  - Type of Transportation (firm/interruptible)
  - Volume/Price/Nominations/Balancing
  - Payment/Credit/Adequate Assurance
  - Operation Flow Orders
  - Force Majeure
  - Default/Termination



### What are Biofuels

- Biofuels are renewable non-toxic, biodegradable fuels
- The most common feedstock for biofuel is soybean, however, other feedstocks include corn, canola, rapeseed, yellow grease and inedible tallow (greases) can be used to create biofuels
- Biofuels contain no petroleum, but they can be blended at any level with petroleum diesel to create a biodiesel blend for a variety of applications. Biodiesel can be used in its pure form as B100 and it has been commonly used in on-highway diesel engines as B20 (20% biodiesel and 80% diesel). Additionally, a B2 or B5 blend has been successfully blended into #2 heating oil for home heating.



### Standard Contractual Provisions – Petroleum Products

- Transaction Procedure, Confirmations
- Term, volume, price, delivery
- Credit, Adequate Assurance, Default
- Force Majeure
- Warranty (title/specifications only, everything else excluded)
- Title, Risk of Loss, Indemnity, Insurance