February 2012

DATA UPDATES AND EXPECTATIONS FOR ENERGY AND COMMODITIES MARKETS

powered by

Water Dilemma: Conservation or Trading

Commoditization of Water: Straight Ahead to Financial Derivatives?

Mexico to become a new US partner in GHG emissions reduction

The NYSE Euronext and Deutsche Boerse merger is not to be

PJM gets more coverage on CME

GreenX expands California CO2 allowance futures into spreads
The general trend in financial derivatives creates some sort of a universal balance: more products built on natural gas and oil physical assets on the one hand and more data services supporting renewable power generation on the other hand. While Europe, frightened by economic turmoil, bans the merger between the NYSE Euronext and Deutsche Boerse, Asian market makers are looking for larger deals. The technological, social and political choices we make now will affect water quantity and quality in the future. The commoditization of public water supplies is not new. It is happening and it is inevitable. The question we should be seeking an answer for is "How long is it before public exchanges start structuring financial derivatives built on water as an underlying asset?"
Just a few years ago, the U.S. was expected to remain dependent on natural gas and oil imports—forever. Major efforts were directed toward developing more clean and renewable sources of domestic energy. However, with improvement of shale gas and oil extraction technology, the fossil fuels boom is here. Energy independence, which has been a part of the U.S. agenda since Richard Nixon, is getting real traction. To be fair, we still want clean and renewable energy here, but what about serving the immediate needs with internal resources and maybe even turning into an exporter of fossil fuels? And doing so especially in view of all the turmoil in the Middle East and drying out crude reserves in the North Sea.

The changes we have been observing in the data universe reflect exactly this pattern: more financial derivatives built on natural gas and oil physical products, and more data services supporting renewable power generation. This does indeed create some sort of a universal balance.

Representation of natural gas on the CME was expanded with the addition of Last-day futures for Henry Hub. NGX added more pricing points for natural gas transported through the U.S. pipeline system. Petroleum products demonstrated a more impressive increase on CME and ICE platforms, as well as within the Platts data assessment domain.

Wind-powered electricity production is getting more traction, not only in terms of financial assistance from federal and local governments, but also through data providers who develop forecasts in support of wind power production. In the last month, we witnessed introduction of several of them. Thus, MDA EarthSat Weather expanded its coverage of wind generation forecast services by adding AESO to a list of covered regions. MDA’s reports seem to specifically target balancing authorities, the entities which actually have to deal with scheduling, balancing and integrating intermittent resources over large territories. As of now, this list includes ERCOT, MISO, BPA, PJM, CAISO and IESO. MDA is in the process of developing forecasts for German, Irish, British, and Spanish grids.

The addition of the Alberta operator to the suite makes perfect sense given growing wind generation with high variability, as shown in the AESO Wind Generation graph.

Data providers, like MDA, offer a valuable addition to forecasting efforts already performed by system operators. BPA, for example, has been developing its own wind forecast; efforts by the balancing authority proved to be of a high quality as the National Weather Service, after a thorough examination, decided to integrate this forecast into the national-level weather forecast models.

On a larger scale, much of the news from the last month will likely have an impact on market structure. A somewhat surprising decision of the European Commission stopped the merger between the NYSE Euronext and Deutsche Boerse. It has been speculated that economic instability in European Union prevents regulatory authorities from taking on any decision that could potentially jeopardize the normal markets operation. The merger would have created, even though temporary, such a market disturbance.

While Europe is freezing in its tracks, on another side of the continent we see an opposite trend: moving forward and expanding. Hong Kong Exchanges and Clearing Ltd (HKEx), which operates the Hong Kong bourse, remains the busiest one. Last year, this exchange announced its intent to build a joint venture with Chinese Shanghai and Shenzhen bourses. It seemed like HKEx remained unclear for a while in regard to the base for this enterprise, whether it should be equity derivatives and index compilations or futures products with underlying assets in mainland China. Over the last couple months, however, the exchange remained very active. First of all, it tightened ties with the China Financial Futures Exchange. Then it announced plans to boost up spending on infrastructure upgrades to allow expansion into commodities and fixed income areas. Later, there were unconfirmed reports that HKEx was among the bidders for the London Metal Exchange (LME), which does confirm its intention to expand into commodities trading.

If HKEx finally succeeds in its endeavor to move into commodity markets, there will be another player in the currently very small circle of two rivals, CME and ICE. The Hong Kong exchange, the world’s largest based on market capitalization, is most likely to create a serious opposition. This will be a pivotal point not only for HKEx, but also for the emerging Asian market to bypass the present market barriers into new yet critical business lines.

Olga Gorstenko
CME Lists Eight PJM ATSI Zone Electricity Futures

Effective February 12, 2012, CME listed eight OTC PJM ATSI Zone 5 MW swap futures contracts to submit for clearing through CME ClearPort and on the NYMEX trading floor. These contracts are listed with NYMEX, and subject to its rules and regulations which allow transactions to be submitted through CME ClearPort pursuant to the provisions of Exchange Rule 538.

<table>
<thead>
<tr>
<th>CME Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MPD</td>
<td>PJM ATSI Zone 5 MW Peak Calendar-Month Day-Ahead Swap Futures</td>
</tr>
<tr>
<td>MPR</td>
<td>PJM ATSI Zone 5 MW Peak Calendar-Month Real-Time Swap Futures</td>
</tr>
<tr>
<td>MOD</td>
<td>PJM ATSI Zone 5 MW Off-Peak Calendar-Month Day-Ahead Swap Futures</td>
</tr>
<tr>
<td>MOR</td>
<td>PJM ATSI Zone 5 MW Off-Peak Calendar-Month Real-Time Swap Futures</td>
</tr>
<tr>
<td>DPD</td>
<td>PJM ATSI Zone 5 MW Peak Calendar-Day Day-Ahead Swap Futures</td>
</tr>
<tr>
<td>DOR</td>
<td>PJM ATSI Zone 5 MW Off-Peak Calendar-Day Real-Time Swap Futures</td>
</tr>
</tbody>
</table>

CME already trades 5 MW Peak and Off-Peak Electricity Futures contracts in the PJM area, including the AEP Dayton Hub and ComEd Zone, as shown by the following average contract values generated by ZEMA.

For MPD contract specifications click here
For MPR contract specifications click here
For MOD contract specifications click here
For MOR contract specifications click here
For DPD contract specifications click here
For DOR contract specifications click here

MDA Wind Generation Forecast Expanded to Include AESO

On January 12, 2012, MDA EarthSat Weather announced expansion of its wind generation forecast to include AESO. The web-based hourly forecast is developed for up to ten days and already includes ERCOT, MISO, BPA, PJM, CAISO and IESO regions.

In the short-term forecast, MDA uses statistical techniques from wind data and power variations to develop relationships between present wind and future conditions. In the day-ahead and longer term forecasts, this method eliminates model biases, and weights models according to their efficiency, this greatly improves the forecasting accuracy beyond any single model technique. In verifications, correlation coefficients are near 0.9 in the day-ahead market, with mean absolute errors of less than 10% of generation capacity.

BPA Puts New Spin on Wind Data for National Weather Service

The Bonneville Power Administration (BPA) reported that the National Weather Service (NWS) integrated the BPA's wind-related information into NWS's weather models that now incorporate data from satellites, planes, buoys, and other technologies. Every 5 minutes, BPA contributes to wind forecasting efforts in the Northwest by collecting data from the weather station network that stretches from Tillamook, OR, to Walla Walla, WA. This information is very valuable for those involved in weather sensitive projects. These models are used by not only public and private sector meteorologists, but also by wind power generators to predict wind conditions hours and days in advance. These services support the recent BPA initiative to implement intra-hour power scheduling that was introduced to cater to rapidly expanding wind power generation in the region.

A near real-time wind animation map illustrates wind speed and direction for the past 3 hours at BPA-maintained meteorological sites, which cover the states of Oregon and Washington.

BPA-reported wind data can be found here.

An example of typical wind generation variability in the BPA area over four months is shown in the following example.
DOE Provides Detailed Onshore and Offshore Wind Resource Maps

In the last week of January 2012, the Department of Energy’s (DOE) Wind Program published a series of maps showing the annual average wind speed with a detailed view by states. The maps were developed with a goal to learn about speed potential to produce electricity from onshore and offshore wind resources in the United States. The offshore maps depict wind speed detail at 90 meters above the water surface for 26 coastal states and the Great Lakes. The onshore wind resource map, which was first drafted in 1999 and later updated in March 2010, provides a macro view of wind resources and shows wind speed at 80 meters above the ground.

According to the National Renewable Energy Laboratory (NREL), “areas with annual average wind speeds around 6.5 m/s and greater at 80 m height are generally considered to have suitable wind resources for wind development.” Utility-scale wind turbine towers range in height from 60 to 120 m; 18-60 m turbines can be used for community or residential-scale electricity generation.

The decision on investing in wind resources is based primarily on accurate wind forecast data. However, the trade-off between the onshore and offshore resources is directly associated with:

- Initial setup, transmission, and maintenance costs
- Electricity demand
- Other power generating alternatives

The latest onshore wind resource maps can be found [here](#).

The latest offshore wind resource maps can be found [here](#).

Platts Discontinues Some of Belgian and Dutch Electricity Assessments

Effective February 1, 2012, Platts discontinued some of the baseload assessments in the Belgian electricity market:

- weekend (BPWE042)
- week ahead (AAMLW00)
- second month ahead (AAMMC00)
- third month ahead (BPWEM03)
- second quarter ahead (BPWEQ02)
- third year ahead (BPWEY03)

Platts also discontinued the second and third month ahead, and second quarter ahead daily spark spread assessments for Belgium:

- 50% efficiency spark spreads BEFM200, BEFM300, BEFQ200
- 60% efficiency spark spreads BESM200, BESM300, BESQ200
- 50% efficiency clean spark spreads CBFM200, CBFM300, CBQ200
- 60% efficiency clean spark spreads CBSM200, CBSM300, CBSQ200

Continued assessments by Platts for Belgian electricity market include: day ahead, first month ahead and first quarter ahead, along with the associated day ahead, month ahead and quarter ahead spark and clean spark spreads. They will continue to assess the first and second year ahead.

Additionally, Platts no longer assesses the following baseload and peakload assessments in the Dutch electricity market:

- week ahead (AADMJ00 baseload, AADML00 peakload), second month ahead (AADMR00, AADMT00)
- third month ahead (AADMV00, AADMY00)
- third quarter ahead (AAFPT00, AAFPU00)
- fourth quarter ahead (AAFPV00, AAFPW00)
- balance of year (AAFPX00, AAFPY00)
- third year ahead (AAUZK00, AAUZL00)

Subsequently, the following second month ahead daily baseload spark spreads for Netherlands are no longer assessed by Platts:

- 50% efficiency spark spread (DEFM200)
- 60% efficiency spark spread (DESM200)
- 50% efficiency clean spark spread (CDFM200)
- 60% efficiency clean spark spread (CDSM200)

Continued assessments of base load and peak load for Dutch electricity market include: day ahead, weekend, first month ahead, first and second quarter ahead and first year ahead, as well as the associated day ahead, month ahead, quarter ahead, quarter ahead + 1, and year ahead spark and clean spark spreads. They will continue to assess second year ahead baseload and peakload.

The discontinued assessments were last published on European Power Alert on January 31 and in the February 1 edition of European Power Daily.
Argus Launches Additional cfr South China Thermal Coal Price Assessment

On January 6, 2012, Argus launched weekly cfr assessment of 6,000 kcal/kg NAR (Net As Received) coal being delivered to Southern China within 60 days of assessment in Argus Coal Daily International. The new assessment has been introduced in response to an increased demand for a new price reference as China’s economy and trading volume of thermal coal continues to grow. In 2011, China imported around 100 mn tonnes of thermal coal for electricity production.

Argus Coal Daily International maintains daily coal indexes for ARA (Amsterdam), Newcastle (Australia), Richards Bay (Africa) and now South China (Asia). Richards Bay and ARA index is shown here:

APX-ENDEX Introduces TTF Gas Time Spreads

Effective February 1, 2012, APX-ENDEX launched time spreads trading on its Title Transfer Facility (TTF) Gas futures market.

In this case, Time Spread (Calendar Spread) involves the purchase of futures or options expiring in a more distant month and the sale of futures or options in a more nearby month. European Commodity Clearing AG (ECC) clears two underlying transactions, buying and selling, resulting from a spread trade. The TTF Gas time spreads are listed on Trayport Global Vision and are available for all the month, quarter, season and calendar contracts offered by APX-ENDEX.

CME Adds Last Day Physically-Delivered Futures for Henry Hub

Effective February 13, 2012, CME lists Henry Hub Natural Gas Last Day Physically-Delivered Futures with the initial contract month March 2012. The trading venues are Globex, CME ClearPort, and of course the NYMEX Trading Floor. The new product is listed with, and subject to, the rules and regulations of NYMEX.

CME: Singapore Fuel Oil 180 cst vs. 380 cst Spread (Platts) BALMO Swap Futures

The exchange announced that on February 27, 2012, Singapore Fuel Oil BALMO Spread: Singapore Fuel Oil 180 cst vs. 380 cst Spread (Platts) BALMO Swap Futures will be launched, pending relevant CFTC regulatory review. The futures contract is available on CME ClearPort and the NYMEX Trading Floor; the initial trading month is March 2012.

NGX Adds Twelve New U.S. Natural Gas Products

On February 21, 2012, Natural Gas Exchange Inc., NGX, added twelve new U.S. natural gas products listed in Schedule D – NGX Product List. The new products are being offered for trading on the ICE trading system and are developed for the following points:

- Ruby-Malin
- TETCO M1-30
- Transco-Station 30

For the complete list of new products click here

*Graph created with ZEMA
**EEX to Launch OTC Clearing for NBP Gas Futures**

Effective February 29, 2012, the European Energy Exchange AG (EEX) starts offering clearing for bilaterally concluded transactions on the National Balancing Point (NBP). This product expansion covers the biggest European gas hub, which would allow EEX participants to register UK NBP forward transactions conducted off exchange at EEX for clearing and nomination. Furthermore, the new EEX/ECC NBP cleared contract provides additional benefits to the participants by allowing brokers to register transactions and cross margining. Clearing of OTC transactions is provided by European Commodity Clearing AG.

NCG, a similar EEX Near-Month Future contract is shown in the graph below.

![Graph created with ZEMA](ze datawatch)

**Platts to Launch PGA Global Rig Count Report**

Effective March 1, 2012, Platts will launch new pages detailing international oil and gas rig counts from Baker Hughes, which will be published along with the existing North America Rig Counts pages. The new rig count data can be found on the following new page series:

<table>
<thead>
<tr>
<th>New Page</th>
<th>Existing Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0125</td>
<td></td>
<td>Platts Baker Hughes Page Index</td>
</tr>
<tr>
<td>0126</td>
<td>1360</td>
<td>Platts Baker Hughes North American Rig Counts</td>
</tr>
<tr>
<td>0127</td>
<td>1361</td>
<td>Platts Baker Hughes US State Rig Counts</td>
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<tr>
<td>0128</td>
<td>1362</td>
<td>Platts Baker Hughes Canadian Rig Counts</td>
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<tr>
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<td>Platts Baker Hughes Latin America Rig Counts</td>
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<tr>
<td>0130</td>
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<td>Platts Baker Hughes Africa Rig Counts</td>
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<td>0132</td>
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<td>Platts Baker Hughes Asia Pacific Rig Counts</td>
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<td>0133</td>
<td></td>
<td>Platts Baker Hughes Middle East Rig Counts</td>
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<tr>
<td>0134</td>
<td></td>
<td>Platts Baker Hughes OPEC Rig Counts</td>
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</table>
Platts Discontinues Some Mediterranean Freight Assessments

Effective August 1, 2012, Platts will discontinue the following Mediterranean 30 kt freight assessments:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>PFZC110</td>
<td>30kt Med/India lumpsum assessment</td>
</tr>
<tr>
<td>PFZC111</td>
<td>30kt Med/India lumpsum Monthly Average</td>
</tr>
<tr>
<td>TCAE100</td>
<td>30kt Med/India $/mt assessment</td>
</tr>
<tr>
<td>TCAE101</td>
<td>30kt Med/India $/mt monthly assessment</td>
</tr>
<tr>
<td>PFAS600</td>
<td>30kt Black Sea/India lumpsum assessment</td>
</tr>
<tr>
<td>AAAU100</td>
<td>30kt Black Sea/India lumpsum Monthly Average</td>
</tr>
<tr>
<td>TCAE102</td>
<td>30kt Black Sea/India $/mt assessment</td>
</tr>
<tr>
<td>TCAE103</td>
<td>30kt Black Sea/India $/mt Monthly Average</td>
</tr>
<tr>
<td>PFAD110</td>
<td>30kt Med - Japan lumpsum assessment</td>
</tr>
<tr>
<td>PFAD111</td>
<td>30kt Med - Japan lumpsum Monthly Average</td>
</tr>
<tr>
<td>TCAE104</td>
<td>30kt Med - Japan $/mt assessment</td>
</tr>
<tr>
<td>TCAE105</td>
<td>30kt Med - Japan $/mt Monthly Average</td>
</tr>
<tr>
<td>AAU1000</td>
<td>30kt Med/UKC Monthly average</td>
</tr>
<tr>
<td>AAU1001</td>
<td>30kt Med/UKC Daily W3 assessment</td>
</tr>
<tr>
<td>TCAU100</td>
<td>30kt Med/UKC Daily $/mt assessment</td>
</tr>
<tr>
<td>TCAU101</td>
<td>30kt Med/UKC Monthly $/mt assessment</td>
</tr>
<tr>
<td>PFAD100</td>
<td>30kt Med - Singapore lumpsum assessment</td>
</tr>
<tr>
<td>AAAU101</td>
<td>30kt Med - Singapore lumpsum Monthly Average</td>
</tr>
<tr>
<td>TCAE106</td>
<td>30kt Med - Singapore $/mt</td>
</tr>
<tr>
<td>TCAE107</td>
<td>30kt Med - Singapore $/mt Monthly Average</td>
</tr>
<tr>
<td>AAU1020</td>
<td>30kt Med/UKC Jet premium worldscale assessment</td>
</tr>
<tr>
<td>AAU1021</td>
<td>30kt Med/UKC Jet premium $/mt assessment</td>
</tr>
<tr>
<td>TCAU102</td>
<td>30kt Med/UKC Jet premium $/mt Monthly average</td>
</tr>
<tr>
<td>AAU1030</td>
<td>30kt Med/UKC Monthly average</td>
</tr>
<tr>
<td>AAU1031</td>
<td>30kt Med/UKC Monthly $/mt</td>
</tr>
</tbody>
</table>

Discontinuation of Mediterranean to India 30kt, and the Black Sea to India 30kt Clean Tanker freight assessments is largely due to the route being reversed as a result of a large increase in Indian refining capacity.

30kt Med-Japan freight assessments will be discontinued due to Japan’s developments in naphtha imports, resulting in the route being no longer representative of the naphtha flow.

30kt Med/UKC assessments will be discontinued since they no longer reflect oil flows in the market.

30kt Med–Singapore assessments not being representative of the gasoil flow to Asia, since gasoil is now primarily carried on larger vessels, will be eliminated as well.

30kt Jet Fuel premium freight assessments will be discontinued because there is no longer a premium for Jet cargoes compared to clean vessels carrying middle distillates.

Additionally, Platts proposed to discontinue the following Mediterranean to United Kingdom Continent 55kt clean tanker freight assessments:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFAM200</td>
<td>55kt Med - UKC worldscale assessment</td>
</tr>
<tr>
<td>AAAU200</td>
<td>55kt Med - UKC worldscale Monthly Average</td>
</tr>
<tr>
<td>TCA8B00</td>
<td>55kt Med - UKC $/mt</td>
</tr>
<tr>
<td>TCA8B03</td>
<td>55kt Med - UKC $/mt Monthly Average</td>
</tr>
</tbody>
</table>

All of the listed assessments are published in Clean Tankerwire and on Platts Global Alert page 558.

NYMEX Delists Three Contract Months for Singapore Gasoil Sulfur Platts Contracts

Effective January 27, 2012, NYMEX delisted contract months beyond December 2012 contract for the following three contracts:

<table>
<thead>
<tr>
<th>CME Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SZY</td>
<td>Singapore Gasoil 0.05% Sulfur (Platts) Swap Futures</td>
</tr>
<tr>
<td>SZZ</td>
<td>Singapore Gasoil 0.05% vs. 0.5% Sulfur Spread (Platts) Swap Futures</td>
</tr>
<tr>
<td>S51</td>
<td>Singapore Gasoil 0.05% Sulfur (Platts) BALMO Swap Futures</td>
</tr>
</tbody>
</table>

These contracts are currently available for trading on the NYMEX trading floor and are submitted for clearance through CME ClearPort. Platts is a final settlement index provider for the three contracts and, effective January 2, 2013, will lower specification of Singapore Gasoil from 0.5% (5,000 ppm) to 0.05% (500 ppm) sulfur content. Subsequently, NYMEX will modify specifications for the already offered Singapore Gasoil 0.5% outright (chapter 669, commodity code SG) and BALMO (chapter 496, commodity code VU). The spread contract, Singapore Gasoil 0.05% vs 0.5% Sulfur Spread (Platts) Swap Futures (SZZ), will be eliminated as a result.

OPIS Partners with PortStorage Group to Create World’s Largest Tank Storage Database

On January 25, 2012, Oil Price Information Service (OPIS) announced its partnership with PortStorage, an international provider of independent and commercial petroleum tank storage facility information. The new coalition creates the world’s largest tank storage database.

TankTerminals.com, a joint product of PortStorage and OPIS, delivers up-to-date international terminal information for those looking for storage and transhipment of crude, petroleum products, liquid chemicals, etc, and for those who service tank terminal companies. The searchable TankTerminals.com provides information about the name/location of the facility, contact details for key personnel, tank storage capacity, tank range, tank types, the types of cargo that can be stored, as well as details on waterfront terminals. Integrated with Google Maps, TankTerminals.com is capable of showing any of these terminals from an elevated position in a map and satellite view.

CME: Expansion of Contract Months for Heating Oil-Based Options

On January 25, 2012, CME announced expansion of eight heating oil-based option contracts listed on CME ClearPort and NYMEX for trade date Monday, February 13, 2012, as follows:

<table>
<thead>
<tr>
<th>CME Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH</td>
<td>Heating Oil Option</td>
</tr>
<tr>
<td>CH</td>
<td>Heating Oil Crack Spread Option</td>
</tr>
<tr>
<td>FA</td>
<td>Heating Oil 1-Month Calendar Spread Option</td>
</tr>
<tr>
<td>LB</td>
<td>Heating Oil Look-Alike Option</td>
</tr>
<tr>
<td>AT</td>
<td>Heating Oil Average Price Option</td>
</tr>
<tr>
<td>SW</td>
<td>Heating Oil Crack Spread Average Price Option</td>
</tr>
<tr>
<td>FB</td>
<td>Heating Oil 2-Month Calendar Spread Option</td>
</tr>
<tr>
<td>FC</td>
<td>Heating Oil 3-Month Calendar Spread Option</td>
</tr>
</tbody>
</table>

Also, listed on CME Globex

The new listing schedule would go through April 2013, pending regulatory approvals.
CME Expands Contract Months for Argus/McCloskey Coal Contracts

Effective February 13, 2012, CME expanded listing of coal contracts by introducing four Argus/McCloskey financially settled products. The current listing schedule of current year plus the next two years is being replaced with the new schedule of current year plus the next four years.

<table>
<thead>
<tr>
<th>CME Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTF</td>
<td>Coal (API2) cif ARA (Argus/McCloskey) Swap Futures</td>
</tr>
<tr>
<td>MTO</td>
<td>Coal (API 2) cif ARA (Argus/McCloskey) Option</td>
</tr>
<tr>
<td>MFF</td>
<td>Coal (API 4) fob Richards Bay (Argus/McCloskey) Swap Futures</td>
</tr>
<tr>
<td>MFO</td>
<td>Coal (API 4) fob Richards Bay (Argus/McCloskey) Option</td>
</tr>
</tbody>
</table>

For MTF contract specifications click here  
For MTO contract specifications click here  
For MFF contract specifications click here  
For MFO contract specifications click here

Additional Calendar Spread Listing for ICE TAS Crude & Refined Markets

Effective January 13, 2012, ICE increased the number of ICE Trade-At-Settlement (TAS) calendar spreads available for trading in crude and refined markets by including a spread between the first and third contract month of the curve. Before, calendar spread for ICE TAS Crude and Refined Markets were listed between the first and second contract months as well as the second and third contract months. This change will affect the following TAS markets:

- ICE Brent Crude Futures
- ICE Brent NX Futures
- ICE Gasoil Futures
- ICE LS Gasoil Futures
- ICE WTI Gasoil Futures

Current ICE Gasoil and Low Sulfur Gasoil Future Settlement prices are shown in the following graph generated by ZEMA.

APX-ENDEX Revises APX Gas NL Indexes

Effective January 16, 2012, APX-ENDEX changed its methodology and process for calculating the spot gas indexes on its Gas NL (TTF) market.

The new indexes are published on a daily basis to reflect the changes to the market model and balancing regime in the Netherlands. The modified product suite aims to increase the liquidity. The changes are described below.

- The APX Gas TTF WDBM Within-Day Index is renamed the APX TTF Within-Day Index. The index is a volume-weighted average price of all orders that are executed and delivered on the same gas day.
- The APX Gas TTF DAM All-Day Index is renamed the APX TTF Day-Ahead Index and consists of two indexes: the APX TTF Next-Day Index for next-day delivery on weekdays, and APX TTF Weekend Index for delivery on Saturday and Sunday. Both are volume-weighted average prices of all orders which are executed for delivery on the next gas day.

Both indexes are published at the end of each business day at 17:30 CET and again at the end of each gas day at 06:30 CET.

Amendments to Listing Schedule of Daily and Weekly Brent CFD (Platts) Spreads

Effective February 13, 2012, and pending all relevant CFTC regulatory review periods, (NYMEX) will amend the listing schedule for the daily and weekly Brent CFD (Platts) spread contracts below. The amendments are a result of changes by Platts, the final settlement index provider, to the publication schedule for the first month cash Brent crude oil price assessment.

<table>
<thead>
<tr>
<th>CME Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1C</td>
<td>Brent CFD (Platts) vs. Brent Front Month (Platts) Swap Futures</td>
</tr>
<tr>
<td>CFA</td>
<td>Brent CFD (Platts) vs. Brent Front Month (Platts) Weekly Swap Futures</td>
</tr>
</tbody>
</table>

Contract “1C” will be amended from “daily contracts for three consecutive months” to “daily contracts listed for the current and next two consecutive calendar months, except where such a day is later than the day that is 25 calendar days prior to the first day of the following calendar month.”

Contract “CFA” will be amended from “the current calendar week and the next eight consecutive calendar weeks excluding weeks that have a Monday which is the 16th of the month or later”, to “weekly contracts listed for the current calendar week and the next eight consecutive calendar weeks, excluding weeks where (i) the last business day of the week is later than the day that is 25 calendar days prior to the first day of the following calendar month, or (ii) the Monday and the last business day of the week fall in different calendar months.”

For 1C contract specifications click here  
For CFA contract specifications click here

*Graph created with ZEMA
CME Expands OTC Agricultural Swaps

Effective February 13, 2012, CME announced eight additions to the OTC agricultural swaps line-up through CME ClearPort, pending regulatory approval. The new additions are:

- Bullet (European-style) swaps on corn, wheat, soybeans, soybean oil and soybean meal
- Additional Calendar (Asian-style) swaps on soybean oil, soybean meal and soybean board crush

Agriculture, Forestry and Metal Markets

The table below shows the complete products suite:

<table>
<thead>
<tr>
<th>Product</th>
<th>Calendar (Asian-style) Swaps</th>
<th>Bullet (European-style) Swaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>Already Available</td>
<td>New</td>
</tr>
<tr>
<td>Wheat</td>
<td>Already Available</td>
<td>New</td>
</tr>
<tr>
<td>Soybeans</td>
<td>Already Available</td>
<td>New</td>
</tr>
<tr>
<td>Soybean Meal</td>
<td>New</td>
<td>New</td>
</tr>
<tr>
<td>Soybean Oil</td>
<td>New</td>
<td>New</td>
</tr>
<tr>
<td>Soybean Board Crush</td>
<td>Not Available</td>
<td>New</td>
</tr>
</tbody>
</table>

London Metal Exchange Launches LMEswaps

Effective January 23, 2012, the London Metal Exchange (LME) started trading LMEswaps for all of its non-ferrous metals on LMEselect and the 24-hour telephone market. These financially settled contracts are first of this type in the world. In a swap, the difference between the fixed price and the floating Monthly Average Settlement Price is settled financially at the end of the averaging month. New products allow “LMEswap users [to] benefit from a regulated market with the same counterparty default risk protection offered by other LME contracts,” according to Chris Evans, Head of Business Development at the LME.

Swaps are developed for different types of metals:

- For Aluminium LMEswap contract specifications click here
- For Aluminium Alloy LMEswap contract specifications click here
- For NASAAC LMEswap contract specifications click here
- For Copper LMEswap contract specifications click here
- For Nickel LMEswap contract specifications click here
- For Lead LMEswap contract specifications click here
- For Tin LMEswap contract specifications click here
- For Zinc LMEswap contract specifications click here

SMX Introduces SMCOPPERCH Spread Contracts

On February 13, 2012, SMX started trading SMCOPPERCH Spread contracts. The contract is cash-settled and has Grade 1 Copper as an underlying asset.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Contract Expiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMCOPPERCHNK</td>
<td>New Month March 2012</td>
<td>02/29/2013</td>
</tr>
<tr>
<td>SMCOPPERCHNK</td>
<td>Far Month May 2012</td>
<td>04/30/2012</td>
</tr>
<tr>
<td>SMCOPPERCHMN</td>
<td>New Month May 2012</td>
<td>04/30/2012</td>
</tr>
<tr>
<td>SMCOPPERCHMN</td>
<td>Far Month July 2012</td>
<td>07/31/2013</td>
</tr>
</tbody>
</table>

SMX Introduces SMCOPPERCH Spread Contracts

On February 13, 2012, SMX started trading SMCOPPERCH Spread contracts. The contract is cash-settled and has Grade 1 Copper as an underlying asset.

ICE to List Three New Weekly Agriculture Options

Effective February 6, 2012, Sugar No. 11, Cotton No. 2 and Coffee “C” future contracts are available for trading via ICE Futures U.S. ICE already offers monthly option contracts for these commodities. The new weekly option contracts share most of the contract terms of the existing monthly option contracts; however, they expire on a different date than the monthly options, providing an expiration on each Friday that is not already the expiration date for a monthly option on the relevant futures contracts.

For more information on Weekly Sugar No. 11 Options click here
For more information on Weekly Cotton No. 2 Options click here
For more information on Weekly Coffee “C” Options click here

MGEX Changes Conditions of Hard Red Spring Wheat Contract

On January 19, 2012, Minneapolis Grain Exchange (MGEX) received regulatory approval from CFTC for changes to Hard Red Spring Wheat (HRSW) contract. Revisions to the contract specifications include addition of a deoxynivalenol (vomitoxin) specification of 2.0 parts per million (ppm) maximum for spring wheat delivery of the HRSW contract, effective with the May 2013 contract month. Another change is increase in storage rate for spring wheat delivery from the current $0.05 per bushel per month to $0.07 per bushel per month, effective with the May 2013 contract month.

The most significant change is removal of the US origin conditions from the contract effective September 2012 contract month. This revision allows international participants to deliver spring wheat in satisfaction of open MGEX HRSW futures positions.

For contract specifications click here

ZCE Released New Rules & Regulations on Wheat Future Contracts

On January 9, 2012, Zhengzhou Commodity Exchange (ZCE) released new rules and regulations on wheat future contracts and its associated business. The announcement came out after China Securities Regulatory Commission’s approval of the modifications to future contracts on Hard White Wheat (WT) and Strong Glutinous Wheat (WS). The new modifications widened the deliverable grades, and increased the amount of wheat available for delivery.

Although China is the world’s largest wheat producer (117.92 Million Metric Tons, MMT), the country is also one of the top wheat importers as it needs to keep up with massive demand (113.95 MMT). Also, variability in production and quality control allows China to export a small quantity of wheat to neighboring Asian countries. To hedge against any unforeseen climate change or supply disruption, China tries to keep its stocks high. It is estimated that China will have the world’s largest stocks in 2012 as well (65.01 MMT).
GreenX Introduces Spread for California CO2 Allowance Futures

On February 13, 2012, GreenX introduced calendar spread functionality for trading in California Carbon Allowance Futures. Spread functionality will be available on CME Globex® and through CME ClearPort®. Contract months are December 2012 - December 2014.

<table>
<thead>
<tr>
<th>CME Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCA</td>
<td>California Carbon Allowance (CCA) Futures</td>
</tr>
</tbody>
</table>

NOAA to Boost North American Storm Forecasting

On January 12, 2012, National Oceanic and Atmospheric Administration announced plans to send its Gulfstream IV-SP (G-IV) aircraft over the north Pacific Ocean to collect data during February and March of 2012. The collected data will be used to improve winter storm forecasts for all of North America.

The aircraft is equipped with special sensors that gather data on wind speed and direction, pressure, temperature and humidity so that NOAA meteorologists can assess the location and intensity of high winds, destructive surf conditions, severe weather and flooding rainfall caused by winter storms. Improved weather forecasts benefit many parties, including emergency managers, air carriers, utility companies and others, by minimizing the risk and economic impact of undesirable conditions.

Captain Barry Choy, Chief Science Officer (National Centers for Environmental Prediction, NCEP) believes that this data "have proven to significantly enhance four-to-seven day winter weather forecasts."

NOAA provides a wide set of publicly available weather data. Below is an example of NOAA’s weather condition data— atmospheric pressure at sea level, and visibility data in South California.

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EEX Executes Second Lithuanian EUA Auction

On January 26, 2012, European Energy Exchange (EEX) executed the second primary market auction of EU Emission Allowances (EUA) on behalf of Lithuanian government in accordance with an agreement signed by the Ministry of Environment of the Republic of Lithuania and EEX on 28 November, 2011. The auction took place on the Spot Market of EEX.

The participants bid more than 7-fold the auctioned volume (the auction volume of 850,000 EUA was sold versus the total bidding amount of 6,089,000 EUA).

The third auction for Lithuania is already scheduled by EEX for March 15, 2012.

AccuWeather.com Expanded Its Weather Content

On January 24, 2012, AccuWeather.com introduced its newly-designed website and expanded its weather content. The new data set includes current weather conditions as well as hourly, weekly, 15-day forecasts, and historical data in 16 languages for all global locations.

Jim Andrews, Senior Meteorologist at AccuWeather.com said, "From Japan to Africa, the world has seen a year of earthquakes, tsunamis, hurricanes, droughts and floods that have made the weather even more relevant to us all.” Not only does the redesigned website present more content by offering satellite imagery and animated radars from Bing™, it also improves user accessibility by providing a localized global weather forecast for every user.

One of the data sets already offered by AccuWeather is current 15-Day Snow Forecast for Berlin as shown in the following example.
Mexico’s Congress Looks to Pass Climate Change Law

On January 19, 2012, Mexico and the United States signed a Memorandum of Understanding to cooperate on emission reductions. Following in the United States’ footsteps in building the “green economy,” Mexico’s Congress is preparing to pass climate change law this spring. The Congress seeks to curb climate change with what would be the country’s first comprehensive law.

The “General Law on Climate Change” already passed Mexico’s Senate in early December, but now the Chamber of Deputies must OK the bill before it becomes law this spring. The bill is set to “favor the transition towards a competitive, sustainable economy with low carbon emissions, consequently generating environmental, social, and economic benefits.” The Senate-passed legislation aims to establish an emissions market that can include international transactions between Mexico and any countries with which it makes emissions trading agreements. Also, there are requirements for mandatory emissions reporting and the creation of a public emissions registry in the bill.

The world will be watching Mexico to see whether this bill is about reducing emissions and stabilizing the climate or toward furthering the market and building new financial instruments out of environmental concerns. Certainly, the Chamber of Deputies will answer all the questions through any modifications they make to the bill before it is okayed, if it is okayed at all.

*Graph created with ZEMA*
CME: New S&P Real-Time Indexes

Effective at the listed dates below, CME Group will begin disseminating the new indexes as detailed.

<table>
<thead>
<tr>
<th>Index Name</th>
<th>Tag-SS Symbol</th>
<th>Dissemination Times</th>
<th>Fee Liable</th>
<th>Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective Monday, January 30, 2012</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>S&amp;P Asia Commodity Producers Oil, Gas and Coal Index HKD Net TR</td>
<td>SPACPOHN</td>
<td>17:00 - 4:15 CST</td>
<td>XF</td>
<td>HKD</td>
</tr>
<tr>
<td>S&amp;P Pan Asia Select Dividend Opportunities HKD NTR</td>
<td>SPADONHN</td>
<td>17:00 - 4:15 CST</td>
<td>XF</td>
<td>HKD</td>
</tr>
<tr>
<td>S&amp;P Asia Commodity Producers Agribusiness Index HKD Net TR</td>
<td>SPACPAHN</td>
<td>17:00 - 4:15 CST</td>
<td>XF</td>
<td>HKD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Index Name</th>
<th>Tag-SS Symbol</th>
<th>Dissemination Times</th>
<th>Fee Liable</th>
<th>Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective Monday, February 3, 2012</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P AAMI Emerging Markets High Beta Index</td>
<td>SPAMHBH</td>
<td>18:00 - 16:30 CST</td>
<td>XF</td>
<td>USD</td>
</tr>
<tr>
<td>S&amp;P BMI International Developed High Beta Index</td>
<td>SPIDHBI</td>
<td>18:00 - 16:30 CST</td>
<td>XF</td>
<td>USD</td>
</tr>
</tbody>
</table>

CBOE Launches Emerging Markets ETF Volatility Index Options

On January 31, 2012, Chicago Board Options Exchange (CBOE) began to offer trading options on the CBOE Emergency Markets ETF Volatility Index (VXEEM) which is based on CBOE’s proprietary Volatility Index (VIX) methodology. The aim is to create indexes reflecting expected volatility of options on desired exchange-traded funds. Investors can now use the newly introduced product to make direct play on emerging markets’ volatility or hedge emerging markets volatility exposure.

Calculated and disseminated by CBOE since March 2011, VXEEM is one in a series of Exchange Traded Fund volatility benchmarks created by CBOE.

For more information please click here

Another example of a CBOE volatility benchmark is the Emerging Market ETF Volatility Index Futures shown here.

Barchart Expands its Market Data with New Content

On January 10, 2012, Barchart.com announced the availability of new data and information content about market activities, including exchange data feeds, fundamental data sources and news providers. New and expanded content includes:

- Interest rate data: US, Canadian and European interest rate data such as treasury, corporate and mortgage rates,
- Economic data: US, Canadian and European macroeconomic data such as GDP, economy growth rates, inflation rates and housing market indicators,
- Exchange market data feeds: Toronto Stock Exchange (TSX and TSX-V), Montreal Exchange (MX), US equity options (OPRA), London Metals Exchange (LME), Eurex, Euronext LIFFE, Australia Stock Exchange (ASX) and BM&F Bovespa,
- Expanded mutual fund data sets: Canadian mutual fund profiles, strategy descriptions, top holdings and asset allocation details,
- Equity fundamental data: US and Canadian public company detailed profiles, financial statements and ratios, earnings estimates and analyst recommendations;

Growing into both equity and international markets, Barchart aims to serve more clients across multiple markets and regions by expanding its market data and information business with new content.

CME Discontinues S&P Real-Time Indexes

Effective February 3, 2012, at the close of business, the following S&P Index were discontinued.

<table>
<thead>
<tr>
<th>Index Name</th>
<th>Tag-SS Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Custom/Primasia Semi50 Index (TWD) (TR)</td>
<td>SEMISONTW</td>
</tr>
<tr>
<td>S&amp;P Custom/Primasia Semi50 Index (TR)</td>
<td>SEMISUSD</td>
</tr>
<tr>
<td>S&amp;P Custom/Primasia Semi50 Index</td>
<td>PASSOUS</td>
</tr>
<tr>
<td>S&amp;P Custom/Primasia Semi50 Index (TWD)</td>
<td>PASSOUTW</td>
</tr>
</tbody>
</table>
The Contract Day Transaction of Nikkei-TOCOM Commodity Index Futures to Be Terminated

On February 29, 2012, the Tokyo Commodity Exchange will stop publishing the Contract Day Transaction of Nikkei-TOCOM Commodity Index Futures at the end of the Day Session, 15:30, according to the TOCOM’s website notice.

The trading has been executed via Computerized Individual Auction since March 23, 2010 under TOCOM NEXT: Nikkei-TOCOM Commodity Index Market (Trial listing), which covered two types of trading: Index Futures Transaction (Cash-settled against the Index) and Contract Day Transaction without expiry dates. All remaining positions are automatically closed as they are cash-settled against the Settlement Index Point based on the underlying Index point. Retaining any position after the termination of the Contact Date Transaction of Nikkei-TOCOM commodity Index Futures will not be possible.

SMX Discontinues SMEURUSD Roll Contracts

Effective February 14, 2012, Singapore Mercantile Exchange (SMX) stopped trading SMEURUSD (EUR-USD) Roll contracts. The discontinuation of SMEURUSD Roll Contracts (Circular Number: SMX/033/2012) is an amendment to the schedule of contracts contained in the Exchange Circular SMX/017/2011.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Contract Start Date</th>
<th>Contract Expiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEURUSDHM</td>
<td>Near Month March 2012</td>
<td>02/14/2012</td>
<td>03/19/2012</td>
</tr>
<tr>
<td></td>
<td>Far Month June 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEURUSDIM</td>
<td>Near Month April 2012</td>
<td>03/20/2012</td>
<td>04/16/2012</td>
</tr>
<tr>
<td></td>
<td>Far Month June 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEURUSDKM</td>
<td>Near Month May 2012</td>
<td>04/17/2012</td>
<td>05/14/2012</td>
</tr>
<tr>
<td></td>
<td>Far Month June 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEURUSDMU</td>
<td>Near Month June 2012</td>
<td>05/15/2012</td>
<td>06/18/2012</td>
</tr>
<tr>
<td></td>
<td>Far Month Sep 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEURUSDNU</td>
<td>Near Month July 2012</td>
<td>06/19/2012</td>
<td>06/16/2012</td>
</tr>
<tr>
<td></td>
<td>Far Month Sep 2012</td>
<td></td>
<td></td>
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</tbody>
</table>

Annual Spring Energy Conference for Analysts and Traders

March 29, 2012 | Chicago, IL

Power Market Outlook & Tools to Use

Guest Speaker:
Aiman El-Ramly
Senior Vice President, Strategy and Business Development
ZE PowerGroup Inc
European Commission Prohibits the Merger Between NYSE Euronext with Deutsche Boerse

On February 1, 2012, the European Commission announced that it is prohibiting the planned merger between Deutsche Börse AG and NYSE Euronext, a $7.4 billion merger that would have yielded the world's largest stock exchange operator. The Commission explained that its decision was based on the definition of the market for derivatives trading. According to the regulator, the merger would not be legal under competition law. The European Commission made its decision after approval had been granted by other regulatory bodies, including Bundesamt für Finanzdienstleistungsaufsicht (Germany), the Commission de Surveillance du Secteur Financier (Luxembourg), the Committee on Foreign Investment (USA), as well as the Securities and Exchange Commission.

Both parties of the failed merger attempt were disappointed with the news and referred to the past merger between CME and CBOT that resulted in the largest globally operated derivatives exchange. Reto Francioni, CEO of Deutsche Börse AG, stated: “Prohibiting the planned merger prevents the creation of a European-based, globally competitive exchange group. The merged exchange group would have been the ideal partner to European regulators when it came to providing support in establishing standardized, transparent and stable markets in Europe and worldwide.”

NYSE Euronext stated that despite the decision by the European Commission to prohibit the merger between NYSE Euronext with Deutsche Boerse, the exchange plans to focus on smaller deals and retaining capital to its shareholders. Duncan Niederauer, chief executive of NYSE Euronext, said “I would not expect us, nor anyone else in the industry, to do a mega-merger any time soon […] I think everyone is going to kind of take a pause and reassess the landscape.”

MCX Signs a MoU with the All India Glass Manufacturers' Federation

On January 9, 2012, Multi Commodity Exchange of India (MCX) and The All India Glass Manufacturers’ Federation (AIGMF) signed a Memorandum of Understanding (MoU) for market development in the energy futures segment. Being the third largest exchange in crude oil with respect to the number of futures contracts traded, MCX aims to strengthen its ties with India’s sole representative body of glass industry, which consumes by-products of crude oil as an energy source in its glass melting furnaces. AIGMF would be able to hedge its crude oil price exposure more efficiently by way of staff training and commodity awareness programs offered by MCX’s platform.

MCX has strategic alliances with various international and Indian exchanges, trade associations and education institutions.

HKEx and CFFEX Sign MOU

On January 11, 2012, Hong Kong Exchanges and Clearing Limited (HKEx) and China Financial Futures Exchange (CFFEX) signed a MOU on the exchange of information and cooperation. According to HKEx CEO, Charles Li, “CFFEX is at the forefront of the Mainland’s financial development and HKEx, as an international exchange, is playing a leading role in China’s economic development.” MOU is aimed to strengthen cooperation between the two exchanges while ensuring they work together towards a common goal.

HKEx and Kazakhstan’s Eurasian Trading System Commodity Exchanges ETS signed a MOU on cooperation and information exchange back in October 2011, but this is the first time that CFFEX signed such agreement with another exchange.

Indian House Panel Recommends Entry of Banks in Commodity Exchanges

On January 05, 2012, the Indian Parliamentary Standing Committee on Consumers’ Affairs, Food and Public Distribution, gave the green light to banks and other Indian financial institutions for trade in commodity exchanges in an effort to highlight the need for large local players to enter the commodity futures. By allowing only local banks and other financial institutions to participate in spot and future trade, the committee aims to protect the regional players in the commodity derivatives against fierce competition from the global market. In addition, this committee recommended an investigatory agency under the aegis of the Forward Markets Commission (FMC) to watch irregularities on the exchange platform and punish violators. The emphasis of the committee is to strengthen FMC with powers in line with the Securities and Exchange Board of India (SEBI), thereby, maintaining a stable and efficient market by creating and enforcing regulations in the marketplace. However, it would be interesting to see the Indian commodities and commodity derivatives get the international recognition as a result of such investment in the local players.
Argus Expands US Natural Gas Coverage

Argus has launched a daily and bid week price index for TGP Zone 4 (TGP Z4) Marcellus as part of its Argus Natural Gas Americas market service.

Shale gas is transforming the US generation fuel market. Production from shale formations is projected to reach 60pc of the country’s total gas supply by 2035, double its share compared with conventional sources in 2010.

The surge of gas production from the Marcellus shale in Pennsylvania in particular has resulted in increased liquidity and price fluctuations in zone 4 of Tennessee Gas Pipeline (TGP).

This trend is likely to continue, as the Marcellus shale will be one of the most prolific plays. Whether the gas remains in the US or is exported as LNG, hub pricing dynamics are changing fast.

Argus Natural Gas Americas now calculates two separate daily and bid week indexes for TGP Zone 4:

- TGP zone 4 Ohio
- TGP Zone 4 Marcellus (station 315 to 321 inclusive)

If you would like to learn more about Argus’ expanded natural gas coverage, request a complimentary trial to Argus Natural Gas Americas at moreinfo@argusmedia.com

*This index was launched in December 2011 and was submitted by Argus Media for inclusion in the DataWatch December issue.

Argus Introduces Forward Curves Through ZEMA

Houston, 21 February 2012

Global energy price reporting agency Argus has introduced North American electricity and natural gas forward curves through ZE PowerGroup Inc (ZE). ZE is the developer of ZEMA Suite, a sophisticated Enterprise Data Management and Analysis solution built to meet the specific challenges of energy and commodity market participants.

Argus’ new suite of services cover: North American Natural Gas Forward Curves, North American Electricity Forward Curves, Electricity/Natural Gas Correlation Curves and Electricity Forward Heat Rate Curves. The new services provide a minimum of seven years forward monthly values for all major natural gas and electricity markets across North America.

“We are delighted to have ZE as a vendor partner for Argus forward curves services,” Argus Media chairman and chief executive Adrian Binks said. “Argus’ new forward curves provide an authoritative and independent source of valuation for electricity and natural gas markets across North America. We believe these services will offer ZE’s customers a definitive risk management tool to support investment and trading decisions.”

Argus forward curves are a useful tool for all energy trading functions, including the front, mid and back office. They can also be used to support investment decisions. Forward curves can be used in mark-to-market accounting as well as in numerous analytical applications such as value-at-risk, potential future exposure, regressions and scenario analyses.

Argus uses data from multiple market sources to produce curves for liquid locations and forward terms. Argus uses completed transactions and market bid-offer spreads to assess price at liquid points. Statistical techniques using time and locational spreads are employed to determine value at illiquid locations.

Argus forward curve methodologies are available online at: http://www.argusmedia.com/Methodology-and-Reference

Request more information or contact: Gabriela Alcocer from Argus, phone: +1 713.968.0000, email: gabriela.alcocer@argusmedia.com; Bruce Colquhoun from ZE PowerGroup, phone: +1 604 790 3299, email: Bruce.C@ze.com

About Argus

Argus Media is a leading provider of price assessments, business intelligence and market data on the global crude, oil products, natural gas, electricity, coal, emissions, bioenergy, fertilizer and transportation industries. It is headquartered in London and has offices in Houston, Washington, New York, Portland, Calgary, Johannesburg, Dubai, Singapore, Tokyo, Beijing, Sydney, Moscow, Astana, Kiev, Santiago and other key centers of the energy industry. Argus was founded in 1970 and is a privately held UK-registered company. Learn more at www.argusmedia.com

About ZE PowerGroup Inc.

ZE is an experienced software and strategic consulting firm that combines energy industry expertise with advanced software development capability. The company possesses deep industry knowledge and comprehensive operational experience. ZE is the developer of ZEMA Suite, a sophisticated Enterprise Data Management and Analysis solution built to meet the specific challenges of energy and commodity market participants.

OTC Global Holdings Launches Power Forward Curves Powered by EOXLive

OTC Global Holdings LP (OTCGH) is excited to announce the release of its latest data services product: Power Forward Curves powered by EOXLive. Built from the deep liquidity of the OTCGH family of brokerages, this product provides some of the most comprehensive power data in the industry. Covering on and off peak pricing for 30 locations with a forward monthly granularity out 84 months, the depth and breadth of the curve data offers much needed price discovery to front offices as well as reliability to middle and back offices. Risk Managers and front offices looking for assistance with valuations will find no other product of this quality at such a competitive price.

In addition to Power Forward Curves, OTCGH also provides daily forward curve prices for natural gas basis contracts with 84 months of monthly granularity across 72 basis locations as well as Natural Gas Implied Volatilities. The gas forward curves and implied vols have been well received by customers familiar with the high quality data that OTCGH can provide at an extremely competitive price. OTCGH’s curves product line is continually evolving to meet market needs. If you are interested in a free 30-day trial of any of our products, please contact: Jeff Shipp or Lisa Causarano today at marketing@eoxlive.com, or visit us online at www.eoxlive.com.
Platts Expands Coverage of European Oil Forward Curves

Platts has significantly expanded its price coverage of Europe’s over-the-counter oil derivatives markets by extending more than 40 forward curves published on Platts Forward Curve (PFC) Oil Europe. Platts is now publishing assessments for a total of 36 months, 12 calendar quarters and three calendar years for some refined products swaps, and a total of 24 months, eight calendar quarters and two calendar years for many others. Previously, many of the refined products forward price curves assessed six forward months.

The expansion means that Platts has added more than 1,100 new data points to the PFC-Oil series. The whole PFC-Oil series, which included forward price curves for the Asian, European and US oil markets, now carries more than 2,300 data points.

Forward price curves are required by all companies with exposure to commodity prices, including companies spanning the energy industry — producers, marketers and traders and major energy consumers. Forward price curves are necessary to value contractual assets and liabilities, measure profit and loss resulting from changes in market prices and achieve high standards in enterprise risk management.

Platts Forward Curve (PFC) Oil Europe carries swaps assessments for fuel oil, middle distillates, gasoline and naphtha, as well as crude oil and crack spreads.

For more information Platts Forward Curve please visit http://www.platts.com/Products/forwardcurveoil/Oil/RiskManager/PricingIndices

Platts Expands Risk Management Data Services with Platts Valuation Hub Launch

Customized Derivative and Asset Valuation and Risk Consulting Services for Energy

Platts has recently expanded its products and services to include Platts Valuation Hub, a one-stop solution for customized derivative and asset valuations and risk management consulting services for energy market participants.

Platts Valuation Hub uses Platts’ oil, natural gas, power, coal, nuclear, petrochemicals and metals market data to provide customized reports and services. It produces valuations for portfolios and individual over-the-counter and exchange traded instruments such as swaps, options, combination and complex instruments and structured products. It also provides valuations for commodity-based assets, including oil and natural gas reserves and contracts and supply and power purchase agreements, among others.

Platts Valuation Hub methodologies are consistent with International Financial Reporting Standards and U.S. General Accepted Accounting Principles for fair value reporting requirements and financial model compliance under the U.S. Dodd-Frank legislation.
All valuations are generated in easy-to-read reports with clear descriptions of employed methodologies and full documentation required for fair value accounting entries, financial statement disclosures, and regulatory reporting requirements.

Through its risk management data services, Platts provides clients with a full and independent view of forward price assessments for natural gas, power, oil, and coal in regions around the world. In addition to more than 200 forward curve price assessments daily, Platts publishes more than 9,500 benchmark price assessments, references, and indexes in energy, petrochemicals, and metals on a daily basis.

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- **Rusty Braziel**, President, *RBN Energy*
- **Dan Brummer**, Vice President, Business Development, *Allegro*
- **Lisa Causarano**, Director, Electronic and Market Data Sales, *EOXLive/OTC Global Holdings*
- **Paul Copello**, President, *IIR Energy*
- **Euan Craik**, CEO, *Argus Media*
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- **Aiman El-Ramly**, Senior Vice President, Strategy & Business Development, *ZE PowerGroup*
- **Waleed El-Ramly**, COO, *ZE PowerGroup*
- **Manal El-Ramly**, Director, Global Markets, *ZE PowerGroup*
- **Mason Ender**, Account Executive, *Bentek Energy*
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- **Larry Heitkemper**, Director, Weather Marketing, *MDA Earthsat*
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Water Dilemma: Conservation or Trading

Commoditization of Water: Straight Ahead to Financial Derivatives?

By Olga Gorstenko

The issue of water availability (insufficient amounts to serve the growing population and industrial development) and quality (contamination from different sources) has been a popular topic in the media for a while and is not shocking anyone any more. Yet, changes in precipitation patterns leading to redistribution of water reserves remain at the top of the list of environmental concerns. Moreover, the increasing production of fossil fuels in North America is putting more stress on water availability due to the massive amounts of water needed for energy production.

There are different approaches and ways to deal with the impending scarcity of water, and those are conservation, recycling, or making water a tradable commodity and letting market forces decide. The ongoing argument about privatization of what is considered to be a “common good” adds political and philosophical flavor to the subject. Nevertheless, water trading is more common than we realize.

Water Shortage: More Population, More Energy

As might be guessed, Africa and Asia are on the forefront of this quandary. China, with more than 20% of the world population, has less than 10% of the world water reserves, which, in large parts, are contaminated with industrial toxins, pesticides and human waste. India, with more than a billion people, struggles with contamination of surface water. Moving further still, a report by an Indian think tank, Strategic Foresight Group, highlighted the huge depletion of major rivers in the Middle East. Turkey, Iraq, Syria, Lebanon, Jordan, Palestine and Israel are facing a serious problem of scarce water resources. The river flows are down by 50 – 90% from 1960 to 2010. The Yarmouk River declined from 600 million cubic meters (mcm) to about 250-300 mcm per year, the Jordan River from 1300 mcm to 100 mcm, and in the Euphrates, levels dropped from 27000 mcm to 9000 mcm in 2009. Downstream territories such as Israel, Jordan and the Palestinian territories are in the worst position with clean water deficits of up to 500-700 mcm each. The Dead Sea levels are dropping one meter a year due to Israel, Jordan and Syria diverting waters from the Jordan River. It is likely to lead to the transformation of the Dead Sea into a small lake by 2050.

Saudi Arabia seems to be facing “peak water” sooner than the ever feared “peak oil.” The country has abandoned its plans to be self-sufficient in wheat production and looks to be 100% reliant on imports by 2016 as a part of water conservation efforts. Water shortage can also curtail development of water-intensive sectors such as mining. Saudi Arabia is now targeting gold mining, but water shortages can obstruct its development. Who could have imagined that water would become as precious, if not more so, than gold? “Gold is there, but we don’t have water,” said Mohammed Hany al-Dabbagh, Vice President of Precious Metals and Exploration at state-controlled minerals firm, Saudi Arabian Mining.

Strangely enough, in North America, the land of plenty, we too are noticing signs of discontent. Nowhere is this more evident than in Nevada, with the city of Las Vegas worried over water shortage. Repeated reports prophesize that Lake Mead, serving about 90% of the local water needs, will dry up by 2021. Water is also in short supply in Texas; El Paso, San Antonio, and Albuquerque can run out of water in 10-20 years.

Even more concerning is the fact that a growing population needs more and more energy. Water is critical for the production of energy, whether it is for the operation of coal-fired, gas-fueled or nuclear power plants. Usually, it is being withdrawn from rivers, lakes, or aquifers. Large volumes of water are used by generators to create steam, which drives turbines to produce electricity. In addition, significant amounts are used for cooling. Water which is withdrawn for cooling, but not consumed, is returned to the original source, but at a higher temperature, potentially harming wildlife. Different cooling technologies use different volumes of water. Power plants that use once-through cooling technology have high rates of withdrawal. Plants with re-circulating cooling technology have lower rates of water withdrawal, but return smaller amounts back to the original source due to high water losses through evaporation; thus, failing to replenish the original volume.

Still on the subject of energy: water is needed for natural gas and crude oil production.

Just a few years ago, the U.S was expected to remain dependent on imported natural gas and oil. However, boosted by technological improvements in hydraulic fracturing (“fracking”) and horizontal drilling, extraction of “tight oil” and shale gas from dense rocks is making it possible for the nation to finally achieve energy independence, which has been a part of the U.S. agenda since Richard Nixon. According to IHS Cambridge Energy Research Associates, this type of oil extraction could reach three million barrels per day by the end of the decade, which is over 50% of the current domestic crude oil production (compared to 200,000 barrels per day in 2000).

The spread of fracking, however, has its own costs, including environmental impact. The process of hydraulic fracturing requires the creation of small fractures in geological formations to allow hydrocarbons to flow into the wellbore. To fracture formations, fracturing fluids are injected underground under high pressure. These fluids consist of a mixture of 90% water, 9.5% sand, and 0.5% chemicals. Different technologies and depth of drilling require different amounts of water, and the volume is in the millions of gallon per well.
The fact is, fracking does require water, which is mixed with chemicals.

The real problems arise when the mixture of water and chemicals leaks into the formation. Leaks can be caused by a poor cementing job or by not following proper procedures. A well is fracked multiple times, and each time, pressure causes vibration of the pipes in the wellbore. Eventually, bonds become broken, causing leaks.

The shale gas boom will cause more water consumption by the industry. In addition, as wells are drilled deeper, more blasting with more force will be required to open tight rocks, leading to more wellbore leaks, and more contamination of the surrounding area.

When it comes to power generation, solutions that affect water are focused around the choices made when building new power plants. Moving away from the technologies that use water for cooling is drastic, but has its supporters. Meanwhile, power generators are looking for different technologies that involve more efficient water utilization. One of them, dry cooling, uses air to cool water and steam rather than evaporating the water, which reduces water consumption by 90% compared with traditional methods. Still, we are talking about millions of gallons of water per day.

Companies using hydraulic fracturing are looking for different options to get water for their operations. They divert water directly from rivers during periods of higher flow and less water demand. Some of them transport water from other locations, or use irrigation waters leased or purchased from landowners. Others purchase or lease treated waste water from municipalities and other water providers. As 99% of gas wells now being drilled on public lands use fracking and horizontal drilling, new water management approaches will be needed. The same reason supports the urgency in establishing regulatory oversight over groundwater testing and checking wells for leakage. In his State of the Union 2012 speech, President Barack Obama stated that fluids used for drilling on public lands will be publicly disclosed. The U.S. House Natural Resources Committee considers developing regulations covering hydraulic fracturing on federal lands. This can potentially become a template for national standards. At this point, gas drilling is regulated at the state level. Only select states, like Texas, Wyoming and Florida, have rules in place requiring companies to disclose chemicals used while fracking.

Remediation and Controlling Measures:
Can They Fix It All?

The strain on water resources is exacerbated during droughts and heat waves, when overlapping need for water comes from the residential sector, farmers and energy producers. This conundrum has already generated “bad dealings” headlines. One of them is a scandalous news item about Chesapeake Energy purchasing more than 24 million gallons of water for natural gas extraction. The water was taken from Fort Worth city fire hydrants while Texas had water restriction policies in place due to the exceptional drought.

Water reuse and recycling is another approach, which is used worldwide in agriculture, and has become a center point of Israel’s water conservation plans. This nation has developed a billion-dollar industry of waste water recycling. More than 80% of Israel’s household waste water is recycled, which is four times higher than in any other country, according to Israel’s water authority. Treatment facilities remove contaminants and the water is then sent to farmers for irrigation. Israel is now asking the International Organization for Standardization to formulate universal guidelines and to create a global standard for reusing waste water in irrigation.

In the meantime, a report from the Swiss and Swedish governments argued that technical solutions, such as desalination or wastewater recycling, in Israel would ultimately have limited scope. A new term, “blue peace” was coined as the only plausible solution for the Middle East. According to the study, water shortages in the politically explosive region are so alarming that opposing camps would have little choice but to cooperate. Otherwise, no measures taken by separate governments will do well.

Privatization - Commoditization – Open Market

Controlling water consumption and water quality by imposing standards and implementing conservation measures is the most common approach. Another way to resolve water shortage and increase efficiency is by putting a price tag on it by means of free and open market forces. No matter how strange it may sound, we have already passed several stages leading us in this direction.

Because water is considered to be critical for human existence, access to it has been viewed as a basic human right. Water belongs to everyone and this concept has been preserved by legislatures since ancient Rome. According to a United Nations resolution passed last year, access to water is an essential human right.

In the last century, privatization has encompassed many areas of human existence - including water. For example, private companies are assuming management of municipal water systems. In some cases it is a matter of choice with the argument being that private business can be more efficient than government-run enterprises. In the U.S., about 14% of waterworks are owned by private interests. In other cases, especially those of developing countries, it is more of an inevitable “evil” associated with the payments on loans coming from international funds and banks.

The Cochabamba protests of 2000, also known as the “Cochabamba Water Wars” in Bolivia

Economic instability with hyperinflation of an annual rate of 25,000% prompted the Bolivian government to ask the World Bank for loans. One of the World Bank conditions was privatization of the nation’s water services. Once privatized by Aguas del Tunari, water rates jumped to the unforeseen levels making the monthly water bill equal to about 20% of an average salary.

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Nevertheless, the fact remains that about 10% of the world water systems are privatized. They are in the US, Europe, Bolivia, Philippines, Indonesia, South Africa, Ecuador, Namibia, etc.

The privatization of water systems is putting us one step closer to trading access to water, and examples of this are already popping up. A good case is the Canadian province of Alberta. The Water Act of 1999 in Alberta allowed transfers of water rights.

Because the water right is traded between willing buyers and sellers and the number of transfers has been consistently increasing with years, the term “water market” is often used in Alberta. Moreover, there are now commercial operations and websites dedicated to brokering water rights transfers between Alberta municipalities, farmers, irrigation districts and industry players (mostly from oil sands production).

In June 2011, Nestlé announced talks with the Alberta government to establish a so-called water exchange where water could be traded like any other commodity. Moreover, though the government of Alberta denied any notion that they were creating a commodity out of water, they did not deny discussions around the notion of an exchange-based water trade.

Alberta is not unique in this regard. Similar systems exist in the U.S., South Africa and Australia.

It is not a great leap from a water rights trading system to the financial derivatives traded on public exchanges. We already see a lot of water-related products, such as those built on precipitations, the majority of which are traded on the Chicago Mercantile Exchange (CME).

The CME trades snowfall future and option contracts for such cities as Boston, New York, Chicago, Minneapolis, Detroit, Baltimore, Columbus Port, and Colorado Springs, as well as Snowfall Index futures and options based on average snowfall in these U.S. cities. The contracts are monthly and seasonal. Another set of water-related financial derivatives comprises monthly and seasonal rainfall options and futures. Two examples of these contracts are shown on this page.

According to the Weather Risk Management Association, customized weather derivative products grew by 30% over the last year, while the overall market increased by 20% to $11.8 billion. Demand growth was seen in contracts related to rainfall, snow, hurricanes and wind from industries such as agriculture, construction and transport.

Another spin on the derivatives market was set in motion by Thailand’s worst flood in almost 70 years which killed approximately 700 people, destroyed about 1,500 industrial facilities and caused 1.3 trillion baht ($41.6 billion) of damage to the economy. On December 15, 2011, the Securities & Exchange Commission said that Thailand may start trading water derivatives, providing investors with a means of hedging against disasters. The regulator is studying the possibility of introducing contracts whose value would be linked to rainfall, or the level of water in the nation’s major dams.

No matter what our political or philosophical views are on the issue, water is becoming a commodity. This is a slow process, but it is imminent. It started with the privatization of waterworks, moved to water rights marketing and is becoming accepted on open exchanges. The truth about water markets is that before large corporations get a taste of the almost limitless opportunities these markets present, we must consider the creation of a system of checks and balances. Then, we will not have to deal with the problems arising from market power, or another crisis similar to the situation that occurred in the California electricity industry in the year 2000.

A water right (a water license) is the right of a user to divert water from a water source (e.g., a river, stream, lake or source of groundwater).

A water license defines the amount of water that can be diverted, the timing of diversion, the rate of diversion, the source of water, etc. A water rights “transfer” occurs when a water license holder transfers all or a portion of their water license to another party.

About the Author

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Olga has over 15 years of experience in the energy, business and trade sectors. As a member of the ZE team, she has conducted qualitative and quantitative research and analysis, project evaluation and strategic planning for the energy and commodity industry. Her expertise focuses on regulatory support and market monitoring.
About ZE PowerGroup Inc
ZE is an experienced software and strategic consulting firm that combines energy industry expertise with advanced software development capability. The company possesses deep industry knowledge and comprehensive operational experience. ZE is the developer of ZEMA Suite, a sophisticated Enterprise Data Management and Analysis solution built to meet the specific challenges of energy and commodity market participants.

About ZEMA
ZEMA is an enterprise data management suite designed for collecting data and performing complex analysis. ZEMA replaces fragmented data collection and analysis processes with a sophisticated, unified and automated data management system. Each ZEMA component can perform as an independent product; this means greater flexibility when integrating ZEMA into your organization. ZEMA is consistently ranked #1 for preferred system, #1 for ease of system integration, and #1 for customer service. ZEMA is easy to use and backed by our support team around the clock.

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