Credit Requirements: Energy Markets

Credit Policy Task Force
Kimberly Sebben, Manager, Finance Products
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Objectives

- Eliminate manual credit processes through automation of the Credit Management System (CMS)
- Leverage automation to further stratify credit requirements based on transaction characteristics
- Define credit requirements to appropriately match market and transaction risks

Energy Market Credit Topics

- External Suppliers and Buyers
- Internal Physical Load
- Internal Physical Generation
- Demand Side Resources

External Suppliers and Buyers

- External Suppliers
  - Import suppliers that offer supply in the Day-Ahead Market incur the obligation to cover their Day-Ahead position by scheduling and delivering power in real-time or by financially settling their position at real-time prices.
  - Day-Ahead import suppliers that do not deliver power in real time have essentially the same financial risk exposure as virtual suppliers.
  - External suppliers differ from internal suppliers because they may only sporadically participate in the NYISO markets and can be net suppliers on some days and net buyers on other days.

Credit Proposal: External Suppliers

- Impose virtual transaction credit requirements on import suppliers operating like virtual traders, while imposing lesser credit requirements on import suppliers that provide physical supply.
- Using a historical performance approach, the NYISO can track the delivery performance of each external supplier over time and use this information in conjunction with the Virtual Transaction supply price differentials to determine credit requirements.

Credit Proposal: External Suppliers Cont.

- The NYISO is working with LECG to develop a methodology to calculate Market Participant specific historical performance measures that can be used to determine an appropriate credit requirement to match the transaction risk.

External Suppliers and Buyers

- External Buyer
  - Export transactions that bid to purchase in the Day-Ahead market or Real Time market need to have sufficient credit to cover the value of the price capped export bid.
  - Day-Ahead export buyers are essentially the same as virtual demand if the transaction does not flow in real time. The buyer has to sell the power back into the NYISO real-time market.
  - An export failure could expose the export buyer to losses in excess of the original purchase price if the real-time price is negative.

Credit Proposal: External Buyers

- To bid to buy energy in the Day-Ahead Market, export buyers would be required to have credit coverage equal to the higher of:
  - The bid price for the export or
  - The virtual load credit requirement
- The credit requirement would be calculated using the same time period groupings and thresholds as used for the virtual load credit requirements.
- To bid to buy energy in the Real-Time Market, export buyers would be required to have credit coverage equal to the bid price for the export.

Virtual Load Price Differentials

Virtual Demand 3% Thresholds by Time-of-Day and Proxy Bus			
	Summer	**Winter**	**Rest-of-Year**
HQ Wheel Proxy (PTID 23651)			
4/1/2005-2/28/2009			
HB7-10	55.00	49.78	43.51
HB11-14	65.61	39.48	37.11
HB15-18	78.11	56.92	42.74
HB19-22	60.25	49.78	42.74
Holiday	66.71	49.78	43.08
Night	50.83	49.78	45.37
HQ Import Proxy (PTID 23651 pre-7/1/2007 and PTID 323601 since 7/1/2007)			
4/1/2005-2/28/2009			
HB7-10	75.18	58.08	50.90
HB11-14	75.33	46.85	45.92
HB15-18	67.77	58.08	45.92
HB19-22	75.33	58.08	48.18
Holiday	75.33	52.92	43.30
Night	67.77	46.85	48.18

Note: weekends are grouped with Holidays

Virtual Load Price Differentials

Virtual Demand 3% Thresholds by Time-of-Day and Proxy Bus			
	Summer	Winter	Rest-of-Year
NE Proxy (PTID 24062)			
4/1/2005-2/28/2009			
HB7-10	43.06	41.75	40.39
HB11-14	53.03	41.75	40.39
HB15-18	68.47	59.69	40.39
HB19-22	43.06	41.75	40.39
Holiday	53.03	41.75	40.39
Night	43.06	41.75	40.39
OH Proxy (PTID 24063)			
4/1/2005-2/28/2009			
HB7-10	38.47	39.37	34.84
HB11-14	45.97	39.37	34.84
HB15-18	55.31	47.81	34.84
HB19-22	45.97	39.37	34.84
Holiday	45.97	39.37	34.84
Night	45.48	39.37	37.94

Virtual Demand 3% Thresholds by Time-of-Day and Proxy Bus			
	Summer	Winter	Rest-of-Year
PJM Proxy (PTID 24065)			
4/1/2005-2/28/2009			
HB7-10	41.52	38.16	38.53
HB11-14	51.30	38.16	38.53
HB15-18	61.08	54.70	38.53
HB19-22	41.52	38.16	38.53
Holiday	51.30	38.16	38.53
Night	41.52	38.16	37.22
NE CSC Proxy (PTID 323557)			
6/2/2005-2/28/2009			
HB7-10	53.12	52.92	47.76
HB11-14	89.95	52.92	47.76
HB15-18	113.06	70.90	56.82
HB19-22	63.78	64.94	56.82
Holiday	69.12	52.92	56.82
Night	53.12	52.92	47.76

Virtual Load Price Differentials

	Summer	Winter	Rest-of-Year
HQ Cedars Proxy (323590)			
10/1/2008-2/28/2009			
HB7-10	N/A	32.74	26.01
HB11-14	N/A	25.71	26.01
HB15-18	N/A	32.74	65.13
HB19-22	N/A	32.74	26.01
Holiday	N/A	25.71	31.12
Night	N/A	32.74	34.34
NE 1385 Proxy (323591)			
6/27/2007-2/28/2009			
HB7-10	66.59	51.70	44.36
HB11-14	77.73	51.70	44.36
HB15-18	133.66	67.93	56.02
HB19-22	66.59	67.93	56.02
Holiday	66.59	66.47	56.02
Night	77.73	51.70	46.15

	Summer	Winter	Rest-of-Year
PJM Neptune Proxy (323594)			
5/9/2007-2/28/2009			
HB7-10	64.23	47.79	43.15
HB11-14	87.16	47.79	43.15
HB15-18	110.83	69.58	56.74
HB19-22	63.69	69.58	53.34
Holiday	63.69	65.92	56.74
Night	62.60	53.36	45.08

External Suppliers and Buyers

- Wheel Through
  - Wheel Through transactions that bid to move energy through the NYISO need to have sufficient credit to cover the value of the price capped congestion bid.
- Credit Proposal
  - To bid to move energy through the NYISO in the Day-Ahead or Real-Time Markets, Wheel Through bidders would be required to have credit coverage equal to the bid price for the Wheel Through.

Internal Physical Load

- The credit requirement for internal physical load purchases would equal the sum of the following components:
  - *Credit Requirement for Estimated Load*
  - *Credit Requirement for Load True-up*
  - *Credit Requirement for Prospective days*
  - *Adjustment for Bilateral Transactions*

Credit Proposal: Requirement for Estimated Load

- Credit coverage for the period in which initial billing data exists but payment has not been made.
- This requirement would be based on the billing data used in the daily bill calculated using actual market prices and initial load estimates.

Credit Proposal: Requirement for Load True-up

- Credit coverage for the difference between the initial bill load estimate and the NYISO's estimate of actual consumption for the period from the current operating day back to the last day for which payment for load true up was received.
- This component would have two distinct periods for the calculation – one prior to actual meter data being received and one after actual meter data is received but prior to payment.

Credit Proposal: Requirement for Load True-up Cont.

- Prior to availability of actual meter data, the credit requirement for load true up would be calculated by multiplying the difference in the NYISO load estimate and initial billing load estimate by the actual market prices adjusted for confirmed Bilateral Transactions.
- After actual meter data is available, the charges for load true-up would be calculated by multiplying the difference in the actual meter data and initial billing load amount by the actual market prices adjusted for confirmed Bilateral Transactions.

Credit proposal: Requirement for Prospective days

- Credit coverage for prospective energy purchases that fall within the current settlement cycle but for which total load, prices and LSE purchases are not known.
- To perform this calculation, the NYISO would need to estimate the LSE's future load obligations and the price that would be paid for those prospective purchases.

Credit proposal: Requirement for Prospective days

- The NYISO is working with LECG to develop a methodology to estimate LSE prospective load obligations.
- The estimate of prices for these prospective energy purchases would be determined using the Trading Hub DAM adjusted prices.
  - Calculated using a historical ratio of DAM prices to forward gas prices for each NYISO zone for each month; calculations would be based on a rolling three years of data updated annually to reflect changes in the relationship between power and gas prices in each zone.

Credit proposal: Adjustment for Bilateral Transactions

- The NYISO proposes to offset the LSE's load obligation credit requirements for confirmed Bilateral Transactions.
- This bilateral offset would apply to the Credit Requirement for Estimated load, the Credit Requirement for Load True-up and the Credit Requirement for Prospective days.

Internal Physical Generation

- Internal physical generators have two primary sources of financial exposure in the NYISO markets. These are:
  - Bilateral Transactions that exceed the generator's schedule; and
  - Real-time outage risk associated with covering their Day-Ahead schedule.
- This financial exposure is offset by the generators receivables from the NYISO for energy sold in the NYISO markets during the period.

Credit Proposal: Internal Physical Suppliers

- No credit coverage is proposed at this time to address real-time outage risk.
- To address Bilateral Transaction risk, the NYISO is proposing to allow generation resources to support Bilateral Transactions up to the generator's Operating Capacity as determined by its capability period DMNC test without credit coverage.
- Bilateral Transactions include exports sourced from an internal generator.
- Bilateral Transactions in excess of the generator's Operating Capacity would require credit coverage based on the trading hub credit rules for the zone in which the generator is located.

Demand Side Resources

- Demand Side Ancillary Services Providers (DSASP)
- Day-Ahead Demand Response Program (DADRP)

Demand Side Ancillary Services Providers (DSASP)

- The NYISO is not proposing to change the DSASP credit requirements at this time.
- Currently, there are no Demand Side Ancillary Service Providers participating in the NYISO markets so there is no historical data on the performance these providers.
- The NYISO proposes that the current credit coverage rules would remain in effect until there is sufficient historical experience to permit re-evaluation of the current approach.

Day-Ahead Demand Response Program (DADRP)

- The NYISO does not want to impose credit coverage requirements that raise the cost of providing demand response.
- The only concern is the potential for default by demand responders that fail to perform.
- The NYISO is working with LECG to develop a methodology that can be used to determine an appropriate credit requirement to match the market risk.

Next Steps

- Complete overall assessment of current credit requirements for the Energy Markets.
  - *Credit Policy Task Force Meetings*
  - *Market Issues Working Group Meetings*
- Business Issues Committee – May 15, 2009
- Management Committee – May 27, 2009
- Board of Directors – June 2009
- FERC Filing – June 2009
- CMS deployment planned for Sept 2009.

NEW YORK INDEPENDENT SYSTEM OPERATOR

The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and provides comprehensive reliability planning for the state's bulk electricity system.

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