Order 755: How is Pay for Performance Performing

Scott M. Harvey

EUCI Ancillary Services Conference

Dallas, Texas

June 12, 2013

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The author is or has been a consultant on electricity market design, transmission pricing and/or, market power for Allegheny Energy Global Markets; American Electric Power Service; American National Power; Aquila; Avista Corp; California ISO; Calpine Corporation; Centerpoint Energy; Commonwealth Edison; Competitive Power Ventures, Conectiv Energy, Constellation Power Source; Coral Power; Dayton Power and Light, Duke Energy, Dynegy; Edison Electric Institute; Edison Mission; ERCOT, Exelon Generation; General Electric Capital; GPU; GPU Power Net Pty Ltd; GWF Energy; Independent Energy Producers Association; ISO New England; Koch Energy Trading; Longview Power; Merrill Lynch Capital Services; Midwest ISO; Morgan Stanley Capital Group; New England Power; New York Energy Association; New York ISO; New York Power Pool; Ontario IMO/IESO; PJM; PJM Supporting Companies; PP&L; Progress Energy, Public Service Co of New Mexico; Reliant Energy; San Diego Gas & Electric; Sempra Energy; Mirant/Southern Energy; Texas Utilities; TransAlta Energy Marketing, TransCanada Energy; Transpower of New Zealand Ltd; Tucson Electric Power; Westbrook Power; Williams Energy Group; and Wisconsin Electric Power Company. The views presented here are not necessarily attributable to any of those mentioned, and any errors are solely the responsibility of the author. They are the individual views of the author and do not reflect the collective opinion of the California Market Surveillance Committee.

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There are a number of problems for ISOs and RTOs in complying with Order 755.

- AGC software is not currently designed to send instructions to resources based on offers.
- If ISOs and RTOs schedule regulation based on capacity prices alone, suppliers could reap large profits by submitting low capacity bids and high movement bids. ISOs and RTOs therefore must take account of both capacity and movement offer prices in scheduling regulation.

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- Setting the clearing price for capacity based on the marginal capacity price and the clearing price for movement based on the marginal movement price would greatly overcompensate resources, distorting bidding incentives, leading to inefficient schedules and inflated consumer costs.
- The amount of movement resources will be called upon to provide is not known, and a conventional two settlement system will not operate in the usual manner because instructions are not based on offers, and there is no six second regulation spot price.

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ISOs and RTOs recognize these issues and are implementing a variety of designs to comply with order 755 without unduly increasing consumer costs. The key design elements include:

- The objective function for scheduling regulation across units;
- Criteria for allocating movement instructions across units;
- The rules used to determine movement and capacity prices.

All of these designs are imperfect, and how they will work our is likely to depend on elements of the market equilibrium that are hard to predict.

It will likely be important for ISOs, RTOs and their stakeholders to observe how the various designs work in practice and make appropriate adjustments in the initial designs.

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Since implementing Order 755 on October 1, 2012, PJM has been able to reduce its regulation requirement from 1% of peak in valley load in 2011 to .7% since December 18, 2012. This reduction has apparently reflected 4 factors:

- Increase in PJM footprint;
- Changes in regulation optimization;
- Introduction of performance incentives under Order 755;
- Greater reliance on fast moving regulation.

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Over the period October 2012 through March 2013, PJM purchased only 70.8% of the regulation purchased in the corresponding months of 2011 and 2012. However:

- The total cost of regulation increased 58%;
- The cost per megawatt of regulation increased 123%;

The cost per megawatt of real-time load increased 51.6% between first quarter 2012 and first quarter 2013.

Source Monitoring Analytics, 2012 State of the Market Report for PJM, Table 9-12; 2013 Quarterly State of the Market Report for PJM, January – March Table 9-12.

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Order 755 pay for performance is not the only change that could have lead to the increase in regulation costs.

- Reflecting actual real-time opportunity costs in the price of regulation might have accounted for part of the increase in the cost of regulation.
- Paying for movement may have accounted for part of the increase in the cost of regulation.
- More volatile energy prices leading to higher than usual opportunity costs may have accounted for part of the increase in the cost of regulation.
- Other factors relating to the implementation of either the 755 design or the other changes in the regulation market could have accounted for some of the change.

COMPASS LEXECON-FTI CONSULTING-ELECTRICITY

Joseph Cavicchi	jcavicchi@compasslexecon.com	617-520-4251
Bert Conly	bert.conly@fticonsulting.com	214-397-1604
Scott Davido	scott.davido@fticonsulting.com	832-667-5124
Scott Harvey	scott.harvey@fticonsulting.com	617-747-1864
William Hogan	William_Hogan@Harvard.edu	617-495-1317
Joseph Kalt	jkalt@compasslexecon.com	617-520-0200
Susan Pope	susan.pope@fticonsulting.com	617-747-1860
Ellen Smith	ellen.smith@fticonsulting.com	617-747-1871
Jeffrey Tranen	jtranen@compasslexecon.com	212-249-6569
Kevin Wellenius	kevin.wellenius@fticonsulting.com	207-495-2999

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