

Summary of Testimony of Eric Hildebrandt, PhD
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Ratepayers of load serving utilities pay for the full cost of the transmission system through Transmission Access Charges – and also through higher prices when congestion occurs. All congestion revenues collected by ISOs from use of the transmission system should therefore be allocated back to transmission ratepayers. However, all ISO's auction financial instruments commonly called Financial Transmission Rights ("FTRs"). Revenues collected from auctioned FTRs are consistently much lower than what the ISOs pay out to entities purchasing these FTRs. This directly reduces the congestion revenues that would otherwise be refunded back to transmission ratepayers.

Based on data reported by ISOs, we estimate transmission ratepayers nationwide are losing over \$400 million per year from auctioned FTRs. Almost all profits from auctioned FTRs are going to purely financial entities and trading companies – with a very small portion of FTRs purchased by electric generators as potential hedges against congestion costs. ISOs do not need to auction FTRs for electricity suppliers to gain access to physical transmission or to hedge price risks associated with wholesale energy contracts and trading. If policy makers believe ISO's should facilitate financial hedging, ISO's should do this through a market for FTRs that is cleared and settled based on bids and offers from willing buyers and sellers. Transmission ratepayers should not be exposed to the losses and risks that they are currently suffering as a result of FTR auctions being run by ISOs.

Testimony of Eric Hildebrandt, Ph.D.
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My name is Eric Hildebrandt. I am the Director of Market Monitoring at the California Independent System Operator (ISO). The Department of Market Monitoring serves as the independent market monitor for the California ISO. Under FERC regulations, each Commission-approved ISO must have an independent market monitor, whose mission includes “the protection of consumers and market participants by the identification and reporting of market design flaws and market power abuses.”¹

My testimony today focuses on a major market design flaw that exists in all FERC jurisdictional ISOs which is costing transmission ratepayers over \$400 million each year. This flaw involves the auctioning of purely financial instruments most commonly called Financial Transmission Rights (“FTRs”). The California ISO calls these Congestion Revenue Rights (or “CRRs”).

Ratepayers of load serving utilities pay for the full cost of the transmission system through Transmission Access Charges – and also through higher prices when congestion occurs. All congestion revenues collected by ISOs should therefore be allocated back to transmission ratepayers. In fact, FTRs were initially developed as a

¹ Final Rule, Order No. 719 (Issued October 17, 2008) §35.28 Part 35 3(i) (f) P.314.
<https://www.ferc.gov/whats-new/comm-meet/2008/101608/E-1.pdf>

way to fairly allocate congestion revenues back to participants who pay for the transmission system.

All ISOs currently allocate FTRs to load serving entities based on their projected use of the transmission system. We support continued use of FTRs in this way as a means for providing load serving entities with a hedge that offsets congestion charges they incur. In addition, all of the additional congestion revenues that remain after settlement of these allocated FTRs should also be refunded to transmission ratepayers.

However, after allocating FTRs to load serving entities, all ISOs then auction off additional FTRs. These financial instruments are essentially *price swap* contracts. But unlike price swaps for other commodities, FTRs sold in the ISO auction are not cleared and settled based on bids from willing buyers and sellers. Instead, ISOs auction off FTRs -- and then paid off these FTRs using congestion revenues that would otherwise be refunded to transmission ratepayers.

Unfortunately, revenues that ISOs collect from auctioned FTRs are consistently much lower than what the ISOs pay out to entities purchasing these FTRs. This makes FTRs highly profitable for financial entities, but these profits directly reduce the congestion revenues that would otherwise be refunded back to transmission ratepayers.

Based on data reported by ISOs, we estimate transmission ratepayers nationwide are losing over \$400 million per year from FTRs sold at auction in various ISOs. Almost all of these profits are going to purely financial entities and trading companies – with a very small portion of FTRs purchased by electric generators as potential hedges against congestion costs.

In the California ISO, ratepayers have lost over \$680 million since 2009 – or about \$75 million per year. Transmission ratepayers receive only 52 cents in auction revenues for each dollar the ISO pays out to these FTRs. That represents a profit of nearly 100 percent for entities purchasing these FTRs.

In the PJM Interconnection, data indicate that transmission ratepayers have lost about \$1.2 billion in FTR auctions to financial entities since 2011 – or about \$170 million per year.² As a result, PJM's independent market monitor and the Organization of PJM States have called for changes to PJM's FTR process to ensure all congestion revenues are returned to load serving entities.³

In the New York ISO, recent analysis at Stanford University shows that non-load serving entities received FTR profits over \$900 million since 1999 – or about \$60 million per year.⁴ As explained in a 2014 expose in the *New York Times*, FTRs were originally designed to help “protect the electricity producers, utilities and industries that need to buy power” by helping them “hedge against sharp price swings but Wall Street

² Monitoring Analytics, 2016 *State of the Market Report for PJM* p. 553: http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2016/2016-som-pjm-sec13.pdf
Monitoring Analytics, 2017 *Quarterly State of the Market Report for PJM: January through December* p. 599: http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017/2017q3-som-pjm-sec13.pdf

³ Organization of PJM States, Inc (OPSI), *OPSI Resolution 2016-4 Concerning Financial Transmission Rights*, Approved August 18, 2016. <https://www.pjm.com/~media/about-pjm/who-we-are/public-disclosures/20160826-opsi-letter-and-resolution-regarding-ftr-construct.ashx>

⁴ Leslie, Gordon, “Why do transmission congestion contract auctions cost ratepayers money? Evidence from New York,” November 14, 2017, pp. 23-24, downloaded 11/17/2017: http://www.web.stanford.edu/~gwleslie/index_new_files/Leslie_JMP20171114.pdf.

banks and other investors have stepped in, siphoning off much of the money,” according to the *Times*.⁵

In the Midwest ISO, transmission ratepayers have received less than 80 percent of day-ahead congestion rent, representing a loss of at least \$100 million per year from the MISO’s FTR auction.⁶

ISOs do not need to auction FTRs for generation owners or energy traders to gain access to physical transmission or to hedge price risks associated with wholesale energy contracts and trading. As with other commodities, market participants and financial entities are free to develop and trade price swap contracts. In fact, this type of free market – with trades between willing buyers and sellers – is what is needed to price such price swaps most efficiently and fairly.

If policy makers believe it is beneficial to wholesale electricity markets and consumers for ISO’s to facilitate such financial price swaps, then ISO’s should do this through a market for FTRs that is cleared and settled based on bids and offers from willing buyers and sellers.

Transmission ratepayers should not be exposed to the losses and risks that they are currently suffering as a result of FTR auctions being run by ISOs. If ISOs do not

⁵ “Traders Profit as Power Grid is Overworked” *The New York Times* August 14, 2014: <https://www.nytimes.com/2014/08/15/business/energy-environment/traders-profit-as-power-grid-is-overworked.html>

⁶ *Problems in the performance and design of the congestion revenue right auction*, Department of Market Monitoring, California Independent System Operator, November 27, 2017, pp. 18-19. http://www.caiso.com/Documents/DMMWhitePaper-Problems_Performance_Design_CongestionRevenueRightAuction-Nov27_2017.pdf

take action to address this issue, FERC will need to take action to protect the nation's transmission ratepayers.

Additional details of our analysis, along with a detailed discussion of the fundamental economic flaws underlying the auctioning of FTRs, are provided in an attached report by the California ISO Department of Market Monitoring.⁷ Another report posted on our website provides a discussion of market-based options through which energy generators, traders and financial entities can buy and sell financial instruments that allow hedging of congestion costs.⁸

Thank you for the opportunity to appear before you today. I look forward to answering your questions on this important issue.

⁷ *Problems in the performance and design of the congestion revenue right auction*, Department of Market Monitoring, California Independent System Operator, November 27, 2017.

http://www.caiso.com/Documents/DMMWhitePaper-Problems_Performance_Design_CongestionRevenueRightAuction-Nov27_2017.pdf

⁸ *Market alternatives to the congestion revenue rights auction*, Department of Market Monitoring, California Independent System Operator, November 27, 2017.

http://www.caiso.com/Documents/Market_Alternatives_CongestionRevenueRightsAuction-Nov27_2017.pdf