

Market Monitor Report

MC Webinar
February 21, 2017

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Monitoring Analytics

FTR Forfeiture Rule

- **FERC Docket No. EL14-37 ordered PJM to change forfeiture rule**
- **FTR forfeiture rule should include portfolio virtual flow across constraints and day-ahead to real-time convergence criteria**
- **Compliance filing due from PJM April 19, 2017**
- **Effective date for new FTR forfeiture rule is the date of the order: January 19, 2017**

Load Congestion Offset Under Current Method (\$M)

Planning Period	ARR Credits	FTR Credits	Total Congestion	Total ARR/FTR Offset	Percent Offset	Unreturned Revenue
2011/2012	\$512.2	\$249.8	\$770.6	\$762.0	98.9%	\$8.5
2012/2013	\$349.5	\$181.9	\$575.8	\$531.4	92.3%	\$44.4
2013/2014	\$337.7	\$456.4	\$1,777.1	\$794.0	44.7%	\$983.1
2014/2015	\$482.4	\$404.4	\$1,390.9	\$886.8	63.8%	\$504.1
2015/2016	\$635.3	\$223.4	\$992.6	\$858.8	86.5%	\$133.8
2016/2017	\$375.2	\$122.2	\$604.1	\$497.5	82.3%	\$106.7
Total	\$2,692.4	\$1,638.1	\$6,111.0	\$4,330.5	70.9%	\$1,780.6

Load Congestion Offset Under FERC Order (\$M)

Planning Period	Old					Proposed				
	ARR Credits	FTR Credits	Total Congestion	Total ARR/FTR Offset	Percent Offset	New Offset	Old Revenue Received	New Revenue Received	ARR Holder Change	FTR Over Payment
2011/2012	\$512.2	\$249.8	\$770.6	\$762.0	98.9%	83.3%	\$762.0	\$598.6	(\$163.4)	\$113.9
2012/2013	\$349.5	\$181.9	\$575.8	\$531.4	92.3%	68.0%	\$531.4	\$275.9	(\$255.5)	\$62.1
2013/2014	\$337.7	\$456.4	\$1,777.1	\$794.0	44.7%	43.2%	\$794.0	\$574.1	(\$219.9)	\$0.0
2014/2015	\$482.4	\$404.4	\$1,390.9	\$886.8	63.8%	57.2%	\$886.8	\$686.6	(\$200.2)	\$400.6
2015/2016	\$635.3	\$223.4	\$992.6	\$858.8	86.5%	78.2%	\$858.8	\$744.8	(\$113.9)	\$188.9
2016/2017	\$375.2	\$122.2	\$604.1	\$497.5	82.3%	77.4%	\$497.5	\$453.7	(\$43.8)	\$130.7
Total	\$2,692.4	\$1,638.1	\$6,111.0	\$4,330.5	70.9%	63.1%	\$4,330.5	\$3,333.8	(\$996.7)	\$896.1

Load Offset Under FERC Order

- **FERC Order increases payment to FTR holders due to removal of balancing congestion**
 - **Data are estimates, not from analysis of each participant**
 - **New offset accounts for increased FTR payments**
- **New Revenue Received calculation**
 - **ARR TA + new FTR TA + balancing congestion + M2M payments (excluding export share)**
 - **Total balancing + M2M payments are \$1,496.3 million**

Load Offset Under FERC Order

- **FTR Overpayment is revenue received by FTR holders over target allocations**
- **PJM has stated that less conservative model is possible without balancing congestion in FTR funding**
 - **Conservative modeling for revenue adequacy began with 2014/2015 planning period**

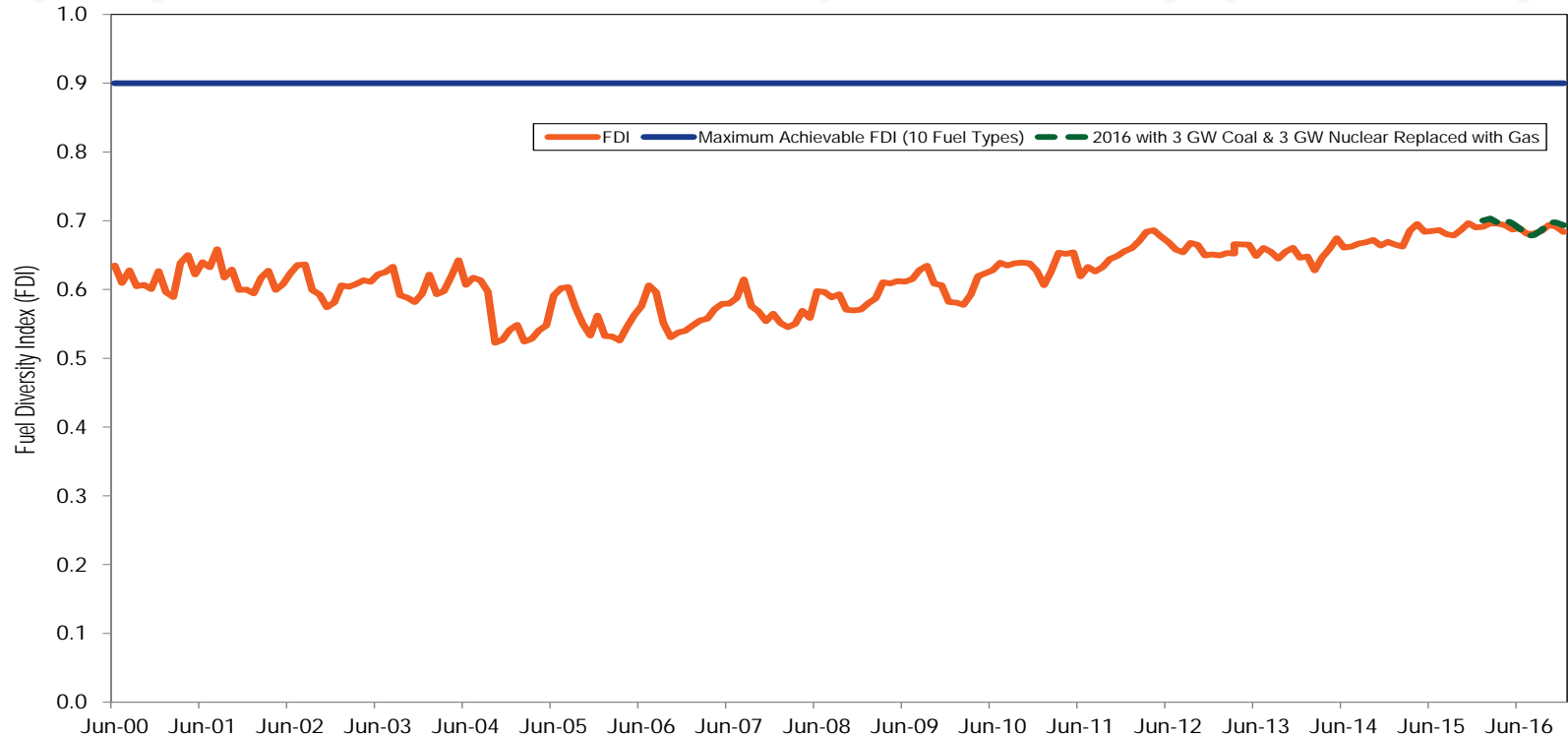
Fuel Diversity Index

- The Fuel Diversity Index (FDI) is defined as $1 - \sum s_i^2$, where s_i is the share of fuel type i .
- The minimum possible value for the FDI is zero. The maximum possible value for the FDI occurs when each fuel type has an equal share.
- The FDI for energy generation has increased since 2008. There is seasonal variation with higher values in the summer months.

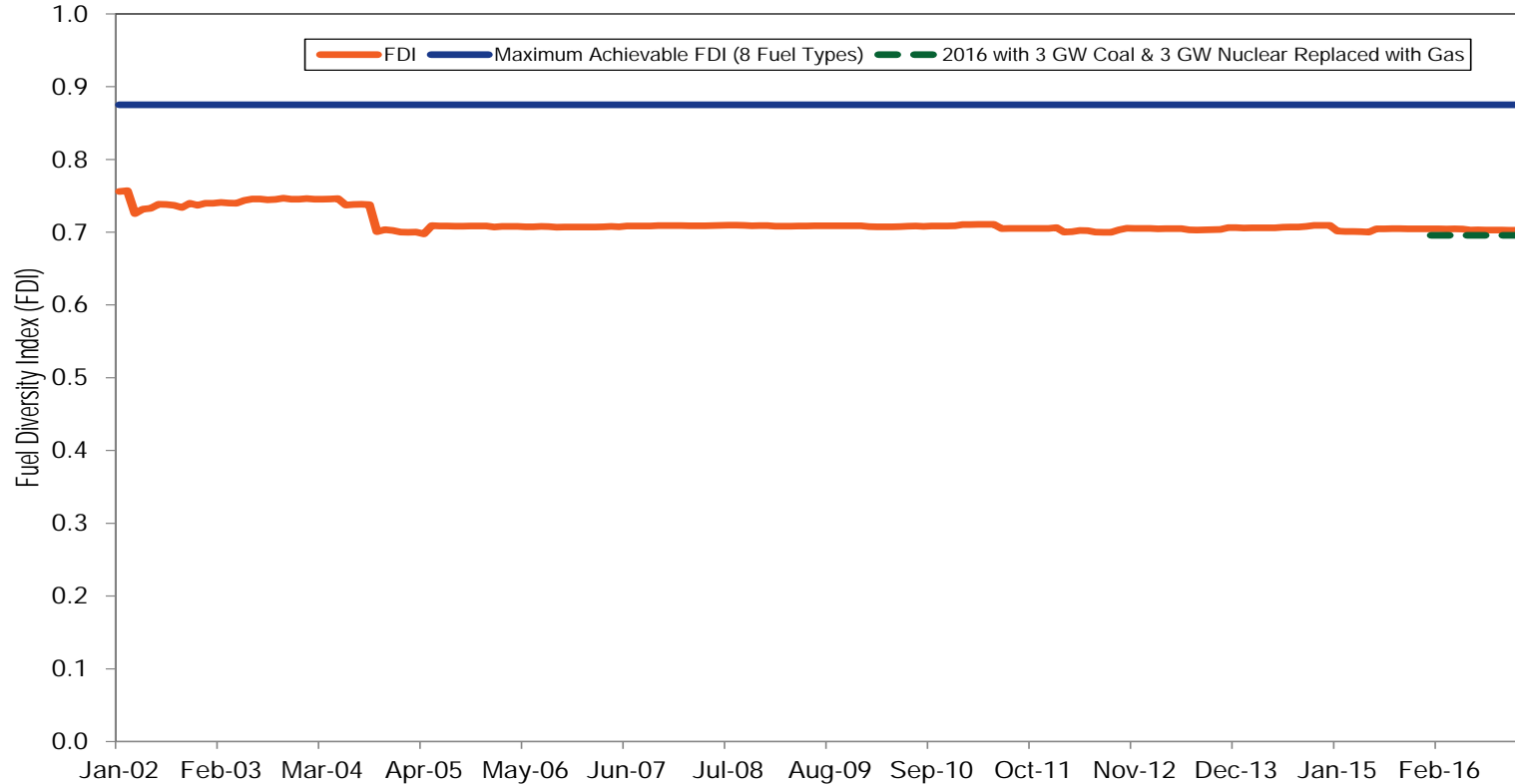
Fuel Diversity Index

- **The FDI for capacity has been flat with shifts resulting from expansion of the PJM footprint.**
- **In the event of coal (3 GW) and nuclear retirement (3 GW) and replacement with gas fired generation there is no significant impact on fuel diversity.**

Fuel Diversity – PJM Energy Generation



Fuel Diversity – PJM Installed Capacity



Fuel Cost Policies

- **Following the Feb. 3 FERC Order in Docket ER16-372, the MMU is participating and providing input in PJM's review of fuel cost policies.**
- **No change to the MMU's independent market power review of fuel cost policies.**
- **MIRA will support both PJM and MMU review work flows.**

Cost Offer Review

- **The MMU has increased its efforts in monitoring energy market cost offers.**
- **The MMU recommends that unit owners review cost-based offers for accuracy and consistency with the unit's fuel cost policy.**
- **Follow up phone calls from the MMU are routine.**
- **Penalties for inaccurate cost offers become effective approximately May 15, 2017 (date per PJM).**

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