

Fast Start Pricing

MMUAC

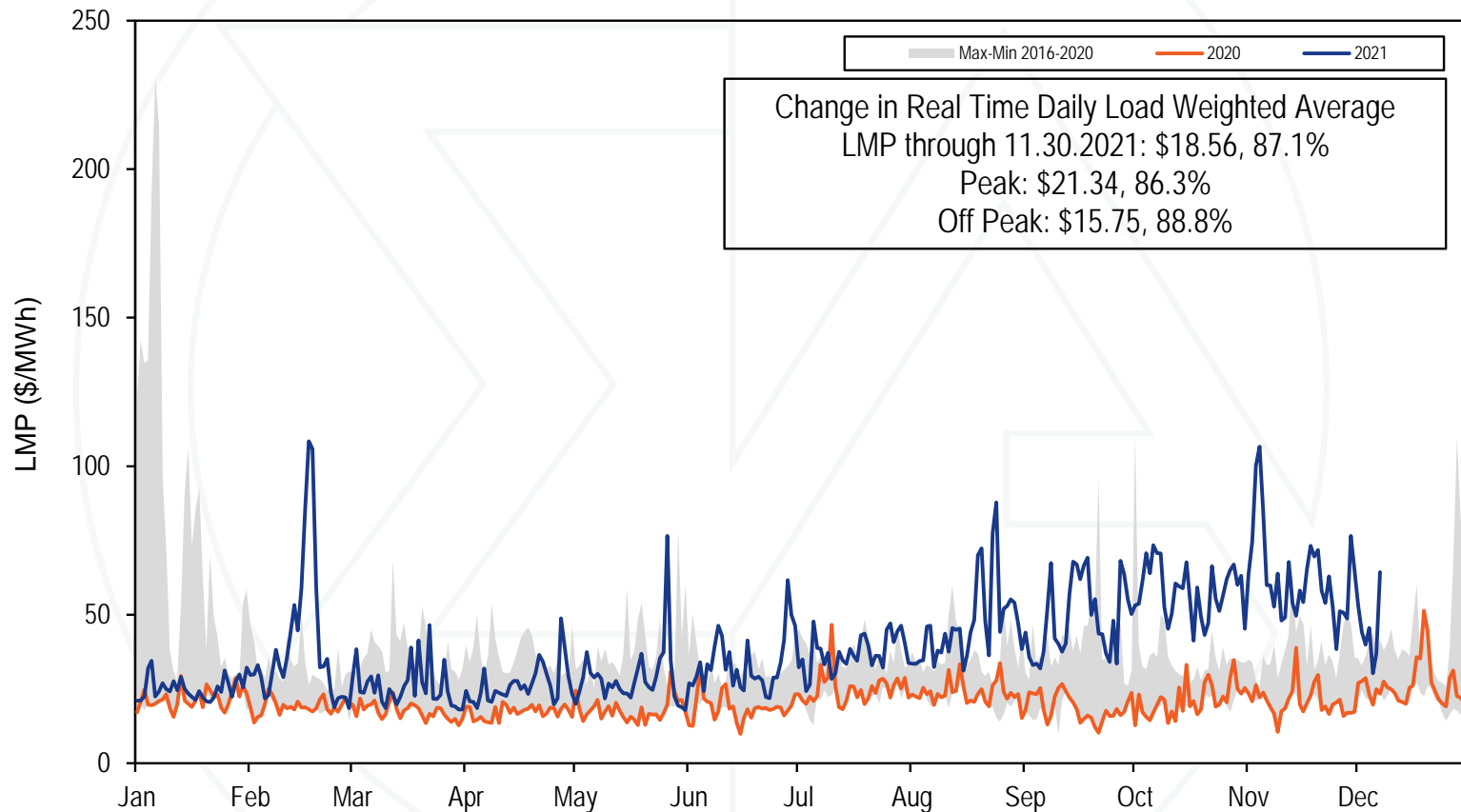
December 16, 2021

Jane Wei

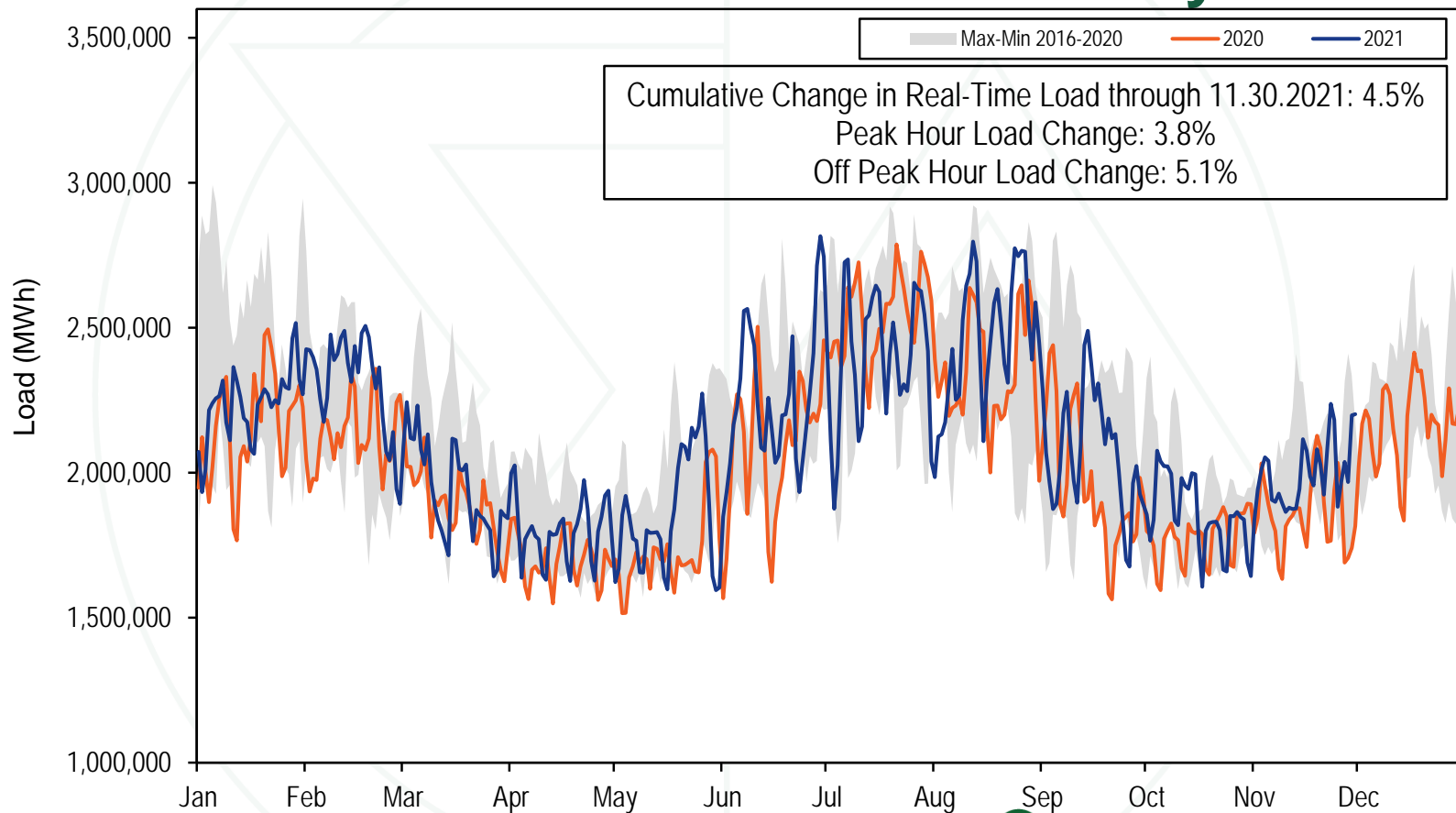


Monitoring Analytics

Year to Date PJM Real-Time LMP



Year to Date PJM Real-Time Daily Load



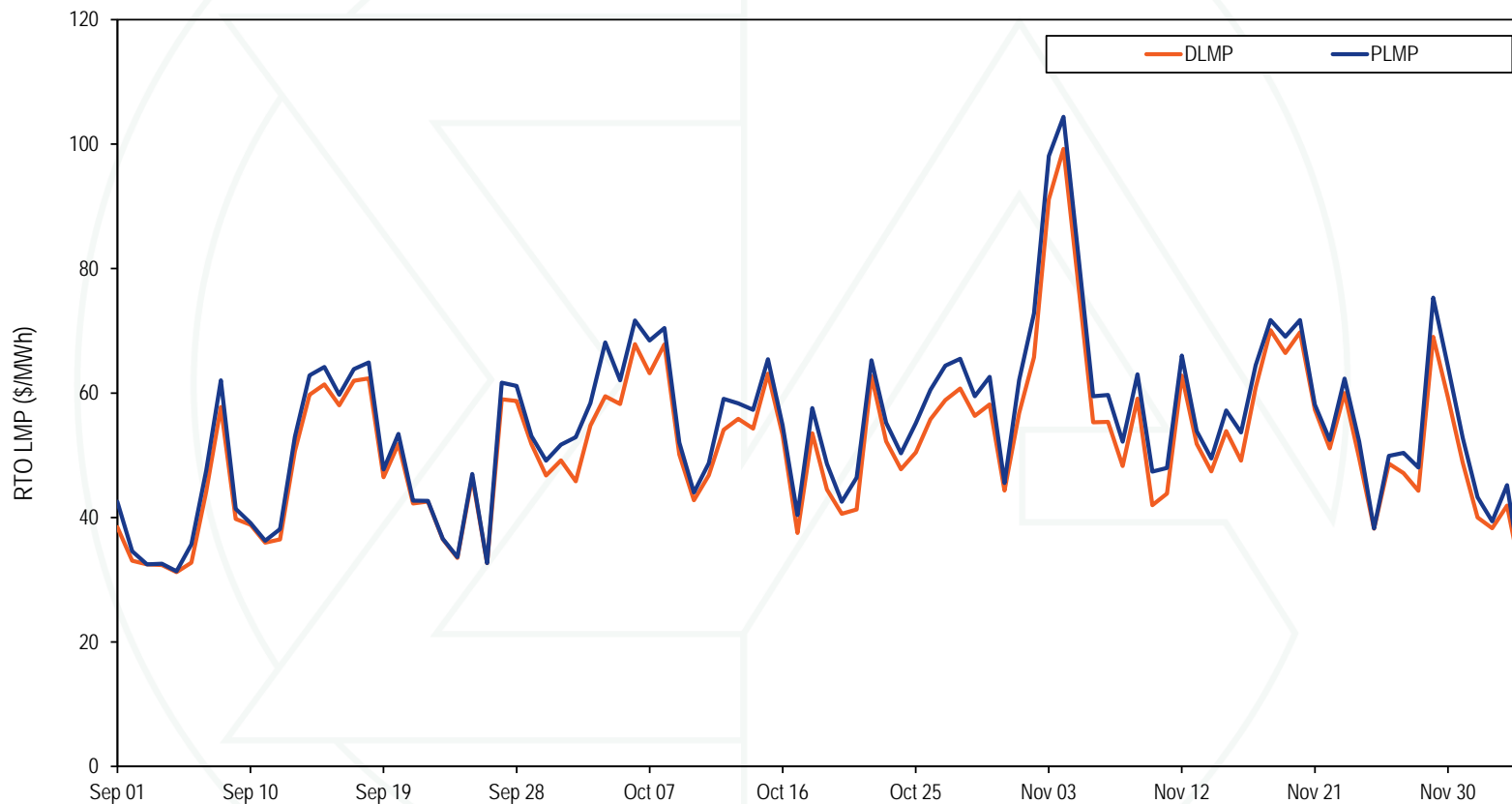
Fast Start Eligible Units

Unit Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
CT	192	192	192	191	191	191	193	193	199	199	199
Diesel	29	29	29	29	29	29	29	30	30	30	30
Landfill	44	44	43	43	43	43	42	41	41	41	41
Solar	213	213	214	217	217	219	222	222	223	224	226
Wind	98	98	98	98	99	99	99	99	99	100	100

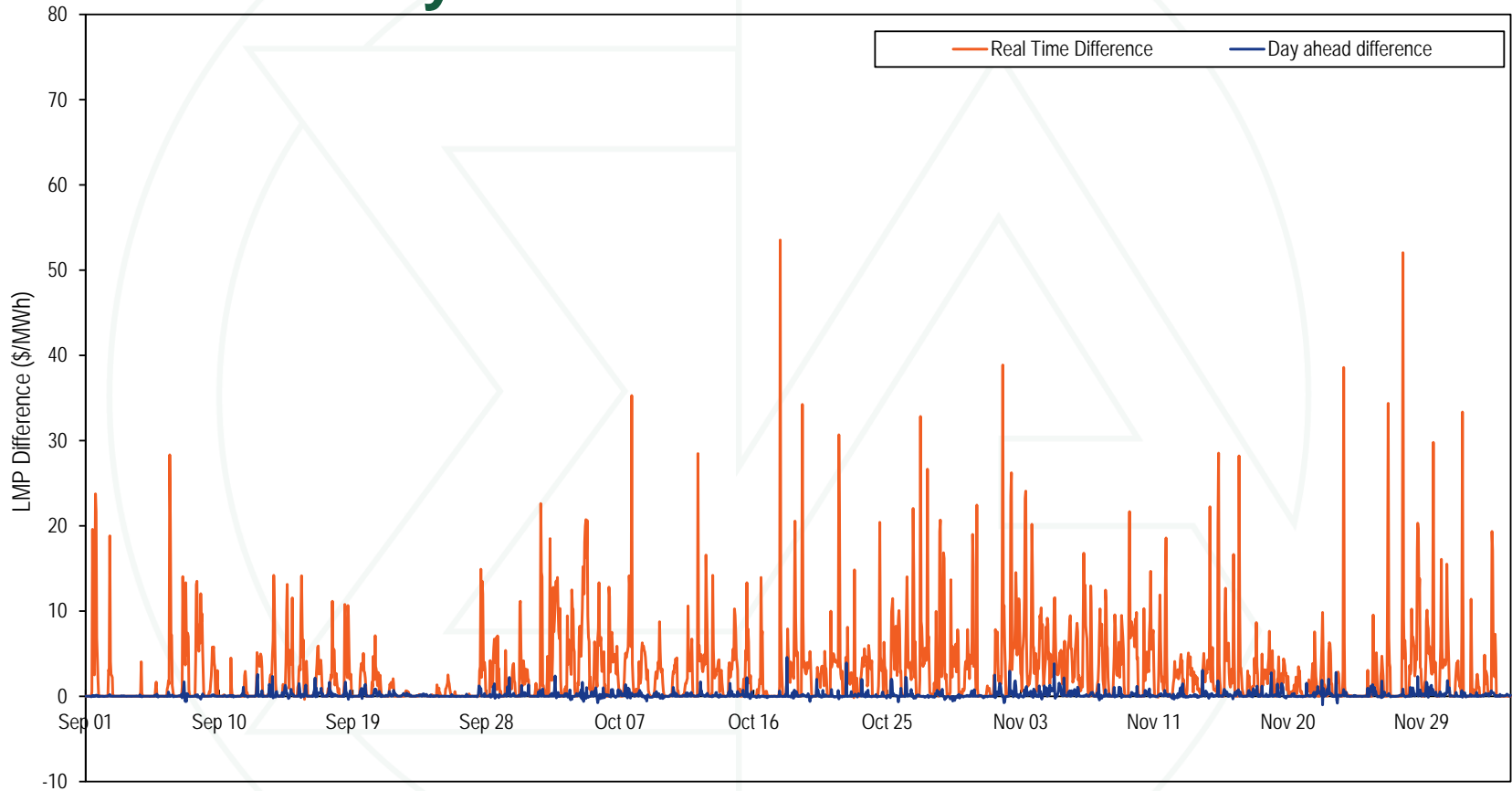
- Fast start eligible when:
 - Units are fast start capable; and
 - Offered with a notification plus start time of one hour or less and a min run time of one hour or less; and
 - Offered pool scheduled



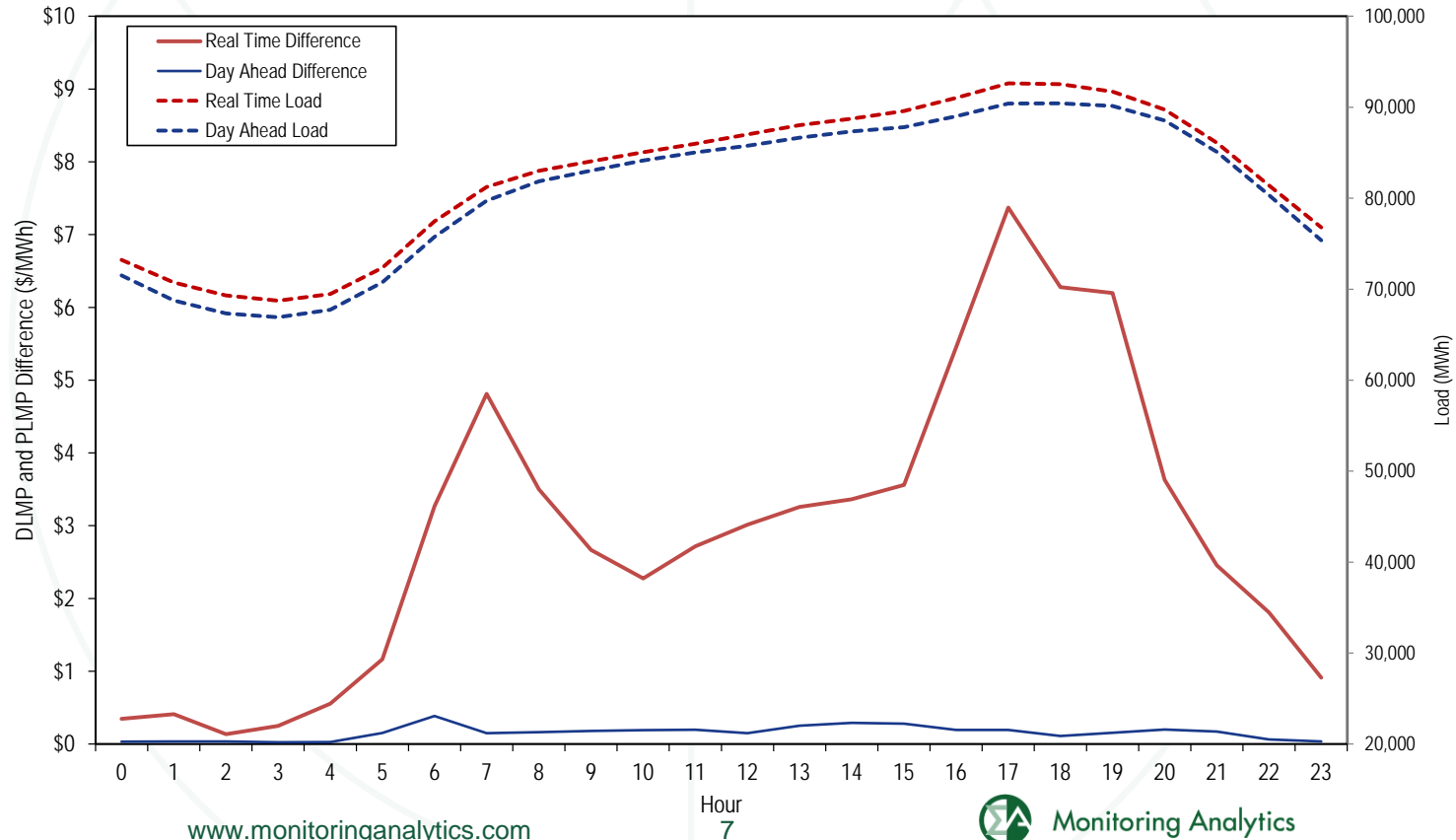
Daily Average Real-Time PLMP and DLMP



Hourly Difference: PLMP - DLMP



Average Hourly Load and LMP Difference



Fast Start Impacts: Zonal Average Differences

ZONE	Average DLMP	Average PLMP	Difference	Difference Percent
AECO	\$41.22	\$43.02	\$1.80	4.4%
AEP	\$53.22	\$56.27	\$3.05	5.7%
APS	\$55.01	\$58.09	\$3.08	5.6%
ATSI	\$53.03	\$55.93	\$2.91	5.5%
BGE	\$59.88	\$63.46	\$3.58	6.0%
COMED	\$44.51	\$47.51	\$3.00	6.7%
DAY	\$56.27	\$59.36	\$3.10	5.5%
DEOK	\$54.07	\$57.12	\$3.05	5.6%
DOM	\$59.44	\$62.79	\$3.35	5.6%
DPL	\$43.57	\$46.15	\$2.58	5.9%
DUQ	\$52.81	\$55.71	\$2.90	5.5%
EKPC	\$54.30	\$57.37	\$3.07	5.6%
JCPL	\$42.83	\$44.81	\$1.98	4.6%
METED	\$52.87	\$55.75	\$2.89	5.5%
OVEC	\$53.28	\$56.28	\$2.99	5.6%
PECO	\$40.80	\$42.51	\$1.71	4.2%
PENELEC	\$50.45	\$53.16	\$2.70	5.4%
PEPCO	\$59.78	\$63.31	\$3.53	5.9%
PPL	\$47.23	\$49.67	\$2.44	5.2%
PSEG	\$42.81	\$44.79	\$1.98	4.6%
RECO	\$44.35	\$46.49	\$2.14	4.8%

Zonal PLMP and DLMP Difference Frequency

ZONE	< (\$50)	(\$50) to (\$10)	(\$10) to \$0	\$0	\$0 to \$10	\$10 to \$20	\$20 to \$50	\$50 to \$100	\$100 to \$200	>= \$200
PJM-RTO	0.0%	0.0%	0.5%	43.2%	50.7%	3.8%	1.3%	0.4%	0.1%	0.0%
AECO	0.0%	0.0%	7.7%	43.9%	44.6%	2.6%	0.8%	0.3%	0.1%	0.0%
AEP	0.0%	0.0%	0.7%	43.4%	50.0%	4.1%	1.4%	0.4%	0.1%	0.0%
APS	0.0%	0.0%	1.1%	43.6%	49.2%	4.1%	1.5%	0.4%	0.1%	0.0%
ATSI	0.0%	0.1%	1.0%	43.5%	49.9%	3.8%	1.3%	0.4%	0.1%	0.0%
BGE	0.0%	0.1%	2.1%	43.5%	46.0%	5.5%	2.1%	0.5%	0.2%	0.0%
COMED	0.0%	0.1%	1.6%	43.8%	48.1%	4.2%	1.7%	0.4%	0.0%	0.0%
DAY	0.0%	0.0%	1.0%	43.6%	49.2%	4.2%	1.5%	0.4%	0.1%	0.0%
DEOK	0.0%	0.0%	0.9%	43.6%	49.5%	4.1%	1.4%	0.4%	0.1%	0.0%
DOM	0.0%	0.1%	1.5%	43.7%	47.5%	4.9%	1.8%	0.4%	0.1%	0.0%
DPL	0.0%	0.1%	12.6%	44.0%	36.2%	3.3%	3.4%	0.5%	0.1%	0.0%
DUQ	0.0%	0.1%	0.9%	43.5%	49.9%	3.8%	1.3%	0.4%	0.1%	0.0%
EKPC	0.0%	0.0%	1.1%	43.7%	49.2%	4.2%	1.4%	0.4%	0.1%	0.0%
JCPL	0.0%	0.0%	3.1%	44.0%	49.1%	2.7%	0.8%	0.3%	0.1%	0.0%
METED	0.0%	0.2%	3.5%	43.7%	46.0%	4.2%	1.8%	0.6%	0.1%	0.0%
OVEC	0.0%	0.0%	0.9%	43.7%	49.6%	3.9%	1.4%	0.4%	0.1%	0.0%
PECO	0.0%	0.0%	10.7%	44.0%	41.7%	2.5%	0.7%	0.3%	0.1%	0.0%
PENELEC	0.0%	0.1%	0.8%	43.5%	50.3%	3.6%	1.3%	0.4%	0.1%	0.0%
PEPCO	0.0%	0.1%	2.1%	43.6%	46.3%	5.3%	2.1%	0.4%	0.1%	0.0%
PPL	0.0%	0.0%	3.0%	43.8%	48.2%	3.3%	1.2%	0.3%	0.1%	0.0%
PSEG	0.0%	0.0%	3.0%	43.9%	49.2%	2.7%	0.8%	0.3%	0.1%	0.0%
RECO	0.0%	0.0%	1.8%	43.6%	50.6%	2.8%	0.9%	0.3%	0.1%	0.0%



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