

# **CORPORATE METRICS**

4th Quarter 2019

Jan. 21, 2020

# Southwest Power Pool Corporate Metrics

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Transmission and Market  
Finance  
Engineering Studies

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Regulatory Activity Update & Outlook  
Government Affairs Quarterly Activity Report

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## Transmission &amp; Market Dashboard

4Q2019

Markets Operational Indicators Metric	Chart	Q4 2019 Indicators			Indicator Threshold Values			
		Oct-19	Nov-19	Dec-19	Expected	Monitor	Concern	Problem
TCR Funding	M.1.2	▼	●	●	>= 90%, <= 100%	± 5% of Expected	± 10% of Expected	± 20% of Expected
CPS1 & BAAL Reporting	M.3	●	●	●	<=20 mins or >120	>20 mins or =<120	>25 mins or <110	>=30 mins or <100
RT-DA Price Deviation	M.4.4	▼	▲	■	<= 25%	<= 30%	<= 35%	> 45%
MWP Distribution per MWh	M.5.3	●	●	■	<= \$0.50	<= \$0.75	<= \$1.00	> \$1.00
Monthly Average Gross Virtual Profitability per MWh	M.6	▲	●	●	<= \$2.00	<= \$2.50	<= \$3.00	> \$3.00
Excess Capacity (900 MW + X % of Peak Obligation)	M.7.1	●	●	●	<= 0.5%	<= 1%	<= 1.5%	> 1.5%
Real-Time Obligation Fulfilled by DA (% Committed Capacity)	M.7.2	●	●	●	>= 95%	>= 90%	>= 85%	< 85%
HR Operational Metrics (Year-to-date), Days Failed	P.2.2	●	●	●	<= 14	<= 18	<= 25	> 25
Day-Ahead Mid-Term Load Forecast (% Error)	P.2.3	●	●	■	<= 5%	<= 10%	<= 15%	> 15%
Short-Term Load Forecast (% Error)	P.2.3	●	●	●	<= 1%	<= 1.5%	<= 2.5%	> 2.5%
On-Time Real-Time Posting	P.2.3	●	●	●	>= 99.5%	>= 99%	>= 98.5%	< 98%
On-Time Day-Ahead Posting	P.2.3	●	●	●	>= 99%	>= 98.5 %	>= 98%	< 98%

Please note: Dashboard metric criteria are reviewed and revised each year.

\* The current year Dashboard metric criteria have been published at the end of the document.

\*\* Each metric item is identified by a number that links the metric to its corresponding chart and criteria entry.
















## Finance Dashboard

4Q 2019

Metric	Chart	Previous Indicators			Indicator Threshold Values		
					Expected	Monitor	Concern
Admin Fee Measurement (Forecast vs Budget)		Oct-19	Nov-19	Dec-19			
Gross Revenue Requirement (GRR)	F.1	●	●	●	< = \$1.0 M	\$1.1 M to \$2.2 M	> = \$2.3 M
Net Revenue Requirement (NRR)	F.1	●	●	●	< = \$1.0 M	\$1.1 M to \$2.2 M	> = \$2.3 M
Admin Fee Revenue Collected	F.1	●	●	●	< = \$1.0 M	\$1.1 M to \$2.2 M	> = \$2.3 M
Over/(Under) Recovery	F.1	●	●	●	< = \$1.0 M	\$1.1 M to \$2.2 M	> = \$2.3 M
Billing Determinants (MWh millions)	F.1	●	●	●	< = 3.0	3.1 to 5.0	> = 5.1
Credit		Oct-19	Nov-19	Dec-19			
Short Pays & Uncollected Amounts	F.2	●	●	●	Short Pays = \$0; Uncollected = \$0	Short Pays > \$0; Uncollected = \$0	Short Pays > \$0; Uncollected > \$0
Settlement Disputes		Oct-19	Nov-19	Dec-19			
Number of Open Disputes	F.3	●	●	●	< = 30	31 to 60	> 60
Average Days Outstanding	F.3	●	●	●	< = 30	31 to 45	> 45
Average Dispute Amount (millions)	F.3	●	●	●	< = \$1.0	\$1.1 to \$2.0	> \$2.0
Number of Resettlements	F.3	■	■	▼	< = 50	51 to 90	> 90
Human Resources		Q2.19	Q3.19	Q4.19			
Rolling 4 Qtr Turnover Rate	F.4	●	●	●	< 6%	6 to 8%	> 8%
Vacancy Rate	F.4	●	●	●	< 5%	5 to 8%	> 8%

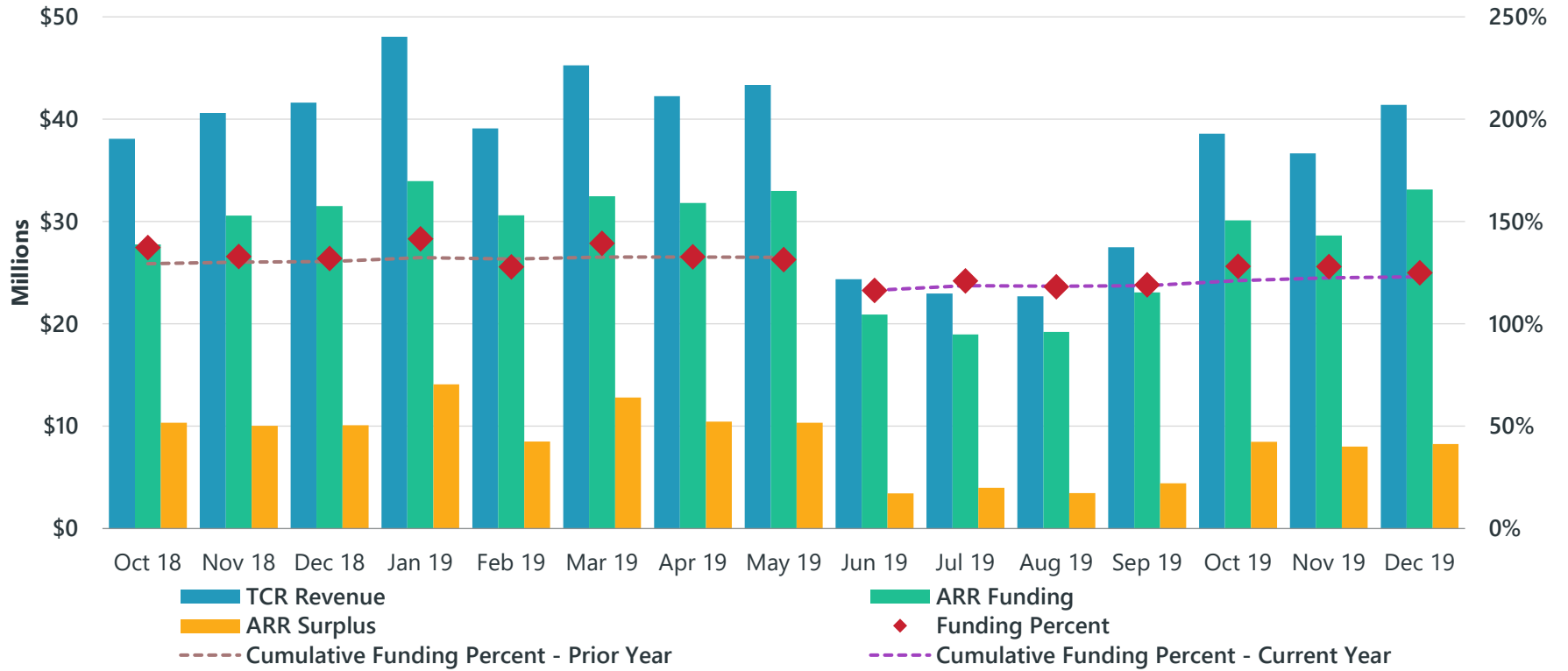
## Engineering Studies

### 4Q 2019

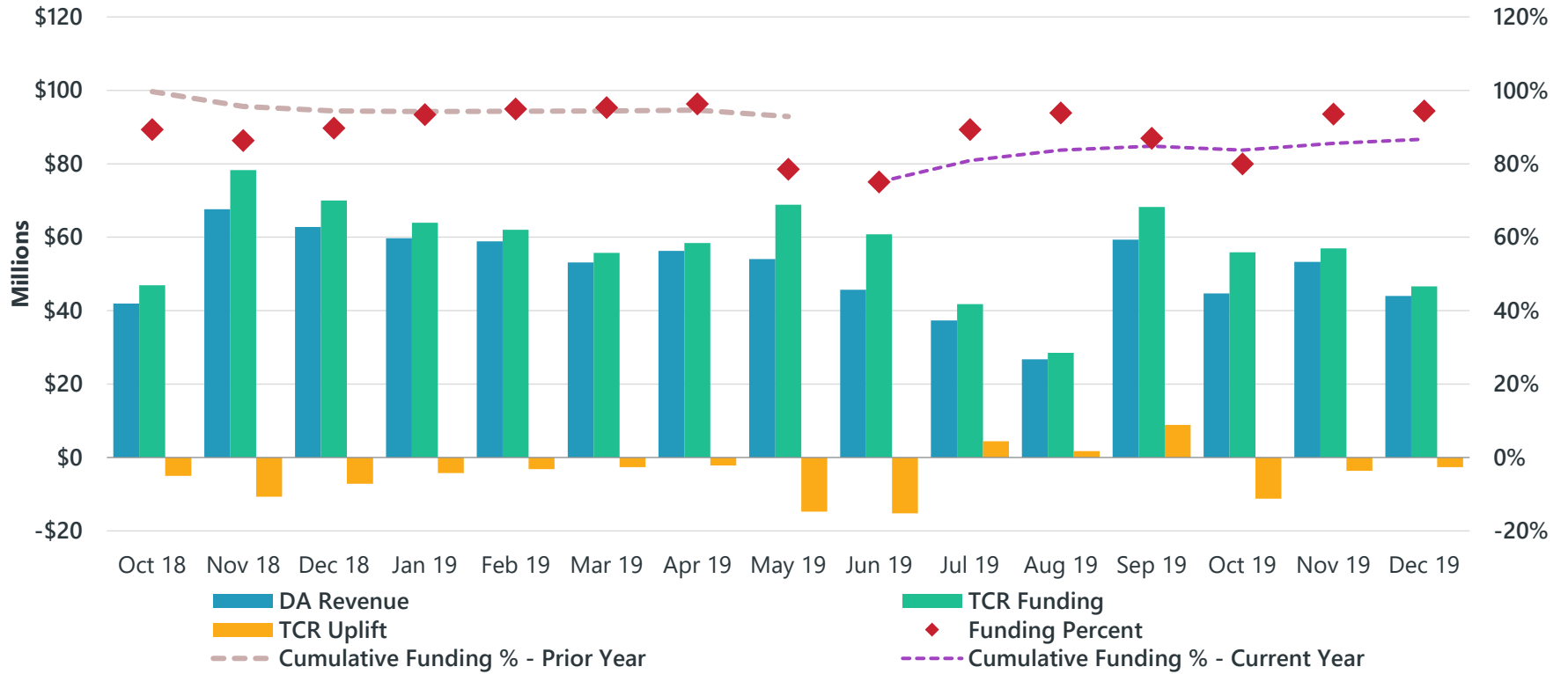
Percentage of study postings that were on-time during the quarter.		Quarterly Indicators			Indicator Threshold Values		
Study Type	Chart	Q2.19	Q3.19	Q4.19			
					Expected	Monitor	Concern
Aggregate Facilities Studies	P.3				100%	80-99%	> 80%
Delivery Point Transfer Screening Studies	P.3				100%	80-99%	> 80%
Long-Term Service Request Screening Studies	P.3				100%	80-99%	> 80%
Generator Interconnection Active Requests > 365 Days	P.4				< 10%	< 30%	> 30%

SPP must report to the commission when more than 20% of Facilities Studies (not Screening Studies) are late in two consecutive calendar quarters. SPP is subject to penalty if 10% or more are late in the following two calendar quarters after breaking the 20% late threshold.

### M.1.1. ARR Funding Summary

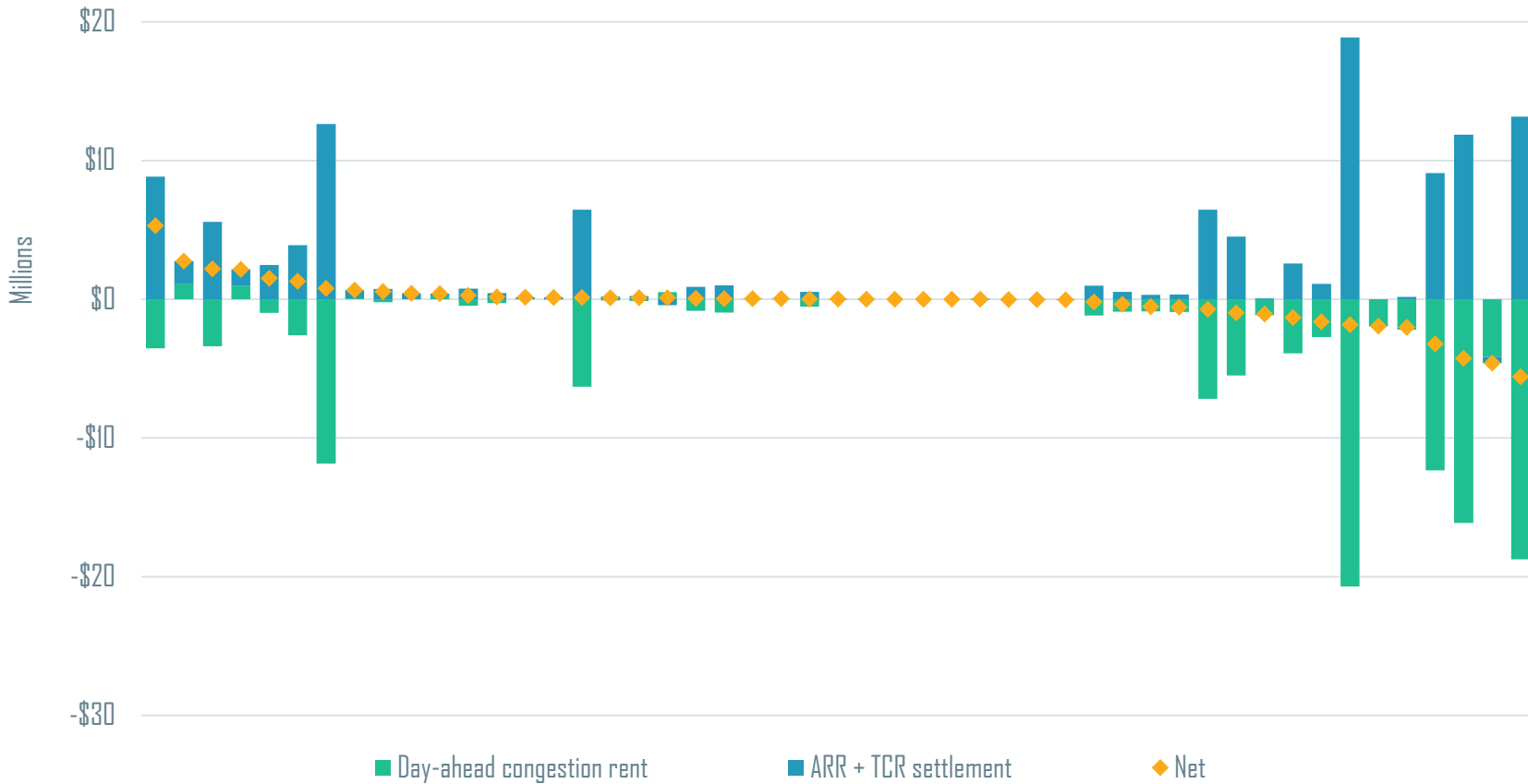


### M.1.2. TCR Funding Summary



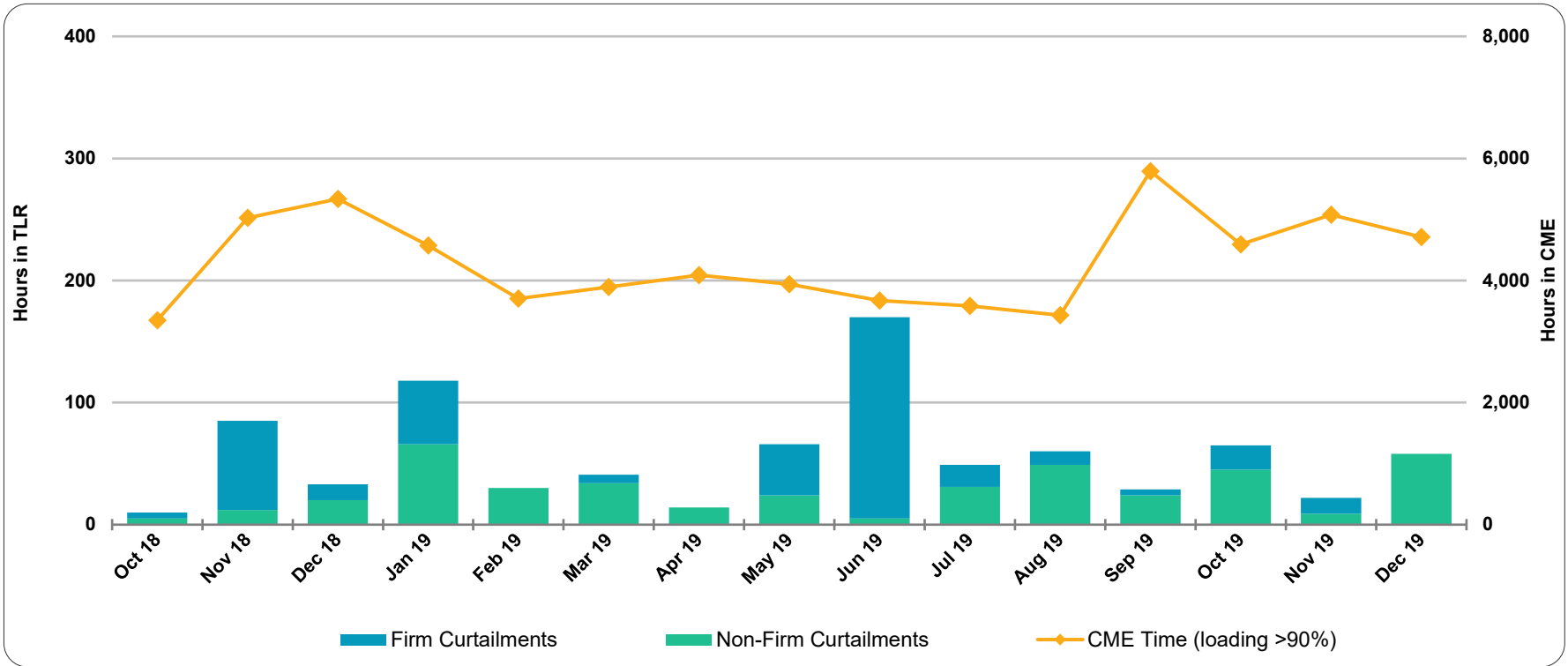
### M.1.3. Net day-ahead congestion revenue

June 1, 2019 to December 31, 2019

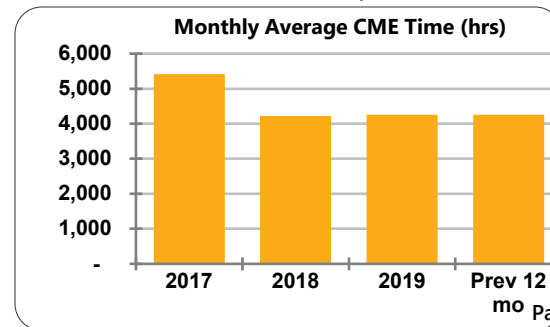
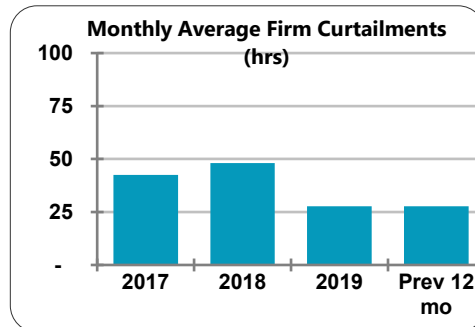
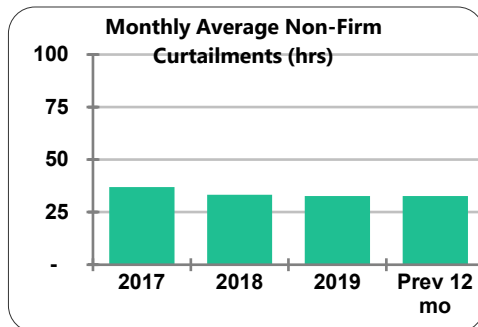




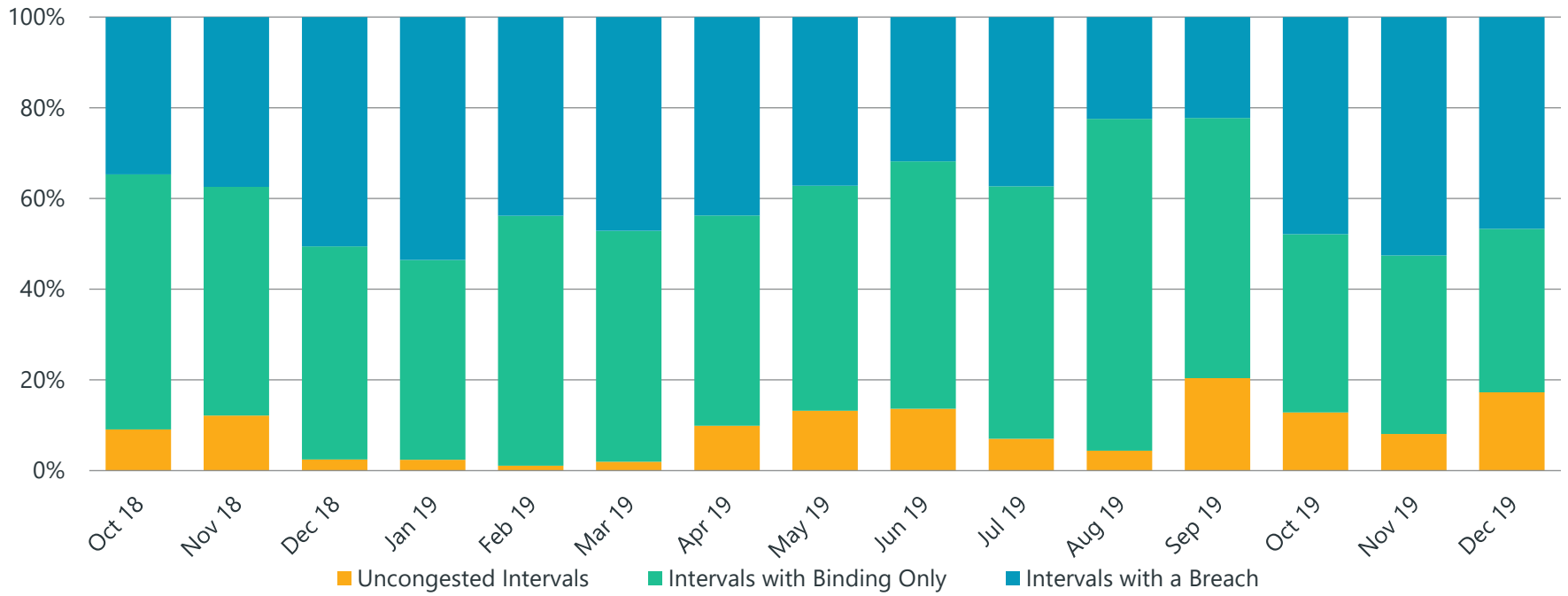
## M.2.1. Congestion - TLR / CME Time



<i>in hours</i>	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	2017	2018	2019	Prev 12 mo
Non-Firm Curtailments	5	12	20	66	30	34	14	24	5	31	49	24	45	9	58	37	33	33	33
Firm Curtailments	5	73	13	52	0	7	0	42	165	18	11	5	20	13	0	43	48	28	28
Total	10	85	33	118	30	41	14	66	170	49	60	29	65	22	58	79	81	60	60
CME Time (loading >90%)	3349	5026	5338	4575	3704	3895	4086	3939	3674	3585	3430	5791	4592	5078	4712	5,414	4,222	4,255	4,255
<b>Monthly Average in Hours</b>																			



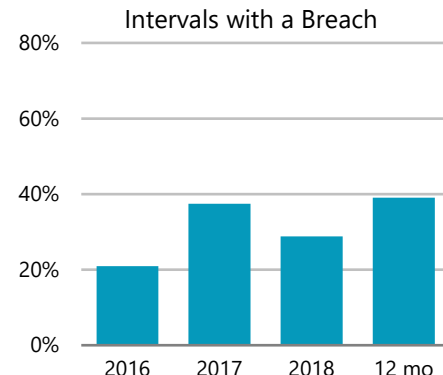
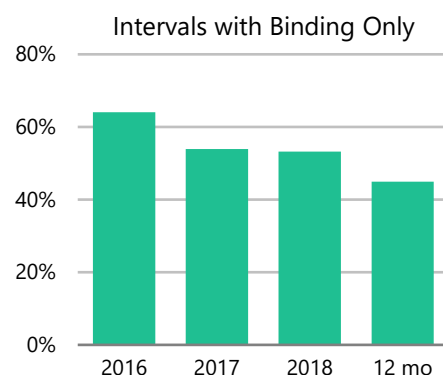
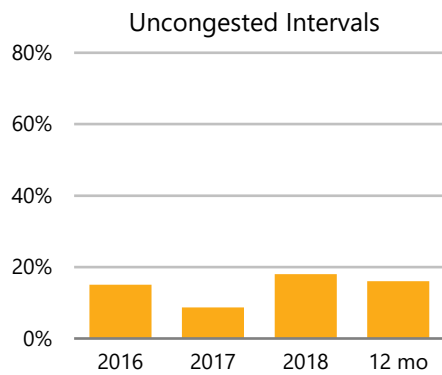
## M.2.2. Congestion - Congested Intervals, real-time market



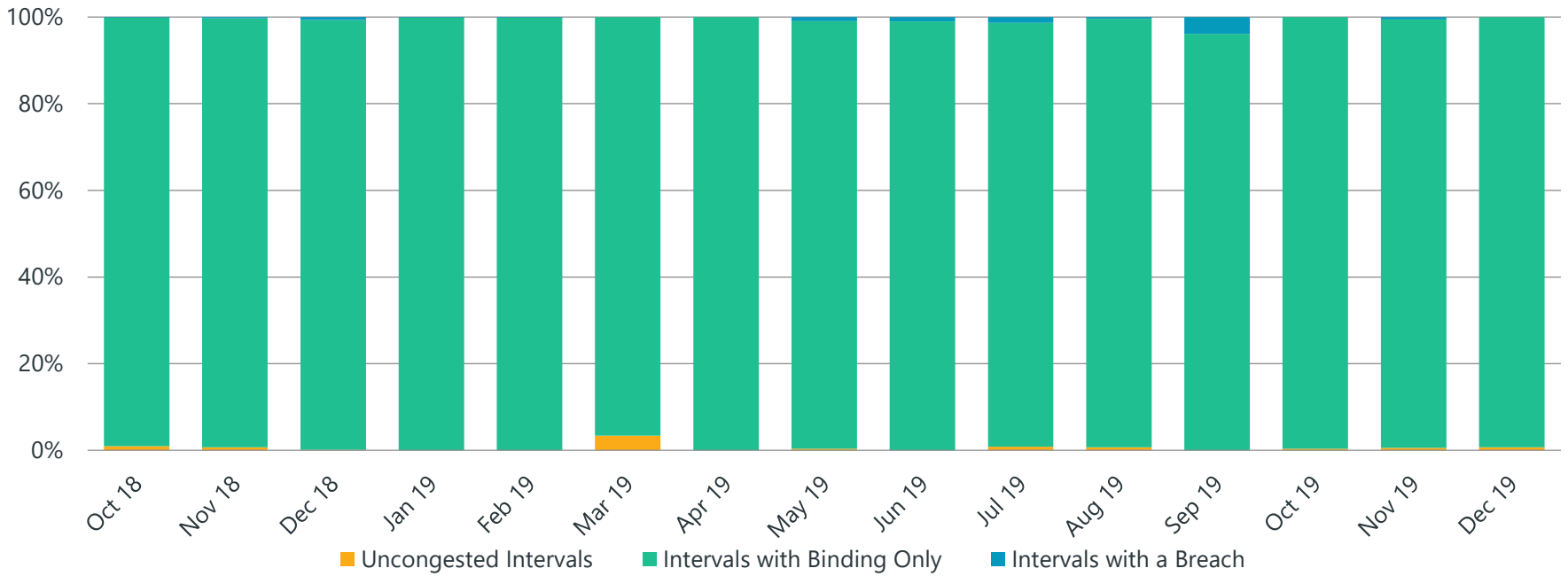
	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	2016	2017	2018	12 mo
Uncongested Intervals	9%	12%	2%	2%	1%	2%	10%	13%	14%	7%	4%	20%	13%	8%	17%	15%	9%	18%	16%
Intervals with Binding Only	56%	50%	47%	44%	55%	51%	46%	50%	55%	56%	73%	57%	39%	39%	36%	64%	54%	53%	45%
Intervals with a Breach	35%	37%	51%	54%	44%	47%	44%	37%	32%	37%	22%	22%	48%	53%	47%	21%	37%	29%	39%

Interval = 5 minutes

Average



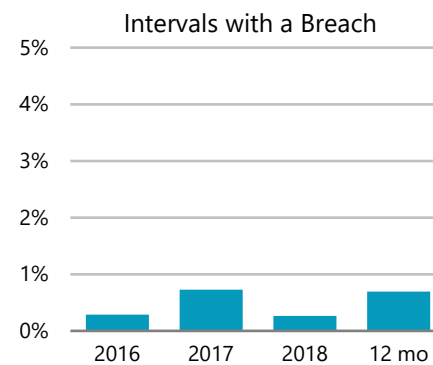
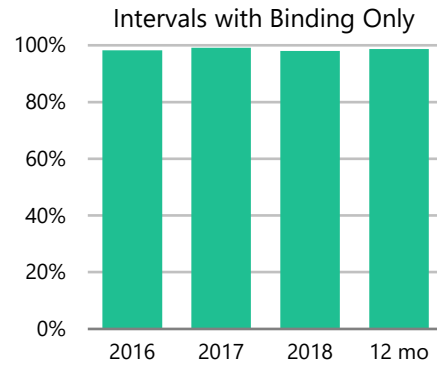
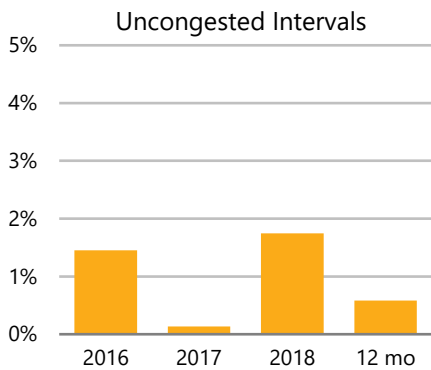
### M.2.2.1 Congestion - Congested Intervals, day-ahead market



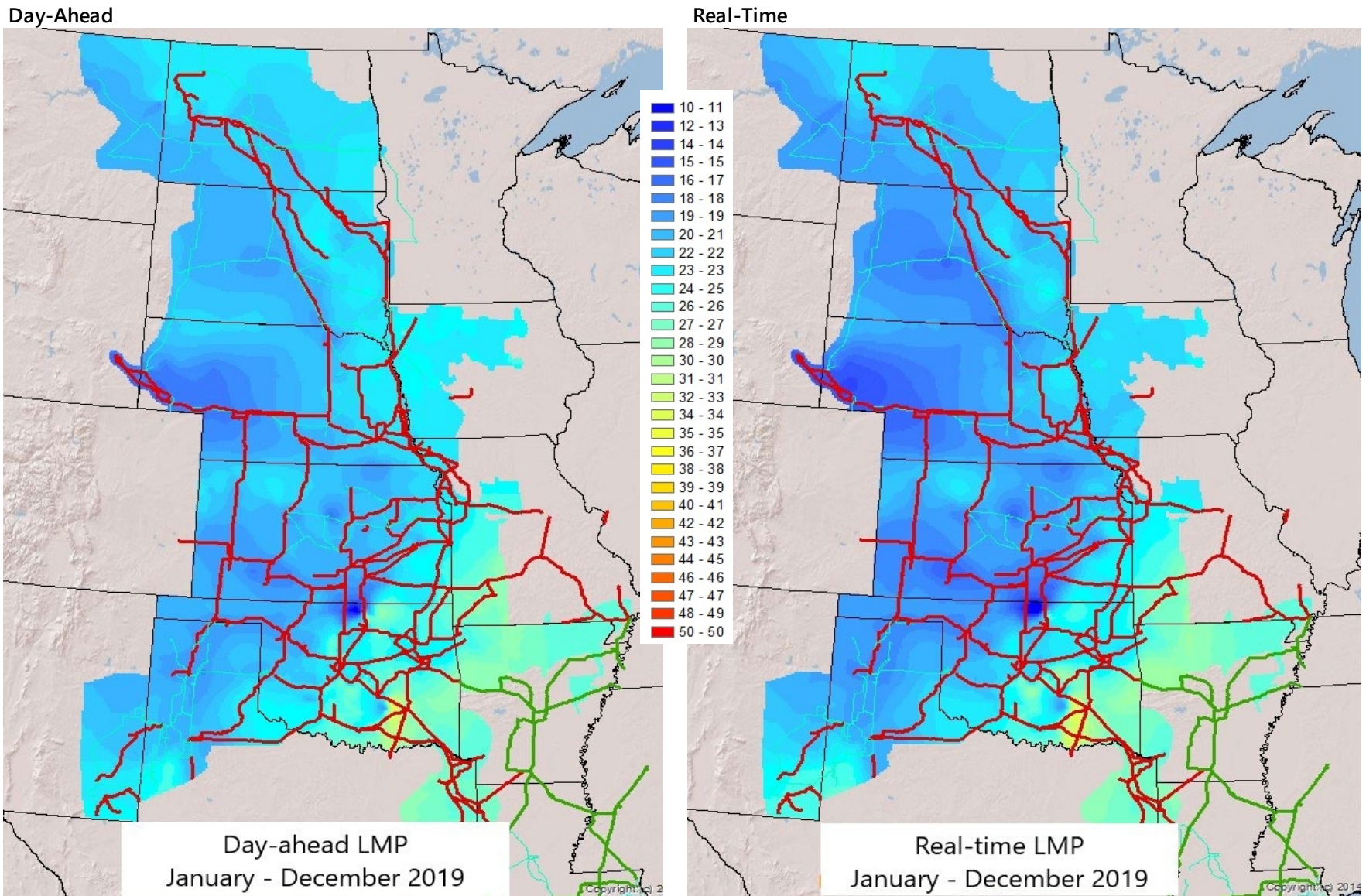
	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	2016	2017	2018	12 mo
Uncongested Intervals	1%	1%	0%	0%	0%	3%	0%	0%	0%	1%	1%	0%	0%	1%	1%	1%	0%	2%	1%
Intervals with Binding Only	99%	99%	99%	100%	100%	97%	100%	99%	99%	98%	99%	96%	100%	99%	99%	98%	99%	98%	99%
Intervals with a Breach	0%	0%	1%	0%	0%	0%	0%	1%	1%	1%	0%	4%	0%	1%	0%	0%	1%	0%	1%

Interval = 1 hour

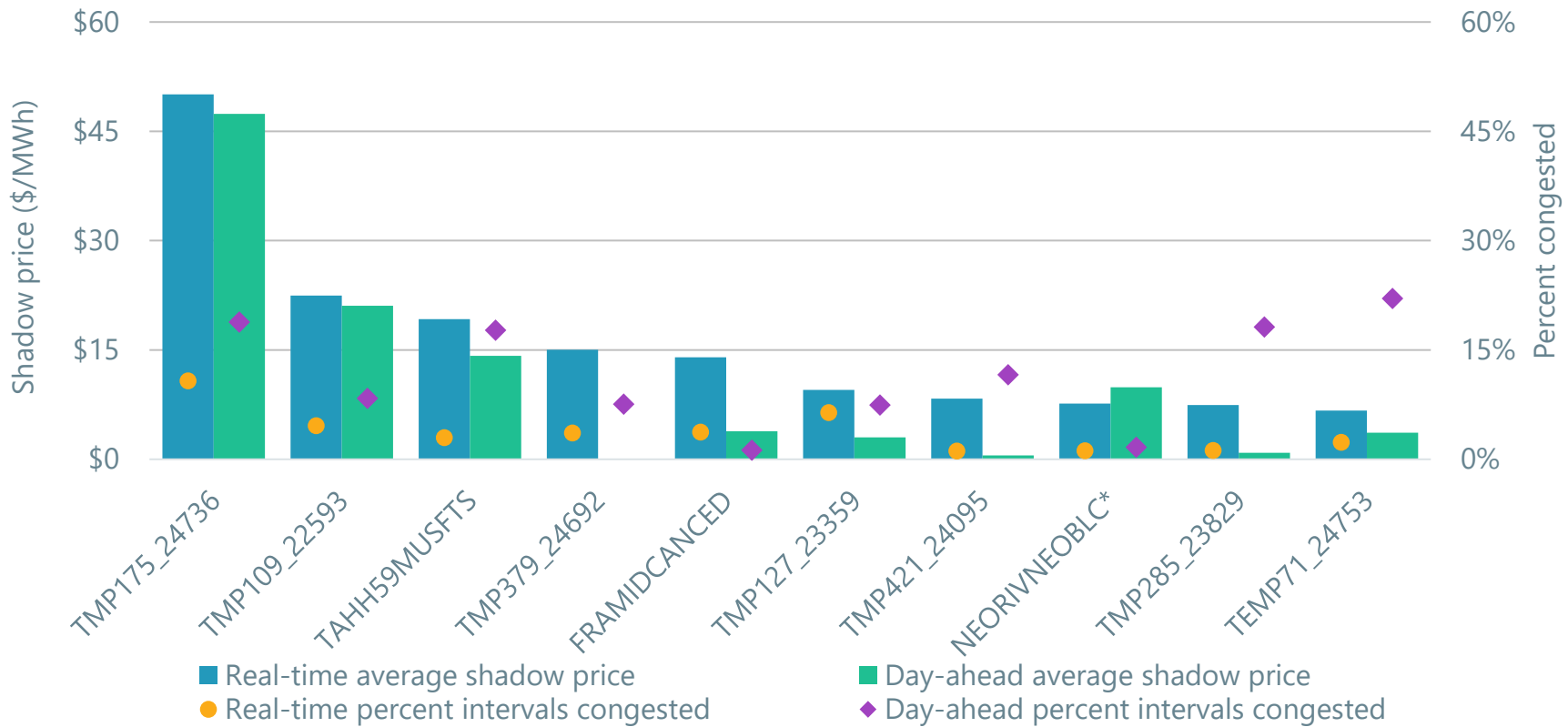
**Average**



### M.2.3. Price Contour Map (January - December 2019)



### M.2.4. Congestion - Flowgates (January - December 2019)



Flowgate Name	Region	Flowgate Location
TMP175_24736	North-central Oklahoma	Braman-Newkirk Tap 69kV ftlo Hunter-Woodring 345kV (OKGE)
TMP109_22593	Eastern Oklahoma	Stonewall Tap-Tupelo Tap 138kV (WFEC) ftlo Seminole-Pittsburg 345kV (CSWS-OKGE)
TAHH59MUSFTS	Arkansas/Oklahoma border	Tahlequah-Hwy 59 161kV (GRDA-OKGE) ftlo Muskogee-Ft. Smith 345kV (OKGE)
TMP379_24692	North-central Oklahoma	Braman-Newkirk Tap 69kV ftlo Kildeer Tap-Chikaskia 138kV (OKGE)
FRAMIDCANCED	Eastern Kansas	Franklin-Midwest 138kV (WFEC-OKGE) ftlo Cedar Lane-Canadian 138kV (OKGE)
TMP127_23359	Eastern Oklahoma	Stonewall Tap-Tupelo Tap 138kV (WFEC) ftlo Seminole-Pittsburg 345kV (CSWS-OKGE)
TMP421_24095	Central Oklahoma	Cimarron Xfmr 345/138kV ftlo Cimarron Xfmr 345/138kV (OKGE)
NEORIVNEOBLC*	SE Kansas/SW Missouri	Neosho-Riverton 161kV (WR-EDE) ftlo Neosho-Blackberry 345kV (WR-AECI)
TMP285_23829	NE Kansas/NW Missouri/SE Nebraska	Kelly-Goff 115kV (WR) ftlo Cooper-St. Joe (NPPD-MPS)
TEMP71_24753	Northwest Kansas	Knoll-Redline 115kV (WR-MIDW) ftlo Post Rock-Axtell 345kV (WR-MIDW)

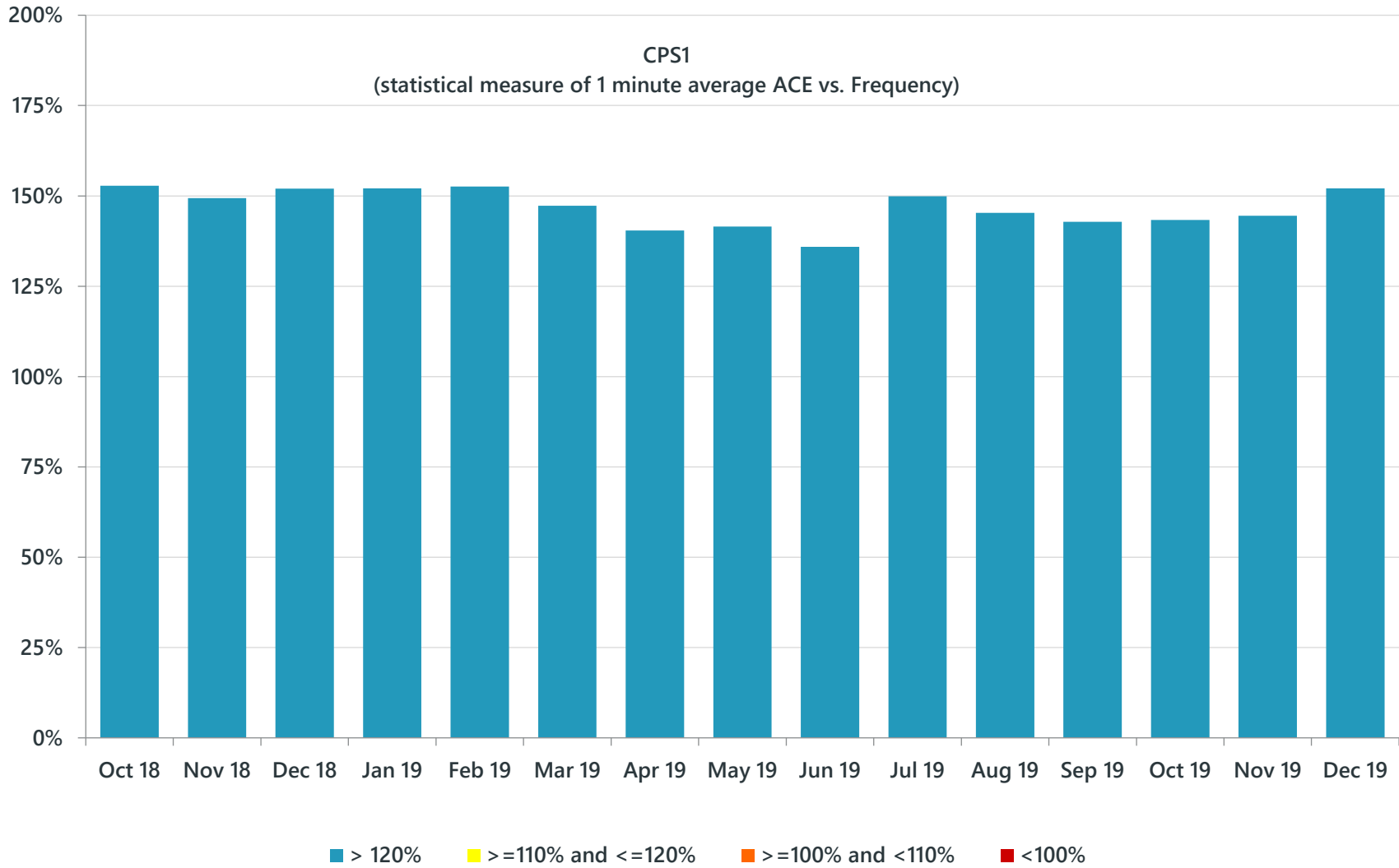
\* SPP Market-to-Market flowgate

## M.2.4.1 Congestion - Flowgates (January-December 2019)

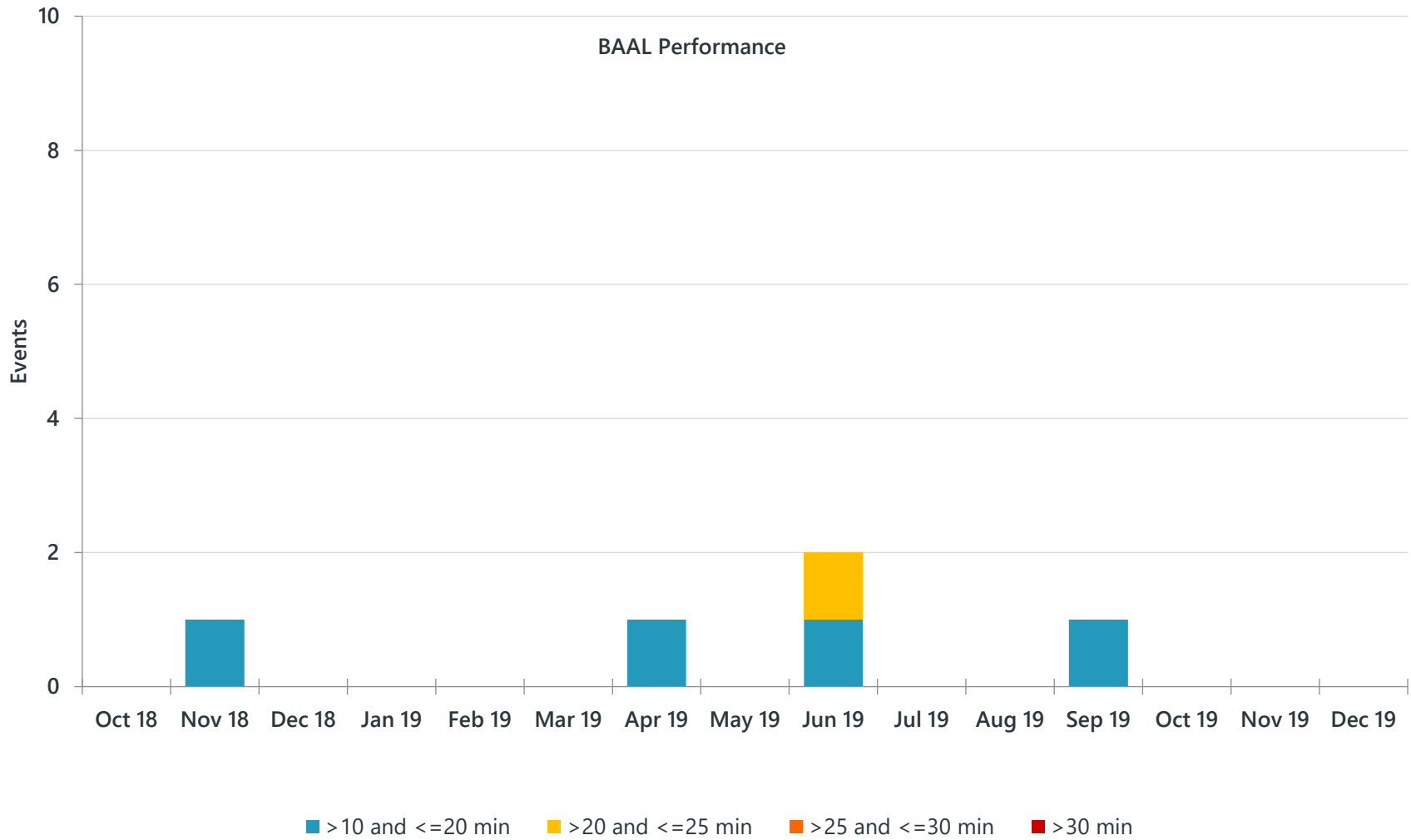
Flowgate Name	Region	Flowgate Location	Projects or operations that may provide mitigation	Short Summary
TMP175_24736	North-central Oklahoma	Braman-Newkirk Tap 69kV ftlo Hunter-Woodring 345kV (OKGE)	TOP and SPP RC are evaluating re-configuration option. No Projects identified at this time.	During high wind in North-central Oklahoma that causes North to South flow across Oklahoma 345 kV and 138 kV system, part of the transfer flow will use 69 kV between Chikaskia and Osage as parallel path in case of 345 kV contingency. Normal congestion management processes used to mitigate.
TMP109_22593*	Eastern Oklahoma	Stonewall Tap-Tupelo Tap 138kV (WFEC) ftlo Seminole-Pittsburg 345kV (CSWS-OKGE)	Tupelo 138 kV Terminal Upgrades (July 2021, 2017 ITP10). Operations has Operating Guide.	During West to East system flow across South of Oklahoma , the trip of the 345 kV contingency redirects flow onto the 138kV system. When insufficient dispatchable resources South of the constraint it is typically more difficult to manage. If normal congestion management is not effective, Operations will work with TOP's on reconfiguration options.
TAHH59MUSFTS	Arkansas / Oklahoma border	Tahlequah-Hwy 59 161kV (GRDA-OKGE) ftlo Muskogee-Ft. Smith 345kV (OKGE)	SPP RC and TOP have an Operating Guide in place that considers multiple reconfiguration options if normal congestion management is not effective. No Projects identified at this time.	During high North to South flow across East Oklahoma on the 345 kV and 161 kV transmission system, part of the transfer flow will use 161 kV between Neosho and Riverton as parallel path in case of 345 kV contingency. Normal congestion management processes used to mitigate. If normal congestion management is not effective, Operations will work with TOP's on reconfiguration options.
TMP379_24692	North-central Oklahoma	Braman-Newkirk Tap 69kV ftlo Kildeer Tap-Chikaskia 138kV (OKGE)	TOP and SPP RC are evaluating re-configuration option. No Projects identified at this time.	During high wind in North-central Oklahoma that causes North to South flow across Oklahoma 345 kV and 138 kV system, part of the transfer flow will use 69 kV between Chikaskia and Osage as parallel path in case of 138 kV contingency. Normal congestion management processes used to mitigate.
FRAMIDCANCED	Central Oklahoma	Franklin-Midwest 138kV (WFEC-OKGE) ftlo Cedar Lane-Canadian 138kV (OKGE)	None identified at this time	During high North to South flow out of Oklahoma City going south wards on 138 kV, loss of parallel 138kV line loads alternate southern paths. Normal congestion management processes used to mitigate.
TMP127_23359	Western Nebraska	Scotsbluff-Victory Hill 115kV (NPPD) ftlo Stegall Xfmr 345kV/1 (WAUE)	None identified at this time	During high South to North system flows across West Nebraska. Flow gate was converted to permanent flow gate SCOVICSTESTG (IDC: 5700). Normal congestion management processes used to mitigate.
TMP421_24095	Central Oklahoma	Cimarron Xfmr 345/138kV ftlo Cimarron Xfmr 345/138kV (OKGE)	None identified at this time	During high wind in West Oklahoma that causes West to East flow across Oklahoma 345 kV system, part of the transfer flow will use 138 kV of Oklahoma City as parallel path. Normal congestion management processes used to mitigate.
NEORIVNEOBLC*	SE Kansas/SW Missouri	Neosho-Riverton 161kV (WR-EDE) ftlo Neosho-Blackberry 345kV (WR-AECI)	Neosho - Riverton 161kV Rebuild (October 2023, ATSS SPP-2019-AG1-AFS-2)	During high North to South flow across East Kansas and East Oklahoma on the 345 kV and 161 kV transmission system, part of the transfer flow will use 161 kV between Neosho and Riverton as parallel path in case of 345 kV contingency. Normal congestion management processes including market-to-market used to mitigate.
TMP285_23829	NE Kansas/NW Missouri/SE Nebraska	Kelly-Goff 115kV (WR) ftlo Cooper-St. Joe (NPPD-MPS)	None identified at this time	Due to the outage on the 115 kV line Kelly - Tecumseh in May of 2019, and the outage on the 345 kV line Cooper - Fairport - St. Joe in October 2019.
TEMP71_24753	Northwest Kansas	Knoll-Redline 115kV (WR-MIDW) ftlo Post Rock-Axtell 345kV (WR-MIDW)	None identified at this time	Due to the outages on the 345 kV line Mingo - Setab and the 115 kV line Knoll - Saline in May 2019.

\* SPP Market-to-Market flowgate

### M.3.1. Balancing Authority Report - CPS Performance



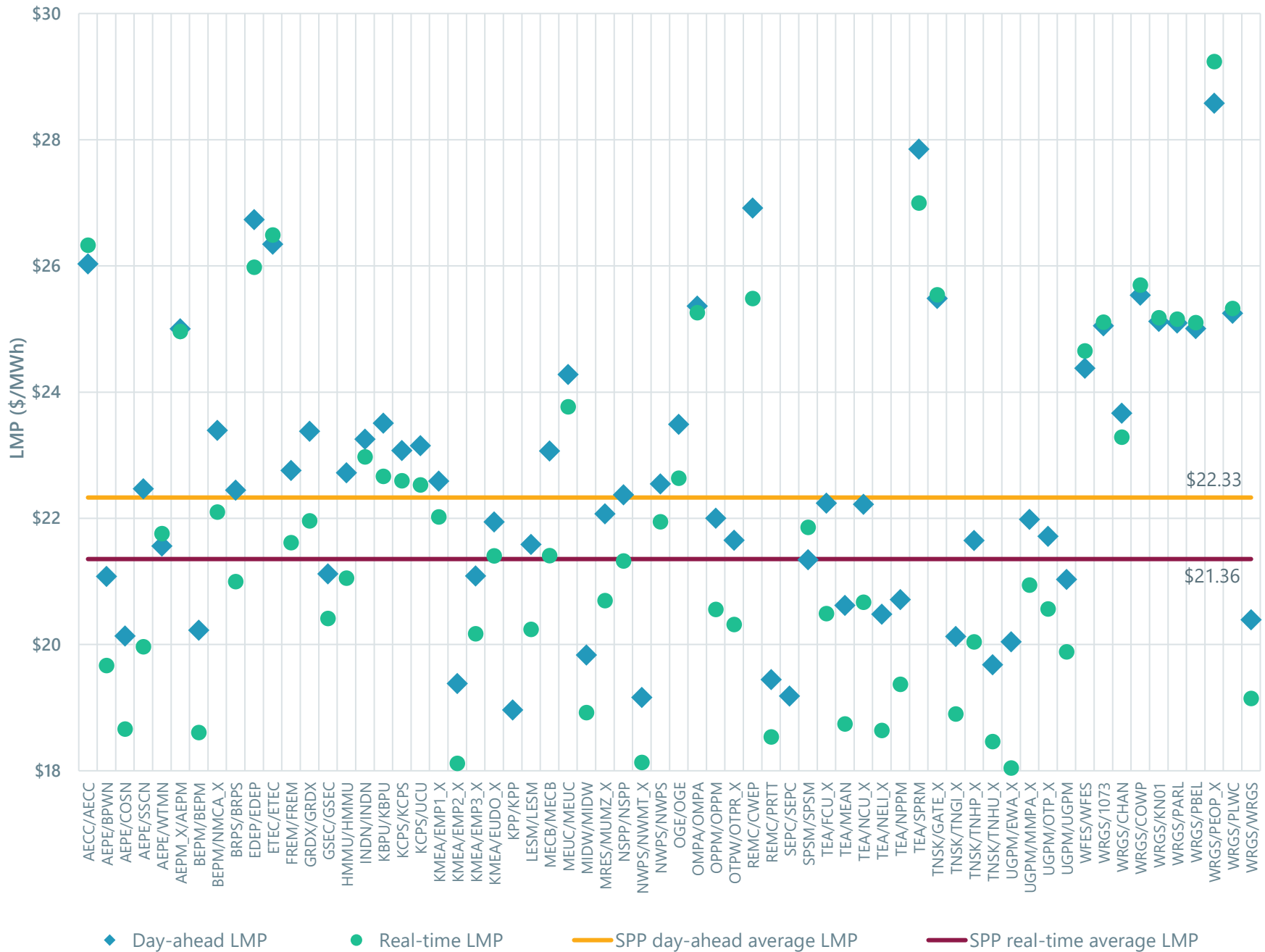
### M.3.2. Balancing Authority Report - BAAL Performance



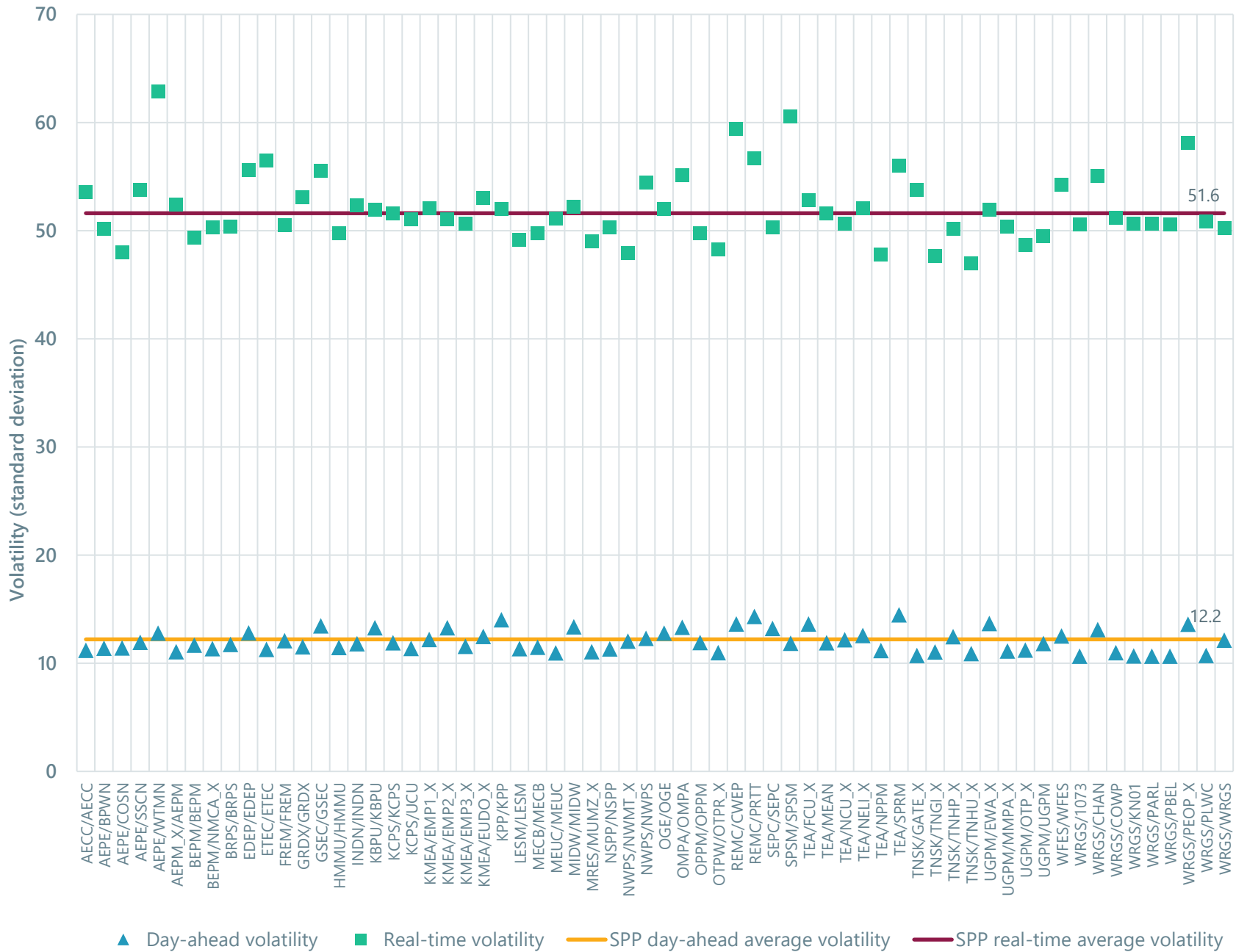
Event Length	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19
>10 and <=20 min	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0
>20 and <=25 min	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
>25 and <=30 min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>30 min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



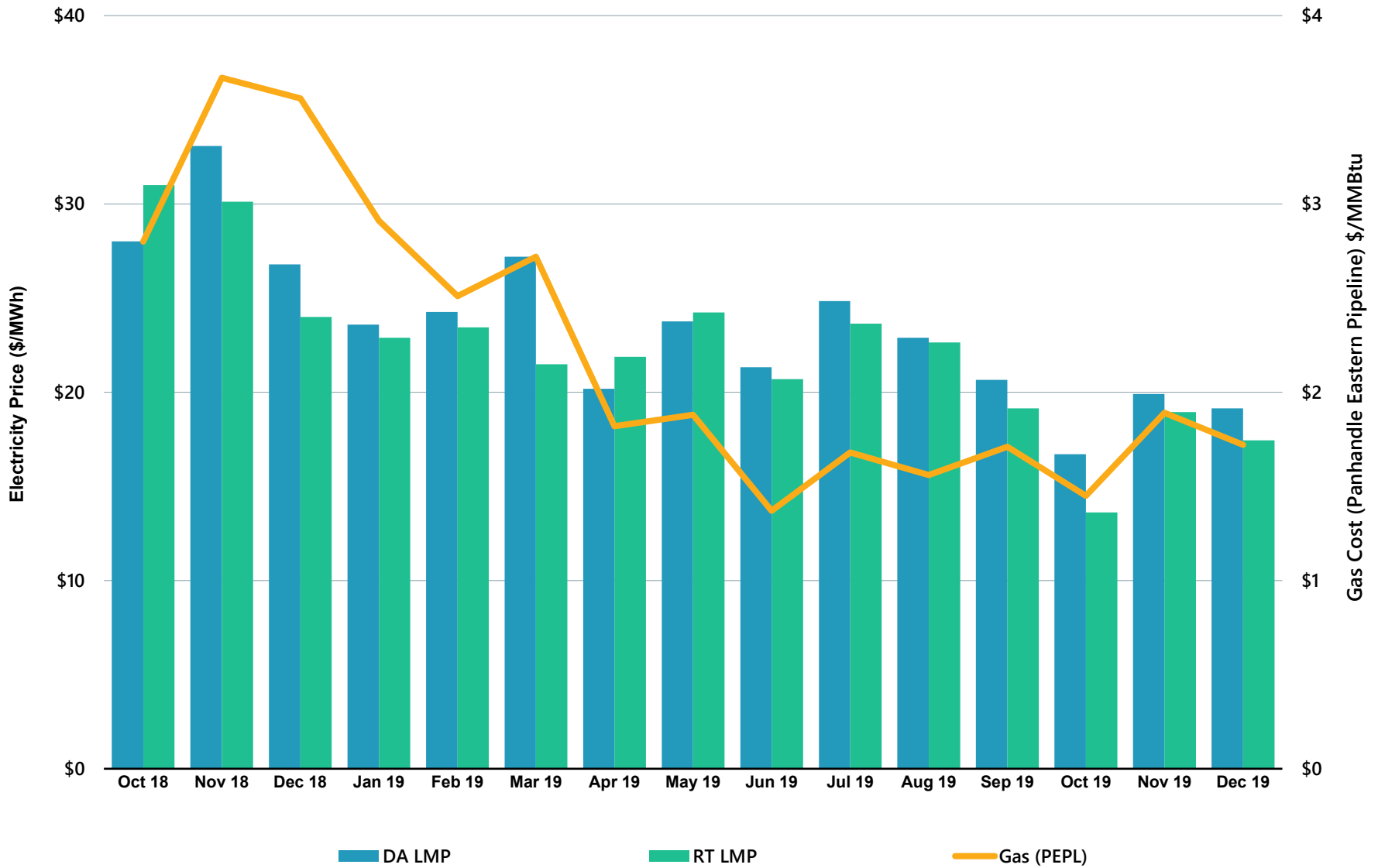
## M.4.1. Price (January - December 2019)



M.4.2. Price Volatility - standard deviation (January - December 2019)

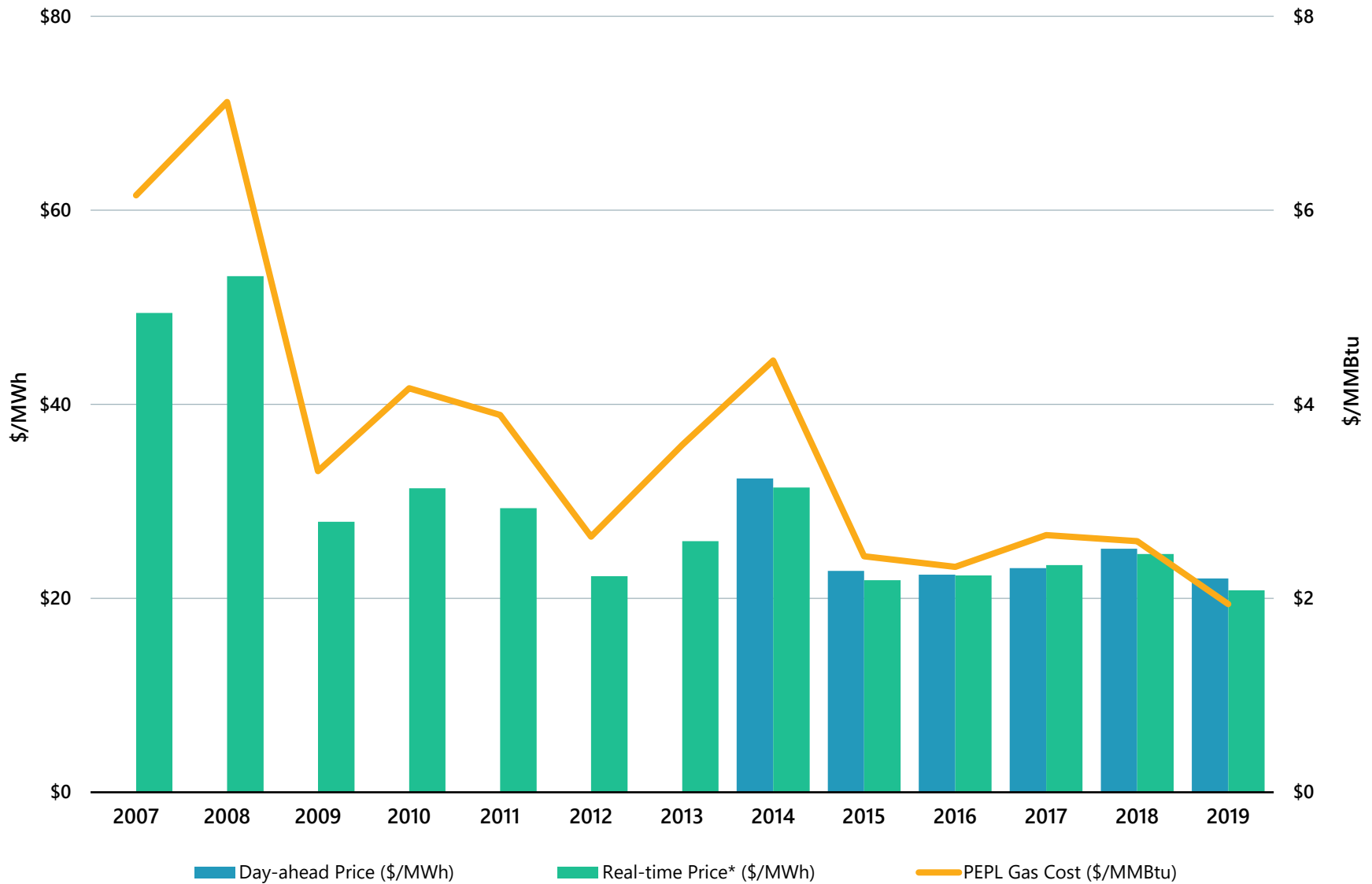


### M.4.3. Electricity/Gas Price Comparison



Average in \$	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19
DA LMP (\$/MWh)	28.01	33.08	26.79	23.59	24.26	27.20	20.18	23.76	21.32	24.84	22.90	20.66	16.71	19.90	19.14
RT LMP (\$/MWh)	31.00	30.12	24.00	22.89	23.44	21.49	21.88	24.24	20.69	23.64	22.64	19.14	13.62	18.94	17.45
PEPL Gas Cost (\$/MMBtu)	2.80	3.67	3.56	2.91	2.51	2.72	1.82	1.88	1.37	1.68	1.56	1.71	1.45	1.89	1.72

### M.4.3.1 Prices - annual

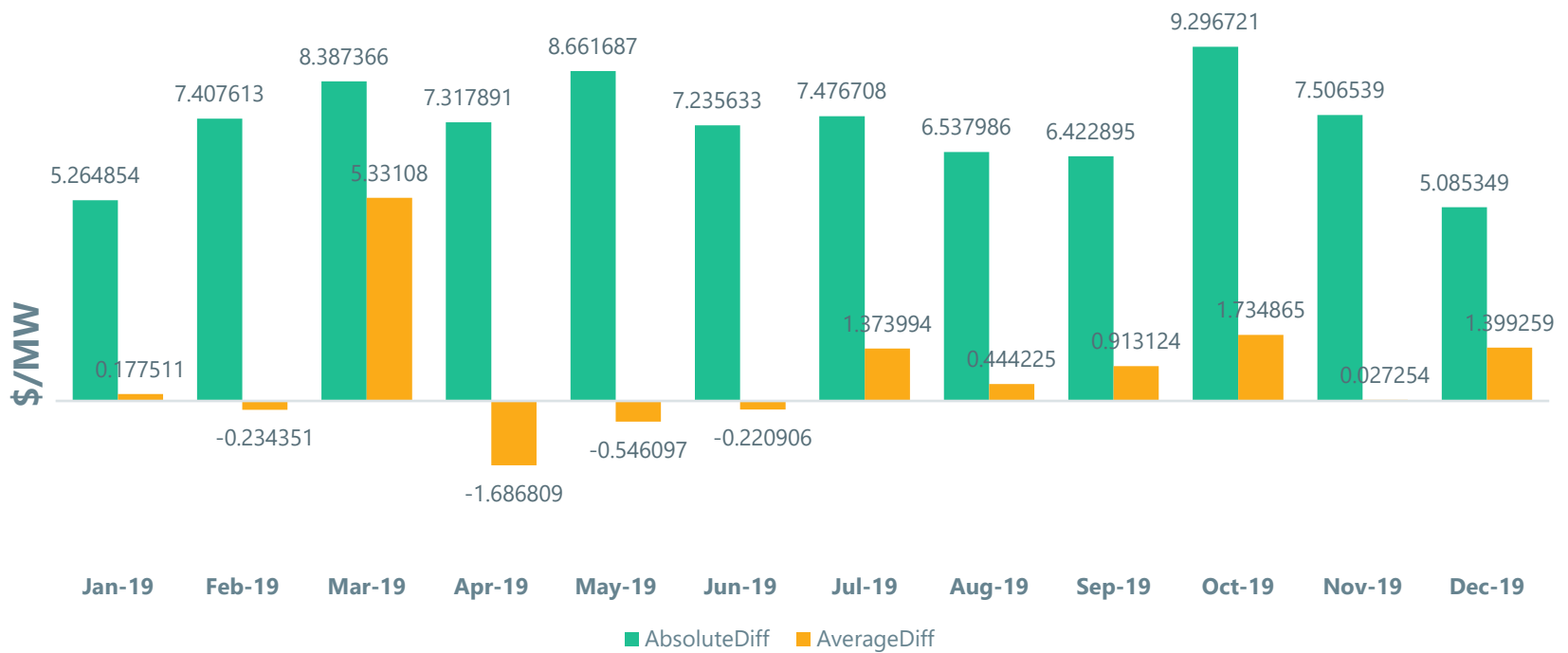
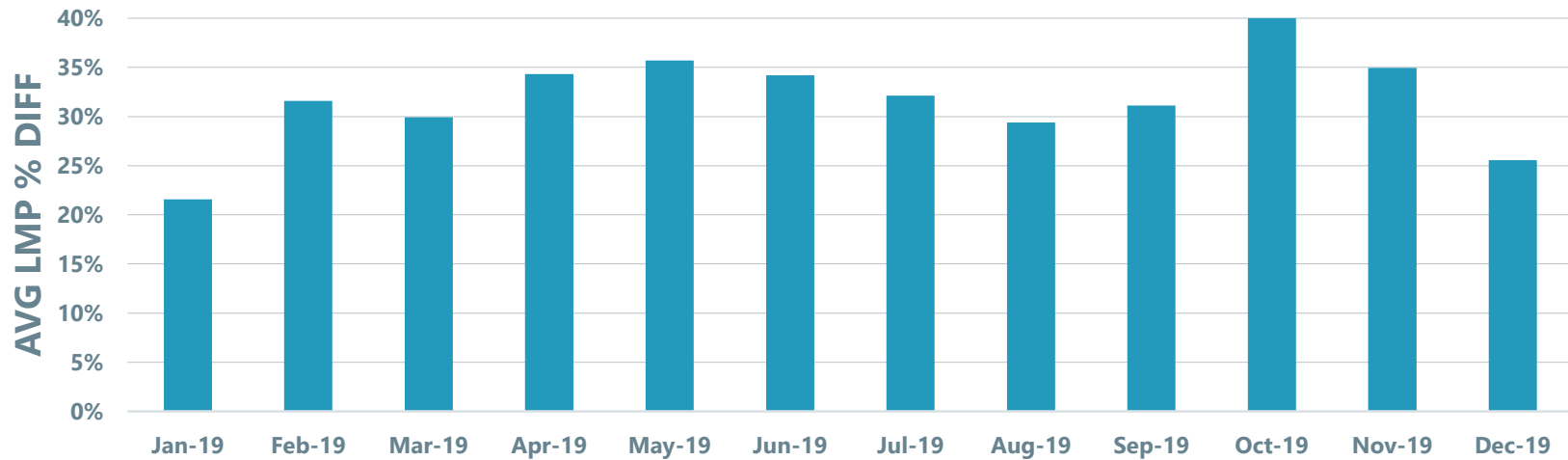


avg (in \$)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Day-ahead Price (\$/MWh)								32.36	22.84	22.43	23.11	25.11	22.04
Real-time Price* (\$/MWh)	49.42	53.21	27.89	31.33	29.28	22.29	25.89	31.42	21.85	22.36	23.43	24.56	20.82
PEPL Gas Cost (\$/MMBtu)	6.15	7.12	3.31	4.17	3.89	2.64	3.58	4.45	2.43	2.32	2.65	2.59	1.94

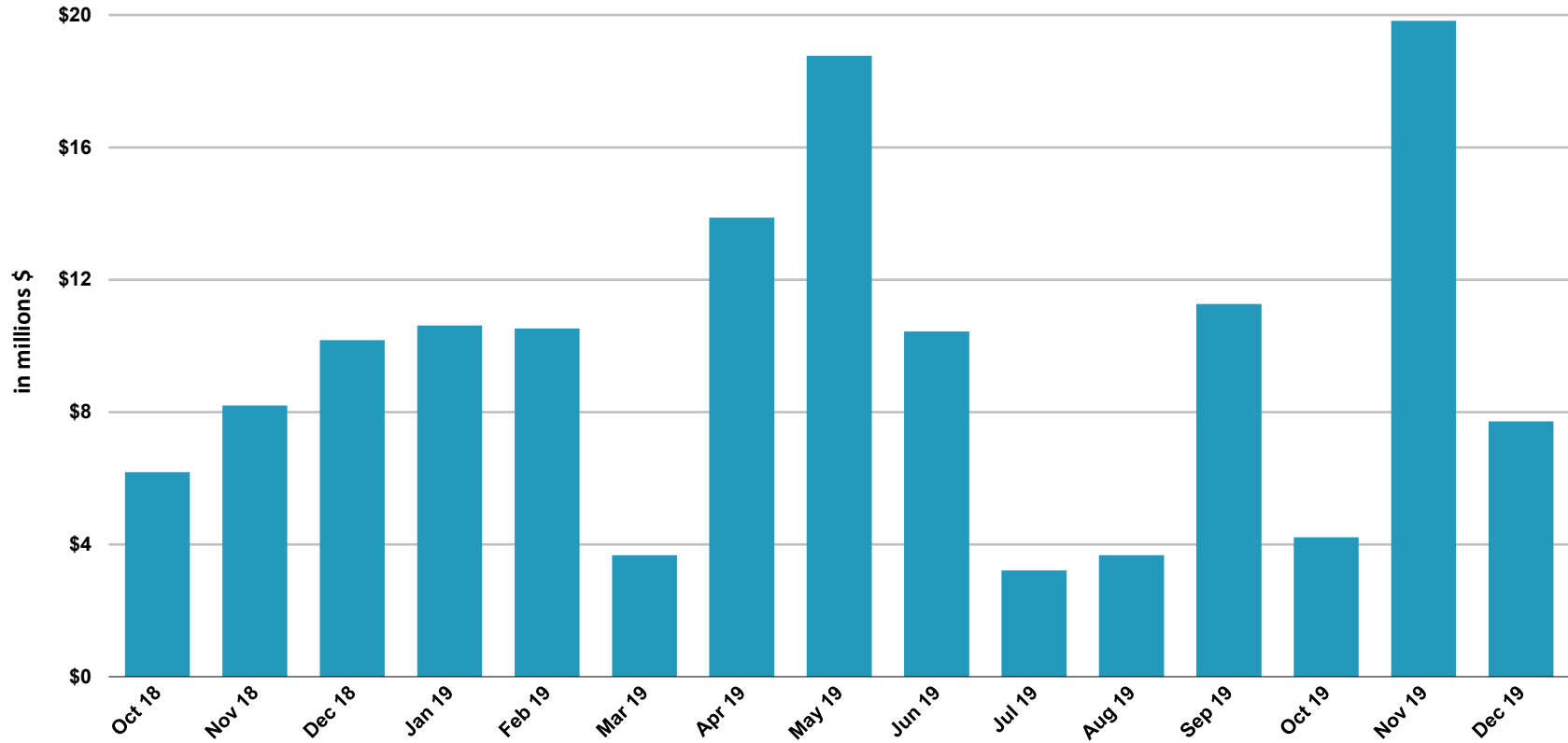
\* 2014 RTBM includes last two months of LIP for the EIS market, and RTBM LMP for the first ten months of the Integrated Marketplace. All prior years use EIS LIP.

### M.4.4. Price Divergence

#### Day-Ahead Market LMP vs Real-Time LMP % Diff

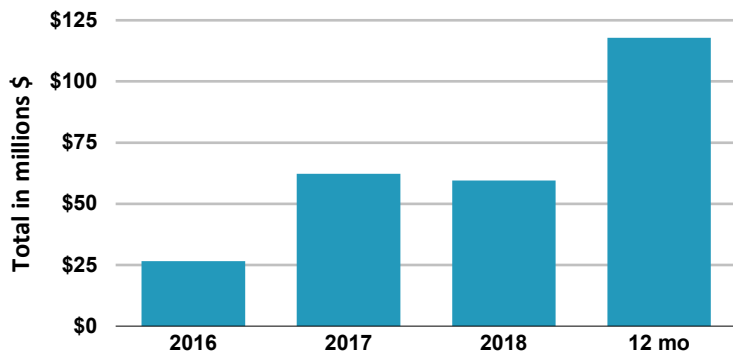


### M.5.1. Revenue Neutrality Uplift



<i>in thousands \$</i>	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	2016	2017	2018	12 mo
Total Uplift	6,181	8,192	10,178	10,614	10,524	3,674	13,873	18,771	10,437	3,216	3,671	11,264	4,216	19,827	7,720	26,566	62,268	59,562	117,809

**Total**



**Revenue Neutrality Uplift (RNU) ensures settlement payments/receipts for each settlement interval equal zero.**

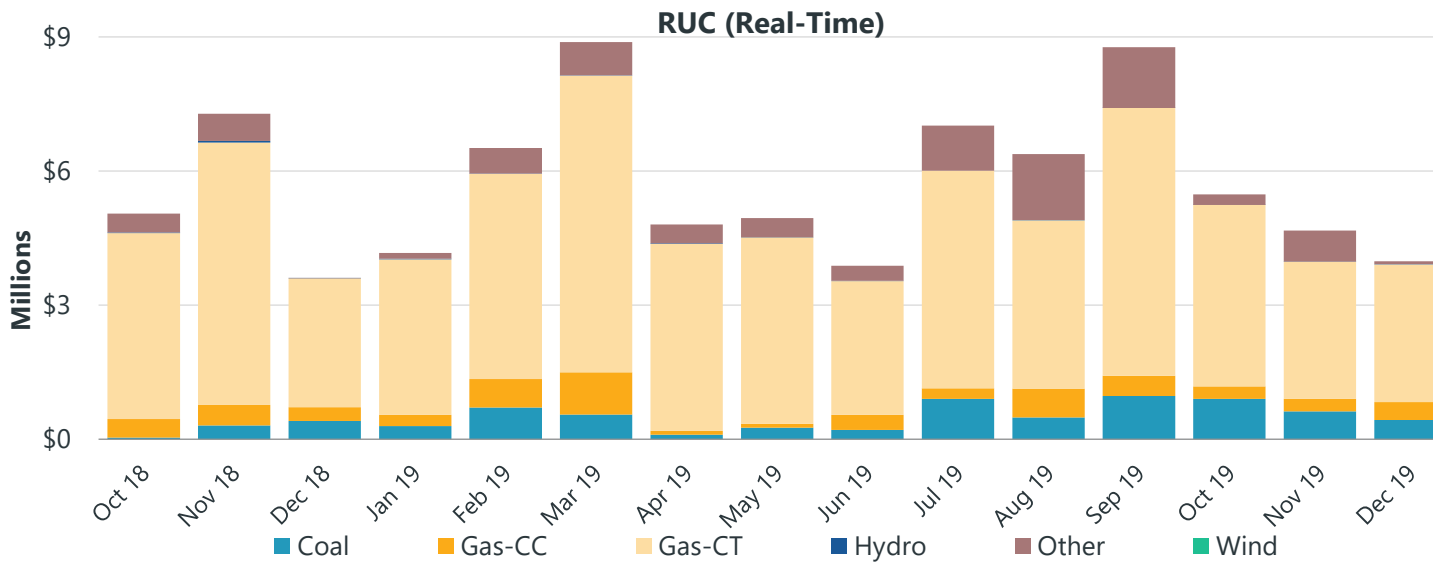
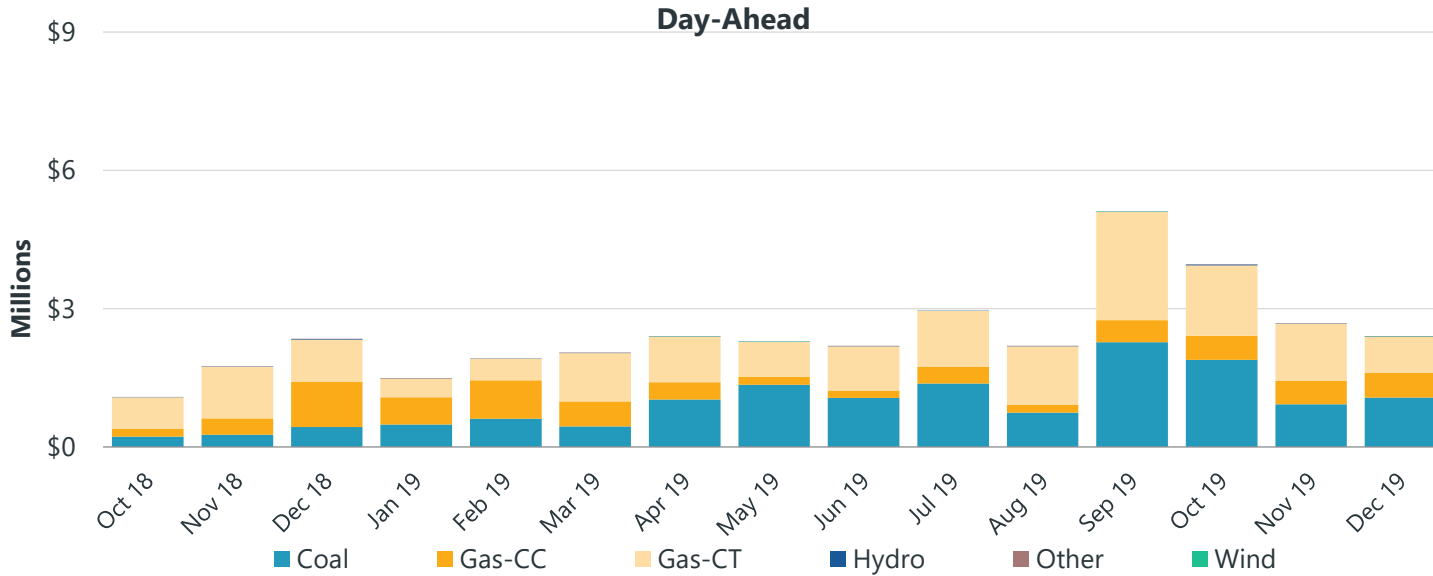
- Positive RNU - SPP receives insufficient revenue and collects from market participants.
- Negative RNU - SPP receives excess revenue, which must be credited back to market participants.

## M.5.1.1 Revenue Neutrality Uplift Table

<i>in thousands \$</i>	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19
DA Revenue Inadequacy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RT Revenue Inadequacy	-107	-90	-116	-60	30	19	-226	-89	-178	-56	-78	-2,621	2,098	-156	17
RT OOME MWP	-133	-234	-273	-243	-187	-258	-390	-1,186	-189	-97	-182	-296	-751	-157	-838
RT Regulation Deployment Adj	-143	-220	-61	-137	-61	-80	10	-4	-2	-49	275	3	-66	-573	-95
RT JOA Adj	30	1,111	1,549	1,458	3,652	2,531	1,631	3,755	-2,360	37	-197	-363	3,648	850	2,863
RT Congestion Adj	-5,699	-8,653	-11,363	-11,340	-13,712	-5,633	-14,628	-21,106	-7,288	-2,961	-3,200	-7,819	-9,264	-19,734	-9,846
<b>SUBTOTAL</b>	<b>-6,053</b>	<b>-8,086</b>	<b>-10,264</b>	<b>-10,322</b>	<b>-10,278</b>	<b>-3,421</b>	<b>-13,603</b>	<b>-18,630</b>	<b>-10,017</b>	<b>-3,127</b>	<b>-3,382</b>	<b>-11,096</b>	<b>-4,337</b>	<b>-19,770</b>	<b>-7,899</b>
Less RT Net Inadvertent Adj	128	106	-86	292	247	253	270	142	420	89	289	168	-121	58	-179
<b>TOTAL RNU</b>	<b>6,181</b>	<b>8,192</b>	<b>10,178</b>	<b>10,614</b>	<b>10,524</b>	<b>3,674</b>	<b>13,873</b>	<b>18,771</b>	<b>10,437</b>	<b>3,216</b>	<b>3,671</b>	<b>11,264</b>	<b>4,216</b>	<b>19,827</b>	<b>7,720</b>

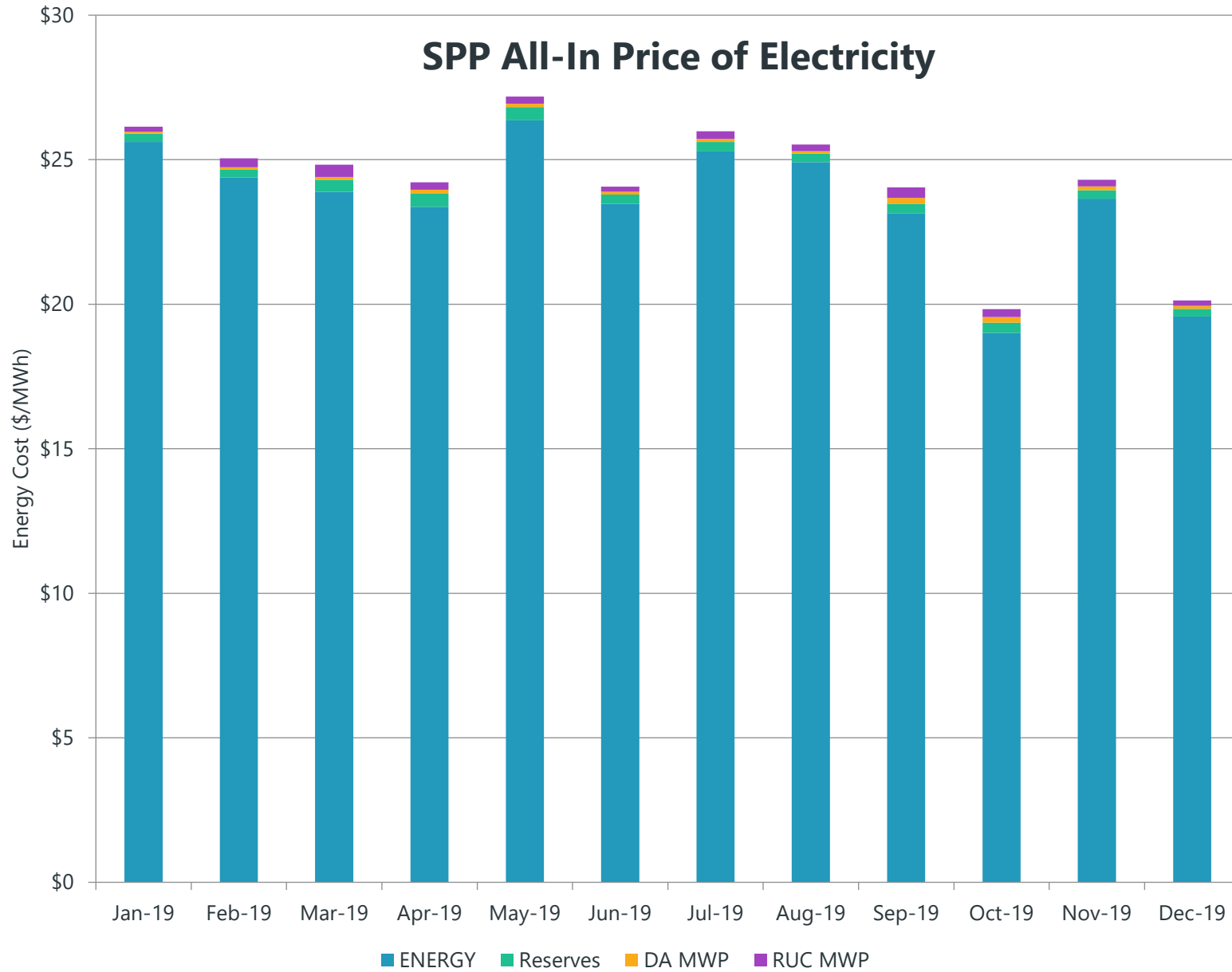
\* This table is based on the latest available settlements data and is subject to change due to resettlement.

### M.5.2. Make Whole Payments

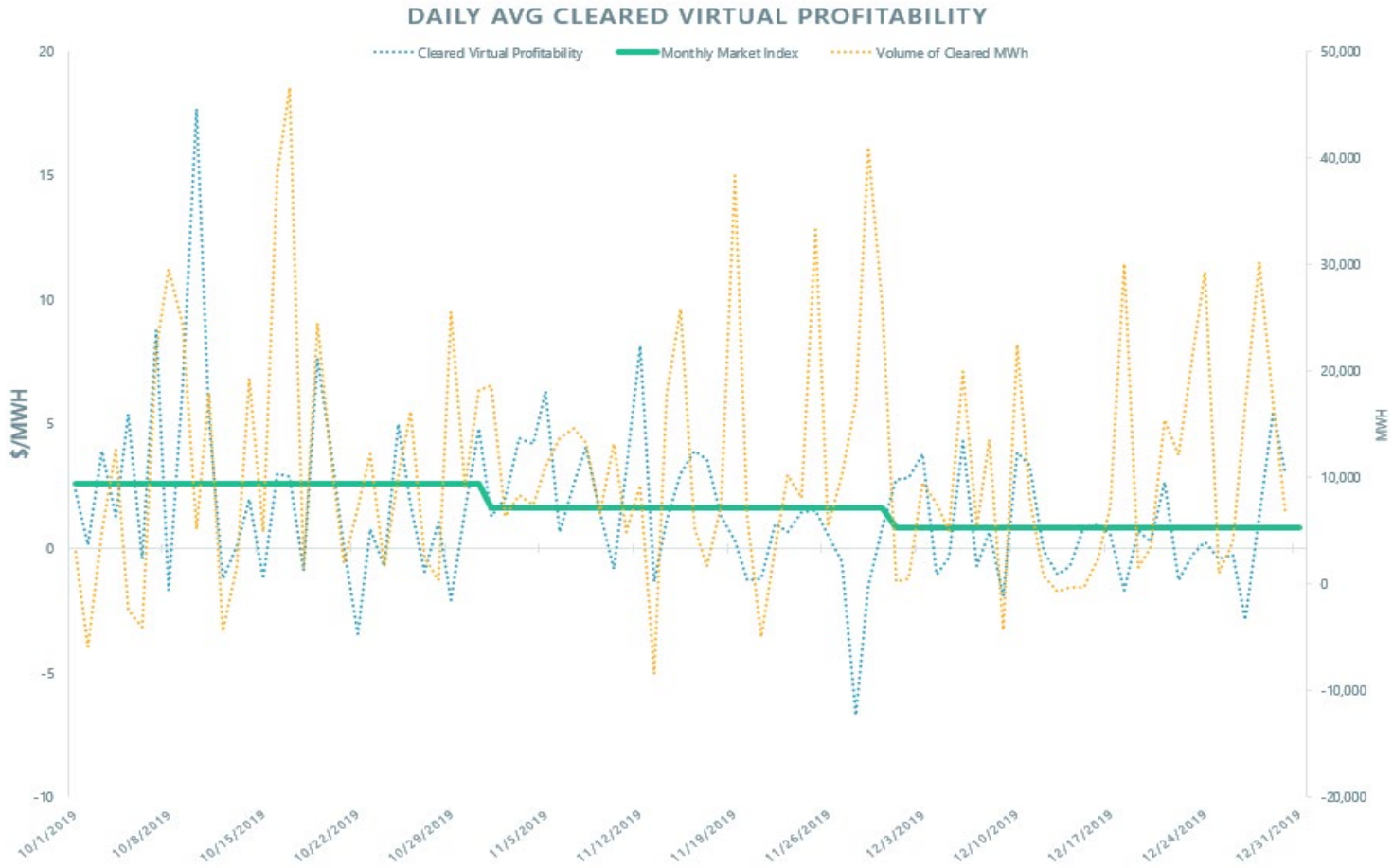




M.5.3. All-In Price

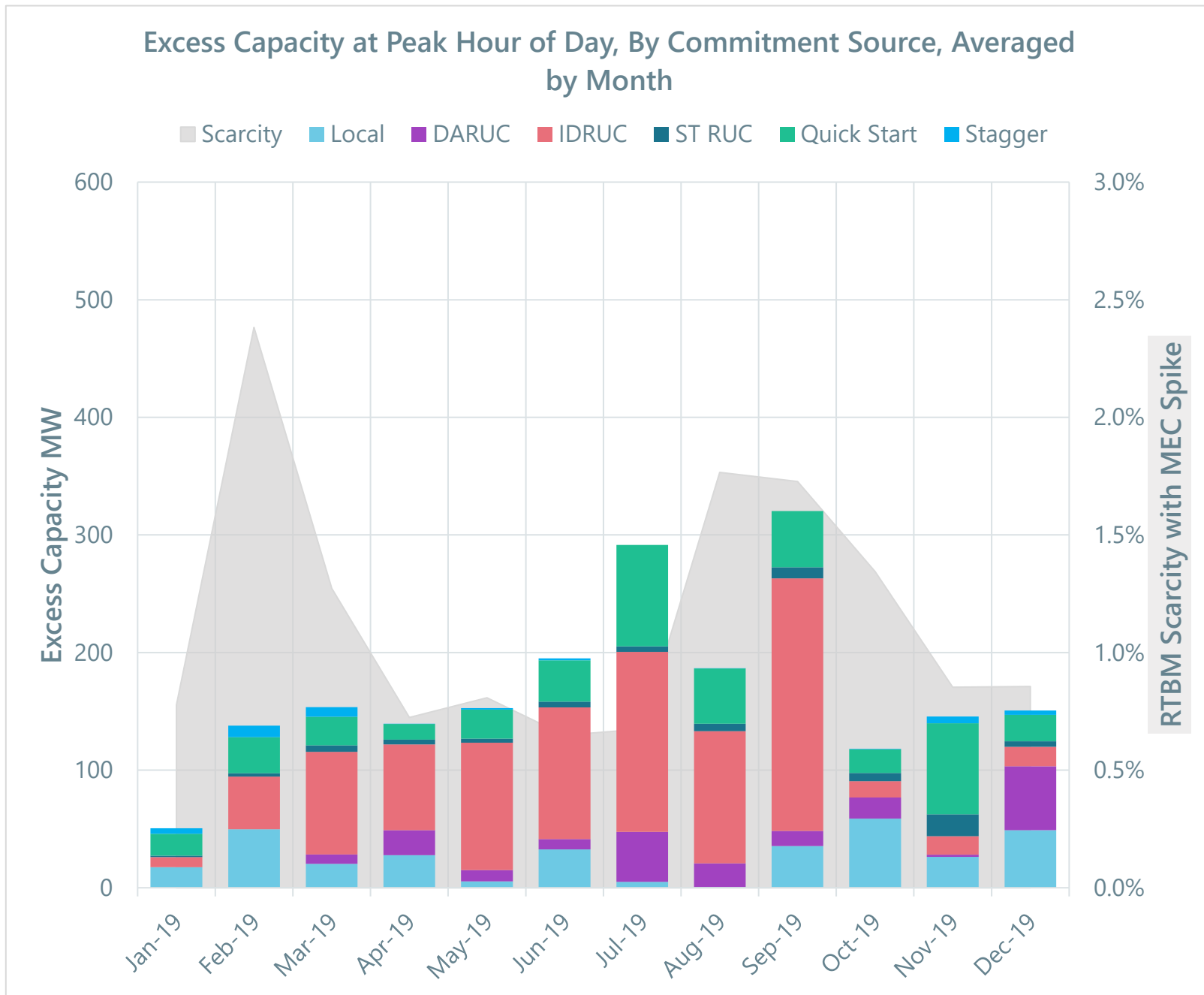


## M.6. Virtual Activity

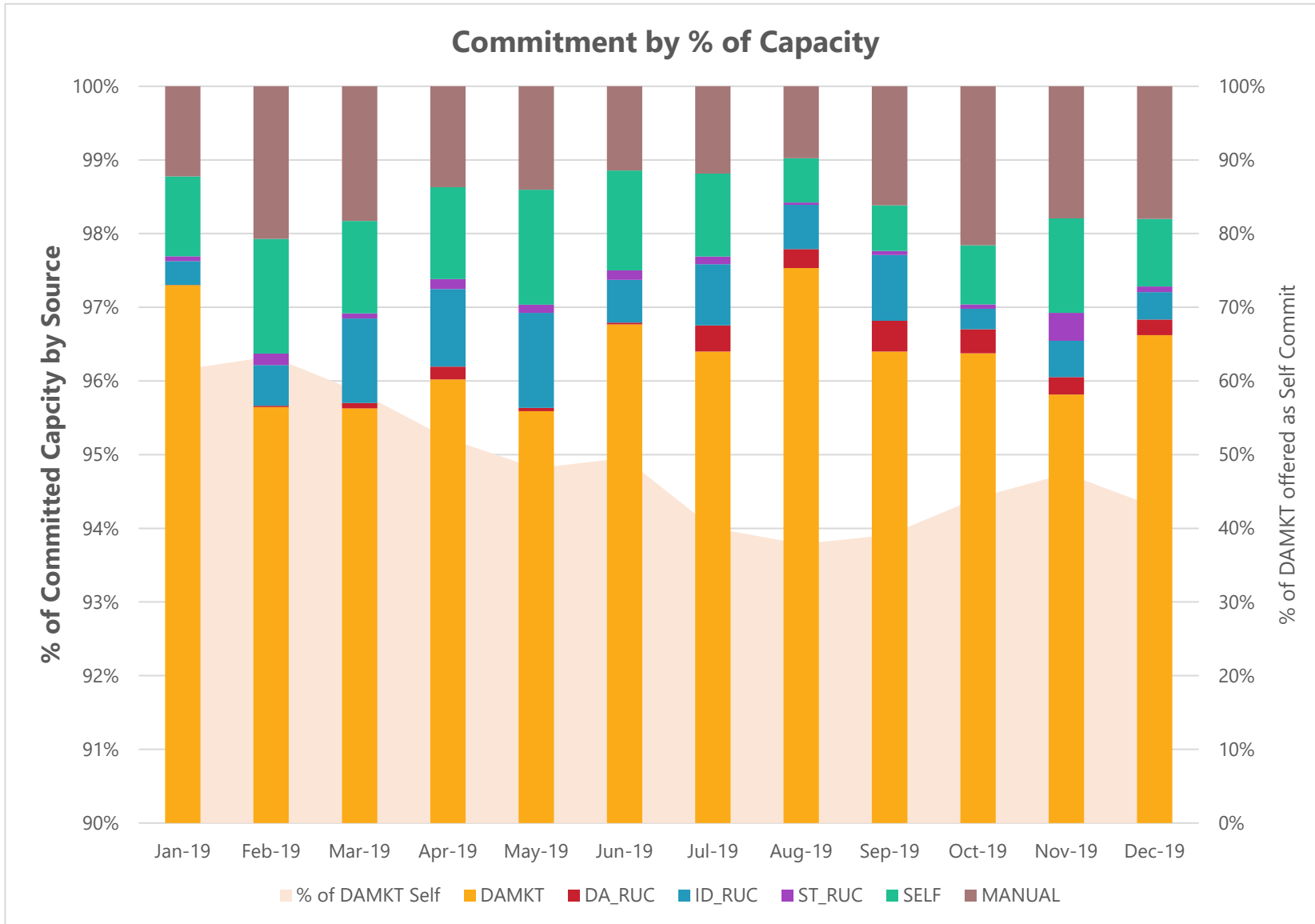


\*Monthly Market Index - The sum of profit/losses for all cleared virtual transactions divided by the volume (MWh) of total cleared transactions.

### M.7.1. Excess Capacity



### M.7.2. Source of Commitment



DA\_RUC – Day-Ahead Reliability Unit Commitment  
 ID\_RUC – Intra-Day Reliability Unit Commitment  
 DAMKT – Day-Ahead Market

## F.1.1. Admin Fee Measurement

### SPP Administrative Fee, NRR & Billing Determinants Metric

#### 2019 FY Forecast vs. Budget Variance

(millions)

	FY Forecast vs. Budget Variance as of:		
	Oct-19	Nov-19	Dec-19
Gross Revenue Requirement (GRR)	\$0.9 ■	\$0.9 ■	\$1.6 ■
Net Revenue Requirement (NRR)	\$3.0 ■	\$2.8 ■	\$3.8 ■
Admin Fee Revenue Collected	\$0.8 ■	\$0.8 ■	\$0.5 ■
Over/(Under) Recovery	\$3.8 ■	\$3.6 ■	\$4.3 ■
Billing Determinants (MWh)	2.0 ■	2.0 ■	1.3 ■

### SPP Projects and Foundation Capital Expenditures

#### 2019 - 2021 Budget

(millions)

	2019-2021	2019-2021	Variance
	Forecast	Budget	
<u>Capital Projects</u>			
Settlement Systems Replacement	\$5.9	\$5.3	(\$0.6)
EMS Upgrade	5.7	2.8	(3.0)
DTS Upgrade Phase 2B	2.2	2.2	0.0
Online SSAT	0.2	1.2	1.0
Other (PMO, Data Lake P3, FERC 841)	3.9	1.8	(2.1)
Total Capital Projects	\$17.9	\$13.2	(\$4.7)
	2019	2019	
	Actual	Budget	Variance
Capital Foundation	\$11.1	\$12.8	\$1.7

## F.1.2. Admin Fee Measurement

SPP Administrative Fee, Net Revenue Requirement & Load Metric  
 FY Forecast as of December 31, 2019  
 Preliminary & Unaudited  
 (millions)

	2019 <u>Actual</u>	2019 <u>Budget</u>	Fav <u>/((Unfav)</u>	
Gross Revenue Requirement (GRR)	\$169.7	\$171.3	\$1.6	■
Net Revenue Requirement (NRR)	\$153.7	\$157.5	\$3.8	■
Admin Fee Revenue Collected	\$158.0	\$157.5	\$0.5	■
Over/(Under) Recovery	\$4.3	(\$0.0)	\$4.3	■
Billing Determinants (MWh)	400.9	399.6	1.3	■

Legend

	<u>NRR</u>	<u>MWh</u>	<u>Admin Fee</u>
2019 Budget	\$157.5	399.6	\$0.39
1¢ Unfavorable NRR/Load Threshold	\$160.0	393.6	\$0.40
1¢ Unfavorable Impact Factor	(\$2.5)	(6.0)	(\$0.01)

Net Revenue Requirement (NRR)

- Red ■ > = \$2.5 unfavorable
- Yellow ■ between \$1.6 and \$2.4 unfavorable
- Green ■ < = \$1.5 unfavorable

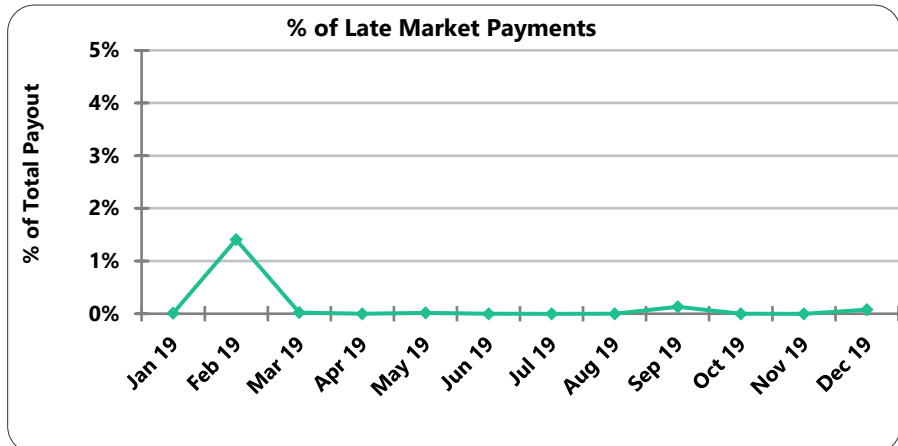
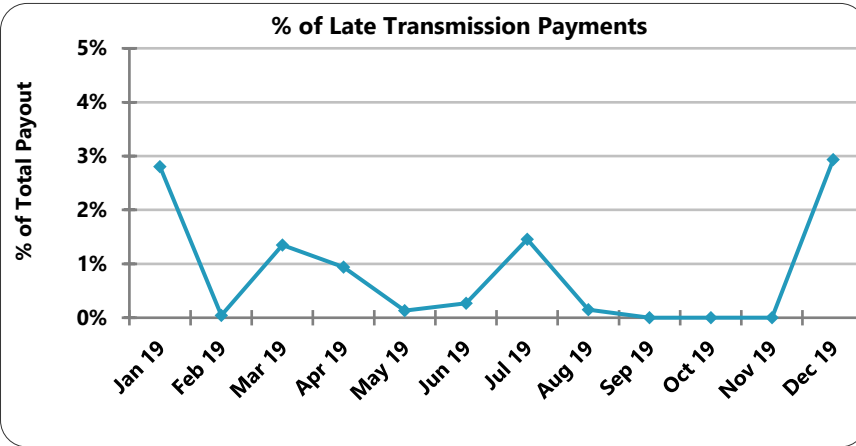
Billing Determinants (MWh)

- Red ■ > = 6.0 unfavorable
- Yellow ■ between 3.6 and 5.9 unfavorable
- Green ■ < = 3.5 unfavorable

### F.1.3. Admin Fee Measurement

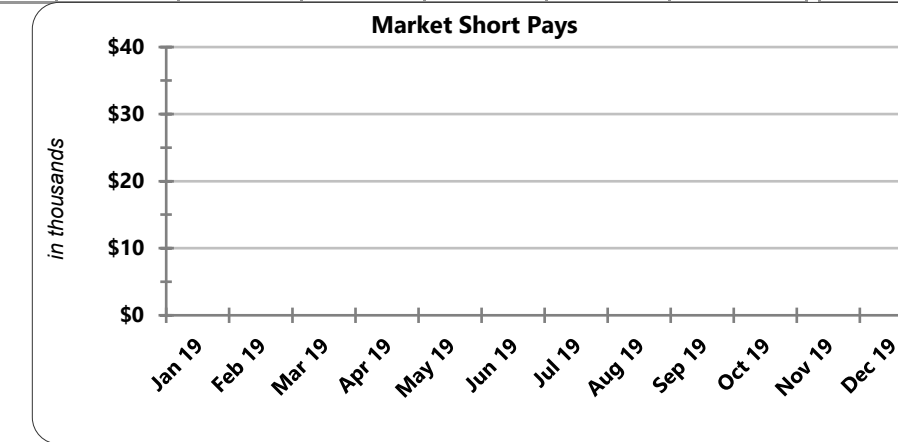
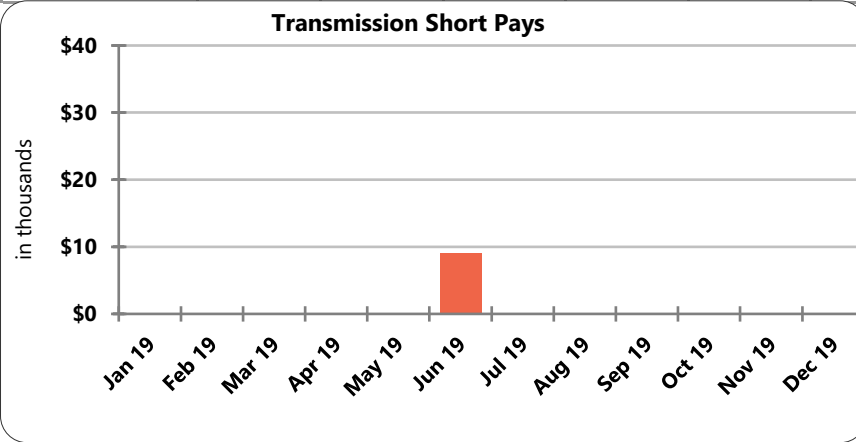
SPP Administrative Fee Performance											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<u>Approved Budget</u>											
Net Revenue Required (millions)	\$56.5	\$68.4	\$78.6	\$89.6	\$121.8	\$132.6	\$141.2	\$150.5	\$160.5	\$164.0	\$157.5
MWh Load (millions)	331.3	333.5	343.0	353.5	360.9	348.2	363.5	407.2	383.0	382.1	399.6
NRR / Billing Determinants (MWh millions)	\$0.170	\$0.205	\$0.229	\$0.253	\$0.338	\$0.381	\$0.389	\$0.370	\$0.419	\$0.429	\$0.394
Approved Admin Fee	\$0.170	\$0.195	\$0.210	\$0.255	\$0.315	\$0.381	\$0.390	\$0.370	\$0.419	\$0.429	\$0.394
<u>Actual/Forecast</u>											
Net Revenue Required (millions)	\$59.8	\$63.5	\$80.8	\$84.8	\$123.3	\$137.0	\$142.6	\$151.6	\$159.6	\$153.9	\$153.7
MWh Load (millions)	328.2	331.6	341.4	361.7	357.5	351.0	373.6	394.5	388.6	384.4	400.9
NRR / Billing Determinants (MWh millions)	\$0.182	\$0.191	\$0.237	\$0.234	\$0.345	\$0.390	\$0.382	\$0.384	\$0.411	\$0.400	\$0.383
Calculated Rate Over/(Under) Budget	\$0.012	(\$0.014)	\$0.008	(\$0.019)	\$0.007	\$0.009	(\$0.008)	\$0.015	(\$0.008)	(\$0.029)	(\$0.011)
Billing Determinants Growth	10.82%	1.05%	2.96%	5.93%	(1.15%)	(1.83%)	6.46%	5.59%	(1.50%)	(2.58%)	1.61%

## F.2. Credit



Transmission (\$000s)	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	12 mo
Late Payments	\$1,331	\$20	\$824	\$528	\$72	\$145	\$834	\$85	\$0	\$1	\$1	\$2,065	\$5,907
Total Payments	\$47,475	\$47,762	\$60,950	\$56,208	\$53,609	\$54,355	\$57,350	\$56,948	\$61,146	\$61,122	\$60,772	\$70,445	\$688,143
% Late Payments	3%	0%	1%	1%	0%	0%	1%	0%	0%	0%	0%	3%	1%

Market (\$000s)	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	12 mo
Late Payments	\$11	\$1,234	\$24	\$0	\$12	\$0	\$0	\$0	\$109	\$0	\$0	\$78	\$1,467
Total Payments	\$89,468	\$87,771	\$100,701	\$95,804	\$80,347	\$78,620	\$106,423	\$82,789	\$81,102	\$81,342	\$82,963	\$104,288	\$1,071,618
% Late Payments	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

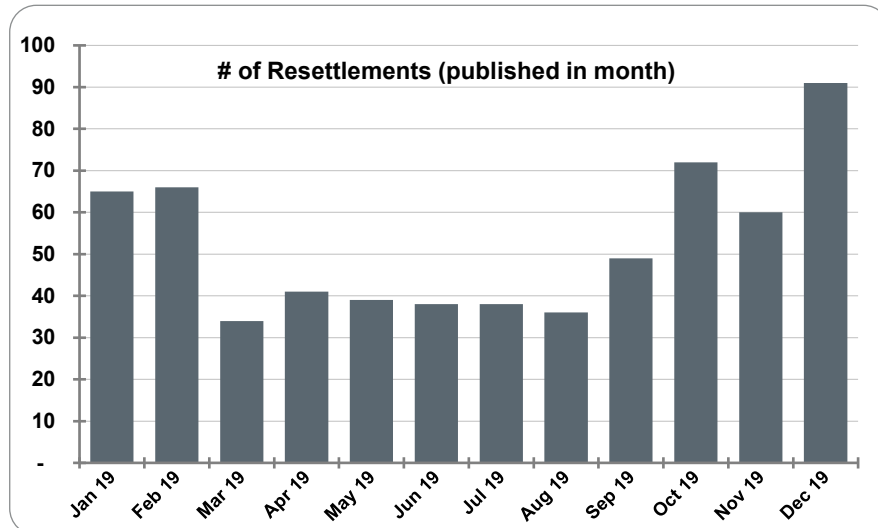
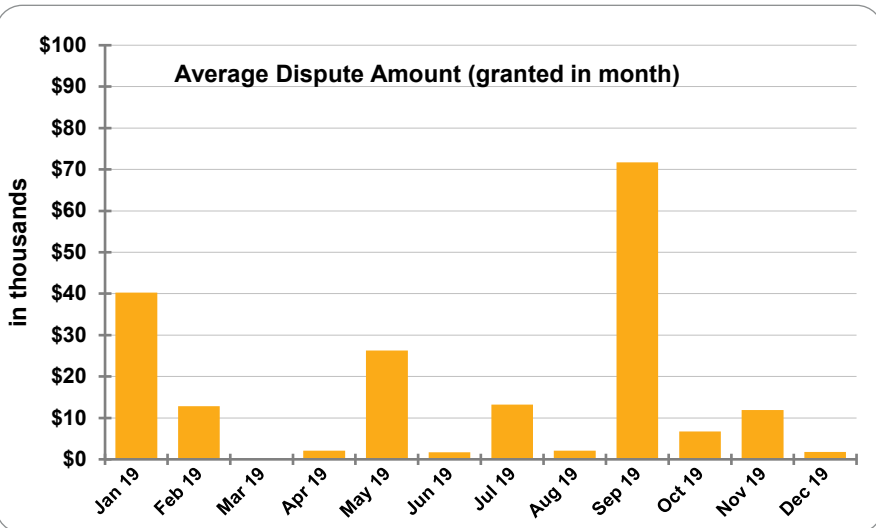
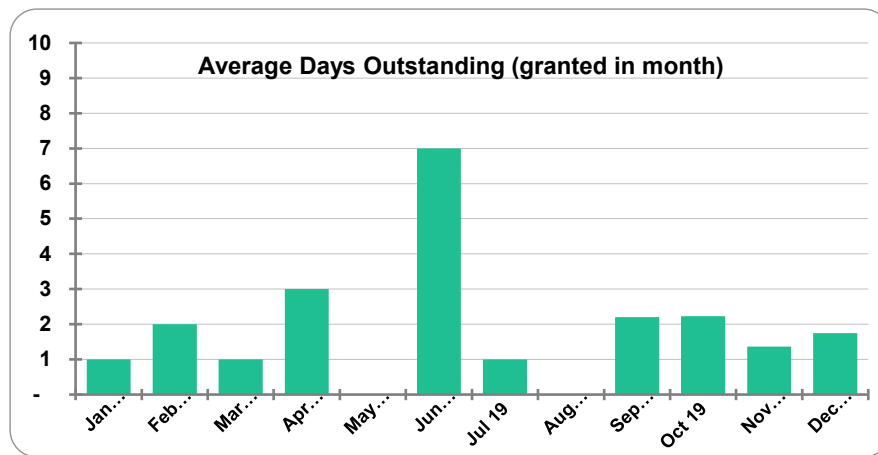
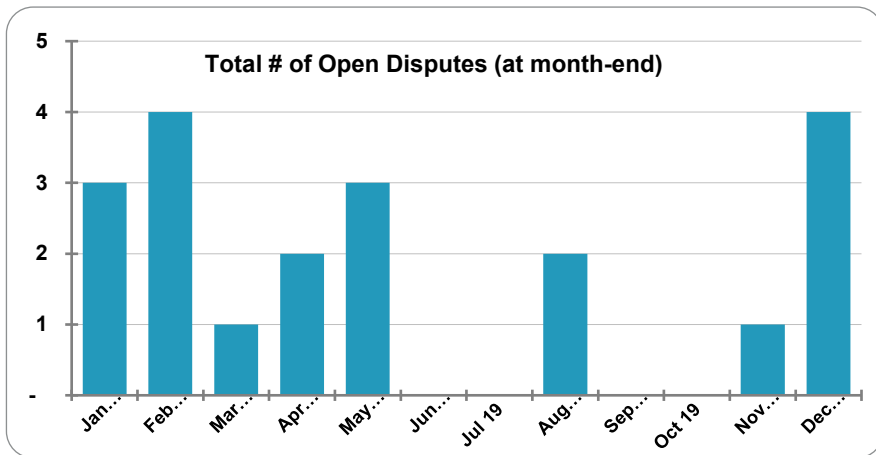


Short Pays (\$000s)	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	12 mo
Transmission	\$0	\$0	\$0	\$0	\$0	\$9	\$0	\$0	\$0	\$0	\$0	\$0	\$9
Market	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Uncollectible (\$000s)	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	12 mo
Transmission	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Market	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

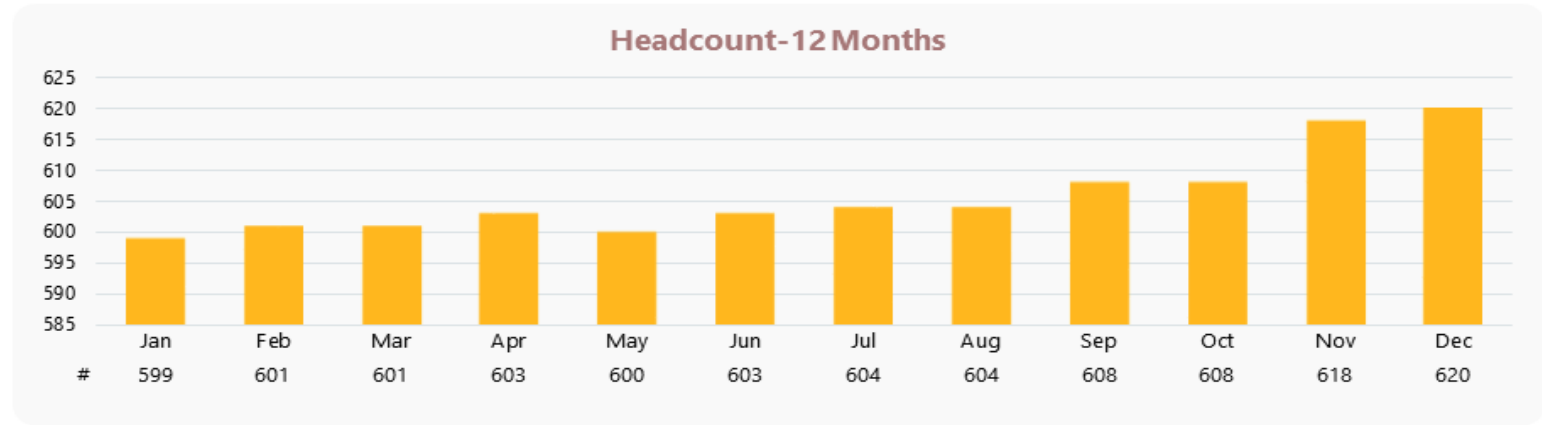
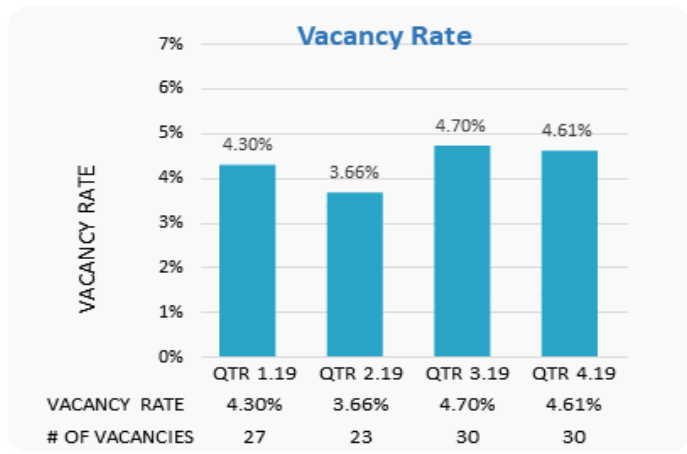
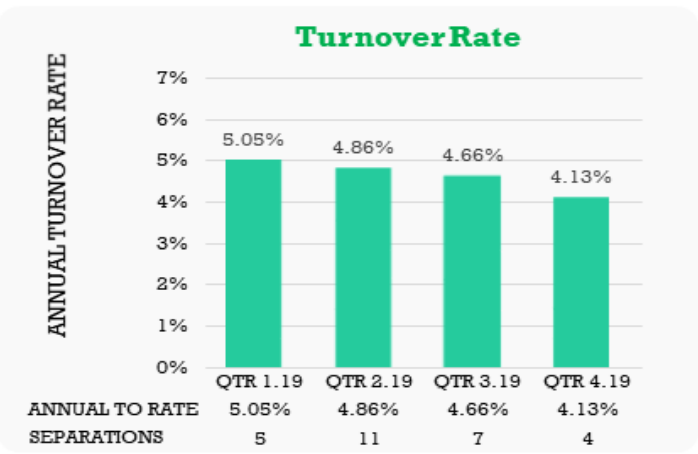


### F.3. Settlement Disputes



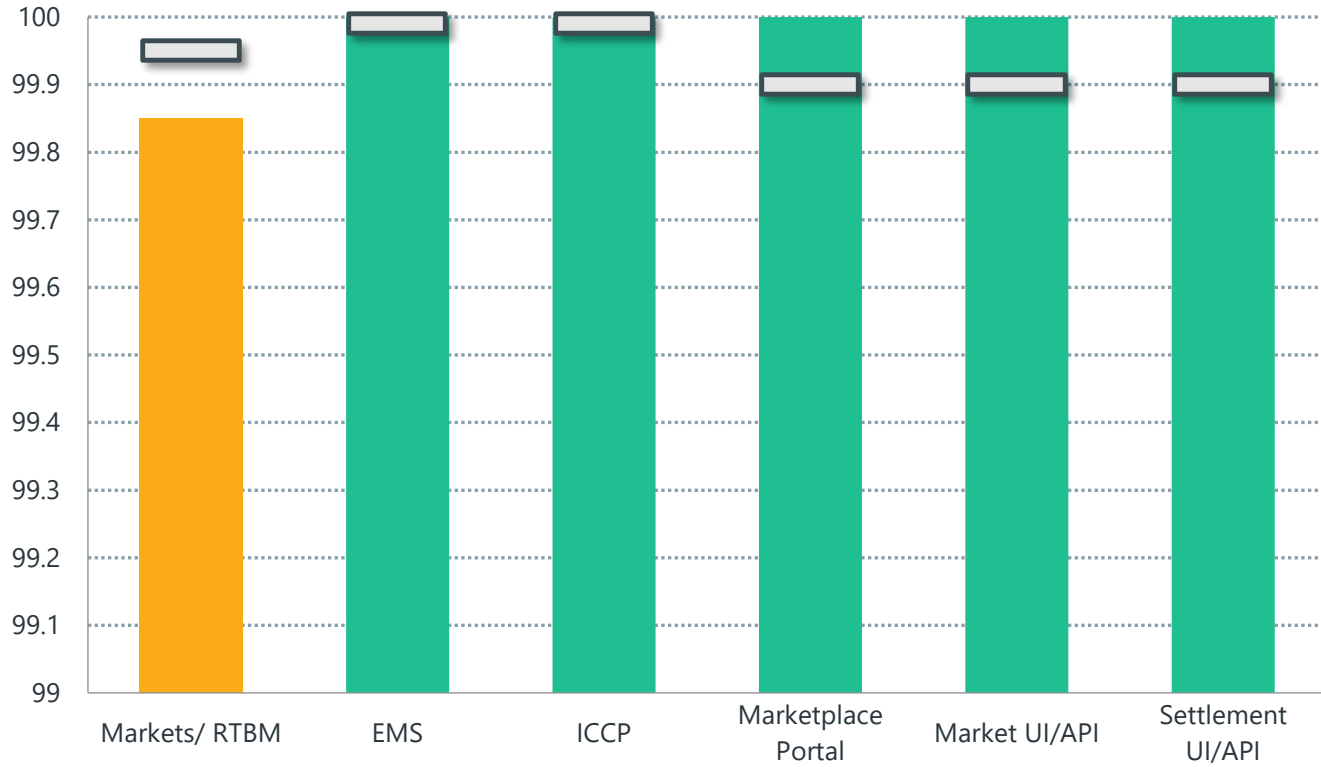
	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19			
Total # of Open Disputes (at month-end)	3	4	1	2	3	-	-	2	-	-	1	4			
Average Days Outstanding (granted in month)	1	2	1	3	-	7	1	-	2	2	1	2			
Average Dispute Amount (granted in month)	\$40.3	\$12.8	\$0.1	\$2.1	\$26.3	\$1.7	\$13.2	\$2.1	\$71.7	\$6.7	\$11.9	\$1.8			
# of Resettlements (published in month)	65	66	34	41	39	38	38	36	49	72	60	91			

### F.4.1. Human Resources



## P.2.1. IT System Performance

### 2019 Cumulative IT Service Availability Through Dec



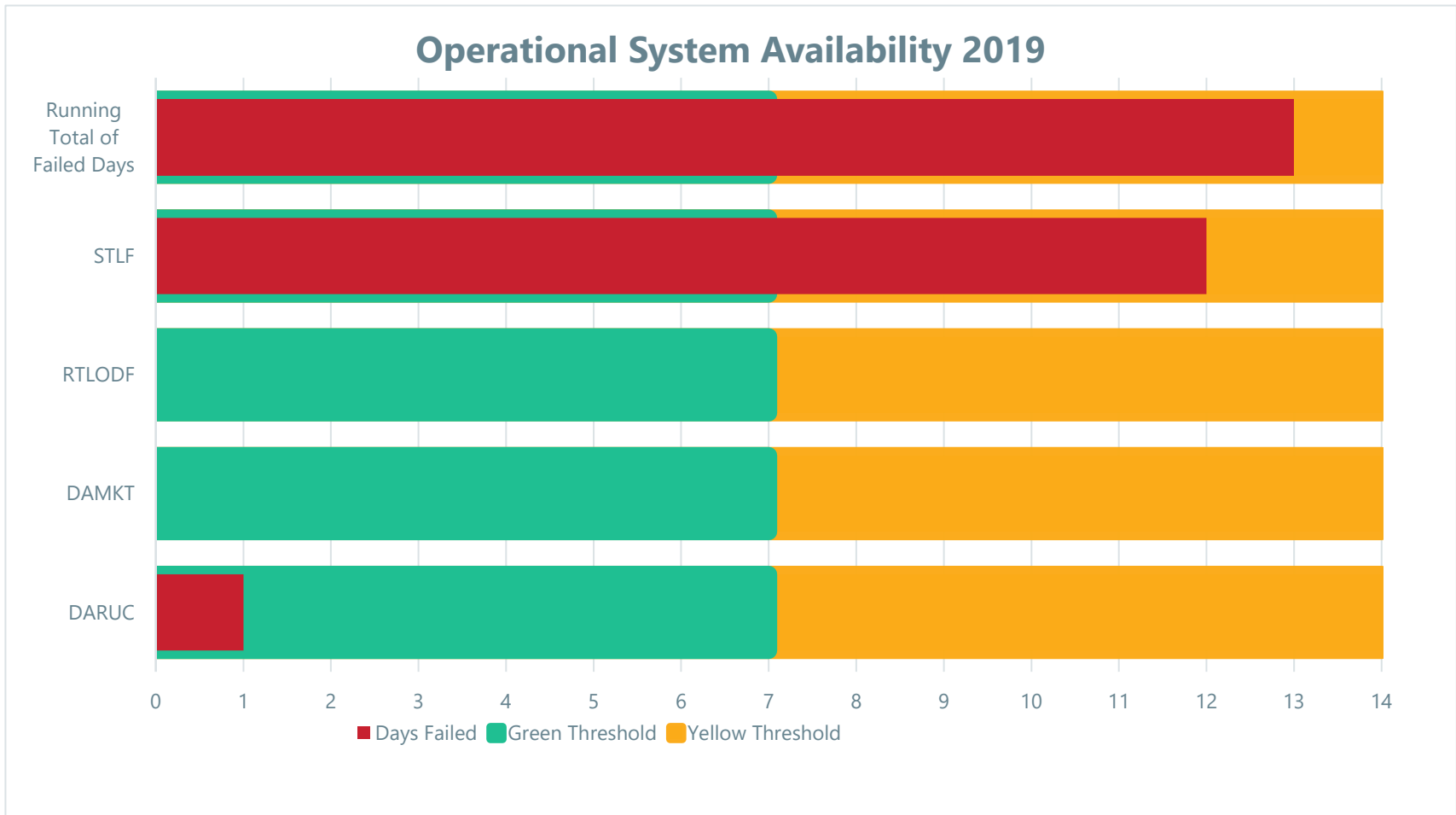
	Markets/ RTBM	EMS	ICCP	Marketplace Portal	Market UI/API	Settlement UI/API
2019 Availability	99.84944747	100	99.99916182	100	100	100
Target Uptime	99.95	99.99	99.99	99.9	99.9	99.9
Cumulative Unavailability (Minutes)	794	0	4.5	0	0	0
Cumulative Target (Minutes)	262.85	52.57	52.57	525.7	525.7	525.7

**GREEN** = Meets and/or Exceeds Target Uptime

**YELLOW** = Unplanned Outage Below Target Uptime (Severity 1 or 2)

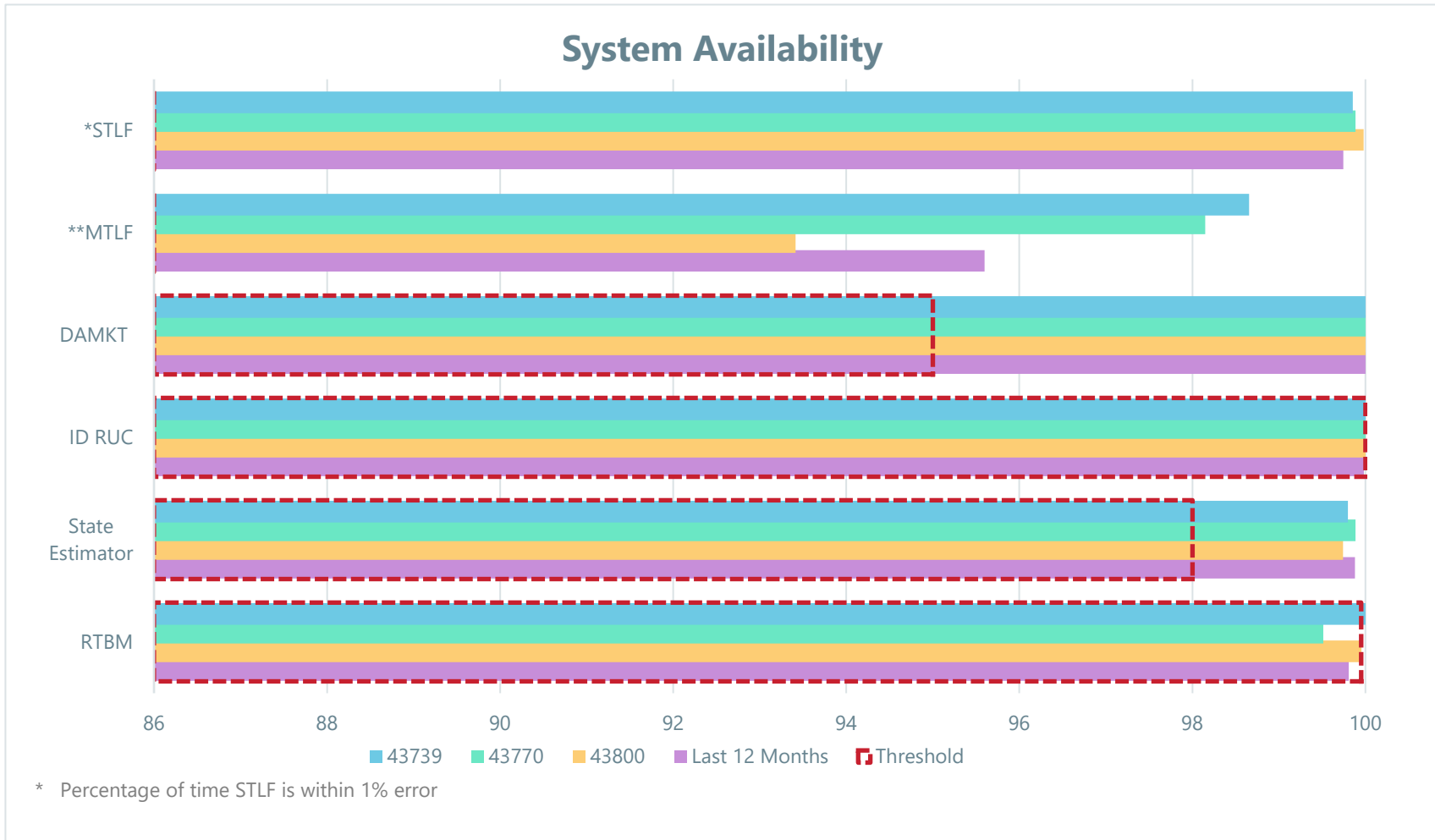
**RED** = Unplanned Outage Below Target Uptime (Severity 3)

## P.2.2. Operational System Availability



STLF – Short-term load forecast  
 RTLODF – Real-time Line Outage Distribution Factor  
 DAMKT – Day-Ahead Market  
 DARUC – Day-Ahead Reliability Unit Commitment

### P.2.3. System Availability

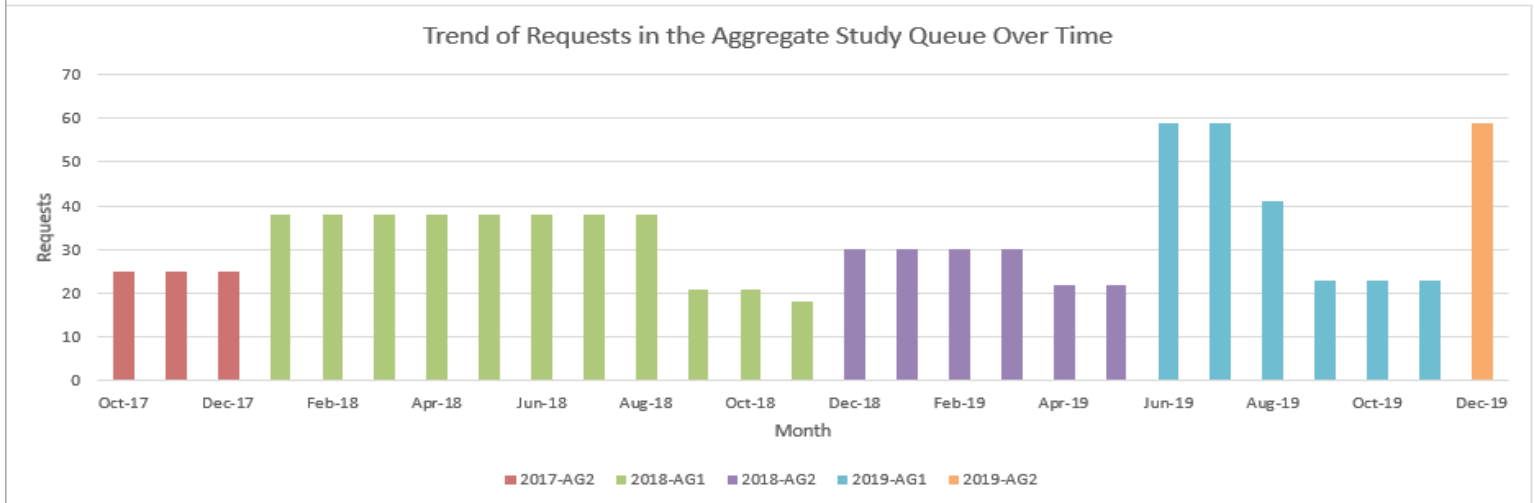
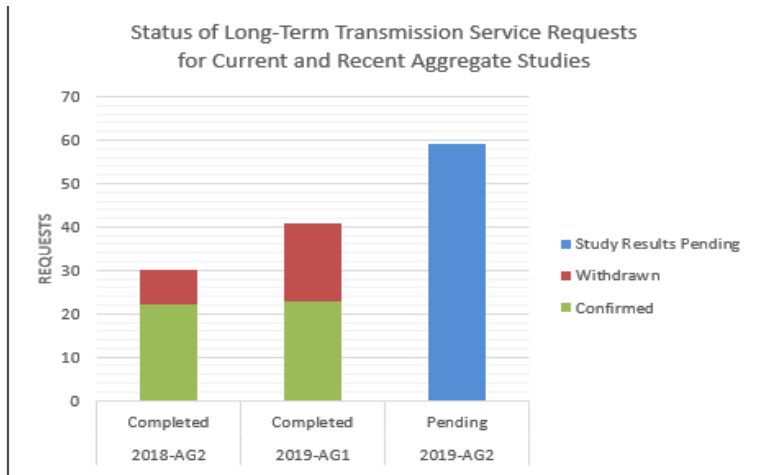


STLF – Short-term Load Forecast  
 MTLF – Mid-term Load Forecast  
 DAMKT – Day-Ahead Market  
 ID RUC – Intra-day Reliability Unit Commitment  
 RTBM – Real-time Balancing Market

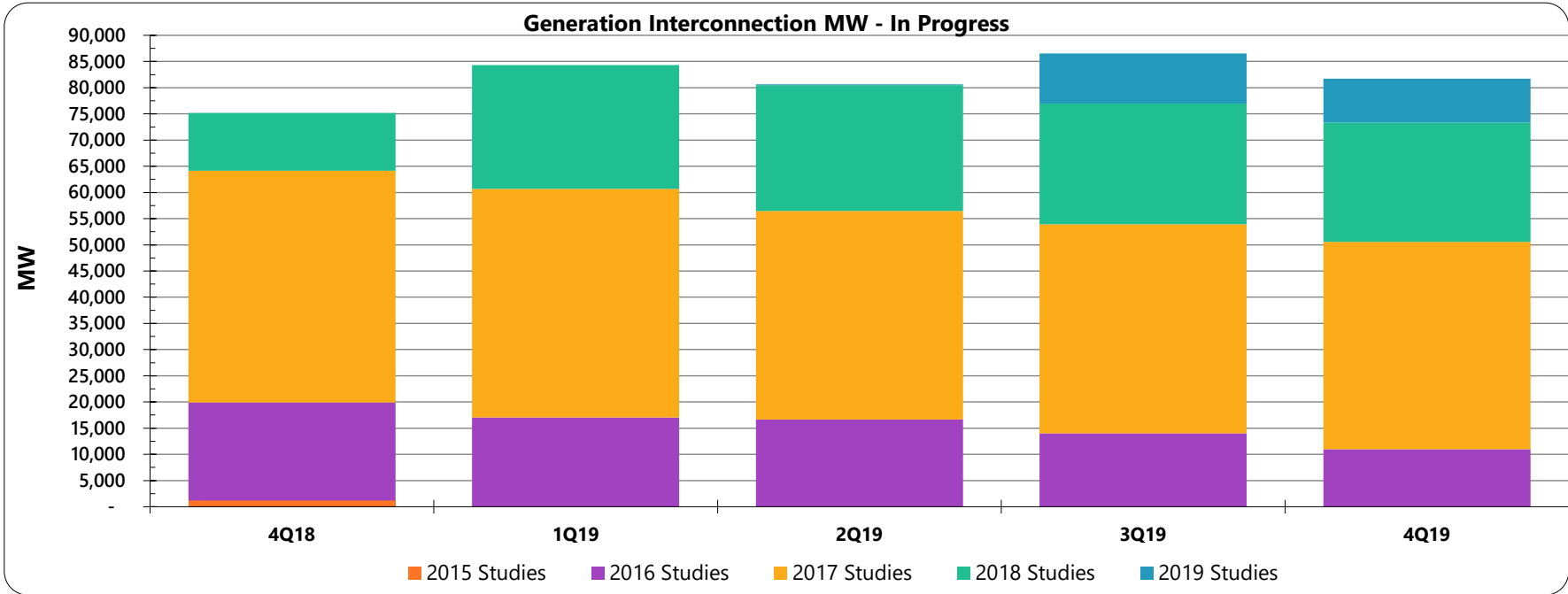
### P.3. Transmission Service Studies

Percentage of Study Postings that Were Made On-Time During the Quarter	●	▲	◆
	100%	80-99%	<80%
Study Type	Current		Previous
	Q4-2019	Q3-2019	Q2-2019
Aggregate Facilities Studies	●	●	●
Delivery Point Transfer Screening Studies	●	●	●
Long-Term Service Request Screening Studies	●	●	●

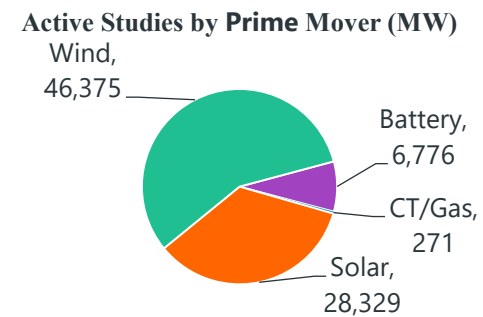
SPP must report to the commission when more than 20% of Facilities Studies (not Screening Studies) are late in two consecutive calendar quarters. SPP is subject to penalty if 10% or more are late in the following two calendar quarters after breaking the 20% late threshold.



## P.4.1. Generation Interconnection Studies

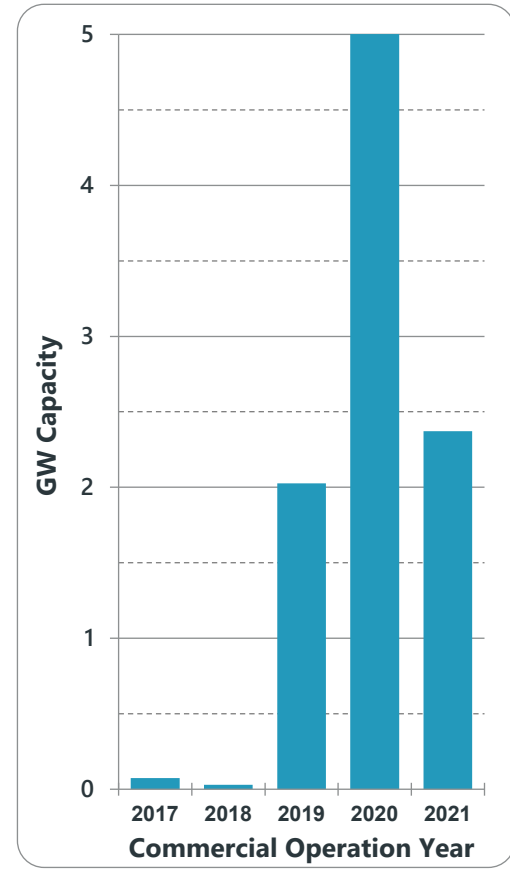
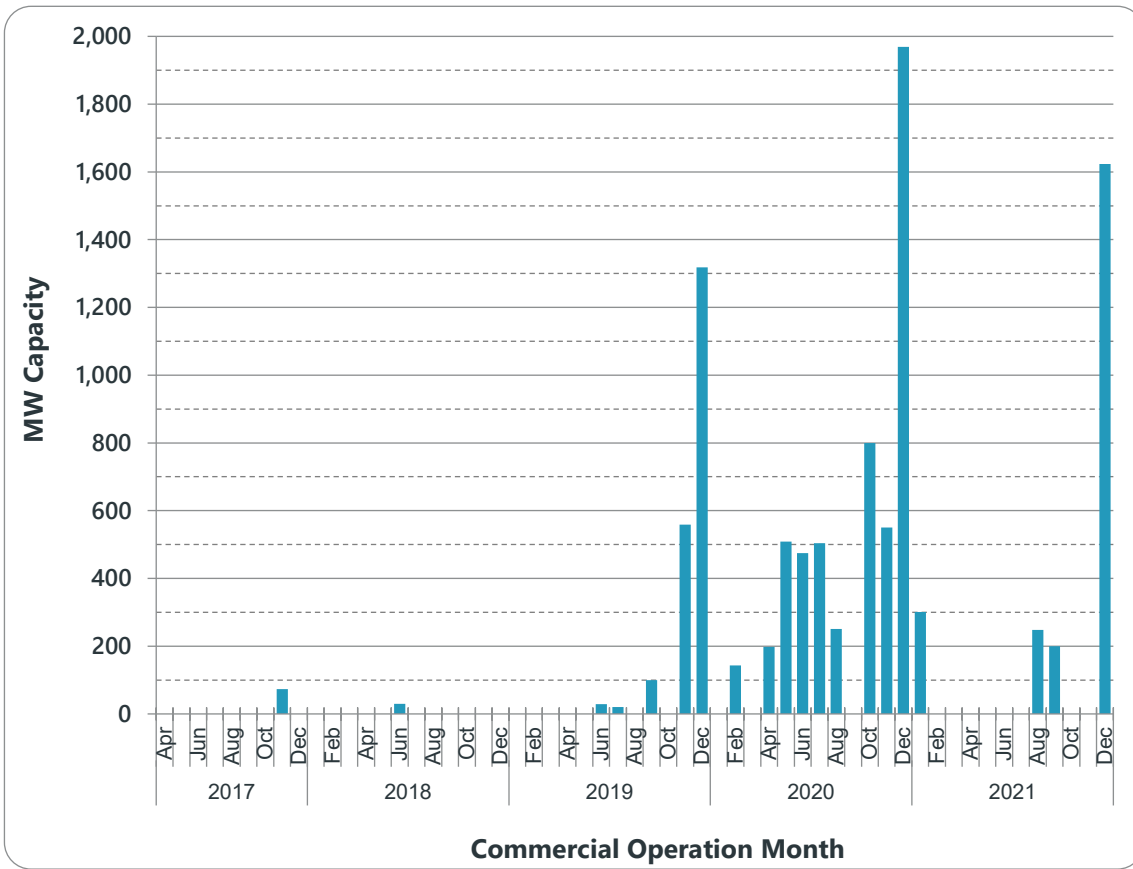


	MW				
In Progress	4Q18	1Q19	2Q19	3Q19	4Q19
Transfer IS Queue					
DISIS-2015-001					
DISIS-2015-002	1,186				
DISIS-2016-001	5,614	4,563	4,569	1,895	510
DISIS-2016-002	13,126	12,465	12,087	12,087	10,480
DISIS-2017-001	16,398	15,990	15,494	15,845	15,643
DISIS-2017-002	27,811	27,686	24,313	24,073	23,913
DISIS-2018-001	10,375	10,605	11,025	11,005	10,865
DISIS-2018-002		11,438	11,941	12,061	11,911
DISIS-2019-001			125	7,697	8,329
PISIS-2017-002					
FCS-2017-003					
FCS-2018-001					
FCS-2018-002	650	500			
FCS-2018-004		1,070	1,070		
FCS-2019-002				1,814	-
FCS-2019-003				70	70
<b>TOTAL</b>	<b>75,160</b>	<b>84,318</b>	<b>80,624</b>	<b>86,546</b>	<b>81,721</b>



## P.4.2. Commercial Operation Dates

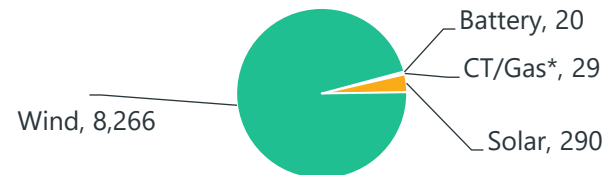
as of December 31, 2019



Charts above reflect Executed Generation Interconnection Agreements (GIA's) with upcoming Commercial Operation Date (COD) milestones by year and month. Data based on Queue Status of "IA Fully Executed / On Schedule".

	MW Capacity
IA Fully Executed / On Suspension	1,401.0
IA Fully Executed / On Schedule	<u>8,504.9</u>
Total Scheduled or Suspended Generation	<u>9,905.9</u>

### On Schedule by Prime Mover (MW)





## P.5. Strategic Plan

	#	Status	Initiative	Staff	Priority	Stakeholders
1. Reliability Assurance	1.1	●	Integration of VariableEnergy	Bruce	A	MOPC (TF)
	1.2	●	Security Resilience	Barbara, Michael, Tom	A	OC
	1.3	●	Reliability Excellence	Michael	B	MOPC (RCWG/SPCWG/OTWG)
	1.4	●	Regional Resource Needs	Michael, Bruce, Paul	A	SPC
2. Optimized Transmission	2.1	●	ARR/TCR Feasibility	Lanny	A	MOPC
	2.2	●	Optimization Strategies for the Future	Lanny	B	SPC
	2.3	●	Value Pricing	Michael/Carl	A	SPC/MOPC
3. Interdependent Systems	3.1	●	Transmission (Seams)	Carl	A	MOPC (SSC)
	3.2	●	Optimize Market Efficiencies Along Seams	Carl	A	MOPC (SSC)
	3.3	●	Optimize Natural Gas Pipeline System Seams	Bruce	B	MOPC (GECTF)
4. Enhance Member Value	4.1	●	Communication Strategy on Value and Affordability	Mike	A	SPC
	4.2	●	PMO Best Practice and Rigor	Michael	B	FC/MOPC
	4.3	●	Strategic Membership Expansion	Michael/Carl/Paul	A	SPC

Green: On target, or completed

Yellow: Objective in question, or on hold

Red: Behind schedule, incomplete

## P.5.1 Strategic Plan: Variable Energy Resources Initiative Tracking

<b>FERC Initiative</b>	<b>GIITF</b>	Generation Interconnection - RM17-8	
	<b>MWG</b>	Distributed Energy Resources	
		Fast Start Resources	
<b>Member Initiatives</b>	<b>ORWG</b>	Primary Freq. Response - RM16-6-000	
	<b>MWG</b>	ARR/TSR Hedging Alignment	
		DVER regulation enhancements	
		Multi-Day Unit Commitment	
		Quick-Start Real-Time Commitment	
		Ramp Product	
	Stored Energy Resources		
	<b>ORWG</b>	PMU Siting on New Generation	
	<b>TWG</b>	Damping Ratio Requirement	
		High Wind Low Load Scenarios	
<b>Staff Enhancements</b>	<b>MWG</b>	Coordinated Transaction Scheduling	
		Dispatchability Control for VERS	
		NDVER to DVER conversion	
	<b>ORWG</b>	VER Derates Submission	
		Contingency Reserve Enhancement	
		Primary Frequency Policy	
	<b>SAWG</b>	TSAT Tools	
Effective Load Carry Capability			

Stage of Development  
 Not Started  
 NOPR or Working Group  
 Filing and/or Revision Request  
 Implementation  
 Complete

Updated  
1/3/2019

# METRICS DEFINITIONS

## Transmission and Market Indicators

Two groups of metrics will be monitored to provide an overall health indication of the regional transmission system and market.

- Reliability Performance Indicators, which focus on the actual operations of the transmission system and whether or not it was operated within expected limits and standards.
- Market Performance Indicators, which focus on the performance of the market in terms of overall volume, prices and level of participation.

### Reliability Performance Indicators

This sub-group of metrics is designed to measure the operations of the transmission system from a reliability perspective.

- How well-funded are Transmission Congestion Rights (TCR). (see TCR/ARR Summary)
- How much time was congested during the period. (see Congestion)
- Was the system operated in compliance with the relevant control performance standards? (see Regional Control Performance)

<p><b>M.1.</b></p>	<p><b>TCR/ARR Summary</b></p>	<p><b>TCR/ARR</b> funding is derived as follows:</p> <ol style="list-style-type: none"> <li>1. Day-ahead revenue is collected daily</li> <li>2. TCR holders are paid daily based on awarded TCR MW and Day-ahead clearing prices             <ol style="list-style-type: none"> <li>a. Uplift is charged daily</li> <li>b. Surpluses are redistributed Monthly and Annually</li> </ol> </li> <li>3. TCR revenue is collected daily based on TCR MW and TCR ACPs (consistent through month/season)</li> <li>4. ARR holders are paid daily based on ARR MW and TCR ACPs (consistent through month/season)             <ol style="list-style-type: none"> <li>a. Uplift is charged daily</li> <li>b. Surpluses are redistributed Monthly and Annually</li> </ol> </li> </ol>
<p><b>M.2.</b></p>	<p><b>Congestion</b></p>	<p><b>M.2.1. TLR / CME Time</b> TLR Events by level (in hours)</p> <ul style="list-style-type: none"> <li>• Non-Firm (Level 3) – curtailment of non-firm schedules and non-firm market flow</li> <li>• Firm (Level 5) – curtailment of all non-firm and some firm schedules and market flow</li> <li>• CME (Congestion Management Events) where loading is greater than 90% (in hours)</li> </ul> <p><b>M.2.2. Congested Intervals</b> Percent of intervals binding (flow = System Operating Limit [SOL]), breached (flow &gt; SOL) and congested (either binding or breached) during the month. Charts are included for both the Day-Ahead Market (DAMKT) and the Real-Time Balancing Market (RTBM).</p> <p><b>M.2.3. Price Contour Map</b> Graphic representation of average monthly prices by load area in both the Day-Ahead Market and Real-Time Balancing Market since the start of the Integrated Marketplace.</p> <p><b>M.2.4. Congestion – Flowgates</b></p> <ul style="list-style-type: none"> <li>• Congestion by flowgate ranked by average hourly shadow price in the RTBM for the last 12 months. DA values are also included.</li> <li>• Table is included to show top ten most congested flowgates and any potential projects which may provide mitigation to the congestion.</li> </ul>

<b>M.3.</b>	<b>Regional Control Performance</b>	<p>The SPP BA is not subject to CPS, but is subject to BAAL. CPS is reported here for informational purposes only. Measures the aggregate performance to the NERC CPS (Control Performance Standards) for SPP. This indicator is set based on the NERC real time control performance standards (known as BAL-001 – Real Power Balancing Control Performance and BAL-002 – Disturbance Control Performance).</p> <ul style="list-style-type: none"> <li>CPS1 requires compliance for 100% of the periods measured within the month.</li> <li>BAAL - each Balancing Authority shall operate such that its clock-minute average of reporting ACE does not exceed for more than 30 consecutive clock-minutes its clock-minute Balancing Authority ACE Limit (BAAL)</li> </ul>
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**Market Performance Indicators**

This sub-group of indicators provides a view of the effectiveness of the market in the context of answering the following questions:

- What was the average wholesale price paid in the region and what was its volatility? (see Price)
- How much Revenue Neutrality Uplift was generated during the month? (see Uplift)
- What was the level of available generation offered to the market and EIS related energy sales in the month? (see Market Liquidity)

<b>M.4.1. M.4.2. M.4.3.</b>	<b>Price</b>	<p>Shows the prices and volatility for both the DAMKT and RTBM for each market participant with load within the footprint. Also provides an SPP-wide average price for the period reported. Volatility (measured as the coefficient of variation, which is average divided by the standard deviation) is shown for each market participant as well as SPP as a whole. A higher volatility indicates more variability in prices.</p> <ul style="list-style-type: none"> <li>SPP-wide monthly average LMP and the Gas Cost at the Panhandle Eastern Pipeline hub.</li> </ul>
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<b>M.4.4.</b>	<b>RT-DA Price Deviation</b>	<ul style="list-style-type: none"> <li>The Absolute Difference is the daily average of the absolute values of the hourly difference between Day-Ahead Market LMPs and Real-Time Market LMPs</li> <li>The Average Difference is the daily average of the hourly difference between Day-Ahead Market LMPs and Real-Time Market LMPs</li> <li>The Average LMP %Difference is the Absolute Difference divided by the average Day-Ahead LMP.</li> </ul> $Average\ Difference = \left( \sum_{Day} averageDayAhead\ LMP_{per\ settlement\ location} - averageRealTime\ LMP_{per\ settlement\ location} \right)$ $Absolute\ Difference = \left( \sum_{Day}  averageDayAhead\ LMP_{per\ settlement\ location} - averageRealTime\ LMP_{per\ settlement\ location}  \right)$ $Average\ LMP\ \%Difference = \frac{Absolute\ Difference}{avg(\sum_{Day} averageDayAhead\ LMP_{per\ settlement\ location})}$
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<b>M.5.1.</b>	<b>Uplift</b>	<p>Tracks amount of RNU (Revenue Neutrality Uplift) charged or credited to market participants during the month, along with the category of uplift. RNU ensures settlement payments/receipts for each settlement interval equal zero.</p> <ul style="list-style-type: none"> <li>Positive RNU - SPP receives insufficient revenue and collects from market participants.</li> <li>Negative RNU - SPP receives excess revenue, which must be credited back to market participants.</li> </ul> <p>Tracks Make Whole Payments (MWP) for both the Day-Ahead Market and the RUC (Real-Time) with payments broken down by Fuel Type of the generation receiving the MWP.</p>
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M.5.2.	<b>MWP Distribution</b>	<ul style="list-style-type: none"> <li>• The All-in Price cost of each MW is broken down into different components associated with different product or cost distribution.</li> <li>• The DA MWP and RUC MWP make up the MWP distribution per MWh paid out as component of all-in cost for each MW of energy.</li> </ul>
M.6.	<b>Virtual Activity</b>	<ul style="list-style-type: none"> <li>• The Cleared Virtual Profitability is the daily average of the hourly DA LMP minus the hourly averaged RT LMP multiplied by the cleared virtual transactions from DA and all divided by the absolute value of the total cleared virtual transactions from DA.</li> <li>• The Monthly Market Index is the monthly average of the cleared virtual profitability.</li> <li>• Volume of Cleared MWh is the daily average of the total cleared virtual transactions in DA.</li> </ul>
M.7.1.	<b>Excess Capacity</b>	<ul style="list-style-type: none"> <li>• Excess Capacity is calculated as the MW capacity remaining (on dispatchable resources) that is not being dispatched for energy or reserved for online operating reserves (Reg Up, Spin, Online Supplemental). This Excess Capacity is calculated for each unit for every hour and that excess capacity is assigned to a "Commitment Source" that represents where the unit's commitment actually came from. Only excess capacity from the hour of the daily peak generation obligation (averaged by month) is considered. The final chart only includes those additional commitment changes made by SPP outside of DAMKT or MP-initiated decisions.</li> <li>• <b>Excess Capacity</b> = Effective Max – Dispatch MW – Cleared Reg Up – Cleared Spin – Cleared Online Supplemental</li> </ul>
M.7.2.	<b>Source of Commitment</b>	<ul style="list-style-type: none"> <li>• Commitments are determined and separated into 5 different cases SELF, MANUAL, ID_RUC, DA_RUC and DAMKT and are taken from the Current Operating Plan table.</li> <li>• Depending on the process the commitment is made, they are categorized into groups.</li> <li>• For the purpose of the Metrics on the dashboard, the DA_RUC, DAMKT and DBDA commitments are considered DA commitments fulfilling Real-Time obligation.</li> </ul>

## Financial Metrics

This group of metrics provides a view of the organization's overall financial situation in terms of both the operating costs and settlement functions carried out.

<b>F.1.</b>	<b>Admin Fee Performance</b>	Measures actual costs incurred by SPP on an annual basis and compares this to the approved Admin Fee and Budgeted Net Revenue Requirement (NRR).
<b>F.2.</b>	<b>Credit</b>	Metric measures the timeliness of the financial settlements for both transmission billing and market billing and provides a proxy for the strength of the organization's cash flow.
<b>F.3.</b>	<b>Settlement Disputes</b>	<p>Measures the number and value of disputes made with regard to the financial settlements of the markets. The objective in this area is twofold: (1) minimize the time to clear disputes; and (2) minimize the total value of dollars in dispute.</p> <ul style="list-style-type: none"> <li>• The average dispute amount granted in the month.</li> <li>• The number of disputes active at the end of the month, as well as the average days outstanding for those disputes is calculated. In addition, the number of resettlements during the month is tracked.</li> </ul>
<b>F.4.</b>	<b>Human Resources</b>	<p>Measures turnover rates, as well as the number of position vacancies, for each quarter.</p> <ul style="list-style-type: none"> <li>• Turnover rates, on a quarterly basis, as well as annualized.</li> <li>• Percentage of positions vacant on a quarterly basis.</li> </ul>

## Performance Metrics

The metrics in this group focus on NERC Compliance, System Availability, Studies and the Strategic Plan.

P.2.1.	<b>IT System Availability</b>	Measures availability of SPP IT Systems.
P.2.2.	<b>Operational System Availability</b>	<ul style="list-style-type: none"> <li>• <b>STLF</b> – This includes a count of days that the STLF Error has exceeded 1% for more than 2% of the RTBM study intervals.</li> <li>• <b>DAMKT</b> - This portion of the graph includes a count of days that the DAMKT posted past the deadline.</li> <li>• <b>DARUC</b> – This portion of the graph includes a count of days that DARUC failed to solve within 3 hours and 15 minutes of DAMKT Posting. <i>Note: This was changed January 2018 due to changes to DAMKT/DARUC timelines.</i></li> <li>• <b>SE/RTLDF</b> - This portion of the graph shows a count of days that the SE solution failed to solve every 4 seconds.</li> </ul> <p>The metric indicator will be green if the failure counts falls between 0 &amp; 7. The metric indicator will fall in the yellow category if the count falls between 8 &amp; 14.</p>
P.2.3.	<b>System Availability</b>	<ul style="list-style-type: none"> <li>• <b>MTLF</b> - Percentage of time that the Mid-Term Load Forecast Error (Actual Load vs MTLF) was within 5% for each of the three previous months as well as from the previous 12 months. <i>Note: Data is now pulled from the last 12 months instead of from go live. It is a large amount of data and processing time to continue to retrieve some of these metrics back to go live. That information is contained in previous reports.</i></li> <li>• <b>STLF</b> - Percentage of time the Short-Term Load Forecast error (Actual Load vs STLF) was within 1% for each of the three previous months as well as from the previous 12 months.</li> <li>• <b>Day Ahead Market</b> – This portion of the graph shows the percentage of time that the DAMKT posted on time for each of the three previous months as well as from the previous 12 months.</li> <li>• <b>Intra Day RUC</b> – This portion of the graph shows the percentage of time that IDRUC studies successfully ran every four hours for each of the three previous months as well from the previous 12 months.</li> <li>• <b>State Estimator</b> – This portion of the graph shows the percentage of time that there was a SE solution every four seconds for each of the three previous months as well as from the previous 12 months.</li> <li>• <b>Real Time Balancing Market</b> – This portion of the graph shows the percentage of time that RTBM solved and approved successfully every five minutes for each of the three previous months as well as from the previous 12 months.</li> </ul>
P.3.	<b>Transmission Service Studies</b>	<ul style="list-style-type: none"> <li>• Dashboard showing status of transmission service studies.</li> </ul>
P.4.	<b>Generation Interconnection Studies</b>	Tracks status of Generation Interconnection Studies by MW, as well as upcoming commercial operation dates for Generation Interconnection Agreements.
P.5.	<b>Strategic Plan</b>	Tracks status of Strategic Plan initiatives and assignments.

<b>SPP Tariff/Governing Document Revisions</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
<b>ER16-1341</b>  <b>18-1005</b> <b>U.S. Court of Appeals</b>	Petition of Southwest Power Pool, Inc. for Tariff Waiver Concerning the Crediting Process in Attachment Z2  Xcel Energy Services Inc. (“Xcel Energy”) v. Federal Energy Regulatory Commission (“FERC”): Petition for Review of Orders Issued in Docket No. ER16-1341 Regarding SPP’s Petition for Tariff Waiver Concerning the Implementation of the Revenue Crediting Process in Attachment Z2	On November 13, 2019, SPP filed an answer in response to the answers filed by Kansas Electric Power Cooperative, Inc. and Xcel Energy Services Inc. on September 10, 2019, and the answer filed by EDF Renewables, Inc., et al. on September 11, 2019.
<b>ER18-939</b>  <b>EL16-91</b>	Submission of Membership Agreement Revisions to Implement Refund Obligations for Non-Public Utility SPP Transmission Owners Consistent with Commission Orders in Docket Nos. EL16-91-000 and EL18-19-000  Section 206 Proceeding to Examine SPP’s Open Access Transmission Tariff (“Tariff”) and Absence of Refund Commitment for Non-Public Utility Transmission Owners to Refund Revenues that they May Receive Associated with Service Provided due to their Status as Transmission-Owning Regional Transmission Organization (“RTO”) Members in the Same Manner Public Utility	Commission action is pending on SPP’s compliance filing in Docket No. ER18-939.



<b>SPP Tariff/Governing Document Revisions</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
<b>EL18-19</b>	<p>Transmission Owners Could be Required to Provide Refunds of Such Revenues</p> <p>Section 206 Proceeding to Examine SPP's Membership Agreement (and Other Jurisdictional Documents) and Absence of Refund Commitment for Non-Public Utility Transmission Owners to Refund Revenues that they May Receive Associated with Service Provided due to their Status as Transmission-Owning RTO Members in the Same Manner Public Utility Transmission Owners Could be Required to Provide Refunds of Such Revenues</p>	
<b>ER19-460</b>	<p>Submission of Order No. 841 Compliance Filing to Incorporate Electric Storage Resources (Revision Request 323)</p>	<p>On October 17, 2019, FERC issued an Order on Compliance and Instituting Section 206 Proceeding. The Commission accepted in part, rejected in part, SPP's Order No. 841 compliance filing in Docket No. ER19-460, to be effective nine months from the date of this order.</p> <p>On December 12, 2019, SPP submitted a request for a deferral of the effective date in this proceeding.</p> <p>On December 16, 2019, SPP submitted its compliance filing to comply with the order issued on October 17, 2019 and Order No. 841. SPP requested that the Commission issue an order by March 1, 2020. SPP committed to submit a filing with the Commission specifying a precise effective date no later than nine months prior to implementation.</p> <p>On January 10, 2020, NextEra Energy Resources, LLC filed a Protest in response to SPP's request to delay the effective date.</p>
<b>ER19-1901</b>	<p>Submission of Tariff Revisions to Enhance the Minimum Daily Contingency Reserve</p>	<p>On October 21, 2019, SPP submitted a filing to notify the Commission that the effective date for the tariff revisions filed in Docket No. ER19-1901-000 will be November 6, 2019.</p>

<b>SPP Tariff/Governing Document Revisions</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
	Requirement Calculation (Revision Request 318)	
<b>ER19-1954</b>	Order Nos. 845 and 845-A Compliance Filing (Revision Request 353)	Commission action is pending on SPP's compliance filing in Docket No. ER19-1954.
<b>ER19-2522</b>  <b>EL19-11</b>	Submission of Exit Fee Compliance Revisions in Response to Order on Complaint Issued in Docket No. EL19-11-000  Complaint of the American Wind Energy Association ("AWEA") and the Wind Coalition (collectively, "Complainants") Regarding SPP's Financial Obligations of Withdrawing Members	On December 19, 2019, FERC issued an order conditionally accepting SPP's compliance filing submitted in Docket No. ER19-2522, to be effective December 19, 2019. The Commission directed SPP to submit a compliance filing that proposes revised Tariff language to ensure that a withdrawing non-transmission owner is only exempt from paying a share of SPP's long-term financial obligations, rather than all existing obligations associated with membership withdrawal. The Commission also directed SPP to revise Tariff language to ensure that a withdrawing transmission-owning member's previous year net energy for load includes the load of all load-serving entities connected to the withdrawing transmission owner's system. SPP's compliance filing is due on February 18, 2020.  The Commission denied rehearing, and granted in part and denied in part SPP's requested clarifications.
<b>ER19-2523</b>	Submission of Revisions to the Bylaws and Membership Agreement to Amend the Exit Fee	On December 19, 2019, FERC issued an order rejecting SPP's alternative exit fee proposal.
<b>ER19-2681</b>	Submission of Tariff Revisions to Modify Market Timelines (Revisions Requests 352 and 365)	On November 21, 2019, FERC issued an order accepting SPP's revisions to Sections 5.1 and 5.2 of Attachment AE of the Tariff to modify the time SPP posts the Day-Ahead Market results and the time when SPP begins the Day-Ahead Reliability Unit Commitment process.  SPP is to submit an informational filing to notify the Commission of the effective date for the tariff revisions no less than 30 days prior to the effective date.
<b>ER19-2845</b>	Submission of Tariff Revisions to Require Phasor Measurement Units ("PMU") at New Generator Interconnections (Revision Request 340)	On November 5, 2019, SPP filed an answer in response to the Protest filed by EDP Renewables North America LLC and RWE Renewables Americas, LLC on October 11, 2019.  On November 14, 2019, FERC issued a letter stating SPP's filing is deficient and requesting additional information regarding the filing.

<b>SPP Tariff/Governing Document Revisions</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
		On December 16, 2019, SPP submitted its response to the letter requesting additional information issued on November 14, 2019.
<b>ER20-418</b>	Submission of Tariff Revisions to Unbundle Schedule 1-A Tariff Administration Services to Include Market Services (Revision Request 358)	<p>On November 19, 2019, SPP submitted revisions to Schedule-1A, Tariff Administration Services, to unbundle the rate to properly allocate the cost of the services to Market Participants who use the services and to revise other references and sections of the Tariff accordingly to accommodate the changes in Schedule 1-A.</p> <p>An effective date of January 1, 2021 was requested. SPP requested that the Commission issue an order by January 21, 2020.</p> <p>On December 9, 2019, the SPP Market Monitoring Unit filed a Motion to Intervene and Comments in support.</p> <p>On December 10, 2019, Golden Spread Electric Cooperative, Inc. filed Comments in Support.</p>
<b>ER20-453</b>	Submission of Tariff Revisions to Eliminate Attachment Z2 Transmission Revenue Credits (Revision Request 374)	<p>On November 22, 2019, SPP submitted tariff revisions in order to eliminate transmission revenue credits as an option for compensation for Upgrade Sponsors of future projects under Attachment Z2 of the Tariff.</p> <p>An effective date of February 1, 2020 was requested.</p> <p>On December 13, 2019, EDF Renewables, Inc., et al. filed a Joint Protest.</p> <p>On December 13, 2019, sPower Development Company, LLC filed a Motion to Intervene and Limited Comments.</p> <p>On December 13, 2019, Kansas Electric Power Cooperative, Inc. (“KEPCo”) filed a Motion to Intervene and Comments. KEPCo stated it agrees that elimination of transmission revenue crediting is appropriate; however, KEPCo requested that the Commission require SPP to submit compliance filings reporting on transmission revenue crediting each year until SPP has fulfilled its obligation to administer transmission revenue crediting.</p> <p>On January 3, 2020, SPP filed an answer in response to the protest and comments filed in this proceeding.</p>

<b>SPP Tariff/Governing Document Revisions</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
<b>ER20-572</b>	Compliance Filing to Include Continuous Run-Time Requirement in Attachment AA of the Tariff in Response to Order Issued in Docket No. EL19-101-000	On October 17, 2019, FERC issued an order opening Docket No. EL19-101, instituting a proceeding pursuant to section 206 of the Federal Power Act to direct SPP to include its resource adequacy minimum run-time requirement in its Tariff. No later than 45 days after publication of notice in the Federal Register of the Commission's initiation of the 206 proceeding, SPP must submit Tariff provisions reflecting its resource adequacy minimum run-time requirement. A refund effective date of October 28, 2019 was established.
<b>EL19-101</b>	Section 206 Proceeding Directing SPP to Add the Resource Adequacy Minimum Run-Time Requirement to the Tariff	<p>On December 12, 2019, SPP submitted a compliance filing to revise Attachment AA of the Tariff in accordance with the Commission's directive in the order issued on October 17, 2019 in Docket No. EL19-101-000.</p> <p>An effective date of October 28, 2019 was requested.</p> <p>On January 10, 2020, the Energy Storage Association, NextEra Energy Resources, LLC and Western Farmers Electric Cooperative filed comments in response to SPP's compliance filing.</p>
<b>ER20-644</b>	Compliance Filing Revising Fast-Start Pricing Practices in Response to Order on Paper Hearing in Docket No. EL18-35-000 (Revision Request 375)	On December 19, 2019, SPP submitted a compliance filing to revise its fast-start pricing practices in accordance with orders issued on December 21, 2017 and June 12, 2019 in Docket No. EL18-35-000.
<b>EL18-35</b>	Order Instituting Section 206 Proceeding and Commencing Paper Hearing Procedures Regarding Pricing of Quick-Start Resources	

<b>Other Filings of Interest</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
<b>EL17-21</b>	Kansas Electric Power Cooperative, Inc.'s ("KEPCo") Complaint Against SPP Concerning Direct Cost Assignment in Connection with the Attachment Z2 Revenue Crediting Process	Commission action is pending on the requests for rehearing of the order issued on November 6, 2017.  On November 13, 2019, SPP filed an answer in response to the answers filed by Kansas Electric Power Cooperative, Inc. and Xcel Energy Services Inc. on September 10, 2019, and the answer filed by EDF Renewables, Inc., et al. on September 11, 2019.
<b>EL17-89</b>	American Electric Power Service Corporation ("AEP") Complaint Against the Midcontinent Independent System Operator, Inc. ("MISO") and SPP Concerning Assessment of Duplicative Congestion Charges Associated with Southwestern Electric Power Company ("SWEPCO") Loads that are Pseudo-Tired from MISO to SPP	On December 18, 2019, SPP and MISO filed Initial Briefs.  Reply Briefs are due on February 18, 2020.
<b>EL18-9</b>	Xcel Energy Services Inc.'s ("Xcel Energy"), on behalf of Southwestern Public Service Company ("SPS"), Complaint Against SPP Concerning the Attachment Z2 Revenue Crediting Process	Commission action is pending on the rehearing request of the order issued on March 6, 2018.  On November 13, 2019, SPP filed an answer in response to the answers filed by Kansas Electric Power Cooperative, Inc. and Xcel Energy on September 10, 2019, and the answer filed by EDF Renewables, Inc., et al. on September 11, 2019.
<b>EL18-26</b>	EDF Renewable Energy, Inc.'s ("EDF") Complaint Against the Midcontinent Independent System Operator, Inc. ("MISO"), Southwest Power Pool, Inc. ("SPP"), and PJM Interconnection, L.L.C. ("PJM") (collectively, the "RTOs") Regarding Affected System Coordination	On October 15, 2019, the RTOs filed a Joint Motion for Limited Extension of Time to File Compliance and for Expedited Action. The RTOs requested an extension until February 3, 2020 to submit the compliance filings required by the order issued on September 19, 2019.  On October 21, 2019, Invenergy Wind Development North America LLC, et al. filed a Request for Rehearing of the order issued on September 19, 2019.  On October 31, 2019, FERC issued a Notice of Extension of Time, granting an extension to February 3, 2020 to submit the compliance filings.

<b>Other Filings of Interest</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
		On November 20, 2019, FERC issued an Order Granting Rehearings for Further Consideration of the order issued on September 19, 2019.
<b>EL19-62</b>	Complaint of City Utilities of Springfield, Missouri ("CUS") Regarding Highway/Byway Cost Allocation Methodology	On October 11, 2019, FERC issued an Order Granting Rehearing for Further Consideration of the order issued on August 12, 2019.  On October 25, 2019, SPP filed an answer in response to the Request for Rehearing and Clarification filed by CUS.  On November 26, 2019, CUS filed an answer in opposition of SPP's answer filed on October 25, 2019.
<b>EL19-75</b>	Complaint to Enforce Attachment Z2 of EDF Renewables, Inc., Enel Green Power North America, Inc., NextEra Energy Resources, LLC and Southern Power Company ("Complainants")	On November 13, 2019, SPP filed an answer in response to the answers filed by Kansas Electric Power Cooperative, Inc. and Xcel Energy Services Inc. on September 10, 2019, and the answer filed by EDF Renewables, Inc., et al. on September 11, 2019.
<b>EL19-77</b>	Oklahoma Gas and Electric Company's ("OG&E") Complaint Regarding Revenue Credits under the Sponsored Upgrade Agreement dated December 1, 2008	On November 13, 2019, SPP filed an answer in response to the answers filed by Kansas Electric Power Cooperative, Inc. and Xcel Energy Services Inc. on September 10, 2019, and the answer filed by EDF Renewables, Inc., et al. on September 11, 2019.
<b>EL19-92</b>	Section 206 Proceeding Regarding Exemption from Order No. 1000 Requirement for Immediate Need Reliability Projects	On October 17, 2019, FERC issued an order instituting a section 206 proceeding to consider how the exemption for immediate need reliability projects the Commission permitted to Order No. 1000's requirement to eliminate provisions in the Commission-jurisdictional Tariff and agreements that establish a federal right of first refusal for an incumbent transmission developer with respect to transmission facilities selected in a regional transmission plan for purposes of cost allocation is being implemented. The Commission is concerned that SPP may be implementing the exemption in a manner that is inconsistent with what the Commission directed. SPP was directed to respond to questions in the order in order to 1) demonstrate how it is complying with the immediate need reliability project criteria; 2) demonstrate that the provisions in the Tariff, as implemented, containing certain exemptions to the requirements of Order No. 1000 for immediate need reliability projects remain just and reasonable; and 3) consider additional conditions or restrictions on the use of the exemption for immediate need reliability projects to appropriately balance the need to promote competition for transmission development and avoid delays that could endanger reliability.  A refund effective date of October 28, 2019 was established.

<b>Other Filings of Interest</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
		On December 27, 2019, SPP submitted its responses to the Commission's questions in the order issued on October 17, 2019.
<b>EL19-93</b>	Western Farmers Electric Cooperative ("WFEC") Complaint Against SPP Seeking to Affirm WFEC's Right to Recover and Retain Revenue Credits to which WFEC is Entitled, and which WFEC has Collected, pursuant to the Terms of Attachment Z2 of the Tariff and WFEC's Network Integration Transmission Service Agreement ("NITSA") under the Tariff	<p>On October 8, 2019, WFEC filed an answer in response to various pleadings.</p> <p>On October 24, 2019, Xcel Energy Services Inc. filed an answer in response to the answer filed by WFEC on October 8, 2019.</p> <p>On November 13, 2019, SPP filed an answer in response to the answers filed by Oklahoma Gas and Electric Company, Cimarron Windpower II, LLC, and WFEC.</p>
<b>EL19-96</b>	Complaint of Cimarron Windpower II, LLC ("Cimarron") Against SPP Requesting that the Commission Find SPP's Failure to Provide Attachment Z2 Credits to Cimarron in Accordance with Attachment Z2 Violated the Terms of the SPP Tariff and the Cimarron Generator Interconnection Agreement	<p>On October 25, 2019, Cimarron filed an answer in response to various pleadings.</p> <p>On November 12, 2019, Sunflower Electric Power Corporation and Mid-Kansas Electric Company, Inc. filed an answer in response to the answer filed by Cimarron on October 25, 2019.</p> <p>On November 26, 2019, SPP filed an answer in response to the answer filed by Cimarron on October 25, 2019 and various comments.</p> <p>On December 11, 2019, Cimarron filed an answer in response to the answer filed by SPP on November 26, 2019.</p>
<b>ER19-477</b>	Petition for Tariff Waiver of the 365-Day Limitation Period for Modifications to Settlement Statements Set Forth in Attachment AE, Section 10.1(3) to Ensure that Market-to-Market ("M2M") Settlements Involving SPP and the Midcontinent Independent System Operator, Inc. ("MISO") are Accurate	Commission action is pending.

<b>State Cases</b>		
<b>Docket Number</b>	<b>Short Description</b>	<b>Summary</b>
<b>Kansas</b> <b>17-SPPE-117-GIE</b> <b>19-SPPE-384-CPL</b>	In the Matter of a General Investigation for the Purpose of Investigating Whether Annual or Periodic Cost/Benefit Reporting by the SPP and Kansas Electric Utilities that Participate in SPP is in the Public Interest	On October 15, 2019, the Commission issued an Order Designating Prehearing Officer.



# Regulatory Outlook

FERC ER15-2115	Cross Answering Testimony of Trial Staff, Missouri River Energy Services, and Western Area Power Administration is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	01/16/2020
FERC ER13-1864	SPP's Tenth Informational Report due detailing SPP's and MISO's progress on resolving issues related to their implementation methodologies for Interface Bus Pricing, and analyzing whether the benefits of implementation of a day-ahead firm flow entitlement exchange process outweigh its costs, until such issues are resolved (Order Conditionally Accepting in Part and Rejecting in Part Revisions to Joint Operating Agreement issued on January 22, 2015)	01/22/2020
FERC ER18-2358	Trial Staff Testimony is due (Order Adopting Procedural Schedule issued on July 31, 2019)	01/29/2020
FERC EL18-26	Compliance Filing is due to revise the SPP-MISO Joint Operating Agreement regarding Affected System coordination (Order on Complaint and Technical Conference issued on September 19, 2019; Notice of Extension of Time issued on October 31, 2019)	02/03/2020
FERC ER15-2028	Cross Answering Testimony of Trial Staff, Missouri River Energy Services, and Western Area Power Administration is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	02/04/2020
FERC ER05-652	File Informational Report on SPP Aggregate Study (Safe Harbor Report) (Order issued on April 22, 2005)	02/12/2020
FERC ER15-2115	Rebuttal Testimony of Northwest Iowa Power Cooperative and Intervenor is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	02/18/2020
FERC EL17-89	Reply Briefs are due to discuss issues regarding duplicative congestion charges (Order Establishing Briefing Procedures issued on September 19, 2019; Notice of Extension of Time issued on October 18, 2019)	02/18/2020
FERC	Compliance filing is due regarding SPP's membership exit fee (Order on Rehearing, Compliance, and Section 205 Filing issued on December 19, 2019)	02/18/2020

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EL19-11		
FERC	Compliance filing is due regarding SPP's membership exit fee (Order on Rehearing, Compliance, and Section 205 Filing issued on December 19, 2019)	02/18/2020
ER19-2522		
FERC	Settlement Conference begins at 10 AM Eastern Time (Order Scheduling Settlement Conference issued on October 28, 2019; Order Rescheduling Settlement Conference issued on December 23, 2019)	02/27/2020
ER19-2273		
FERC	Cross-Answering Testimony is due (Order Adopting Procedural Schedule issued on July 31, 2019)	02/28/2020
ER18-2358		
FERC	Joint Statement of Issues is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	03/02/2020
ER15-2115		
FERC	Last date for Discovery Requests (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	03/11/2020
ER15-2115		
FERC	Rebuttal Testimony of Corn Belt Power Cooperative and Intervenors is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	03/16/2020
ER15-2028		
FERC	Last date for Discovery Responses (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	03/18/2020
ER15-2115		
FERC	Joint Witness List, Joint Exhibit List, Joint Statement of Stipulated Facts, and Joint Statement of Contested Facts is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	03/25/2020
ER15-2115		
FERC	Rebuttal Testimony of SPP and GridLiance High Plains is due (Order Adopting Procedural Schedule issued on July 31, 2019)	03/27/2020
ER18-2358		

# Regulatory Outlook

FERC ER15-2028	Joint Statement of Issues is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	03/30/2020
FERC ER18-2358	Deadline for final discovery requests (Order Adopting Procedural Schedule issued on July 31, 2019)	04/03/2020
FERC ER15-2115	Hearing Commences (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	04/07/2020
FERC ER15-2028	Last date for Discovery Requests (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	04/08/2020
FERC ER15-2115	Fourteen business days after hearing concludes, Filing of Joint Proposed Transcript Corrections, Joint Final Index of Exhibits, Joint Procedural History, and Joint List of Appearances is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	04/08/2020
FERC ER15-2028	Last date for Discovery Responses (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	04/15/2020
FERC OA08-5	Annual Compliance Report Regarding Penalties for Unreserved Use is due	04/17/2020
FERC ER18-2358	Deadline for parties to answer all outstanding discovery requests and last day for depositions (Order Adopting Procedural Schedule issued on July 31, 2019)	04/17/2020
FERC ER18-2358	Joint Statement of Positions on the Issues, Joint Witness List, and Index of Exhibits are due (Order Adopting Procedural Schedule issued on July 31, 2019)	04/21/2020
FERC	Joint Witness List, Joint Exhibit List, Joint Statement of Stipulated Facts, and Joint Statement of Contested Facts is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	04/22/2020

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ER15-2028		
FERC	FERC Reporting Requirement No. 582 is due	04/30/2020
10-1178		
FERC	Hearing Commences (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	05/05/2020
ER15-2028		
FERC	Fourteen business days after hearing concludes, Filing of Joint Proposed Transcript Corrections, Joint Final Index of Exhibits, Joint Procedural History, and Joint List of Appearances is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	05/06/2020
ER15-2028		
FERC	Pre-Hearing Brief is due (Order Adopting Procedural Schedule issued on July 31, 2019)	05/11/2020
ER18-2358		
FERC	SPP MMU's Annual State of the Market Report due at FERC	05/15/2020
ZZ19-4		
FERC	Hearing commences (Order Adopting Procedural Schedule issued on July 31, 2019)	05/19/2020
ER18-2358		
FERC	Joint Exhibit List and Transcript Corrections are due (Order Adopting Procedural Schedule issued on July 31, 2019)	06/12/2020
ER18-2358		
FERC	Initial Brief is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	06/18/2020
ER15-2115		
FERC	Hyperlinked Initial Brief is due (Order Establishing Procedural Schedule and Rules of Conduct of Hearing issued on July 29, 2019)	06/25/2020
ER15-2115		
State of Missouri	Kansas City Power & Light Company's Interim Report is due (Order Granting Motion to Modify Stipulation Requirements issued on June 28, 2017)	06/30/2020

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EO-2012-0135

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State of Missouri

KCP&L Greater Missouri Operations Company's Interim Report is due (Order Granting Motion to Modify Stipulation Requirements issued on June 28, 2017)

06/30/2020

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EO-2012-0136

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<b>Date</b>	<b>Event</b>	<b>Location</b>
10/03/19	Arkansas Legislative Joint Energy Committee Meeting	Springdale, AR
10/03/19 – 10/04/19	Kansas Energy Conference	Manhattan, KS
10/09/19	Briefing and tour of SPP for Little Rock Mayor Frank Scott	Little Rock, AR
10/21/19	Oklahoma Academy on Energy	Thackerville, OK
11/04/19 – 11/06/19	Midwest Governors Association Transmission Meeting	St. Louis, MO
11/17/19 – 11/20/19	NARUC	San Antonio, TX
11/11/19 – 11/14/19	Western Governors Association Meeting	Las Vegas, NV