



# CORPORATE METRICS

3Q2020

*Helping our members work together to keep  
the lights on... today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

# CORPORATE METRICS 3Q2020

- **MARKET KEY METRICS**

- NET DAY-AHEAD CONGESTION REVENUE (M.1.3)
- PRICE CONTOUR MAP (M.2.3)
- ELECTRICITY/GAS PRICE COMPARISON (M.4.3)
- PRICES ANNUAL (M.4.3.1)
- ALL-IN-PRICE (M.5.3)
- EXCESS CAPACITY (M.7.1)

- **RELIABILITY KEY METRICS**

- RELIABILITY
- CONGESTED INTERVALS RTMKT (M.2.2)
- CONGESTION – FLOWGATES (M.2.4)
- BAAL PERFORMANCE (M.3.2)

- **FINANCE KEY METRICS**

- ADMIN FEE MEASUREMENT (F.1.1)
- ADMIN FEE PERFORMANCE (F.1.3)
- SETTLEMENT DISPUTES (F.3)
- HUMAN RESOURCES (F.4)

- **PERFORMANCE KEY METRICS**

- IT SERVICE PERFORMANCE (P.2.1)
- SYSTEM AVAILABILITY (P.2.3)
- TRANSMISSION SERVICE STUDIES (P.3)
- GENERATOR INTERCONNECTION STUDIES (P.4.1)
- STRATEGIC PLAN (P.5)

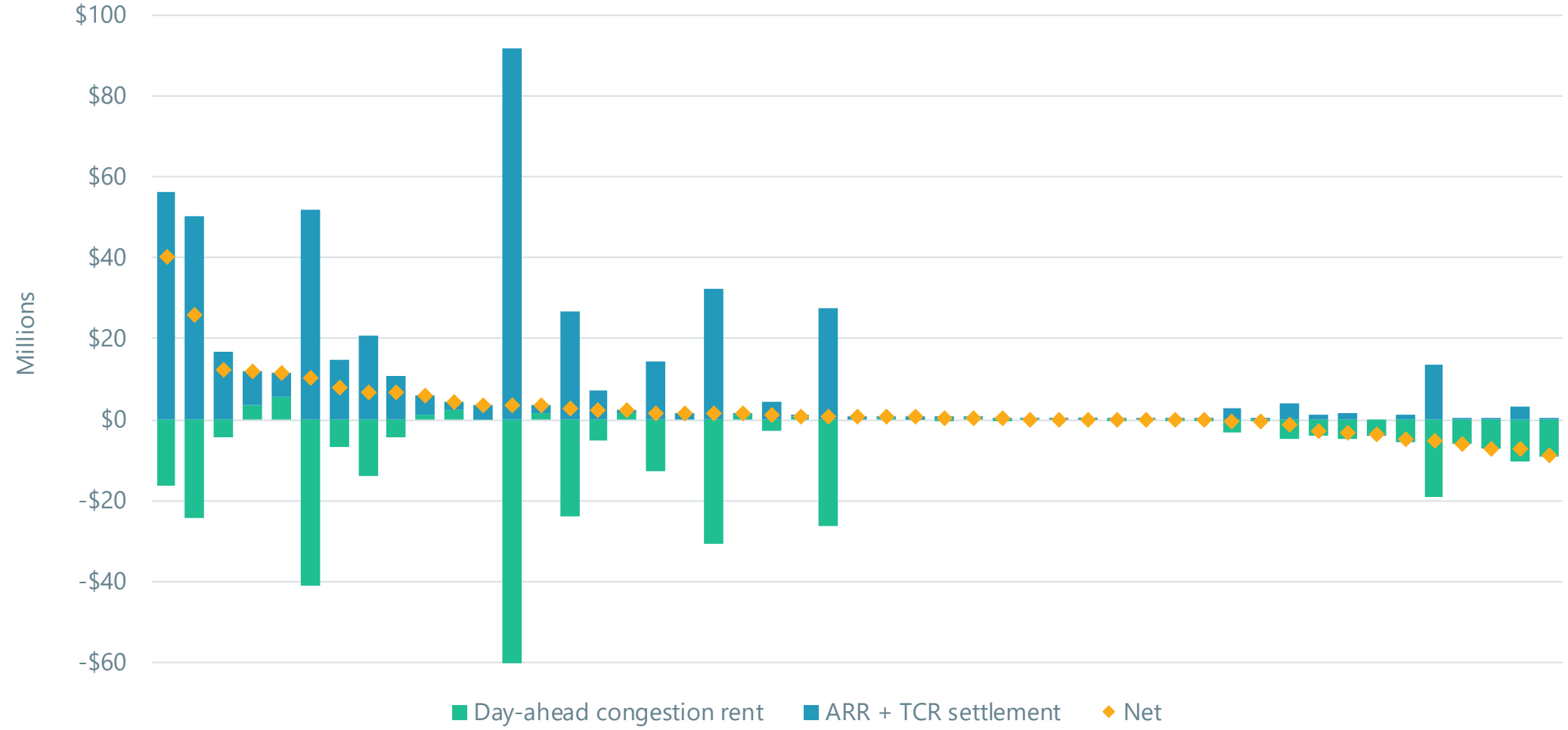
# MARKET

KEY METRICS

# NET DAY-AHEAD CONGESTION REVENUE (M.1.3)

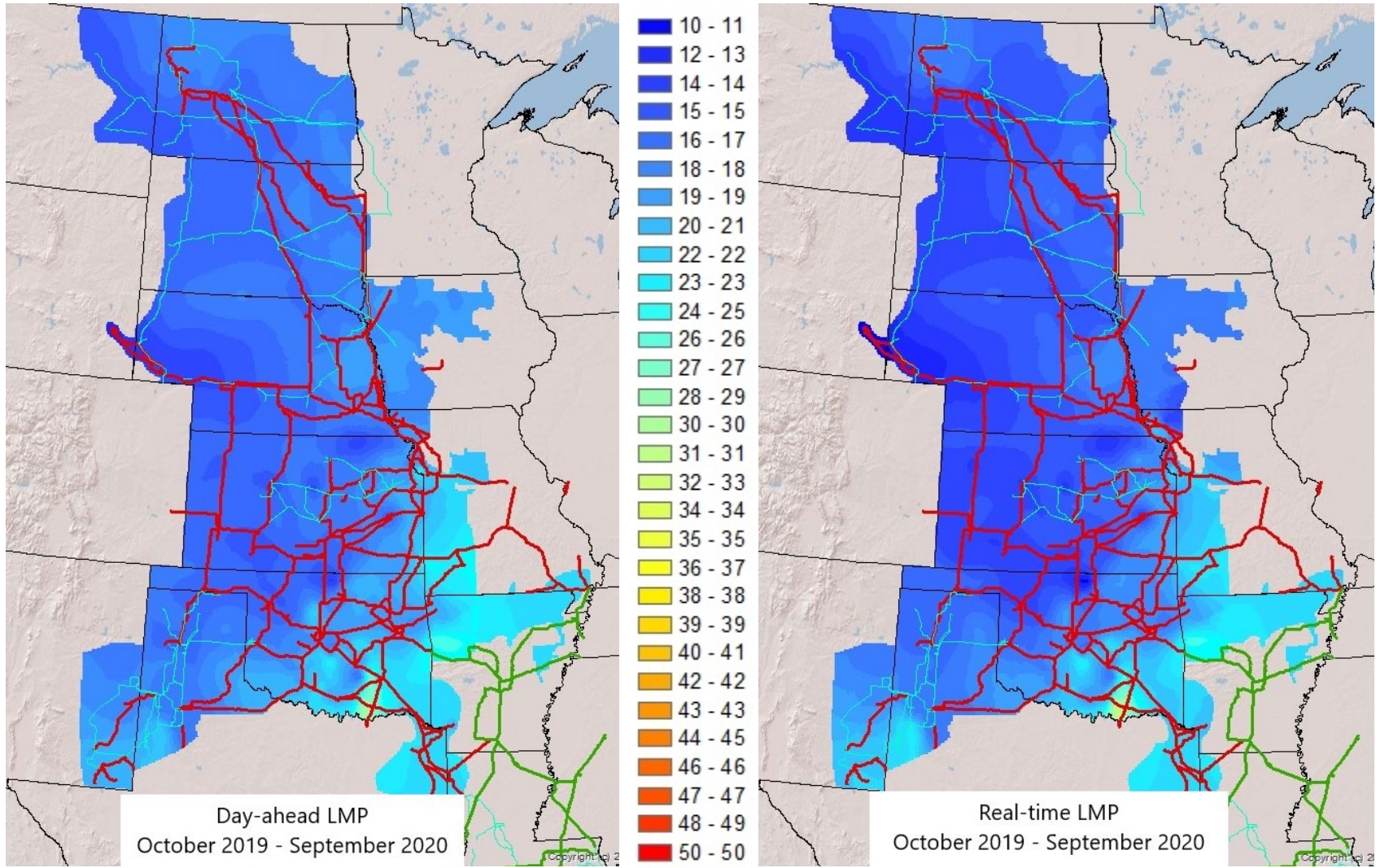
HEDGING SUCCESS

OCTOBER 1, 2019 - SEPTEMBER 30, 2020

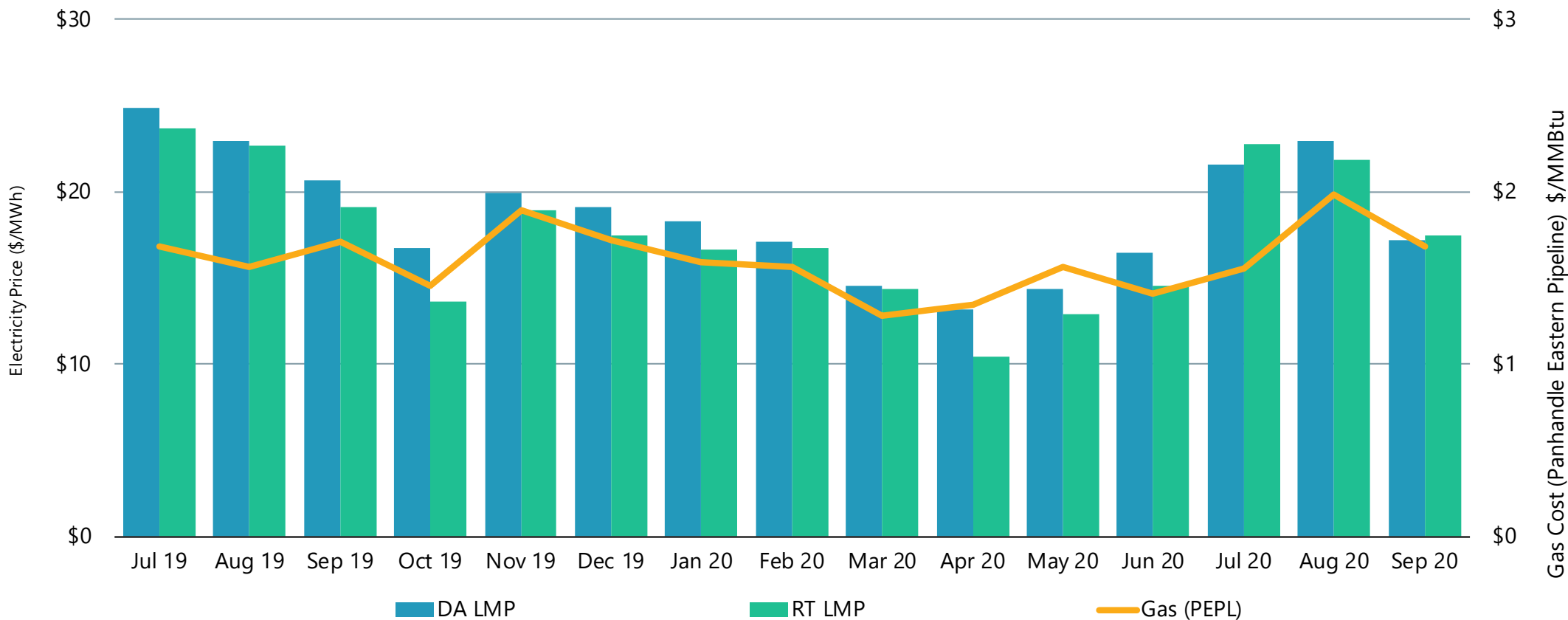


# PRICE CONTOUR MAP (M.2.3)

## OCTOBER 2019-SEPTEMBER 2020

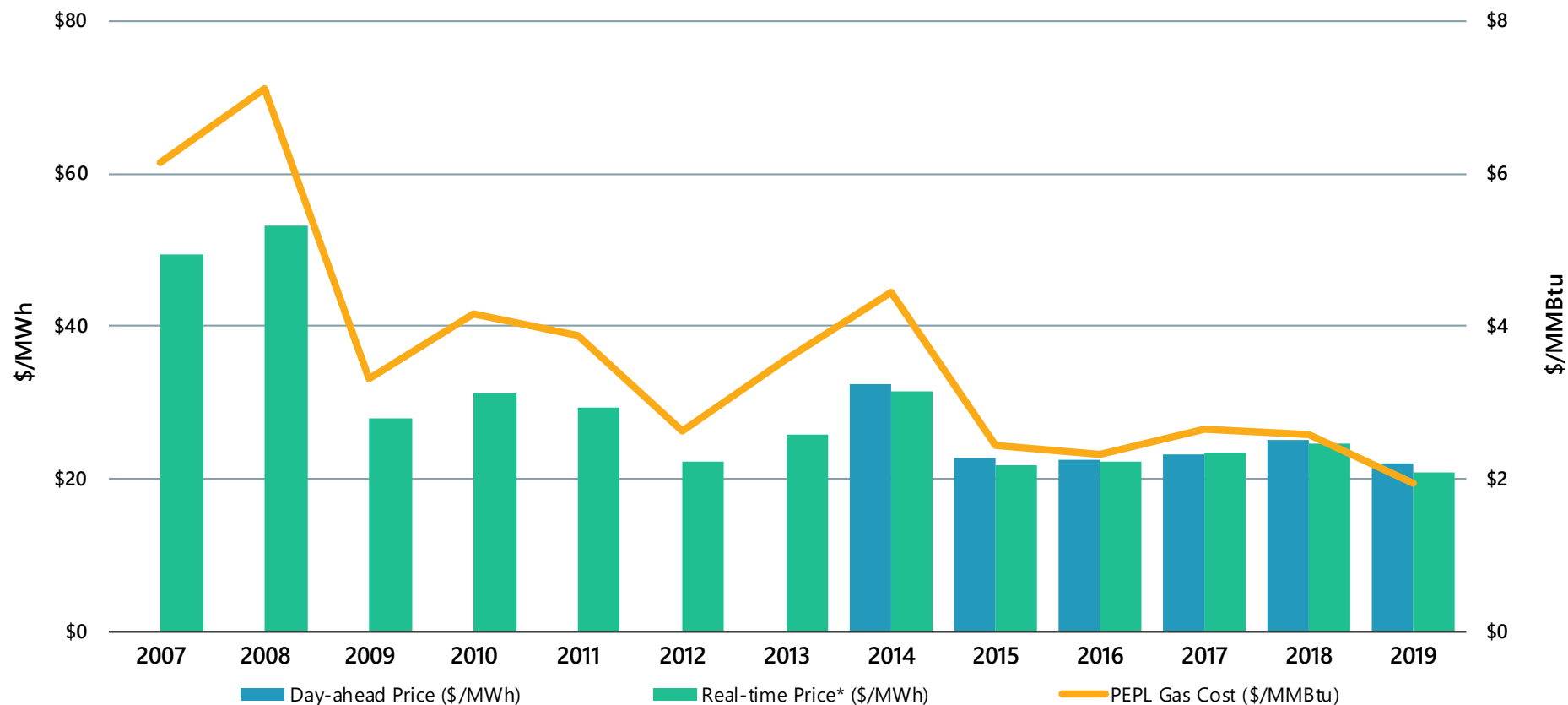


# ELECTRICITY/GAS PRICE COMPARISON (M.4.3)



Average in \$	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20
DA LMP (\$/MWh)	24.84	22.90	20.66	16.71	19.90	19.14	18.30	17.09	14.52	13.21	14.36	16.46	21.54	22.97	17.20
RT LMP (\$/MWh)	23.64	22.64	19.14	13.62	18.94	17.45	16.62	16.73	14.39	10.43	12.91	14.50	22.74	21.84	17.46
PEPL Gas Cost (\$/MMBtu)	1.68	1.56	1.71	1.45	1.89	1.72	1.59	1.56	1.28	1.34	1.56	1.41	1.55	1.98	1.68

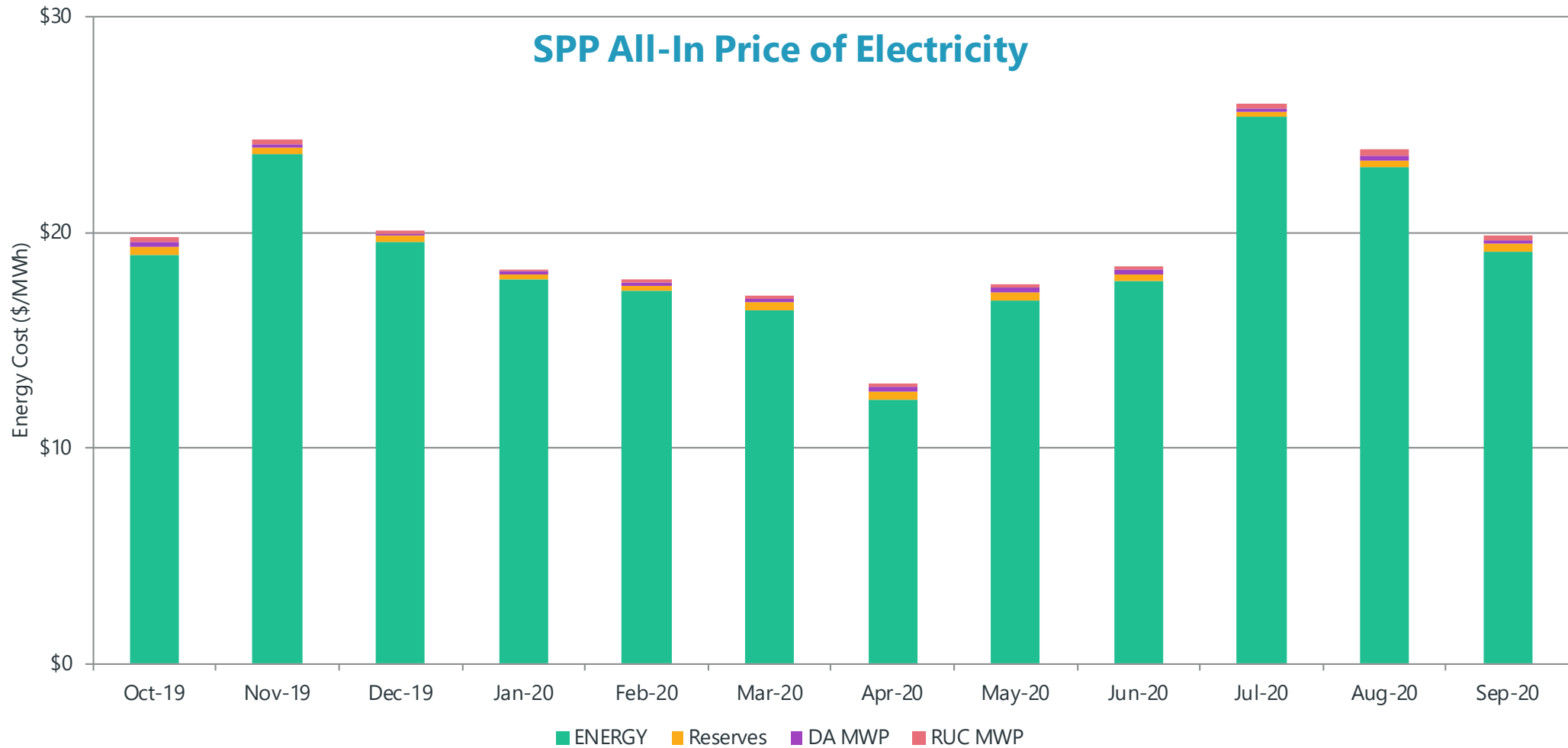
# PRICES ANNUAL (M.4.3.1)



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.

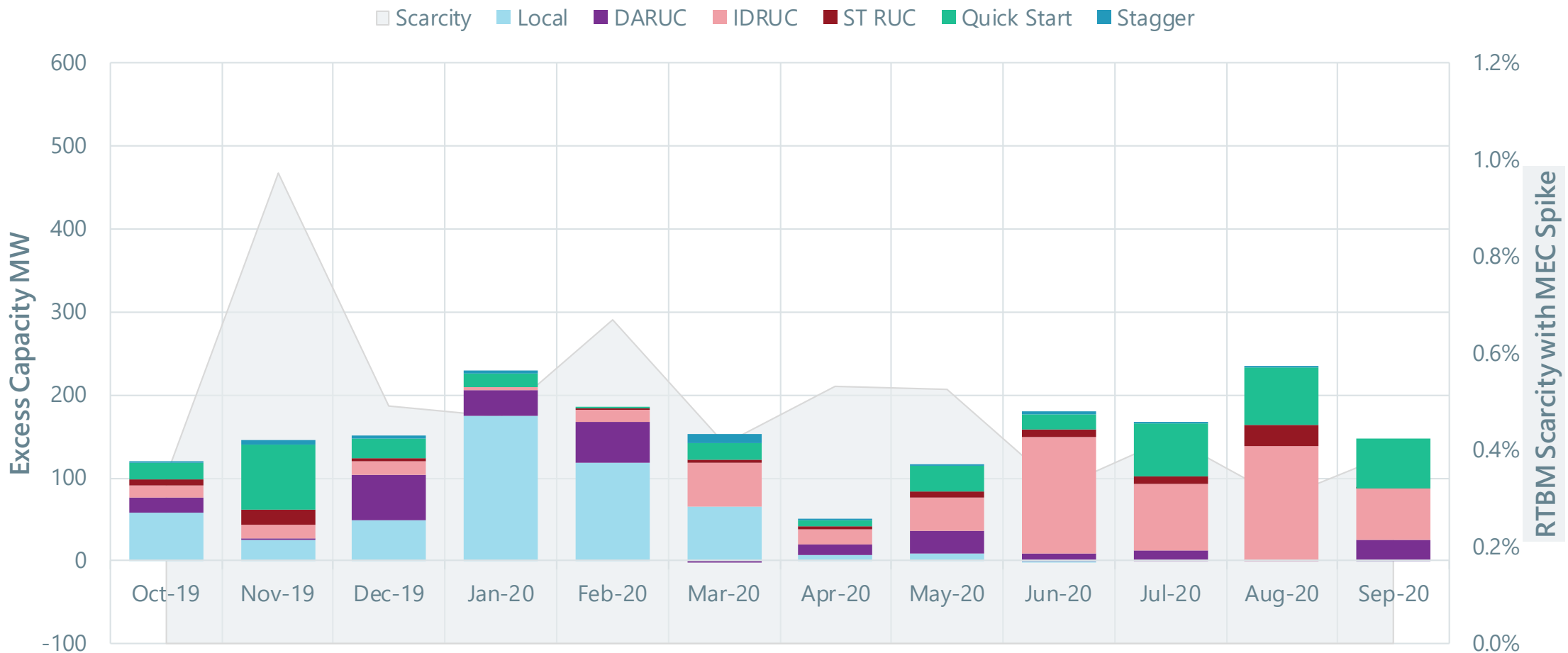
# ALL-IN-PRICE (M.5.3)





# EXCESS CAPACITY (M.7.1)

Excess Capacity at Peak Hour of Day, By Commitment Source, Averaged by Month



# RELIABILITY

KEY METRICS

# RELIABILITY

## Conservative Operation Declarations

- None

## Energy Emergency Alert

- None

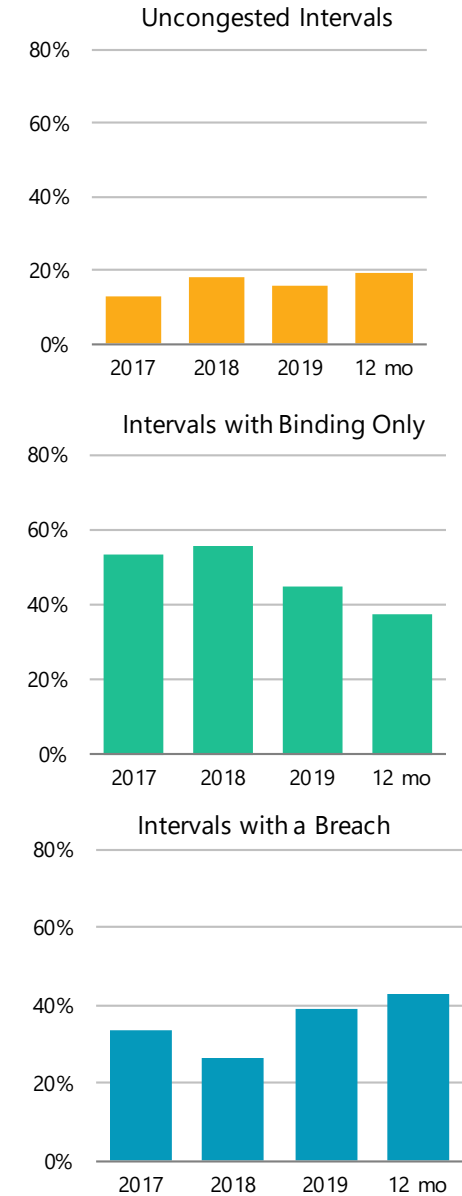
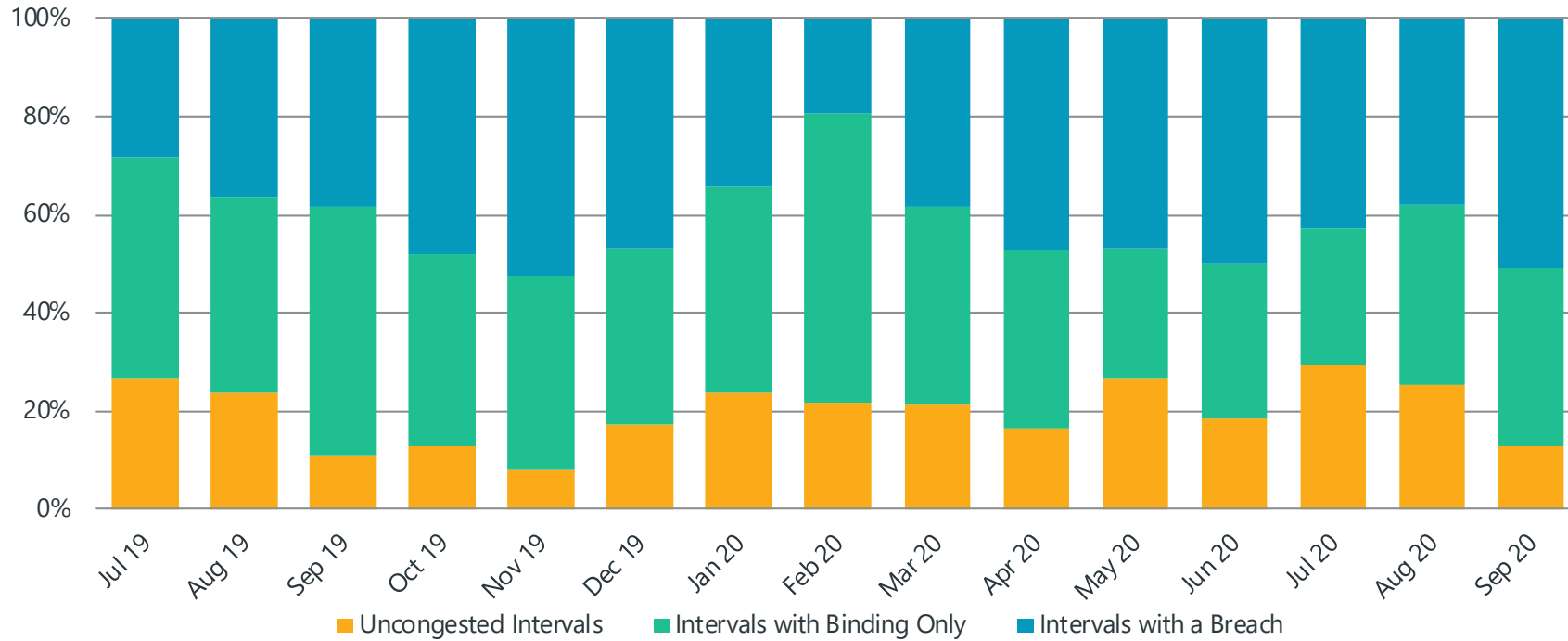
## Resource Alert

- High loads, hot weather, wind forecast uncertainty
  - June 3 – 6, 2020

## Notable Near misses

- None

# CONGESTED INTERVALS RTMKT (M.2.2)

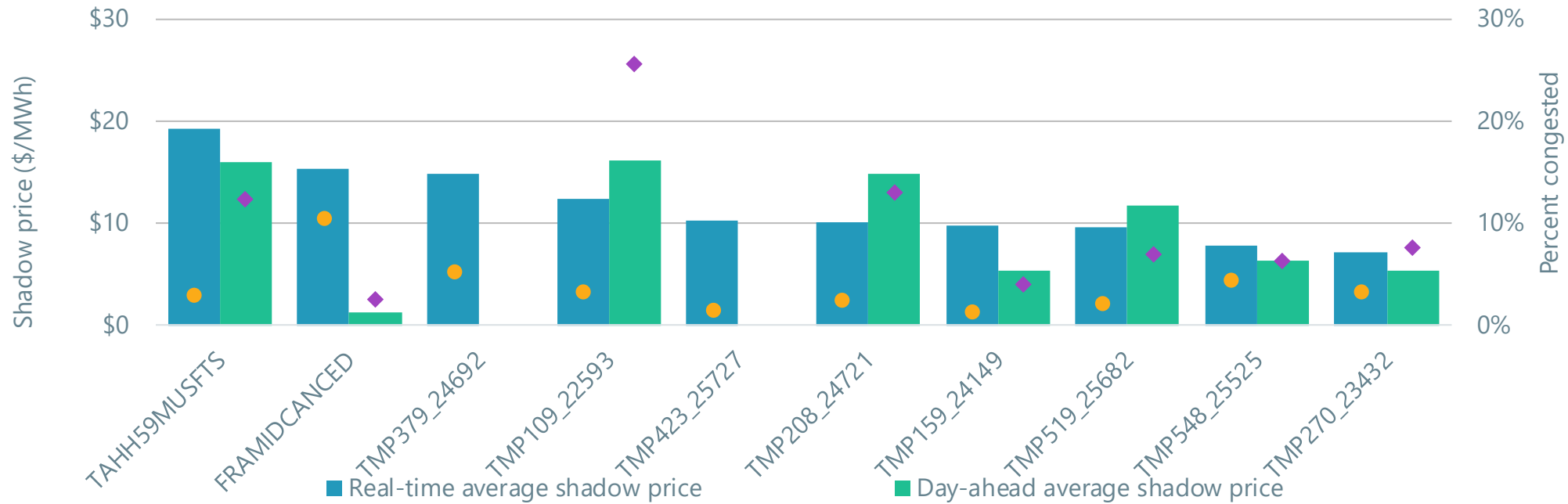


	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	2017	2018	2019	12 mo
Uncongested Intervals	27%	24%	11%	13%	8%	17%	24%	22%	21%	16%	27%	19%	29%	25%	13%	13%	18%	16%	20%
Intervals with Binding Only	45%	40%	51%	39%	39%	36%	42%	59%	41%	36%	27%	31%	28%	37%	36%	53%	55%	45%	37%
Intervals with a Breach	28%	36%	38%	48%	53%	47%	34%	19%	38%	47%	47%	50%	43%	38%	51%	33%	27%	39%	43%
																Average			

Interval = 5 minutes

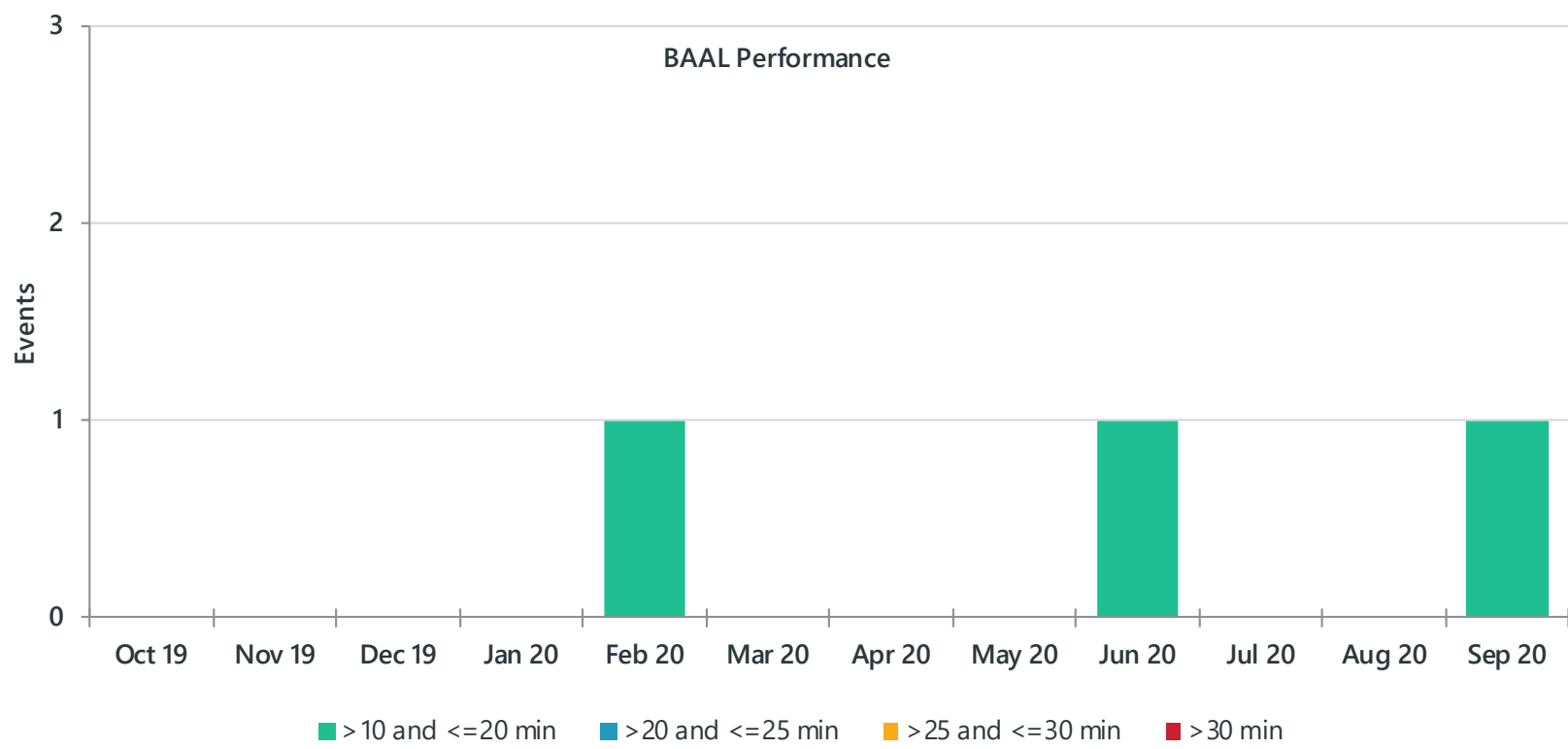
# CONGESTION – FLOWGATES (M.2.4)

## OCTOBER 2019 - SEPTEMBER 2020



Flowgate Name	Region	Flowgate Location
TAHH59MUSFTS	Arkansas/Oklahoma border	Tahlequah-Hwy 59 161kV (GRDA-OKGE) ftlo Muskogee-Ft. Smith 345kV (OKGE)
FRAMIDCANCED	Eastern Kansas	Franklin-Midwest 138kV (WFEC-OKGE) ftlo Cedar Lane-Canadian 138kV (OKGE)
TMP379_24692	North-central Oklahoma	Braman-Newkirk Tap 69kV ftlo Kildeer Tap-Chikaskia 138kV (OKGE)
TMP109_22593*	Eastern Oklahoma	Stonewall Tap-Tupelo Tap 138kV (WFEC) ftlo Seminole-Pittsburg 345kV (CSWS-OKGE)
TMP423_25727*	Northwest Missouri	Maryville-Midway 161kV (MPS) ftlo Maryville-Nodaway 161kV (AECI)
TMP208_24721	Central Oklahoma	Dover Switch-Okeene 138kV (WFEC) ftlo Waukomis Tap-Waukomis 138kV (OKGE)
TMP159_24149	Southern Oklahoma	Russett-South Brown 138kV (WFEC) ftlo Little City-Brown Tap 138kV (OKGE)
TMP519_25682*	Kansas City area	Nashua-Roanridge 161kV (KCPL-MPS) ftlo Nashua-Hawthorn 345kV (KCPL)
TMP548_25525*	Eastern Nebraska	Columbus Xfmr 230/115kV (NPPD) ftlo Columbus-Shell Creek 230kV (NPPD)
TMP270_23432*	Northeast Oklahoma	Cleveland-Clev AECI 138kV (GRDA-AECI) ftlo Cleveland-Tulsa North 345kV (GRDA-CSWS)

# BAAL PERFORMANCE (M.3.2)



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

# FINANCE

## KEY METRICS

# ADMIN FEE MEASUREMENT (F.1.1)

SPP Administrative Fee, NRR & Billing Determinants Metric  
(millions)

	FY Forecast vs. Budget Variance as of:		
	Jul-20	Aug-20	Sep-20
Gross Revenue Requirement (GRR)	\$11.9 ■	\$12.1 ■	\$14.1 ■
Net Revenue Requirement (NRR)	\$17.3 ■	\$17.6 ■	\$19.3 ■
Admin Fee Revenue Collected	(\$0.7) ■	(\$0.8) ■	(\$0.4) ■
Over/(Under) Recovery	\$16.6 ■	\$16.8 ■	\$18.9 ■
Billing Determinants (MWh)	0.0 ■	0.0 ■	(1.1) ■

SPP Projects and Foundation Capital Expenditures  
2020 - 2022 Budget  
(millions)

	2020-2022 Forecast	2020-2022 Budget	Variance Over/(Under)
<u>Capital Projects</u>			
EMS Upgrade (2021-2022)	\$3.5	\$5.7	(\$2.2)
DTS Upgrade Phase 2B	2.2	2.2	0.0
Identity Access Management	0.5	0.5	0.0
FERC Order 841 Electric Storage	0.4	0.4	0.0
Data Lake P3	0.0	0.4	(0.4)
Other (TAGIT/SCERT, Ramping Capability, ESR)	0.9	0.5	0.4
<b>Total Capital Projects</b>	<b>\$7.6</b>	<b>\$9.7</b>	<b>(\$2.1)</b>
Western Energy Imbalance Service (WEIS) Mark	3.0	3.4	(0.4)
<b>Total Capital Projects Including WEIS</b>	<b>\$10.5</b>	<b>\$13.0</b>	<b>(\$2.5)</b>
	2020 Forecast	2020 Budget	Variance
Capital Foundation (2020 only)	\$10.4	\$12.9	(\$2.5)

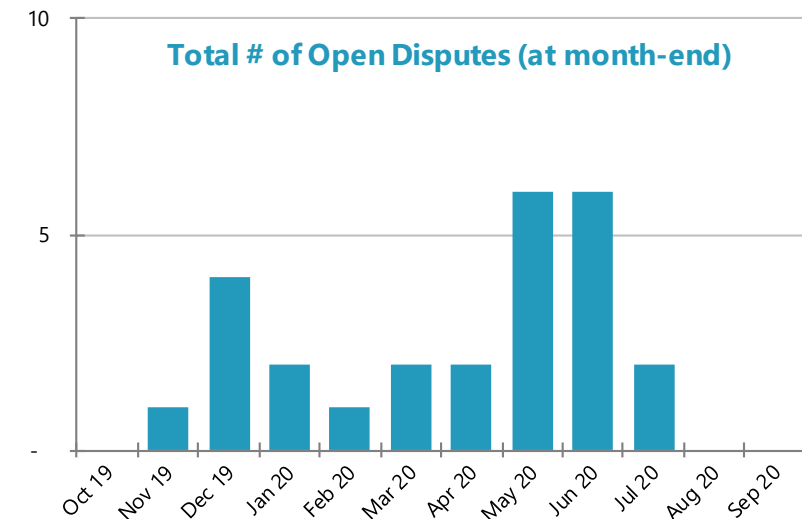
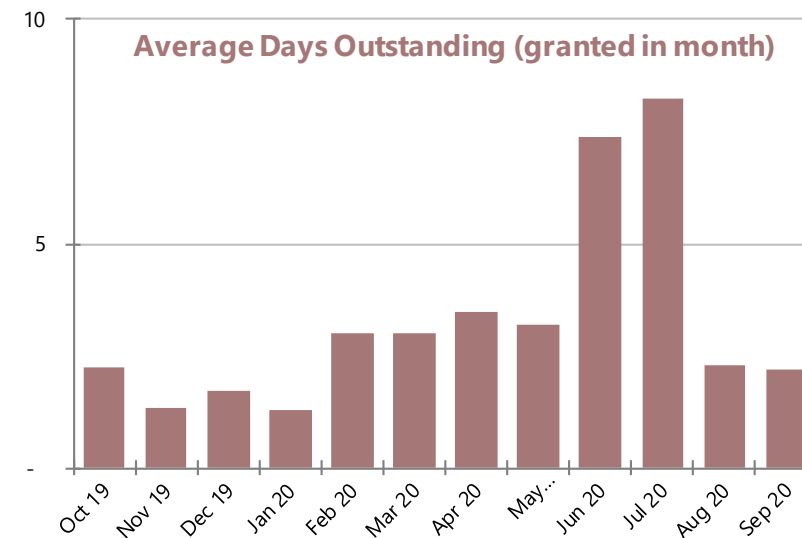
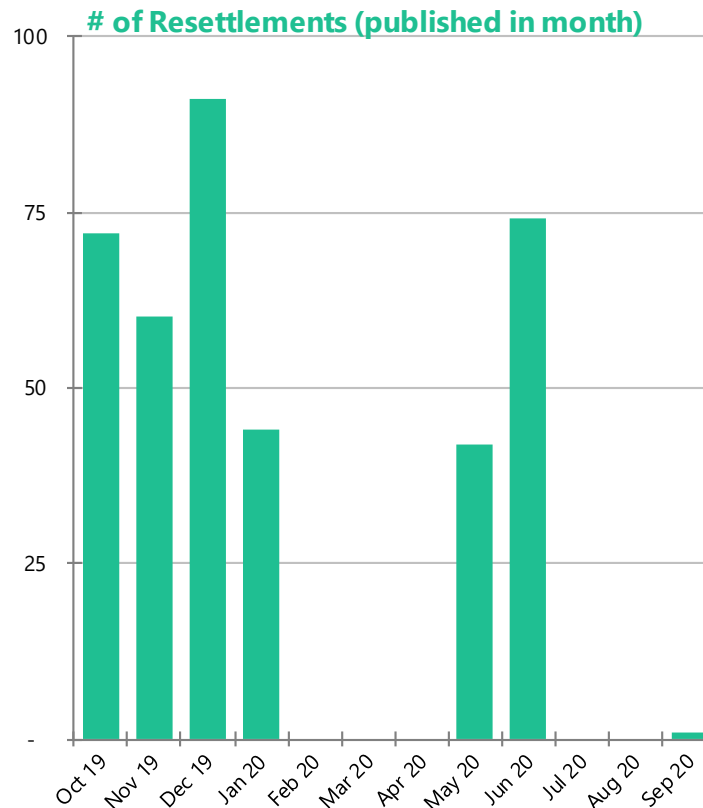
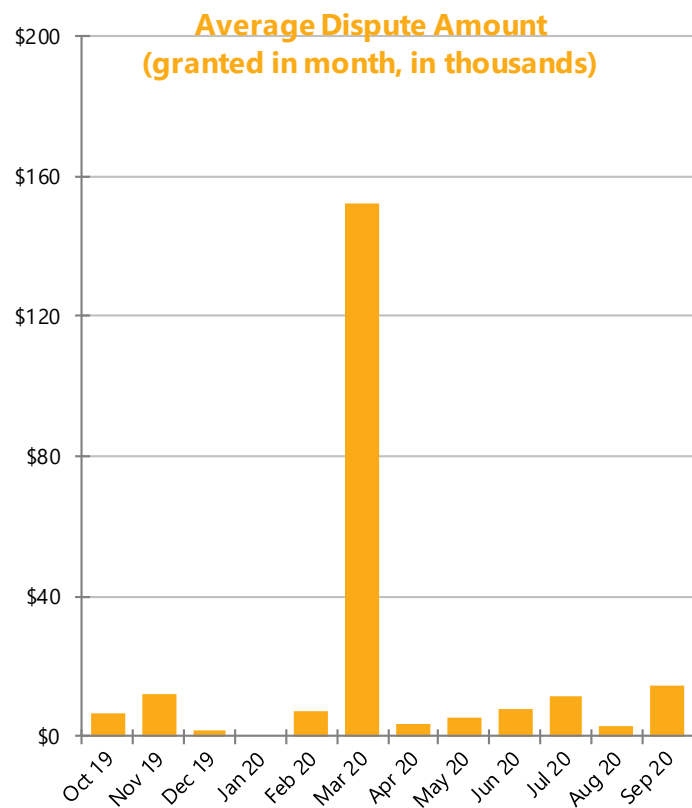
\* Carryover project - prior year budget (not included in 2020 budget)



# ADMIN FEE PERFORMANCE (F.1.3)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<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	\$172.3	\$179.6	\$185.5
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	400.9	400.9	400.9
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	\$0.430	\$0.448	\$0.463
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	\$0.430	\$0.448	\$0.463
<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	\$155.9	\$153.0	\$179.6	\$185.5
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	399.9	400.9	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	\$0.389	\$0.383	\$0.448	\$0.463
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)	(\$0.005)	(\$0.047)	\$0.00	\$0.00
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%	2.90%	3.17%	4.30%

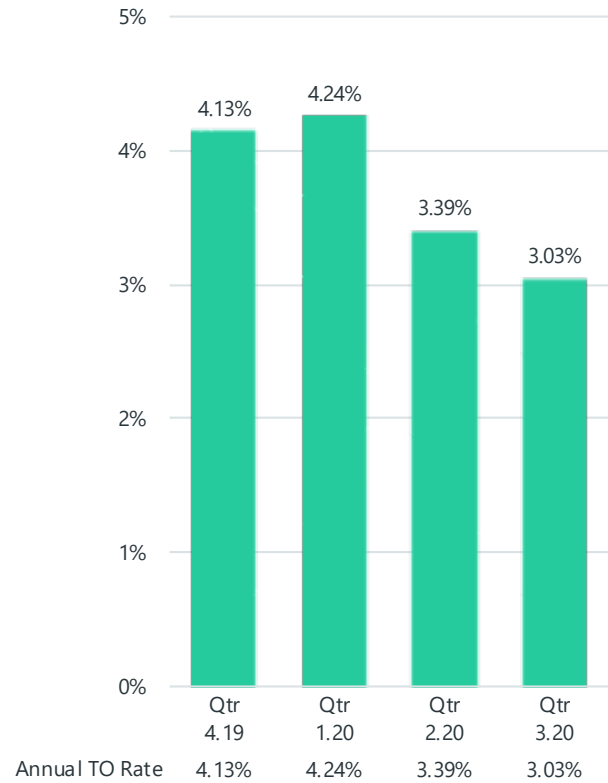
# SETTLEMENT DISPUTES (F.3)



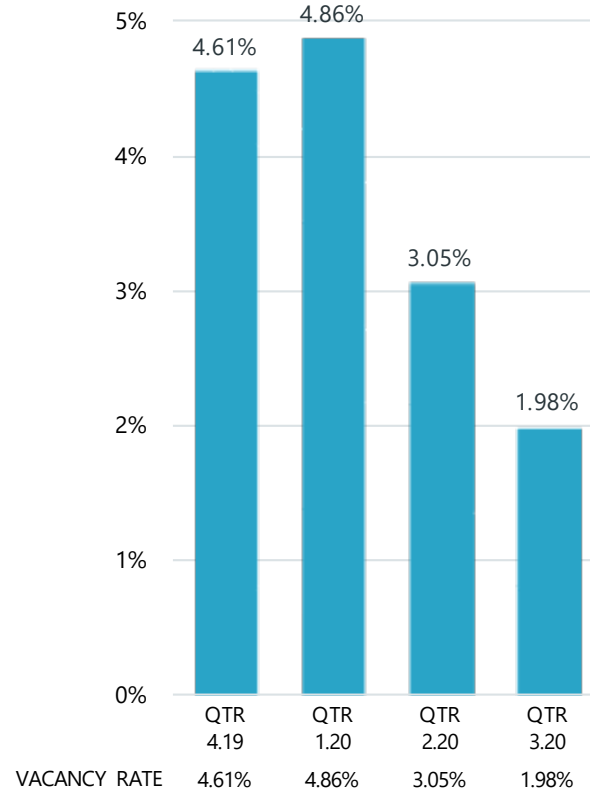
	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20
Total # of Open Disputes (at month-end)	-	1	4	2	1	2	2	6	6	2	-	-
Average Days Outstanding (granted in month)	2	1	2	1	3	3	4	3	7	8	2	2
Average Dispute Amount (granted in month)	\$6.7	\$11.9	\$1.8	\$0.0	\$7.5	\$152.3	\$3.5	\$5.6	\$7.9	\$11.3	\$3.2	\$14.3
# of Resettlements (published in month)	72	60	91	44	-	-	-	42	74	-	-	1

# HUMAN RESOURCES (F.4)

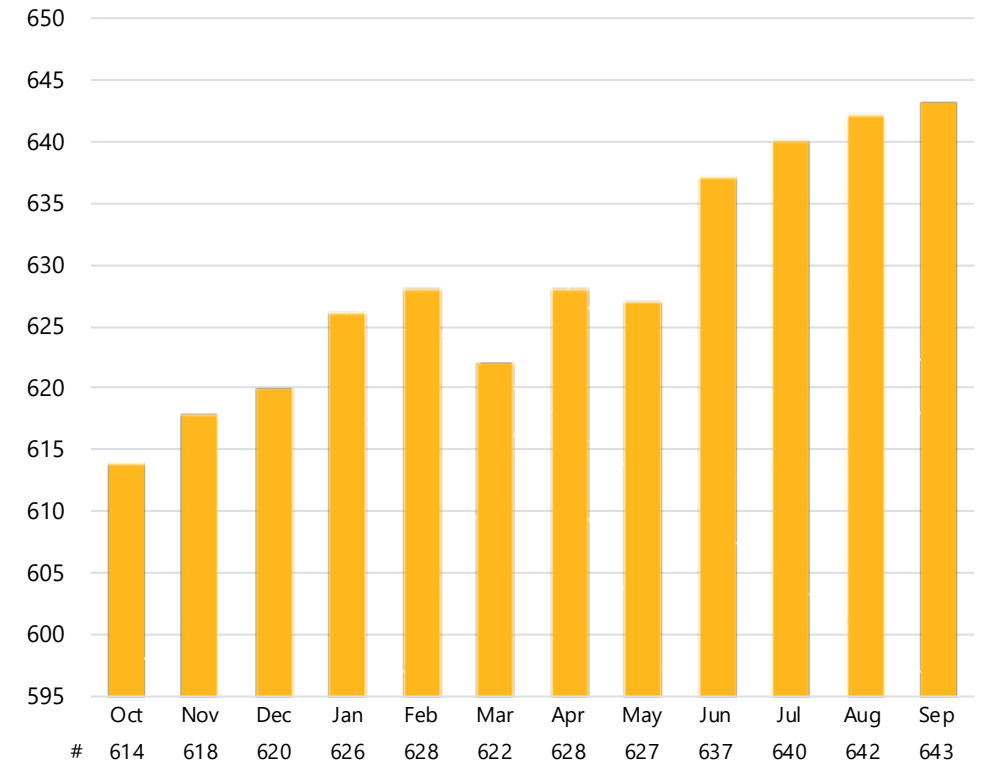
Turnover Rate



Vacancy Rate



Headcount-12 Months

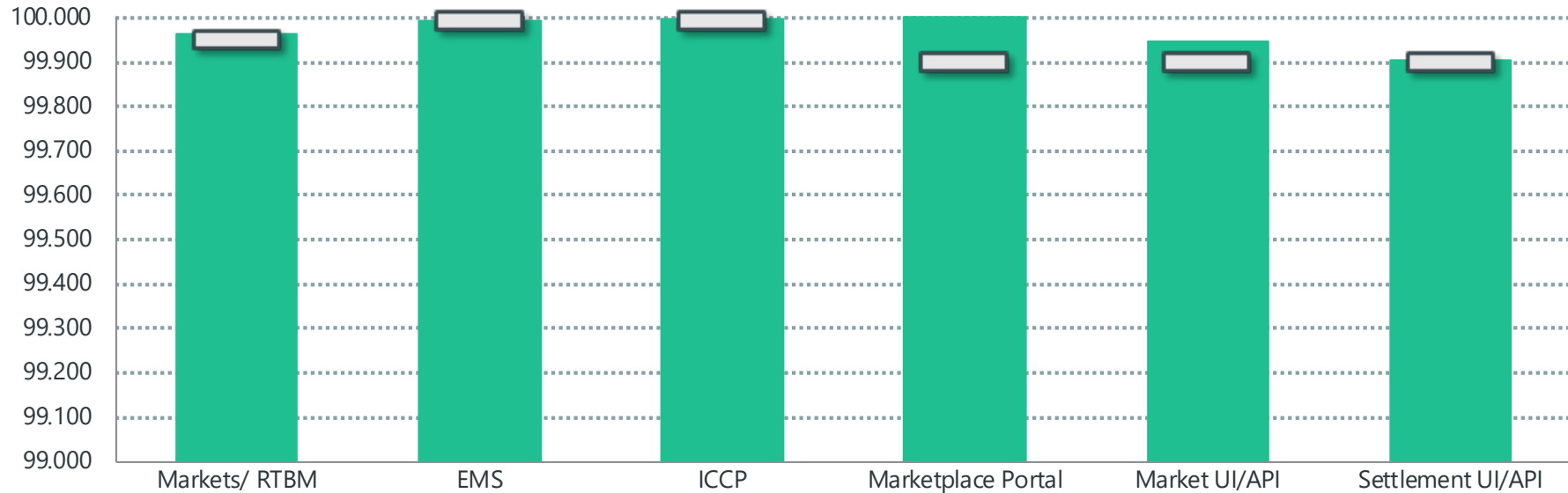


# PERFORMANCE

KEY METRICS

# IT SERVICE PERFORMANCE (P.2.1)

## 2020 Cumulative IT Service Availability Through SEPT



	Markets/ RTBM	EMS	ICCP	Marketplace Portal	Market UI/API	Settlement UI/API
2020 Availability	99.964	99.992	99.997	100.000	99.948	99.904
Target Uptime	99.95	99.99	99.99	99.90	99.90	99.90
Cumulative Unavailability (Minutes)	190	42	13	0	275	514
Cumulative Target (Minutes)	263	53	53	526	526	526

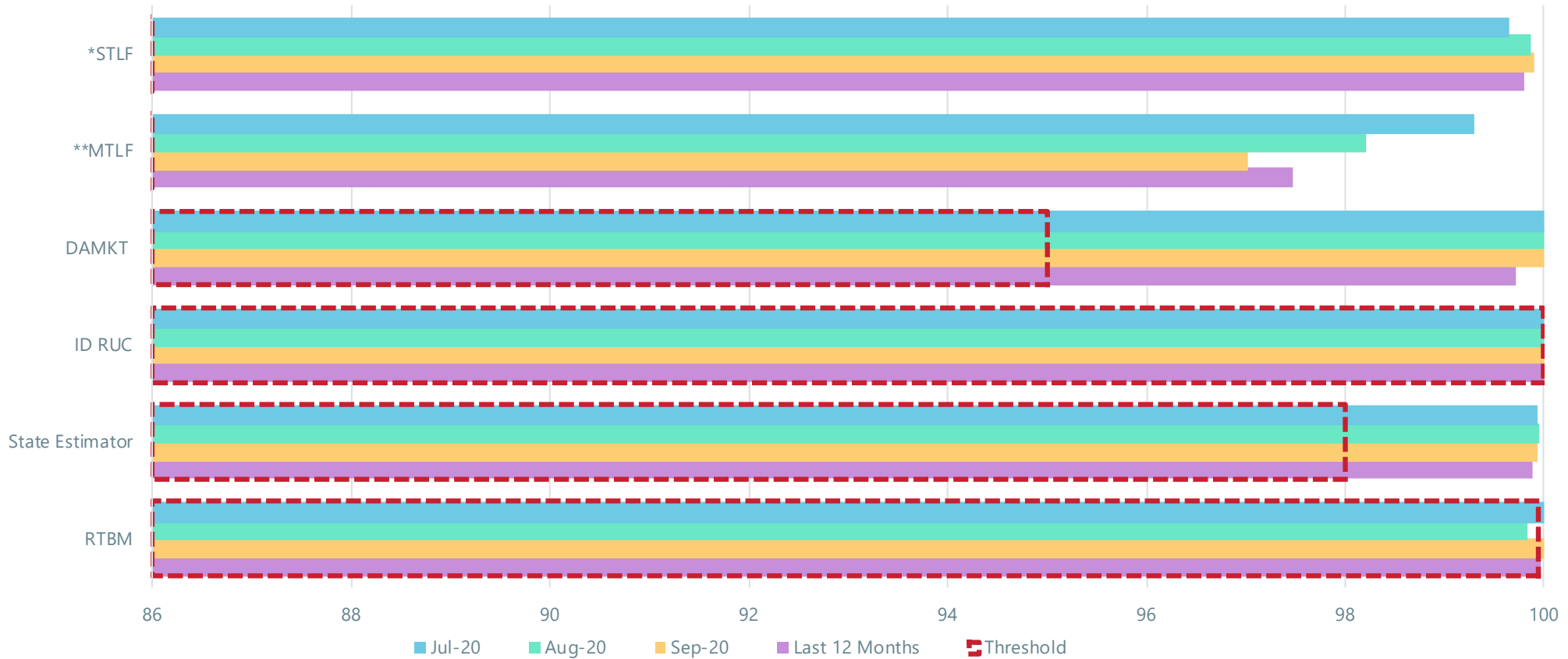
**GREEN** = Meets and/or Exceeds Target Uptime

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

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

# SYSTEM AVAILABILITY (P.2.3)

System Availability

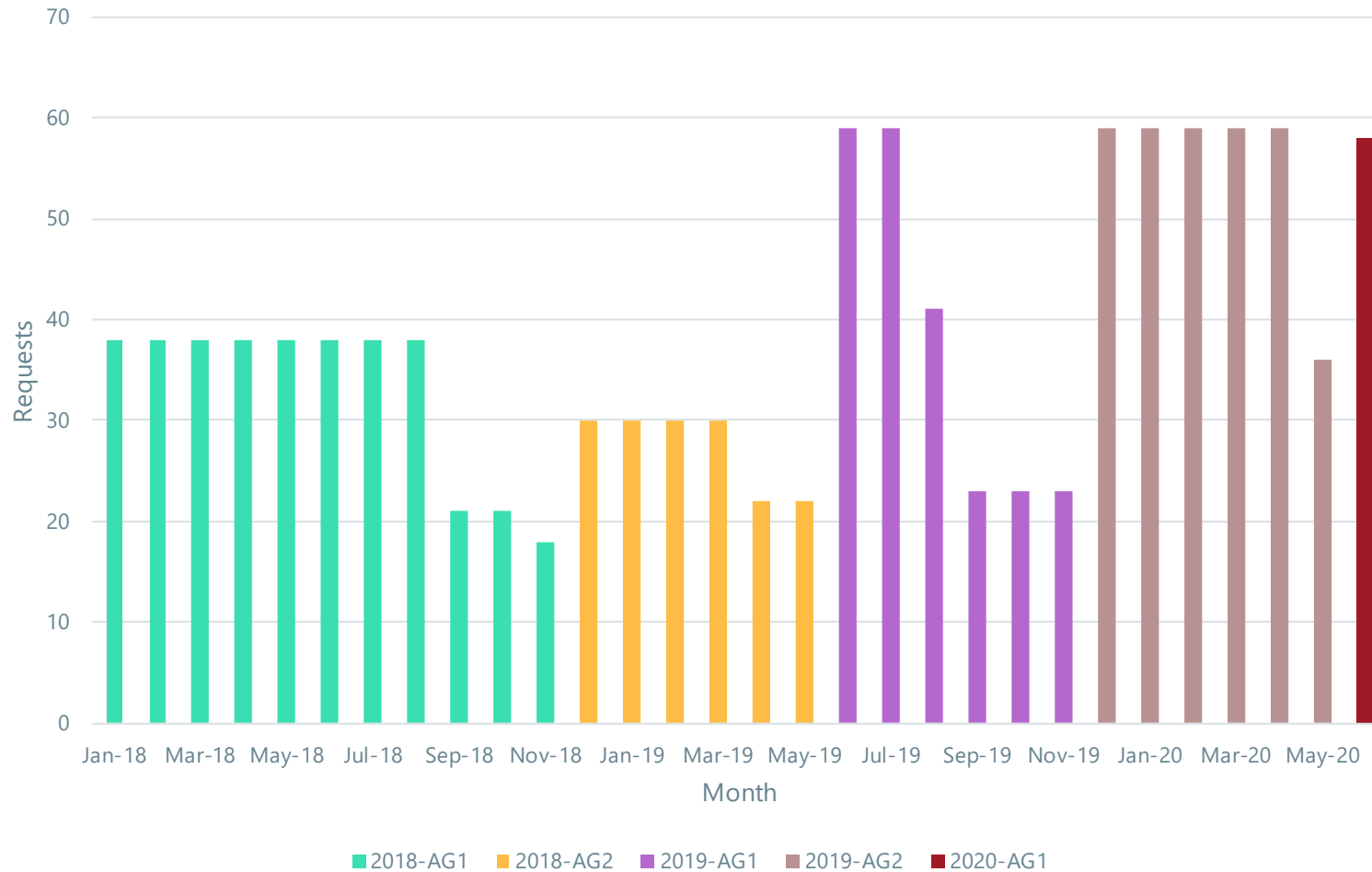


\* Percentage of time STLF is within 1% error  
 \*\* Percentage of time MTLF is within 5% error

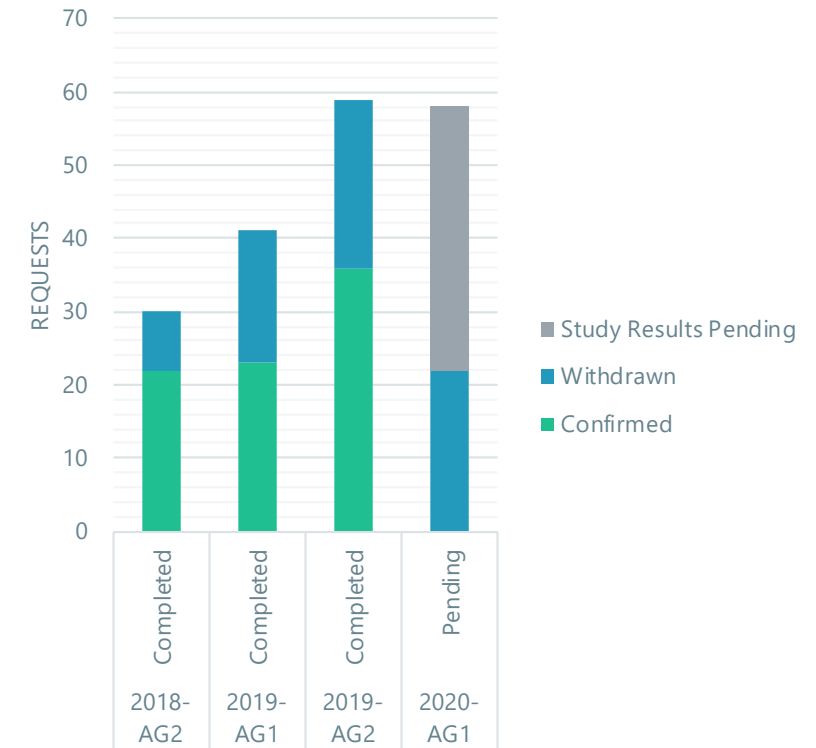
STLF – Short-term Load Forecast  
 MTLF – Mid-term Load Forecast  
 DAMKT – Day-Ahead Market  
 ID RUC – Intra-day Reliability Unit Commitment  
 RTBM – Real-time Balancing Market

# TRANSMISSION SERVICE STUDIES (P.3)

Trend of Requests in the Aggregate Study Queue Over Time

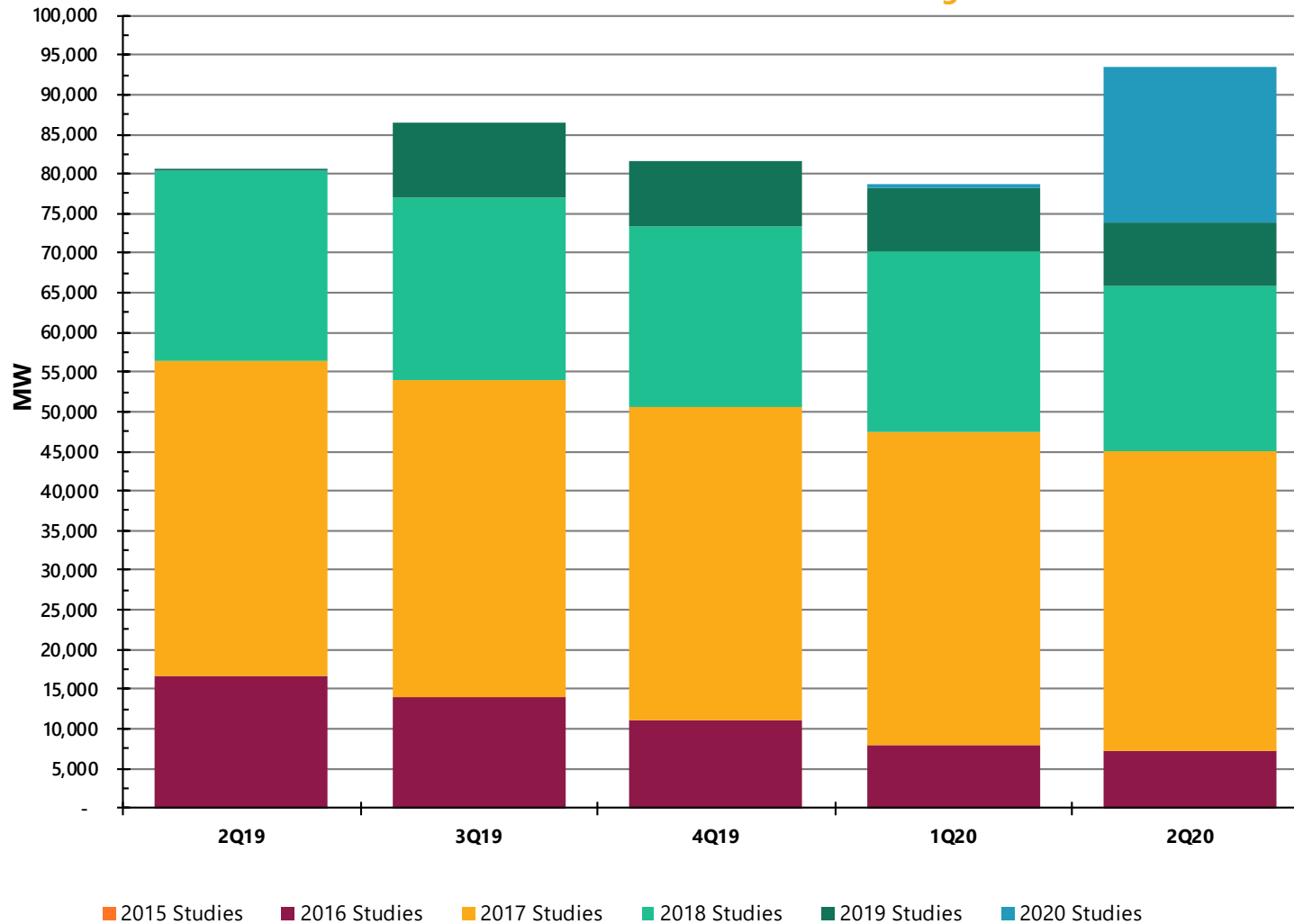


Status of Long-Term Transmission Service Requests for Current and Recent Aggregate Studies



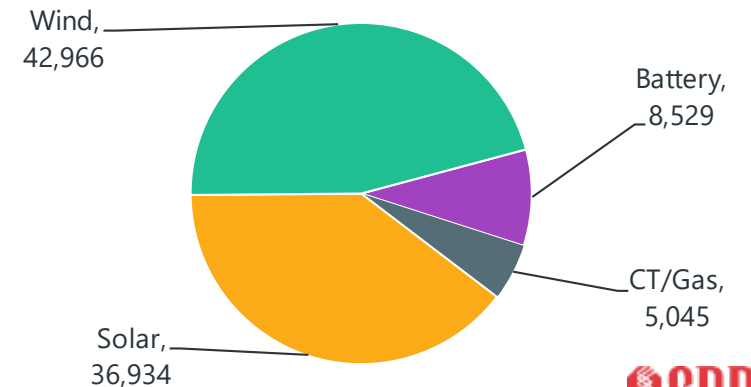
# GENERATOR INTERCONNECTION STUDIES (P.4.1)

Generation Interconnection MW - In Progress



In Progress	MW				
	2Q19	3Q19	4Q19	1Q20	2Q20
<b>Transfer IS Queue</b>					
DISIS-2016-001	4,569	1,895	510	-	-
DISIS-2016-002	12,087	12,087	10,480	7,815	7,309
DISIS-2017-001	15,494	15,845	15,643	15,705	14,465
DISIS-2017-002	24,313	24,073	23,913	23,913	23,213
DISIS-2018-001	11,025	11,005	10,865	11,125	10,065
DISIS-2018-002	11,941	12,061	11,911	11,709	10,891
DISIS-2019-001	125	7,697	8,329	7,996	7,908
DISIS-2020-001				350	19,622
FCS-2018-004	1,070				
FCS-2019-002		1,814	-	-	-
FCS-2019-003		70	70	-	-
<b>TOTAL</b>	<b>80,624</b>	<b>86,546</b>	<b>81,721</b>	<b>78,613</b>	<b>93,473</b>

Active Studies by Prime Mover (MW)





# STRATEGIC PLAN (P.5)

	#	Status	Initiative	Staff	Priority	Stakeholders
1. Reliability Assurance	1.1		Integration of Variable Energy	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	Antoine	A	MOPC
	2.2		Optimization Strategies for the Future	Antoine	B	SPC
	2.3		Value Pricing	Michael/Lanny	A	SPC/MOPC
3. Interdependent Systems	3.1		Transmission (Seams)	Lanny	A	MOPC (SSC)
	3.2		Optimize Market Efficiencies Along Seams	Lanny	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/Lanny/Paul	A	SPC



Initiative completed and will be removed from future versions.