

FORMULA RATE SUMMARY TABLE - Fiscal Year 2020-2021 FORMULA RATE CALCULATIONS

Fiscal Year	Quarter	Start of Quarter	End of Quarter	LT GSR (\$/kW/mo)	SHORT-TERM GSR			FPT Rate Factor
					Days 1 through 5 (\$/kW/day)	Day 6 and Beyond (\$/kW/day)	Hourly Firm and Non-Firm Service (mills/kilowatt-hour)	
2020	1	10/1/2019	12/31/2019	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2020	2	1/1/2020	3/31/2020	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2020	3	4/1/2020	6/30/2020	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2020	4	7/1/2020	9/30/2020	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2021	1	10/1/2020	12/31/2020	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2021	2	1/1/2021	3/31/2021	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2021	3	4/1/2021	6/30/2021	\$0.000	\$0.000	\$0.000	\$0.000	1.000
2021	4	7/1/2021	9/30/2021	\$0.000	\$0.000	\$0.000	\$0.000	1.000

Fiscal Year 2020-2021: GENERATION SUPPLIED REACTIVE (GSR) FORMULA RATE CALCULATION: LONG-TERM SERVICE

Fiscal Year	Quarter	Start of Quarter	End of Quarter	bd (MW-mo/yr)	Nq (\$)	Uq-1 (\$)	Sq (MW-mo/qtr)	Zq-1 (\$)	LT GSR Rate (\$/kW/mo)
2020	1	10/1/2019	12/31/2019	501,314	\$ -	\$ -	0	\$ -	\$ -
2020	2	1/1/2020	3/31/2020	501,314	\$ -	\$ -	0	\$ -	\$ -
2020	3	4/1/2020	6/30/2020	501,314	\$ -	\$ -	0	\$ -	\$ -
2020	4	7/1/2020	9/30/2020	501,314	\$ -	\$ -	0	\$ -	\$ -
2021	1	10/1/2020	12/31/2020	501,314	\$ -	\$ -	0	\$ -	\$ -
2021	2	1/1/2021	3/31/2021	501,314	\$ -	\$ -	0	\$ -	\$ -
2021	3	4/1/2021	6/30/2021	501,314	\$ -	\$ -	0	\$ -	\$ -
2021	4	7/1/2021	9/30/2021	501,314	\$ -	\$ -	0	\$ -	\$ -

GSR RATE FORMULA FOR LONG-TERM FIRM PTP TRANSMISSION SERVICE AND NT SERVICE

$$\frac{4(Nq + Uq-1 + Zq-1)}{bd - 4Sq}$$

PARAMETERS AND DEFINITIONS

RATE PERIOD CONSTANTS			
Variable	Value	Unit	Parameter Definition
bd	501,314	MW-mo/yr	Average of forecasted FY 2020 and FY 2021 GSR Service billing determinants. Each annual billing determinant is the sum of 12 monthly billing determinants.
RATE PERIOD VARIABLES			
Variable	Value	Unit	Parameter Definition
Nq	See Detail	\$	Non-federal GSR costs to be paid by BPA under a FERC-approved rate during the relevant quarter, as anticipated prior to the quarter.
Uq-1	See Detail	\$	Payments of non-federal GSR costs made in preceding quarter(s) that were not included in the effective rate for the preceding quarter(s). Any refunds received by BPA would reduce this cost. Uq-1 is a true-up for any deviation of non-federal GSR costs from the amount used in a previous quarter's GSR rate calculation. For calculating the GSR rate effective October 1, 2019, Uq-1 is zero.
Sq	See Detail	MW-mo/qtr	Reduction in effective billing demand for approved self-supply of reactive during the relevant quarter, as anticipated prior to the quarter.
Zq-1	See Detail	\$	True-up for under- or overstatement of reactive self-supply in rate calculations for the preceding quarter(s). For calculating the GSR rate effective October 1, 2019, Zq-1 is zero. Zq-1 will be calculated by multiplying the under- or overstated megawatt amount of self-supply by the GSR rate that was effective during the quarter of self-supply deviation.

QUARTERLY PARAMETER DETAIL

Nq - (Non-Federal GSR Costs Payable based on FERC Approved GSR Rates (\$))													
					FY 2020				FY 2021				
Customer	FERC Docket No.	Effective Date	End Date	Annual Payment	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Notes
Sum				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Uq-1 - (True-up for non-Federal GSR from preceding quarters (\$))															
							FY 2019	FY 2020				FY 2021			
Customer	FERC Docket No.	Effective Date	End Date	Annual Payment	(U)nderpaid or (O)verpaid? [Enter U or O]	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Notes
Sum				\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Sq - (Reduction in billing demand for approved self-supply (MW-mo/qtr))														
						FY 2020				FY 2021				
Customer	Tx Contract No.	Start Date of Self-Supply	End Date of Self-Supply	Reserved Capacity (MW)	Contribution Factor	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Notes
Sum						-	-	-	-	-	-	-	-	

Zq-1 - (True-up for self-supply from previous quarters (\$))																		
										FY 2019	FY 2020				FY 2021			
Customer	Tx Contract No.	Start Date of Under/Over Recovery	End Date of Under/Over Recovery	MW Under/Over Recovered (Mw-mo/qtr)	Were MW (U)nder or (O)ver Stated? [Enter U or O]	Rate in Effect during Under/Over Recovery (\$/kW-mo)	Fiscal Year in which to Apply Adjustment	Quarter in which to Apply Adjustment	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Notes
Sum									\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Fiscal Year 2020-2021
GENERATION SUPPLIED REACTIVE (GSR) FORMULA RATE CALCULATION:
SHORT-TERM FIRM AND NON-FIRM PTP TRANSMISSION SERVICE

SHORT-TERM GSR RATE					
Fiscal Year	Quarter	LT GSR Rate (\$/kW-mo)	Days 1 through 5 ¹ (\$/kW/day)	Day 6 and beyond ² (\$/kW/day)	Hourly Firm and Non-Firm Service ³ (mills/kilowatt-hour)
2020	1	\$ -	\$ -	\$ -	\$ -
2020	2	\$ -	\$ -	\$ -	\$ -
2020	3	\$ -	\$ -	\$ -	\$ -
2020	4	\$ -	\$ -	\$ -	\$ -
2021	1	\$ -	\$ -	\$ -	\$ -
2021	2	\$ -	\$ -	\$ -	\$ -
2021	3	\$ -	\$ -	\$ -	\$ -
2021	4	\$ -	\$ -	\$ -	\$ -

Notes:

- ¹ Formula for Days 1 through 5: **Long-Term Service Rate * (12 months/(52 weeks * 5 days))**
- ² Formula for Day 6 and beyond: **Long-Term Service Rate * (12 months/(52 weeks * 7 days))**
- ³ Formula Rate for Hourly Firm and Non-Firm Service: **Long-Term Service Rate * (12 months/(52 weeks * 5 days * 16 hours))**

Fiscal Year 2020-2021
GENERATION SUPPLIED REACTIVE (GSR) FORMULA RATE CALCULATION:
FPT RATE FACTOR

Fiscal Year	Quarter	LT GSR Rate (\$/kW-mo)	FPT Rate Factor ¹
2020	1	\$ -	1.000
2020	2	\$ -	1.000
2020	3	\$ -	1.000
2020	4	\$ -	1.000
2021	1	\$ -	1.000
2021	2	\$ -	1.000
2021	3	\$ -	1.000
2021	4	\$ -	1.000

Notes

- ¹ Formula for FPT.1 Rate Factor: $(1 + ((\text{LT GSR Rate}/\text{kW}/\text{mo})/1.726/\text{kW}/\text{mo}))$
 Formula for FPT.3 Rate Factor for FY 20: $(1 + ((\text{LT GSR Rate}/\text{kW}/\text{mo})/1.726/\text{kW}/\text{mo}))$
 Formula for FPT.3 Rate Factor for FY 21: $(1 + ((\text{LT GSR Rate}/\text{kW}/\text{mo})/1.726/\text{kW}/\text{mo}))$