
Rider R-11
Schedule MGC-2 Market Generation Credit (MGC)
Calculation for Partial Requirements Services

INTRODUCTION

The purpose of the Market Generation Credit (MGC) for Partial Requirements Services is to establish a price at which TEP's partial requirements customers will purchase backup/standby and supplemental energy for applicable Partial Requirements Service tariff customers. The Market Generation Credit for Partial Requirements Services is consistent with the MGC methodology per TEP's Settlement Agreement, Section 2.1(d), as amended March 20, 2003.

The monthly MGC amount shall be calculated in advance and stated as both an on-peak value and an off-peak value. The monthly on-peak MGC component shall be equal to the Market Price multiplied by one plus the appropriate line loss (including unaccounted for energy ("UFE")) amount. The Market Price shall be equal to the Tullett Liberty Long-Term Forward Assessment for the Palo Verde Forward price, except when adjusted for the variable cost of TEP's must-run generation. The Market Price shall be determined fifteen (15) days prior to each calendar month using the average of the most recent three (3) business days of Tullett Liberty Long-Term Forward Assessment for Palo Verde settlement prices. The off-peak MGC component shall be determined in the same manner as the on-peak component, except that the Tullett Liberty Long-Term Forward Assessment for the Palo Verde Forward price will be adjusted by the ratio of off-peak to on-peak prices from the Dow Jones Palo Verde Index of the same month from the preceding year.

CALCULATIONS

The Customer will be charged adjusted on-peak MGC multiplied by kWh consumption for On-peak hours, and adjusted off-peak MGC multiplied by kWh consumption for Off-peak hours. Three steps are outlined below for the calculation of the MGC. None of the steps are excludable for any customer type. Acronyms are defined in the Glossary at the end of this document.

1. Calculating the on-peak MGC

Fifteen (15) days prior to each calendar estimation month, the Platts Long-Term Forward Assessment for Palo Verde Forward prices for the three (3) most recent business days are used. The simple average (or arithmetic mean) is calculated for these three (3) days for the estimation month.

$$MGC_{ON,i} = \frac{\sum (TULLETT)_i}{3} \quad \text{(Equation 1)}$$



The calculation is illustrated in the table below.

Forward Prices per MWh	Apr 2002
3/13/2002	\$25.80
3/14/2002	\$26.90
3/15/2002	\$27.75
Average	\$26.82

2. Calculating the off-peak MGC

The off-peak MGC is determined by multiplying the on-peak MGC value by the off-peak price weighting factor (WEIGHT). The WEIGHT is equal to the simple average of all off-peak prices from the Dow Jones Palo Verde Index in the same month of the previous year, divided by the simple average of all on-peak prices from the Dow Jones Palo Verde Index in the same month of the previous year. Off-peak, on-peak and holiday hours are defined by NERC in the estimation month.

$$MGC_{OFF,i} = MGC_{ON,i} * WEIGHT_i \quad \text{(Equation 2)}$$

where

$$WEIGHT_i = \frac{DJPVI_{OFF,i}}{DJPVI_{ON,i}} \quad \text{(Equation 3)}$$

3. Loss-adjusting the MGC

The on-peak MGC and the off-peak MGC must be adjusted for line losses. The appropriate line loss adjustment factor (LLAF) for the large industrial customer class is 1.0515; for all other customer classes, the appropriate factor is 1.0919.

$$MGC_{LOSS-ON,i} = MGC_{ON,i} * LLAF \quad \text{(Equation 4)}$$

$$MGC_{LOSS-OFF,i} = MGC_{OFF,i} * LLAF \quad \text{(Equation 5)}$$

This calculation produces the final value for the on-peak and off-peak Market Generation Credits.

GLOSSARY

DJPVI _{OFF}	Simple average of off-peak prices on the Dow Jones Palo Verde Index.
DJPVI _{ON}	Simple average of on-peak prices on the Dow Jones Palo Verde Index.
Dow Jones Palo Verde Index	Daily calculation of actual firm on-peak and firm off-peak weighted average prices for electricity traded at Palo Verde, Arizona switchyard.



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LLAF	Line-loss adjustment factor.
MGC	Market Generation Credit.
MGC _{OFF}	MGC _{ON} weighted by the ratio of off-peak to on-peak prices on the Dow Jones Palo Verde Index.
MGC _{ON}	Average of the Tullett Liberty prices on days appropriate for the calculation of the MGC.
MGC _{LOSS-ON}	MGC _{ON} adjusted for line losses (including unaccounted for energy) on TEP's generation and energy delivery systems.
MGC _{LOSS-OFF}	MGC _{OFF} adjusted for line losses (including unaccounted for energy) on TEP's generation and energy delivery systems.
NERC	North American Electric Reliability Council. A voluntary not-for-profit organization established to promote bulk electric system reliability and security. Membership include investor-owned utilities; federal power agencies; rural electric cooperatives; state, municipal and provincial utilities; independent power producers; power marketers; and end-use customers.
Off-Peak Hours	Number of total monthly off-peak hours as defined by NERC. Off-peak hours are hour ending 0100 – hour ending 0600 and hour ending 2300 – hour ending 2400, Monday through Saturday, Pacific Prevailing Time (PPT). All Sunday hours are considered off-peak. PPT is defined as the current clock time in the Pacific time zone.
On-Peak Hours	Number of total monthly on-peak hours as defined by NERC. On-peak hours are hour ending 0700 – hour ending 2200 Monday through Saturday, Pacific Prevailing Time (PPT). PPT is defined as the current clock time in the Pacific time zone.
TULLETT	Tullett Liberty - a provider of independent real-time price information from the wholesale inter-dealer brokered commodity markets, from which the on-peak Long Term Forward Assessment of market prices of electricity at the Palo Verde, Arizona switchyard are obtained. The forward product is "6 x 16," power is for 16 hours a day for six days a week (Monday through Saturday) for the delivery period, excluding NERC holidays.
Stranded Costs	The difference between revenues under competition and the costs of providing service, including the inherited fixed costs from the previous regulated market.
TEP	Tucson Electric Power Company, a subsidiary of UNS Energy Corp.
TEP Settlement Agreement	An agreement between TEP, the Arizona Residential Utility Consumer Office, members of the Arizonans for Electric Choice and Competition, and Arizona Community Action Association regarding TEP's implementation of retail electric competition, implementation of unbundled tariffs, and recovery of stranded costs.
WEIGHT	Ratio of off-peak to on-peak prices on the Dow Jones Palo Verde Index.

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