



ELECTRIC SCHEDULE TBCC
TRANSITIONAL BUNDLED COMMODITY COST

Sheet 1

APPLICABILITY: This schedule applies to Direct Access and Community Choice Aggregation Service customers who: (1) elect Transitional Bundled Service (TBS) as prescribed in Rule 22.1 (Direct Access Service Switching Exemption Rules); or (2) who take Bundled Service prior to the end of the mandatory six-month notice period required to elect Bundled Service as prescribed in Rules 22.1 and 23 (Community Choice Aggregation Service).

TERRITORY: Schedule TBCC applies everywhere PG&E provides electric service as shown in Preliminary Statement, Part A.

RATES: This schedule will apply where the Transitional Bundled Commodity Cost (TBCC) is required for calculation of applicable power charges.

Direct Access customers who elect: (1) TBS as prescribed in Rule 22.1; or (2) take Bundled Service prior to the end of the mandatory six-month notice period required to elect Bundled Service as prescribed in Rule 22.1 will be charged the TBCC in addition to transmission, transmission rate adjustments reliability services, distribution, conservation incentive adjustment, public purpose programs, nuclear decommissioning and New System Generation Charges on the customer's otherwise applicable tariff, and the Direct Access Cost Responsibility Surcharge applicable under Schedule DA CRS for the duration of the period. The TBCC used for billing will consist of the market prices set forth below, adjusted by a Renewable Portfolio Standard (RPS) adder, a Capacity adder (CAP ADDER), and an allowance for Revenue Fees and Uncollectible (RF&U) account expense and Distribution Loss Factors (DLFs). (T)

Community Choice Aggregation service customers who elect to take bundled service prior to the end of the mandatory six-month notice period required to elect bundled Service as prescribed in Rule 23 will be charged the TBCC in addition to transmission, transmission rate adjustments, reliability services, distribution, conservation incentive adjustment, public purpose programs, nuclear decommissioning and New System Generation Charges on the customer's otherwise applicable tariff, and the Community Choice Aggregation Cost Responsibility Surcharge applicable under Schedule CCA CRS for the duration of the period. The TBCC used for billing will consist of the market prices set forth below, adjusted by a RPS adder, a CAP ADDER, and an allowance for Revenue Fees and Uncollectible (RF&U) account expense and Distribution Loss Factors (DLFs). (T)

(D)

(Continued)



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Sheet 2

RATES: Development of the Hourly Market Prices
(Cont'd.)

1. Hourly Market Price at the Transmission/Distribution Interface (T)

The hourly market price (Hourly Market Price or MP) at the transmission / distribution interface, shall consist of the California Independent System Operator (CAISO) hourly Integrated Forward Market (IFM) Locational Marginal Price (LMP) for the PGE Utility Distribution Company (UDC) control Area (LAP_PGAE), multiplied by an allowance for Unaccounted for Energy (UFE), plus an allowance for Ancillary Services and the Independent System Operator (ISO) Grid Management Charges (GMC). (T)

$MP = IFM\ LMP * UFE + AS + GMC$ (N)

The UFE allowance will equal one plus the straight average of the most recent six month actual UFE percentages available from the ISO Management Report for the Board of Governors posted on the CAISO website. The UFE allowance will be revised semi-annually (January and July).

The allowance for Ancillary Services, calculated hourly, will equal the ISO's corresponding Ancillary Service Marginal Price (ASMP) Day Ahead (IFM) and Hour Ahead/Real Time (HASP/RT) Regional Ancillary Services procurement costs divided by the UDC control area system load. If regional Ancillary Services (A/S) data or UDC control area system load data is not made publicly available in a timely manner, the rate will be derived from the Ancillary Service Marginal Price (ASMP) Zones Day Ahead (IFM) and Hour Ahead/Real Time (HASP/RT) Ancillary Services total procurement costs divided by the CASIO control area system load. The data used to calculate the Ancillary Services rate is subject to change by the ISO without notice. Therefore, the Ancillary Service rate will be calculated using the best available data at the time of downloading.

The ISO GMC will equal the sum of the GMC – Market Services Charge (Charge Code 4560) and GMC – System Operations Charge (Charge Code 4561). The ISO GMC shall be charged on the customer's hourly metered demand.

2. Revised Hourly Market Price (N)

Pursuant to Decision 11-12-018 and Resolution E-4475, the revised hourly market price (Revised Hourly Market Price or Revised MP) will equal the sum of the Hourly Market Price, as determined in Part 1, the Renewable Portfolio Standard (RPS) adder and the Capacity adder (CAP ADDER). The RPS adder and CAP ADDER will be adjusted annually upon Commission approval in PG&E's Energy Resource Recovery Account (ERRA) Forecast proceeding.

$Revised\ MP = MP + RPS\ adder + CAP\ ADDER$

a. The RPS adder will be:

$RPS\ adder = RPS\% * [(0.68 * (URGgreen - BROWN)) + (0.32 * DOEadder)]$ (N)

(Continued)



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Sheet 3

RATES:
(Cont'd.)

2. Revised Hourly Market Price (cont'd.)

(N)

Where:

- i. RPS% is equal to the fraction of RPS compliant electric energy in the Utility Retained Generation (URG) total portfolio for bundled service customers as defined in Resolution E-4475, and as approved in PG&E's most recent annual ERRRA Forecast proceeding; and
 - ii. URGgreen is equal to the Commission approved average utility RPS-compliant energy cost, as defined in Resolution E-4475, and as approved in PG&E's most recent annual ERRRA Forecast proceeding; and
 - iii. BROWN is equal to the Commission approved weighted average peak and off-peak forward prices for Northern Path 15 (NP15), as defined in Resolution E-4475, and as approved in PG&E's most recent annual ERRRA Forecast proceeding; and
 - iv. DOEadder is as defined in Resolution E-4475, and as approved in PG&E's most recent annual ERRRA Forecast proceeding.
- b. The CAP ADDER is as defined in Resolution E-4475, and as approved in PG&E's most recent annual ERRRA Forecast proceeding.

$$\text{CAP ADDER} = (\sum \text{NQC} * \text{CAP Value}) / \text{URG Forecast Total Portfolio MWh for bundled customers}$$

Where:

- i. $\sum \text{NQC}$ is equal to the sum of Net Qualifying Capacity (NQC) for all resources in the URG total portfolio for bundled customers; and,
- ii. CAP VALUE is equal to the going forward cost (sum of insurance, ad valorem and fixed operations and maintenance cost) of a combustion turbine as determined per the most recent California Energy Commission (CEC) *Comparative Costs of California Central Station Electricity Generation Report* for a small simple cycle merchant plant; and,
- iii. Total MWh is equal to the forecast of the sum of MWh supplied by URG total portfolio for bundled customers.

(N)

(Continued)



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Sheet 4

RATES:
(Cont'd.)

- 3. Adjustments for DLFs and Revenue Fees and Uncollectible (RF&U) accounts expense: (T)
(T)

The Revised Hourly Market Price at the transmission/distribution interface, as determined in Part 2, is multiplied by the distribution loss factor (DLF) and a Revenue Fees and Uncollectible (RF&U) accounts expense factor to determine the appropriate price to be paid by end-use customers served at each voltage level (Hourly TBCC Price). DLFs will be calculated by PG&E based on the forecasted hourly PG&E Service Area Load (Direct Access, Community Choice Aggregation Service, plus Bundled Service) per Decisions 97-08-056 and 04-12-046. The hourly DLFs will be broken out by service voltage level and made available each day to market. PG&E will calculate the hourly DLFs based on samples of hourly service area load by applying the approach approved in Decisions 92-12-057, and 04-12-046. (T)

Hourly TBCC Price = Revised MP * DLF * RF&U (T)

The current and effective Revenue Fees and Uncollectible (RF&U) accounts expense can be found in the most recent PG&E General Rate Case Phase 1 proceeding documentation. (T)
(T)

(Continued)



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Sheet 5

CALCULATION
OF TBCC
CHARGES:

1. Calculation of TBCC Charges: (L)

For purposes of determining TBCC charges, an average for each schedule (or TOU period) is developed through the use of a statistical load profile which represents the average load profile for all customers (Direct Access, Community Choice Aggregation, and Bundled Service) on a given rate schedule. For Agricultural, Traffic Control, Streetlighting, and Outdoor Lighting rate schedules, the statistical load profiles are "static" and are determined hourly for the entire year based on average historical data for three recorded years. These latter static statistical load profiles are updated each calendar year based on available data for the previous three years. For all remaining rate schedules, the statistical load profile is determined "dynamically," using the most current load research information available. This current data will become available and will be posted approximately seven days from the date of occurrence.

The sum of the products of the: (1) Hourly TBCC prices, including adjustments, and (2) the hourly loads, divided by the use associated with the statistical load profile (expressed as a fraction of the profile period use allocated to each hour) will yield an average price for a specific customer group and TOU period. (T)

Under static statistical load profiles, the load selected from the statistical load profile will correspond exactly to the date and hour for a given price. When dynamic statistical load profiles are used, the load selected from the statistical load profile will correspond exactly to the date and hour for a given price. Should dynamic load profile data for any days during the last week of the averaging period be unavailable, PG&E will duplicate the dynamic load profile for the same day(s) from the previous week for use in this calculation. These duplicate statistical load profile days will be replaced for the next weekly update by the dynamic load corresponding to the date and hour of the price, which will have become available. In other circumstances where dynamic load profile information is not available, an estimated static profile corresponding to the same date and hour will be substituted.

The customer's actual usage (by TOU period if service is otherwise taken on a TOU rate schedule) multiplied by the average TBCC price is equal to the TBCC charge. (L)

(Continued)



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Sheet 7

distribution loss factors:	UDC Load MW	Primary LF	Secondary LF	UDC Load MW	Primary LF	Secondary LF	(L)
	4300	N/A	N/A	8700	1.0190	1.0683	
	4400	N/A	N/A	8800	1.0192	1.0686	
	4500	N/A	N/A	8900	1.0193	1.0689	
	4600	1.0135	1.0659	9000	1.0195	1.0692	
	4700	1.0136	1.0655	9100	1.0197	1.0695	
	4800	1.0136	1.0651	9200	1.0198	1.0698	
	4900	1.0137	1.0649	9300	1.0200	1.0701	
	5000	1.0138	1.0646	9400	1.0202	1.0704	
	5100	1.0139	1.0644	9500	1.0203	1.0707	
	5200	1.0141	1.0642	9600	1.0205	1.0711	
	5300	1.0142	1.0640	9700	1.0206	1.0714	
	5400	1.0143	1.0639	9800	1.0208	1.0717	
	5500	1.0144	1.0638	9900	1.0210	1.0721	
	5600	1.0145	1.0637	10000	1.0211	1.0724	
	5700	1.0146	1.0636	10100	1.0213	1.0728	
	5800	1.0148	1.0636	10200	1.0215	1.0731	
	5900	1.0149	1.0635	10300	1.0216	1.0735	
	6000	1.0150	1.0635	10400	1.0218	1.0738	
	6100	1.0152	1.0635	10500	1.0220	1.0742	
	6200	1.0153	1.0636	10600	1.0221	1.0746	
	6300	1.0154	1.0636	10700	1.0223	1.0749	
	6400	1.0156	1.0637	10800	1.0225	1.0753	
	6500	1.0157	1.0638	10900	1.0226	1.0757	
	6600	1.0158	1.0639	11000	1.0228	1.0761	
	6700	1.0160	1.0640	11100	1.0230	1.0764	
	6800	1.0161	1.0641	11200	1.0231	1.0768	
	6900	1.0163	1.0642	11300	1.0233	1.0772	
	7000	1.0164	1.0644	11400	1.0235	1.0776	
	7100	1.0166	1.0645	11500	1.0236	1.0780	
	7200	1.0167	1.0647	11600	1.0238	1.0784	
	7300	1.0168	1.0649	11700	1.0240	1.0788	
	7400	1.0170	1.0651	11800	1.0241	1.0792	
	7500	1.0172	1.0653	11900	1.0243	1.0796	
	7600	1.0173	1.0655	12000	1.0245	1.0800	
	7700	1.0175	1.0657	12100	1.0246	1.0803	
	7800	1.0176	1.0659	12200	1.0248	1.0807	
	7900	1.0178	1.0662	12300	1.0250	1.0811	
	8000	1.0179	1.0664	12400	1.0251	1.0816	
	8100	1.0181	1.0666	12500	1.0253	1.0820	
	8200	1.0182	1.0669	12600	1.0255	1.0823	
	8300	1.0184	1.0672	12700	1.0256	1.0827	
	8400	1.0186	1.0674	12800	1.0258	1.0831	
	8500	1.0187	1.0677	12900	1.0259	1.0835	
	8600	1.0189	1.0680	13000	1.0262	1.0841	
				13100	1.0263	1.0844	
				13200	1.0265	1.0848	(L)

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Sheet 8

distribution loss factors: (Cont'd.)	UDC Load MW	Primary LF	Secondary LF	UDC Load MW	Primary LF	Secondary LF	(L)
	13300	1.0267	1.0853	15100	1.0298	1.0932	
	13400	1.0268	1.0857	15200	1.0300	1.0936	
	13500	1.0270	1.0861	15300	1.0301	1.0941	
	13600	1.0271	1.0865	15400	1.0303	1.0945	
	13700	1.0274	1.0870	15500	1.0305	1.0949	
	13800	1.0275	1.0875	15600	1.0306	1.0954	
	13900	1.0277	1.0878	15700	1.0308	1.0958	
	14000	1.0278	1.0882	15800	1.0310	1.0962	
	14100	1.0280	1.0887	15900	1.0312	1.0967	
	14200	1.0281	1.0890	16000	1.0313	1.0971	
	14300	1.0283	1.0895	16100	1.0315	1.0975	
	14400	1.0286	1.0901	16200	1.0317	1.0980	
	14500	1.0287	1.0906	16300	1.0318	1.0984	
	14600	1.0289	1.0910	16400	1.0320	1.0988	
	14700	1.0291	1.0914	16500	1.0322	1.0992	
	14800	1.0293	1.0919	16600	1.0323	1.0997	
	14900	1.0294	1.0923	16700	1.0325	1.1001	
	15000	1.0296	1.0928	16800	1.0327	1.1005	
				16900	1.0329	1.1010	
				17000	1.0330	1.1014	(L)