

DAGUPAN ELECTRIC CORPORATION
Room 300 Veria Building, 62 West Avenue, Quezon City

ANNEX N

DEMONSTRATIVE UNBUNDLED RATES
for the
SECOND REGULATORY PERIOD
(2007 – 2011)
under the
RULES FOR SETTING DISTRIBUTION WHEELING RATES
(RDWR)

Prepared for:

The
ENERGY REGULATORY COMMISSION
Pacific Center Building, San Miguel Avenue, Ortigas Center, Pasig City

**DEMONSTRATIVE UNBUNDLED RATES
FOR THE
SECOND REGULATORY PERIOD
(2007 - 2011)**

1. INTRODUCTION

In accordance with the provisions of Section 10.2 of the DWRG Position Paper, Article 6 of RDWR and Sec. 5.3.2 of the DSOAR, the annual Maximum Average Price (MAP) for the Second Regulatory Year are converted to Demonstrative Unbundled Rates.

Though DECORP adopted the methodology prescribed in the DWRG, RDWR and DSOAR in calculating the annual Demonstrative Unbundled Rates for the Second Regulatory Period, wherein the Annual Revenue Requirement is allocated based on energy (or KWH consumption), DECORP is of the opinion that a more effective allocation methodology is to use the customers' demand (either the Non-Coincident Peak KW or the Coincident Peak KW).

The Demand Allocation methodology was twice used by DECORP and approved by the ERC in the Unbundling of Rates and last RORB rate cases (ERC Case No. 2002-013 and 2005-029).

During the annual setting of rates as prescribed by the RDWR, DECORP will propose to use the Demand Allocation methodology.

2. CALCULATION OF THE DEMONSTRATIVE UNBUNDLED RATES

2.1 CONVERTING MAXIMUM ANNUAL PRICES INTO RATES

The maximum average price cap is a company-wide measure and does not address individual rate elements. It is therefore necessary to convert this into rate elements. The general methodology for this conversion is described in the Position Paper. The steps to calculate the rates for an Application Year are as follows:

1. Calculate the historical revenue earned from each Customer Segment i for a historical year t ($CR_{i,t}$).
2. Calculate the average historical rate for each customer segment over the previous 12 months ($CS_{i,t} = CR_{i,t}/CQ_{i,t}$), where $CQ_{i,t}$ is the energy consumed by each customer segment i (kWh), during historical year t .
3. Compute the projected revenue for the next year per customer segment based on the historical rate and forecast consumption ($CR_{i,t+1} = CS_{i,t} * FQ_{i,t}$).
4. By adding the projected revenue for each Customer Segment, the total projected revenue for the Application Year, based on historical rates, is calculated ($CR_{20YR} = \text{summation}(CR_{i,t+1})$).
5. Determine the proportion of revenue to be recovered for each customer segment based on the projected revenue ($CR_{i,t+1}/CR_{20YR}$).
6. Compute the total revenue (TR) for the Application year by multiplying the maximum average price cap (MAPt) with the forecast energy consumption for the Application year ($TR = MAPt \times FQt$).
7. Allocate the total revenue requirement (TR) for the Application Year to each Customer Segment ($TR_{i,t}$) based on the proportion of projected revenue from each Segment to the total revenue projected as computed under item (5) above ($TR_{i,t} = TR * CR_{i,t}/CR_{20YR}$).
8. The new rate element for a Customer Segment is then based on the revenue requirement allocation to that segment for the Application Year, using the same rate design as before for that Customer Segment, as approved at the time of the regulatory reset.

Implicit to this methodology is the fact that a new rate structure or Customer Segment cannot be introduced during a Regulatory Period. In addition, it is also a requirement of the DSOAR that existing rates designs cannot be amended during a Regulatory Period. Such changes, or the introduction of a new rate structure can therefore only be made as part of the regulatory reset process.

DECORP does not propose any change in its Customer segmentation nor the rate design as previously approved by the ERC in ERC Case No. 2005-52.

Changes in the rates, to account for new required revenue allocations to a Customer Segment, can therefore only be introduced by changing the quantum of those rate elements that already exist for each particular rate structure.

10.3 SIDE CONSTRAINTS

Pursuant to Clause 6.4 of the DWRG, all maximum wheeling rates are subject to side constraints, in terms of which the annual change in revenue that can be collected through a particular rate may not exceed certain predefined limits.

For the First (1st) Regulatory Year, this constraint is set at the Consumer Weighted Index (CWI) index plus two percent (2%). For later Regulatory Years, the constraint has not been predetermined and will be set by the ERC "having regard to the needs of End-users".

The ERC will determine the side constraint factor once all the information for the regulatory reset process has been received. This constraint will however not be less than two percent (2%).

Annex N - Calculation of Demonstrative Unbundled Rates

Customer Class	Current Rates	Illustrative Rates (2008)	Illustrative Rates (2009)	Illustrative Rates (2010)	Illustrative Rates (2011)
RESIDENTIAL					
Distribution (PhP/kWh)	1.0694	1.6159	2.2413	3.0176	3.9348
Supply (PhP/kWh)	0.2886	0.2886	0.2886	0.2886	0.2886
Metering (PhP/kWh)	0.2493	0.2493	0.2493	0.2493	0.2493
Metering (PhP/customer/month)	5.00	5.00	5.00	5.00	5.00
Total PhP/kWh	1.6073	2.1538	2.7792	3.5555	4.4727
Total PhP/customer/month	5.00	5.00	5.00	5.00	5.00
Average PhP/kWh distribution wheeling rate	1.6105	2.1928	2.8181	3.5945	4.5117
STREETLIGHTS					
Distribution (PhP/kWh)	1.3607	1.8513	2.3796	3.0355	3.8105
Supply (PhP/customer/month)	38.66	39.43	40.22	41.03	41.85
Total PhP/kWh	1.3607	1.8513	2.3796	3.0355	3.8105
Total PhP/customer/month	38.66	39.43	40.22	41.03	41.85
Average PhP/kWh distribution wheeling rate	1.3608	1.8528	2.3811	3.0371	3.8121
GENERAL SERVICE RATE					
Distribution (PhP/kWh)	0.7028	0.8108	1.0828	1.4216	1.8226
Supply (PhP/customer/month)	38.66	39.43	40.22	41.03	41.85
Metering (PhP/customer/month)	54.53	55.62	56.73	57.87	59.03
Total PhP/kWh	0.7028	0.8108	1.0828	1.4216	1.8226
Total PhP/customer/month	93.19	95.05	96.95	98.89	100.87
Average PhP/kWh distribution wheeling rate	0.7159	0.9748	1.2527	1.5978	2.0056
GENERAL POWER RATE					
Distribution (PhP/kWh)	0.0270	0.0265	0.0259	0.0254	0.0249
Distribution demand charge (PhP/kW)	112.38	0.69	0.72	0.76	0.80
Supply (PhP/customer/month)	38.66	39.43	40.22	41.03	41.85
Metering (PhP/customer/month)	530.09	530.09	530.09	530.09	530.09
Total PhP/kWh	0.0270	0.0265	0.0259	0.0254	0.0249
Total PhP/kW	112.38	0.69	0.72	0.76	0.80
Total PhP/customer/month	568.75	569.52	570.31	571.12	571.94
Average PhP/kWh distribution wheeling rate	0.0638	0.0869	0.1117	0.1424	0.1788
BULK POWER RATE					
Distribution (PhP/kWh)	0.1354	0.1327	0.1300	0.1274	0.1249
Distribution demand charge (PhP/kW)	47.35	16.22	17.03	17.88	18.77
Supply (PhP/customer/month)	38.66	39.43	40.22	41.03	41.85
Metering (PhP/customer/month)	4939.83	5038.63	5139.40	5242.19	5347.03
Total PhP/kWh	0.135	0.133	0.130	0.127	0.125
Total PhP/kW	47.350	16.216	17.027	17.879	18.773
Total PhP/customer/month	4978.490	5078.060	5179.621	5283.213	5388.878
Average PhP/kWh distribution wheeling rate	0.1510	0.2056	0.2643	0.3370	0.4231

Annex N - Calculation of Demonstrative Unbundled Rates

Customer Class	Forecasted 2006 KWH Sold (CQ _{i,2006})	Forecasted Demand KW	Forecasted No. of Customers	Distribution Revenue (CR _{i,2006})
Residential	111,436,227		72,302	179,472,955
Streetlights	3,113,235		10	4,236,566
General Service Rate	54,129,531		7,630	38,753,254
General Power Rate	28,607,777	8,647	143	1,825,487
Bulk Power Rate	41,723,967	12,817	9	6,301,119
Total	239,010,736		80,093	230,589,381

legend :

where t = historical 2006 figure

Customer Class	Historical Rates	Forecast Consumption			
	CS _{i,2006}	FQ _{i,2008}	FQ _{i,2009}	FQ _{i,2010}	FQ _{i,2011}
Residential	1.6105	117,661,752	122,000,404	126,507,461	131,189,739
Streetlights	1.3608	5,015,768	7,321,868	11,165,368	17,571,202
General Service Rate	0.7159	59,047,205	62,467,929	66,065,557	69,955,465
General Power Rate	0.0638	31,206,797	33,014,670	34,916,037	36,971,877
Bulk Power Rate	0.1510	41,723,967	46,274,288	50,824,608	50,824,608

Customer Class	Forecast Revenues			
	CR _{i,2008}	CR _{i,2009}	CR _{i,2010}	CR _{i,2011}
Residential	189,499,438	196,487,029	203,745,841	211,286,857
Streetlights	6,825,578	9,963,775	15,194,103	23,911,317
General Service Rate	42,273,992	44,723,010	47,298,679	50,083,603
General Power Rate	1,991,332	2,106,694	2,228,022	2,359,207
Bulk Power Rate	6,301,119	6,988,305	7,675,490	7,675,490
Total Projected Revenue (CR20YR)	246,891,459	260,268,812	276,142,136	295,316,475

Total FQ			
2008	2009	2010	2011
254,655,489	271,079,159	289,479,031	306,512,892

MAP 2008	MAP 2009	MAP 2010	MAP 2011
1.32	1.68	2.129	2.699

TR 2008	TR 2009	TR 2010	TR 2011
336,145,245	455,412,986	616,300,857	827,278,295

Customer Class	Customer Class Revenues			
	TR _{i,2008}	TR _{i,2009}	TR _{i,2010}	TR _{i,2011}
Residential	258,005,421	343,808,940	454,725,014	591,883,779
Streetlights	9,293,094	17,434,408	33,910,576	66,983,440
General Service Rate	57,556,472	78,255,398	105,562,364	140,300,597
General Power Rate	2,711,219	3,686,250	4,972,555	6,608,912
Bulk Power Rate	8,579,038	12,227,991	17,130,350	21,501,566
Total	336,145,245	455,412,986	616,300,857	827,278,295