

Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City


**IN THE MATTER OF THE SETTING OF
THE MAXIMUM ALLOWABLE
REVENUE (MAR) FOR CALENDAR
YEAR 2007 IN ACCORDANCE WITH
THE ALTERNATIVE FORM OF RATE
SETTING METHODOLOGY UNDER
THE TRANSMISSION WHEELING
RATES GUIDELINES (TWRG)**

ERC CASE NO. 2006-061 RC

**NATIONAL TRANSMISSION
CORPORATION (TRANSCO),**

Applicant.

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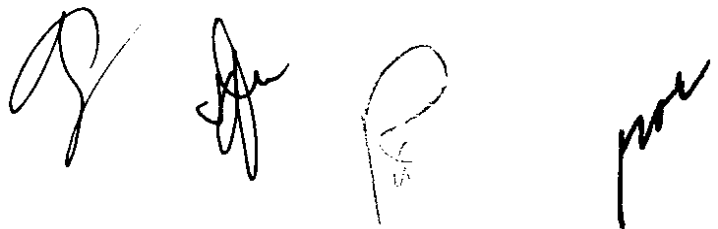
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ORDER

Pursuant to Section 43 (f) of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act (EPIRA), the ERC adopted the *Transmission Wheeling Rates Guidelines (TWRG)* on May 29, 2003. The TWRG prescribes a new methodology for setting the transmission wheeling rates of the National Transmission Corporation (TRANSCO) under the Maximum Annual Revenue (MAR) cap.

Relative thereto, s.6.2.1(b) of Article VI of the TWRG requires TRANSCO to file, for the Commission's approval, an annual Rate Verification and Adjustment of its charges to its customers by October 31 of each Regulatory Year. By its Order of August 24, 2006, the Commission accepted that the Supreme Court Decision of August 16, 2006¹ required a change in the processes

¹ GR. No. 163975, August 16, 2006.





described in Article VI of the TWRG to allow additional steps providing for a public hearing on the Rate Verification and Adjustment process. This Supreme Court Decision requires that any 'automatic, formula driver rate adjustments' be subject to a public hearing process before a decision is made by the Commission. The original dates specified in Article VI of the TWRG are restricted in such a way that there is not enough time for a public hearing process to be undertaken. In consequence, the Commission Ordered that the date by which TRANSCO was required to file its annual Rate Verification and Adjustment application be changed to October 17, 2006. This earlier filing has allowed the Commission the additional time to undertake a public hearing process on TRANSCO's application.

Public Hearing Timetable:

The Commission has followed the following timetable to arrive at the decisions covered by this order:

- TRANSCO published its Application in the Philippine Star on October 15, 2006;
- TRANSCO filed its Application with the Commission on Oct. 16, 2006;
- The Commission provided Notification of the Public Hearings through an Order dated October 20, 2006;
- The Commission undertook an Expository Hearing on November 22, 2006;
- The Commission undertook two Evidentiary Hearing, the first on November 29, 2006 and the second on December 6, 2006; and
- TRANSCO filed its Formal Offer of Evidence on December 8, 2006.

Determination of the Revenue Cap for 2006 (MAR 2006)

In its Order dated March 3, 2006, the Commission adopted an 'interim' Maximum Annual Revenue cap for TRANSCO for the Calendar Year commencing January 1, 2006 amounting to **PhP 30,672.2 Million**. This Maximum Annual Revenue cap was based on the regulatory arrangements for the First Regulatory Period under the TWRG, so that the Commission could finalize the revenue reset process for the Second Regulatory Period defined in the TWRG. The Commission's Order dated August 24, 2006 and paragraph 2 above describes how this arrangement was amended so that this 'interim' Maximum Annual Revenue cap has been effective throughout the CY2006.

In order to determine the starting Maximum Annual Revenue cap for CY2007, the 'interim' starting Maximum Annual Revenue cap for CY2006 needs to be reviewed in the light of the Commission's Order on the Final Determination for the Second Regulatory Period dated June 13, 2006. In this Order, the Commission made the following decisions on the revenue cap for the Second Regulatory Period:

| Issue | Value of Parameter |
|----------------------------------|---------------------------|
| ERC Approved MAR for 2005 | PhP27,085.7 million |
| Po Value for the start of CY2006 | PhP6,415 million |
| X Factor for 2006 through 2010 | 1% |

Further, the Commission determined the following values for the CY2006 in its Order dated March 3, 2006:

| Issue | Value of Parameter |
|--|---------------------------|
| Change in Weighted Index (CWIt) | 7.88% |
| Under Recovery from the Previous Year (Kt) | PhP1,452.1 million |
| Related Business Revenue (RBRT) | Zero |



The process provided in Article VI of the TWRG is a verification of a calculation of rates (or average effective rates) consistent with previous Commission decisions arrived at through extensive public consultation. The evaluation of TRANSCO's prayers are influenced by the primary consideration of ensuring timely decisions under Article VI through a validation of a calculation proposed by TRANSCO against the provisions of the TWRG and the prior decisions adopted by the Commission.

Section 4.2 of the TWRG states that: subject to Articles X, XI, and XII, the maximum allowed revenue for a Regulatory Year t that occurs during the Second Regulatory Period (the Maximum Annual Revenue (MAR) cap for that Regulatory Year t or MAR_t) is calculated in accordance with the following formula:

$$MAR_t = [MAR_{t-1} \times \{ 1 + CWI_{t-X} \}] - K_t - RBR_t$$

In the application filed by TRANSCO, the following equation and MAR_t equation was used as inferred by the Commission based on the outcomes of clauses 12.1, 15.1, 15.2 and 15.3 of the Application:

$$MAR_t = [(27,085.7 + 6,415.0) \times \{ 1 + 0.0788 - (+ 0.01) \}] - (- 1,452.2) - 0$$

$$MAR_t = \text{PhP } 37,257.8 \text{ Million}$$

This approach recognizes the P_0 from the Final Determination for the CY2006, and adds this value to the opening target revenue cap prior to the application of the inflation less the X Factor adjustment on the revenue cap. This is a reasonable interpretation of the TWRG provisions.

The Commission agrees with this calculation outcome with minor rounding differences. However the approach to the calculation preferred by the Commission is shown below. The reason for this approach will become evident

in the discussion of the K_t for CY2007. The correct calculation of the allowed MAR_{2006} should be undertaken in two steps as follows:

$$MAR_t = [MAR_{t-1} \times \{ 1 + CWI_{t-X} \}]$$

Using the information in the tables above and the P_o value the calculation is as follows:

$$MAR_t = (27,085.7 + 6,415.0) \times \{ 1 + 0.0788 - 0.01 \}$$

$$MAR_t = \text{PhP } 35,805.5 \text{ Million}$$

The allowed MAR_{2006} is then found as follows:

$$MAR_{2006} = MAR_t - K_t - RBR_t$$

Using the information in the tables above, the calculation is as follows:

$$MAR_{2006} = 35,805.5 - (- 1,452.1) - 0$$

$$MAR_{2006} = \text{PhP } 37,257.6 \text{ Million}$$

The Commission believes TRANSCO's Application rounds the numbers in a manner which leads to a slightly higher estimated revenue cap for CY2006 than is calculated by the Commission. The differences are not material for CY 2006. The Commission prefers its own calculation for the MAR_{2006} . The above calculations are summarized in Annex A.

Determination of the Revenue Cap for 2007 (MAR_{2007})

The primary steps in the calculation for CY2007 are as follows:



- Amendment to the Historical Period ;
- Determine the CWI_t ;
- Application of X-Factor ;
- Determine the DA_t ;
- Determine the K_t ;
- Determine the RBR_t ;
- Determine the MAR_t ;
- Determine the PIS Adjustment; and
- Determine the MAR_{2007} .

Amendment to the Historical Period:

The Supreme Court Decision of August 16, 2006 requires that any 'automatic, formula driver rate adjustments' be subject to a public hearing process before a decision is made by the Commission. The original dates specified in Article VI of the TWRG are restricted in such a way that there is not enough time for a public hearing process to be undertaken. For the Rate Verification & Adjustment process for CY2007, the Commission Ordered TRANSCO to deliver data under Article VI to be delivered by October 17, 2007 to allow an extra two weeks for the public hearing process. This date meant that TRANSCO will be unable to provide the Historical Period defined by the TWRG to be the 12 month period ending September of 2006.

As a result, the data provided by TRANSCO was for two 12 month period; one, ending June 30, 2006; and two, ending August 31, 2006. Also during the Public Hearing process, TRANSCO provided supplementary information as described in the affidavit provided by Ma. Cynthia Y. Manrique, dated November 2006, that contained data using a 12 month period ending September 30, 2006.

While expedient given the changes to the time frames required by the Supreme Court decision, the mix of data using different dates has an unintended effect on the Rate Verification & Adjustment process outcomes.

The Commission believes that an approach to reflect a new Historical Period definition would be the best way to undertake the analysis of rates for CY2007. Where the Historical Period is taken to be the 12 months ending August 31 of the Application Year, the uniformly adopted historical data would better reflect the intent of the original drafting of the TWRG. Such change is a direct consequence of the Supreme Court's decision. This date is reflected in all of the following analysis.

Determine CWI_t :

The Commission notes there has been no request by TRANSCO, and to the Commission's knowledge there have been no triggers met, which would require Articles X, XI or XII of the TWRG to be activated. The Commission's analysis therefore follows the requirements of Article IV of the TWRG.

The value of CWI_t represents the Change in Weighted Index for Regulatory Year t which is calculated as follows:

$$CWI_t = \{(W1 \times \Delta CPI_t) + (W2 \times \Delta USER_t)\}$$

In Section 3.3 of the TWRG, the value that is assigned to $W1$ and $W2$ may be equivalent to 0.455 and 0.545, respectively, or as otherwise determined by the Commission under s.4.18 of the TWRG, when an exchange rate trigger is met, or 1.00 and zero, respectively, if the exchange rate trigger is not met. The trigger depends on the condition set in Section 12.9.1 of the guidelines which is

triggered when an exchange rate increases by greater than 110% or less than 90% of the forecast exchange rate used in the Final Determination for the Second Regulatory Period.

Annex A of the application has been reviewed and the Commission has noted that there are minor changes required to accommodate the date change to end August as preferred by the Commission.

In the application², the values used for **W1** and **W2** in computing TRANSCO's 2007 MAR are 1 and zero, respectively, because the latter believes that the condition for the exchange rate trigger was not met.

The Commission verified TRANSCO's above contention and found out that the average exchange rate, between two consecutive quarters, lie between PhP48.3/US\$ and PhP59.0/US\$ so it did not go beyond 110% or 90% boundary around the PhP53.7/US\$ for end August 2006³ used in the Final Determination. In this regard, TRANSCO is correct in using the values of 1 and zero for **W1** and **W2**, respectively.

On the above basis, the Commission recalculated the **DeltaCPIt** calculation provided by TRANSCO at a value of 0.0693 using the data which ends one month earlier than each of the four quarters (giving a 12 month period at end August in each reference year). The ERC verified the **DeltaCPIt** as follows⁴:

² See Annex A of the Application.

³ Using linear interpolation between Dec 2005 and Dec 2006 forex assumptions.

⁴ The Philippines CPI reference year is now 2000 = 100. This has changed from previous years.

$$\text{DeltaCPI}_t = \left[\frac{133.3 + 136.2 + 137.1 + 139.3}{124.5 + 126.6 + 128.3 + 131.1} \right] - 1$$

$$\text{DeltaCPI}_t = 0.0693$$

The Commission has reviewed TRANSCO's application for the calculation on the **DeltaUSER_t** and recalculated the value using the data which ends one month earlier than each of the four quarters (giving a 12 month period at end August in each reference year). The Commission note this calculation does not impact on the **CWI_t** as the W2 parameter has a zero value. The Commission's revised calculation of **DeltaUSER_t** is as follows:

DeltaUSER_t =

$$\left[\frac{54.28 + 51.91 + 52.82 + 51.28}{56.28 + 54.71 + 54.47 + 56.04} \right] \times \left[\frac{197.6 + 198.7 + 202.5 + 203.9}{191.0 + 191.8 + 194.4 + 196.4} \right] - 1$$

$$\text{DeltaUSER}_t = - 0.0149 \quad (\text{a negative number})$$

Thus the **CWI_t** thus has a value of 0.0693 which is computed as follows:

$$\text{CWI}_t = \{(W1 \times \text{DeltaCPI}_t) + (W2 \times \text{DeltaUSER}_t)\}$$

$$\text{CWI}_t = \{(1 \times 0.0693) + (0 \times - 0.0149)\}$$

$$\text{CWI}_t = 0.0693$$

Application of X-Factor :

With regard to the value of X or the productivity/efficiency factor for Regulatory year t, TRANSCO has used 1% (or 0.01) in accordance with the Final Determination.

Determine DA_t :

For the amount of **K_t** or the correction factor to adjust for over or under recovery of revenue in Regulatory Year t which is calculated in accordance with

Section 3.4 of the TWRG, TRANSCO proposed that the value to be assigned is **PhP 10,485.18 million**. The Commission disagrees with the calculations, even as it recognizes that it was performed on unaudited data and may need further review when TRANSCO submits its audited data⁵. The Commission's review of how the amount was derived is covered in the following sections.

The following formulae are extracted from s.4.3 of the TWRG, but the end September definitions have been substituted with end August reference dates for the Historical Period.

$$DA_t = TR_{t-1} - MAR_{t-1}$$

Where:

TR_{t-1} = The total qualifying revenue of TRANSCO for the 12 month period ending on 31 August in Regulatory Year t-1 and calculated as follows:

$$TR_{t-1} = CR_{t-1} + MR_{t-1}$$

Where:

CR_{t-1} = amount billed to Customer for the provision by the Regulated Entity of Regulated Transmission Services

MR_{t-1} = net payments payable to or by the Regulated Entity during the period pursuant to the WESM Rules in its capacity as either a Network Service Provider or the System Operator. The value of **MR_{t-1}** will be zero (0) until such time as the WESM commences to operate.

MAR_{t-1} = **MAR₂₀₀₆** in the review of the Forecast Year of CY2007.

If **DA_t < 0**

Then **K_t = DA_t x (1 + it / 100)**

⁵ Note there is still no indication on when TRANSCO will have an audit separate from NPC, and hence the revenue collections for the 12 month periods ending September 30 of 2003, 2004, 2005 and 2006 years are not yet subject to audit opinions. The Commission had intended to implement a review of audited versus submitted revenue for each 12 month period ending September 30, 2003, 2004, 2005 and now ending August 2006 and hence analyze any cap adjustments for the First and Second Regulatory Period due to any changes in the **K factor** calculation during the regulatory reset process. However lack of COA data means that such a review is likely to be further deferred until TRANSCO is a separate entity for financial statement purposes.

Where:

- it = the simple average of the monthly 180 day weighted average Manila Reference Rate in nominal percent per annum terms published by the BSP for the period from September of the calendar year t-2 to August of calendar year t-1. The Commission checked whether the value used by TRANSCO conforms to the above definition and it was found out that the applicant used the correct methodology but the outcome differs slightly because of the end August 2006 reference point preferred by the Commission.

TRANSCO, under this application, proposed that the amount for **CR_{t-1}** be equal to **PhP 27,681.99 million**, which is composed of the following Revenues:

| | Actual Revenue ending Aug. 2006 (in PhP Millions) |
|---|--|
| Power Delivery Service (for Transmission and Subtransmission) | 26,345.00 |
| System Operations | 1,290.66 |
| Supply and Metering | 45.48 |
| Others | 0.85 |
| TOTAL | <u>27,681.99</u> |

Note : Total using 2 significant figures

The above figures are based on unaudited financial data of TRANSCO for the 12 month period starting September 1, 2005 to August 31, 2006 and are on their grossed amount (Power factor adjustment, Interruption billing adjustments and prompt payment discounts were not considered). Moreover, TRANSCO's resulting revenue from the cross subsidy charge amounting to **PhP 22.5 million** was excluded in the calculation, as was gross revenues from co-siting and co-location of **PhP 7.139 million**. TRANSCO has now adopted the Commission's preferred inclusion of revenue amounting to **PhP 0.85 million** derived from the sale of electricity to employees residing within TRANSCO facilities.

The Commission agrees with the numbers developed by TRANSCO recognizing they are currently unaudited.



For the amount of MR_{t-1} , TRANSCO used zero (0) because such payments are not yet a feature of the WESM during its operation from June 2006 to the end of August 2006. The Commission's understanding is that no net payments have been received from the WESM, thus MR_{t-1} is equal to zero.

On the above basis, TRANSCO has arrived at an amount of **PhP 27,681.99 million** for the value of TR_{t-1} , which is **PhP 27,682.0 million** when rounded to the closest PhP 0.1 million. Thus, the amount of DA_t for CY2007 is equal to the shortfall in revenue collection in the Historical Period against the revenue cap for CY2006, as calculated above:

$$\begin{aligned} DA_t &= TR_{t-1} - (MAR_{2006}) \\ DA_t &= 27,682.0 - (37,257.6) \\ DA_t &= -\text{PhP } 9,575.6 \text{ million} \\ &\quad (\text{a negative amount or under recovery}) \end{aligned}$$

Determine K_t :

The K_t value is then determined by first applying the Manila Reference Rate (MRR) to this under recovery for 2006 using the formula described above.

The Commission has calculated the average of the MRR for the 12 months ending August 31, 2006 to be:

$$i_t = 9.512 \text{ (or } 9.512\% \text{)}$$

The application of this financing allowance provides :

$$K_t = DA_t \times (1 + i_t / 100)$$

$$K_t = -9,575.6 \times (1 + 9.512 / 100)$$

$$\begin{aligned} K_t &= -\text{PhP } 10,486.5 \text{ million} \\ &\quad (\text{a negative amount or under recovery}) \end{aligned}$$

This is different from the TRANSCO analysis which suggests DA_t is equal to - **PhP 10,485.18 million** (a negative amount or under recovery). The primary difference arises from the use by the Commission of an average MRR which is for the 12 months ending August 31, 2006.

The next step is to decide what proportion of the Related Business revenue (RBR_t) should be deducted from the revenue cap as compensation to TRANSCO's customers for the use of the regulated infrastructure to generate alternate forms of revenue. The gross revenues from co-siting and co-location reported by TRANSCO was **PhP 7.139 million** for the 12 months ending August 31, 2006.

The maximum allocation of this gross revenue to the revenue cap is mandated to be 50% under s.20 of the EPIRA. The Commission notes that this revenue is less than 0.2% of the approximate revenue cap for CY2007. While the Commission has previously not allocated any of these revenues to offset the revenue cap, the Commission has adopted the maximum application of 50% of these revenues as an offset against the revenue cap. Thus the Commission has determined the following RBR_t :

$$RBR_t = \text{PhP } 3.6 \text{ million}$$

Determination of the MAR_t

The Commission has calculated the Forecast Smoothed Maximum Annual Revenue for CY2007 (excluding the benefits of the PIS) as follows, using the



data derived above. The Commission believes the correct calculation of the allowed MAR_{2007} should be undertaken in two steps as follows:

$$MAR_t = [MAR_{t-1} \times \{ 1 + CWI_{t-1} - X \}]$$

Using the information in the calculations above and where no P_o value needs to be applied in CY2007, the calculation is as follows:

$$MAR_t = [(35,805.5) \times \{ 1 + 0.0693 - 0.01 \}]$$

$$MAR_t = \text{PhP } 37,928.8 \text{ Million}$$

Determination of the MAR_{2007} Without the PIS Adjustment

The allowed MAR_{2007} is then found as follows (excluding the PIS adjustment):

$$MAR_{2007} = MAR_t - K_t - RBR_t$$

Using the information in the tables above the calculation is as follows:

$$MAR_{2007} \text{ (excluding PIS)} = 37,928.8 - (-10,486.5) - 3.6$$

$$MAR_{2007} \text{ (excluding PIS)} = \text{PhP } 48,411.8 \text{ Million}$$

The Commission believes TRANSCO's Application incorrectly calculates the revenue cap, and leads to a substantially higher estimated revenue cap for 2007 at **PhP 49,784.87 million** than is calculated by the Commission. The differences arise because TRANSCO has double counted the inflation effect in the K_t for 2006 and this would lead to double recovery of the inflation adjustment to the under recovery it is currently experiencing.



The Commission has used this interpretation of s.4.2 of the TWRG because the calculation of the revenue cap requires the increase of the previous revenue cap by the factor of $(1 + CWIt - X)$ which is effectively adjusting for inflation in the Forecast Period (here CY2006). Since the K_t factor has already been adjusted by the MRR which is a nominal interest rate (ie: includes an inflation component), it would be inappropriate to double count inflation.

Determination of the PIS Adjustment:

The Commission has reviewed the PIS adjustment proposed by TRANSCO. The application requests a total incentive reward of **PhP 359 million** for performance which is at the better end of the performance indices.

This incentive is less than the maximum reward level set by the Commission at the Final Determination. The maximum reward was set at PhP 978.5 million, as defined in clause 8.8 of the Final Determination.

Determination of the MAR₂₀₀₇ With the PIS Adjustment

The allowed MAR₂₀₀₇ is then found by adding the PIS adjustment:

$$\text{MAR}_{2007} = \text{PhP } 48,441.8 \text{ million} + \text{PhP } 359 \text{ million}$$

$$\text{MAR}_{2007} = \text{PhP } 48,770.8 \text{ million}$$

This assumes there is no breach of the side constraints. The above calculations are summarized in Annex A. The analysis of the side constraints is covered in the following paragraphs.

Side Constraint Analysis

Under Article 6.5 of the TWRG, the maximum transmission wheeling rates that may be charged by the Regulated Entity for the provision of Regulated Transmission Services must comply with, among others, Section 6.4 of the TWRG. Section 6.4.1 of the TWRG speaks of the Side Constraints on the Proposed Maximum Transmission Wheeling Revenue or how quickly TRANSCO can change its revenue recovery, for each customer segment.

TRANSCO is unable to increase overall average revenue derived from each customer segment by more than the side constraint, where the side constraint factor (SC_t) is equal to 7.0% pa for CY2007, as determined in the Commission's Order dated August 24, 2006.

The side constraint for 2007, provided in Section 6.4.1 of the TWRG, allows TRANSCO to vary its revenue recovery from each customer segment by an amount defined by the following equation:

$$FCR_{k,t} / CR_{k,t-1} \leq (1 + CWI_t + SC_t) \times FQ_{k,t} / AQ_{k,t-1}$$

The Commission believes this translates into Side Constraint Provisions as follows for the three customer segments previously approved by the Commission (refer Order dated August 2, 2006), and using actual billing determinant data for 12 months to August 31 for the Historical Period and forecast billing determinant data for the calendar year for the Forecast Period:

| Grid | CWIt | SCt | FQ k, t (MW) ** | AQ k, t-1 (MW) * | Side Constraint |
|-------|--------|------|--------------------|---------------------|--------------------|
| Luzon | 0.0693 | 0.07 | 78,345.51 | 75,759.39 | 1.1782 |

Handwritten signatures and initials are present below the table, including a large signature on the left and several smaller ones on the right.

| | | | | | |
|-----------------|---------------|-------------|-------------------|-------------------|---------------|
| Visayas | 0.0693 | 0.07 | 12,189.82 | 10,612.14 | 1.3087 |
| Mindanao | 0.0693 | 0.07 | 15,897.26 | 14,817.67 | 1.2224 |
| Total | 0.0693 | 0.07 | 106,432.58 | 101,189.21 | 1.1984 |

Note : * = for Historical Period to August 31, 2006, ** = for the Forecast Period to December 31, 2007

The analysis assumes the sum of the average of “the rolling 12-months non-coincident peak demand” at each Connection Point⁶ is used as the billing determinant for the rate adjustment for 2007.

The table below shows TRANSCO's calculation of the Side Constraint Provisions, using “the rolling 12-months non-coincident peak demand” for the OATS billing determinant as currently approved by the Commission, and the data for August 31 of both the Historical and Forecast Period, but using a **CWIt** which is based on a ‘modified’ September 30 2006 data (where the September 30, 2006 CPI is taken to be equal the June 30, 2006 CPI, instead of using the CPI data for the twelve months to August 31) :

| Grid | CWIt | SCt | FQ k, t (MW) | AQ k, t-1 (MW) | Side Constraint |
|-----------------|---------------|-------------|-------------------|-------------------|-----------------|
| Luzon | 0.0649 | 0.07 | 77,230.05 | 75,759.39 | 1.1569 |
| Visayas | 0.0649 | 0.07 | 11,908.14 | 10,612.14 | 1.2735 |
| Mindanao | 0.0649 | 0.07 | 15,564.79 | 14,817.67 | 1.1921 |
| Total | 0.0649 | 0.07 | 104,702.99 | 101,189.21 | 1.1743 |

Note that the numbers differ slightly from those preferred by the Commission at paragraph 51, and are lower because TRANSCO is not factoring in the load growth forecast for the billing determinants in the last four months of the CY2007. This occurs because it uses an end August 2006 data as the Forecast Period rather than the calendar year 2007 data preferred by the Commission.

⁶ Initially the Connection Point does not include generation injection points, but only load take-off points. It be recognized that occasionally generation Connection Points will be load take-off points for example during maintenance or shut-down periods.

The table below shows the outcome of TRANSCO's actual application where the side constraints are not applied and it seeks full cost recovery in CY2007, including its estimate of the under recovery carry-forward (refer the second column from the right hand side). This is compared to the Commission's preferred side constraint limit (refer to the right hand side column).

| Customer Segment | Total amount billed during period ending Aug. 31, 2006 (PhP Million) | Total Forecast to be billed during period ending Aug. 31, 2007 (PhP Million) | TRANSCO's Side Constraint Calculation using proposed revenue | ERC's Side Constraint preferred Limit |
|------------------|--|--|--|---------------------------------------|
| Luzon | 20,735.03 | 32,977.32 | 1.5904 | 1.1782 |
| Visayas | 3,083.46 | 5,398.09 | 1.7507 | 1.3087 |
| Mindanao | 3,863.30 | 6,331.47 | 1.6388 | 1.2224 |
| Total | 27,681.99 | 44,706.88 | 1.6150 | 1.1984 |

It can be seen in the table above that the forecast revenue increases for the three customer segments of Luzon, Visayas and Mindanao at 59%, 75% and 64% respectively are well above the calculated Side Constraint Limit preferred by the Commission. The Commission verified whether the claim of TRANSCO that it should be allowed to breach the side constraint to achieve its 2007 revenue cap is true. In the said verification the Commission found that there was a breach of the side constraint condition and thus the proposed MAR for CY2007 did not comply with Section 6.4.1 of the TWRG.

Revenue Cap without Breach of Side Constraints:

In the Commission's view, Section 6.4.1 of the TWRG is very clear and the side constraints should not be breached. Given that TRANSCO did not apply

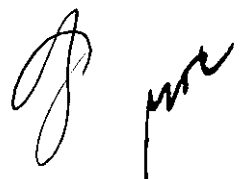
for rate adjustments which did not breach the side constraints, the Commission accepts that TRANSCO must be ordered not to breach the side constraints.

The effect of this order will be that TRANSCO is likely to be able to recover part of its approved revenue cap on a pro-rata basis, for the CY2007 period. The Commission has estimated the effective revenue cap (before the addition of the PIS reward described above). The recovery would be **PhP 33,188.7 million** if the projected billing determinants arise for the full 2007 year. The Commission believes this is the appropriate revenue cap to adopt for CY 2007, prior to the addition of the PIS adjustment. Annex B provides a summary of the calculation of this amount.

TRANSCO's supplementary application as described in the affidavit provided by Ma. Cynthia Y. Manrique, dated November 2006, has changed the application so that the rates for the two primary MSP charge components have changed from the initial application. The two primary MSP charge components are:

- A voltage level rate (the billing determinant is the voltage); and
- A common charge rate (the billing determinant is the no. of connections).

In undertaking this estimate of the side constrained revenue cap, the Commission has had to assume the MSP charge components are gathered from the three customer segments in direct proportion to the number of meter connection points in each main grid. Thus the total revenues generated are in proportion to the common MSP charge revenues. This is required as there is insufficient data submitted to undertake a more accurate analysis.



Revenue Cap without Breach of Side Constraints plus PIS Reward:

In the Commission's view, while the side constraints should limit the revenue recovery in any one year, the PIS reward should flow through in the year following the particular performance, and it should be considered on top of the effective revenue cap (either an addition or a subtraction, depending on whether it is a reward or a penalty).

The effect of this approach would be to allow the recovery of **PhP 33,188.7 million** to rise to **PhP 33,547.7 million** which allows the PIS reward of **PhP 359 million** to be gathered in addition to the side constrained "effective" revenue cap.

This approach provides a safety net for TRANSCO in that the PIS reward then falls under s.4.2 and s.4.3 of the TWRG and the over / under recovery arrangements are applied in the following years.

Consideration of the Proposed System Operator Charges.

The Commission has reviewed the calculation provided by TRANSCO and confirms that the System Operator (SO) charges are as recalculated by TRANSCO and described in clauses 17 through 21 of the affidavit of Ma. Cynthia Y. Manrique, dated December, 2006. These SO charges are as provided in the following table:

| Firm (PhP/kW/Month) | Non-Firm (PhP/kW/Month) |
|---------------------|-------------------------|
| 21.20 | 0.6966 |

Note : Non-firm charge is calculated as Firm x (12 months / 365 days)

The approach follows the methodology required by the OATS Rules at clause F(All)1. On this basis, the Commission accepts the rates proposed by TRANSCO be adopted for the CY2007 period.

Consideration of the Proposed Metering Service Provider Charges.

The Commission has reviewed the calculation by TRANSCO and determines that the MSP charges are as recalculated by TRANSCO and described in clauses 22 through 27 of the affidavit of Ma. Cynthia Y. Manrique, dated December, 2006. These MSP charges are as provided in the following two tables:

| | |
|----------------------------------|--------------------------|
| MSP Common Service Charge | PhP / Meter Point |
| MSP Charge (P/Year) | 51,952 |
| MSP Charge (P/month) | 4,329 |

| Voltage Level(s) | MSP Charges (PhP/Meter Point/Month) | |
|-------------------------|--|-------------------|
| | Full | Meter Only |
| 230 kV | 33,313 | 4,156 |
| 138 / 115 kV | 21,937 | 3,843 |
| 69 / 67 kV | 10,905 | 2,551 |
| 34.5 / 23 kV | 6,254 | 2,551 |
| 13.8 kV | 4,313 | 2,551 |
| Below 13.8 kV | 2,691 | 2,551 |

The approach follows the methodology required by the OATS Rules at clauses F(All)2 and F(All)3. On this basis, the Commission adopts the rates proposed by TRANSCO for the CY2007 period.

Calculation of Indicative PDS Charges.

On the basis of this new “effective” revenue cap including the PIS reward of **PhP 33,547.7 million**, the Commission has estimated the indicative PDS charges as shown in the following table (where for this calculation these charges are assumed to apply on average for the whole of the CY 2007 and the billing determinant is as forecast by TRANSCO):

| Power Delivery Service Rate (P/kW) | | | |
|---|--------------------------|--|----------------------------------|
| | 2007 Post PIS | 2004 - 2006 Pegged (*) | Change 2007 from 2004 |
| Luzon | 293.32 | 242.58 | 20.9% |
| Visayas | 311.74 | 242.58 | 28.5% |
| Mindanao | 277.64 | 227.53 | 22.0% |

Note: * Pegged Rate fixed at Dec 2004 level.

It should be noted that while TRANSCO was attempting to recover the Indicative pegged rates for all of 2006, its did not achieve this as it did not achieve the revenue collections at the previously approved ‘interim’ revenue cap for 2006.

Billing Determinant Forecasts.

The Commission notes that TRANSCO has amended its billing determinant forecasts since its interim Rate Verification and Adjustment application in December 2005. The following table summarizes the data filed with the Commission for the Rate Verification and Adjustment processes:



| TRANSCO Rate Application | Billing Determinant (kW) for 12 Months to: | | |
|------------------------------|--|--------------|-------------|
| | End Aug. 06 | End Sept. 06 | End Dec. 06 |
| Interim Application 2006 (*) | 105,097.70 | 105,531.12 | 106,931.56 |
| Final Application 2006 (**) | 101,189.21 | 101,356.09 | 102,046.43 |
| | End Aug. 07 | End Sept. 07 | End Dec. 07 |
| Interim Application 2006 (*) | 110,473.33 | 110,926.80 | 112,429.01 |
| Final Application 2006 (**) | 104,702.99 | 105,129.09 | 106,432.58 |

Note : (*) TRANSCO Application dated November 2, 2005
 (**) TRANSCO Application dated October 16, 2006
 1. End August dates recalculated by ERC
 2. Billing Determinant is the "Sum of the average of the rolling 12-months non-coincident peak demand at each Connection Point" as currently approved by the ERC

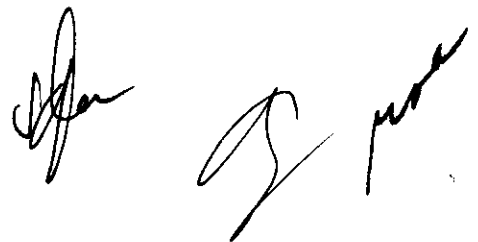
TRANSCO has adopted more conservative billing determinant growth rates than were anticipated in late 2005 for its application for a Rate Verification and Adjustment for 2007. The growth rate in the billing determinants are summarized in the following table:

| Implied Growth Rates in BD | BD Growth (%pa) for 12 Months to: | | |
|------------------------------|-----------------------------------|--------------|-------------|
| | End Aug. 06 | End Sept. 06 | End Dec. 06 |
| Interim Application 2006 (*) | 5.1% | 5.1% | 5.1% |
| Final Application 2006 (**) | 3.5% | 3.7% | 4.3% |

The Commission re-iterates its concern relating to the need for improvements in both demand (or load) and billing determinant forecasting, recognizing that the changes in the industry structure and operation required by the EPIRA make it difficult to forecast over the transition period to full operation of the Wholesale Electricity Supply Market (WESM).

WHEREFORE, the foregoing premises considered, the Commission hereby:

1. **DISALLOWS** the Maximum Annual Revenue cap proposed by the Applicants for the Calendar Year commencing January 1, 2007;
2. **APPROVES** the PIS Reward of PhP359 Million proposed by the Applicants for CY 2007;
3. **APPROVES** the Forecast Smoothed Annual Revenue cap for TRANSCO for the Calendar Year commencing January 1, 2007 amounting to PhP37,928.8 Million which excludes the K_t and RBR_t allowances but includes the PIS Reward allowance, and the Maximum Annual Revenue cap for TRANSCO for the Calendar Year commencing January 1, 2007 of PhP48,770.8 million which includes the K_t and RBR_t allowances, and the PIS Reward;
4. **DIRECTS** TRANSCO in implementing this Maximum Annual Revenue cap, TRANSCO, does not breach the side constraints imposed by the TWRG;



5. **APPROVES** the operative Maximum Annual Revenue cap for the TRANSCO for the Calendar Year commencing January 1, 2007 amounting to PhP33,547.7 million which does not breach the side constraints but does allow recovery of the PIS Reward; and
6. **DIRECTS** TRANSCO to implement the change of rates under this operative Maximum Annual Revenue cap in its next billing cycle from receipt hereof immediately succeeding this order.

SO ORDERED.

Pasig City, December 18, 2006.


RODOLFO B. ALBANO, JR.
Chairman


RAUF A. TAN
Commissioner


ALEJANDRO Z. BARIN
Commissioner


MARIA TERESA A.R. CASTAÑEDA
Commissioner


JOSE C. REYES
Commissioner

Summary of the Calculation of the Revenue Cap for 2006 and 2007

| Calculation of TRANSCO Revenue Cap (PhP million) | 2006 | 2007 |
|---|-----------------|-----------------|
| MAR t-1 | 27,085.7 | 35,805.5 |
| Po | 6,415.0 | - |
| CWI t | 7.88% | 6.93% |
| X | 1.0% | 1.0% |
| MAR t | 35,805.5 | 37,928.8 |
| Manila Reference Rate | 10.19% | 9.51% |
| K t | (1,452.2) | (10,486.5) |
| Related Business Revenue | - | 7.1 |
| Allocated to Revenue Cap | 50.0% | 50.0% |
| RBR t | - | 3.6 |
| MAR 200* | 37,257.7 | 48,411.8 |
| MAR t by TransCo excluding PIS | 37,257.8 | 49,784.9 |
| Effective MAR t limited by Side Constraint | 29,473.0 | 33,188.7 |
| Performance Incentive Scheme (PIS) | - | 359.0 |
| Final Effective MAR t for Approval | 29,473.0 | 33,547.7 |
| Final MAR 200* | 37,257.7 | 48,770.8 |
| Revenue Collections to End August | 27,682.0 | |
| Under / Over Recovery to Carry Forward | (9,575.7) | |

ANNEX B

Summary of the Side Constrained Revenue Cap for 2007

| Summary of Side Constrained Revenue Cap for CY2007 | | | | | | |
|--|---------------|-----------------|------------|---------------------------|----------------------|---------------------|
| | FQk,t (kW) | AQk,t-1 (kW) | Load Ratio | Side Constraint (%) | CRk,t-1 (PhP'000) | FCRk,t (PhP'000) |
| Luzon | 78,345,506 | 75,759,390 | 1.0341 | 17.824% | 20,735,030 | 24,430,766 |
| Visayas | 12,189,820 | 10,612,144 | 1.1487 | 30.873% | 3,083,460 | 4,035,406 |
| Mindanao | 15,897,257 | 14,817,674 | 1.0729 | 22.235% | 3,863,500 | 4,722,564 |
| Philippines | 106,432,583 | 101,189,208 | 1.0518 | 19.838% | 27,681,990 | 33,188,737 |

- Notes :
1. CPI = 6.934%
 2. SCk,t = 7.0%
 3. (1 + CPI + SCk,t) = 1.1393
 4. The Side constraint formula in paragraph 50 applies.

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