



# ODRC Valuation of Transmission Assets (PHILIPPINES)

## Volume B

Land, Buildings, Other Land Improvements  
and Non-Network Assets



REFERENCE DATE - 31 DECEMBER 2004

- Final Report
- 18 August 2005

PRICEWATERHOUSECOOPERS 



**CUERVO APPRAISERS, Inc.**  
PROPERTY, MACHINERY & BUSINESS VALUERS



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## 1. Instructions

As instructed, this report is the result of the appraisal of specifically designated assets exhibited to us as owned by the **NATIONAL TRANSMISSION CORPORATION (TRANSCO)** for the purpose of providing the ***Cost of Reproduction New, Sound Value and Market Value*** of assets, as of **31 December 2004**.

The appraised assets consist of ***landholdings (including easement rights), buildings, other land improvements, building machinery and equipment, other equipment, computer equipment, furniture and office equipment, transportation equipment, aircrafts and spares***, in various Philippines locations.

The terms used herein are identified as follows:

***Cost of Reproduction (Replacement) New*** is defined thus:

The amount necessary to reproduce and/or replace the property in accordance with current market price for materials, labor, manufactured equipment, contractor's, profit, fees and all other attendant costs associated with its acquisition and installation in place, but without provision for overtime or bonuses for labor and premiums for materials.

***Sound Value*** is described thus:

The cost of reproduction new less allowance for depreciation established with reference to the relative desirability of the property for present and future performance as compared to a property under known or assumed condition of operation, but without regard to the economic conditions which might influence the profitability of operation or the status of business or industry as a whole.

***Market Value*** is explained thus:

The estimated amount for which an asset should exchange on the date of appraisal between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion.



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## 2. Valuation Methodology

### 2.1 Land

The objective of this report is to present the *Market Value* (as defined in the previous section of this report) of the landholdings of Transco. In addition, the valuation conducted on the landholdings of Transco would be utilized for accounting as well as for regulation and privatization purposes.

We determined the methodologies to be used based on the documents that were made available. Since it was not possible to value the vast landholdings of Transco in various locations throughout the Philippines using a single method, we established a priority of valuation methodology, where it was appropriate.

The order of priority for the valuation method applied follows:

1. Maintain all land related expenses such as land acquisition, payments for improvements, crops, plants and trees, easement fees, clearing costs, house and structures, tower/pole occupancy fees, expropriation and all social engineering costs, in real terms. This was accomplished by using a conversion factor on historical land-related cost using the Consumer Price Index (Please refer to Table 1).

The list of historical costs was derived from the following:

- a) Transaction records of the annual expenditures of all Right-of-Way Orders from 1989 to 2004;
  - b) Transaction records of all annual expenditures of all Social Engineering Work Orders from 1995 to 2004; and
  - c) Master List of Land, Land Rights and ROW Grants of NPC/Transco.
2. In cases where there are no available records of payments made for any of the landholdings of Transco, we used a modified version of the ***Direct Sales Comparison Approach***. In this case, where sufficient information is available, the unit value of the closest comparable is determined.



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The comparables used were those derived from historical costs maintained in real terms. These comparables were only limited to similar properties within the district. This includes substations and land underlying transmission lines. Residential, Agricultural, Commercial or Industrial property values were not used in estimating the unit costs of the landholdings. Likewise, neither the Zonal Values of the Bureau of Internal Revenue (BIR) nor the Assessor's Market Values were used.

This method was used on the following:

- a) List of landholdings underlying substations and other installations;
- b) List of real properties and easements underlying the transmission lines; and
- c) Substations and Transmission Lines not included in the lists above but encountered in the process of inspection and search for all landholdings of Transco.

The values derived using the first method was applied on a ***Per Project Basis***. Efforts were made to distribute these project costs on a per substation or transmission line.

The second method is on a ***Per Property Basis***. The value of the substations and other installations was estimated based on its cost per square meter vis-à-vis the value of transmission lines that was based on its cost per kilometer. Adjustments, if any, were incorporated on the substations depending on the income classification of the city/municipality (see Appendix N) and on the transmission lines depending on its capacity.

The results of the valuation will provide an estimate of how much it will cost to acquire the same landholdings on the date of its valuation. This value, however, is conservative since, as noted, not all landowners have been compensated, if at all. Many property owners have either abandoned their claims and/or their properties; neither are they familiar with the concepts of *just compensation*, should there be an expropriation. Rather than speculate, thus risking an opportunity to gain, most landowners have agreed to accept the amount of monies deemed appropriate by NPC/Transco to avoid the inconveniences of a tedious court litigation and to minimize any possible losses.



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During the course of valuation, we reviewed the methods that have been used to estimate the real estate property values of a power transmission company. We affirm our position that the indexing of historical costs and maintained in real terms using the CPI is the most appropriate method to use. Other techniques and methodologies pale in comparison and are suitable for use, only in the absence of data pertaining to historical costs.

It is recommended that there should be a concerted effort to continuously record the historical costs of each real estate property. Historical information on all land-related costs should be reviewed and dutifully recorded to replace the values on landholdings that have been temporarily derived based on the adapted version of the *Direct Sales Comparison Approach*.

The valuation of the landholdings of Transco should be dynamic and continuously updated as new information on historical costs is derived. This can be made possible by working closely with a reputable property valuation company and outsourcing the valuation work to a professional entity.

As supporting information to the method applied in this valuation, please refer to the ***Final Determination on the Regulation of Electricity Distribution (QCA 2001) of the Queensland Competition Authority***.

The Queensland Competition Authority is the jurisdictional regulator of electricity distribution prices for Queensland distribution network service providers (DNSPs). The National Electricity Code (the Code) provides guidance regarding the issues that must be considered before distribution prices can be approved. A major element to be considered in the calculation of distribution prices is the value of assets – the process of asset valuation determines the regulatory asset base.

In its landmark decision,

The Authority's Final Determination (QCA 2001) set the regulatory framework for 1 July 2001 to 30 June 2005. At that time, the Authority acknowledged the unusual characteristics of easements compared to them majority of the DNSPs' assets and indicated that easements should be subject to further consideration.

***In the Philippines, this is compounded further by the lack of information on property values and access to historical costs.***



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**Table 1 – Consumer Price Index (CPI) Adjustments for 2004\***

Year	Total Disbursements	CPI	% difference	CPI Adjustment	Current Value
2004	100	117.5471675	0	1	PHP 100.00
2003	100	112.721264	0.042812716	1.042812716	PHP 104.28
2002	100	109.388829	0.074581094	1.074581094	PHP 107.46
2001	100	106.1060365	0.107827333	1.107827333	PHP 110.78
2000	100	100.0000000	0.175471675	1.175471675	PHP 117.55
1999	100	95.8253535	0.226681282	1.226681282	PHP 122.67
1998	100	89.8010247	0.308973565	1.308973565	PHP 130.90
1997	100	81.8450779	0.436215476	1.436215476	PHP 143.62
1996	100	77.3254783	0.520160884	1.520160884	PHP 152.02
1995	100	70.9345598	0.657121266	1.657121266	PHP 165.71
1994	100	65.6598789	0.790243441	1.790243441	PHP 179.02
1993	100	60.5931331	0.939942061	1.939942061	PHP 193.99
1992	100	56.6918351	1.073440862	2.073440862	PHP 207.34
1991	100	52.2050749	1.251642542	2.251642542	PHP 225.16
1990	100	44.0577802	1.668022921	2.668022921	PHP 266.80
1989	100	38.9198926	2.020233602	3.020233602	PHP 302.02
1988	100	34.9474718	2.36353852	3.36353852	PHP 336.35
1987	100	31.1392013	2.774893468	3.774893468	PHP 377.49
1986	100	30.2199587	2.889719658	3.889719658	PHP 388.97
1985	100	30.3184522	2.877083394	3.877083394	PHP 387.71
1984	100	24.6060424	3.777166749	4.777166749	PHP 477.72
1983	100	16.7761016	6.006822583	7.006822583	PHP 700.68
1982	100	15.9389383	6.374843009	7.374843009	PHP 737.48
1981	100	14.6257422	7.037005318	8.037005318	PHP 803.70
1980	100	12.9336754	8.088458153	9.088458153	PHP 908.85
1979	100	10.9421525	9.742599982	10.74259998	PHP 1,074.26
1978	100	9.3098275	11.62613812	12.62613812	PHP 1,262.61
1977	100	8.6736579	12.55220242	13.55220242	PHP 1,355.22
1976	100	7.8924060	13.89370504	14.89370504	PHP 1,489.37
1975	100	7.2275292	15.26381091	16.26381091	PHP 1,626.38
1974	100	6.7697966	16.36347103	17.36347103	PHP 1,736.35
1973	100	5.0459263	22.29545878	23.29545878	PHP 2,329.55
1972	100	4.3282941	26.15785143	27.15785143	PHP 2,715.79
1971	100	4.0001226	28.38589145	29.38589145	PHP 2,938.59
1970	100	3.2834964	34.79938989	35.79938989	PHP 3,579.94
1969	100	2.8590140	40.11458315	41.11458315	PHP 4,111.46

Average Monthly Consumer Price Indices (CPI) for years 1957 to 1974; (1965=100)

1969	114.5
1970	131.5
1971	160.2

\* **Historical Consumer Price Indices (CPIs) for the Philippines (2000=100) 1971-2004**

Source: World Bank World Development Indicators, adjusted to 2000 base and estimated values developed by the Economic Research Service.



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## **2.2 Buildings, Other Land Improvements, Building Machinery and Equipment, Other Equipment, Furniture and Office Equipment and Computer Equipment**

In valuing these types of asset, we have utilized the **Cost Approach**. This is a process of estimating the replacement cost new or reproduction cost new considering the prevailing market prices for the materials, labor, contractor's profit, fees, and other related charges less allowance for physical depreciation and obsolescence.

We conducted an actual inspection the properties and in arriving at our estimate of value, we completed the following analyses:

- a) Cost of reproduction (replacement) new of each replaceable asset in accordance with current market prices of materials, labor, contractor's overhead, profit and fees, and all other attendant costs associated with its acquisition and installation, excluding provisions for overtime or bonuses for labor, and premiums for materials;
- b) Physical depreciation as evidenced by observed condition and present and prospective serviceability in comparison with new units of like kind; and
- c) Extent, character and utility of the property.

The valuation methodology consists of an inventory of all the depreciable assets. The depreciation of assets was estimated based on the following:

- a) Remaining economic life of the asset; and
- b) Observed condition of the asset.

In the depreciation of assets, we have utilized the *Straight-Line Method*. This is a process in which equal annual reduction is charged against the replacement cost new of an asset for the estimated wear and tear and obsolescence.

## **2.3 Transportation Equipment and Aircrafts**

For the transportation equipment, the value was arrived at by applying the prevailing prices in the second hand market.

For the aircrafts, the value was derived at based on the Aircraft Bluebook Price Digest.



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## 2.4 Major Spares

Spares are valued using the *Cost Approach* as specified under Item 2.2 (Page 6). Our inventory is based on records provided to us which are limited to major spares; hence, small items such as bolts, nuts, small tools and alike are not included in the valuation.

## 3. Data Sources

Transco provided us with several documents as our references for the valuation of the properties. We perused the following pertinent information which we deemed valuable and applicable for the appraisal:

1. Inventory of landholdings from the right-of-way management division
2. Right-of-way work orders yearly expenditures (1989 to 2004) from Transco Finance Group
3. Social Engineering work orders yearly expenditures (1995 to 2004) from Transco Finance Group
4. National Statistics and Census Board Income Classification of Municipalities
5. Annual Average Consumer Price Index
6. Previous valuation report of NAPOCOR, (1997)
7. Itemization of Financial Asset Register (IFAR)
8. Single Line Diagram
9. Building plans/Site development plan (when available)
10. List of official receipt and certificate of registration of transportation equipment
11. Certificates of Registration and Air-Worthiness for all aircrafts
12. List of major spare parts inventories

We have been advised that the inputs on the above-listed documents are complete. Thus, we have no reason to question the veracity of its contents. However, while we have undertaken an extensive review of the information, we have not examined the original records to substantiate the validity of the details nor are we privy to any changes. Should there have been any, we were not perceptible on the copies forwarded for our reference.



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## 4. Qualifications

When market values are assessed, the result is the full contract value without taking into account any liability to taxation on sales. It likewise does not include the costs involved in a sale. The properties are valued on the assumption that they are free and clear of all mortgages, encumbrances (unless otherwise stated in the report) and other outstanding premiums and charges.

We have taken every reasonable care when we examined the information provided to us and in specific instances when we conducted relevant inquiries, we have not scrutinized the original documents to verify the correctness of the information or to ascertain subsequent amendments, if any, which may not appear on the copies handed to us. We have no reason to doubt the truth and accuracy of the information. We are also advised that no material facts have been omitted from the information provided.

We have not conducted site investigations to determine the suitability of the soil conditions and the utilization for the buildings. The valuation we have performed was based on the assumption that these aspects are satisfactory. No allowances have been made for any possible contamination and/or pollution of the land which may have occurred as a result of past usage.