



**APPLICATION FOR THE ALTERNATIVE
RATE SETTING METHODOLOGY FOR
THE 2ND REGULATORY PERIOD
(2006-2010)**



**Transmission Wheeling Rate
Guidelines (TWRG)**

National Transmission Corporation



ERC's Performance Based Regulation requires a price control arrangement determined prior to the start of a five year regulatory period.



1. TransCo Business Process
2. Regulated Entity Assumptions
3. Annual Revenue Requirement (ARR)
 - Demand Forecast
 - Forecast OPEX



- Return of Capital (depreciation) and Return on Capital
 - Regulated Asset Base (RAB)
 - Capital Expenditures
 - Regulatory Depreciation
 - Working Capital
 - Weighted Average Cost of Capital
- Taxes



4. Price Control – Estimated Maximum Allowable Revenue (MAR)
5. Proposed Service Incentive Scheme

TRANSCO BUSINESS PROCESS

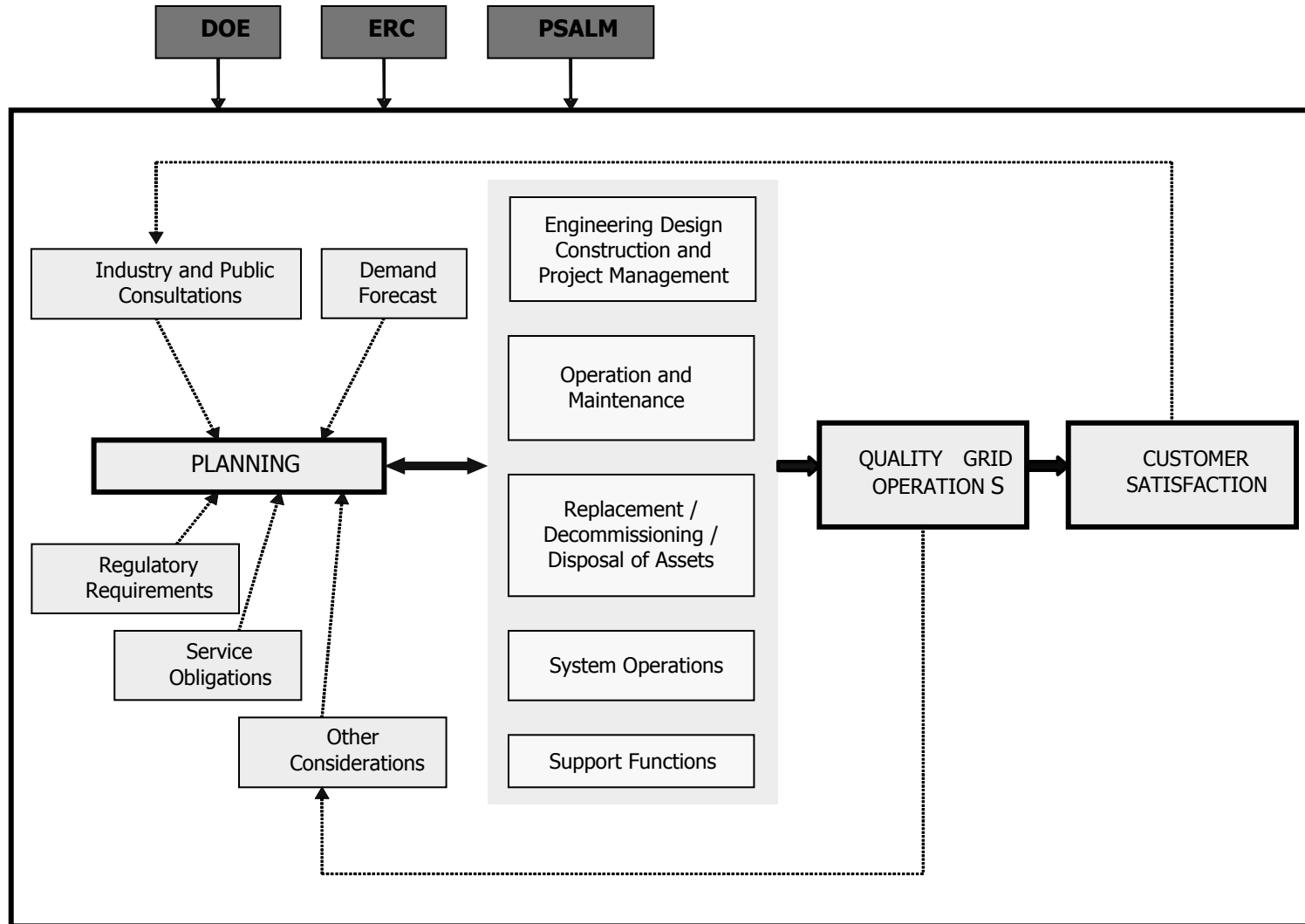


National Transmission Corporation



- TransCo's transmission service delivery process starts with planning and ends with customers satisfaction.
- In between are operation and maintenance, system operations, engineering design, construction and project monitoring, replacement/ decommissioning/disposal of existing assets, and support functions.

TRANSCO'S BUSINESS PROCESS



REGULATED ENTITY ASSUMPTIONS



National Transmission Corporation



Application assumes:

- Services provided jointly by TransCo and Concessionaire
- Concessionaire from January 2006, hence:
 - Corporate tax payable
 - Other taxes apply
- EVAT law applies (E.g. corporate tax rates)

DEMAND FORECAST



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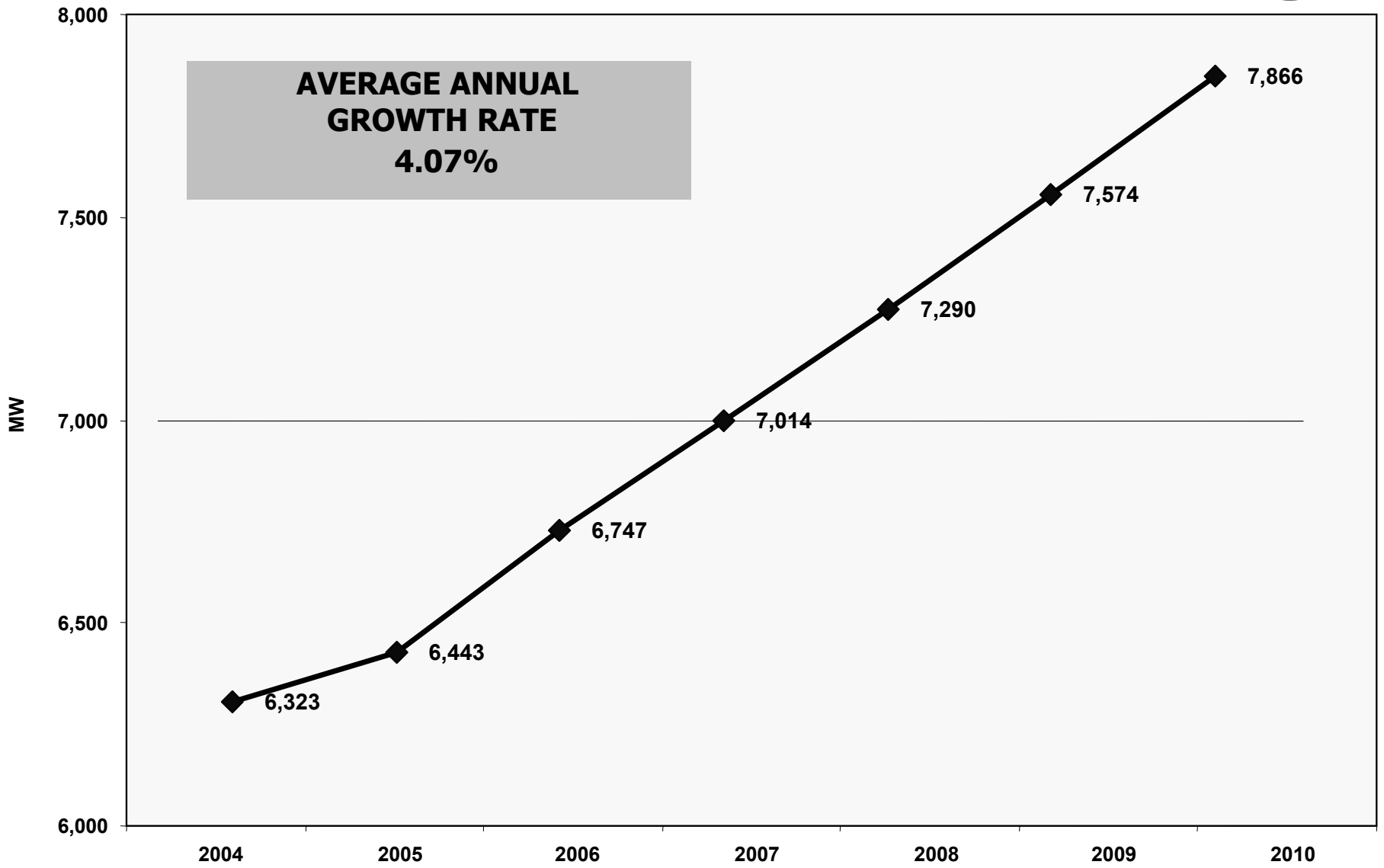
- Reflects conservative growth profile
- Based on econometric modeling, with the Gross Domestic Product (GDP) as main explanatory variable
- Considers customer demand growth forecast, particularly that of Meralco

GROSS DOMESTIC PRODUCT (GDP)

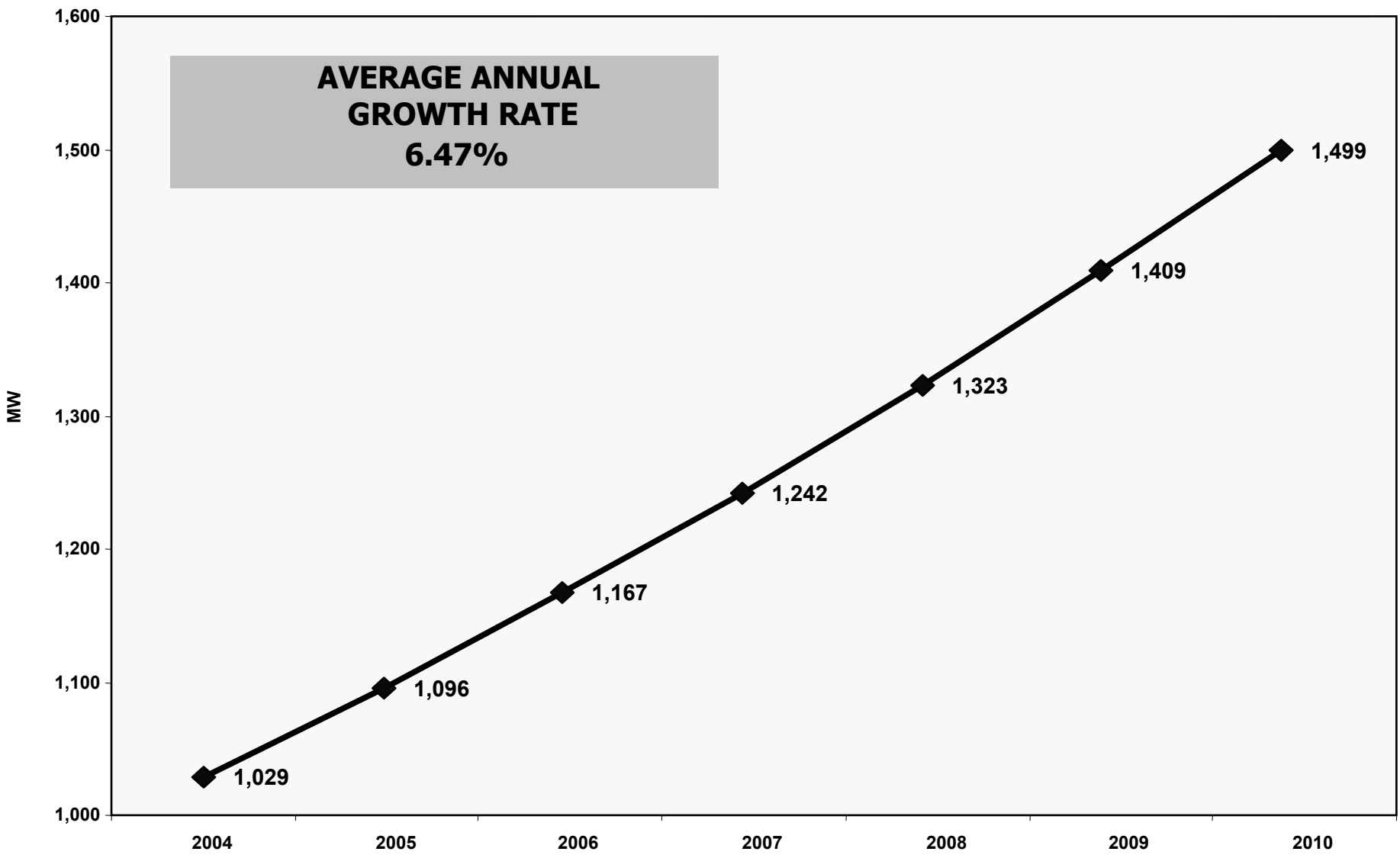


YEAR	% Growth Rate
2005	5.30
2006	6.30
2007	6.50
2008	6.80
2009	7.00
2010	7.00

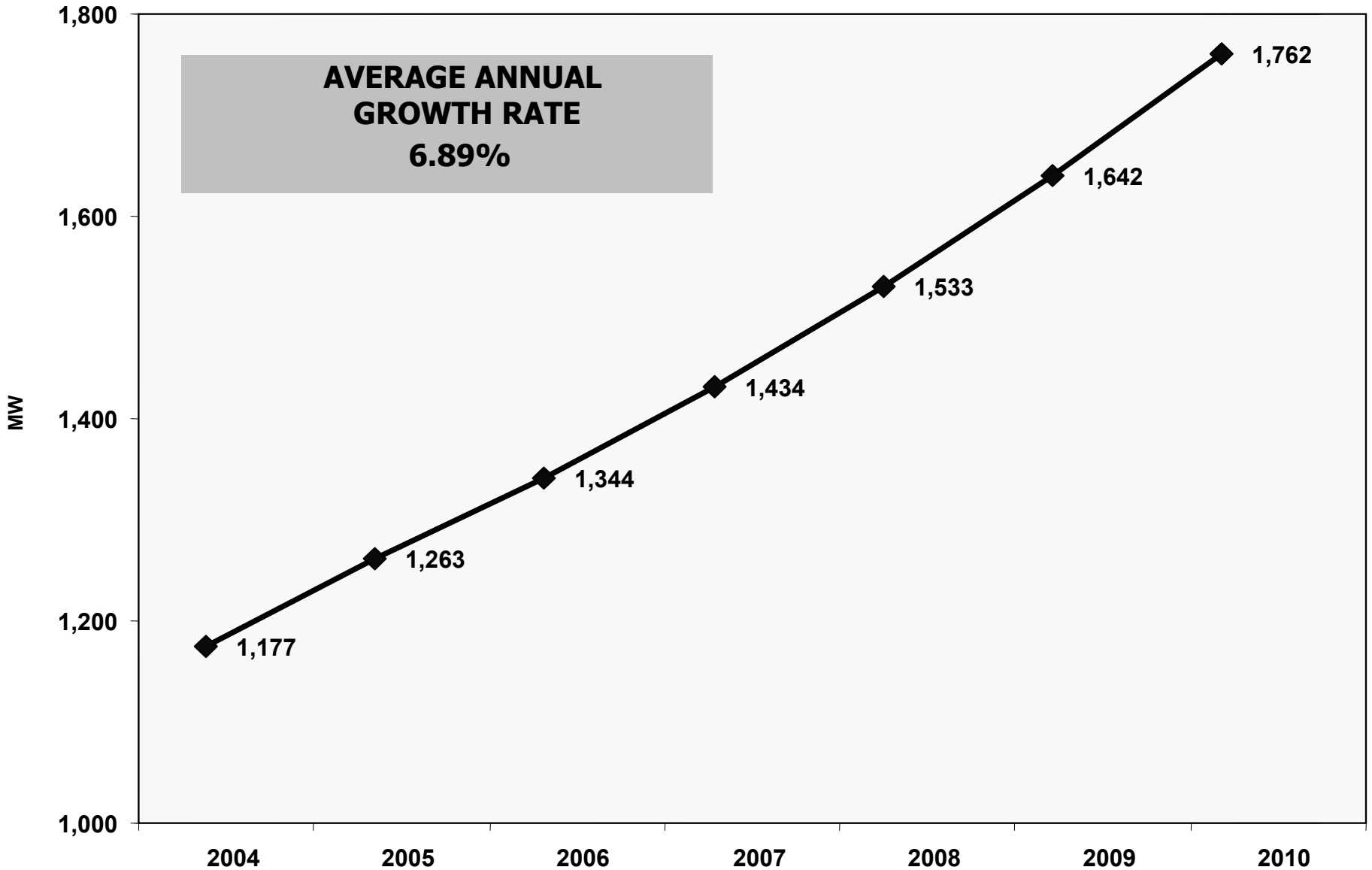
MW DEMAND FORECAST - LUZON



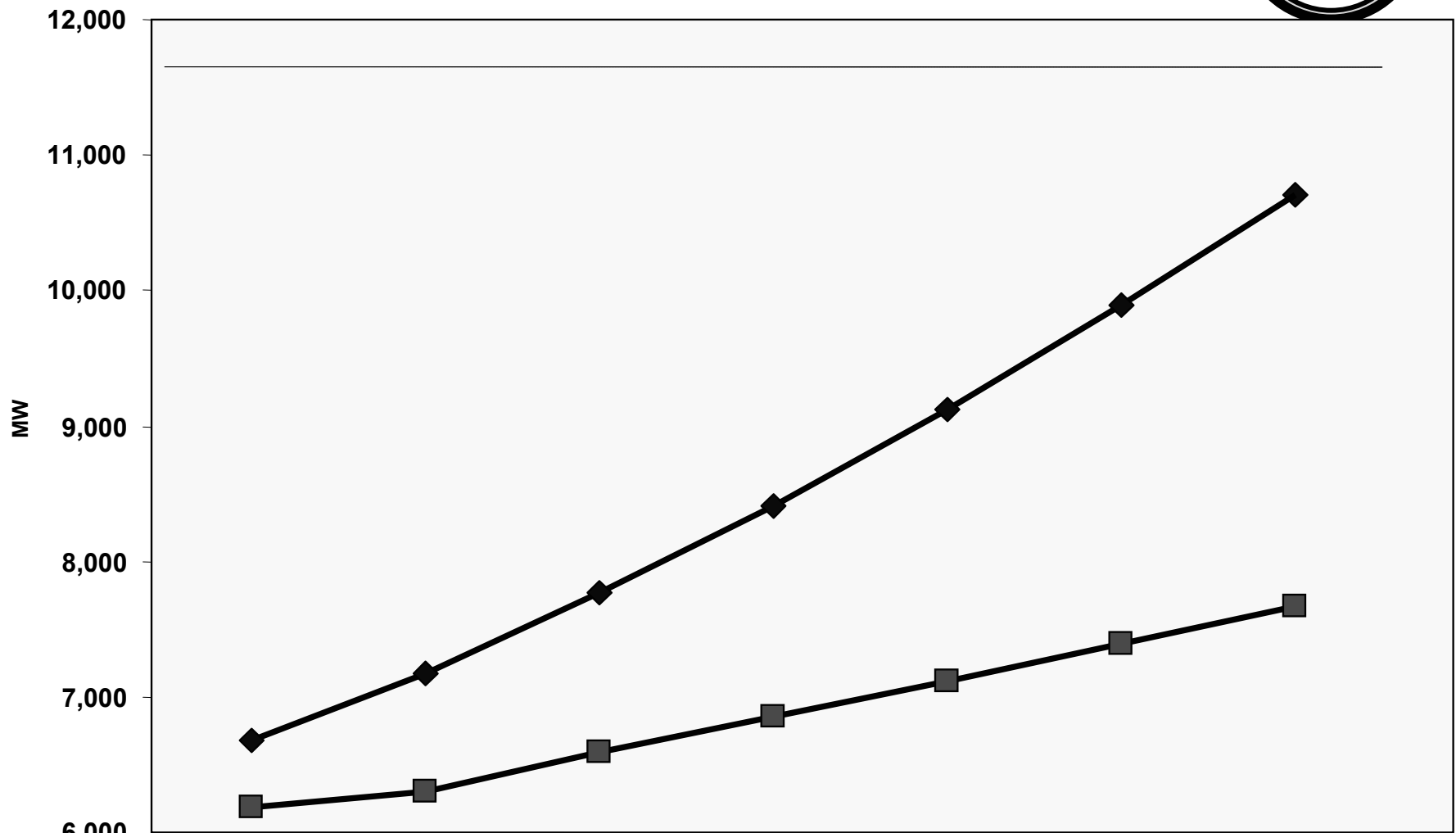
MW DEMAND FORECAST - VISAYAS



MW DEMAND FORECAST - MINDANAO



DEMAND FORECAST COMPARISON - LUZON

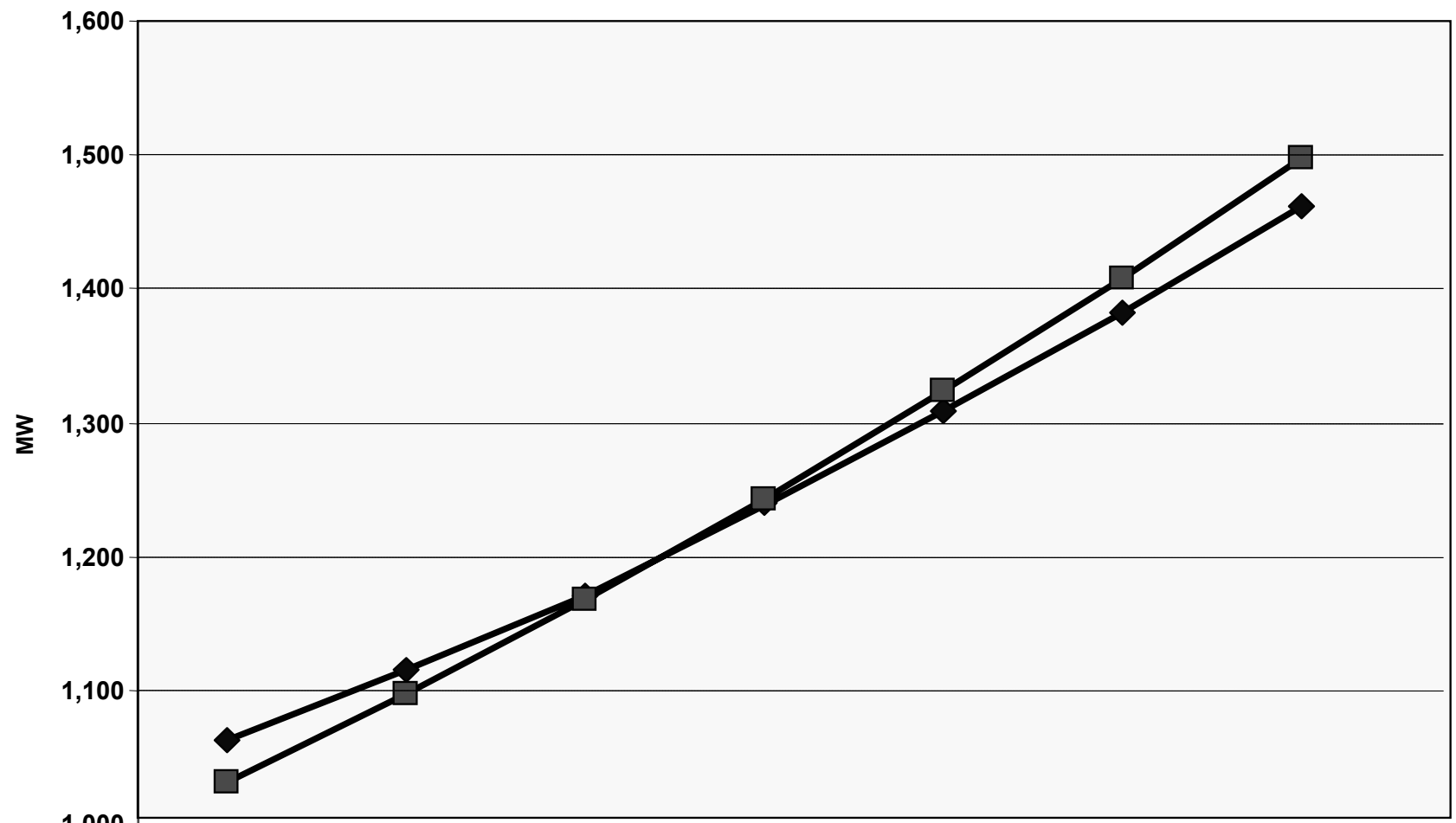


	2004	2005	2006	2007	2008	2009	2010
◆ DOE	6,829	7,343	7,964	8,635	9,372	10,171	11,018
■ TRANSCO	6,323	6,443	6,747	7,014	7,290	7,574	7,866



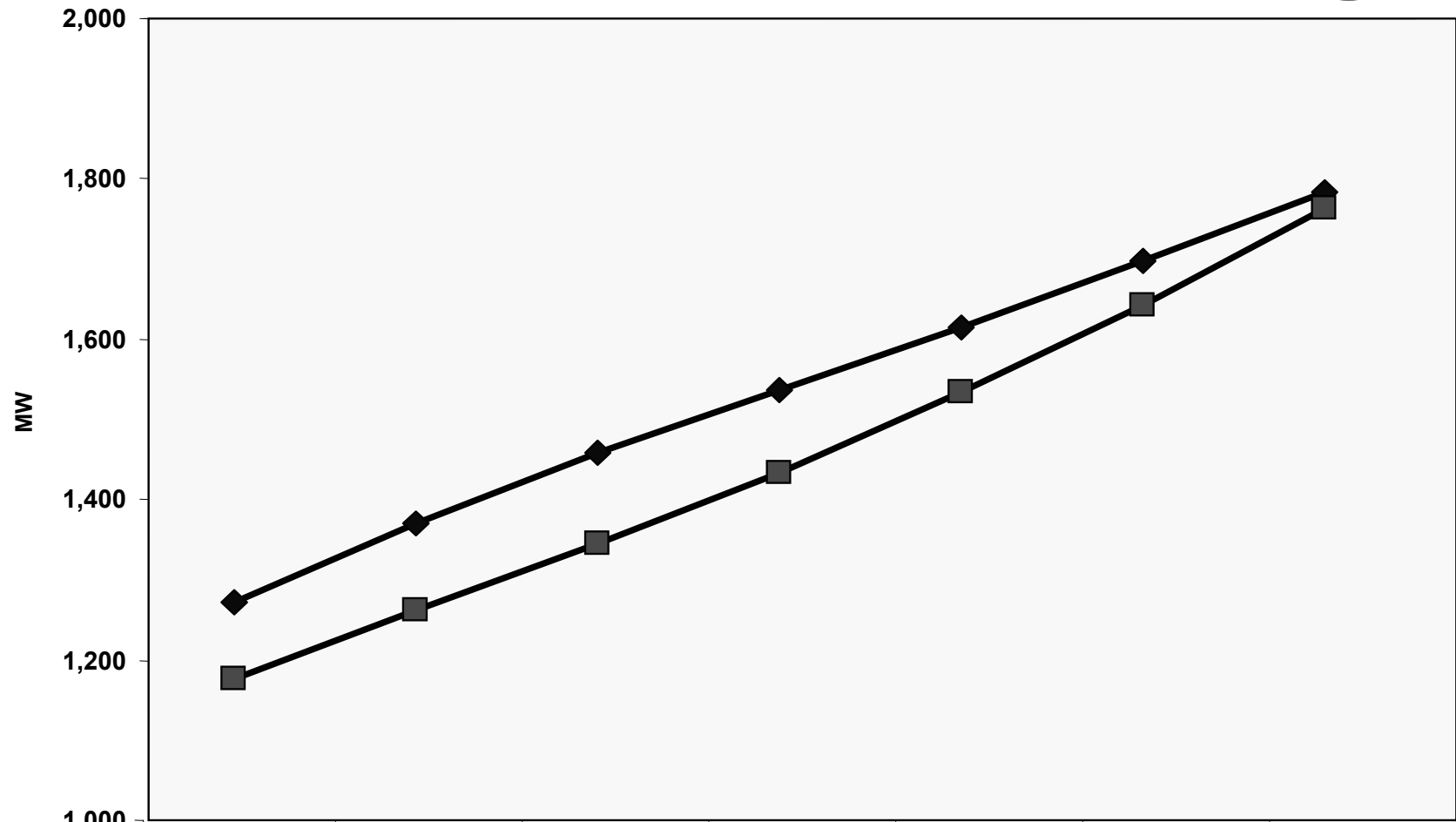
- Lower actual 2004 and 2005 levels; adjustments made to forecast for succeeding years
- More conservative forecast by Meralco

DEMAND FORECAST COMPARISON - VISAYAS



	2004	2005	2006	2007	2008	2009	2010
◆ DOE	1,060	1,113	1,170	1,238	1,308	1,383	1,463
■ TRANSOCO	1,029	1,096	1,167	1,242	1,323	1,409	1,499

DEMAND FORECAST COMPARISON - MINDANAO



	2004	2005	2006	2007	2008	2009	2010
◆ DOE	1,271	1,371	1,458	1,535	1,615	1,697	1,784
■ TRANSOCO	1,177	1,263	1,344	1,434	1,533	1,642	1,762

ANNUAL REVENUE REQUIREMENT (ARR)



National Transmission Corporation



BUILDING BLOCKS OF ANNUAL REVENUE REQUIREMENT (ARR)

❖ **Taxes** - Corporate income taxes and other taxes

+

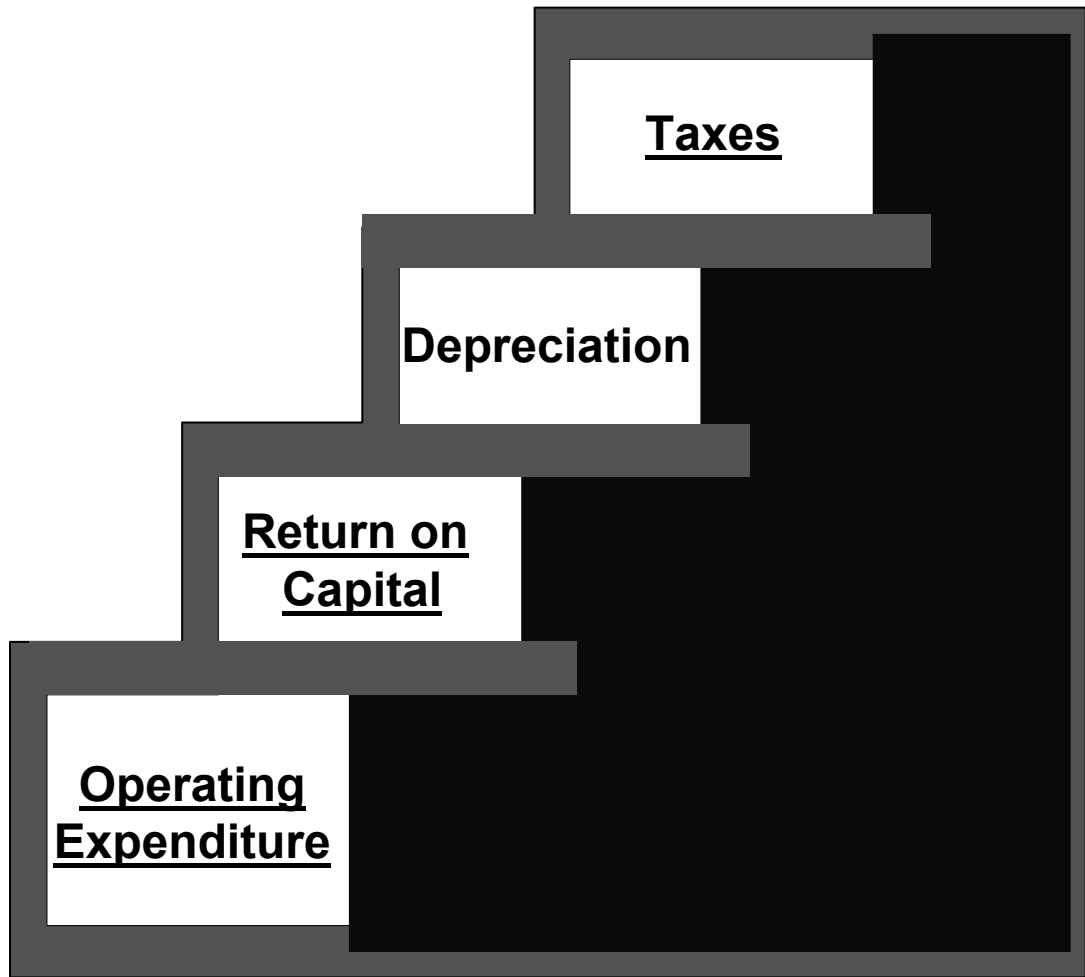
❖ **Depreciation** - Regulatory depreciation on re-valued Regulatory Asset Base

+

❖ **Return on Capital** - WACC-based return on Regulatory Asset Base (including working capital)

+

❖ **Operating Expenditure** - Operating and maintenance expenditure forecasts approved by the ERC



Annual Revenue Requirement

FORECAST OPEX



National Transmission Corporation

Purpose

- **Designed to cope with the growth in load and expansion in facilities, at the same time maintain and further improve performance.**

Key drivers of OPEX costs are:

- Quantity of assets to be maintained
- Structural issues such as asset lives; planned redundancy (n-1); load factors
- Targeted performance, e.g. response times
- Unit labor costs and productivity

Initial forecast reviewed by Expert

- **Labor efficiencies (fewer staff per measure output).**
- **Higher cost because of salary adjustments (Mercer Survey shows TransCo salaries below industry).**

Transco responded by revising forecast

- **New forecast shows improved operating efficiency against all measures.**

FORECAST OPEX, BY GRID (IN MN PHP)



PARTICULARS	2005	2006	2007	2008	2009	2010
FORECASTED OPEX (NOMINAL) in PHP	4,437	5,401	5,932	6,774	7,285	7,854
LUZON	2,433	2,961	3,230	3,735	4,021	4,345
VISAYAS	986	1,176	1,273	1,446	1,553	1,672
MINDANAO	1,018	1,264	1,429	1,593	1,710	1,837

FORECAST OPEX, BY GRID (IN MN PHP)



Opex Category and Sub-Category	2005				2006				2007			
	LUZ	VIS	MIN	TOTAL	LUZ	VIS	MIN	TOTAL	LUZ	VIS	MIN	TOTAL
Payroll	1,029	395	471	1,895	1,201	469	591	2,260	1,468	580	712	2,759
Network Related	954	492	550	1,996	1,221	593	681	2,494	1,295	587	686	2,568
Non-Network Related	520	1	26	546	612	1	34	647	562	1	42	605
TOTAL	2,503	888	1,047	4,437	3,033	1,062	1,306	5,401	3,324	1,168	1,439	5,932

FORECAST OPEX, BY GRID (IN MN PHP)

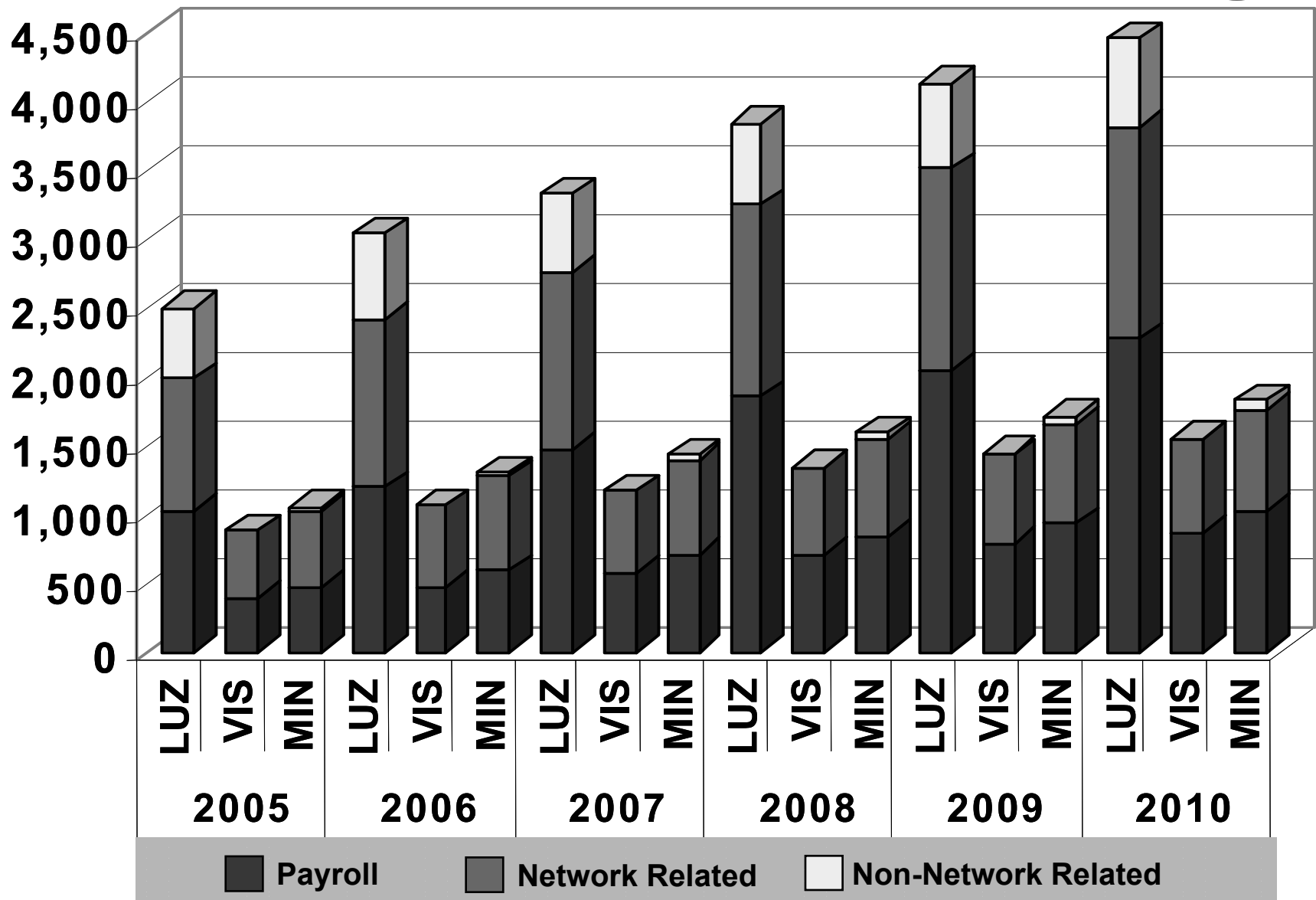


Opex Category and Sub-Category	2008				2009				2010			
	LUZ	VIS	MIN	TOTAL	LUZ	VIS	MIN	TOTAL	LUZ	VIS	MIN	TOTAL
Payroll	1,853	714	842	3,410	2,046	788	928	3,762	2,273	873	1,023	4,169
Network Related	1,395	623	706	2,724	1,468	652	725	2,845	1,544	682	741	2,967
Non-Network Related	589	1	50	640	617	1	60	678	646	2	71	719
TOTAL	3,837	1,338	1,599	6,774	4,131	1,441	1,713	7,285	4,463	1,556	1,835	7,854

OPERATING EXPENDITURES

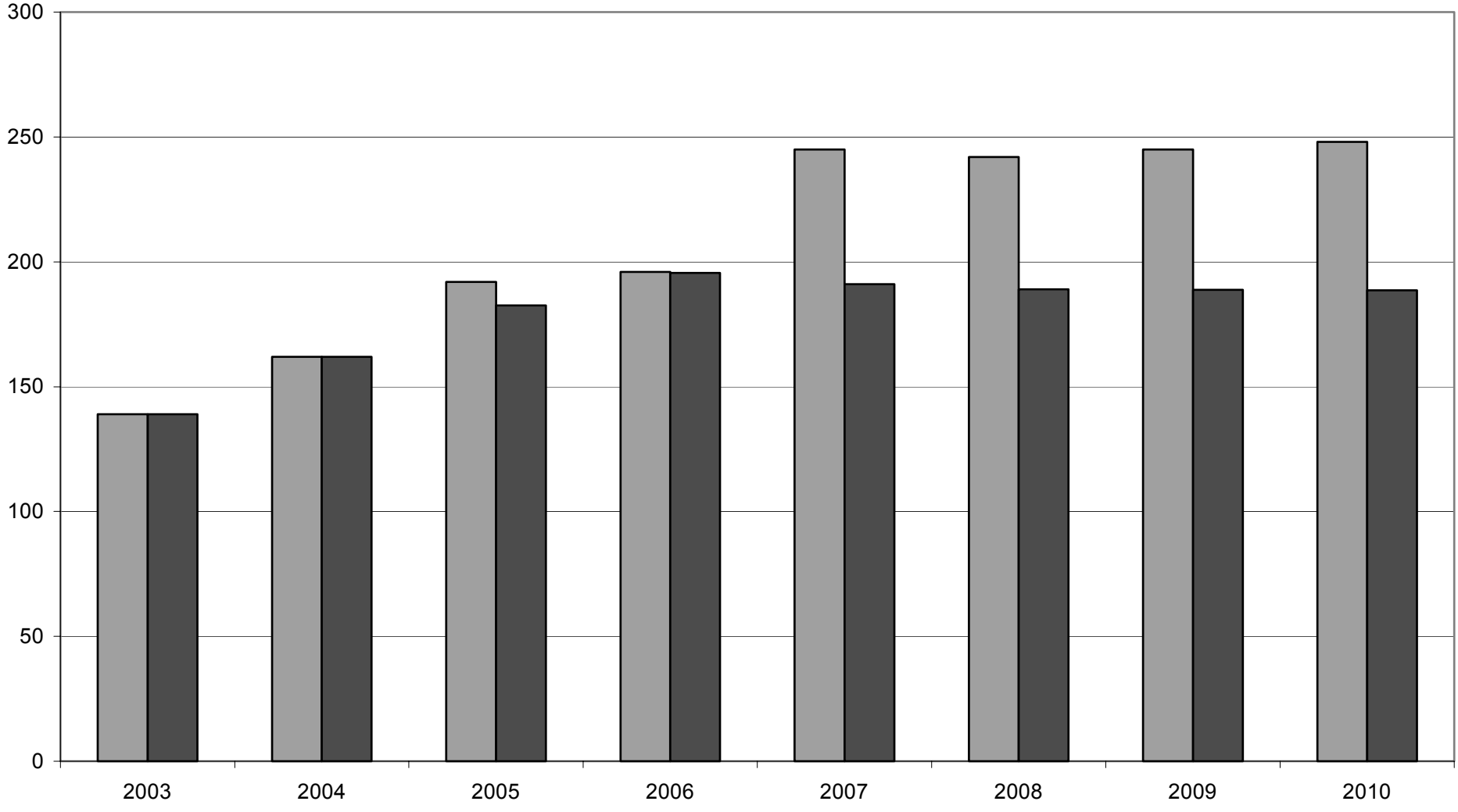


In Mn P





TransCo Opex / MVA Installed (Real)

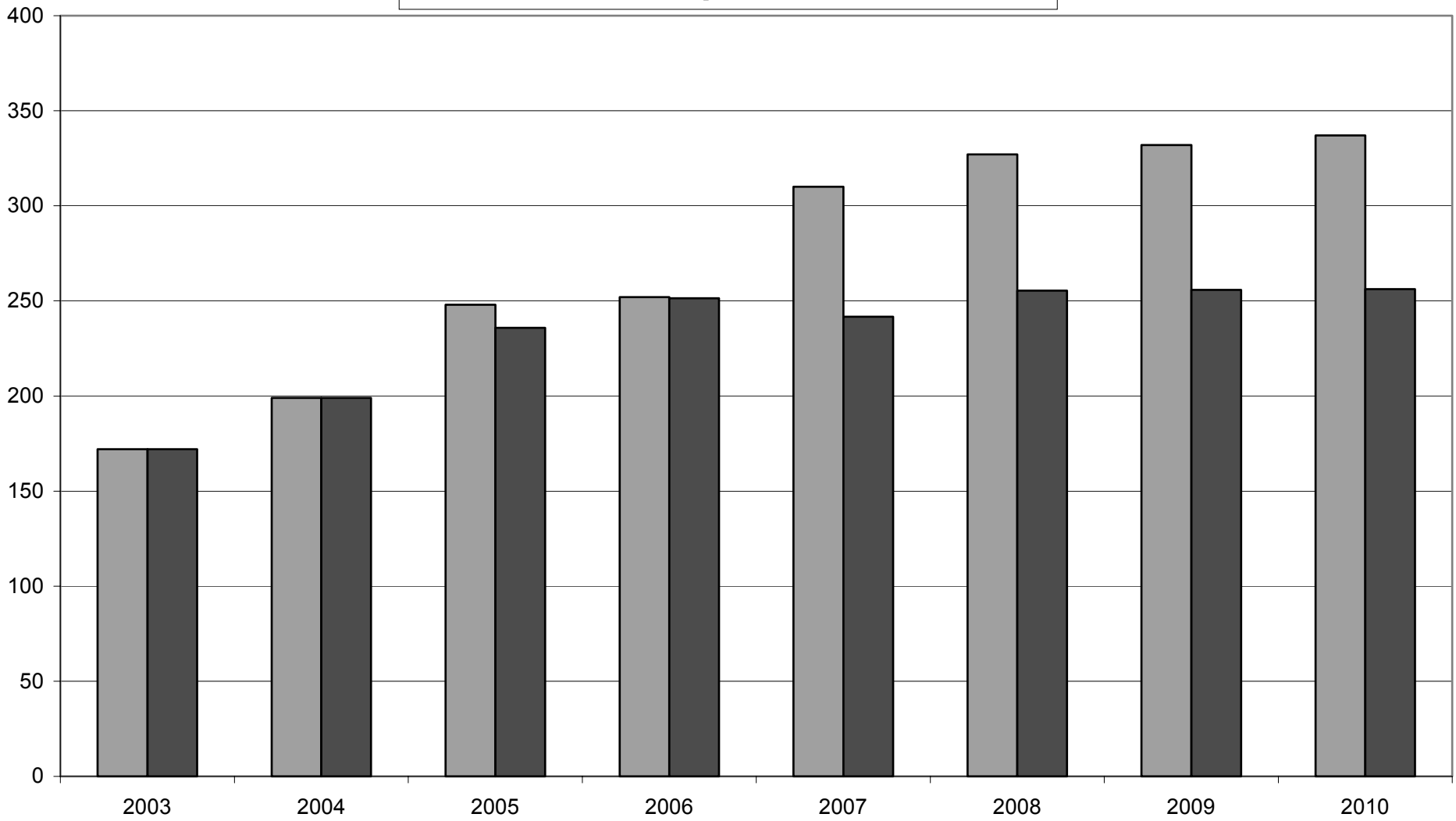


■ SKM Report ■ Revised by TransCo

OPEX ECONOMIC EFFICIENCY



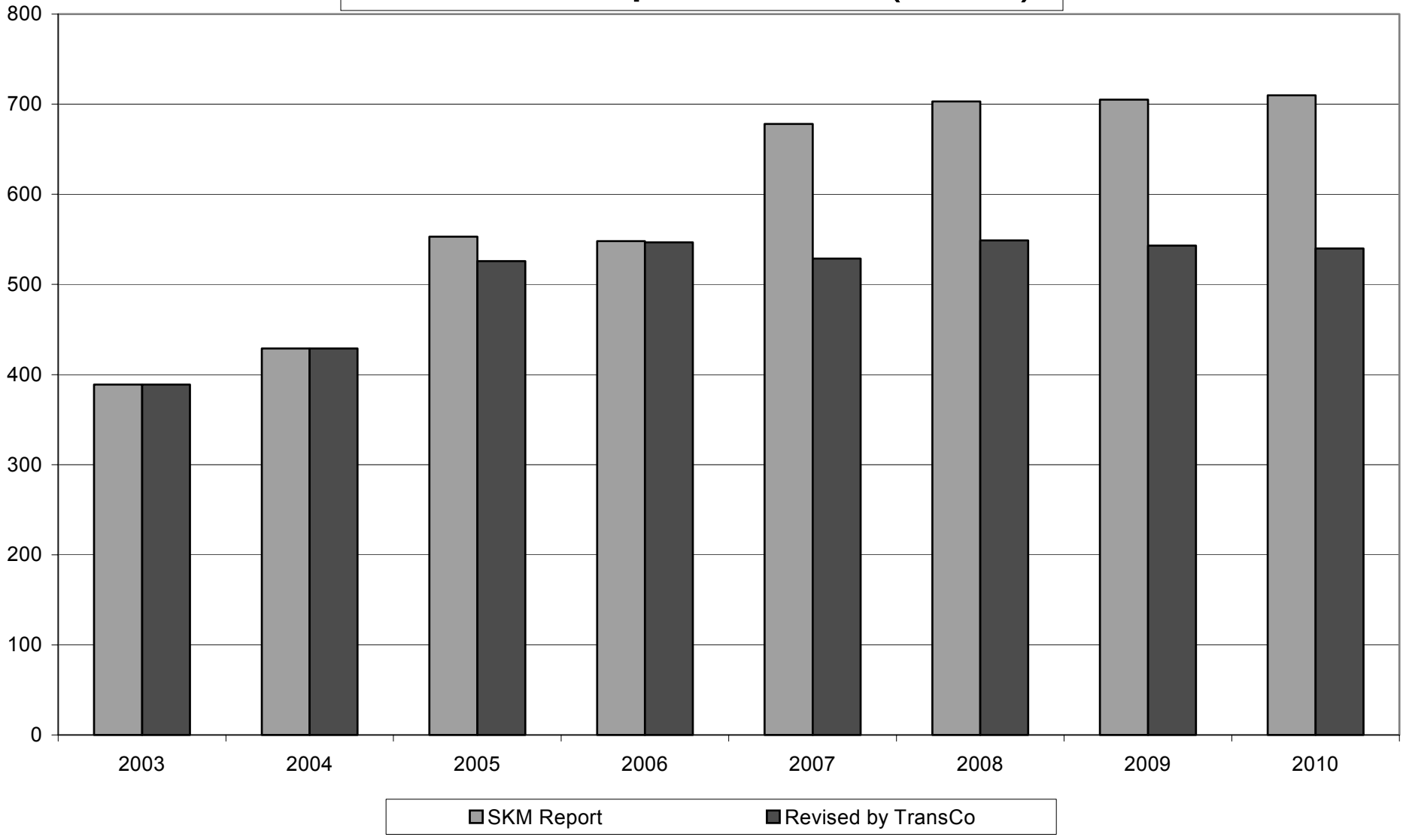
TransCo Opex / Ckt Km



■ SKM Report ■ Revised by TransCo

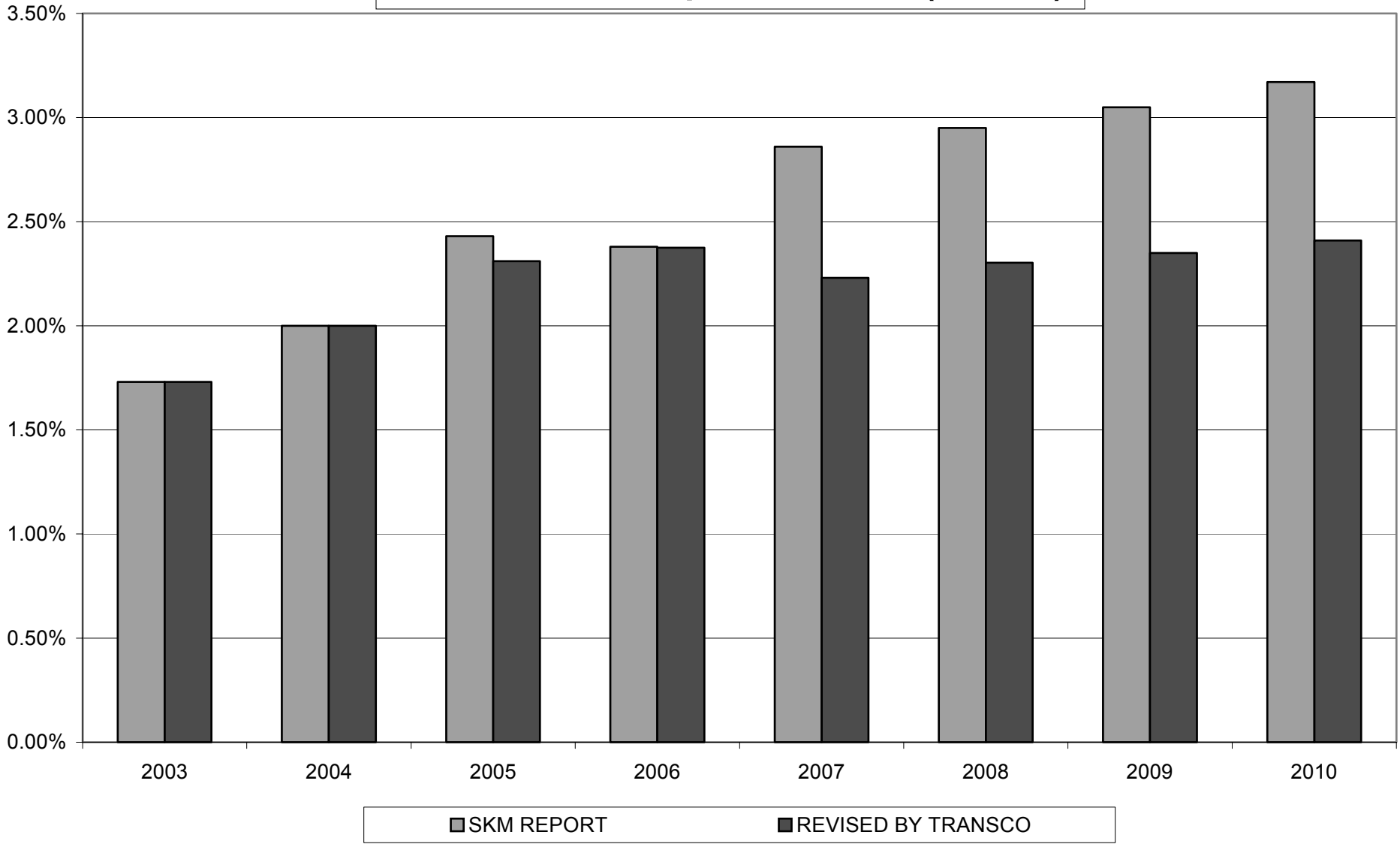


TransCo Opex / MW (Real)





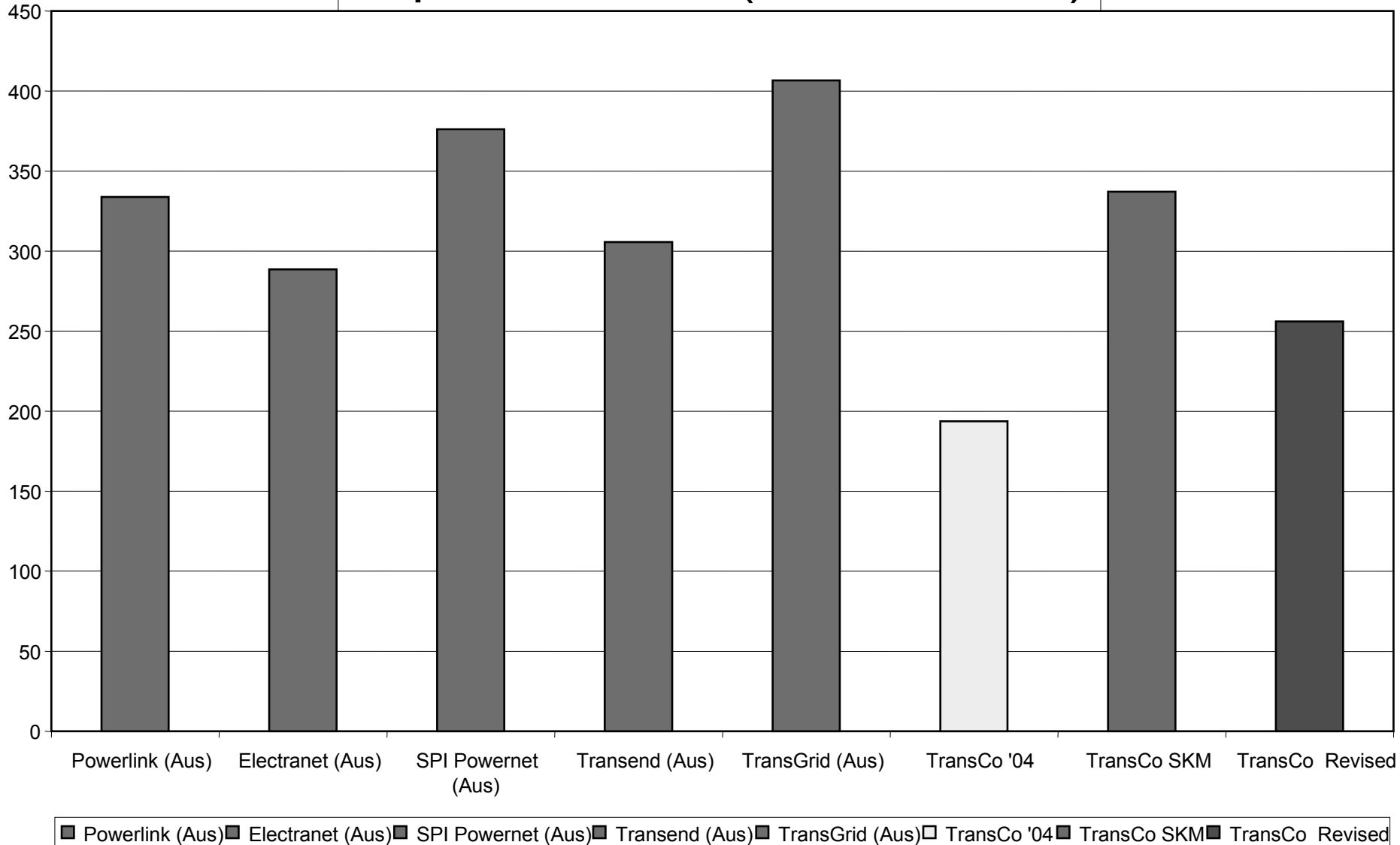
TransCo Opex / RC (Real)



OPEX ECONOMIC EFFICIENCY



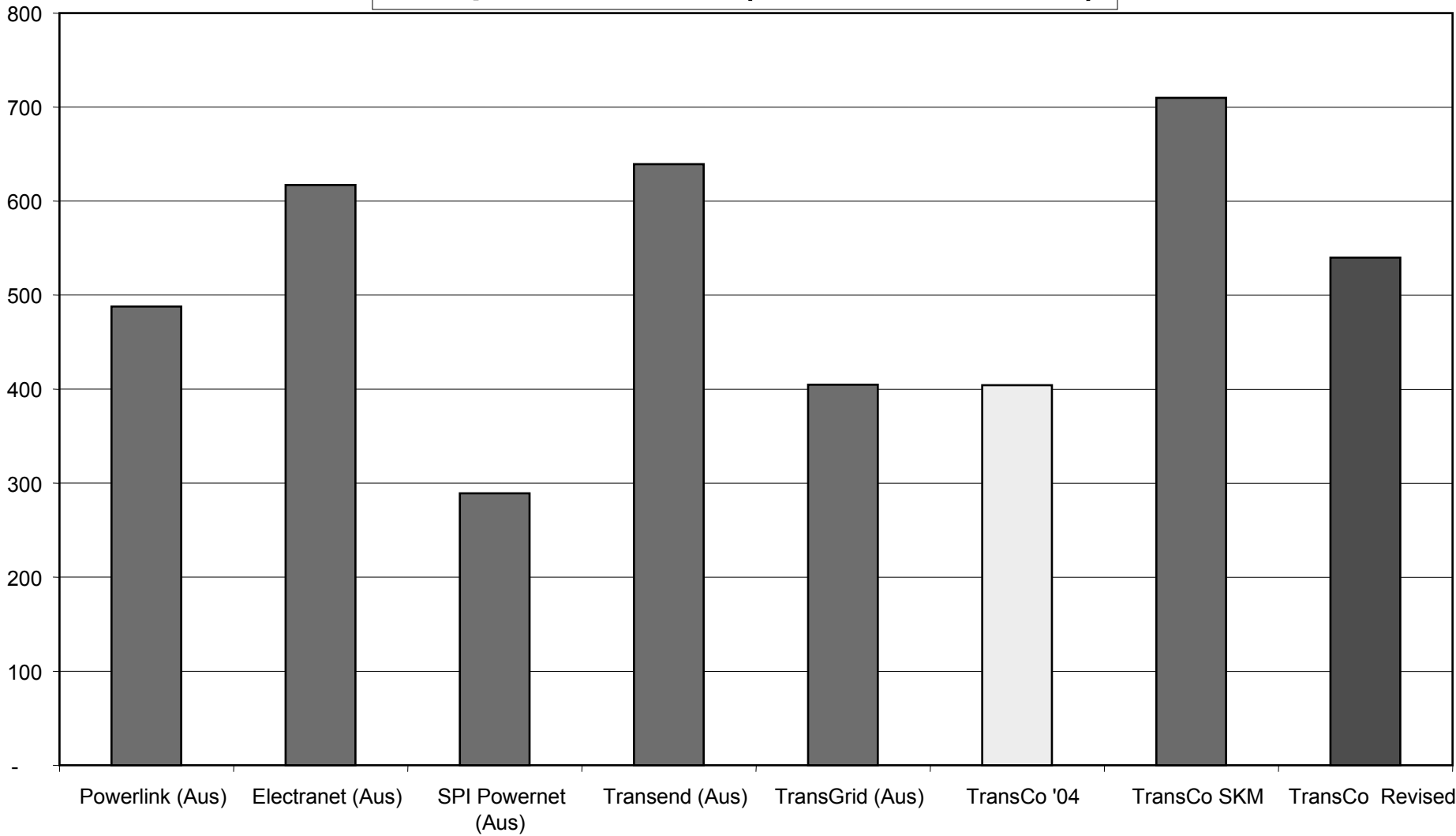
Opex / ckt Km (2004 – 2010)



OPEX ECONOMIC EFFICIENCY



Opex / MW (2004 – 2010)



■ Powerlink (Aus) ■ Electranet (Aus) ■ SPI Powernet (Aus) ■ Transend (Aus) ■ TransGrid (Aus) □ TransCo '04 ■ TransCo SKM ■ TransCo Revised

FORECAST OPEX, (IN MN PHP)



PARTICULARS	2005	2006	2007	2008	2009	2010
Payroll	1,895	2,260	2,759	3,410	3,762	4,169
Network Related	1,996	2,494	2,568	2,724	2,845	2,967
Non-Network Related	<u>546</u>	<u>647</u>	<u>605</u>	<u>640</u>	<u>678</u>	<u>719</u>
Total Operating Expenses	<u><u>4,437</u></u>	<u><u>5,401</u></u>	<u><u>5,932</u></u>	<u><u>6,774</u></u>	<u><u>7,285</u></u>	<u><u>7,854</u></u>



RETURN OF CAPITAL (DEPRECIATION) AND RETURN ON CAPITAL



National Transmission Corporation



Overview of Calculations

- ◆ **Initial Asset Valuation of RAB at Dec 2004**
- ◆ **Roll-forward RAB to Dec 2005**
- ◆ **Post valuation adjustments**
- ◆ **Roll-forward RAB for the 2nd regulatory period (2006 to 2010)**



- 1. Background**
- 2. Methodology**
- 3. Asset Categories**
- 4. Asset Lives**
- 5. Optimization**
- 6. Valuation Results and Comparison**

- **Transmission Wheeling Rates Guidelines - *TWRG Sec. 4.6.1 and 4.6.2 (c)***
- **TransCo 2004 External Asset Revaluation Project Contractor:**
 - ❖ **Independent experts experienced in regulated regime**
 - ❖ **ERC accredited assessors**

TransCo complied with the procurement process of RA 9184

- **Indexation**
- **Absolute valuation using Replacement Cost Analysis**
- **Absolute valuation using Modern Equivalent Asset (MEA) analysis**

- Adjusting value over time using statistical index like Consumer Price Index (CPI)



- This method of valuation involves valuing the relevant assets at their current unit prices multiplied by their volumes.

- **Modern Equivalent Asset (MEA) -**
is the asset which, in the normal course of business, the transmission entity would use to replace the existing asset if it were to be replaced today

- **Transmission Substation ***
- **Sub-Transmission Substation**
- **Transmission Lines ***
- **Sub-Transmission Lines**
- **Underground Transmission Cables**
- **Interconnection Assets**
- **Communications ***
- **System Operations ***
- **Metering**
- **Non-Network Assets ***

Valuation Method

- 1) Modern Equivalent Asset (MEA)
- 2) Indexation & Replacement Cost (for land & buildings)
- 3) Indexation & Replacement Cost

*** Under TWRG Sec. 4.6.5**

COMPARATIVE ASSET LIVES



CATEGORY	DESCRIPTION	SKM STANDARD ECONOMIC LIFE	TRANSCO COMPOSITE ECONOMIC LIFE
TRANSMISSION LINE	Lattice Steel Tower	50	30
	Wood Pole Line	25	30
	Concrete Pole Line	50	30
	Steel Pole Line	50	30
POWER CABLES	Submarine HVDC/HVAC	50	30
	Underground HVAC	50	30
OUTDOOR SUBSTATIONS - MEAs	Transformers 500 kV N-1 security	45	30
	Transformers 230 kV Without N-1 security	35	30
	With N-1 security	45	30
	Transformers 115 kV Without N-1 security	35	30
	With N-1 security	45	30
	Reactors	35	30
	Capacitor Banks	40	30
	Outdoor Switchbays	40	30
	SS Establishment Assets	50	30

COMPARATIVE ASSET LIVES



CATEGORY	DESCRIPTION	SKM STANDARD ECONOMIC LIFE	TRANSCO COMPOSITE ECONOMIC LIFE
OUTDOOR SUBSTATIONS - INDIVIDUAL EQUIPMENT	Circuit Breakers 500 kV, 230 kV, 138/115 kV 69 kV	40	30
INDOOR GIS SUBSTATIONS	500 kV GIS switchbay 230 kV GIS switchbay 115 kV GIS switchbay	45 45 45	30 30 30
SUBSTATIONS SECONDARY	Protective Relays & Controls Metering Equipment RTUs, SCADA systems	15 30 15	30 30 30
COMMUNICATIONS	OPGW Links PLC Links Radio Links	50 35 15	30 30 30
SYSTEM CONTROL		15	30

- **Eliminate unnecessary redundant assets;**
- **Eliminate over design of assets;**
and
- **Eliminate over capacity in the network**
 - **Applied to transformer, transmission and sub-transmission lines**

VALUATION RESULTS



ODRC SUMMARY as 12/2004

ASSET CATEGORY	Valuation (Php Mn)		
	RC	DRC	ODRC
Transmission Substations	58,004	39,599	38,779
Sub-Transmission Substations	9,143	5,081	4,841
Transmission Lines	73,459	54,436	51,685
Sub-Transmission Lines	23,735	9,910	9,885
Underground Transmission Cables	0	0	0
Interconnection Assets	19,662	16,730	16,730
Communications	2,350	1,570	1,560
System Operations	2,323	1,209	1,198
Metering	400	278	268
Non-Network Assets	10,075	9,002	8,709
GRAND TOTAL	199,150	137,815	133,655

VALUATION RESULTS COMPARISON (IN PHP MN)



	RCN	NET BOOK VALUE
TRANSCO BOOKS	163,119	94,921
	RRC	ODRC
SKM VALUATION	199,150	133,655
INCREASE	36,031	38,734
%	22%	41%

**REGULATORY ASSET BASE:
ROLLED FORWARD TO JAN 1,
2005**



National Transmission Corporation

- Sec 4.6.10 of the TWRG requires that the initial revaluation report must estimate the rolled-forward depreciated RAB for each asset category at the start of the 2nd Regulatory Period i.e. January 2006.

FORMULA:

$$\text{RAB}_{c,j,t-1} = \text{RAB}_{o,j,t-1} - \text{RegDepn}_{o,j,t-1} + \text{CAPEX}_{j,t-1} - \text{RegDepn}_{c,j,t-1} - \text{Disposals}_{j,t-1}$$

Opening
RAB

-

Regulated
Depreciation

+

Additions
(CAPEX)

-

Regulated
Depreciation

-

Disposal
Forecast
Receipts

Where:

- RAB_{o,j,t-1}** is the RAB opening for year 2005. The asset value as of Dec. 31, 2004 indexed to 2005 values using a CWIP factor to compensate for investment cost.
- RegDepn_{o,j,t-1}** is the Regulated Depreciation opening, 2005 per Asset Category
- CAPEX_{j,t-1}** is the actual or budgeted capital expenditure (CAPEX) in 2005, increased by a CWIP factor
- RegDepn_{c,j,t-1}** is the Regulated Depreciation for new additions to the RAB for year 2005
- Disposals_{j,t-1}** is the actual or budgeted net receipts from disposals in 2005

ROLLED FORWARD ANALYSIS (DEC 2005)



ASSET CATEGORY	RAB oj,t-1 (12/31/04 ODRC values)	RAB oj,t-1 (12/31/05 values)	RegDepn oj,t-1	Capex j,t-1	RegDepn j,t-1	Disposals j,t-1	RAB cj,t-1
Lines - Transmission	42,613.71	46,164.86	1,682.47	773.39	8.95	185.71	45,061.12
Lines - Sub-Transmission	7,775.16	8,423.09	342.08	-	1.40	1,167.50	6,912.12
Substation - Transmission	37,598.87	40,732.11	1,490.05	2,308.69	26.64	55.49	41,468.62
Substation - Sub-Transmission	4,751.62	5,147.59	189.73	-	-	104.01	4,853.86
Interconnection	15,302.55	16,577.76	548.71	2,269.13	27.78	12.82	18,257.57
Underground Transmission Cables	-	-	-	-	-	-	-
Metering	178.97	193.88	13.21	-	-	-	180.67
Communications	1,481.20	1,604.63	170.58	7.63	0.25	-	1,441.42
System Operations	1,145.57	1,241.04	61.69	-	-	-	1,179.34
Non-Network Assets	1,039.16	1,125.75	-	16.24	0.64	-	1,141.36
Land & Easements	19,994.69	21,660.92	-	83.84	-	-	21,744.76
Buildings & Improvements	1,722.20	1,865.72	84.17	-	-	-	1,781.55
Capital Shares	51.40	55.69	-	-	-	-	55.69
TOTAL	133,655.10	144,793.03	4,582.70	5,458.92	65.66	1,525.52	144,078.07



- Depreciation is calculated on a straight line basis (TWRG 4.8.1);
- Depreciation includes depreciation on opening asset (ODRC valuation) and depreciation on capital expenditure within the regulatory period; and
- Expressed in nominal terms

- Disposals

- Net receipts from disposal are deducted from the RAB – TWRG clause 4.6.10e
- Net receipts defined as proceeds from sales less the value of the asset (at the date of sale)

[TransCo suggests that disposals should be accounted in the following way:

- Net cost of disposal included in ARR (ie, a gain on sale would be an income, a loss would be an expense)
- Value of asset sold deducted from RAB]

2005 FORECAST DISPOSAL



1. Tarlac 2 Electric Cooperative (TARELCO2)	5.44
2. Aklan Electric Cooperative (AKELCO)	22.41
3. Central Negros Electric Cooperative (CENECCO)	41.47
4. Bohol II Electric Cooperative (BOHECOII)	8.10
5. VMCRural Electric Service Cooperative Inc. (MRESOCO)	33.00
6. South Cotabato 2 Electric Cooperative (SOCOOTECCO2)	215.18
7. Tarlac 1 Electric Cooperative (TARELCOI)	50.05
8. Camarines Sur 2 Electric Cooperative (CASURECCO2)	108.96
9. Leyte 2 Electric Cooperative (LEYECCO2)	29.00
10. Misamis Oriental I Rural Electric Services Cooperative(MORESCO)	59.96
11. Misamis Oriental II Rural Electric Services Cooperative(MORESCO)	57.27

2005 FORECAST DISPOSAL



1. Subic Bay Metropolitan Authority (SBMA) 1st contract	7.36
2. Tarlac Electric Inc. (TEI)	19.82
3. La Union Electric Co. Inc. (LUECO)	10.62
4. Davao Light and Power Co. (DLPC)	14.89
5. Subic Bay Metropolitan Authority (SBMA) 2nd contract	-
6. Manila Electric Co.(MERALCO)	not yet available
7. Visayas Electric Co. (VECO)	5.93
8. Dagupan Electric Corp. (DECORP)	35.32
9. Mactan Electric Co (MECO)	6.80
10. Iligan Light and Power Co. (ILPI)	60.92

- Post valuation adjustments made:
 - To account for missing assets
 - Update WACC used in CWIP factor

- **Inclusion of Missing Assets**

– Optimization of Naga-Tayabas	2,026
– Omitted repeater stations	912
– Omitted PABX at Mindanao	7
– Sub-trans Lines	105

Sub-total 3,046

- **Deletion of Double Counting**

- Interconnector land	1,427
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TOTAL Adjustment **1,618**

SUMMARY: ROLLED FORWARD 2005 RAB , PHP MN



	PhP Mn
RAB Dec 31, 2004	133,655
RAB Dec 31, 2004 indexed to Dec 31, 2005	144,793
Add Missing Assets less double counting	1,618
Modified December 2004 RAB	146,411
Less Depreciation on RAB	(4,810)
Plus CAPEX	5,459
Less Depreciation on CAPEX	(66)
Less forecast disposals	(1,526)
RAB Dec 31, 2005	145,469
Add WACC adjustment to CWP factor (for WACC of 22%)	5,934
Add CWP at Dec 04, not commissioned in 2005	8,054
Modified December 2005 RAB	159,458

2006 FORECAST DISPOSAL



1. Davao del Norte Electric Cooperative (DANECO)	162.23
2. Antique Electric Cooperative (ANTECO)	42.76
3. Guimaras Electric Cooperative (GUIMELCO)	15.43
4. Iloilo 3 Electric Cooperative (ILECO 3)	28.61
5. Iloilo I Electric Cooperative (ILECO I)	93.42
6. Bohol Light Company, Inc. (BLCI)	3.16
7. Agusan del Norte Electric Cooperative (ANECO)	62.63
8. Lanao del Norte Electric Cooperative (LANECO)	34.49
9. Cotabato Light and Power Inc. (COLIGHT)	13.84
10. Ilocos Norte Electric Cooperative (INEC)	53.33
11. La Union Electric Cooperative (LUELCO)	63.73
12. Zambales 2 Electric Cooperative (ZAMECO 2)	17.20
13. Peninsula Electric Cooperative (PENELCO)	162.87

ROLLED FORWARD RAB 2006-2010



Particulars (PhP Mn)	2006	2007	2008	2009	2010
RAB _{(t)0}	159,458	164,844	176,152	180,937	180,691
RegDepn _(t)	4,994	4,994	4,994	4,994	4,983
Capex _(t)	11,827	17,203	10,987	6,163	5,645
Disposal _(t)	998	-	-	-	
Capex RegDepn _(t)	450	900	1,207	1,415	1,638
RAB_(t)	164,844	176,152	180,937	180,691	179,715

FORECAST CAPEX



National Transmission Corporation



Introduction

CAPEX

Review of
Forecast

Conclusion

Rationale

Part of TransCo's submission
to the ERC for the
Second Regulatory Period
(2006-2010)

(Per Sec. 4.10.1 of the TWRG)

Introduction

CAPEX

Review of
Forecast

Conclusion

Methodology

References

- Transmission Development Plan
- TransCo's costing methodology
- TWRG and Issues Paper
- TransCo's Capex forecast
- Project feasibility studies

Introduction

CAPEX

Review of
Forecast

Conclusion

Methodology (cont'd)

References

- Demand forecasts
- DBM Economic and Fiscal Targets
- Project cost estimates
- Other TransCo documents
- Interviews

Introduction

CAPEX

Review of
Forecast

Conclusion

Adjustments Made

- Conversion from nominal to real
- IDC removed
- Use of conservative forecast
- Adjustment on capitalized overhead
- Inclusion of transmission line easement

Introduction

CAPEX

Review of
Forecast

Conclusion

CAPEX Forecasts Submission

TWRG Requirements

- Project Cost > P 50-Million
- Asset categories
- Individual project profile
- Summary spreadsheets

Results of Review Explained

- **Discrete projects.** SKM found no evidence that projects have been split to fall below the P50-M threshold stipulated in the TWRG for detailed project disclosure.
- **Estimates are reasonable.** The transmission line and substation cost estimates are considered within the reasonable range.
- **Prudent and efficient capital.** The planning criteria used in the TDP are considered reasonable.
- **Conservative forecast** (for Luzon only)
 - **Impact on timing** (deferment of 4 projects, from 1 to 2 years)
 - **Impact on Capex forecast** (0.5% reduction)

MINDANAO GRID ON-GOING PROJECTS



ZAMBOANGA CITY AREA 138 KV T/L

Sangali-Pitogo 32 kms, 138 KV T/L
(MAY-2006)

ABAGA-KIRAHON 230 KV T/L

Abaga-Kirahon, 120 kms, 230KV t/L
(AUG-2007)

MACO SUBSTATION

50 MVA S/S
(DEC-2005)

MINDANAO S/S EXP-2005

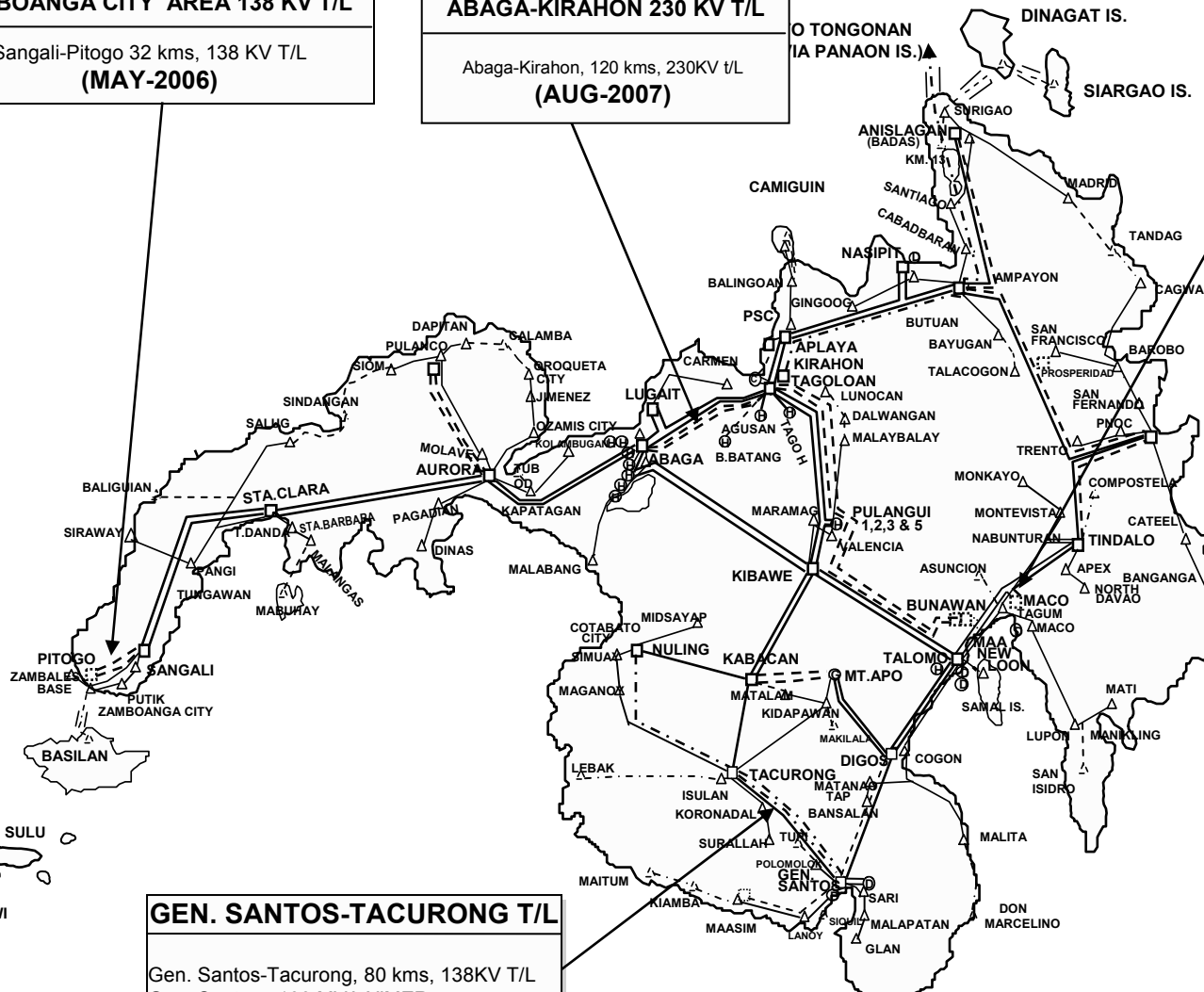
Sta. Clara: 50 MVA
Kibawe: 75 MVA
Butuan: 100 MVA
Bislig: 50 MVA
Nne Loon: 150 MVA
Tindalo: 100 MVA
(DEC 2007)

MINDANAO SUBTRANS. PROJECT 1

KM 13-Surigao City : 10 kms 69 KV T/L
Maco- Tap-Mati: 20 kms, 69 KV T/L
(OCT 2005)

GEN. SANTOS-TACURONG T/L

Gen. Santos-Tacurong, 80 kms, 138KV T/L
Gen. Santos : 100 MVA X'MER
Tacurong :100 MVA X'MER
(AUG-2007)



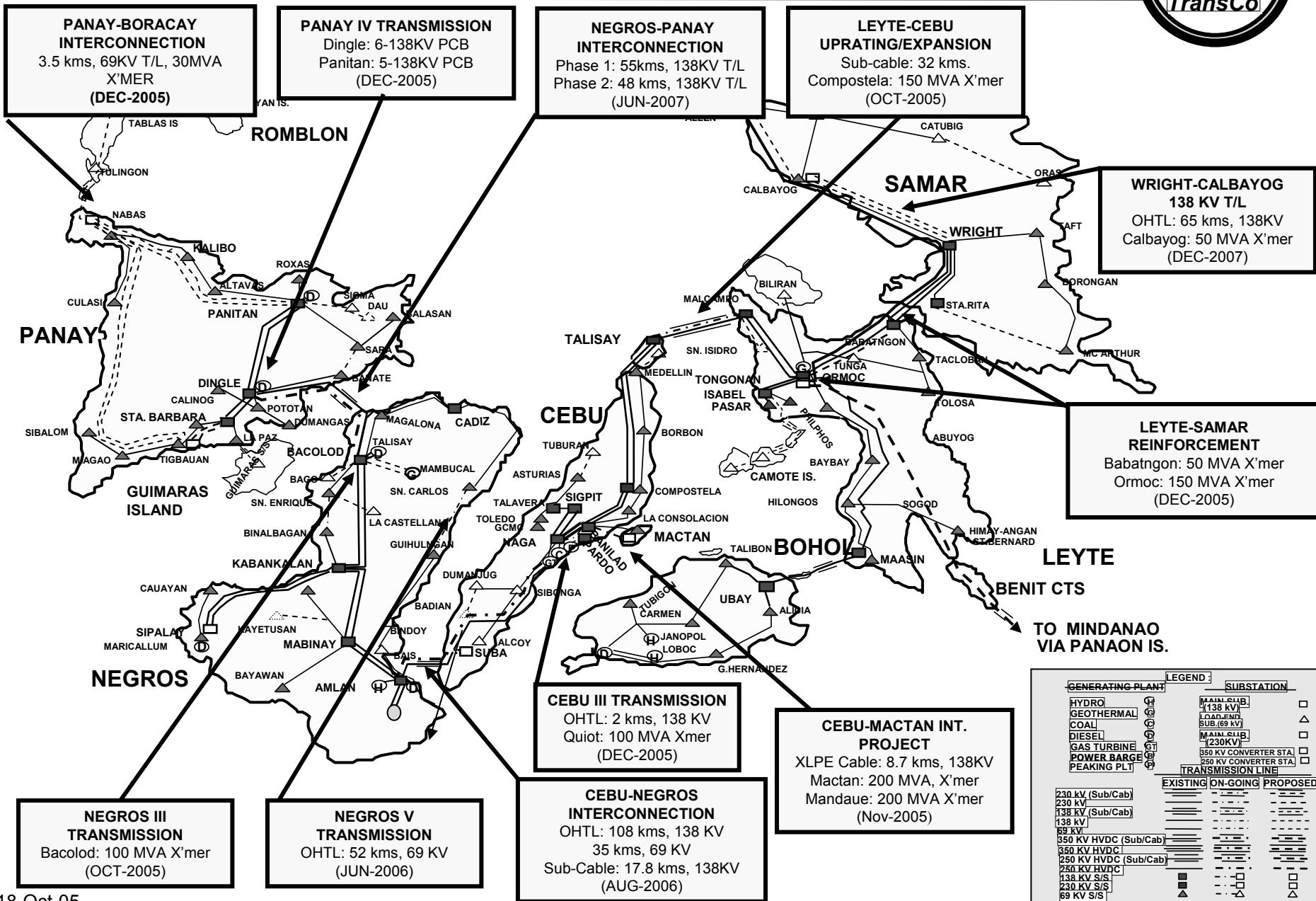
FORECAST CAPEX



SUMMARY OF PROJECT COST DISBURSEMENTS FOR MINDANAO

NAME OF PROJECTS	STATUS/ RANK	Cost Disbursement 2005-2010 (Millions, Real Terms)		
		US\$	PhP	Total PhP
Abaga-Kirahon 230kV TL Project	On-going	35.62	817.53	2,812.21
Bunawan S/S	On-going	0.00	43.81	43.81
Gen.Santos-Tacurong-Nuling Trans.Reinf.Proj.	On-going	11.96	332.93	1,002.89
Maco Substation	On-going	0.00	104.12	104.12
Mindanao S/S Expansion - 2005	On-going	12.09	59.92	737.05
Mindanao S/S Expansion Project	On-going	0.00	23.12	23.12
Mindanao Subtransmission Projects-I	On-going	0.00	11.03	11.03
Zamboanga City Area 138kV T/L Project	On-going	14.08	445.08	1,233.77
Aurora-Polanco(Dipolog) 138kV TL Proj (Turnkey)	1st Priority	12.59	477.54	1,182.51
Kirahon-Pulangui 230KV Transmission Backbone (Stage 2)	1st Priority	19.98	596.05	1,714.78
Pulangui-Bunawan 230kV T/L Proj.(Turnkey) (Stage 1)	1st Priority	26.46	760.72	2,242.47
San Francisco 138kV S/S Project (New)	1st Priority	0.00	96.72	96.72
Mindanao Mobile Transformer Project Project	2nd Priority	4.51	0.00	252.77
Power Circuit Breaker Replacement Program	2nd Priority	8.59	101.89	582.92
Reliability Compliance Project I	2nd Priority	0.00	108.46	108.46
Tacurong-Nuling 138 kV Transmission Line Project	2nd Priority	0.00	46.16	46.16
		145.89	4,025.07	12,194.78

Visayas Grid On-Going Projects



FORECAST CAPEX



SUMMARY OF PROJECT COST DISBURSEMENTS FOR VISAYAS

NAME OF PROJECTS	STATUS/ RANK	Cost Disbursement 2005-2010 (Millions)		
		US\$	PhP	Total PhP
Leyte-Bohol Interconnection.Project (Stage2)	Completed	0.00	65.85	65.85
Leyte-Cebu HVAC Interconnection Project (Stage1)	Completed	0.00	11.80	11.80
Leyte-Luzon HVAC Interconnection Project	Completed	0.00	11.60	11.60
Leyte-Samar Reinf. 69/138kV Project	Completed	0.52	127.61	156.90
Negros IV 138kV Transmission Project	Completed	0.00	8.00	8.00
Cebu III Transmission	On-going	0.00	212.07	212.07
Cebu-Mactan Interconnection Project(Turnkey)	On-going	23.61	61.84	1,383.72
Cebu-Negros Interconnection Uprating (Turnkey)	On-going	42.29	583.53	2,951.75
Leyte-Cebu Exp/Uprating Project	On-going	45.64	640.73	3,196.31
Negros III Transmission	On-going	0.13	15.72	23.00
Negros V Transmission Project	On-going	0.00	130.66	130.66
Negros-Panay Interconnection Uprating (Turnkey)	On-going	42.35	369.65	2,741.22
Panay IV Transmission	On-going	0.00	69.95	69.95
Panay-Boracay Interconnection Project	On-going	0.00	146.96	146.96
Visayas Capacitor Project 1	On-going	2.71	26.50	178.18
Wright-Calbayog 138kV T/L Proj.(Turnkey)	On-going	8.60	330.50	811.83

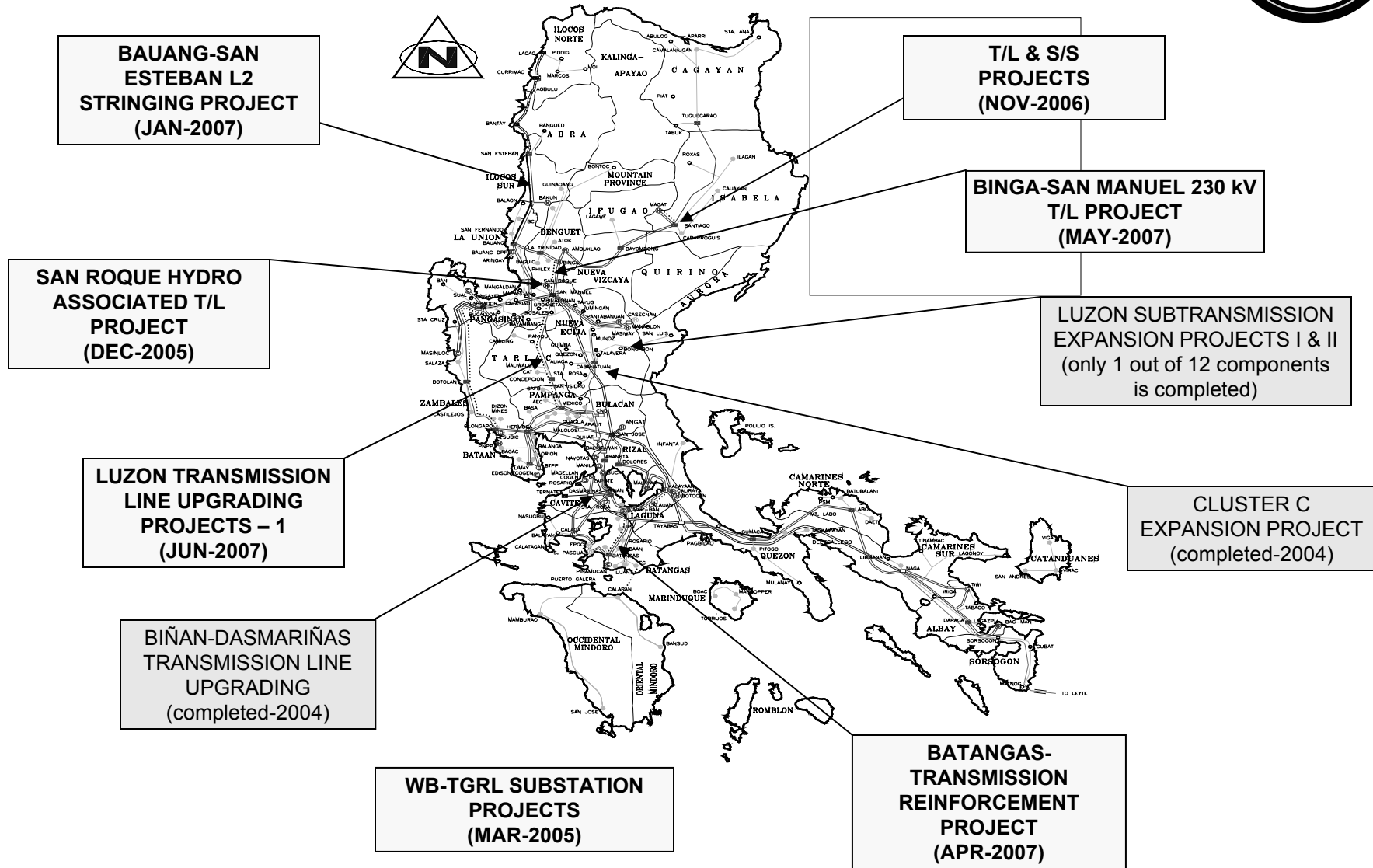
FORECAST CAPEX



SUMMARY OF PROJECT COST DISBURSEMENTS FOR VISAYAS (cont'd)

NAME OF PROJECTS	STATUS/ RANK	Cost Disbursement 2005 2010 (Millions)		
		US\$	PhP	Total PhP
Northern Panay Backbone Project	1st Priority	15.47	433.12	1,299.48
Bohol Backbone Project	2nd Priority	0.00	110.98	110.98
New Naga Substation Project	2nd Priority	4.02	104.08	329.14
Power Circuit Breaker Replacement Project	2nd Priority	5.79	68.72	393.13
Southern Panay Backbone T/L Project	2nd Priority	0.00	55.93	55.93
		191.12	3,585.78	14,288.45

LUZON GRID ON-GOING PROJECTS



LEGEND:.

- ON-GOING PROJECT UNDER TDP 2004 (STILL ON-GOING UNDER TDP 2005)
- ON-GOING PROJECT UNDER TDP 2004 (COMPLETED 2004)

FORECAST CAPEX



SUMMARY OF PROJECT COST DISBURSEMENTS FOR LUZON

Name of Projects	Status/ Rank	Cost Disbursement 2005-2010 (Millions)		
		US\$	PhP	Total PhP
Biñan - Dasmariñas T/L Upgrading	Completed	0.00	150.35	150.35
Calaca II Associated T/L	Completed	0.00	3.46	3.46
Casecnan (Manablon) Hydro Associated TL	Completed	0.00	41.26	41.26
Lahar - Affect T/L Relocation Project	Completed	0.00	8.56	8.56
Luzon Cluster C S/S Expansion Project	Completed	0.00	32.36	32.36
Luzon(North) Subtransmission Project 1&2	Completed	0.00	1.70	1.70
Natural Gas Ilijan Associated T/L	Completed	0.00	4.98	4.98
Northwestern EHV	Completed	0.00	43.89	43.89
Pagbilao Coal T/L	Completed	0.00	119.06	119.06
Sucat - Sa Mesa - Bintawak	Completed	0.00	19.53	19.53
Batangas Trans. Reinf. Project	On-going	13.71	536.89	1,304.76
Bauang - In Esteban L2 Stringing Project	On-going	0.00	173.39	173.39
San Roque Asso. T/L & S/S	On-going	1.86	41.44	145.70
T/L & S/S Proj Package 1 & 2	On-going	4.66	19.07	279.92
WB TGRL - Luzon S/S Reinf Project	On-going	0.29	11.38	27.51

FORECAST CAPEX



SUMMARY OF PROJECT COST DISBURSEMENTS FOR LUZON (cont'd)

Name of Projects	Status/ Rank	Cost Disbursement 2005-2010 (Millions)		
		US\$	PhP	Total PhP
Biñan S cat 230kV Line Upgrade	1st Priority	4.73	232.26	496.87
Binga S n Manuel 230kV TL Project	1st Priority	19.87	433.22	1,545.93
Dasmariñas R sario 230KV T/L Project	1st Priority	4.15	206.79	439.46
Luzon S/S Expansion Proj 1	1st Priority	27.54	329.96	1,872.04
Luzon Transmission Equipment Upgrade	1st Priority	15.40	178.16	1,040.75
Luzon(North) T/L Upgrading Projects 1	1st Priority	39.84	1,285.93	3,516.98
New Gamu 230 KV SS Project	1st Priority	1.07	98.74	158.57
Tap Hermosa B intawak	1st Priority	0.37	14.42	35.17
Voltage Improvement Project- 1	1st Priority	7.79	82.90	519.21

FORECAST CAPEX



SUMMARY OF PROJECT COST DISBURSEMENTS FOR LUZON (cont'd)

Name of Projects	Status/ Rank	Cost Disbursement 2005 2010 (Millions)		
		US\$	PhP	Total PhP
Luzon PCB Replacement Program	2nd Priority	0.82	9.41	55.22
Luzon Substation Expansion- 2	2nd Priority	0.00	0.42	0.42
Luzon Substation Expansion- 3	2nd Priority	0.00	0.00	0.00
Luzon Subtransmission Equipment Upgrade	2nd Priority	0.00	0.68	0.68
Luzon Subtransmission Line/Equipment Replacement	2nd Priority	0.00	1.22	1.22
Luzon Mindoro Interconnection	2nd Priority	0.00	1.58	1.58
Luzon Voltage Improvement Project- 2	2nd Priority	0.30	3.45	20.26
Mexico Balintawak Reconductoring	2nd Priority	0.00	1.40	1.40
Naga Tayabas T/L Rehabilitation	2nd Priority	0.00	16.68	16.68
San Jose 500 KV Reconfiguration	2nd Priority	0.00	1.40	1.40
San Jose Balintawak T/L Upgrade	2nd Priority	0.00	0.46	0.46
		142.40	4,106.40	12,080.72

FORECAST CAPEX



Revised (nominal) TransCo Capex, 2005-2010

	2005	2006	2007	2008	2009	2010
USD	50.5	118.7	169.5	85.8	45.9	38.6
Pesos	3,587.6	4,766.5	6,680.4	5,438.2	3,144.1	3,058.1
Total USD	114.6	203.9	288.8	182.9	102.1	93.2
Total Pesos	6,416.9	11,415.7	16,170.5	10,240.4	5,715.0	5,218.0

US\$ 985.3-Million

An arrow points from the 2008 Total USD value (182.9) to the US\$ 985.3-Million annotation.

FORECAST CAPEX



Revised (Real) TransCo Capex, 2005-2010

	2005	2006	2007	2008	2009	2010
Capex	Budget	Forecast				
(USD)	50.5	116.0	161.6	79.9	41.8	34.3
(PhP)	3,587.6	4,539.6	6,117.6	4,788.5	2,662.0	2,489.6
Total USD	114.6	197.0	270.9	165.4	89.3	78.7
Total PhP capex	6,416.9	11,032.9	15,168.1	9,260.9	5,000.2	4,408.0

US\$ 915.9-Million



Comparative Forecasts

4.1% difference		Capex 2005-2010
Nominal	Original	US\$ 1,027.8-M
	Revised	US\$ 985.3-M
Real	Revised	US\$ 915.9-M

An arrow points from the '4.1% difference' text to the difference between the original and revised nominal capex values. A circle highlights the original nominal capex value of US\$ 1,027.8-M.

Asset Categories

Transmission Lines	Substation Components	Communication Plant
Buildings, civil works and establishment Towers and associated lines Poles and associated lines Underground cables Submarine cables Easements owned by the Regulated Entity Other Spares Land used for transmission lines	Buildings, civil works and establishment Transformers (power) Circuit breakers Instrument transformers Meters and protection Capacitors and reactors Buswork Other Spares Land used for substations	Buildings, civil works and establishment Communications plant and infrastructure Ancillary infrastructure Other Spares Land used for communications plant
System Operations	Non-Network Assets	
Buildings, civil works and establishment Control room and control infrastructure Ancillary infrastructure Other Land used for system operations	Computers, and office equipment Plant, tools, and equipment Furniture, fixtures, and fittings Commercial buildings Land (all remaining land) Other	