National Power Corporation
Recalculated Ancillary Services Charges
Process of Calculation and the Basic Assumptions considered

As directed by the Energy Regulatory Commission (ERC), NPC conducted a recalculation of the Ancillary Services (AS) charges based on CY2000 figures taken from the following data sources:

ERC Decision dated June 26, 2002
Data submissions in compliance with ERC's data requests
Original figures contained in the December 26, 2001 rate application

Calculations were made taking into consideration two (2) different rate design methodologies namely Embedded Cost and Long Run Marginal Cost (LRMC).

Under the Embedded Cost methodology, NPC made use of assumptions consistent with the ERC Decision. The rate design process, similar to the ERC approval, considered the revenue requirement on a per grid basis which comprises of generation fixed costs and desired return on rate base (RORB). In order to derive the level of AS charge per grid, NPC made use of the similar billing determinants (per grid excluding Small Power Utilities Group) used in the original filing. The billing determinants, expressed in GigaWatts (GW), comprise of each individual customer's sum of twelve (12) months non-coincident peak demand grossed up by line losses for CY2000.

Below are the detailed listing of the basic assumptions considered for each calculation component:

GENERATION RATE BASE

The rate base was determined by considering the submitted figures (without trending) for Electric Plants in Service (GL 105) and Other Utility Plants (GL 109). The following assets were excluded to be consistent with ERC's decision:

Assets Leased to Others (GL 104)
Electric Plants for Disposal (GL 106)
Non-Utility Plants (GL 116)

Also included are submitted figures for Construction Work in Progress and Materials and Supplies

TWO-MONTHS CASH WORKING CAPITAL

Two-months cash working capital is equivalent to a certain percentage of the rate base. The percentages used were derived based on the ratio between the actual figures filed on December 26, 2001 for the two-months cash working capital and the rate base

GENERATION FIXED COSTS

The following generation fixed costs were considered in the determination of the revenue requiremer

Depreciation/Depletion

Depreciation is based on submitted figures contained in Schedule A of the Uniform Filing Requirements in line with the ERC Decision incorporating depreciation expense based on original cost.

Capacity Fee Payments

Included as part of generation fixed costs are the actual CY2000 Capacity Fee payments contained in NPC's CY2000 Annual Report instead of the Amortization of Capacity Fees This is in line with ERC's Decision to treat NPC's contractual arrangements with the IPPs as Operating Lease instead of Capital Lease

Other Operating Expenses

This is equivalent to the total amount of Other Operating Expenses as contained in NPC's filing last December 26, 2001 which are based on audited CY2000 financial statements

Fixed Operation and Maintenance - Other Power Supply

Based on figures contained in NPC filing last December 26, 2001 which are based on audited

CY2000 financial statements but adjusted to exclude corresponding portion for both Bakun Hydro and Mt. Apo II Geothermal Power Plants. Costs pertaining to said plants were similarly excluded by ERC in the determination of the Generation revenue requirement simply because they were not yet approved (please see attached computation of net Fixed O & M - Other Power Supply)

Note: although NPC's steam cost is partially FIXED in nature, this was not made part of the revenue requirement for the calculation of revised ancillary services charges

RETURN ON RATE BASE (RORB)

Applied the ERC-approved RORB level of 5.89% to the derived Generation Rate Base in order to estimate absolute amount of RORB to be included as part of revenue requirement

BILLING DETERMINANT/DEMAND

Made use of the actual billing determinant which is the sum of each customer's twelve month peak demand, gross of system loss

RECALCULATED ANCILLARY SERVICES CHARGE (P/kW/month)

Derived the recalculated Ancillary Services charges by dividing each Grid's total revenue requiremen by the Grid's billing demand

Under the **Long Run Marginal Cost (LRMC) methodology**, NPC determined the revenue requirement utilizing a candidate plant for each power grid. The calculation of the revenue requirement was similar to that in the proposed 1998-based unbundled power rates filed with the then, Energy Regulatory Board (ERB). The following basic assumptions were taken into consideration:

	Luzon	Visayas	Mindanao
Cost of Generation Capacity, US$/kW	824.22	900.32	630.77
Useful life in years	25	25	25
Exchange Rate, P/US$	50.34	50.34	50.34
General Plant Loading Factor (%)	1.29%	0.99%	0.79%
Fixed Operation and Maintenance Factor (%)	4.45%	14.86%	4.45%
Average Cost of Capital/Desired Return (%)	12.0%	12.0%	12.0%
Candidate Plant	Masinloc Coal	Cebu 1 Diesel	Mindanao Coal
Capacity , MW	600.00	43.80	200.00

In choosing the candidate/marginal plant, the following criteria were considered:
1) the plant must be NPC-owned;
2) it must be the most recent commercially operated plant within the grid; and
3) can basically provide the ancillary services required to maintain system reliability, stability and security

Based on records and careful evaluation, the Masinloc Coal-fired Thermal Plant and the Cebu 1 Diesel Power Plant in Luzon and Visayas respectively, meet these criteria. In Mindanao however, only the hydro electric plants are owned and operated by NPC. These plants, however, cannot provide the required ancillary services as their generation capability is restricted by the availability of hydrological resources. In view thereof, NPC used the Mindanao Coal-fired Thermal Plant, a plant which is still to be constructed.

The capacity cost for Masinloc Coal and Cebu 1 Diesel plants is based on Revalued Cost New (RCN) as of December 31, 2001 (these being the latest valuation). The capacity cost of Mindanao Coal Plant on the other hand, is based on the contracted cost covering both foreign and local cost components.

NPC used an average useful life of twenty five (25) years for each of the candidate plant

The US dollar exchange rate is based on Foreign Exchange Adjustment (FOREX) for the billing month of June 2002, representing the average daily exchange rate from May 26 to June 25, 2002

General Plant loading, which is based on the ratio between the submitted CY2000 figures for Net General Plant & Equipment and Net Utility Plants in Service, is a component of the revenue requirement aimed at incorporating the general plant and equipment facilities required to operate the plant. This does not cover interconnection facilities such as pertinent transformers and associated transmission lines since RCN is already inclusive of said facilities

Fixed operation and maintenance cost is calculated using the ratio between total generation fixed cost and rate base per NPC's original filing in December 26, 2001

The desired return (likewise assumed as the weighted average cost of capital) was pegged at 12%, which is a reasonable level given the present Philippine financial market conditions