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Message from the Chairman

It gives me immense pleasure and honor as the chairman of Nepal Electricity Authority (NEA), the country's largest public sector utility, to put a few words into its annual issue of "A Year in Review 2005/06". NEA has completed twenty-one year serving the country and I hope its service to the welfare of the nation will continue with more dedication in the years to come. On the occasion of the twenty-first anniversary of NEA, I would like to share the jubilation with members of Board of Directors, employees and the customers of NEA. This occasion, on one hand is a moment of glory and joy for NEA for what it achieved in the past and on the other hand an occasion to come out with pragmatic promises to continue to deliver and excel its services more efficiently in coming days.

The country had been in a state of turmoil for the past few years. The political transformation brought by the popular people's movement has revived the sign lasting peace in the country. This will certainly provide a conducive climate for NEA's business operation. The severe hydrological condition during the previous year forced NEA to enforce the unpopular load shedding of up to 37 hrs a week and the load shedding seems to persist for few more years to come. In the absence of any major addition to generation capabilities, NEA has now no option but to improve the production efficiency of existing power system and explore the possibility of developing small and medium plants in near future. The Demand Side Management on the other hand can improve the efficiency of consumption and relieve some pressure of load shedding. The initiatives taken in the areas of internal unbundling, development of by-laws and the indices based periodic performance appraisal system for its business groups, staff performance management system, community participation in electricity distribution at rural areas, public-private joint venture endeavors, program for issuance of power bonds, etc. have been remarkable achievements in the past for which I must congratulate NEA staff at all levels.

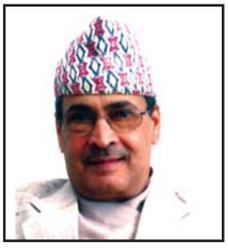
Energy consumption is one of the indicators of a country's development. We therefore predict an increase in the current trend of power consumption with the country's leap forward towards the path of development. This growing need of energy has to be fulfilled through the addition of small, medium and large-scale hydropower generation capacity to the existing power system on a regular basis. However the investment requirements, especially for the implementation of medium and large hydropower projects are high which force us to constantly rethink about the various alternatives of project financing. There is therefore a need for more congenial environment for attracting domestic as well as foreign investments for these hydropower projects. At the same time NEA has to continue encouraging private sector in the power development plans of the country.

Further, there is an acute need to improve the reliability and quality of electricity supply in the country. Implementation of various plans, including loss reduction to minimize load shedding will have to be given high priority. NEA's continuing effort towards reaching out to the rural people in an attempt to uplift economic status through rural electrification is appreciated. The work undertaken for the expansion of rural electrification through community participation is also commendable. On this occasion, I would thank all NEA staff for the valuable contribution they have made through their sincere work and dedication, and wish them a very bright and prosperous future.

Gyanendra Bahadur Karki
State Minister, Water Resources
Chairman, Nepal Electricity Authority

BOARD OF DIRECTORS

Chairman
Mr. Gyanendra Bahadur Karki
Minister of State, Water Resources



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Mr. Tika Datta Niraula
Ministry of Water Resources

Secretary

Ministry of Finance

Mr. Lekh Man Singh Bhandari

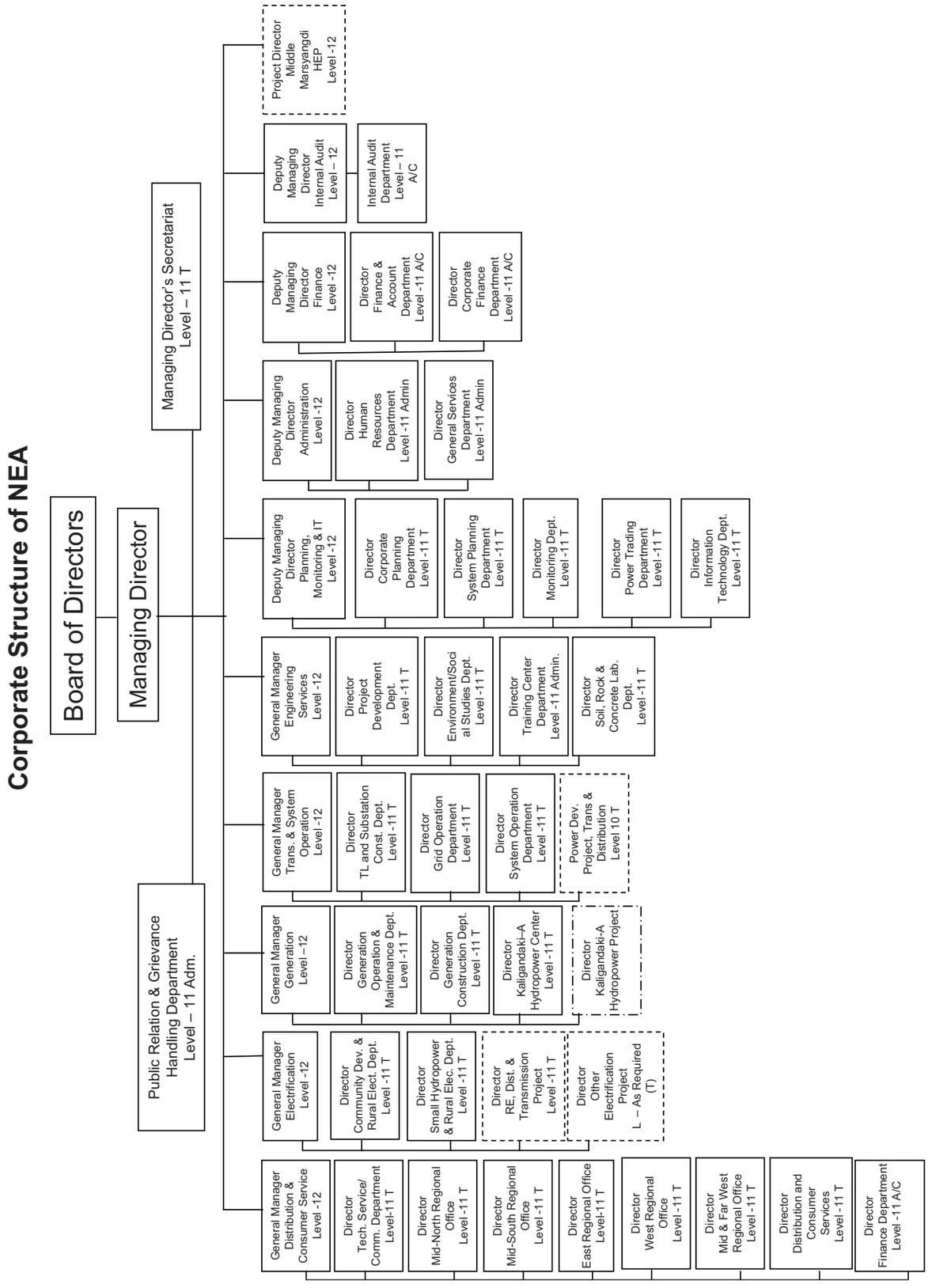
Mr. Anand Raj Batas

Mr. Guru Prasad Neupane

Name

Member Secretary
Mr. Arjun Kumar Karki
Managing Director, NEA

Corporate Structure of NEA



NEA Executives

Generation Business Group

Mr. S. P. Upadhyay
General Manager

Dr. J. Jha
Director
Generation Construction Dept.

Mr. P. L. Shrestha
Director
Generation O & M Dept.

Mr. D. S. Poudel
Chief
KG 'A' HE Dept.

Middle Marsyangdi Hydro-Electric Project

Mr. M. P. Khakurel
Project Director
Middle Marsyangdi HEP

Transmission and System Operation Business Group

Mr. B. R. Shrestha
General Manager

Mr. Y. K. Shah
Director
Grid Operation Dept.

Mr. H. M. Palikhe
Director
TL/SS Construction Dept.

Mr. S. S. Bhat
Chief
System Operation Dept.

Mr. S. B. Shrestha
General Manager

Distribution and Consumer Services Business Group

Mr. S. B. Shrestha
Director
Distribution & Consumer Services

Mr. C. B. Bajracharya
Director
Mid-North Regional Office

Mr. M. L. Shrestha
Director
Eastern Regional Office

Mr. T. M. Shakya
Director
Technical Services & Commercial Dept.

Mr. R. Yadav
Director
Western Regional Office

Mr. T. R. B. C.
Director
Finance Dept.

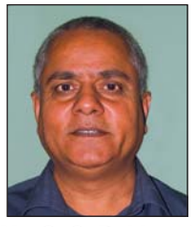
Mr. R. C. Mandal
Director
Mid & Far Western Regional Office

Mr. G. P. Raj
Chief
Mid-South Regional Office

Electrification Group

Mr. R. C. Pandey
Director
Community Rural Electrification Dept.

Mr. S. K. Pradhan
Director
RE & Distribution System Reinforcement Project



Mr. G. S. Pokharel
Director
SHP & Rural Electrification Dept.

Engineering Services Business Group

Mr. B. R. Regmi
General Manager

Mr. S. C. Jha
Director
Environment & Social Studies Dept.

Mr. T. R. Pandey
Director
Training Center

Mr. S. S. Rajbhandari
Director
Soil, Rock & Concrete Laboratory

Mr. B. B. Singh
Chief
Project Development Dept.

Planning, Monitoring and Information Technology

Mr. D. P. Upadhyay
Deputy Managing Director

Mr. U. D. Bhatta
Director
Information Technology Dept.

Mr. B. K. Pathak
Director
Monitoring Dept.

Mr. S. B. Shrestha
Director
Corporate Planning Dept.

Mr. R. M. Sulpya
Director
Power Trade Dept.

Mr. J. M. Pradhan
Director
System Planning Dept.

Central Activities

Mr. S. R. Shrestha
Director

Mr. D. P. Basyal
Chief
Public Relation & Grievances Dept

Mr. R. K. Sharma
Chief
MD's Secretariat

Finance

Mr. U. K. Shrestha
Deputy Managing Director

Mr. D. Poudyal
Director
Corporate Finance Dept.

Mr. L. B. Ghimire
Director
Finance & Accounts Dept.

Administration

Mr. R. P. Adhikari
Deputy Managing Director

Mr. B. K. Dhakal
Director
Human Resources Dept.

Mr. S. N. Neupane
Director
General Services Dept.

Internal Audit

Mr. L. M. Maskey
Deputy Managing Director

Managing Director's Report

Arjun Kumar Karki
Managing Director

I feel privileged to present this annual report on the activities of Nepal Electricity Authority, NEA, for the fiscal year 2005/06 corresponding to the year 2062/63 of the Bikram Sambat, on the occasion of the twenty first anniversary of the organization. The twenty first year of business operation produced mixed results. It was a year more of despair than joy. Nonetheless, the year also provided rays of hope. NEA faced numerous difficulties in its operation as well as development activities. The last two months of the year finally brought some hope of lasting peace, as the people's movement paved the way for democracy. The year proved to be a time of trial and tribulation for NEA as continuing insurgency posed disturbances in development works. The peak demand of the Integrated Nepal Power System (INPS) increased by over 8.21% while the demand for energy grew by 7.71% in the past year despite the fact that the performance of the industrial and tourism sectors was far from being satisfactory.

The past year also witnessed the driest period for many years putting the entire utility under stress. Discharge in the rivers decreased to a new low heavily curtailing the generating capacity of our major hydro power stations. Faced with generation deficit and restricted transfer capacity of the transmission line for energy import from India, NEA was obliged to take the unpopular step of load shedding. NEA made every effort to minimize load shedding but the chasm between supply and demand widened so much that NEA had to continue load shedding for up to 37 hours a week until the discharge in the rivers stabilized. The early monsoon has provided a sigh of relief but this, I presume, is a premonition of even more difficult time awaiting for us in meeting the energy demand of the nation in the coming lean season.

It gives me a modicum of satisfaction in mentioning that Performance Agreements, a new concept of governance, implemented in the three core businesses of Generation, Transmission and Distribution earlier have showed signs of improvement in these areas. The system outages have been reduced greatly and a slight reduction in system loss has been achieved. The various institutional reforms together with this new concept of governance will certainly enhance the operational efficiency of the staff and help in achieving better results in coming years. However, the improvement in the financial area has not been commensurate with the above reforms. NEA suffered a net loss for the fourth consecutive year. It was mainly due to factors beyond NEA's control. Disturbances in development works, closing down of many manufacturing industries and tourism activities, high cost of power purchase from the Independent Power Producers (IPP), high interest rate on government lending, high cost of capital and non adjustment of tariff for the fifth consecutive year seriously affected NEA's financial health. However, the Government's recent decision to reduce the interest rate on government lending is a welcome step in improving the financial health.

The biggest challenge facing NEA in the present context is the lack of capital for investment in its expansion activities. There has been no significant additional investment from donors as

well as from the private sector for expansion of generation and transmission facilities apart from the financing by the Government for expansion in rural electrification.

Organizational Restructuring and Capacity Building within NEA

NEA has continued executing its reform process with the objective of enhancing operational efficiency and developing a commercial culture within the organization. The organization structure was restructured to upgrade the Internal Audit and Administration to Deputy Managing Director level to provide strict cost control, maintain fiscal discipline and develop effective human resources required to operate in a competitive business environment. I am hopeful that the changes made will be helpful in bringing about the desired improvement in NEA's overall performance.

A staff Performance Management system based on two part evaluation was developed inhouse that will enhance staff performance and support the employees to achieve their carrier goal.

The NEA Grid Code prepared by the Transmission and System Operation (TSO) business group has been implemented. The Code, though enforced within NEA, has been helpful in increasing the performance of the national grid in addition to facilitating the evacuation of power from IPPs and providing grid connection of high voltage consumers. Similarly, the Preventive Maintenance Schedule implemented by TSO has helped to reduce the maintenance time and identify the possible breakdown of the facilities. This by and large has helped to increase the reliability and availability of the national grid.

The installation of under frequency relays in the grid has greatly reduced the system outages and helped to reduce the restoration time after such system collapse.

In the Distribution and Consumer Services, the performance of most of the Distribution Centers is satisfactory. Most of the Centers have recorded a marginal reduction in losses, positive change in differential surplus and reduction in the average collection period despite the insecurity situation prevailing in the country. The performance of the DCS has exhibited that it has achieved significant results with regard to consumer services. The key achievements are:

a. Line connections to new consumers have been completed within seven days from the date of application.

b. Customer complaints and grievances under no light service have been addressed within a maximum of two hours.

c. Transformer fuse has been replaced within one hour from the receipt of complaint.

d. Clearance of bill has been made within 10 minutes of receipt on normal working days and within 20 minutes on days following a holiday in Kathmandu valley. Clearance of bill outside the valley has been made within 25 minutes.

e. The revenue collection has improved to over 90%. The average collection period has also come down.

f. Time of Day (TOD) energy meters have been promoted for use by the big consumers.

g. Queue management System (QMS) introduced in five Distribution Centers of Kathmandu valley, has provided additional comfort to the customers lining up for payment of energy bills.

NEA has continued the implementation of computerization to enhance efficiency in its operations. NEA is in the process of implementing a system developed in-house by which the customers can make payments of energy bill through any bank. In the first phase, this will be implemented as a pilot project covering Lalitpur and Bhaktapur Distribution Centers.

Under strengthening of financial management, Consolidated Accounting and Billing System (CAIS) has been implemented in all the budget centers to facilitate the decision making process in the field of accounting and inventory management. NEA has also initiated the process of preparing its financial statement presentation following the International Standards.

For any organization to succeed, it must have trained and skilled manpower. Realizing this, NEA has embarked on a corporate approach to training. Emphasis has been focused both on technical and management trainings for officer as well as assistant level employees. Training programs are being continuously modified and upgraded to include new areas of training requirements. Personnel Data Bank has been upgraded to facilitate the efficient management of the available human resources.

The role of the USAID funded South Asia Regional Initiative /Energy (SARI/E) Program deserves a special mention for its contribution in institutional capacity building efforts of NEA. Under the program, NEA executives, technical as well as non -technical, have had the opportunity to interact and share views with the professionals from the US and the SAARC regions. This has helped our executives to introduce innovative ideas for better results. As a part of the capacity building process, the NEA Institutional Strengthening Project has been taken up to enhance the efficiency of the finance executives.

Operational Performance

The fiscal year 2005/06 marked a remarkable increase in NEA's system peak load. The system peak of the interconnected system was recorded on January 2, 2006 and reached a new high of 603.28 MW registering an increase of 8.21% over the previous year. The cumulative electrical energy available for use within the NEA system totaled 2,777.42 GWh, an increase of 5.10% over the previous year's available energy of 2,642.75 GWh. This comprised of 1,565.05 GWh obtained from NEA's hydro generation, 16.1 GWh from NEA's thermal generation. Import from Indian State Electricity Boards in accordance with the Power Exchange agreement stood at 266.22 GWh while the purchase from private generators in the country totaled 930.04 GWh.

Electricity sales totaled 2,066.27 GWh, an increase of 147.90.GWh (7.71%) over last year's figure. Internal sales within Nepal totaled 1,965.3 GWh registering an increase of 159.4 GWh (8.83%) over the sales of last year and accounted for 95.11% of the total sales. Exports to India continued to decline and totaled 101 GWh, a decrease of 11.5 GWh (10.25%) over last year's export. The sales, both internal and export to India, were not up to expectation. Moreover, the quality of sales did not turn out to be adequate, as the proportional increase in revenue is not satisfactory.

Over the past financial year, the number of customers continued to increase. The total number of customers at the end of the fiscal year stood at 1,279,902 registering an increase of 120,047 (10.35%). The domestic category accounted for 96.08% of the total customers, industrial category accounted for 1.80%, commercial category accounted for 0.48%, and the non-commercial category for 0.78%. The domestic sector accounted for 39.21% of the sales, industrial sector for 38.88%, commercial sector for 5.97% and non commercial sector for 4.89% while the contribution to the total revenue by these sectors were 38.28%, 36.12%, 8.12%, and 6.63% respectively.

Financial Performance

NEA's financial position continued to slump despite the various measures of control taken during the fiscal year and remains seriously challenged in terms of recovery. The past financial year did not see any change in the security situation prevailing in the country for the first ten months of the year. This situation of insecurity prevailing in the country further slowed down the economic activities, seriously affecting the manufacturing and tourism industries. The tourism sector, a significant contributor to the revenue in the commercial category, failed to revive which dampened NEA's hopes of picking up in revenue generation. This was reflected in the electricity sales in the industrial and commercial sectors. Further, the rising energy purchase rate of the IPPs due to the escalation factor contributed a great deal to the increase in expenditures. The fear of insecurity looming large in the rural areas made meter reading extremely difficult, which resulted in poor revenue collection. Meter reading in some 100 thousand households could not be carried out due to the adverse security situation. However, the overall financial indicators in many other areas have

exhibited signs of improvement. The increase in the number of customers and the subsequent increase in revenue contributed by the internal sales are signs of some relief even though the expected sales fell short of expectation.

Total revenue increased by 5.98% over the previous year's figure to reach Rs. 14,012.9 million. NEA's fixed assets, historical -net, increased by 1.50% to reach an estimated Rs. 52,974.9 million. NEA's total expenditures totaled Rs. 16,485.2 million, an increase of 13.47% over last year's figures. Expenditure in generation including cost of power purchase increased by 15.57% over last year's expenses to reach Rs. 8,374.8 million whereas the expenditure in transmission increased by 7.69% to reach Rs. 232.5 million. Similarly, distribution expenditures increased by 11.37% to reach Rs. 1,652.9 million. The administrative expenditures increased by 5.03% to reach Rs. 653.7 million. The increase in administrative cost was due mainly to the Government's decision to raise the salary of the employees by 20%.

In the fiscal year 2005/06, NEA invested Rs. 7,516.1 million in capital works and projects. NEA's total borrowing stood at Rs. 51,955.5 million.

In the fiscal year 2005/06, NEA achieved an operating surplus of Rs. 1,262.4.million but registered a net loss after tax and interest of Rs. 2,472.6 million

Looking Ahead

The past financial year witnessed the biggest achievement of the people, the restoration of democracy. In the changed context, the nation hopes to gather momentum for economic growth and move towards the process of development. The rebuilding of the economy and the nation as a whole is about to begin. NEA will now have to play a bigger and more constructive role than ever to support the energy needs that will propel the rebuilding process of the economy. At the same time, NEA will have to establish accountability and transparency in its operations, and set an example of good governance. To accomplish this, NEA needs to plan ahead. NEA will continue to endeavor to expand the generation, transmission and distribution infrastructure to meet the energy demands. Load forecast will be reviewed to incorporate the anticipated economic growth in the new environment of optimism and hope. Accordingly, generation, transmission and distribution expansion plans prepared earlier will also be reviewed to meet the forecasted demand. The investment plan will be revisited and scrutinized to arrive at the financial resources required to finance such endeavors.

In the generation sector, the 70 MW Middle Marsyangdi Hydroelectric Project (MMHEP) financed under the grant assistance of Kreditanstalt fur Wiederaufbau (KfW) of Germany accelerating towards completion by December 2007. The detailed design of the Upper Tamakoshi (309 MW) will be under taken. Process will be initiated for the arrangement of finance for the construction of the Upper Tamakoshi, Chameliyagad (30 MW) and Kulekhani III (14 MW) projects. The feasibility of Upper Seti Storage project (122 MW) undertaken with the assistance of Japan International Cooperation Agency (JICA) will be completed soon. Tender will be invited for Kulekhani III. Hewa (10 MW), Mewa (18 MW) and Tamur (83 MW) are other projects being considered for development by private sector solely or in joint venture with public sector. The process of issuing Power Bonds to arrange the finances required for the development activities will be finalized soon.

In order to meet the energy demands, NEA will continue to encourage Private Developers to add generation capacity to the power system. A Connection Agreement has been developed and implemented for facilitating the interconnection of IPPs with the NEA power system. NEA will monitor the progress of the projects for which PPAs have been signed. Since the hydropower projects developed by the private sector are essentially run-of-the river (ROR) type, a storage plant is required to maintain the balance between the supply and demand. In this regard, NEA will direct its efforts towards developing a storage plant of adequate capacity to bridge the gap between supply and demand in the long run. NEA will also look for arrangements with India to meet the shortfall of power demand.

In the transmission and system operation sector, staff of the Load Dispatch Center will be exposed to training to help reduce the system restoration time. The NEA Grid Code will be enforced to facilitate integration of non-NEA Grid Users into the national grid. Augmentation of transformer capacities at various substations will be given top priority. NEA will be introducing hot line maintenance to reduce the shutdown time required while carrying out the maintenance of the transmission lines and substations. Emergency Restoration System (ERS) will be procured for quick restoration of transmission line. The coordinated preventive maintenance schedule as finalized by the Load Dispatch Center will be followed strictly to take the necessary steps to improve the availability of the transmission facilities. The Grid Operation Department will be equipped with high tech testing equipment to detect early signs of potential breakdown so that precautionary measures could be adopted to prevent their occurrence. A mobile substation of suitable capacity will also be procured to help restore the partial system outage.

Likewise, NEA will direct its efforts to complete the Pathaliya-Parwanipur 132 kV transmission line project in fiscal year 2006/07. NEA will also make the necessary arrangement for interconnection of 132 kV and 66 kV transmission network in Parawanipur to relieve the overloading problem of 66 kV transmission line in the area and to increase the reliability and quality of electricity supply in the Hetauda –Birgunj corridor. NEA will also do what is required to expedite the implementation of Khimti-Dhalkebar 220 kV transmission line and Thankot-Chapagaon-Bhakatapur 132 kV transmission line to improve the reliability and quality of electricity supply in the eastern part of Nepal and the capital respectively. The construction of 132/33/11 kV, 30 MVA Chandranigahpur substation will be accelerated to improve reliability and voltage profile in Sarlahi, and Rautahat districts.

Similarly, NEA will take the necessary steps for expediting the construction of the Kawasoti Substation. Steps will be initiated for strengthening the 66 kV ring in the Kathmandu valley by constructing the Chapali substation and linking it with Lainchaur, and New Chabel Substations. Preliminary works of survey and EIA will be initiated for the construction of Kabeli-Duhabi 132 kV transmission line to facilitate the interconnection of generating facilities expected in this corridor with the national grid.

Likewise, NEA will also expedite the installation of 5 MVA 33/132 kV, and 6.3 MVA 11/66 kV transformer at Lamosanghu Substation to facilitate the power evacuation of IPPs. Financial sources will be sought for the construction of the Hetauda-Bardaghat 220 kV transmission line, which is critical for the operation of the national grid.

In the distribution sector, Demand Side Management (DSM) and loss reduction activities will be given top priority in an effort to minimize the load shedding. A new computerized billing system will be implemented in all the Distribution Centers and branch offices in the current fiscal year. Necessary measures will be taken to improve the reliability of the distribution network by implementing a preventive maintenance scheme and capacity augmentation of the distribution network components. Efforts will be made to complete the capacity augmentation started earlier in the current fiscal year. Queue Management System will be introduced in more Distribution Centers around the country to improve the quality of consumer services.

In the rural electrification sector, NEA will continue its engagement in rural electrification programs for energy needs of the rural masses to uplift their economic standards through the Government of Nepal (GoN) as well as donor assisted schemes. The construction activities of the ADB funded Rural Electrification and Distribution System Reinforcement Project will be continued in the current fiscal year. Similarly, efforts will be made to complete the ongoing rural electrification schemes such as the World Bank funded Distribution and Rural Electrification Project in Bagmati Zone, DANIDA funded Kailali-Kanchanpur RE Project in Mahakali Zone and GoN funded Sindhu-Dolakha RE Project within the stipulated time.

Similarly, rural electrification will be continued under the new Japanese Non-Project Grant scheme. The GoN funded community rural electrification scheme will be expanded in several areas of the Kingdom through people's participation.

Engineering Services will be made a subsidiary company to provide the necessary consulting services in hydropower development. The NEA Training Center will be gradually developed into a Regional Center for research and advanced studies for hydropower development.

In the administrative front, a staff Performance Management System (PMS) based on two part evaluation will be implemented in the current fiscal year.

NEA will continue to implement Consolidated Accounting and Inventory System (CAIS) in 24 additional cost centers. NEA will take the necessary measures to comply with the International Accounting Standards (IAS) recommendations in order to make NEA's accounts in line with internationally accepted practices. The key findings and recommendations of the Consultant appointed to carry out the task of improving the financial management, auditing and accounting will be implemented. Risk based approach will be initiated while conducting internal audit. NEA intranet site will be revamped to include a discussion forum and other facilities to provide easy access to information regarding NEA activities.

Although the GoN has decided to reduce the re-lending rate, it is not up to NEA expectations considering the significant investment in rural electrification like non profit generating projects. In this respect NEA will continue its effort to pursue the concerned government ministries for the rationalization and further reduction of re-lending rates. NEA will also continue dialogue with the GoN for redefining the capitalization policy for grant projects to reflect realistic cost. Similarly, NEA will continue to pursue the government to do the needful in order to mobilize the liquidity available in the domestic financial market for the power sector development.

NEA will also continue its persuasive effort for the rationalization and readjustment of retail tariff with the Tariff Fixation Commission.

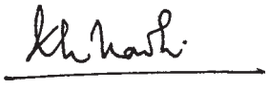
Acknowledgements

In conclusion, I take this opportunity to thank all those who have contributed to NEA's activities during the past year. I wish to express my deep gratitude to the Chairman and members of the NEA Board of Directors for continuously steering the course of NEA under such trying circumstances. I wish to thank GoN for continued support in our operations and contribution to our development efforts. Thanks are also due to the bilateral donors such as Germany, Japan, Norway, Denmark, Sweden and USA and international development banks such as the World Bank, Asian Development Bank, Japan Bank for International Cooperation, and Kreditanstalt fur Wiederaufbau (kfW) for their contribution in our development and institutional strengthening activities. Their support has been instrumental for NEA to maintain its continuing development process to meet the growing energy needs of the nation.

My sincere thanks go to the entire staff of NEA at all levels for their support and cooperation although my affiliation with NEA is of a short duration. My appreciation also goes to all the Trade Unions of NEA for their critical but supportive understanding. My thanks also go to all the previous Managing Directors whose vision, leadership and dedication helped NEA to arrive at this stage of development. I firmly believe that the staff members of NEA have the necessary talent, capacity, enthusiasm and dedication to develop and nurture NEA as a successful and vibrant corporate entity that the nation can be really proud of.

Last, but not least, our customers collectively contribute and symbolize the pinnacle towards which all of NEA's efforts are diverted. I wish to thank our valued customers for bearing with us during periods of adversities and for sharing some turbulent times together. I also wish to assure them that NEA will function in more competent, transparent and accountable manner to further improve the quality and reliability of supply and services.

Thank you.



Arjun Kumar Karki
Managing Director

Generation Business Group

Generation Business group is a key core business under NEA management responsible for managing operation and maintenance activities of 15 hydro power plants in operations with total installed capacity of 397.89 MW and three major thermal power plants with installed capacity 55.66 MW.

With a yearly plant factor of 39.83% and productivity ratio 1101.56 MWh/employee, total generation of the powerhouse under this business group reached 1574.485 GWh which is 3.68% more than the previous year's figure.

Generation Operation and Maintenance Department

This department is responsible for operation and maintenance of all the power plants except Kaligandaki 'A', isolated small hydro power plants and few other small power plants operated under Distribution and Consumer Service.

During the fiscal year turbine runner overhauling was carried out in Marsyangdi, Trishuli, Gandak, Sunkoshi, Puwakhola, Seti and Fewa hydro power stations. Several other maintenance works were undertaken in all of power stations to keep the machine in operating conditions.

Maintenance of turbine runner of Modi Khola Hydro Power Station

Specially maintenance of turbine runner of Modi Khola Hydroelectric Project.

The Pharping power plant, machines were overhauled with the objective of bringing the first power plant (95 Years old) of the country into operation. This power plant was shutdown owing to tapping of the penstock pipe for drinking water supply to Lalitpur. Consultations are undergoing with Water Supply Corporation for operating the plant without sacrificing the water supply needs.

Kaligandaki "A" Hydropower Department

Repair of turbine of KG 'A' HES

Turbine overhauling work of Unit No. 2 & 3 (from July 09, 2005 to September 25, 2005) was successfully carried out by JBIC Funded Kaligandaki 'A' Hydroelectric Project Rehabilitation works with supervision by technical advisor from manufacturing company M/S Toshiba Corporation of Japan.

Likewise, operation maintenance management training for three persons (Director/Manager Level) was conducted for 24 days in Japan, Thailand and Vietnam from 12 March, 2006 to 04 April, 2006. Exchange of views to upgrade operation maintenance activities based on the collection of technical data of the plant in

operation in those countries was helpful and note worthy for better plant operation and maintenance in local environment.

Generation Construction Department

This department is assigned to construct medium size hydro power projects included in the least cost generation expansion plan. Following two projects are in the process of taking up construction.

Kulekhani III Hydropower Project

The Kulekhani III hydropower project is proposed as cascade connection with Kulekhani II Hydropower Station. Its installed capacity is 14 MW. This project is being financed jointly by Government of Nepal and Nepal Electricity Authority.

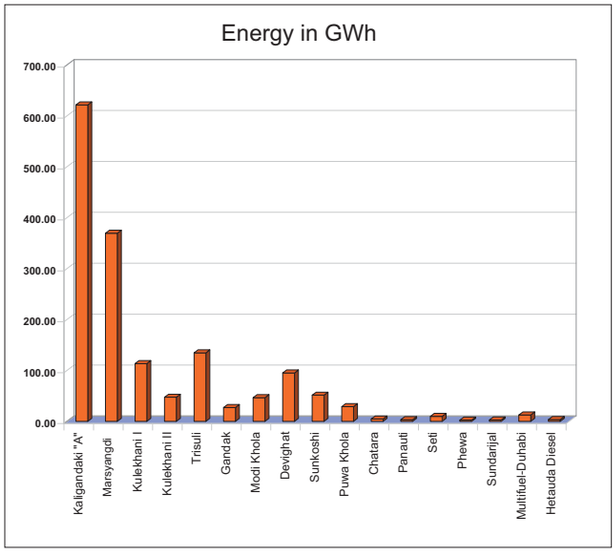
The project cost is estimated at US$ 27.60 million. It will be commissioned to meet the peak demand of dry season by 2009. The annual energy output of the project will be 40.82 GWh.

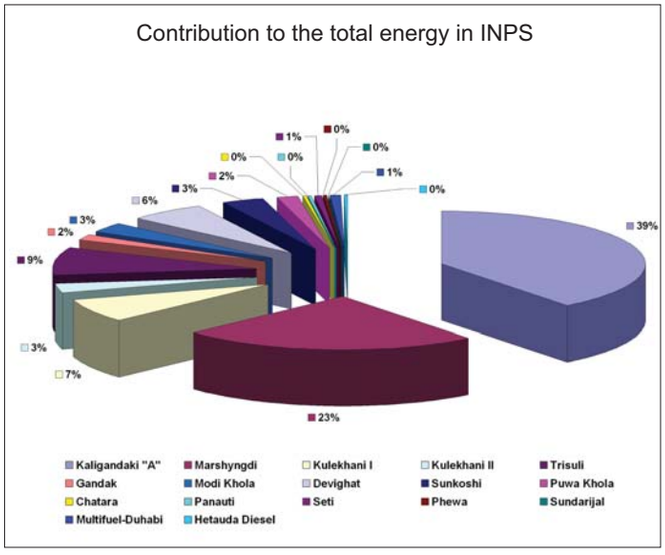
Contract agreements for Construction of Steel Trussed Bridge over Rapti River and Access Road have been completed. The detailed construction design and tender documents are on the final stage of completion and the services for this have been provided by Project Development Department/Engineering Services. By the end of Bhadra 2063 the Tender for Civil works will be invited.

Chameliya Hydroelectric Project

The estimated cost (January 2006) of the project of 30 MW installed capacity is US$ 78.853 million including 131 Km transmission line of 132 kV. Evaluation of tender for the civil works is being evaluated. As per the assurance received from the Government of Republic of Korea, Government of Nepal (GoN) has requested the Government of Republic of Korea to provide soft loan of US $ 25 million and is waiting for positive response. Similarly, GoN has also requested the Organization of Petroleum Exporting Countries (OPEC) Fund for providing soft loan of US$ 15 million. Thus the project is envisaged to be implemented with co-financing of GoN/NEA and some donor agencies. The project construction is estimated to be completed within four years.

Generation from Major Power Stations





Middle Marsyangdi Hydroelectric Project

This is a 70 MW run-of-river type scheme with daily pondage for five hours designed to generate 398 GWh of average annual energy and is located in Lamjung District, about 170 km west of Kathmandu. The project is being jointly funded by the Government of Germany through Kreditanstalt fur Wiederaufbau (KfW), NEA and Government of Nepal.

The construction activities were undertaken in both day and night shifts this year except for the period during bandhs, blockades, embargoes, etc. The construction activities were completely halted for more than a month during March/April 2006 due to the National Strike.

The major milestones of the Project

With the diversion of Marsyangdi River on 1st March 2005, the excavation works at Headworks has been completed this year and the concreting of Spillways and Piers along with the grouting works at the gorge area is going on. The excavation of Power Intake, Desanders, Valve Chamber and Surge tank has also been completed. A major milestone of the Project was reached with the power tunnel excavation breakthrough, on 22 January 2006. The concreting of Desander is about 95% complete. The lining of Power tunnel has been started from 21 June 2005 and about 18% has been completed. The lining of Surge tank has also been completed. Open cut Penstock excavation is completed after the diversion of Dumre-Besisahar road and the Penstock tunnel part excavation was completed on 30 March 2006. The excavation of Powerhouse has been completed. The concreting of substructure and superstructure has also been completed with the finishing works presently going on. The backfilling of the Powerhouse has been completed up to Elevation 532 m and backfilling above this level is in progress. The concreting and riprap of Tailrace is also completed.

As for the status of the other lots, the contractor of Electrical Equipment (Lot E) ALSTOM Power Generation AG has completed 80% of manufacturing works of Generators. The Sub Contractor Nepal Hydro Electric (NHE) is continuously carrying out the supervision of the vertical uplinking of the Earthing straps

Work in progress inside the Powerhouse

at powerhouse. Mechanical Equipment (Lot M) Contractor Voith Siemens Hydropower Generation GmbH & Co. has completed its manufacturing works of Turbines and

accessories. The installation and pressure testing of two Spiral casings have been completed. Recently, the turbines have been delivered to site & preparation for grouting works in the spiral casings is in progress. Lot HSS (Hydraulic Steel Structure) Contractor VA-Tech Hydro is in the process of fabrication and installation of penstock at site. Installation and Pressure testing of Manifold and Bifurcator were completed on August 22, 2005 (7 Srawan 2062). Installation of inclined penstock from Powerhouse to Dumre-Besisahar road is almost complete. Similarly, the Desander Equipments have also been delivered at site and preparatory works for installation are going on. Testing and commissioning of 132 kV GIS switchgear equipment (Lot SS2) at the existing lower Marsyagndi power station was completed by Alstom Energie-technik GmbH in January 2004 (Paush 2060). The 132 kV Substation/Switchyard (Lot-SS1) Contractor, ALSTOM Energie-technik GmbH, has almost completed manufacturing works. For the 132 kV Transmission line (Lot TRL), after contract signing with SAG on 12 January 2006 (28 Paush 2062), line surveying and report preparation works are in progress. Soil testing of foundation is nearing completion and designing of towers is in progress.

Overall progress of the project is about 76.4% (9 July, 2006), 77% of Civil Works (Lot C), 65% of Electrical Equipment (Lot E), 90% of Mechanical Equipment (Lot M) and 76% of Hydromechanical Steel Structures have been completed so far. Similarly, the progress on transmission line, switchyard and switchgear are 20% of transmission line and 90% of switchyard have been completed whereas the switchgear works have been completed.

Land and property acquisition for transmission line will be carried out after the completion of the transmission line survey. The Cadastral Map Survey for Land Acquisition is completed up to 22 km. The resettlement at various construction sites is on going. The project also carried out income generation oriented training program and community awareness program focusing on public health and safety to the members of the project affected families and the local people of the Project area. The Neighborhood Support Programme (NSP) of the project is supporting the development activities of nine Village Development Committees (VDCs) in the vicinity of the project area by carrying out various activities in five key areas of health, education, water supply and sanitation, roads and electrification.

Transmission and System Operation Business Group

Transmission and System Operation (TSO) is a core business group within Nepal Electricity Authority, responsible for design, construction, operation and maintenance of 66 kV and higher voltage level transmission system and managing the operation of the Integrated Nepal Power System. Accordingly, these tasks are entrusted to three Departments: Transmission Line & Substation Construction Department, Grid Operation Department and System Operation Department.

Transmission Line & Substation Construction Department

This Department looks after the construction of new transmission lines and substations of 66 kV and higher voltage level. Constructions are carried out through turnkey contracts. Presently, it is involved in following transmission line projects:

Thankot-Chapagaon-Bhaktapur 132 kV Transmission Line Project

The project, which comprises of a new approximately 28 km long 132 kV transmission line from Thankot (Matatirtha) to Bhaktapur via Harisiddhi, will complete the 132 kV ring–main in the Kathmandu Valley. This will not only augment the transmission capacity necessary to cater the increasing demand in the region but will also help to reduce system losses and at the same time improve quality and reliability of the power supply in the Kathmandu Valley. About 26 km of this line comprises of double-circuit towers while the remaining 2 km is designed with four-circuit towers. The scope of the project also includes the construction of a new 132 kV switching station at Matatirtha; a new 132/11 kV, 22.5 MVA substation at Harisiddhi and upgrading of existing Bhaktapur and Balaju substations.

The Project is estimated to cost US$ 17 million and it is being financed by ADB, OPEC, GoN and NEA. It is scheduled to be completed by the end of 2008.

Birgunj Corridor 132 kV Transmission Line Project

Birgunj corridor, as one of the Nepal's largest industrial area, is one of the biggest electricity consumers in the country. Unfortunately, it has been facing a severe power supply crisis in terms of both meeting the necessary demand as well as the reliability and quality of supply due to the overloading of the existing 66 kV transmission line, which was erected in the early sixties. These problems will be eliminated after completion of the ongoing 132 kV transmission line, which is scheduled for commissioning around the middle of the coming fiscal year.

The Project comprises of a new 132/11 kV substation with 2 x 22.5 MVA transformers and 2 x 10 MVAR Capacitor Bank at Parwanipur and 17 km of 132 kV double circuit transmission line from Pathlaiya to Parwanipur, supplementing the

Transformer repair of Siuchatar Substation

existing 66 kV transmission line from Hetauda to Birgunj. The estimated total Project cost is Rs. 320 million, which is borne entirely by the Nepal Electricity Authority.

Butwal Sunauli 132 kV Transmission Line Project

The proposed Transmission line is intended to enhance the power exchange capacity between India and Nepal. The transmission link is proposed to connect Butwal substation in central Nepal to Anandanagar substation situated in Uttar Pradesh of India. The scope under the project covers a 25 km long 132 kV double circuit transmission line from Butwal substation to Sunauli (the intermediary point at Indo-Nepal border) along with the associated line bays at Butwal substation. Nepal Government and Nepal Electricity Authority are jointly funding the project. The construction work has been delayed due to contractual problems with the Contractor.

Grid Substations Reinforcement Project

Reinforcement of substations is necessary to meet the increasing load growth. Due to limitation of transformer capacity, NEA has to resort to load shedding in some substations even when surplus power is available in the system. The objective of the Grid Substations Reinforcement Project is to augment the transformer capacity in three substations. The scope of this Project comprises of the following:

a. Reinforcement of Anarmani substation through installation of one unit of new 132/33 kV, 30 MVA, 3-phase power transformer with necessary bay extension at 132 kV and 33 kV voltage levels.

b. Reinforcement of Pokhara substation through installation of one unit of new 132/11 kV, 30 MVA, 3-phase power transformer with necessary bay extension at 132 kV voltage level and replacement of one section of existing 11 kV switchgear panels comprising of seven panels.

c. Reinforcement of Siuchatar substation through installation of one unit of new 132/66 kV, 3x12.6 MVA power transformers (bank of three single phase transformers) with necessary bay extension at 132 kV and 66 kV voltage levels.

The Project is estimated to cost US$ 3.24 million and is funded jointly by the Government of Nepal, ADB, OPEC and NEA. Construction of the Project has commenced and is expected to be completed by mid 2007.

Chandranigahpur System Reinforcement Project

The aim of the project is to meet the increasing demand of Rautahat and Sarlahi districts. The scope of this project covers construction of 132/33 kV, 30 MVA and 33/11 kV, 8 MVA new substation at Chandranigahpur and 74 km of 33 kV sub-transmission line to connect the new Chandranigahpur substation with 33 kV substations at Harsaha, Haripur, Gaur and Nijgadh. This will reduce system losses, improve reliability and quality of supply in those areas as well as in Birgunj area. The project is jointly funded by GoN, IDA and NEA and is estimated to cost US$ 6 million. The substation contract has been awarded and the project is scheduled to be completed by Feb. 2008.

Khimti-Dhalkebar 220 kV Transmission Line Project

This is going to be the first 220 kV transmission line project in Nepal. Its present aim is to improve the reliability of power withdrawal from Khimti-1 HEP, facilitate a direct route for export of power to India via Dhalkebar substation and improve the voltage-drop problem at eastern Nepal. In future, the line can also be utilized to evacuate power from the 300 MW Upper Tamakoshi HEP as well as other generations in the surrounding region.

The scope of the project covers construction of a 75 km long 220 kV transmission line on double circuit towers from Khimti HEP to Dhalkebar and 132 kV line bay extension at each end of the line. Until Upper Tamakoshi or some other large generating station is constructed in the

region, only single circuit ACSR, BISON duplex conductor will be strung under the present scope of the project and it will be energized at 132 kV level.

Environment Impact Assessment for the project has been completed and clearance from concerned authorities of Government of Nepal has been acquired. Tenders have been invited for construction of the transmission line and evaluation of the bids is in progress. Tenders for the construction of line bay extensions are expected to be invited soon.

The cost of the Project is estimated at US$ 22 million and it is funded jointly by International Development Association of World Bank, Government of Nepal and Nepal Electricity Authority. The project is scheduled to be completed by fiscal year 2007/08.

Hetauda-Bhardaghat 220 kV Transmission Line Project

The aim of the project is to improve the reliability of the system in general and facilitate evacuation of power from Kaligandaki 'A' hydropower station and other generating stations being constructed and proposed in this region. The proposed line will also form a segment of the 220 kV grid that is being envisaged under future generation expansion plans. The project comprises of construction of approximately 143 km long 220 kV double circuit transmission line from Hetauda to Bardaghat using duplex ACSR "BISON" conductors (initially only one circuit strung and energized at 132 kV level) and construction of one 132 kV line bay each at existing Hetauda and Bardaghat substations. The Project is estimated to cost US$ 32 million. The Government of Japan has been requested for necessary funds to construct the Project.

Kawasoti 132 kV Substation Project

This project is being undertaken to meet the increasing demand for electricity in the eastern part of Nawalparasi District. The main objective of the project is to provide reliable and quality electricity supply to the consumers of Kawasoti and its vicinity and reduce system losses. In addition, this substation will attract industrial consumers and provide interconnection point for Independent Power Producers (IPP) in the area. Furthermore, this project will provide opportunities for 33/11 kV sub-transmission / distribution network expansion to cover a large number of rural hilly communities living in the northern part of the District.

Under this project the existing Bardghat-Bharatpur 132 kV transmission line will be looped-in-out in Pragatinagar to form a new 132/33/11 kV substation. The existing Bharatpur – Kawasoti 33 kV line shall be isolated from Bharatpur substation and fed from New-Kawasoti substation. 11 kV overhead lines will be drawn out from this substation to feed existing 11 kV distribution network. Major components of the project, consist of two 132 kV line bays, one 132 kV transformer bay with 30 MVA, 132/33 kV power transformer; one 33 kV transformer bay with 8 MVA, 33/11 kV power transformer and 11 kV cubicles.

Estimated cost of the project is US$ 9.6 million. The project is expected to be funded jointly by the Government of Nepal / Japanese International Cooperation Agency (JICA) and NEA. The project is scheduled to be completed by Fiscal year 2007/08.

System Operation Department

Equipped with the state of the art load dispatch center, the System Operation Department is gradually assuming a dominant role in managing the operation of the Integrated Nepal Power System (INPS) as it begins to garner confidence accumulated through experience over the years. At the same time, it has begun to assert its authority over parties operating within the INPS to bring them to comply with the NEA Grid Code. It hopes it will not have to resort to punitive actions against those parties not working in line according to the Grid Code guidelines.

Because of the dedication of its staffs, the System Operation Department has been able to bring down the total number of system tripping to 21 (in 2005/06) from 24 (in 2004/05) and

28 (in 2003/04). The installation of the under-frequency relays in major feeders helped in curtailing the demand at the time of power system crisis – thereby minimizing the number of system blackouts. The availability of real time data and better communication system have also improved the overall availability of power stations and transmission lines and has helped to minimize the time required for restoration of the power system (in case of black-outs), thereby generating more revenue for NEA. The Department also earns Rs. 14.8 million annually through leasing of optical fibers to Nepal Telecom and other private companies.

For the continued smooth functioning of the INPS, it is necessary that the data acquisition from the power stations and substations be updated according to the latest changes/modifications in the respective stations. In the past year, the trained manpower in the LDC completed the adaptation works in some of the substations without the support from foreign experts. Likewise, the in-house experts also integrated new K3 substation in the SCADA system.

Maintenance of 66 kV Trishuli - Balaju transmission line.

Grid Operation Department

The Department is responsible for operation and maintenance of transmission system of 66 kV and higher voltage level. In addition to operation and maintenance of transmission system, the Department also focused on upgrading and reinforcing grid substations and associated rehabilitation works. The total grid substation capacity in various substations has been increased by approximately 70 MVA during the past one year. Under-frequency relays were installed in various substations resulting in reduced system outages. Testing of relays and energy meters were also performed on regular basis, old and faulty energy meters were replaced for accurate recording of energy being transferred to DCS business group. The 11 kV switching station and 33 kV transmission lines were also handed over to the concerned DCS offices for operation and maintenance.

Distribution and Consumer Services Business Group

The Distribution and Consumer Services (DCS) is the largest among the four core business groups of NEA in terms of number of employees and business activities. Approximately 60% of the total staffs of NEA are employed in DCS. Since all the consumer related activities, right from new consumer connections to meter reading, billing, revenue collection, and consumer services are dealt by DCS, it has the very important role in maintaining the good relationship with consumers. Nevertheless, DCS is on the forefront to earn the revenue for sustaining operation and maintenance and development activities of NEA.

DCS is responsible for planning, design, construction, operation and maintenance of the power distribution system up to 33 kV voltage level and consumer services. It is providing services to the consumers through 34 Distribution Centers and 30 Branch Offices spread over five development regions of Nepal. It has three departments at central level and five Regional offices headed by Directors.

In the FY 2005/06, the total number of consumers reached 1,279,902, an increase of 10.35% over the last year. Similarly, total energy sales and gross revenue from sales in the year were 2077 GWh and Rs. 13,795 million, an increment of 5.75% and 7.58% over last year respectively. The following table shows the category-wise contribution of number of consumer sales and revenue.

Distribution Centers

For commercialization of Distribution and Consumer Services Business Group, Distribution Center concept was implemented by Nepal Electricity Authority since 2002 February.

The objectives behind the implementation of the Distribution Centre concept are to reduce system losses and average collection period, improve stock utilization, provide effective services to consumers without complication, improve overall efficiency, increase sales, reduce costs and thereby making the distribution centre a profitable and sustainable entity.

The distribution centers are evaluated for each Performance Audit period (PAP) on a half-yearly basis. The evaluation is based on six performance indicators i.e. loss reduction, average collection period, stock turnover ratio, capital works in progress, connection period and reporting and data management. Performance Audit of first, second and third PAP periods have been completed. The critical performance result of Distribution Centers seems to be encouraging though some of the distribution Centers have difficulty of achieving the benchmark. It has been also observed that some of the indicators are influenced by external factors. It is realized that some performance indicator should be reviewed for the effective implementation of this concept.

User Group	No. of consumer (% of total consumers)	Sales (%)	Revenue (%)
Domestic	96.08%	39.21%	38.28%
Non- Commercial	0.78%	4.89%	6.63%
Commercial	0.48%	5.97%	8.12%
Industrial	1.80%	38.88%	36.12%
Others	0.86%	10.92%	8.84%

Technical Services and Commercial Department

This Department is responsible for supporting DCS Business group in the technical and commercial matters related to the distribution system and consumer services. It is involved in distribution planning, system reinforcement programs and power evacuation and impact studies. It is also monitoring the power system losses and energy consumption of large consumers. This Department is also responsible for programming of TOD energy meters also. The Central Meter Testing Lab continued testing the energy meters, current transformers and sub-meters of the consumers. This department is responsible for producing weekly broad casting program “Bidyut Sewa”. This program is aired from KATH 97.9 Image FM station every Saturday from 7.30 PM to 8.00 PM. This program helps to boost public awareness about electricity pilferage, rules and regulation regarding power transmission and distribution and safety

The Technical Services and Commercial Department provided valuable support to the consulting team for the project formulation of Rural Electrification and Renewable Energy Project (Ninth Power Project) under the Technical Assistance of Asian Development Bank. The final report has been already submitted and ADB is expected to finance the project in near future.

This year, NEA has decided that the Independent Power Producers (IPPs) need to conclude Connection Agreement for connecting the power plants of IPP’s to the distribution system of NEA before signing PPA with them. So, this department prepared the standard format for Connection Agreement and after approval, circulated it to the concerned offices for necessary connection agreement with IPPs.

The Technical Services and Commercial Department is also executing the reinforcement of 16 distribution substations at Mahendranagar, Dhangadhi, Guleria, Nepalgunj, Kalaiya, Parsa, Harsha, Malangawa, Haripur, Jaleswar, Chandragadhi, Damak, Rajbiraj, Dhankuta, Syangja and Baglung. All the works are near completion. In fact, Mahendranagar S/S and Harsha S/S have been already energized and other substations will also be commissioned very soon. Altogether, 80 MVA power transformer capacity has been added at various distribution substations. It is relieving the existing overloaded distribution substations, thereby withdrawing the local load shedding caused by the overloading of power transformers at various substations. After completion of reinforcement works of substations, the power system losses will be reduced, supply voltage will be improved and the reliability of power supply will be enhanced in these areas and subsequently, it is expected to boost revenue earning of NEA to some extent.

Moreover, since many other distribution substations are also getting overloaded, this department is formulating plans for the reinforcement of other distribution substations for the coming years.

Distribution Profit Center Project

This project has been undertaken to further improve the performance of distribution centers to operate them in a commercial manner, to improve financial sustainability with better service quality and reliable power supply. This project is a component of Rural Electrification, Distribution and Transmission Project, which is being implemented with the financial support from the Asian Development Bank (ADB).

NEA conducted intervention program on the report of the new performance indicators suggested by the consultant COWI.A.S. Denmark. Test implemented in six distribution centers and finally accepted the report on June 30, 2005. This is to be implemented in all Distribution Centers. The decision has been made considering the following facts:

- All the proposed performance indicators are acceptable to NEA.
- No comments were received from the implemented Distribution Centers.
- Satisfactory results were found by applying these performance indicators in all Distribution Centers.

The final report which has been sent to concerned Offices for necessary action. The project has been winded up.

Computerized Billing Project

The Computerized Billing Project is being implemented to help maintain accurate records of consumers, meters and revenue accounting, reduce non-technical losses and account receivables and expedite reporting. It will also help in reducing operational expenses and improve NEA's relationship with the consumers, quality and transparent customer services. Its objective is to introduce a common system throughout the NEA for improved billing and revenue collection processes in a modern, efficient and cost effective manner. Under this project, Computerized Billing System has been installed in Kuleshwor Distribution Centres. Test Installation is in progress in Bharatpur and Kathmandu Mid Branch. The Billing System is expected to be installed in 20 large Distribution Centers within July 2007.

Other Major System Reinforcement works

In Eastern region, a new 10/13.3/16.6 MVA 33/11 kV substation at Tanki Sinuwari has been energized. The substation will be linked with 132/33 kV Duhabi substation by a 6.5 km long double circuit transmission line. Contract agreement to construct 33 kV transmission line with lattice structure towers has been signed recently and the construction work shall be completed in 15 months. The newly constructed Tanki- Sinuwari 33 kV substation will relieve the loading of existing 33/11 kV Duhabi S/S and 33 /11 kV Biratnagar S/S.

Similarly, under Tanahu Distribution Center, a Power Transformer 6/8 MVA, 33/11 kV Substation shall be installed at Dumre S/S and 12 kV Switchgear panels shall be installed at Anbu Khaireni S/S. 33 kV VCBs, 33 kV Control and Relay Panels have been delivered. Installation work of 33/11 kV, 6/8 MVA power transformer and all the work shall be completed in the fiscal year 2006/007.

Other Initiatives

Apart from regular works DCS has undertaken the following various measures to improve its performance.

a) Computerized Billing System and Computerized Accounting and Inventory System (CAIS) are being implemented in more and more distribution centers and branch offices.

b) Use of ABC cables extensively to reduce tripping and electricity by direct tapping.

c) Mobilization of vigilant teams in Regional Offices, Distribution Centers and Branch Offices to check electricity pilferage.

d) Promotion of CFL lamps for energy conservation and demand side management.

e) Multi-channel Queue Management system at payment counters to facilitate consumers for bill payment.

Electrification Business Group

The Electrification Group was established as a separate business group within Nepal Electricity Authority to coordinate the significant rise in planned financial investment needs in the expansion, reinforcement and management of rural distribution systems across Nepal. Primarily, this Group is responsible for the development of distribution network (up to 33 kV); construction, operation and maintenance of off-grid small hydro generation plants and associated networks as well as for the management of rural distribution system through community participation.

The activities under the Group are managed under three departments –

(i) Small Hydro Power and Rural Electrification Department,

(ii) Community and Rural Electrification Department, and

(iii) Rural Electrification and Distribution System Reinforcement Project, each headed by a Director.

Small Hydro Power and Rural Electrification Department (SHPRED)

This Department is responsible for the planning, construction and operation of isolated small hydropower plants and electrification, and extension of grid to remote and difficult hilly regions. A total of 26 isolated hydropower plants and associated distribution network are in operation of which 11 have been leased out to private firms or communities. Currently, Rupalgad small hydropower plant (Dadheldhura district) and Dolpa small hydropower plants are not in operation. The civil structure which was swept away by heavy landslide is being repaired, and the maintenance work is expected to be completed soon. Most of the plants damaged in the past as a result of conflict have been repaired and put back into operation.

The pace of construction of two small hydropower plants in Humla and Mugu districts, which was significantly delayed in the past, have picked up in the fiscal year 2005/06.

Community and Rural Electrification Department (CRED)

This Department is responsible for the implementation of community based rural electrification in participation with local communities wherein the communities contribute 20% of the project cost and the remaining 80% met through the budgetary allocation of the Government.

The community based approach of rural electrification has adopted three models—Community Based Operation and Maintenance (CBOM), Community Based Rural Electrification (CBRE), and Community Based Generation (CBG). As of June 20, 2006, a total of 391 communities have applied for electrification and distribution management. So far 176 proposals have been approved and agreements with 137 community groups have been signed. Out of the 137 communities 107 RE schemes are already in operation. Out of 107 RE schemes 28 CBO's has already taken over the distribution system for operation and maintenance. The summary of implementation status of activities under CRED is given in next page.

CRED STATUS TILL JUNE 20, 2006

- 20% Participation recorded, 250 million Rs
- 80% Matching fund required 1000 million Rs
- No. of 33/11 kV substation: 2
- Total HT line 820 km
- Total LT line 2539 km
- Beneficiary house hold 135,000

	No. of Applications			RE Implemented
	Registered	Approved	Agreement Signed	
CBRE	198	130	119	107
CBOM	189	46	18	28
CBLG	4	-	-	-
Total	391	176	137	135

- Total no. of Distribution transformer 570
- No. of 11/0.4 kV Substation 2
- Coverage districts(CBRE and CBOM and CBG): 51*
- No. of Districts in which RE program is in implementation: 38

Note:

* : Based on the application Registered
CBRE : Community Based Rural Electrification Program
CBOM : Community Based Operation and Maintenance
CBG : Community Based generation
RE : Rural Electrification

Rural Electrification, Distribution and Transmission Project

Rural electrification, Distribution and Transmission Project is being implemented with a loan assistance of US $ 50 million from ADB and US$ 10 million from OPEC fund. NEA and Government of Nepal are funding the local component of US$ 34.5 million.

The main objectives of the project are:

- to enhance NEA's distribution and transmission system capacity to evacuate power from the existing and upcoming hydro power plants.
- to extend the distribution system in rural areas to supply electricity to rural communities and improve economic conditions and living standards.
- to meet the increased load growth and supply new consumers within existing service area.
- to develop the transmission system in Kathmandu valley.
- to reduce losses and improve overall efficiency of the system.
- to help Distribution Cnters run commercially and maintain their consumer records and revenue accounting accurately.
- to update fixed assets record scientifically.

The project has the following components.

a) Rural Electrification and Distribution System Reinforcement (RE/DSR)
b) Thankot–Chapagaon–Bhaktapur 132 kV Transmission Line Project
c) Grid Sub–station Reinforcement Project
d) Computerized Billing Project
e) Distribution Profit Center Project
f) Fixed Assets Revaluation Project

Rural Electrification and Distribution System Reinforcement (RE/DSR)

Eight Power Project - Distribution line construction, Dhading.

The scope of the project includes electrification of around 123,382 rural households in 277 Village Development Committees (VDCs) in 22 districts of Eastern, Central and Western regions of Nepal. The project consists of Rural Electrification (RE) and Distribution System Reinforcement (DSR) activity. While the RE will provide access to electricity to new rural consumers, the DSR program will improve the distribution system and hence reduce losses, enhance reliability and serve the expected load growth for the next four to five years.

The project status is as follows:

- Planning, economic analysis and detail engineering survey works for previously proposed 37 districts have been completed.
- The contracts of all 14 packages for the rural electrification and distribution system reinforcement works have been signed and the works are in progress.
- Supply and Construction of 33 kV substations which include 14 numbers of new substations, up-gradation of 8 substations and rehabilitation of 13 substations in the eastern, central and western regions are being executed on turnkey basis.

Most of the line materials for RE and DSR have been delivered. In respect of ACSR conductors, concentric cables, MCBs and PSC Poles the delivery is in progress.

Funded by the Asian Development Bank, the Government of Nepal and Nepal Electricity Authority, the project is expected to be completed by FY 2007/08 at an estimated cost of US$ 52.3 million.

Distribution and Rural Electrification Project

This project includes rural electrification and distribution system reinforcement activity in Dhading, Nuwakot, Lalitpur, Bhaktapur and Kavrepalanchowk districts. Funded by the International Development Association (IDA), the project scope consists of construction of 35 km of 33 kV line, 250 km of 11 kV line and 450 km of 400 V line benefiting about 170,000 people.

The procurement actions for the distribution line materials are underway with most of the contracts awarded and in some case the material already delivered. In respect of the turnkey construction of substations to feed the planned distribution networks, the tenders are under evaluation. The project will soon float tenders for the construction of distribution line. The project is scheduled to be completed by FY 2008/09 at a cost of about US$ 10 million.

Kailali Kanchanpur Rural Electrification Project

Started in 1999 (2056/057) with 66.3 million DKK grant assistance of Danish Government and Rs 669 million of GoN and NEA, the project will supply electricity to 33 VDCs and two municipalities of Kailali and Kanchnapur districts. Around 64,000 households will benefit from this project, which is expected to be completed in 2007 (2064/65).

Now Danish Embassy in Kathmandu through Energy Sector Assistance Program (ESAP) has taken over the responsibility of completing the remaining works suspended by the Danish Contractor citing securing reasons.

Sindhu Dolakha Distribution Line Extension Project

So far, three numbers of 3 MVA, 33/11 kV substations at Lamki, Attariya and Lalpur; 20 km of 33 kV, 343 km of 11 kV and 1,055 km of 400/230 V lines have been constructed. The substations are already in operation and have contributed to improve the voltage drop problem and supply situation in the districts. So far around 10,000 new consumers have been supplied with electricity from the completed lines.

One of the objectives of the project is to establish load centre based electricity user's cooperative capable of owning, operating and maintaining distribution systems including promoting and facilitating productive end-uses and establishment of a union of cooperatives to provide technical, managerial and administrative services to the load centre cooperatives. During course of cooperative formation, it was found that more number of consumers than expected will have electricity connection resulting in redesigning of the distribution networks. The redesigning required four new 33/11 kV substations with total capacity of 10.5 MVA to be established in the project area in order to provide quality supply. This required additional funding of 17.4 m DKK for which request has been made to Danish Government.

Now major works remaining for completion are cooperative formation works, service line connection works and Danida funded distribution line and additional substation construction works. Approximately 77% of the total project works has been completed so far.

Sindhu Dolakha Distribution Line Extension Project

Started in FY 1999/2000, the project is being implemented in three phases. The project is expected to benefit about 39,500 households, and some small and medium industries in the districts of Dolkha and Ramechhap. The scope of work consists of construction of 52 km of 33 kV line, 270 km of 11 kV line, 280 km of LT line, four numbers of 33/11 kV substations and installation of 278 number of distribution transformers,

Currently running in the second phase, the first phase completed construction of 60 km of 11 kV line; 120 km of low voltage line; two number of 33/11 kV, 1.5 MVA substation; and installation of 53 distribution transformers.

Funded by the Government of Nepal, the second phase of the project is estimated to cost NRs 170 million, and is expected to be completed by FY 2007/08.

Dhankuta Rural Electrification Project

The project plans to provide electricity to 3000 households in five VDCs (Ankhisalla, Khoku, Chhintang, Mahabharat and Ahale) of Dhankuta district. The project was started on September 8, 2005 with Rs 60 million grant aid of Japan Government. Scope of work consists of construction of 48 km of 11 kV line, and 60 km of 400/230 V line and installation of 39 numbers of distribution transformers.

Rural Electrification and Renewable Energy Project

Asian Development Bank has provided a TA to formulate a Rural Electrification and Renewable Energy Project. The consultants, Mounsell Ltd., has already submitted the Final report on April 2006.

The envisaged plan includes two components—(i) on-grid electrification to be executed by NEA and (ii) on-grid electrification to be implemented by AEPC. Apart from rural electrification, the plan also includes distribution system reinforcement, stringing of second circuit of the 132 kV transmission line between Butwal and Kohalpur, loss reduction, and demand side management, and institutional strengthening of NEA.

Engineering Services Business Group

The Engineering services Business Group provides the technical support for project development. The services provided by this business group included all aspects of hydropower development ranging form project investigation and master plan studies to construction supervision and management of hydropower projects including detailed engineering studies. It has nearly two decades of experience in design and construction supervision of a number of hydropower plants with capacities up to 144 MW. The four departments, under this service are Environment & Social Studies Department, Soil Rock and Concrete Laboratory, NEA Training Center and Project development Department. The field of expertise offered by this business group also included Electro-Mechanical services which include a concrete pole plant and a central workshop. This business group has a steering committee headed by the General Manager Engineering Services Business group. The directors from all of the four departments are members of the committee.

Activities carried out by the business group during the fiscal year 2005/06 are as follows.

Environment/Social Studies Department

The Environment Social Studies Department has the experience and capability of conducting all aspects of environmental and social studies. This department has now developed into a full-fledged commercial unit, working in association with other international consulting companies, conducting EIA, IEE and ACRP studies of hydropower projects, transmission line and distribution line projects.

During the fiscal year 2005/06, Department has completed a number of assignments:

1. Ministry of Environment, Science and Technology (MoEST) has already approved Scoping Document and Terms of Reference (ToR) and the draft EIA report of Kulekhani-3, 132 kV transmission line including Public Hearing as per the Environmental Protection Rules.
2. The EIA report of Upper Tamakoshi Hydropower Project is in the process of approval.
3. The preparation of the Scoping Document and ToR of Seti-Trishuli Hydropower Project has been completed and submitted for approval.
4. Scoping Document and ToR has been already approved and the draft EIA report of Gongor-Khimti 220 kV transmission line has been completed and submitted to MoEST for approval.
5. The EIA report of Kawaswati -132/33 kV Substation Project has been already completed including the Public Hearing and submitted for approval.
6. Post-construction monitoring work of Kali-Gandaki HEP is ongoing.
7. The quarterly monitoring of air, noise and water quality of Middle Marsyangdi Hydropower Project is being carried out.
8. The EIA report of Chameliya Hydropower Project has been already approved.
9. Scoping Document and Terms of Reference (ToR) has been already approved and the EIA report of Dumre-Damauli 132 kV transmission line is under preparation.

A number of IEE for 33 kV transmission lines have also been completed including Nayapul-Manthali, Dhading-Nuwakot, Chandranigahapur projects. Social Impact Assessment (SIA) of the above 33 kV projects have also been prepared.

Soil, Rock and Concrete Laboratory (SRCL)

This business group has been providing services related to the geological and geotechnical field investigation. The services provided by SRCL are detailed engineering geological mapping, geophysical survey (mainly seismic refraction and electrical resistively), core drilling with in-situ tests such construction material investigation. The laboratory has provided services for NEA and the private sector. Following are the highlights of major works performed by SRCL during fiscal year 2005/06:

1. Upper Trishuli- 3A Hydroelectric Project: A total of 303.40 m of core drilling, surface geological mapping, construction material investigation and laboratory tests. A total of 21 test pits have been excavated and construction material investigation has been carried out. Seismic Refraction Survey with total of 3 km long seismic profiles has been conducted.
2. Kulekhani-3 Hydroelectric Project: A total of 120 m of core drilling works along with in-situ tests have been conducted.
3. Upper Seti (Damauli) Storage Hydroelectric Project: A total of 100 m inclined drilling at underground powerhouse site with lugeon tests on bedrock has been carried out.
4. Chanddranigahapur 132 kV Sub-station: Soil Investigation work including 30 m of core drilling with various laboratory tests on soil samples had been conducted.

SRCL has also been involved in a number of other project studies like Upper Tama Koshi, Upper Seti, Seti Trishuli, etc.

NEA Training Center

NEA Training Center located at Kharipati, Bhaktapur is envisaged for upgrading the professional knowledge and skills of manpower involved in the power sector. There were 70 on the job training programs and three induction training programs conducted in the fiscal year 2005/06. The table at the bottom of this page shows the list of trainings conducted in this year.

These training were conducted according to the contract agreement with the different corporate offices and business groups of NEA. In addition to the employees of NEA, participants from other business organizations of power industry such as Butwal Power Company (BPC) and Himal Power Limited (HPL) have also participated in the training programs. Similarly, on the demand of Department of Electricity Development (DOED), NEA training center conducted two weeks on the job training program on Power System Planning and Design for engineers. In addition to regular training programs, NEA Training Center conducted different requested training programs in the areas of Distribution, Transmission, Generation, Management and Information Technology.

Newly requested training programs conducted by NEA Training Center are Distribution System Planning, Transmission System Planning, Design and Construction, Training on LDC Generation Maintenance, Electrical Protection System, Hydropower Generation, operation maintenance of Hydropower stations, etc. NEA training center has been able to increase the number of both the short term courses and participants in 2005/06. The number of short term training programs has been increased to 67 and the number of participants in short term training programs has

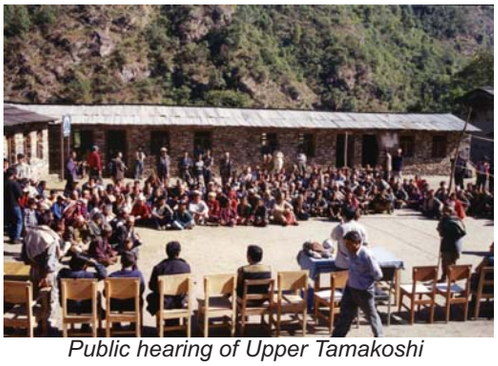
S.No.	Type of Training	Officer		Assistant		Total
		Technical	Non-Tech	Technical	Non-Tech	
1	On the job training (Short-term course)	210	158	302	201	871
2	Induction Training (Recruited in NEA)	48	2	-	20	70
	Total	**258**	**160**	**302**	**221**	**941**

been increased to 871. The training programs that are felt more useful and those need based short term programs have been prioritized.

Project Development Department

This department is responsible for the project studies and design. The various project studies undertaken by this department in 2005/06 are as follows.

Upper Tama Koshi Hydroelectric Project (UTKHEP)



Public hearing of Upper Tamakoshi Hydroelectric Project.

This is a peaking run-of-river project with a capacity 309 MW and annual energy of 1737.7 GWh. The present power/energy deficit can be largely met by commissioning this project which is attractive from technical, economical and environmental point of view. The project cost as per the final feasibility report is US$ 340 millions including access road and transmission line but excluding IDC and other financial costs. The project with a construction period of 4.5 years can be completed by 2012. Its gross head and design discharge are 820 m and 44 cumecs respectively. The overall layout and design of its project components have been made in order to reduce its vulnerability to the effects of a GLOF. 220 kVA Transmission line of 47 km length is required in order to connect UTKHEP power to the national grid via Khimti. Construction of 28.5 km long access road from Singati to Lamabagar has been initiated by dividing the road stretch into four different packages. The track construction is targeted for completion by February 2008. The Environmental Impact Assessment (EIA) of the project has been carried out for generation and transmission separately. EIA reports are under final stage of approval. The tender notice has been published in order to carry out Detailed Engineering Design and Preparation of Tender documents from international consulting firms Two joint venture firms have submitted the proposals. The detailed engineering is planned to be completed by February 2008.

Upper Seti (Damauli) Storage Hydroelectric Project

Public hearing of Upper Seti Hydroelectric Project.

Nepal is facing peak power deficit in dry season so there is need for development of storage projects. Upper Seti (Damauli) Storage Hydroelectric Project with a capacity of 122 MW is located near Damauli in Tanahu District. The feasibility study of this project was conducted in 2001/02 by NEA. Currently NEA and JICA team have been undertaking the upgrading feasibility study. The upgrading feasibility will be completed in June 2007. For the power evacuation of this project, detailed survey of 220 kV transmission line up to New Bharatpur substation has been carried out.

Upper Trishuli 3 A Hydropower Project

NEA is currently undertaking detailed project report (DPR) study of this run of river scheme with a capacity of 61 MW. The headworks of this project is located in Rasuwa district whereas powerhouse is located in Nuwakot district. The headworks is about 11 km north of Betrawati and only 3 km of project road is required to be built. This project has a good combination of discharge, head and eases access. The design discharge is 50 cumecs based on 70% exceedance flow while the gross head available is 149 m. The project features comprise of a 15 m high gated overflow weir, intake conduit, desander, 4.14 km long headrace tunnel, inclined shaft, underground powerhouse, tailrace, 54 km long 220 kV line. The sub surface geology comprises of gneiss and schist which are considered to be favorable for the underground structures. As this scheme is located near major load center of Kathmandu valley, this project is quite attractive from power systems perspective. NEA carried out topographic mapping, geological survey including drilling, hydrological investigation and prepared project layout and preliminary design in 2005/06. Estimated cost of this project is 106 million US $ and average annual energy generation is about 480 GWh.

A tailrace scheme of this project with a capacity of 44 MW has also been identified. NEA will be carrying out feasibility study of this tailrace scheme named as Upper Trishuli 3 B.

Other activities which are being carried out by this business group are

a) Detailed design of Kulekhani-III hydropower project including tender document preparation is in advanced stage.

b) Project Identification study which comprises of preliminary study of Tila (73 MW) and Upper Dudh Koshi (89 MW) projects.

c) Review study of Thuligad hydropower project.

Central Activities

NEA Board Matters

Mr. Gyanendra Bahadur Karki has been appointed to the post of Minister of State for Water Resources (MOWR), and he is also the ex-officio Chairman of NEA's Board of Directors (BoD). Before his Chairmanship of BoD, Dr. Tulsi Giri, Vice-chairman of the Council of Ministers was NEA's BoD Chairman.

Secretary of MoWR, Mr. Tika Datta Niraula is an ex-officio member of the BoD since 2063/01/27 (2006/05/10) after retirement of the then Secretary Mr. Mahendra Nath Aryal. Mr. Arjun Kumar Karki, Joint-secretary of MoWR, has been appointed to the post of Managing Director (MD) of NEA since 2063/04/01 (2006/07/17). Prior to Mr. Karki, Mr. Harish Chandra Shah was MD. The appointment of other members to the remaining posts of BoD is expected soon.

During this fiscal year 2005/06 Board meetings were held 14 times. During this fiscal year, Personnel Administration and Financial Administration By-laws were amended. NEA's corporate organizational structure was also modified with the addition of two Deputy Managing Directors: Administration and Internal Audit with a view to strengthening the structure.

Public Relation and Grievances Management Department

This department collects public grievances and complaints and forwards them to NEA's concerned business units for necessary action. The department also makes arrangement for production of Radio and TV programs regarding energy pilferage, leakage, conservation and other issues as part of NEA's public awareness campaign. In addition, the department also brings out Vidyut, a half yearly magazine, highlighting the various issues related to NEA.

During FY 2005/06, the Department received a total of 19 complaints from the public. All the complaints were forwarded to the concerned business units for necessary action. All the complaints have been addressed by the concerned business units.

Planning, Monitoring and Information Technology

The Planning, Monitoring and Information Technology wing prepares short and long term generation and transmission expansion plans to cater to the nation's growing dement for electricity. In addition, the wing also periodically evaluates and monitors the progress of the development projects executed by NEA for their timely completion.

This wing is headed by the Deputy Managing Director and supported by five departments; system planning department, information technology department, monitoring department, corporate planning department and power trade department.

Information Technology Department

The Information Technology Department in FY 2005/2006 developed a number of application software such as payroll system, employee promotion system and employee darbandi system for enhancing organizational efficiency.

The Department imparted training on Linux operating system and CISCO network system to its engineers which will help to maintain and enhance NEA country wide network using VPN. NEA corporate/office complex now has more than 200 nodes connected through Ethernet in addition to remote connections using VPN and regular dialup connections from remote sites where VPN is not available.

NEA intranet site www.nea.org site was revamped in this fiscal year with improved interface updates and inclusion of discussion forum. NEA intranet site now includes important facilities like telephone inquiry system, library book inquiry system, Document Dispatch System, etc. and internal mailing system; inventory stock inquiry system and other utilities. The shared Internet bandwidth was increased from 64 kbps to 256 kbps this year.

The Department continued the implementation of CAIS in 24 new locations. The Department completed procurement of hardware for the same. The Department also provided training on CAIS to 64 staff members.

Most of the information about NEA activities can be downloaded from the NEA website: www.nea.org.

Corporate Planning Department

The Corporate Planning Department, undertook the following major works during the fiscal year 2005/06:

- Formulation of Annual Development Budget.
- Preparation of proposals for foreign assistance.
- Obtaining licenses from GoN for its development initiatives.
- Preparation of Action Plan for GoN's Budget Policies related to NEA.
- Preparation of Medium Term Expenditure Framework (MTEF) paper for the fifth MTEF (FY 2006/07 - 2008/09).
- Preparation of Demand Side Management Policy.
- Policy for the micro hydro plants participation in the overall grid power exchange.

In addition, NEA also obtained four new licenses from Government for development of networks. Out of the four new licenses; two are for the transmission survey, one for the distribution survey, and the remaining one for the generation survey.

Some of the following policies initiated but could not take shape due to the time constraints were in the sector of:

a) Leasing / Disinvestment of loss making hydro plants and amenities

b) Joint venture works of major power plants to be undertaken by NEA.

c) Formulation of Acts in the favor of NEA.

In the capacity building measures for NEA staffs, 12 senior NEA officials took part in various trainings, workshops, seminars and partnership programs under the USAID sponsored South Asia Regional Initiative/Energy (SARI/E) program.

Monitoring Department

This Department collects and evaluates monthly, quarterly and annual progress reports of different projects implemented by NEA. It conducts internal review meeting of different projects and participates in the Ministry level quarterly progress review meeting.

It also acts as the Secretariat to the Petition Committee of NEA as provisioned in the Electricity Loss control and Electricity Distribution by-laws. As the nodal officer of NEA, the Department also takes responsibility for collecting the progress report from the concerned departments as per requirement and report to GoN's concerned authorities regarding delivery of quality service.

Apart from the above tasks, this Department also co-ordinates with and reports to various Government Agencies, such as the Ministry of Water Resources, Ministry of Finance (MOF), National Planning Commission, etc. regarding the progress of NEA executed projects.

Power Trade Department

The major function of the Power Trade Department is to process applications for Power Purchase Agreement (PPA) and conclude PPA with the IPPs. Besides this, the Department also coordinates the power exchange and trade with India, monitors and provides support in administration of the PPA including invoice processing and Coordinating Committee meetings.

As of July 2006, a total of 28 PPAs have been signed with a total installed capacity of 217.175 MW. Out of these, 11 projects with total installed capacity of 148.283 MW are in operation and 8 projects with total installed capacity of 16.826 MW are under construction. Out of the 8 projects under construction, Baramchi (999 kW), Khudi (3,450 kW), Thoppal Khola (1400 kW) and Sisne Khola (750 kW) are expected to be commissioned in the coming fiscal year of 2006/07.

During FY 2005/06,the Department concluded PPA's with Kathmandu Small Hydropower Systems (Pvt.) Ltd. and Unified Hydropower (Pvt.) Ltd. for the purchase of power from Sali Nadi Small Hydropower Project (232 kW) and Pati Khola Small Hydropower Project (996 kW) respectively.

Total of 43 applications for PPA are under various stages of study. Power evacuation has emerged as the most important issue, impeding speedy conclusion of PPA. It is imperative that all possible obstacles and difficulties regarding evacuation of power from the proposed projects be identified and their optimum solutions worked out before entering into a long-term contract like PPA. To meet this objective, a study on power evacuation aspects is required to be undertaken involving concerted effort from both the NEA and the developer. Considering this need and relevant provision in NEA Grid Code, Connection Agreement between the grid/distribution network owner and user has been made a prerequisite for PPA. Accordingly, six projects have already been forwarded for Connection Agreement after technical review.

Besides the routine activities, this Department also reviewed the Model PPA both for BOOT (Build Own Operate and Transfer) and BOO (Build Own and Operate) projects under the private sector. Furthermore, this Department also engaged in power purchase pricing study to recommend pricing policies for projects up to 10 MW capacity.

System Planning Department

The System Planning Department is mandated by the NEA Board to formulate NEA's long-term investment plans on generation and transmission. During the year under review, the Department brought forth three important documents on:

- Load Forecast
- Generation Expansion Plan and
- Transmission Expansion Plan.

The Load Forecast projects Nepal's long-term electricity demand. Based on this, the Generation Expansion Plan devises a sequence of probable projects to meet this demand. Based on both the Load Forecast and the Generation Expansion Plan, the Transmission Expansion Plan is devised to determine augmentation and expansion required in the NEA's transmission network.

The Department, in conjunction with NEA's other departments, also conducted power evacuation study for Upper Trisuli Hydropower Project, Transmission Line study in the Sunkoshi Corridor and impact study for Bulk consumer load.

Administration

Administration wing is responsible for formation, implementation and amendment of various rules and regulations of NEA and overall development of human resources. This office is also responsible for providing logistic support, legal advice and arbitration, property management, security arrangement of central office and for promoting public relations. The office is headed by Deputy Managing Director and supported by three departments namely Human Resource Department, General Services Department and Publication Relation and Grievances Management Department.

Human Resources Department

The Human Resources Department is responsible for man power planning recruitment, training, staff welfare and disciplinary actions.

The total approved position at the end of FY 2005/06 is 10,314 out of which 9,540 positions are filled, During the year under review, 297 new staffs were recruited, 96 staffs retired, 35 resigned and 41 died due to natural causes.

Under disciplinary actions, six staffs were cautioned, three staffs have been debarred promotion, seven suspended and twelve staffs were dismissed from the service.

During the year under review, 61 officers and 236 assistant levels new staff were recruited.

As regards promotion, nine officers and 1,072 assistant levels employees were promoted under twelve year time bound automatic promotion system. Similarly, three managers were promoted to director level based on performance evaluation. The promotion process for different levels based on performance evaluation and internal competition was started and is in progress.

A total of 251 staffs participated in training, seminar, workshop, conference, higher study and inspections abroad whereas 222 staffs participated in training, seminar, workshop and higher studies conducted by different organizations within the country. Similarly, 400 officer level staffs and 553 assistant level staffs participated in various training programs conducted by NEA Training Center.

Under the staff welfare program, additional financial support was provided to eight staff for the treatment of serious illness. similarly, under the staff welfare loan, 380 staffs received house/land purchase and construction loan, 138 staffs received house maintenance loan, 268 staffs received social activities loan, 95 received three months salary loan and three received natural disaster loan.

General Services Department

The General Services Department is responsible of the following function under corporate structure of NEA.

1. General administration of the central office
2. Legal and arbitration affairs of NEA.
3. Security management of the central office.
4. General repair and maintenance of the central office building and Balaju guest house.
5. Logistic support of the central office.
6. Necessary arrangement of the Annual Anniversary and Bishwokarma Puja.
7. Vehicle management of the central office.
8. Auction of the beyond repairable vehicles of the central office.

There were all together 117 legal cases involving NEA in FY 2005/06 out of this, NEA won 42 cases, lost 16 cases and remaining 59 cases are sub-judice. Most of these cases involved electricity theft and land acquisition.

A new vehicle service centre has been established for vehicle servicing and minor maintenance.

The total number of the vehicles at the end of the fiscal year is as follows:

S. No.	Types of Vehicle	Numbers
1.	Car	54
2.	Jeep	190
3.	Pickup	202
4.	Truck	102
5.	Crane	41
6.	Van	7
7.	Heavy Equipments	9
8.	Three Wheeler (Tempo)	1
9.	Tractor	3
10.	Mini Bus	15
11.	Motorcycle	155
	Total	**779**

Internal Audit

Internal Audit wing of NEA is responsible for carrying out the financial, management, technical and energy audits of NEA's business groups and corporate offices.

The organizational status of Internal Audit has been upgraded during the fiscal year in the course of strengthening the internal audit function. It is now headed by Deputy Managing Director who reports to the Managing Director. These audits are conducted in conformity with Standard Auditing Practices, provisions relating to Internal Audit in Financial Administration Regulations, 2062 and Internal Audit Manuals by the respective regional offices established in the previous fiscal year under the Department and Office of the Deputy Managing Director of Internal Audit. It has also started initiation to adopt the risk based approach for conducting internal audit.

During the fiscal year financial audit for the F/Y 2061/62 were conducted for 122 offices and for the F/Y 2005/06 periodical audits i.e. quarterly, half yearly, annual audit were initiated and are in progress as per the audit plan. A total of 94 audits has been completed. Similarly management, technical and energy audit of 7, 21 and 28 offices respectively has been completed. In addition to field audits, the monthly and periodical information furnished to internal audit were reviewed by the divisions for conducting desk audit and findings were communicated to concerned offices for comments.

Annual Internal Audit Report for the year 2061/62, quarterly report for the period Shrawan-Kartik, 2062 and Marg-Falgun, 2062 have also been submitted to the Managing Director as per the provisions of the Financial Administration Regulation for necessary action.

An International Consulting firm has been appointed for providing consultancy services to strengthen the internal audit practices in NEA (as well as financial management and accounting system of NEA) under the NEA Institutional Strengthening Project financed by the World Bank. Management Audit Manual was prepared with the help of local consultant for conducting management audit in an effective manner. With the initiation of internal audit, a committee for study and the basis for computation of system loss was formed. The committee submitted the report outlining the basis for calculation of system loss.

The Department also provided training on various courses for enhancement of knowledge and skills. Internal audit imparted training in the ever changing environment for continuous enhancement of knowledge and skills of audit officials and staffs. During the year, the Department also deputed many officers to various training programs organized abroad and in house to enhance their professional capacity.

Finance

The Finance wing of NEA is responsible for overall corporate financial activities. This office is headed by Deputy Managing Director and supported by Corporate Finance and Finance & Accounts Departments

Corporate Finance Department

Despite the various obstacles faced during the fiscal year 2005/06, NEA registered a growth of 7.71% in total sales. However, this growth in sales is less than the projected target by 3.68%. Internal sales increased by 8.83% to reach the figure of 1965.27 GWh whereas exports (sales to India) decreased by 10.25% compared to last fiscal year. Export to India stood at 101 GWh. Internal sales net revenue amounted to Rs. 12,851 million for the fiscal year 2005/06 as against Rs. 11,995 million in the previous year thereby registering an increase of 7.13%. Export sales revenue stood at Rs. 565.6 million as against Rs. 609.5 million in the previous fiscal year registering a decrease of 7.2%. Total rebate given to the consumers amounted to Rs. 305.08 million, an increase of 8.66% over the previous fiscal year's figure.

In the year 2005/06 NEA's income from other services such as surcharge, interest, lease rent, service charge, dividend, etc. was Rs. 596.57 million which is less by 9.5% as compared to the previous year's figures. The contribution of income from other services to the total income is 4.26%. Total income after rebate stood at Rs. 14,012.9 million showing an increase of 5.98% over the total income of 2004/05.

NEA's total expenditure amounted to Rs. 16,485.2 million, an increase of 13.47% over the previous year's expenditure. Power purchase increased by 14.7% to reach a total amount of Rs. 6,575 million. This is 39.9% of the total expenditure. Additional power import and annual escalation provisions in rates contributed to increase in power purchase cost.

Interest expenditure, the second largest component of the total expenditure increased by 6.5% over previous year's figure to register a total amount of Rs. 3,281.5 million. NEA's cost of debt is high because of combined impact of high interest charges by the Government (10.25% in 2005/06 in most of the cases) and involuntary injection of funds in projects. The Government has recently decided to reduce the interest rate to 8%. This will help to improve financial heath of NEA in the coming years.

Staff cost standing at around 10% of the total expenditure amounted to Rs. 1,749 million in 2005/06, an increase of 17.15% over previous year's staff cost. This increase in staff cost was due to the Government's decision to raise the salary scale by 20% in 2005/06. Like wise, Operation & Maintenance expenses increased by 15.93% to reach a figure of Rs. 1,441 million. Additional thermal generation, necessary maintenance to maintain system operation and rise in price of various construction materials contributed to this increase in costs.

Depreciation, royalty, prior years' adjustment and other expenditure which include deferred revenue expenditure, loss on forex, loss of other assets and provisions amounted to Rs. 1,751 million, Rs. 906 million, Rs. 325 million and Rs. 455 million respectively.

NEA's cost of service is in rise mainly because of escalation in power purchase rates, inflation and expansion of service in rural areas. However, there is no mechanism to recover/adjust these costs. In view of the above, NEA has applied for automatic tariff adjustment. The application is pending in the Tariff Fixation Commission. NEA considers tariff increase as the last resort to look for. In this fiscal year also NEA carried on its business without increasing electricity tariff for the fourth consecutive year although it suffered a loss of about Rs. 1.2 for each kWh supplied to the consumers.

NEA's cash situation worsened during the fiscal year despite more than 95% collection rate of individual and private sector. Public sector dues still remains a serious problem. The outstanding receivable balances from municipalities and Government offices and public institutions

stood at approximately Rs. 2 billion at the end of the fiscal year. Additional fund requirement for various projects including Middle Marsyangdi further worsened the problem. In fiscal year 2005/06, NEA spent over Rs. 1 billion as additional disbursement to various projects. To cope with the problem of cash shortage, NEA has already initiated the process for issuance of Power Bonds in the market. The selection of Issue Manager is in the process and will be finalized very soon.

Institutional strengthening process has been introduced through Institutional Strengthening Project, a sub component of Nepal Power Development Project under the financial assistance of the World Bank assistance. The consultant has been appointed. The consultant has started carrying out the task of enhancing present capabilities in finance, accounts, and internal audit through training, process mapping, selection of appropriate system, introduction of FMIS, IFRS and other useful tools.

Finance and Accounts Department

NEA´s fixed asset (historical-net) at the end of the fiscal year 2005/06 reached Rs. 52,974.9 million as compared to Rs. 52,192.7 million at the end of previous fiscal year. Total revenue in F/Y 2005/06 was Rs. 14,013.6 million as compared to Rs. 13, 222.7 million in F/Y 2004/05, an increase of 5.98%.

Total operating expenses under generation, transmission, distribution and administration in the fiscal year 2005/06 stood at Rs. 8,374.8, Rs. 232.5, Rs. 1,652.9 and Rs. 653.7 million respectively. As compared to last fiscal year's figures the expenses under the above headings increased by 15.57%, 7.69%, 11.37% and 5.03% respectively whereas the total expenses increased by 11.08%. NEA suffered a net loss of Rs. 2,473.1 million in this fiscal year. NEA´s financial performance has not been encouraging. NEA suffered a loss for the sixth year in a row due to various reasons cited in this report.

In F/Y 2005/06, NEA invested Rs. 7,516.1 million in capital works and projects. Out of this, Rs. 2,101 million comprised of Government equity, Rs. 3,269.1 million came as Government loan and Rs. 2,145 million was borne from NEA´s internal source.

NEA´s total borrowing stood at Rs. 51,955.5 as of end of F/Y 2005/06. In F/Y 2004/05, NEA contributed a total sum of Rs. 2,776 million to the national treasury. Out of this, Rs. 588.3 million was for interest payment, Rs. 825.1 million for loan repayment Rs. 896.2 million as royalty and Rs. 470 million in respect of Middle Marsyangdi funding. In F/Y 2005/06 NEA borrowed Rs. 700 million as short term loan.

The financial audit for F/Y 2004/05, carried out by M/S CSC and Co., Chartered Accountants was completed within nine months of the fiscal year. Finalization of Final Audit is pending approval by Board of Directors. Tax audit for F/Y 2004/05 has also been completed.

NEA appointed auditors to conduct the performance audit of General Manager's Office of the core business units and the distribution centers for the first and third performance audit periods respectively.

NEA has successfully computerized its financial accounts and inventory management system in all major centers of NEA. This will facilitate to complete the financial and tax audit at stipulated time. This will help to improve the financial reporting system of NEA and will also help to comply with the loan covenants of donor agencies.

The audit qualifications of the period F/Y 1973/74 to 1993/94 of the then Electricity Department, Development Projects and Development Committees, have been cleared by 41.2% out of the total outstanding Rs. 97.6 million audit qualifications in F/Y 2005/06.

NEA is required to achieve a number of covenants in respect of borrowing from the donor agencies. Major covenants related to finance are Rate of Return (6%), Self Financing Ratio (23%), Debt Service Coverage Ratio (1.2 times) and Average Collection Period (3 months). In F/Y 2005/06 NEA achieved 2.2%, -2.6%, 0.65 times and 3.7 months in respect of ROR, SFR, DSCR, and ACP respectively.

NEPAL ELECTRICITY AUTHORITY
Highlights of FY 2005/06

(NRs. in million)

DESCRIPTION	2006*	2005	INCREASE/DECREASE	
			AMOUNT	PERCENT
Revenue:				
Net Sale of Electricity (M.NRs.)	13,416.0	12,605.2	810.8	6.43
Income from Other Services (M.NRs.)	596.6	617.5	(20.9)	-3.38
Total Revenue (M.NRs.)	**14,012.6**	**13,222.7**	**789.9**	**5.97**
Operating Expenses:				
Generation Exps. (incl. Power Purchase) (M.NRs.)	8,374.8	7,246.5	1,128.3	15.57
Transmission Expenses (M.NRs.)	232.5	215.9	16.6	7.69
Distribution Expenses (M.NRs.)	1,652.9	1,484.2	168.7	11.37
Administration Expenses (M.NRs.)	653.7	622.4	31.3	5.03
Depreciation Expenses (M.NRs.)++	1,751.3	1,733.5	17.8	1.03
Deferred Revenue Expenditure (M.NRs.)	85.0	123.3	(38.3)	-31.06
Total Operating Expenses (M.NRs.)	**12,750.2**	**11,425.8**	**1,324.4**	**11.59**
Operating Surplus (M.NRs.)	**1,262.4**	**1,796.9**	**(534.5)**	**-29.75**
Interest on Long-Term Loans (M.NRs.)	3,281.5	3,079.8	201.7	6.55
Other Exps./Income including prior year's Adj.	453.5	29.9	423.6	1416.72
Net Income/(Loss) (M.NRs.)	**(2,472.6)**	**(1,312.8)**	**(1,159.8)**	**88.35**
Longterm Loans (M.NRs.)	51955.5	48686.4	3,269.1	6.71
Net Fixed assets (M.NRs.)	62422.5	61286.8	1,135.7	1.85
Number of Consumers	1,279,902	1,159,855	120,047.0	10.35
Total Sales of Electricity (GWh)	2,066.3	1,918.4	147.9	7.71
Internal Sale (GWh)	1,965.3	1,805.8	159.5	8.83
Annual Average Consumer's Consumption (kWh)+	1,535.48	1,556.94	(21.5)	-1.38
Average price (NRs./kWh)+	6.49	6.57	(0.08)	-1.19
Peak Load Interconnected System (MW)	603.28	557.53	45.8	8.21
Total Available Electric Energy (GWh)	2,777.42	2,642.75	134.7	5.10
Hydro Generation (GWh)	1,558.38	1,522.90	35.5	2.33
Purchased Energy (GWh)-India	266.23	241.39	24.8	10.29
-Nepal (Internal)	930.04	864.79	65.3	7.55
Exported Energy (GWh)	101.00	112.53	(11.5)	-10.25
Thermal Generation (GWh)	16.10	13.67	2.4	17.78
Self Consumption (GWh)	25.00	22.20	2.8	12.61
Net System Losses	**24.70%**	**24.83%**	**(0.1)**	**-0.52**

Note:

* Provisional figures; Subject to final audit.

+ Internal.

++ On Historical Assets.

NEPAL ELECTRICITY AUTHORITY
Balance Sheet as at July 16, 2006

(Fig. in million)

Particular	* 2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
Capital and Liabilities										
Capital and Reserve										
Share Capital	21273.1	20161.8	18215.9	16976.9	16601.3	15360.3	14634.0	13365.8	12324.3	10952.6
Reserve and Accumulated Profit	4730.8	4826.1	4550.6	5584.3	8153.8	10492.7	11689.6	12040.3	13464.5	14746.7
Secured Long Term Loan	51955.5	48686.4	45252.0	43786.0	41474.5	36707.5	30155.7	23824.3	20848.4	17403.2
Grand Total	**77959.4**	**73674.3**	**68018.5**	**66347.2**	**66229.6**	**62560.5**	**56479.3**	**49230.4**	**46637.2**	**43102.5**
Asset										
Fixed Assets (Net)	62422.5	61286.8	58963.4	56949.0	58538.2	37104.0	35196.0	31223.0	29891.3	28633.4
Capital Work in Progess	19378.6	16060.4	10619.6	8655.5	4837.8	23640.0	18947.0	16542.7	14179.0	11974.6
Investment	777	777.0	713.0	613.0	553.0	517.1	521.1	326.1	247.7	150.6
Sub Total	**82578.1**	**78124.2**	**70296.0**	**66217.4**	**63929.0**	**61261.1**	**54664.1**	**48091.8**	**44318.0**	**40758.6**
Current Asset										
Inventories	1345.2	1372.7	1048.0	1017.2	1058.1	960.9	982.3	740.0	914.9	804.0
Sundry Debtors and Other Receivable	4064.6	3697.7	3735.7	3380.2	2284.9	1678.5	1525.5	1530.9	1435.4	1209.1
Cash and Bank Balance	1296.2	1322.6	1036.4	1076.2	664.6	1039.3	1321.3	1148.1	1632.3	1526.5
Prepaid,Advance, Loan and Deposits	2120.5	2098.6	2063.3	2216.9	3314.4	2634.9	1932.0	1634.2	1709.6	1329.0
Total Currents Asset	**8826.5**	**8491.6**	**7883.4**	**7690.5**	**7322.0**	**6313.6**	**5761.1**	**5053.2**	**5692.2**	**4868.6**
Less: Current Liabilities and Provision										
Sundry Creditors and Payables	12933.2	12619.8	9707.7	7444.8	4703.9	5070.80	4488.5	4349.7	3555.7	2512.1
Provision	732.6	697.7	681.5	753.3	1244.2	1042.90	988.9	436.8	449.3	413.1
Total Currrent Liabilities and Provision	**13665.8**	**13317.5**	**10389.2**	**8198.1**	**5948.1**	**6113.7**	**5477.4**	**4786.5**	**4005.0**	**2925.2**
Net Currents Assets	**-4839.3**	**-4825.9**	**-2505.8**	**-507.6**	**1373.9**	**199.9**	**283.7**	**266.7**	**1687.2**	**1943.4**
Deferred Expenditures (To be Written Off)	71.0	126.7	250.0	506.8	916.5	978.6	1302.8	615.0	443.3	267.3
Inter Unit Balance(Net)	149.6	249.3	-21.7	130.6	10.2	120.9	228.7	256.9	188.7	133.2
Total Def. Exp.& Inter.	**220.6**	**376.0**	**228.3**	**637.4**	**926.7**	**1099.5**	**1531.5**	**871.9**	**632.0**	**400.5**
	77959.4	**73674.3**	**68018.5**	**66347.2**	**66229.6**	**62560.5**	**56479.3**	**49230.4**	**46637.2**	**43102.5**
	-	-	-	-	-	-	-	-	-	-

* Budgeted

NEPAL ELECTRICITY AUTHORITY
Income Statement for the FY July 16, 2006

(Fig. in million)

Particulars	**2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
Sales	13416	12,605.2	11,874.7	11,012.6	9,476.2	8,160.80	6,856.00	5,396.70	5,082.50	4,767.50
Cost of sales	**8,607.3**	**7,462.4**	**6,765.4**	**5,348.0**	**5,886.7**	**4,480.70**	**2,190.30**	**1,950.50**	**1,743.60**	**1,176.20**
Generation	8374.8	7,246.5	6,565.9	5,169.4	5,728.7	4,343.40	2,068.53	1,849.32	1,642.82	1,098.82
Transmission	232.5	215.9	199.5	178.6	158.0	137.30	121.73	101.18	100.78	77.48
Gross profit	**4,808.7**	**5,142.8**	**5,109.3**	**5,664.6**	**3,589.5**	**3,680.10**	**4,665.70**	**3,446.20**	**3,338.90**	**3,591.30**
Other income	596.6	617.5	671.4	512.5	459.6	593.10	356.40	384.70	350.20	316.30
Distribution Expenses	1652.9	1,484.2	1,376.1	1308.6	1,174.4	982.22	711.53	600.26	546.69	436.88
Administrative Expenses	653.7	622.4	489.1	536.10	447.4	850.08	703.47	629.24	564.21	445.12
Profit from operation	**3,098.7**	**3,653.7**	**3,915.5**	**4,332.4**	**2,427.3**	**2,440.90**	**3,607.10**	**2,601.40**	**2,578.20**	**3,025.60**
Interest	3281.5	3,079.8	2,991.5	2,973.4	1,395.5	1,188.20	1,244.30	1,141.20	1,317.20	1,207.50
Depreciation	1751.3	1,733.5	1,686.0	1,656.7	1,420.1	1,119.30	948.80	976.40	696.70	598.90
Profit/ loss on foreign Exchange	48.5	-230.0	59.1	0.0	271.6	0.00	0.00	0.00	0.00	0.00
Loss on fixed assets	80	40.0	0.0	191.5	37.0	0.00	0.00	0.00	0.00	0.00
Deferred revenue expenditure writen off	85	123.3	320.1	411.1	512.5	426.90	440.80	236.80	270.10	188.70
Sub total	**5,246.3**	**4,746.6**	**5,056.7**	**5,232.7**	**3,636.7**	**2,734.40**	**2,633.90**	**2,354.40**	**2,284.00**	**1,995.10**
Profit/ loss from operation including interest+Dep.	***-2,147.6***	***-1,092.9***	***-1,141.2***	***-900.3***	***-1,209.4***	***-293.50***	***973.20***	***247.00***	***294.20***	***1,030.50***
Prior years adjustment (net)	325	219.9	344.9	444.4	492.0	291.60	-216.70	-79.40	-91.70	-176.60
Net profit/ loss before tax	**-2,472.6**	**-1,312.8**	**-1,486.1**	**-455.9**	**-717.4**	**-1.90**	**756.50**	**167.6**	**202.50**	**853.70**
Provision for Tax	0	0	-274.2	1,497.8	143.3	49.10	571.40	263.60	28.80	146.30
Net profit/ loss after tax	**-2,472.6**	**-1,312.8**	**-1,760.3**	**-1,953.7**	**-860.7**	**-51.00**	**185.10**	**-96.0**	**173.70**	**707.40**
Balance of profit asper last account	-4,808.0	-3,475.2	-1,694.9	278.9	1,159.6	1,230.60	1,065.30	1,181.50	1,027.80	340.40
Total profit Available for appropriation	-7,280.6	-4,788.0	-3,455.2	-1,674.9	298.9	1,179.60	1,250.60	1,085.50	1,201.80	1,047.80
Insurance fund	20.0	20.0	20.0	20.0	20.0	20.00	20.00	20.20	20.00	20.00
Profit /loss transferred to balance sheet	**-7,300.6**	**-4,808.0**	**-3,475.2**	**-1,694.9**	**278.9**	**1,159.60**	**1,230.60**	**1,065.30**	**1,181.50**	**1,027.80**

**
Budgeted

Accounting Policies

Basis of Accounting

The financial statements have been prepared on the basis of historical cost convention, modified to include the effect of revaluation of fixed assets as per the generally accepted accounting principles which are compatible with certain International Accounting Standards, to the extent applicable. The financial statements are prepared as per Nepal Accounting Standards except where stated otherwise and presentational requirement of the Company Act- 2053.

Revenue from Sale of Electricity

(i) Revenue from sale of electricity is recognized at the time of raising of bills on the customers, as per the billing cycle. Revenue from the billing cycle date up to 31 Ashad has been accrued taking average rates. Revenue from sale of electricity is shown net of rebate.

(ii) Accounting of rebate, surcharge for delayed payments and liquidated damages, obligations been done on cash basis.

Income from Other Services

(i) Revenue from other services is recognized on cash basis.

(ii) Interest on investments in call and time deposits is recognized on accrual basis.

(iii) Dividend on investment in shares is recognized at the time of receipts.

(iv) Revenue from services provided by Engineering Services is accounted for on cash basis on the completion of the relevant job.

Fixed Asset

i) Fixed assets (other than those identified in paragraph (ii) below, which continue to be stated at their historical cost) are stated at their revalued figures less accumulated depreciation. However, transmission lines below 33 kV have been considered for annual revaluation only from 2048-49 (1991-92) by applying the multiplying factor as applied to other revalued assets.

(ii) The following assets are stated at their historical cost less accumulated depreciation

(a) Solar Power Plant
(b) Meter and Metering Equipment
(c) Consumer Service
(d) Public Lighting
(e) Tools and Instruments
(f) Vehicle and Mobile Plant
(g) Furniture and Fixtures
(h) Office Equipment
(i) Miscellaneous Properties

(iii) The cost of acquisition, construction/erection includes interest on loans related to the period of construction/erection up to the date of completion of the project, along with other incidental costs and charges attributable to bringing the asset to its working condition for its intended use. The incidental costs include proportionate overheads relating to the following offices at the rates given below:

(a)	Planning	50%
(b)	Distribution and Consumer	10%
(c)	Development	50%
(d)	Finance and Administration	10%

(iv) Liabilities in foreign currencies relating to acquisition of fixed assets are carried in the books at the exchange rates prevailing as on the date of incurring the said liabilities and exchange loss/gain arising there from, is adjusted to the cost of respective fixed assets on actual disbursement of the respective loans.

(v) Liabilities on foreign currency loans which remained unpaid at the year end are converted at the year end exchange rates. The profit/loss arising there from is charged to the Income Statement. During the year, Rs. 229.56 million of gain on foreign exchange is credited to Income Statement.

Revaluation of Fixed Assets

(i) A major portion of fixed assets was revalued during the financial year 1988/89 and 1989/90, using the 'net replacement cost approach' on the basis of reports of independent valuers. The assets revalued, together with subsequent additions made thereon, are subject to an annual revaluation by adopting a single multiplying factor computed by using the average index numbers of inflation provided by the World Bank for the financial years 2004 and 2005 for foreign and local component in the ratio 80:20. Independent valuers are not used for annual revaluation of fixed assets.

(ii) The multiplying factor computed for the year and applied to the assets for annual revaluation is 4.20% (previous year 2.85%).

(iii) Revaluation factor is not applied in the case of fixed assets whose value has already been reduced to Rs. 1 under the historical cost convention to the extent identified. However, assets under distribution lines have been revalued irrespective of the net book value.

Contributions from Customer/Local Authorities

Contributions received from the customers/ local authorities against fixed assets installed/ commissioned by NEA, were treated as capital reserve and these were not deducted from the cost of respective fixed assets up to 2053-54 (1996/97). With effect from 2054-55 (1997/ 98) such contributions are netted off from the respective fixed assets. An amount aggregating to Rs. 179.38 million on account of consumer contribution pertaining to earlier years has not been adjusted and disclosed in the financial statements as Capital Reserve.

Depreciation

(i) Depreciation is provided on straight-line method on all fixed assets, at the stated rates in the table.

(ii) The applicable depreciation rate on building on revaluation basis is applied on 90% of the value of the building.

(iii) On assets sold/scrapped etc. during the year, depreciation is not provided up to the date of sale/discard/disposal.

(iv) Depreciation on changes in value of fixed assets due to impact of revaluation is provided retrospectively.

(v) An amount of Rs. 950.242 million (previous year Rs. 930.152 million) equivalent to the additional charge for depreciation, arising due to revaluation of fixed assets is transferred from the Revaluation Reserve to the Income Statement and not adjusted against retained earnings as per IAS 16.

		Revalued Cost Basis	Historical cost Basis
(a)	Land	-	-
(b)	Buildings	1.00%-2.00%	2.00%
(c)	Hydro Electric Structures	2.00%-2.90%	2.00%-3.00%
(d)	Hydro Electric Plant & Machinery	3.35%-5.00%	3.00%
(e)	Internal Combustion on Plant & Machinery	4.00%	2.50%
(f)	Transmission lines (66 kV, 132 kV and above)	3.35%	3.00%
(g)	Transmission lines (33 kV)	5.00%	3.00%
(h)	Transmission Substations	4.00%	3.00%
(i)	Distribution System (including below 11 kV Transmission lines)	4.00%-5.00%	3.00%-4.00%
(j)	Solar Power	-	3.00%
(k)	Meter & Metering Equipment	-	10.00%
(l)	Consumer Services	-	7.00%
(m)	Public Lighting	-	3.00%
(n)	Vehicles, tools and instruments, furniture and fixtures.	-	20.00%
(o)	Office Equipment	-	15.00%
(p)	Miscellaneous Properties	-	50.00%
(q)	Additions during the year	At applicable rates for full year	At applicable rates for half year

Investments

Investments are valued at cost.

Inventories

Inventories are valued at cost, using the weighted average method.

Accounts Receivable

Accounts receivable are stated at book values, less provision as may be considered appropriate by the management.

Deferred Revenue Expenditure

Certain expenditure incurred on training, investigation, survey, feasibility studies, of infrastructure projects and major overhauling etc., which are expected to generate benefits over a period of time, are treated as deferred revenue expenditure and written off over a period of five years, including the year in which the said expenditure are incurred.

Employees Benefits

Provision for Pension and Gratuity is made on an ad hoc basis. Such expenses are accounted for on cash basis and provisions made in earlier years against the above expenses heads are being retained in the accounts. However, Rs 1.96 million (cumulative up to previous year Rs. 475.80 million) is provided by the management on an estimated basis.

Liability on account of accumulated home and sick leave aggregating to Rs. 14.27 million (cumulative up to previous year Rs. 142.21) has been provided for on an estimated basis to cover the liability as at Ashad 32, 2062. Liability on

account of medical reimbursement continues to be accounted for on cash basis which is not in accordance with Nepal Accounting Standards.

Insurance Fund

Insurance fund is created by setting aside a sum of Rs. 20 million every year irrespective of profit/ loss for the year to cover the any loss of fixed assets, in case of any eventuality. However, interest accruing on the above Fund is credited to Income Statement, as per consistent practice. Rs. 280 million (previous year Rs. 260 million) earmarked in lieu of insurance fund has been utilized by NEA during the year and the amount set aside every year is not funded on the balance sheet date. This fund is not created in the current year as NEA has incurred loss.

Prior year's figures/ Regrouping

Previous year's figures have been reclassified/ regrouped, where necessary, to make them comparable with current year's figures.

TARIFF RATES

(Billing Effective since September 17, 2001)

1:	**DOMESTIC CONSUMERS**				
	A	**Minimum Monthly Charge: METER CAPACITY**		**Minimum Charge (NRs.)**	**Exempt (kWh)**
		Up to 5 Ampere		80.00	20
		15 Ampere		299.00	50
		30 Ampere		664.00	100
		60 Ampere		1394.00	200
		Three phase supply		3244.00	400
	B	**Energy Charge:**			
		Up to 20 units		Rs. 4.00 per unit	
		21 - 250 units		Rs. 7.30 per unit	
		Over 250 units		Rs. 9.90 per unit	
2:	**TEMPLES**				
	Energy Charge			Rs. 5.10 per unit	
3:	**STREET LIGHTS**				
	A	With Energy Meter		Rs. 5.10 per unit	
	B	Without Energy Meter		Rs. 1860.00 per kVA	
4:	**TEMPORARY SUPPLY**				
	Energy Charge			Rs. 13.50 per unit	
5:	**COMMUNITY WHOLESALE CONSUMER**				
	Energy Charge			Rs. 3.50 per unit	
6:	**INDUSTRIAL**			**Monthly Demand Charge**	**Energy Charge**
				(Rs./kVA)	**(Rs./unit)**
	A	Low Voltage (400/230 Volt)			
		(a) Rural and Cottage		45.00	5.45
		(b) Small Industry		90.00	6.60
	B	Medium Voltage (11 kV)		190.00	5.90
	C	Medium Voltage (33 kV)		190.00	5.80
	D	High Voltage (66 kV and above)		175.00	4.60
7:	**COMMERCIAL**				
	A	Low Voltage (400/230 Volt)		225.00	7.70
	B	Medium Voltage (11 kV)		216.00	7.60
	C	Medium Voltage (33 kV)		216.00	7.40
8:	**NON-COMMERCIAL**				
	A	Low Voltage (400/230 Volt)		160.00	8.25
	B	Medium Voltage (11 kV)		180.00	7.90
	C	Medium Voltage (33 kV)		180.00	7.80

9:	**IRRIGATION**				
	A	Low Voltage (400/230 Volt)		-	3.60
	B	Medium Voltage (11 kV)		47.00	3.50
	C	Medium Voltage (33 kV)		47.00	3.45
10:	**WATER SUPPLY**				
	A	Low Voltage (400/230 Volt)		140.00	4.30
	B	Medium Voltage (11 kV)		150.00	4.15
	C	Medium Voltage (33 kV)		150.00	4.00
11:	**TRANSPORTATION**				
	A	Medium Voltage (11 kV)		180.00	4.30
	B	Medium Voltage (33 kV)		180.00	4.25

TIME OF DAY (TOD) TARIFF RATES

		Consumer Category &	Monthly Demand	Energy Charge (Rs./unit)		
		Supply Level	Charge (Rs./kVA)	Peak Time	Off-Peak	Normal
				18:00-23:00	23:00-6:00	6:00 - 18:00
A:	**High Voltage (66 kV and Above)**					
	1	Industrial	175.00	5.20	3.15	4.55
B:	**Medium Voltage (33 kV)**					
	1	Industiral	190.00	6.55	4.00	5.75
	2	Commecial	216.00	8.50	5.15	7.35
	3	Non-Commercial	180.00	8.85	5.35	7.70
	4	Irrigation	47.00	3.85	2.35	3.40
	5	Water Supply	150.00	4.55	2.75	3.95
	6	Transportation	180.00	4.70	2.95	4.15
	7	Street Light	52.00	5.70	1.90	2.85
C:	**Medium Voltage (11 kV)**					
	1	Industiral	190.00	6.70	4.10	5.85
	2	Commecial	216.00	8.65	5.25	7.55
	3	Non-Commercial	180.00	9.00	5.45	7.85
	4	Irrigation	47.00	3.95	2.40	3.45
	5	Water Supply	150.00	4.60	2.80	4.10
	6	Transportation	180.00	4.80	3.00	4.25
	7	Street Light	52.00	6.00	2.00	3.00

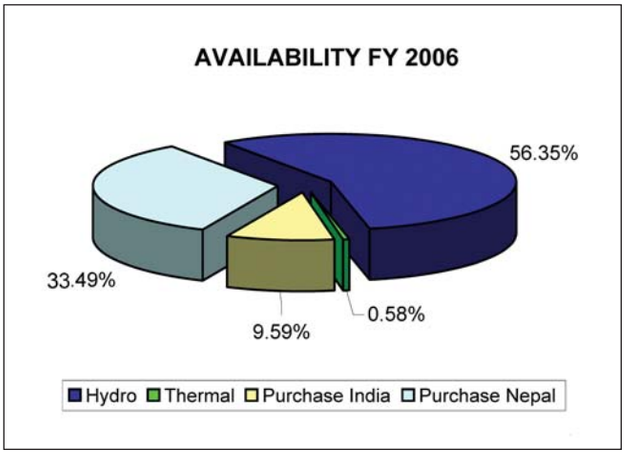
Note:

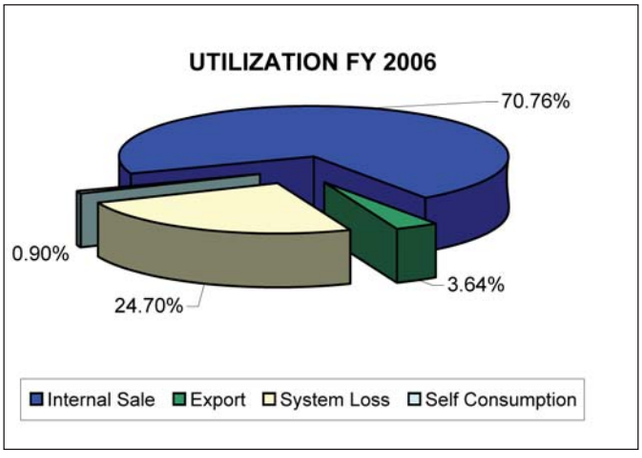
a) If demand meter reads kilowatts (kW) then kVA = kW/0.8

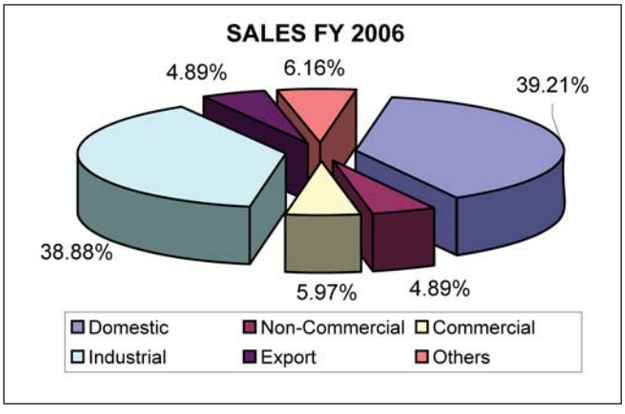
b) 10% discount in the total bill amount will be given to the Government of Nepal approved Industrial District

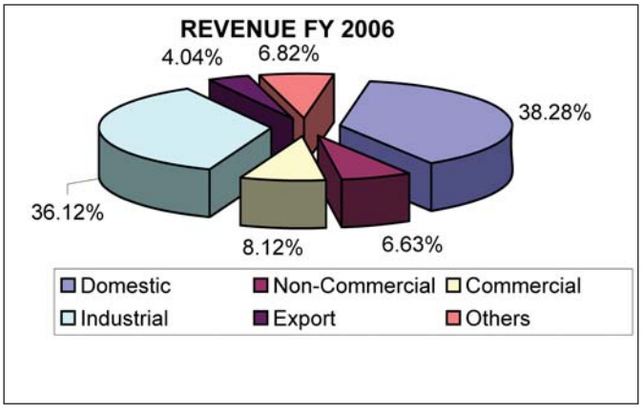
c) 25% discount in the total bill amount will be given to the Nepal Government Hospital and Health Centers (except residential complex)

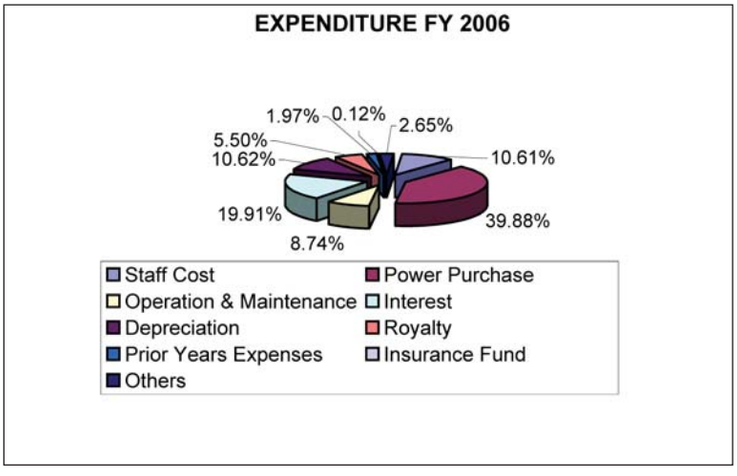
STATISTICS, SCHEMATICS AND MAPS

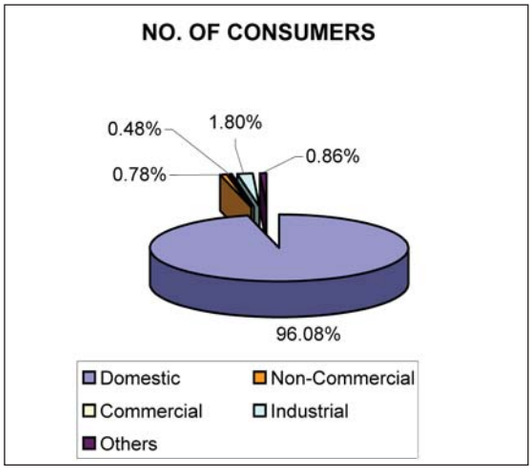




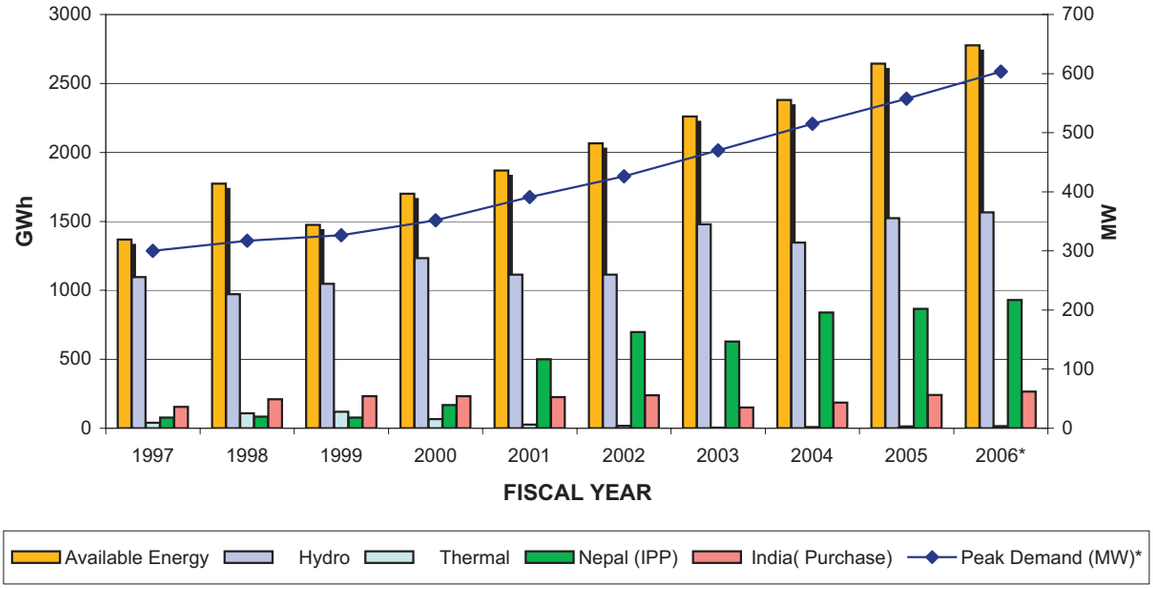








TOTAL ENERGY AVAILABLE AND PEAK DEMAND



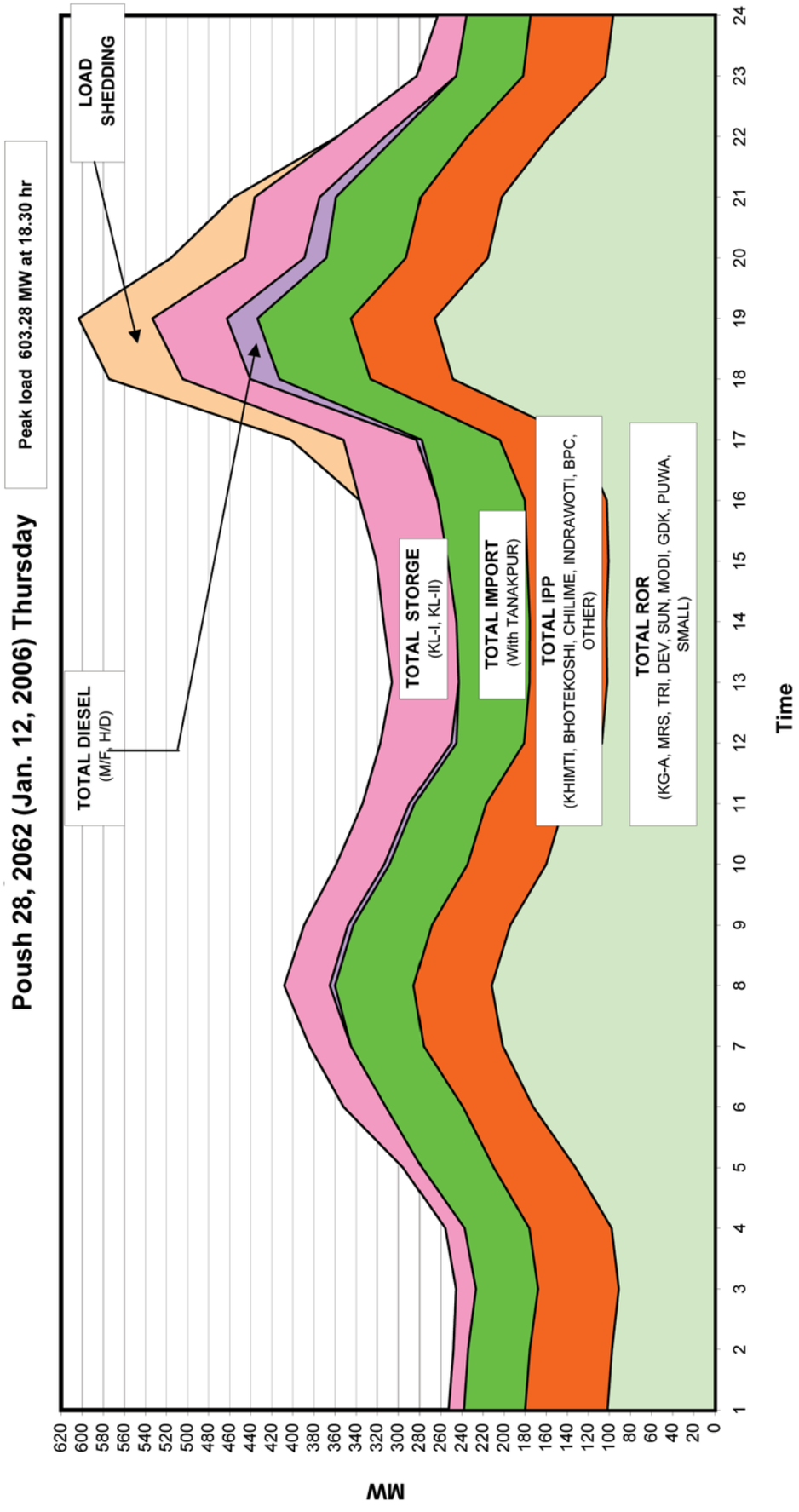
Particulars	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
Peak Demand (MW)*	300.11	317	326.4	351.9	391	426	470.33	515.24	557.53	603.28
Available Energy	1368.58	1773.17	1475	1701.45	1868.42	2066.45	2261.13	2380.89	2642.75	2777.41
Hydro	1096.64	971.96	1046.51	1233.22	1113.36	1113.13	1478.04	1345.46	1522.9	1565.05
Thermal	39.73	107.45	118.82	66.73	27.14	17.01	4.4	9.92	13.669	16.10
3. Purchase from	232.21	293.76	309.67	401.5	727.93	936.31	778.69	1025.519	1106.184	1196.26
India	153.98	210.29	232.39	232.2	226.54	238.29	149.88	186.675	241.389	266.22
Nepal	78.23	83.47	77.28	169.3	501.38	698.02	628.81	838.844	864.795	930.04

Note:

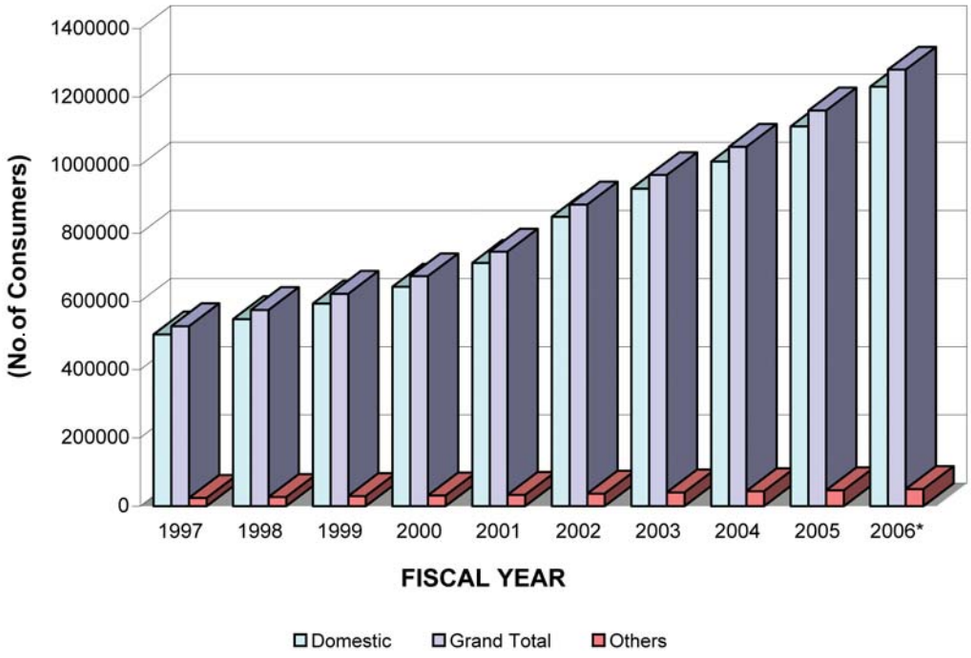
Peak demand is for all areas covered by integrated system including supply to India

* Provisional figures; Subject to final audit

LOAD DISPATCH CENTER SYSTEM LOAD CURVE



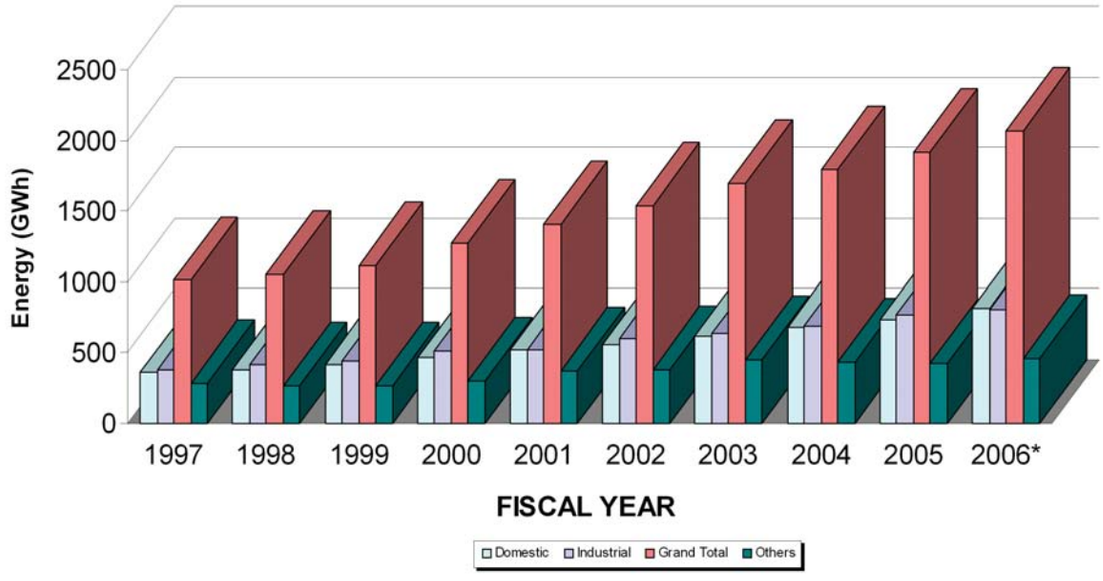
GROWTH OF CONSUMERS



Particulars	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
Domestic	503330	548110	593468	643314	713307	848540	930554	1010719	1113740	1229750
Non-Commercial	6338	7192	7654	7815	7643	8629	9722	9865	9950	10010
Commercial	2441	2637	2948	3096	3386	3898	5317	5454	6000	6170
Industrial	12928	14062	14996	16179	17701	18789	19833	21374	22500	23020
Water Supply	190	205	215	232	236	251	305	352	370	380
Irrigation	713	776	876	967	1083	1353	1721	2557	3400	6450
Street Light	482	683	842	932	1012	1048	1229	1437	1500	1550
Transport	8	12	21	47	37	49	48	48	50	54
Community Sales	-	-	-	-	-	1	1	15	35	58
Total (Internal Sales)	527452	574844	622358	673974	745987	884530	970606	1053930	1159850	1279897
Bulk Supply (India)	5	5	5	5	5	5	5	5	5	5
Grand Total	527457	574849	622363	673979	745992	884535	970611	1053935	1159855	1279902

Note : * Provisional figures; subject to final audit.

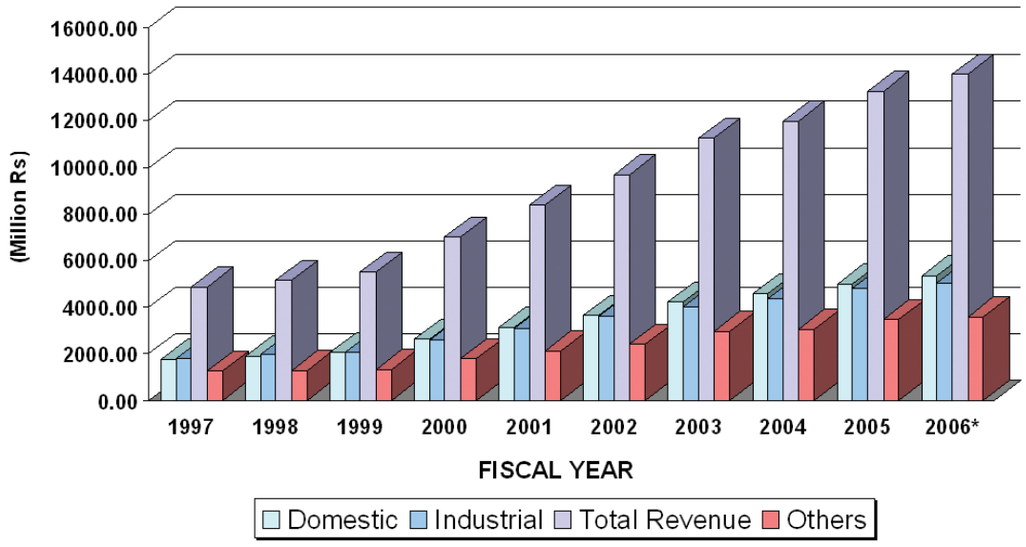
ELECTRICITY SALES



								(In GWh)		
Category	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006***
Domestic	355.118	378.778	410.566	467.049	518.36	557.94	617.11	676.365	730.829	810.19
Non-Commercial	57.991	60.227	62.931	63.592	73.157	78.22	80.736	83.012	91.342	101.03
Commercial	67.606	71.471	77.343	81.822	94.166	90.426	92.741	108.122	107.435	123.45
Industrial	376.742	413.738	440.996	508.357	520.634	596.677	629.505	689.799	763.771	803.35
Water Supply & Irrigation	27.978	29.045	22.831	15.742	28.6	29.283	29.983	31.671	36.115	42.73
Street Light	20.929	26.585	29.405	31.741	36.981	39.517	45.803	55.196	57.844	64.88
Temporary Supply	0.844	0.711	0.766	0.927	0.826	0.282	0.348	0.251	0.394	0.73
Transport	1.483	1.663	2.598	2.678	5.892	5.635	5.53	5.471	5.715	5.98
Temple	1.691	1.801	1.982	2.366	2.511	2.476	2.811	4.111	4.204	4.91
Community Sales	-	-	-	-	-	5.717	4.74	5.581	8.172	8.02
Total (Internal Sales)	910.382	984.019	1049.418	1174.274	1281.127	1400.456	1504.567	1653.998	1805.821	1965.27
Bulk Supply (India)	100.218	67.41	64.158	95	126	133.857	192.249	141.235	112.529	101
Grand Total	**1010.6**	**1051.429**	**1113.576**	**1269.274**	**1407.127**	**1534.313**	**1696.816**	**1795.233**	**1918.35**	**2066.27**

Note : * Provisional figures; subject to final audit.

REVENUE

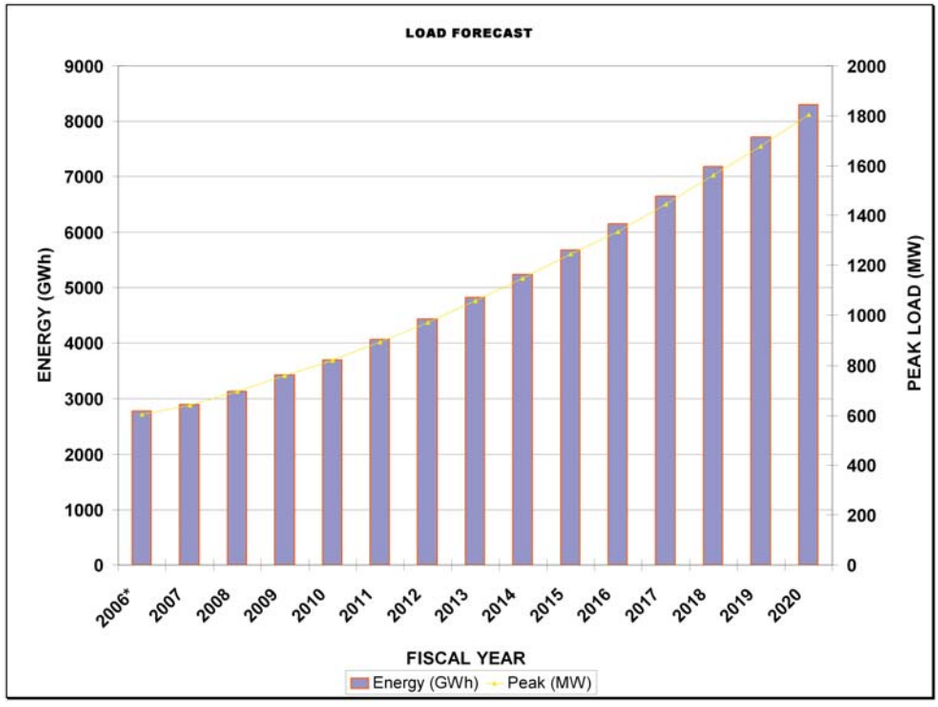


(in million Rs)

Category	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
Domestic	1769.84	1895.85	2056.05	2622.03	3161.38	3641.43	4249.81	4578.99	4987.04	5363.46
Non-Commercial	386.36	405.14	419.58	527.40	835.78	722.12	783.99	816.01	862.37	929.48
Commercial	446.96	477.04	515.72	661.58	555.62	818.75	894.91	986.07	1012.66	1138.21
Industrial	1801.58	1973.37	2093.88	2599.34	3086.10	3608.13	4039.65	4380.22	4799.74	5061.11
Water Supply & Irrigation	95.70	100.28	78.14	95.65	120.90	138.68	148.53	154.80	211.57	196.63
Street Light	80.11	101.98	111.37	149.95	176.05	200.74	246.79	329.52	314.11	373.06
Temporary Supply	7.99	7.17	7.06	13.39	6.77	3.63	4.74	3.46	5.06	9.86
Transport	6.09	6.51	9.46	18.31	27.73	27.90	29.29	28.94	30.72	30.50
Temple	6.21	6.71	7.42	9.70	11.45	12.16	14.24	20.80	29.17	25.04
Community Sales	-	-	-	-	-	-	16.59	20.09	24.04	28.47
Total (Internal Sales)	4600.84	4974.05	5298.67	6697.35	7981.78	9173.53	10428.53	11318.92	12276.46	13155.81
Bulk Supply (India)	249.29	199.92	198.15	327.80	396.06	514.12	808.96	673.69	609.51	565.60
Gross Revenue	4850.13	5173.96	5496.82	7025.16	8377.83	9687.65	11237.49	11992.61	12885.97	13721.41
Rebate									280.78	305.08
Net Income from Other Services	-	-	-	-	-	-	-	-	659.16	596.57
Total Revenue	4850.13	5173.96	5496.82	7025.16	8377.83	9687.65	11237.49	11992.61	13264.36	14012.90

Note : * Provisional figures; subject to final audit.

LOAD FORECAST



Year	Energy (GWh)	Growth (%)	Peak (MW)	Growth (%)
2006*	2777.40		603.28	
2007	2897.1	4.3	642.2	6.5
2008	3136.6	8.3	695.3	8.3
2009	3428.1	9.3	759.9	9.3
2010	3698.4	7.9	819.8	7.9
2011	4057.1	9.7	890.6	8.6
2012	4423.3	9.0	971.0	9.0
2013	4815.0	8.9	1057.0	8.9
2014	5231.2	8.6	1148.0	8.6
2015	5673.8	8.5	1245.6	8.5
2016	6144.7	8.3	1336.1	7.3
2017	6645.9	8.2	1445.1	8.2
2018	7179.6	8.0	1561.1	8.0
2019	7719.4	7.5	1678.5	7.5
2020	8296.7	7.5	1804.0	7.5
Average Growth		8.14		8.14

POWER DEVELOPMENT OF NEPAL

MAJOR HYDRO POWER STATION

Existing:

1. Trisuli	24,000 kW
2. Sunkosi	10,050 kW
3. Gandak	15,000 kW
4. Kulekhani No. 1	60,000 kW
5. Devighat	14,100 kW
6. Kulekhani No. 2	32,000 kW
7. Marsyangdi	69,000 kW
8. Puwa Khola	6,200 kW
9. Modi Khola	14,800 kW
10. Kali Gandaki "A"	144,000 kW
Total	389,150 kW

Under Construction (NEA):

1. Middle Marsyangdi	70,000 kW
2. Chamelia	30,000 kW
3. Kulekhani III	14,000 kW

Planned and Proposed:

1. Seti (West)	750,000 kW
2. Arun 3	402,000 kW
3. Budhi Gandaki	600,000 kW
4. Kali Gandaki No. 2	660,000 kW
5. Lower Arun	308,000 kW
6. Upper Arun	335,000 kW
7. Kamali (Chisapani)	10,800,000 kW
8. Upper Kamali	300,000 kW
9. Pancheswor	6,480,000 kW
10. Thulo Dhunga	25,000 kW
11. Tamur/Mewa	101,000 kW
12. Upper Trisuli	61,000 kW
13. Dudh Kosi (Storage)	300,000 kW
14. Budhi Ganga	20,000 kW
15. Rahughat Khola	27,000 kW
16. Likhu-4	40,000 kW
17. Kabeli "A"	30,000 kW
18. Upper Marsyangdi "A"	121,000 kW
19. Upper Trisuli 3 B	44,000 kW
20. Andhi Khola (Storage)	180,000 kW
21. Khimti II	27,000 kW
22. Hewa Khola	10,000 kW
23. Langtang Khola (Storage)	218,000 kW
24. Madi Ishaneswor (Storage)	86,000 kW
25. Upper Seti (Storage)	122,000 kW
26. Kankai (Storage)	60,000 kW
27. Upper Tama Kosi	309,000 kW
28. Upper Modi 'A'	42,000 kW
Total:	**22,458,000** kW

THERMAL POWER STATIONS

Existing:

1. Biratnagar	1,028 kW
2. Hetauda	12,750 kW
3. Marsyangdi	2,250 kW
4. Duhabi Multifuel-1	26,000 kW
5. Duhabi Multifuel-2	13,000 kW
Total	55,028 kW

SMALL HYDRO POWER

Existing (Grid Connected)

1. Pharping***	500 kW
2. Panauti	2400 kW
3. Sundarijal	640 kW
4. Phewa (Pokhara)	1,088 kW
5. Seti (Pokhara)	1,500 kW
6. Tinau (Butwal)	1,024 kW
7. Baglung	200 kW
8. Tatopani/Myagdi (i+ii)	2,000 kW
9. Jomsom**	240 kW
10. Chatara	3,200 kW
Total	12,792 kW

Existing (Isolated):

1. Dhankuta	240 kW
2. Jhupra (Surkhet)	345 kW
3. Doti	200 kW
4. Phidim**	240 kW
5. Gorkhe (Ilam)***	64 kW
6. Jumla**	200 kW
7. Dhading	32 kW
8. Syangja***	80 kW
9. Helambu	50 kW
10. Salleri* (Sceco)	400 kW
11. Darchula (i) & (ii) **	300 kW
12. Chame	45 kW
13. Taplejung**	125 kW
14. Manang	80 kW
15. Chaurjhari** (Rukum)	150 kW
16. Syarpudaha** (Rukum)	200 kW
17. Khandbari**	250 kW
18. Terhathum**	100 kW
19. Bhojpur**	250 kW
20. Ramechhap	150 kW
21. Bajura	200 kW
22. Bajhang**	200 kW
23. Arughat Gorkha	150 kW
24. Okhaldhunga	125 kW
25. Rupalgad (Dadeldhura)	100 kW
26. Surnaiyagad (Baitadi)	200 kW
27. Namche*	600 kW
28. Achham	400 kW
29. Dolpa	200 kW
30. Kalikot	500 kW
Total	6,176 kW

Under Construction(NEA):

1. Gamgad	400 kW
2. Heldung	500 kW
Total	900 kW

PRIVATE SECTOR PLANTS

Existing:

1. Andhi Khola (BPC)	5,100 kW
2. Jhimruk (BPC)	12,000 kW
3. Khimti Khola (HPL)	60,000 kW
4. Bhotekosi (BKPC)	36,000 kW
5. Sange Khola (SHP)	183 kW
6. Indrawati (NHPC)	7,500 kW
7. Chilime (CPC)	20,000 kW
8. Piluwa Khola (AVHP)	3,000 kW
9. Chaku Khola (APCo)	1,500 kW
10. Sunkosi Small (SHP)	2,500 kW
11. Rairang (RHPD)	500 kW
Total	148,283 kW

Under Construction:

1. Khudi (KHP)	3,450 kW
2. Sisne Khola (GBHP)	750 kW
3. Baramchi (UH)	999 kW
4 Thoppal Khola (THP	1,400 kW
5. Pheme Khola (KHP)	995 kW
6. Lower Nyadi (BHP)	4,500 kW
7. Lower Indrawati (SHP)	4,500 kW
8. Salinadi (KSHSPL)	232 kW
Total	16,826 kW

POWER PURCHASE AGREEMENT (PPA) CONCLUDED

1. Mailung (MPC)	5,000 kW
2. Daram Khola (GHP)	5,000 kW
3. Langtang (KHP)	10,000 kW
4. Tadi Khola (ASP Dev.)	970 kW
5. Upper Mai Khola (ENDE)	3,000 kW
6. Mardi Khola (GHP)	3,100 kW
7. Tadi Khola	970 kW
8. Madi-1 (AGPL)	1,000 kW
9. Pati Khola	996 kW
10. Upper Modi Khola	14,000 kW
Total	44,036 kW

SOLAR POWER

1. Simikot	50 kW
2. Gamgadhi	50 kW
Total	100 kW

◘ TRANSMISSION LINE LENGTH

1. 132 kV Transmission Line	2076 ckt km
2. 66 kV Transmission Line	586 ckt km
3. 66 kV Underground Cable	7 ckt km
4. 33 kV Single Circuit	2485 km

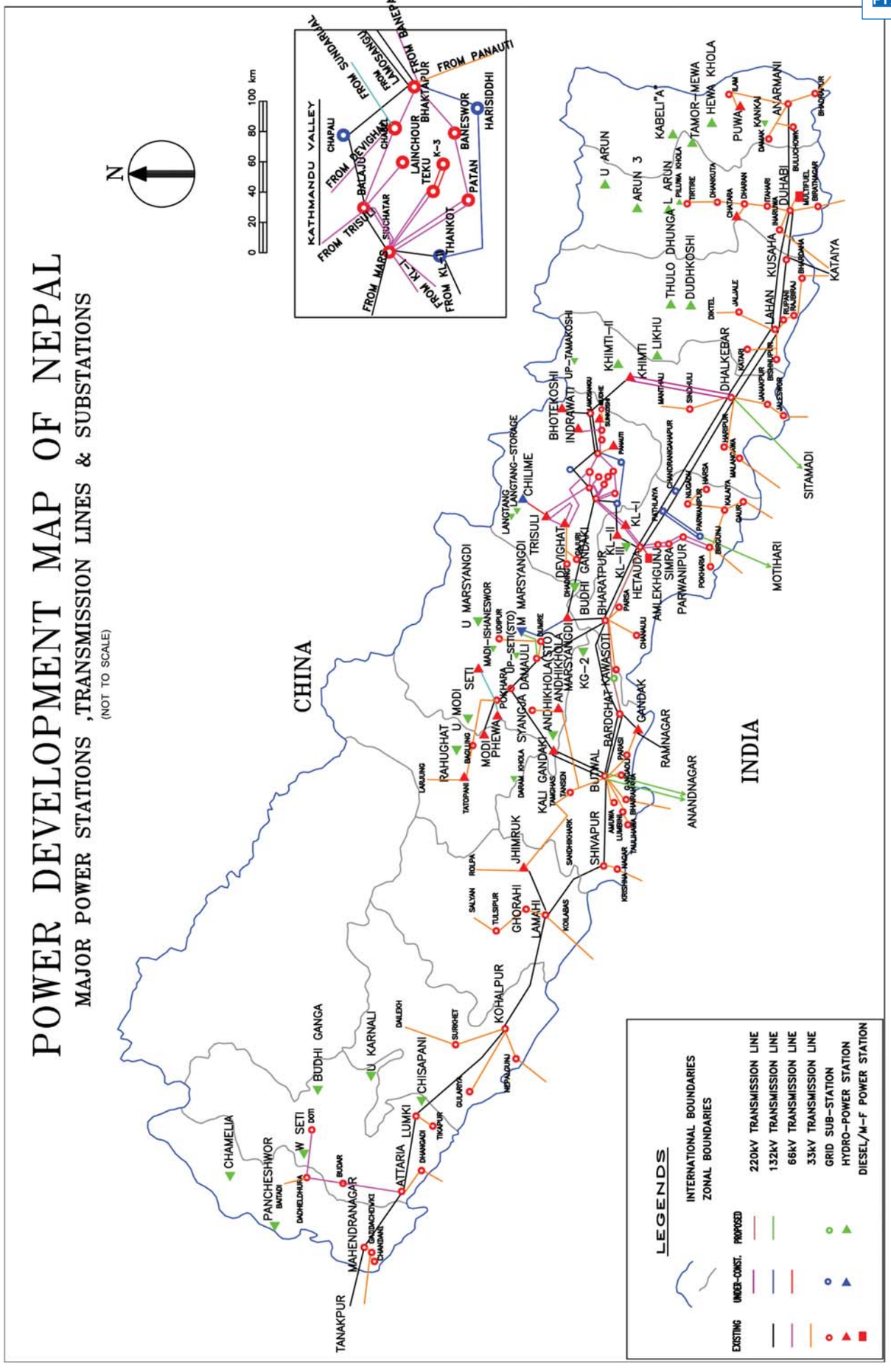
◘◘ SUBSTATION CAPACITY

132/11 kV	71 MVA
132/33 kV	358 MVA
132/66 kV	211 MVA
66/11 kV	424 MVA
66/33 kV	25 MVA
Total	1089 MVA

NOTE

* Private & Others
** Leased to the Private Sector
*** Not in normal Operation
◘ IPPs lines not included
◘◘ These capacities are within the Grid Substations only. Transformers within Distribution Substation, Powerhouses and Local Distributions are not included.

Installed Capacity in Nepal Electricity Authority (including Private and Others): 611,529 MW



POWER DEVELOPMENT MAP OF NEPAL

SMALL HYDRO POWER STATIONS, ISOLATED SOLAR & DIESEL POWER STATIONS

(NOT TO SCALE)