



Nuclear Power Corporation of India Limited

25TH ANNUAL REPORT 2011-12



Nuclear Power



Harnesses Sustainability

Fosters energy security through optimum resource utilization, recycling of fuel and high plant load factor



Benign to Eco-system

Facilitates preservation of environment and habitat improvement



Demonstrates Being Clean and Safe

No emission of Green House Gases in operations with highest levels of safety



Empowers Lives and Livelihoods

Enhances opportunities of livelihood in the neighbourhood

KNOW US BETTER

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CORPORATE INFORMATION

Registered Office

16th Floor, Centre-1,
World Trade Centre,
Cuffe Parade, Colaba,
Mumbai-400005.

Corporate Office

Nabhikiya Urja Bhavan,
Anushaktinagar,
Mumbai-400094.

Statutory Auditors

M/s. Kalani & Co.,
Chartered Accountants, B-145B,
Kalyanpath Mangal Marg,
Bapu Nagar,
Jaipur-302015, Rajasthan.

Branch Auditors

M/s. Essveeyar,
Flat No.3, Soundram,
No.23/10, Devanathan Street,
Raja Annamaliapuram,
Chennai-600028, Tamil Nadu.

M/s. P D Agrawal & Co.,
B-32, Ground Floor, Ram Prasth,
Ghaziabad-201001, Uttar Pradesh.

M/s. S N K & Co.
SNK House,
31-A, Adarsh Society,
Opp. Seventh Day Adventist School,
Athwalines,
Surat-395001, Gujarat.

Cost Auditor

M/s. N.I. Mehta & Co., Cost Accountants,
Admn. Office: 115, Jolly Maker Chambers
No.2, Nariman Point, Mumbai-400021.

Main Banker

State Bank of India,
Overseas Branch,
World Trade Centre,
Cuffe Parade, Colaba,
Mumbai-400005.

Subsidiary Companies

Anushakti Vidhyut Nigam Limited
NPCIL - IndianOil Nuclear Energy
Corporation Limited
NPCIL-NALCO Power Company Ltd.

POWER FOR THE FUTURE

India's energy needs are ever increasing, with a 1.2 Billion population, need for higher productivity of agriculture and growing industrialisation.

By 2032, the nation is set to become the world's 3rd largest energy consumer with its power demand projected to rise to 800,000 MW, up from 200,000 MW currently.

Fossil fuels are fast depleting and conventional sources of energy are inadequate to meet the nation's energy challenges. Besides, the imperatives of climate concerns call for the deployment of environment friendly power generation technologies. The challenge is two-fold: manage consumption and develop low-carbon energies.

Nuclear energy is a clean and sustainable source of energy with the capability to enable India to achieve long-term security. It ensures rapid generation of clean energy, devoid of carbon emissions.

The year witnessed many countries firming up their long-term plans. This, despite doubts raised on the safety of nuclear plants as a result of the global incidents reported earlier. India was no different and was left to face the gigantic challenge of managing public perception.

The Nuclear Power Corporation of India (NPCIL) treated this as an opportunity. Through scaled-up and multi-pronged outreach programmes, it cleared the minds of several people regarding the safety aspect of nuclear power plants.

NPCIL connected with different sections of the society and established nuclear power as a safe and clean energy source. Besides this, it facilitated the preservation of the environment in the vicinity of plant sites and empowered lives by enhancing the opportunities in the neighbourhood.

India's nuclear power programme, envisioned by Dr. Homi Bhabha, is directed towards progressively increasing nuclear power's share in India's total power generation. This is aimed to meet the nation's growing energy demand and enable it to achieve energy security.



TOWARDS A SAFE AND SUSTAINABLE FUTURE

Energy is vital for our lives. It is central to human development and the prime mover of world economic growth. As world population increases and economic growth continues, demand for energy will be further on the rise. Since agriculture, services and industrial sectors are all driven by power, there is an ever-increasing need to generate more power.

Current world energy scenario

- The trends in world population growth



- Burgeoning population, equity in energy consumption amongst population and rising world economic growth are the key factors behind the increasing demand for energy.
 - The inevitable effect on world energy sector by 2040:
 - 30% growth in world energy demand
 - 60% growth in Non-OECD demand
 - Burning of fossil fuel remains the primary source of energy.
- (Source: The Outlook for Energy – A View to 2040 by ExxonMobil)*

As the energy resources are limited, all sources of power generation need to be deployed judiciously.

- World's most capable climate scientists continue to warn, with ever greater urgency, that we must, even as global energy consumption triples, cut worldwide carbon emissions by 80% – or risk changes in Earth's climate so radical as to threaten much of civilisation. The 'two degree temperature rise' threshold is unfolding faster than earlier estimated.
- Imperatives of climate concerns call for deployment of environmental friendly and sustainable power generation technologies in a cost effective manner.
- As fossil fuels deplete and geo-political pressures weigh on the supply of hydrocarbon fuels, the world needs greatly increased supply of clean energy.

Among the existing commercial clean power generating technologies such as solar, wind, hydro and nuclear power, it is the nuclear power that offers merits – essentially a grid connected base load power supplying uninterrupted power on 24 X 7 basis on a large scale, base load like fossil fuels and emissions like renewables.

One of the most important and unique advantages of nuclear power, over all other fuels, is the multiplication of energy potential/resource through conversion of non-fissile component of the nuclear fuel to fissile component in the nuclear power reactors, in addition to power generation, thus assuring long term energy security and sustainability in an environmentally benign and cost effective manner.



Energy scenario in India

4th largest energy consumer with 1.2 Billion population

5th largest energy producer

And yet..

40% of India's population has no access to electricity

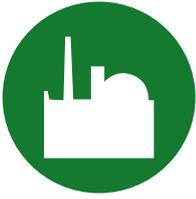
8.5% & 11% energy and peak shortages reported in 2011-12

60% of the population is dependent on firewood

813kWh is our per capita electricity consumption, about one-third of the world average

Moving forward, by 2032

- India will become the **3rd largest** consumer of energy
- India's total electricity demand is projected to multiply from about **200,000 Mega Watt (MW)** currently to over **800,000 MW**
- Minimum **700,000 MW** capacity needed to cater to the basic requirement



Nuclear energy... a viable alternative

- At present, coal and natural gas together suffice 68% and 12% of India's energy demand, respectively. If energy consumption rises at the current trend, India will soon run out of coal – its primary source of energy – in another 40 years.
- Electricity generation contributes about 38% to India's total Green House Gas (GHG) emissions and 51% to its CO₂ emissions. Hence, reducing the emission intensity from electricity generation is of prime importance.
- The greenest sources of power – solar and wind power – are localised and intermittent as they are dependent on weather and sunshine. Nuclear power is a location neutral, grid connected, continuous power generation source with potentially large capacity, utilising minimum land mass and with the capability of being scalable.
- Requirement of fuel is small in a nuclear power plant and it operates at several fold high plant load factors, compared with other renewable electricity generation technologies. Hence, it is an economically competitive and predictable price option for electricity generation.
- **Nuclear energy is a clean and sustainable option. Most developed nations extract over 30%-40% of their energy needs from nuclear power.** In India, nuclear power currently supplements the electricity generation. With 2.4% of the capacity, it contributed modestly about 3.7% in the electricity generation of the country during the year 2011-12.

Nuclear power will play a greater role in India's electricity portfolio in the medium and long-term due to its undeniable merits and the inadequate availability of other energy resources.



Dr. Homi Jehangir Bhabha

India's nuclear power programme

India has a 42-year history of nuclear power generation with 20 nuclear power reactors operating in six states. Its three-stage nuclear power programme was envisioned by Dr. Homi Bhabha.

India's Nuclear Power Programme has been conceived based on unique sequential three stages and associated technologies. The three-stage programme was envisaged as a closed fuel cycle of Pressurized Heavy Water Reactors (PHWR) in the first stage and Fast Breeder Reactors (FBR) in the second stage and is aimed towards judicious utilisation of uranium and thorium reserves in the third stage. Its emphasis continues to be self reliance and utilisation of the resources as a long-term objective. All efforts of this programme are directed towards progressively increasing the share of nuclear power in the country's electricity portfolio.

The Integrated Energy Policy of the country shares a vision to reach 63,000 MW nuclear power by 2032. The Nuclear Power Corporation of India Limited (NPCIL) is India's power utility company responsible for generation, construction and operation of the first stage PHWRs and Light Water Reactors (LWR), based on international co-operation. The Company is empowered with end-to-end capabilities in design, procurement, erection, commissioning, operation and maintenance of PHWRs.



POWERING THE NATION

Nuclear Power Corporation of India Limited (NPCIL) is a public sector enterprise under the administrative control of the Department of Atomic Energy (DAE), Government of India.

The Company commenced its operations in September 1987 with 6 nuclear power reactors, including one reactor, RAPS Unit-1, on behalf of DAE. NPCIL has developed its core competencies across the nuclear energy value chain: from siting to design, construction, operations, plant maintenance, managing the wastes generated in the nuclear power plants disposal process and undertaking renovation and modernisation.



Corporate Office, NPCIL - Nabhikiya Urja Bhavan

NPCIL: at a glance

- 20 operating nuclear power reactors, including 18 PHWRs and 2 Boiling Water Reactors (BWR), with an installed capacity of 4,780 MW; six nuclear power reactors with an aggregate capacity of 4,800 MW are under different stages of construction.
- Indigenously scaling up the capacity of PHWRs from 220 MW to 700 MW.
- Attaining and sustaining over 90% availability factor.
- ISO – 14001 (Environment Management System) and ISO – 18001 (Occupational Health and Safety Management System) certification at each operating nuclear power plant.
- Safe and reliable operation spanning over 42 calendar years, registering over 355 reactor-years with an impeccable record of safety.
- One of the profit-making and dividend paying companies of the Government of India.
- No budgetary support from the Government for the last eight years.

Today, NPCIL is a technology-led, vision driven organisation, contributing to India's sustainable and green energy requirement through its **development, deployment and delivery** model.



Tarapur Atomic Power Station - 3&4

Key milestones

- Tarapur units 3&4, at Tarapur in Maharashtra, are the largest in India with a capacity of 540 MW for each unit.
- Rajasthan Atomic Power Station, Rawatbhata site in Rajasthan, is India's first nuclear park.
- Narora Atomic Power Station is Asia's first nuclear power plant to obtain ISO-14001 accreditation for its environment management system.
- Kakrapar Atomic Power Station was the first Indian nuclear power plant to undergo a peer review by an international team of experts from the World Association of Nuclear Operators (WANO). All other Indian nuclear power stations are also peer reviewed by WANO.

International co-operation

NPCIL has also signed various international MOUs for setting up large size reactors (1000 MW or larger size) based on technical co-operation:

- Atomstroyexport (ASE), Russian Federation
- AREVA, France
- General Electric Hitachi, United States of America
- Westinghouse Electric Company, United States of America

Mission

To develop nuclear power technology and to produce nuclear power as a safe, environmentally benign and economically viable source of electrical energy to meet the increasing electricity needs of the country.

Objectives

- To maximise the power generation and profitability from nuclear power stations with a motto 'safety first and production next'.
- To increase nuclear power generation capacity in the country, consistent with available resources in a safe, economical and rapid manner, in keeping with the growth of energy demand in the country.
- To continue and strengthen QA activities relating to nuclear power programme within the organisation and those associated with it.
- To develop personnel at all levels through an appropriate Human Resources Development (HRD) programme in the organisation with a view to further improving their skills and performance consistent with the high technology.
- To continue and strengthen the environmental protection measures relating to nuclear power generation.
- To continue and strengthen the neighbourhood welfare programme/CSR activities for achieving inclusive growth of surrounding populations.
- To share appropriate technological skills and expertise at national and international levels.
- To bring about modernisation and technological innovation in activities.
- To coordinate and endeavour to keep the sustained association with the other units of DAE.



A PROVIDER OF END-TO-END ENERGY SOLUTIONS

NPCIL provides integrated end-to-end nuclear power solutions across the entire value chain.



The comprehensive capability of NPCIL begins with proper site evaluation including geo-technical assessment, study and analysis of hydrological, hydro-geological, meteorological and micro-seismic conditions and techno-economic studies. A detailed project development begins only after the completion of these assessments and regulatory clearances.

Implementation of modern technology, supported by strong analytical capabilities across all the relevant fields strengthens the designing of NPCIL. The spectrum of our expertise in designing includes:

- Plant design and engineering
- Design of reactor core and components
- Nuclear steam supply, fuel handling and electrical systems
- Control and instrumentation

Our construction capability is enriched by our expertise in project planning, scheduling and monitoring with highest standards of industrial and fire safety using automation, mechanisation and job hazard analysis models. Our innovative processes include excavation and concreting, shuttering, mechanisation and a custom-tailored computerised project monitoring system.

One of our unique capabilities is the commissioning of nuclear power projects in parallel to construction. The process ensures integration of all systems, development of operation and maintenance, Quality Assurance in all phases of construction and commissioning and also imparts specialised performance based training.

Renovation & Modernisation



Upgrades



Plant Life Extension

Life-extension, Safety Upgradation and Renovation & Modernisation

We have demonstrated our competencies in core segments of Life-extension, Safety Upgradation and Renovation & Modernisation (R&M) through world-class technology implementation, such as En-masse Coolant Channel Replacement (EMCCR), En-masse Feeder Replacement (EMFR), Sparger Replacement, Aging management and Core Shroud Inspection, Reactor Coolant System and Retrofitting of Emergency Core Cooling System (ECCS).

Waste Management

India's Nuclear Power Programme aims to minimise and manage wastes in the most effective way. Adoption of the unique three-stage closed fuel cycle minimises nuclear wastes in multitudes.

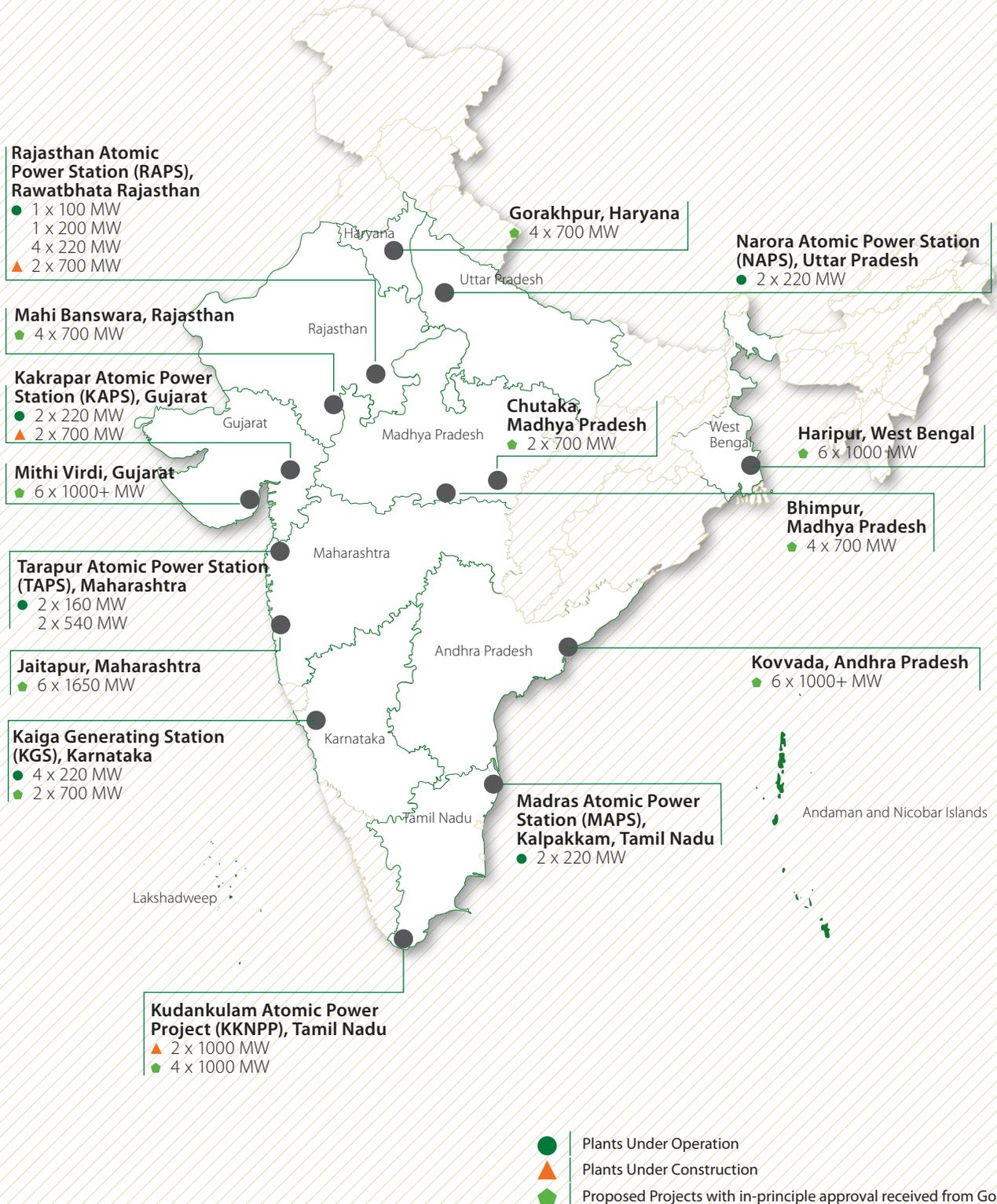
Maintenance

Our world-class maintenance practices and procedures include condition monitoring, predictive and preventive maintenance of the equipment and instruments, breakdown maintenance, Root Cause Analysis (RCA), effective spare-part management and failure mode, effect and criticality analysis.

Operation

Control room operations at each of our power plant are performed by trained and licensed engineering graduates, and through development and implementation of effective procedures, multi-tier review by national and international industry experts, unique and enhanced surveillance through structured mechanism and periodic RCA resulted in our operational achievements: over 355 accident-free reactor-years-of-operations.

OUR PRESENCE



Map for representation only. Not to scale.



GLOBAL PRESENCE OF NUCLEAR POWER PLANTS

Global nuclear power generation roadmap

2008	372 GW
2030	498 GW
2050	1280 GW

At the end of 2011, nuclear power contributed 13.5% to the total electricity generated the world over. A total of 435 nuclear power reactors are under operation in 31 countries with a net capacity of 370,003 MW. Another 62 reactors are under construction in 14 countries.



Some major countries in terms of number of reactors and their net electrical capacity are as follows:

Sr. No.	Country	Number of Reactors	Total Net Electrical Capacity [MW]
1.	Argentina	2	935
2.	Armenia	1	375
3.	Belgium	7	5927
4.	Brazil	2	1884
5.	Bulgaria	2	1906
6.	Canada	18	12604
7.	China	16	11816
8.	Czech Republic	6	3766
9.	Finland	4	2736
10.	France	58	63130
11.	Germany	9	12068
12.	Hungary	4	1889
13.	India	20	4391
14.	Islamic Republic of Iran	1	915
15.	Japan	50	44215

Sr. No.	Country	Number of Reactors	Total Net Electrical Capacity [MW]
16.	Republic of Korea	23	20671
17.	Mexico	2	1300
18.	Netherlands	1	482
19.	Pakistan	3	725
20.	Romania	2	1300
21.	Russia	33	23643
22.	Slovakia	4	1816
23.	Slovenia	1	688
24.	South Africa	2	1830
25.	Spain	8	7567
26.	Sweden	10	9325
27.	Switzerland	5	3263
28.	Taiwan	6	5018
29.	Ukraine	15	13107
30.	United Kingdom	16	9246
31.	United States of America	104	101465

● Numbers in the map represent respective countries in the above table.



Map for representation only. Not to scale.

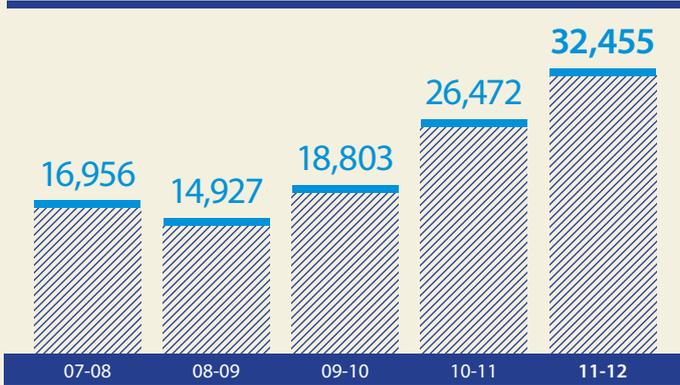


FY 2012

OUR OPERATIONAL HIGHLIGHTS

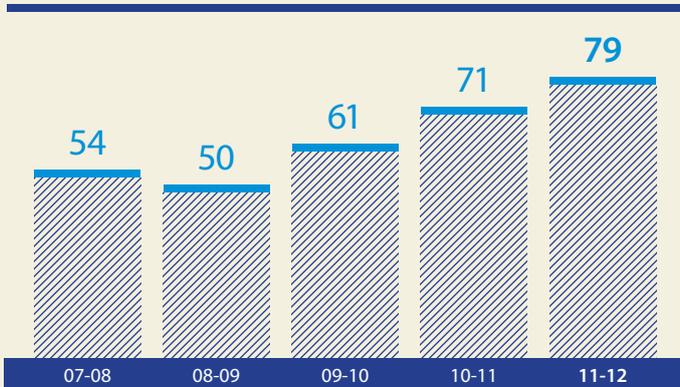
Electricity generation

(in Million Units)



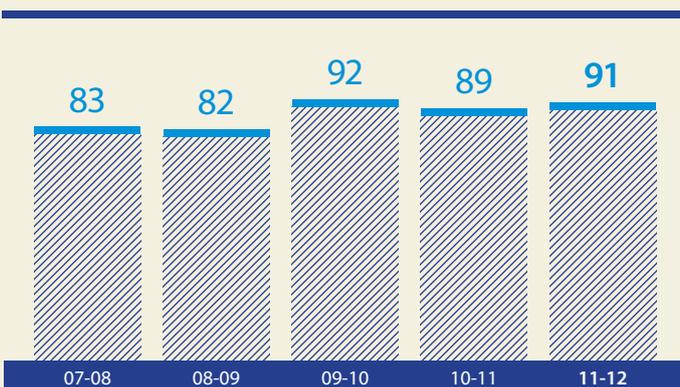
Capacity factor

(%)



Availability factor

(%)



23%

Generation from nuclear power grew 23% during the year, as compared with the previous year.

90% +

TAPS-1, TAPS-2, TAPS-3, RAPS-2, RAPS-3, RAPS-5, MAPS-2, NAPS-2, KAPS-1, KAPS-2, KAIGA-1, KAIGA-2 and KGS-4 attained greater than 90% Availability Factor during the financial year.

Nine reactors have recorded continuous run of more than a year. These are:

KAPS-1	372 days
RAPS-4	394 days
RAPS-3	404 days
KAPS-2	406 days
MAPS-2	432 days
KGS-1	487 days
KGS-2	529 days
TAPS-2	590 days
TAPS-3	522 days



Shri Lokesh Kumar, Project Director, KAPP-3&4, briefs Shri Preman Dinaraj, Director (Finance), NPCIL and Shri B. L. Bagra, CMD of NALCO (JV partner of NPCIL), regarding the progress of the project



Anu Disha Bhavan of KAPP-3&4

Fuel availability

- Under the International Atomic Energy Agency (IAEA) safeguards in accordance with the Separation Plan, the imported fuel was made available for the 9 operating reactors placed under safeguard - TAPS-1&2, RAPS-2, RAPS-3&4, RAPS-5&6 and KAPS-1&2. The total capacity of reactors under safeguards stands at 1,840 MW.
- In Service Inspection (ISI) of coolant channel was conducted in a 540 MW reactor in TAPS-4.

Ongoing projects

- The physical progress of KKNPP-1&2 (at Kudankulam in Tamil Nadu) is at an advanced stage of commissioning (Unit-1 – 99% and Unit-2 – 95%) as on March 2012. These units are expected to be operational in 2012 and 2013.
- Work on two other ongoing projects (KAPP-3&4 and RAPP-7&8) comprising of indigenous 700 MW PHWRs is progressing well. These are expected

to be completed by 2016, resulting in a capacity addition of 2,800 MW.

- KKNPP-3&4 have acquired the necessary siting consent from Atomic Energy Regulatory Board (AERB) and obtained the environmental clearance from Ministry of Environment & Forests (MoEF). Additional site infrastructure development work is in progress.
- JNPP-1&2 have obtained the MoEF environmental clearance and CRZ clearances and geo-technical investigations have been initiated. The post-Fukushima design review is in progress.
- NPCIL has established local offices at new project sites and extensive public outreach programmes have been organised for different target groups using a multi-pronged approach at existing and 'in-principle' approved sites. The land acquisition process for Haryana site has been completed.

New projects

Received an 'in principle' approval from the Government of India in July 2011 for three

more inland sites to set up 700 MW PHWRs – Mahi Banswara in Rajasthan, Bhimpur in Madhya Pradesh and Kaiga expansion in Karnataka.

Knowledge-sharing initiatives and awareness campaigns

- **India's first-ever Nuclear Gallery**, a permanent exhibition 'Hall of Nuclear Power' has been launched at the Nehru Science Centre, Mumbai, in August 2011.

Neighbourhood Development Programmes

- Initiated as a part of NPCIL's Corporate Social Responsibility (CSR) programme, focusing on Education, Health & Sanitation and Employment.
- During 2011-12, an amount of ₹ 23.4 Crore was embarked towards CSR, covering all the 6 sites, besides KKNPP and the new project sites.



FY 2012

FINANCIAL HIGHLIGHTS

(₹ in Crore)

Total Assets
43,627

Total Fixed Assets
30,388

Networth
23,434

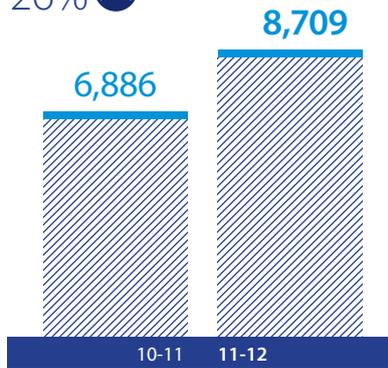
Reserves
13,260

No budgetary support from the Government of India for the 8th consecutive year

Total Income

(₹ in Crore)

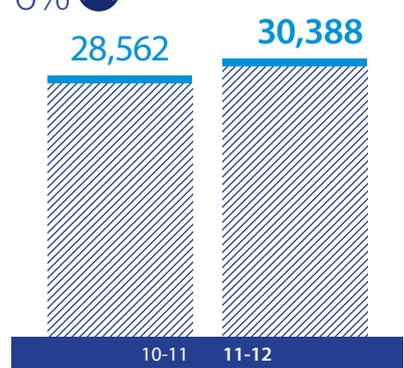
26% ▲



Total Fixed Assets

(₹ in Crore)

6% ▲



Profit Before Tax

(₹ in Crore)

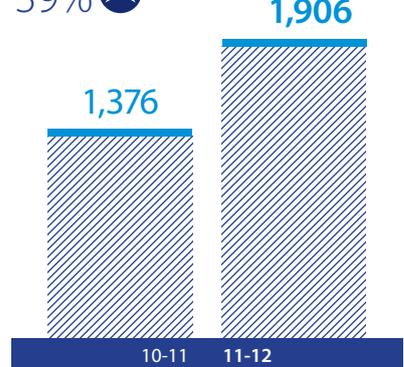
41% ▲



Profit After Tax

(₹ in Crore)

39% ▲



Networth

(₹ in Crore)

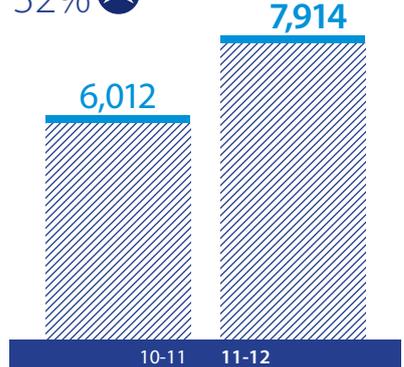
6% ▲



Sale of Electricity

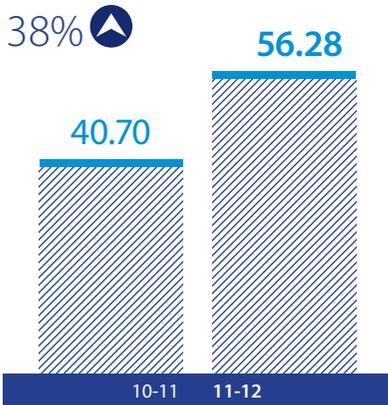
(₹ in Crore)

32% ▲



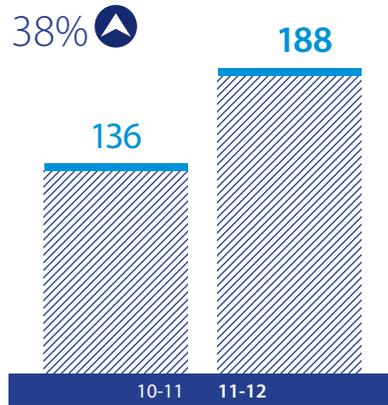
Dividend per Share

(%)



Earnings per Share

(in ₹)



Book Value per Share

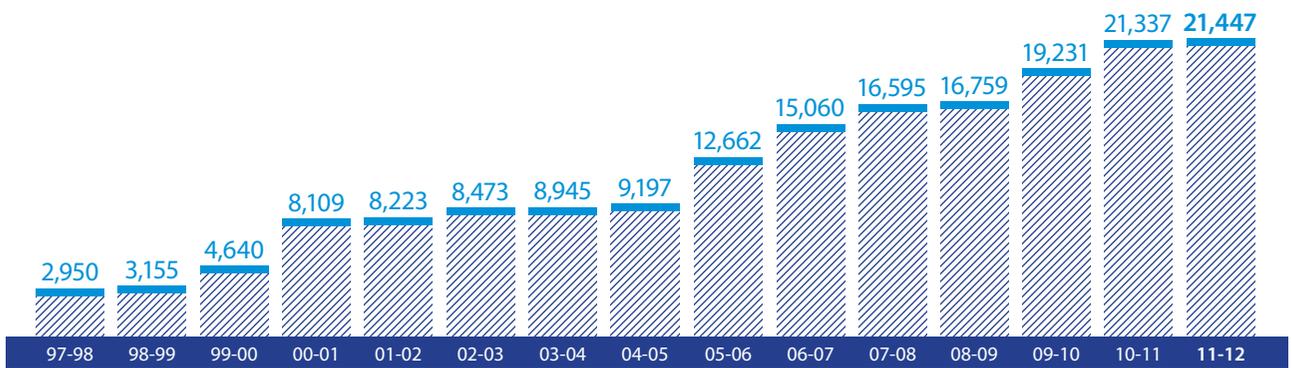
(in ₹)



Note: Equity Share having face value of ₹ 1000 each

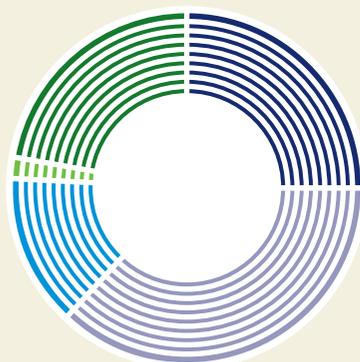
Fixed Assets (Gross Block)

(₹ in Crore)



Sources of Funds

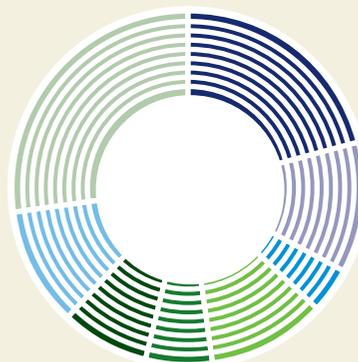
(%)



Distribution of Revenue

(%)

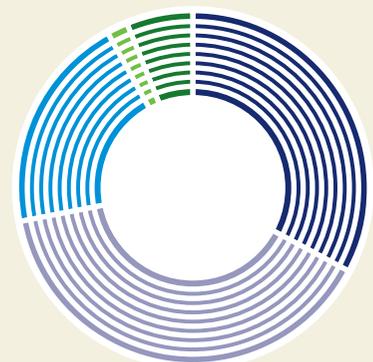
Total Revenue ₹ 8708.81 Crore



Capital Expenditure

(%)

₹ 2775.24 Crore



Equity	25
Reserves and surplus	37
Russian credit	14
ECB	2
Domestic borrowings	22

Fuel charges	21
Heavy water charges	12
Repairs & maintenance	4
Employee benefit expenses	11
Other operating expenses	6
Interest	8
Depreciation	11
Profit for the year	27

Kudankulam 1&2	33
KAPP 3-4	39
RAPP 7-8	20
New Projects	2
Ancillary Schemes	6

THE
25-YEAR
JOURNEY
OF
NPCIL



1987

Registered in September 1987 as a public limited company under the Companies Act, 1956.

Commenced operations with six reactors, including RAPS-1, on behalf of DAE.

Commissioned four reactors (NAPS-1&2 and KAPS-1&2) and added capacity of 880 MW.

Commenced construction of 4 Pressurised Heavy Water Reactors (PHWR) – namely RAPP-3&4 (2x220 MW PHWR) and Kaiga-1&2 (2x220 MW PHWR).

1988

95

1996

2000

Commissioned four reactors (RAPS-3&4 and Kaiga-1&2) and 880 MW nuclear power capacity added.

Upgraded design of 220 MW PHWR to 540 MW PHWR. Commenced construction of 2 PHWRs of 540 MW unit size at Tarapur, namely TAPP-3&4 (2x540 MW PHWR).

Accomplished En-masse Coolant Channel Replacement (EMCCR) and upgradation jobs at RAPS-2, indigenously developing all the required tools and procedures.

Commissioned first unit of 540 MW PHWR (TAPS-4), which emerged as the highest unit size of a power plant in India. The unit achieved criticality in 5 years, matching the international benchmark.

Commenced construction of 4 PHWRs, namely Kaiga-3&4 (2x220 MW) and RAPP-5&6 (2x220 MW) and 2 LWRs namely KKNPP-1&2 (2x1000 MW), with Russian co-operation.

Completed EMCCR and upgradation jobs at MAPS-2.

2001

05

2006

10

Developed 700 MW PHWRs with minimal hardware changes in the design of 540 MW PHWR design, allowing partial boiling in the reactor coolant. Also incorporated enhanced safety features in all the nuclear power plants.

Commissioned three reactors, namely TAPS-3 (540 MW PHWR), Kaiga-3 (220 MW PHWR) and RAPS-5&6 (2x220 MW PHWRs); added 1,200 MW nuclear power capacity.

Commenced construction of the first of its kind PHWR project with 700 MW unit size for KAPP-3&4 (2x700 MW).

Completed EMCCR and upgradation jobs at MAPS-1 and NAPS-1&2.

Conducted safety upgrades at TAPS-1&2, India's first nuclear power reactors.

Completed Enmasse Feeders Replacement (EMFR) jobs at RAPS-2.



- 1) Tarapur Atomic Power Station-1&2
- 2) Tarapur Atomic Power Station-3&4
- 3) Kaiga Plant Site
- 4) Madras Atomic Power Station
- 5) Narora Atomic Power Station
- 6) Kakrapar Atomic Power Station
- 7) Rawatbhata Rajasthan Site

2011

12

Commenced commercial operations at Kaiga-4, making it India's 20th nuclear power reactor and increasing the total installed capacity to 4,780 MW.

Commenced construction of 3 PHWRs of 700 MW unit size, namely KAPP-4 and RAPP-7&8 (2x700 MW).

Completed EMCCR and upgradation jobs at KAPS-1.

A SMALL IDEA LED TO A MAMMOTH DEVELOPMENT.

In 1944, Dr. Homi Bhabha stumbled upon the idea of starting nuclear research in India. The Department of Atomic Energy (DAE) then came into operations to administer atomic energy programmes. Finally, NPCIL was set up in 1987 with the objective of commercialising nuclear power in India.

Over these 25 years, NPCIL has traversed a long way. It has emerged as a strong, self-reliant, dynamic and matured company with a strong commitment to nuclear safety, growth and sustainability. Moving forward, it will continue to leverage the importance of nuclear power in achieving energy security in India and will strive to become a rapidly-growing global nuclear power.

CHAIRMAN'S MESSAGE



Kailash Chandra Purohit, Chairman and Managing Director

Dear Shareowners,

Good afternoon. On behalf of myself and the Board of Directors, with great pleasure, I am delighted to welcome you all to the 25th Annual General Meeting of NPCIL.

I address you today for the first time as the Chairman and Managing Director of our Company. Memories of the preceding Annual General Meetings are floating in my mind. Today, sitting before you, I am confident of your continuing and wholehearted support and I promise that we will take NPCIL to greater heights.

We will do everything to enhance the share of nuclear energy in the long run. I am fully aware of the mission my predecessors have set and the vision they have outlined. I derive enormous strength from what I have learnt from them and look into the future with determination and confidence.

The incident at Japan in 2011 left us with a never before challenge of “managing public perception” on the global event. This challenge gave an opportunity for introspection into needs of neighbourhood and also public awareness programmes. With the enormous support from all corners of the country,

including central and state government, eminent personalities, media, public representatives, the public and most importantly our neighbourhood, nuclear power will continue to contribute as more safe, clean and effective energy source.

From the inception of nuclear power programme in the country, the units of NPCIL have been implementing numerous social welfare activities for the benefit of the local population. However, with issuance of DPE guidelines on Corporate Social Responsibility (CSR) for Central Public Sector Undertakings, NPCIL has appropriately enhanced the CSR programme in right earnestness. With the objectives to contribute towards sustainable upliftment in the quality of life of the surrounding populace and community development within the neighbouring villages through corporate social responsibility programmes, our Company is working towards fulfilling its responsibility for a more visible social impact. NPCIL believes that building social capital is as important as building financial capital. NPCIL has placed education, health and infrastructure at the core of its support as socially oriented initiatives.

Apart from these new challenges, this has been an exciting year for NPCIL and one which has witnessed advancements towards safety, performance & production of operating stations, project management, construction of plants and new project launches. After years of growth and development, NPCIL has successfully transformed into a strong, self reliant, dynamic and developed Company.

Our focus also remains on high volumes and environmental friendly generation of nuclear power. It is my proud privilege to inform the august shareowners that our Company has marked the excellence in generation in its silver jubilee year and marked yet another record of generating highest ever energy of 32,455 MUs during the year ending on 31st March 2012 with

an increase of about 23% and surpassed its previous electricity generation record of 26,472 MUs (last year). We continuously recognise the importance of nuclear power for energy security of the country by providing sustainable self reliant energy necessities of the country to ensure ever growing needs for further development.

Financial performance

Consequently, our Company has surpassed all the previous records in financial performance:

- The power generation increased by 23 percent during the year 2011-12, 32,455 Million KWh as against 26,472 Million KWh during the year 2010-11,
- The net export increased by 24 percent during the year 2011-12, 29,123 Million KWh as against 23,533 Million KWh during the year 2010-11,
- The total income increased by 26 percent during the year 2011-12, ₹ 8,709 Crore as against 6,886 Crore during the year 2010-11.
- The Profit after Tax increased by 39 percent during the year 2011-12, ₹ 1,906 Crore as against 1,376 Crore during the year 2010-11.
- The Board has recommended total dividend of ₹ 572 Crore for the year 2011-12 as against ₹ 413 Crore of the year 2010-11

Operating performance

We have our presence in the country's different power grids, supplying quality power to consumers in a cost efficient manner through optimal operational efficiencies and the highest levels of productivity.

At present, 20 reactors are operational with an installed capacity of 4,780 MW (including RAPS-1 of 100 MW owned by Government.)

The gross electricity generation during the year was 32,455 MUs against an MOU target of 32,000 MUs. The operating plants

registered highest generation in the history of NPCIL, surpassing the previous high of 26,472 MUs during the year 2010-11.

Our Company has registered a capacity factor of 78.95% during the year. The overall availability factor of the reactors was 91.12%, which is a performance indicator value, matching with the best in the world. During the FY-2011-12, more than 90% Availability Factor (AF) was recorded by 13 of our stations namely TAPS-1, TAPS-2, TAPS-3, RAPS-2, RAPS-3, RAPS-5, MAPS-2, NAPS-2, KAPS-1, KAPS-2, KGS-1, KGS-2 & KGS-4.

Many stations have recorded continuous reactor operation of more than 300 days during the financial year. These are TAPS-3 for 522 days, KAIGA-1 for 347 days, MAPS-2 for 309 days, RAPS-2 for 304 days, TAPS-2 for 303 days and KAIGA-2 for 302 days.

NPCIL's robust performance was achieved on the strength of excellent safety culture and healthy working environment nurtured at all employees at operating stations and Corporate Office.

Safety of the reactors

Safety continued to be the highest and foremost priority at all the nuclear power reactors, and there were no incidents while achieving the excellent operational performance. The safety performance of Indian nuclear power reactors continued to be impeccable over 361 reactor-years of operation. The safety review post-

32,455 MU

The gross electricity generation during the year was 32,455 MUs against an MOU target of 32,000 MUs. The operating plants registered highest generation in the history of NPCIL, surpassing the previous high of 26,472 MUs during the year 2010-11.



Protocol on Russian credit was signed with Russian Federation for upcoming two more 1000 MW VVER Units at Kudankulam, Whereas on Indigenous program, Public hearing for four Units of 700 MW PHWR Units at Haryana were completed.

Fukushima for the existing operating nuclear power reactors and the reactors under construction, has found these to be safe from extreme natural events like earthquake and tsunami. Several additional safety measures have been implemented at Indian nuclear power plants to further enhance the safety to a higher level.

As a follow-up of Fukushima event, identified safety upgrades are being implemented at all stations to further enhance protection against extreme external events. Some of the upgrades require unit shutdown and thus are taken up during planned maintenance outages.

Projects under construction

Hot run for Kudankulam Nuclear Power Project unit-1 was successfully completed in July 2011 and the unit is being made ready with completion of activities related to fuel loading procedures after stage wise regulatory clearances for its early start up. The unit-2 is closely following with a gap of 7-8 months.

Company has launched second set of 700 MW, RAPP-7&8 reactors at Rajasthan with first pour of concrete on 18th July 2011. Units are progressing well with 96.5% Raft completion of Nuclear Building (NB)-7 and 67.8% of the NB-8. Unit at Kakrapar, KAPP-3&4 projects, commencing its First Pour of Concrete (FPC) on 22nd

November 2010, presently activities are being executed expeditiously. Entire raft of Nuclear Building-3 is completed. Calandria Vault construction up to El. 100.5 M is also completed. Nuclear Building-4 is following closely.

New launches

NPCIL has planned to launch over 15,000 MW capacity in the current five year plan (2012-2017) by setting up 8 PHWRs of 700 MW each and 8 Light Water Reactors (LWRs) of 1000 MW and larger capacities based on international cooperation.

Last month on 17th July 2012, we recorded two major milestones. Protocol on Russian credit was signed with Russian Federation for upcoming two more 1000 MW VVER Units at Kudankulam, whereas on Indigenous program, Public hearing for four Units of 700 MW PHWR Units at Haryana were completed.

Civil construction of liaison office at Ratnagiri is completed and operationalised at the proposed NPP site at Jaitapur. Work has been awarded for construction of rain water harvesting pond at residential complex.

Performance in R&D areas

In view of the expanding nuclear power programme and ageing management of the plants, in-house R&D are essential to strive for long term support and continued enhancement of plant safety. These efforts

resulted in Renovation and Modernisation of Computer Based Systems in Operating Stations, In-house Development of Hardware Modules for Systems for 700 MW projects. Significant progress in R&D included the Hydrogen Recombiner Test Facility (HRTF) and full scale Containment Spray Test Facility.

Human capital

While we are not only attracting and retaining new talent, we are working on succession planning and potential management to provide greater depth and width to the Company. A Company can only be as good as the people it employs and empowers. Our Company will constantly renew itself and recreate its value proposition. But our core values of knowledge base, innovation and sustainability will provide us new ways of doing business and the resilience to overcome tough times.

The power of this vision and opportunity is evidenced by the fact that NPCIL has attracted over one lac twenty thousand application forms from professionals to join its rolls from all over the country for 250 nos. of new vacancies for executive trainees. NPCIL recognises that the future of enterprises in the economy depends on building competencies in people and on harnessing diverse talents. In this light, NPCIL has built a 12000 strong human capital structure, with formidable breadth, depth, young blood and discipline. It

4,780 MW

At present, 20 reactors are operational with an installed capacity of 4,780 MW (including RAPS-1 of 100 MW owned by Government.)

15,000 MW

To launch over 15,000 MW capacity in the current five year plan (2012-2017)

seeks to unleash the potential of talent by setting great goals, challenging tasks, focusing on meaningful social impacts and fostering a conducive learning environment.

Awards

Many of our power stations were continuously attracting national and international recognitions. In this series, Kaiga Generating Station received the prestigious Power Line Award-2012 from the Ministry of Power, Government of India under the category "Best Performing Nuclear Power Station" based on past three years performance.

Tarapur Atomic Power Station was also awarded this year the prestigious CEA (Central Electricity Authority) Shield for 2010-11 for outstanding performance. Tarapur units 3&4 (TAPS-3&4) also bagged the Industrial and Fire Safety Award from Atomic Energy Regulatory Board (AERB). Yet another feather in the cap for NPCIL was the "Gold Shield Award" from Ministry of Power, Government of India, in March 2012 for Rawatbhata Rajasthan (RR) site.

Corporate governance

NPCIL recognises communication as a key element in the effective functioning of the overall corporate governance framework, and emphasises continuous, efficient and relevant communication with all. This translates into attaining the highest levels of transparency, accountability, in all facets

of operations, and in all interactions with stakeholders, including shareholders and employees.

I would also like to confirm that the Company has complied with the Corporate Governance Guidelines issued by the Authorities.

With these words, I seek your support in our joint efforts to realise the NPCIL's vision and to serve you and nation better.

Kailash Chandra Purohit
Chairman and Managing Director

Place: Mumbai

Date: 13th August 2012

BOARD OF DIRECTORS



Shri Kailash Chandra Purohit
Chairman & Managing Director

Shri Kailash Chandra Purohit, born on 10th May 1954, is the top most manager of the Indian nuclear conglomerate, Nuclear Power Corporation of India Limited (NPCIL), the iconic company of the Indian Power Industry. Shri Purohit took over as CMD of NPCIL on 25th June 2012. He held the position of Director (Projects) and was on the Board of NPCIL since 2009. A distinguished scientist of the DAE, Shri Purohit is an Electrical Engineer from H.B.T.I. Kanpur. Following his graduation in Nuclear Engineering from the Bhabha Atomic Research Centre (BARC) Training School in 1973, he joined the erstwhile PPE and later served in different capacities in NPCIL. He became the commissioning team leader at Rajasthan Atomic Power Plant Units 3&4 and contributed significantly towards commissioning of the Pressurised Heavy Water Reactors (PHWRs) in Rajasthan with various record performances, including synchronisation within 14 days time from criticality.

Shri Purohit was a key member of the team which negotiated the contract with

the Russians, and later led the Kudankulam Project implementation as a Project Director. He started his professional career in operation of the Nuclear Power Plants at Rawatbhata, Kota in Rajasthan, and obtained license for the operation of these plants from the Regulatory Body in India. He has over 38 years of wide-ranging experience and has made significant contributions in construction, commissioning, operation as well as renovation and modernisation of Nuclear Power Reactors in India. He has also been instrumental in major upgradation and first en-masse coolant channel replacement in India at RAPS-2. His expertise spans both indigenous PHWRs and the latest large-size LWRs being set up with the international cooperation at Kudankulam. He also served as the Governor of WANO, Moscow Centre.

Shri Purohit has held several key positions in NPCIL, prior to his elevation to the position of CMD. As Director (Projects), he was responsible for LWRs being set up

by NPCIL with technological cooperation from the Russian Federation, France and United States of America. NPCIL has honored Shri Purohit with its LEADERSHIP Award in 2011. Shri Purohit has successfully contributed to the Company through some of its most challenging times and enabled it to emerge stronger. Shri Purohit strengthens the process of indigenising the manufacture of critical equipment for the process systems.

A concern for social and welfare issues complement Shri Purohit's keen business interests. Extending NPCIL Parivar from its employees to the neighborhood of project sites, he is deeply committed to social upliftment. Under his leadership, NPCIL has embraced the areas of health, education and infrastructure as a part of its commitment towards creating a sustainable community development programme in and around the Company.



Shri S. A. Bhardwaj
Director - Technical



Shri Preman Dinaraj
Director - Finance

Shri S. A. Bhardwaj a Mechanical Engineer and M.Tech in Design of Mechanical Equipment (IIT, New Delhi) obtained training in Nuclear Engineering from BARC Training School and joined the PPED in 1971. He was associated with nuclear fuel design and engineering activities, reactor core design, shut down system design, in-core fuel management, reactor physics, reactor components and nuclear safety. Since February 2002, he shouldered the responsibility of total engineering activities of PHWRs. He is a Distinguished Scientist of the Department of Atomic Energy. At present, he is a Director (Technical) responsible for design, construction and procurement activities of PHWRs, new LWR projects and so on. He is a member of the AERB Advisory Committee on Design Codes & Guides and has played an active role in the preparation of multiple Safety Codes and Guides for the AERB. He was awarded the NPCIL Unit Recognition Award in 2001 for his outstanding contribution in the field of Fuel Engineering and also Leadership award in 2006. He was also conferred with the Indian Nuclear Society Award in 2001

for outstanding contribution in the field of Nuclear Engineering. He is a Fellow of the National Academy of Engineers and Chairman, Anushakti Vidhyut Nigam Ltd., a JV between NPCIL & NTPC. He is on NPCIL's Board since 3rd February 2005.

Shri Preman Dinaraj is a post graduate in social sciences. He has also done his Post Graduate Diploma in Management from IIM Bangalore and is concurrently pursuing a PhD on 'Management of Pension Funds' from the University of Auckland, New Zealand. During his over 28 years of service in Indian Audit & Accounts Service, he has been posted across India - Chennai, Srinagar, Trivandrum, Dehradun, Delhi, Raipur, Mumbai and Patna in various capacities and travelled to over 21 countries.

Shri Dinaraj joined NPCIL in January 2012 as Director - Finance on deputation. Prior to that, he was the Principal Accountant General (Audit), Bihar, in the HAG Scale. Shri Dinaraj has had a previous stint in NPCIL between 1997 and 2002, when he held the positions of Director-Personnel

at NPCIL heading the HR group and as General Manager - Contracts & Material Management Division.

He has held numerous assignments abroad, including Advisor to the Deputy Prime Minister and Minister for Finance, Government of Mauritius for a World Bank project. In addition, he also served as an external auditor of UNHCR in Africa.

As the Director-Finance, NPCIL he is faced with the challenge of augmenting the standards of professionalism in the finance division. His other major challenges comprise raising the financial resources for NPCIL's expansion plans and making significant contribution to the Company's proposed expansion programme. He bears key responsibilities in catalyzing NPCIL's vision of fast growth, diversification, competitiveness and in meeting the challenges ahead.

Besides being a whole time Director on the NPCIL Board, he is the Chairman of NPCIL-NALCO Power Company Limited. He is also the Wholetime Director of Bharatiya Nabhiya Vidyut Nigam Ltd. (BHAVINI) and holds the Directorship in the Joint Venture (JV) companies - M/s L&T Special Steels and Heavy Forgings Pvt. Ltd. (JV between NPCIL and L&T Ltd.), M/s Anushakti Vidhyut Nigam Ltd., (a JV between NPCIL and NTPC Ltd). His vast range of expertise and experience in the financial sector, contracts management and HR practices, along with his futuristic vision, has infused an added advantage to all the organisations he has been associated with.



Shri G. Nageswara Rao
Director - Operations



Shri S. B. Agarkar
Director - Human Resource

Shri G. Nageswara Rao is an Electrical Engineering graduate from the Jawaharlal Nehru Technological University, Andhra Pradesh in 1975, he joined the 19th batch of the BARC Training School. He received the Homi Bhabha Award for obtaining the first rank in his batch.

He worked on the commissioning of the fuel handling system of both, RAPS-2 and MAPS. In 1987, he was appointed as the Senior Maintenance Engineer for the fuel handling unit at MAPS. In 1997, he was appointed as Maintenance Superintendent at KAPS, where he improved manpower productivity and equipment performance. In 2000, he became the Chief Superintendent, KAPS and catalyzed high performance, making it the model NPCIL station. As the Station Director of KGS-1&2, he brought about both technical and organisational improvement. As a result both KGS-1&2 Units showed consistent excellent performance – continuous operation for more than 300 days. He is appointed as full time functional Director for Operations Group.

He streamlined operating experience sharing, station performance reviews, WANO Technical Support Missions and optimisation of fuel utilisation. Recognising his outstanding contributions towards the safety in the operation of Nuclear Power Plants, he was honored with the WANO Nuclear Excellence Award during the Biennial General Meeting of WANO held at Chicago in September 2007.

Station Performance bench marking and performance improvement programmes were launched under his leadership. He is contributing significantly in achieving consistent, safe and reliable operation of all NPCIL Units. He contributed significantly in achieving excellent performance of all operating stations in the year 2011-12.

He is a full time Director on the NPCIL Board from 6th August 2007.

Shri S. B. Agarkar graduated in Electrical Engineering in 1975 from the Punjab Engineering College, Chandigarh. He has a rich 37 years experience in the nuclear industry in a variety of areas. He specialised in Nuclear Power Plant (NPP) Electrical Systems design and led the team of Engineers in Electrical Design Group in the designing of Electrical Systems of eight NPPs and made major contributions in the evolution of PHWR electrical systems designs. He also has vast experience in contract management and information technology application. He was a member of the Bureau of Indian Standards Committees and acquired expertise in quality standards.

Shri Agarkar is actively involved in human resource development in nuclear power, including talent identification and acquisition, training and development. He has made major contributions in human resource policy formulation, compensation re-structuring, on-line performance assessment and management systems, computerisation of HR processes and information systems, development and implementation of career growth policies for all employee segments. Shri Agarkar leads teams of HR professionals in all NPCIL locations for uniform implementation of Corporate HR policies and successful management of employee relations and external interfaces. He is also actively involved in NPCIL's CSR activities in a challenging and evolving business environment.

He is on the Board of NPCIL since 27th November 2009.



Shri A. P. Joshi
Director



Shri V. R. Sadasivam
Director

Shri A. P. Joshi has topped the University in his graduation and secured 2nd rank in post-graduation in Physics. He is the recipient of 5 gold medals from the then President of India for academic distinctions. He joined the Indian Administrative Service in 1978 and has been the Chief Executive of PSUs for over 12 years. He has a rich experience of over 10 years in formulation, sanction and implementation of mega infrastructure projects in Water Resources, Power and Transport sectors. He has played a significant role in the completion and dedication of the ₹ 11,000 Crore Upper Krishna Project to the nation by the President of India.

For the last about four years, as the Additional / Special Secretary of the Department of Atomic Energy, he is in charge of processing, sanction and implementation of mega nuclear power projects. He has shaped cabinet proposals for securing in-principle government approval for 7 sites for developing over 35,000 MW capacity in the next twenty years, besides financial

sanctions for several projects. He led the Indian team which finalised the credit of USD 4.2 Billion for the 2nd Phase of 2x1000 MW Kudankulam Nuclear Power Project. Enhanced transparency and IT leveraging in various aspects of contract management, recruitment of personnel, etc, in government / PSU functioning are high on his agenda.

He is on the Board of NPCIL since 11th December 2008.

Shri V. R. Sadasivam a commerce graduate from Loyola College, Chennai, joined a nationalised bank as an officer and worked for six years. He later joined the Indian Defence Accounts Service in 1981 and served in Meerut, New Delhi, Madras, Bangalore and Mumbai.

As the Controller of Defence Accounts (R&D) at Bangalore, he was responsible for the payment, accounting, audit and financial advisory services to the DRDO Labs in the South. He has a long association with the DAE and its Units. From 1994 to 1995, he has worked with the IGCAR and with BARC from 1998 to 2002. In 2007, he joined the DAE on the post of the Joint Secretary (Finance).

He is on the Board of NPCIL since 18th July 2007.



Shri Rakesh Nath
Director



Dr. Nalini Bhat
Director

Shri Rakesh Nath is on the Board of NPCIL, as a part-time Director w.e.f. 26th April 2011. He had earlier held directorship of NPCIL during the period 3.11.2005 to 03.03.2010.

Dr. Nalini Bhat Adviser, Ministry of Environment and Forests, Government of India, New Delhi, is a post-graduate in Physics and a Ph.D in Environmental Sciences. She received her training in Asian Institute of Technology (AIT), Bangkok and International Institute for Applied System Analysts (IIASA), Vienna, Austria. She has to her credit national and international publications, relating to environmental matters.

She is working in the Ministry of Environment and Forests for more than 20 years. Dr. Bhat has handled assignments in the areas relating to environmental impact assessment and pollution control and setting up of environmental standards, air quality management and source apportionment studies, among others.

Dr. Bhat was appointed as a Director on NPCIL Board from 15th July 2010.

Shri Rakesh Nath The entire career of Shri Rakesh Nath spanning about 4 decades has been shaped up in the various organisations of the power sector in India such as Appellate Tribunal for Electricity, CEA, NTPC, Regional Electricity Boards of the Northern and the Western regions, Bhakra Beas Management Board, Power Trading Corpn. and so on where he had experience in O&M of thermal & hydro generating stations and transmission system planning, grid operation, trading and electricity regulatory matters, etc. He has served as the Chairman of the Bhakra Beas Management Board, the largest hydro complex in the Northern region.

Presently Shri Rakesh Nath is Technical Member of Appellate Tribunal for Electricity. Prior to his appointment as Technical Member, he was the Chairperson of Central Electricity Authority (CEA) and ex-officio Secretary to Government of India. He contributed immensely to capacity building and accelerated capacity addition during the 11th Five Year Plan.



Shri A. S. Bakshi
Director



Shri Hemant G. Contractor
Director

Shri A. S. Bakshi has been appointed to the post of Chairperson, Central Electricity Authority (CEA), and Ex-officio Secretary to the Government of India w.e.f. 14th October 2011. An officer of the CPES cadre, Shri Bakshi joined the erstwhile Central Water & Power Engineering Services (CW&PES) in August 1975. He has acquired a versatile experience of about 37 years in the development of India's power sector during the period of his wide and varied work experience in various capacities in the CEA. Born on 24th July 1953, Shri Bakshi is a Mechanical Engineer; he continued his educational pursuit to acquire the qualification of M.B.A while in service.

As an expert in operation & maintenance engineering of thermal generating units, Shri Bakshi was selected for a prestigious foreign assignment in Water & Power Department, Abu Dhabi (U.A.E.). From July 1979 to October 1984, he handled the operation & maintenance of oil fired 6 x 67.5 MW generating plant having a desalination unit.

On his promotion as the Chief Engineer in October 2004, Shri Bakshi was associated for the integrated resource planning in the country with both short term and long term Generation Planning & Load Forecasting. He has been instrumental in the preparation of National Electricity Plan brought out in April 2007, covering the 11th Plan in detail and also the perspective for 12th & 13th Plans.

In his tenure as the Chairperson of CEA, Shri Bakshi is involved in the overall planning and coordination of all the facets of India's power sector. As a part of the responsibilities attached to the post, he is associated in important matters of the Central Electricity Regulatory Commission (CERC) as its Ex-officio Member.

Shri Bakshi has been appointed on the Board of NPCIL w.e.f. 29th February 2012.

Shri Hemant G. Contractor is BA (Hons.) and an ACIB (Associate of Chartered Institute of Bankers), London. He joined the State Bank of India as a Probationary Officer in 1974. During his illustrious career spanning 37 years with the bank, he held several other important positions. He took over as the Managing Director & Group Executive (International Banking) at the bank in April 2011. Prior to his current assignment, he had a brief stint as the Dy. Managing Director & Chief Financial Officer of State Bank of India, prior to which he was the Dy. Managing Director & Group Executive (Corporate Banking) for 3 years.

He has been appointed on the Board of NPCIL w.e.f. 26th September 2011.



PERMANENT INVITEE



Shri Umesh Chandra
Senior Executive Director

Shri Umesh Chandra is Senior Executive Director, Safety and Knowledge Management in NPCIL. His areas of responsibilities include Reactor Safety & Analysis of Design, Health, Safety & Environment of nuclear power plants in operation and construction, Software Quality Assurance of C&I Systems, Training Simulators and Knowledge Management.

Before joining NPCIL in 2001, he worked in Reactor Control Division, BARC for 30 years. At BARC, his major contributions were towards creation of teams and fostering of technology for development of computer based Control and Monitoring Systems for nuclear power plants. These systems are operating in 14 NPPs. At NPCIL, he has established R&D

activities and infrastructure including an R&D Centre at Tarapur Site and a digital C&I systems lab at Mumbai. He has been responsible for design and engineering of Control and Instrumentation systems of 540 MW PHWRs, TAPS-3&4 at Tarapur.

He has also been responsible for establishment of qualification methodology and safety guide for Digital I&C Systems in NPPs. He has contributed in preparation of C&I related safety guides for AERB. He is also a part-time Director on the Board of ECIL, Hyderabad. Shri Umesh Chandra is a Distinguished Scientist and is a graduate in Electrical Engineering from IIT, Kanpur.

* The composition of the Board of Directors as on the date of 25th AGM held on 13th August 2012

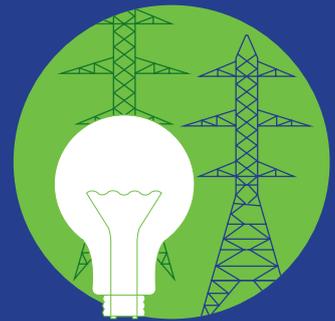
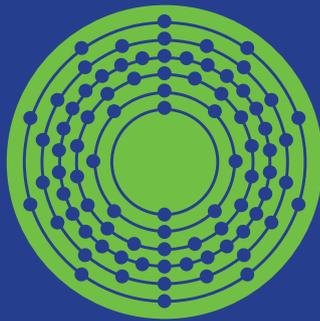
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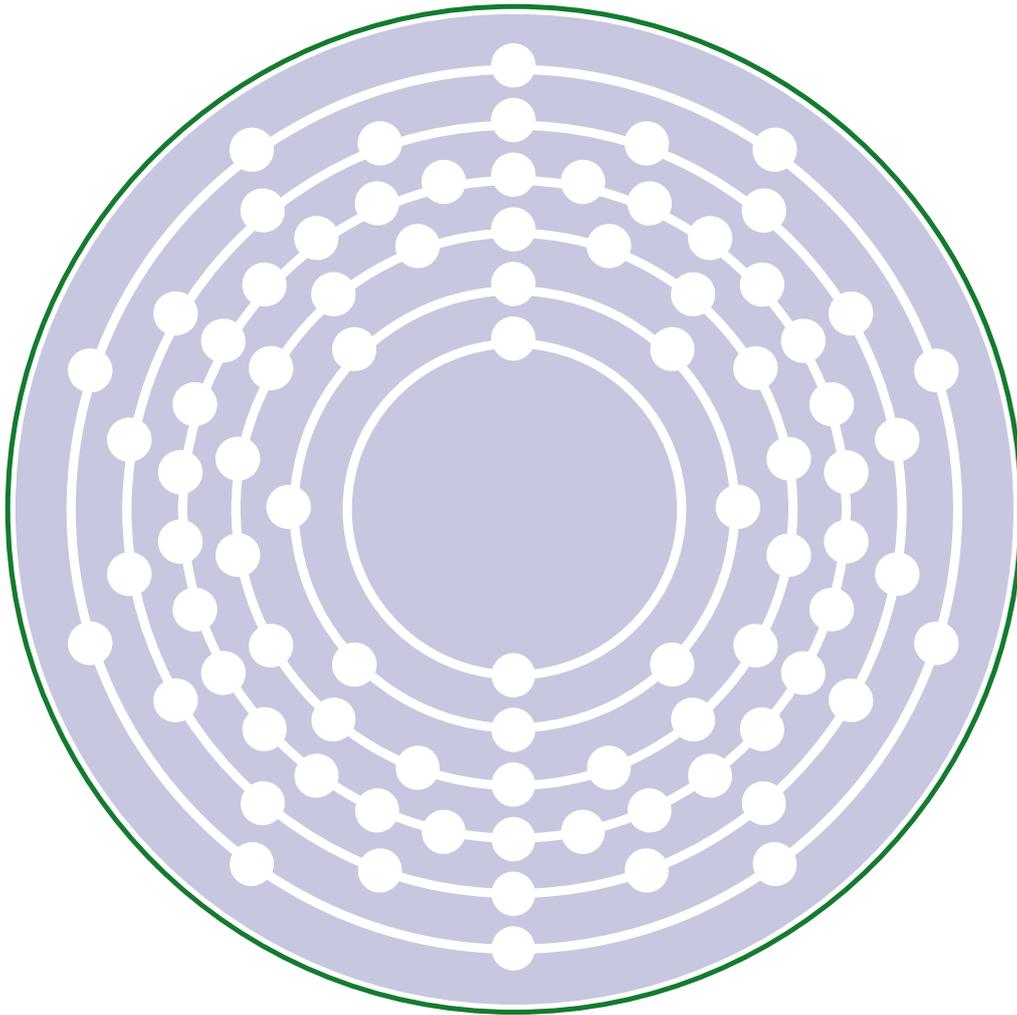
Shri Srikar R. Pai

CORE STRENGTHS

NPCIL continues to leverage on its enormous and core strengths of **development, deployment and delivery** to achieve its objective of enhancing nuclear energy's share in India's total power generation.



With great determination and confidence, it continues to **develop technology efficiently, deploy human capital effectively and deliver on its promise of increased power generation**, aimed towards enabling India to achieve energy security.

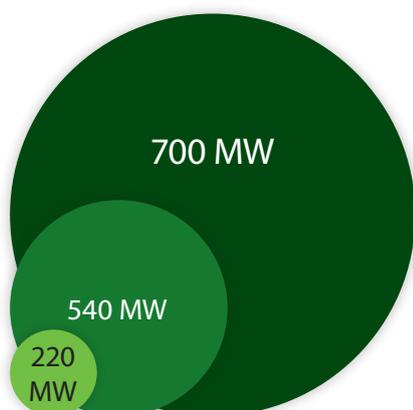


DEVELOPMENT

The evolution and development of commercial nuclear technology has witnessed several technological revolutions in India. NPCIL has developed comprehensive capabilities in all the aspects of nuclear power – siting, design, construction, commissioning, operation, renovation & modernisation and life extension of Nuclear Power Plants (NPP). Multi-dimensional R&D facilities have been set up and capabilities are developed in front and back ends of the fuel cycle.

NPCIL has put in continuous efforts to achieve high standards by the Indian industry in manufacturing of equipment for nuclear power technology. Our capabilities in design, engineering and manufacturing of equipment are comparable with the international standards. We have mastered the PHWR technology, having diversified from BWRs. The unit size of our PHWRs has been increased from 220 MW to 540 MW and now to 700 MW. We have also enhanced our design capabilities to successfully launch indigenously-designed reactors.

NPCIL is optimising the cost of developing indigenous PHWRs and LWRs. For instance, the project cost of LWRs is being optimised by devising feasible business models incorporating the share of responsibility between the vendor and Indian side with an increased indigenisation and appropriate financing methods, aimed at reducing tariffs.



The unit size of our PHWRs has increased from 220 MW to 540 MW and now to 700 MW.

Achievements

- Mastered and re-engineered execution methodology and strategies of nuclear power plants and achieved reduction in gestation period.
- Developed capabilities in manufacture and supply of high precision and specialised equipment, comparable with international standards.
- Registered high availability factor, safety performance and longest continuous operation by the operating reactors.
- Excellent performance of nuclear power reactors in terms of safety with 355 reactor-years of safe and accident-free operation.

Three-stage nuclear programme

India's three-stage nuclear programme is designed to make optimum use of the modest uranium and vast thorium reserves of the country for sustained power generation. The three-stage programme is robust and on course:

- First stage of PHWRs has reached a stage of commercial maturity.
- Second stage comprising FBRs has been commercially launched with construction of 500 MW Prototype FBR at Kalpakkam, Tamil Nadu.
- Third stage systems (using uranium 233-thorium 232 obtained from the spent fuel of second stage) have been developed on a pilot scale.

Kudankulam Nuclear Power Project: Creating technology benchmarks



Kudankulam Nuclear Power Project

Kudankulam Nuclear Power Project (KKNPP) is India's largest capacity nuclear power station set up in collaboration with the Russian Federation at Tirunelveli district, around 650 kms from Chennai.

- Two reactors of 1000 MW each based on VVER (Water-Water Power Reactor) technology
- VVER reactors use light water as coolant and moderator and enriched uranium (about 3.92% U-235) as fuel

With the completion of the Kudankulam project, NPCIL hopes to add 2,000 MW, taking its total installed capacity to 6,780 MW.

Enhanced safety provisions

- Enhanced redundancy and increase in number of control rods, four safety trains, Reactor Building double containment, Passive Heat Removal System, etc.
- Passive safety systems based on natural principles such as operation under gravity, natural circulation, thermosiphoning for cooling of fuel/removal of residual heat by air after shutdown, called decay heat.
- These systems do not require external motive force or human intervention to meet the safety requirements.



DEPLOYMENT

Human capital forms one of the core strengths of NPCIL. We recognise that the future of enterprises in a knowledge-based economy is largely dependent on building of competencies and harnessing diverse talents. We seek to unleash the talent potential by setting goals, challenging tasks, focussing on meaningful social impacts and fostering a conducive learning environment.

Our core values of knowledge base, innovation and sustainability provide us novel ways of doing business and resilience to overcome tough situations. Excellent human resource has been developed for specialised skills required for this industry. Besides attracting and retaining fresh talent, NPCIL also focuses on succession planning and potential management to provide greater depth and width to the Company.



NPCIL Executives attending the training on 'Leadership Excellence' organised at the Tata Management Training Centre, Pune

Knowledge management

Our HR practices have been formulated strategically to provide qualified manpower for deployment and redeployment at the nuclear plant sites. Some of our prime initiatives are:

- Implementation of Human Asset Review and Management System to map employee competencies.
- Establishment of 7 Nuclear Training Centers (NTC) with ISO 9001:2000 certification at plant sites for induction, training and retraining across hierarchies.
- Recruitment of 214 trainee engineers for NPCIL Batch 19.
- Imparting training for 5,056 man-days during 2011-12.
- Sponsoring of 37 employees for higher studies in technology and management functions.

We ensure optimum utilisation of our human capital. Our comprehensive manpower optimisation models are developed separately and staffing is done strictly in accordance with these models.

Employee statistics

11,662

Total workforce, including 1,082 women employees

3,417

engineers and scientists

5,991

technicians and supervisors

1,665

non-technical executives and staff

589

auxiliary support staff

Group-wise staff strength

Group A

4,295

Group B

4,551

Group C

2,816



DELIVERY

2011-12 has emerged as the best year in the history of NPCIL. The Company achieved excellence in generation of energy this year, which is also its silver jubilee year. NPCIL has set a new record in generating the highest-ever energy during the year, surpassing its previous record. It has enabled a presence in all the country's power grids, strengthening the quality of power to consumers in a cost-efficient manner through optimal operational efficiencies and the highest levels of productivity.

2011-12

Making a difference

32,455 MU

Highest-ever production of 32,455 Million Units (MU), up 23% compared with generation in 2010-11

₹ 7,914 Crore

Revenue from operations ₹ 7,914 Crore

97%

All-time high average capacity factor of 97% registered by 9 operating reactors using imported fuel

522 days

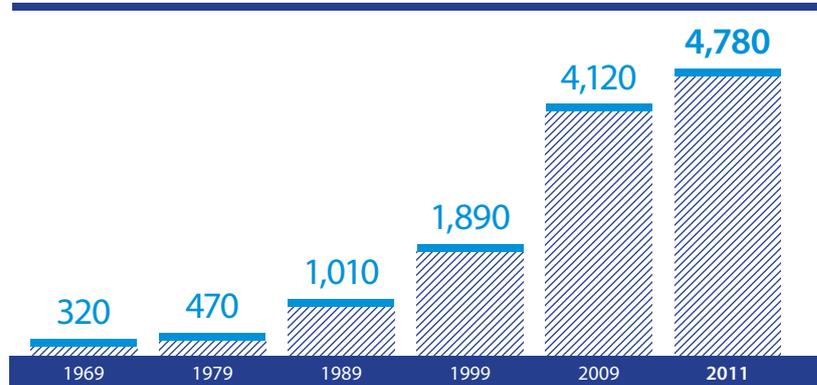
Third unit of Tarapur Atomic Power Station achieved a feat of continuous operation of 522 days



Tarapur Atomic Power Station-1&2

Capacity Expansion over the Years

(MW)



Key achievements over the years

Commissioning of India's first PHWR at Rajasthan (RAPS-1&2)

- Work on these units was taken in parallel with commissioning of 2 units at Tarapur (TAPS-1&2)

Twin-unit PHWR station at Kalpakkam

- Design, manufacture of components and equipment, construction of plant and commissioning was indigenous

RAPS-1&2 and MAPS-1&2

- Laid the foundation for the first stage of India's three-stage nuclear programme
- Provided valuable insights in design, manufacturing, construction, commissioning and operation

Kakrapar Atomic Power Station

- Design maturity, short manufacturing cycles and use of better construction techniques and project management helped cut down the gestation period

Rajasthan (Units-1&2) and Kaiga (Units-1&2)

- First time in the history of nuclear power in India, construction of 4 units were taken up concurrently
- Additional modification in design incorporated to keep pace with evolving safety standards and practices, reliability and speedy construction of the projects
- Commissioning completed in a record time

PHWR reactors at Tarapur (TAPP-3&4)

- Design of 220 MW PHWRs was technologically, industrially and economically matured
- Design further upgraded to 700 MW capacity

Kudankulam Nuclear Power Project (KKNPP)

- 2 units of VVER of 1000 MW each set up in collaboration with Russian Federation
- Construction of main plant buildings and erection of equipment carried out indigenously



Plant	Unit	Type	Capacity in MW	Date of commercial operation
PLANTS UNDER OPERATION				
Tarapur Atomic Power Station (TAPS), Maharashtra	1	BWR	160	28th October 1969
	2	BWR	160	28th October 1969
	3	PHWR	540	18th August 2006
	4	PHWR	540	12th September 2005
Rajasthan Atomic Power Station (RAPS), Rawatbhata Rajasthan	1	PHWR	100	16th December 1973
	2	PHWR	200	1st April 1981
	3	PHWR	220	1st June 2000
	4	PHWR	220	23rd December 2000
	5	PHWR	220	4th February 2010
	6	PHWR	220	31st March 2010
Madras Atomic Power Station (MAPS), Kalpakkam Tamil Nadu	1	PHWR	220	27th January 1984
	2	PHWR	220	21st March 1986
Kaiga Generating Station (KGS), Karnataka	1	PHWR	220	16th November 2000
	2	PHWR	220	16th March 2000
	3	PHWR	220	6th May 2007
	4	PHWR	220	20th January 2011
Narora Atomic Power Station (NAPS), Uttar Pradesh	1	PHWR	220	1st January 1991
	2	PHWR	220	1st July 1992
Kakrapar Atomic Power Station (KAPS), Gujarat	1	PHWR	220	6th May 1993
	2	PHWR	220	1st September 1995

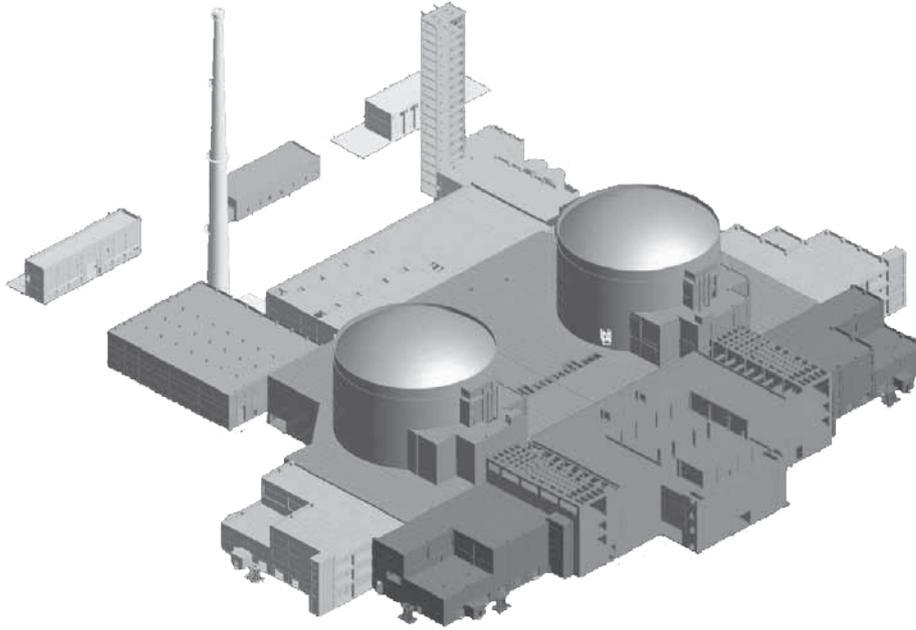
Project	Capacity (MW)	Type	Expected commercial operation
PLANTS UNDER DIFFERENT STAGES OF CONSTRUCTION			
Kudankulam Nuclear Power Project, Tamil Nadu	2 x 1000	LWR	Unit 1 – 2012
			Unit 2 – 2013
Kakrapar Atomic Power Project, Gujarat	2 x 700	PHWR	Unit 3 – 2016
			Unit 4 – 2016
Rajasthan Atomic Power Project, Rajasthan	2 x 700	PHWR	Unit 7 – 2016
			Unit 8 – 2016

Location	Reactor Type	Capacity (MW)
SITES WHICH RECEIVED IN-PRINCIPLE APPROVAL TO LOCATE NPPs:		
Gorakhpur, Haryana		4 x 700
Chutka, Madhya Pradesh		2 x 700
Bhimpur, Madhya Pradesh	Indigenous PHWRs	4 x 700
Mahi Banswara, Rajasthan		4 x 700
Kaiga-5&6, Karnataka		2 x 700
Kudankulam, Tamil Nadu		4 x 1000
Jaitapur, Maharashtra		6 x 1650
Mithi Viridi, Gujarat	LWRs based on international co-operation	6 x 1000 *
Kovvada, Andhra Pradesh		6 x 1000 *
Haripur, West Bengal		6 x 1000 *

* *Indicative capacity*

Location	Reactor Type	Capacity (MW)
PROJECTS PROPOSED FOR LAUNCH IN XIIth FIVE-YEAR PLAN		
Gorakhpur, Haryana		2 x 700
Chutka, Madhya Pradesh		2 x 700
Mahi Banswara, Rajasthan	Indigenous PHWRs	2 x 700
Kaiga-5&6, Karnataka		2 x 700
Kudankulam, Tamil Nadu		2 x 1000
Jaitapur, Maharashtra		2 x 1650
Mithi Viridi, Gujarat	LWRs based on international co-operation	2 x 1100
Kovvada, Andhra Pradesh		2 x 1500

KNOWING HOW NUCLEAR POWER IS PRODUCED



Indigenously designed 700 MW Plant Layout

Nuclear power plants produce heat which is used to convert water into steam. The steam is deployed to produce electricity, similar to any other fossil fuel plant. Nevertheless, the unique features of a nuclear plant are the processes used to produce heat. A nuclear reactor uses uranium as fuel (consisting of encapsulated solid uranium oxide pellets) which generates heat through a process called fission (splitting of heavy atoms).

Step 1

- Inside the nuclear reactor, the heavy uranium atoms split by absorbing a thermal (slow) neutron (which are emitted by uranium itself) into two new atoms and simultaneously evolve tremendous heat energy.
- The heat-producing fission is controlled inside the reactor core by control rods.
- The reactor, apart from containing the uranium fuel, employs the control rods to regulate the operation of the reactor including automatic shutdown of the reactor upon sensing any abnormal condition and maintains fuel cooling which prevents excessive heating of the fuel in the reactor core.

Step 2

- The heat generated from the fission of uranium atom (the fuel) is used to heat the coolant (water surrounding the fuel).
- This hot coolant/water exchanges its heat in a steam generator with the secondary water to produce steam which is fed to the turbo-generator to produce electricity, similar to any thermal power plant.

MYTHS & REALITIES

Year 2011-12 witnessed NPCIL facing a new and tough challenge of managing public perception with regards to the safety of nuclear power plants. NPCIL explained the safety of Indian NPPs through a multi-pronged approach and scaled-up outreach programmes. This covered almost all the sections of the society including the population around plant sites, opinion and decision makers, students, doctors and other medical professionals, press, and so on.

We present here a synopsis of some common myths about nuclear energy, along with the corresponding facts.

Myth

Nuclear power is unsafe.

Reality

A nuclear reactor functions based on a controlled fission chain reaction in the fuel kept inside the reactor. The reactor is equipped with automatic fast-acting reactor shutdown systems and other safety features to maintain fuel cool and ensure that radioactivity is well contained. The design, construction and operation of the reactors follows the best practices and is under the purview of the regulatory agency. (There is no possibility of any nuclear explosion in the reactor configuration. In order to have an uncontrolled chain reaction similar to an atomic explosion, the uranium fuel concentration needs to be extremely rich. Much higher than the usual 0.07% U-235 concentration in Indian nuclear reactors.) Strict protocols administered by the International Atomic Energy Agency (IAEA) are used to control fuel enrichment, fabrication and reprocessing facilities. Controls of a commercial nuclear reactor or its fuel cannot be altered intentionally or unintentionally, which can cause a serious accident.

SAFETY... THE OVER-RIDING PRIORITY

At NPCIL, safety is accorded the highest priority during all the phases of siting, design, construction, commissioning and operation of the nuclear power plants.



Safety assurance and management is essentially aimed towards protecting the operating staff, general public and the environment. Historically, nuclear power has demonstrated the highest levels of safety and extremely low fatality rate vis-à-vis other power producing technologies.

The Indian NPPs have employed multi-layers of safety, in line with the defense-in-depth philosophy and the safety standards prevailing globally. The approach to safety is based on redundancy, diversity, multiple barriers, independence and fail-safe design of safety-related systems. Earlier reactors have undergone renovation, modernisation and upgradation to the latest state-of-the-art technology, whereas the newer generation NPPs employ the safety features to even greater heights.

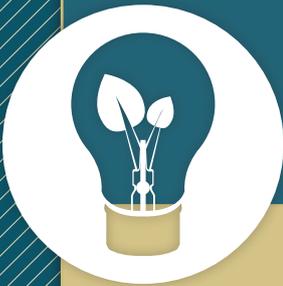


Myth

Nuclear power is costly.

Reality

Average tariff of nuclear power has been in the range ₹ 2.19/KWh to ₹ 2.58/KWh for the last several years. This compares well with other power generating technologies using fossil fuels and renewables. Nuclear power is a clean, sustainable and cost effective option, which can help India achieve its goal of sustainable generation of electricity.



NUCLEAR POWER – CLEAN, SAFE AND SUSTAINABLE

Clean...

- The warming effect of greenhouse gases (GHG) is an undisputable phenomenon threatening the atmosphere.
- Burning of fossil fuels is one of the main reasons of gas emission and the highest contributor of carbon dioxide. In contrast, nuclear power generates absolutely no GHG.
- In a coal-fired plant, coal produces approximately 80% of fly ash, which affects the ecosystem and pollutes the land, air and water.
- Radioactive nuclear wastes are small in quantity, are well immobilised and decay with time. Uranium mines aim for zero emission of pollutants. Any water release is of surface run-off and close to drinking standard.

Comparison between wastes from a nuclear power plant and thermal power plant (1000 MW each)

Thermal power plant	Nuclear power plant
Ash 320,000 tonnes	High level 27 tonnes spent fuel or 3 Cu. Meter after reprocessing and verification
CO ₂ 6.5 Million tonnes	Intermediate level 310 tonnes
SO ₂ 44,000 tonnes	Low level 460 tonnes

Safe...

Nuclear energy is the safest and the most reliable source of energy. There have been three major accidents – Three Mile Island (TMI), Chernobyl and Fukushima – in over 14,500 cumulative reactor-years of commercial nuclear power operation in 31 countries. There were no deaths due to any radiation exposure in TMI and Fukushima.

Energy chain	OECD		NON-OECD	
	Fatalities	Fatalities/TWY	Fatalities	Fatalities/TWY
Coal	2259	157	18,000	597
Natural gas	1043	85	1000	111
Hydro	14	3	30,000	10,285
Nuclear	0	0	31	48

(Source: World Nuclear Association)

Sustainable...

Nuclear power is less sensitive to fuel price fluctuations, as compared with coal. Due to an increase in the capacity factor, the economics shift towards nuclear energy. The cost of electricity depends on investments in plant construction, technology implementation, fuel and operations.

- Cost of construction of nuclear power plant is high compared to a thermal power plant. However, fuel cost is only 14% of the total tariff, compared to 78% in a coal-fired plant and 89% in a gas-fired plant. In case of a coal-fired power plant, the coal price becomes almost double at a distance of about 1200 km from pit-head. Thus, the cost of power generation is very sensitive to its distance from pit-head. In case of nuclear power, fuel transportation cost is insignificant compared to that of coal.
- The annual fuel requirement of a 1400 MW power station is:
 - Nuclear power (2X 700 MW PHWR): 200 tonnes (20 trucks per annum of 10 tonnes capacity each)
 - Thermal power: 60,00,000 tonnes (8 trains per day of 2,000 tonnes capacity each)
- Plant life of NPP is at least 60 years, much higher than a thermal power plant.

Myth

Setting up of nuclear plants leads to displacement of people and loss of livelihood for locals.

Reality

Nuclear power plants require far less land area, compared with other non-carbon based and carbon-neutral energy options. For a 1000 MW plant, site requirements are: nuclear plant - 1-4 sq. km, solar or photovoltaic park - 20-50 sq. km, a wind field - 50-150 sq. km and biomass - 4,000-6,000 sq. km
(Source: American Nuclear Society).

The number of large capacity nuclear power plant units at a site further reduces land requirement. Attempt is made to set up these plants at sites where displacement will be the least. In case of displacement, adequate land compensation and rehabilitation packages are offered to the locals.

EMPOWERING LIVES, ENABLING LIVELIHOODS...

NPCIL addresses the matters of land disbursement for the locals at nuclear power plant sites effectively.



To illustrate, in respect of rehabilitation of land affected persons and inclusion of surrounding population in the development benefits at the Jaitapur nuclear power project, the Government of Maharashtra and NPCIL together worked out an attractive compensation package for the land-affected people. An agreement on Rehabilitation & Resettlement (R&R) of project-affected families was concluded.

Besides, the land acquired for Jaitapur NPP was predominantly barren. Setting up of the project has not had any adverse impact on the livelihoods of the local population. There was no displacement of any family from the acquired land; there were only 2,335 project-affected persons. The livelihoods of the local population and their safety also received the highest importance.

Comprehensive Package: What does it comprise?

- Compensation towards land, assets, crops etc
- Construction, upgrading and maintenance of civic amenities in affected villages
- Provision of employment/one-time compensation in lieu of employment
- Priority to project-affected persons while awarding contracts
- Provision of rehabilitation grants and pensions to vulnerable sections
- Training to locals/project-affected persons to develop skills and competencies and make them employable

Myth

Nuclear plants pose a threat to flora, fauna and marine life.

Reality

Of the total land acquired for a nuclear power plant, only 20% to 30% is used for locating the plant buildings and facilities. The remaining area is devoted to setting up a 'green collar' around the plant. This is maintained in its pristine form and further enriched by establishing a green belt of endemic species. This attracts a lot of native and migratory birds, animals and other forms of life and a unique natural ecosystem flourishes around NPPs.



CREATING A NURTURING ENVIRONMENT

NPCIL is fully aware of the importance of a healthy environment to make the world a better living place. Its Environment Stewardship Programme (ESP) focuses on the scientific study of bio-diversity within and around Exclusion Zones of NPPs. The study focuses on avifauna and is aimed at improvement of habitat and conservation.

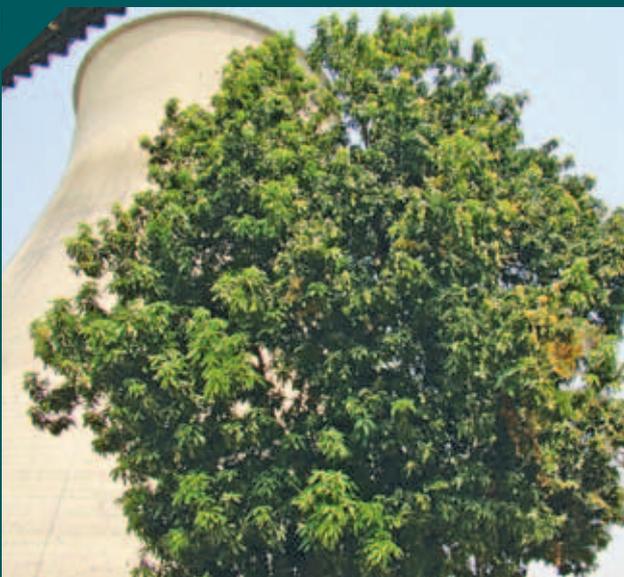
Nursing plant sites

- A fraction of plant site area is used for plant structure; the remaining is used for green-belting.
- Large number of bird species have made Exclusion Zones their home.
- Conducting training of local volunteers and public awareness campaigns to sensitise people on the environment and on improving the habitat.

Nuclear power plants do not adversely impact marine life at the sites. Nuclear plants, just like other fossil fuelled plants at coastal locations, use sea water and river water at inland locations for condenser cooling for which water is drawn from intake dykes. Temperature increases above the

ambient temperature by upto 5 degrees celcius in a small area of about one-quarter of a sq km (about 0.28 sq km) around the mixing point; and this is not deep beneath. Temperature of the water body in bulk remains the same, ensuring no adverse effect on marine life.

At the Kudankulam plant site, to save the fishes from coming into the fore bay and pump house area and getting trapped, a unique Fish Protection System has been implemented. Fishes coming into the intake are separated by means of a unique air curtain and safely returned to the sea. Studies carried out by independent institutes have proved that aquatic bio-diversity in the vicinity of nuclear power plant sites is rich in aquatic flora and fauna.



Green belting at the Narora Atomic Power Station



Bio diversity and aquatic flora and fauna at the Kaiga discharge point

Myth

Radioactivity generated by nuclear plants is harmful and causes cancer, infertility and congenital abnormalities.

Reality

We live in a naturally radio-active world and are exposed to radiation from the sun and outer space and naturally occurring radioactive materials present on earth. There are radioactive aerosols and gases in the air we breathe and our own bodies contain naturally occurring radioactive elements.

A scientific study was conducted by the Tata Memorial Center in association with local medical colleges at each site. This study has conclusively established that the employees working in close quarters of plant sites and exposed to higher radiation, including their families residing in the vicinity, have a lower rate (data shows lower rate) of incidence of cancer, congenital anomalies and other diseases, compared to national average rates. Regular annual medical check-ups of radiation and non-radiation workers have also shown no difference in diseases prevailing, including cancer.

Hence, evidently, radiation and cancer are not linked.

Sources of Radiation

(%)



Cosmic	14
Medicine	14
Buildings/Soil	18
Radon (a radioactive gas given out by volcanic rocks and uranium ore present in earth's crust)	42
Foods and drinks	11
Nuclear power industry	1

(Source: World Nuclear Association)



TARGETING WELLNESS

NPCIL strives to provide a safe working environment to its employees at the plant sites. Safety is a matter of continuous evaluation and utmost priority.

NPCIL ensures that safety is maintained across all the stages of a nuclear power plant – design, construction, commissioning, operation and maintenance of the plants. It stresses on the medical examinations of all its workers – radiation and non-radiation – at frequent intervals to keep a tab on the employees' health at all times.

- An annual medical examination of occupational workers is conducted at all sites by certified surgeons and medical officers.
- Workers beyond the age of 45 years are examined for eyesight and colour vision every 6 months.
- Workers handling functions such as HR, Finance, etc, are medically examined every 5 years.

Medical surveys and their findings

- In India, the North East region witnesses the highest incidents of cancer, where there is no nuclear power reactor. (Source: Tata Memorial Centre)
- Prevalence of congenital anomalies (birth defects) among employees of Indian NPPs and their families is only 0.51%, as against 1.4% prevalent in Mumbai.

Cancer statistics

- Cancer is the 5th leading cause of death in the 30-69 year-old age group in India.
- National cancer incidence rate is 98.5 per Lac of population; average incidence rate of cancer among NPCIL employees is 54.05 per Lac.
- The average death rate due to cancer among the employees is 29.05 per Lac of population, as against the general public at 68 per Lac.

(Source: Based on studies carried out by local medical colleges in collaboration with Tata Memorial Center, Mumbai)

Myth

Fast depletion of uranium reserves may affect production of nuclear power.

Reality

Uranium is found in the earth's crust as abundantly as tin or germanium and is about 100 times more common than silver. Globally, uranium exploration has increased exponentially in the past few years. The World Energy Council estimates indicate that uranium resources are plentiful and pose no constraint on future nuclear power development. In India, the estimated reserve of uranium is about 175,000 tonnes. The Uranium Corporation of India Limited is working towards exploring new opportunities. The DAE has opened a uranium mine in Tumalappalli (Andhra Pradesh), with close to 49,000 tonnes uranium reserves and still growing with further exploration. Indications are that uranium's total quantity can go up to 1.5 Lacs tonnes at this mine, making it one of the world's largest uranium mines.

(Source: India Today)

RESOURCES APLENTY!

PHWRs use natural uranium as the fuel. Presently, nine of the twenty nuclear power reactors are under International Atomic Energy Safeguards and use imported uranium.



There has been a progressive improvement in the availability of domestic uranium. With the maturity in operation of new mines and mills, particularly Tumalappalli, which is currently under trial production, fuel availability from domestic sources will further rise. Improvement in the availability of uranium has been well reflected by way of improved capacity utilisation during the last two years.



Primary fuel

- Kudankulam Nuclear Power Plant, with Russian-designed VVER reactors, will use enriched uranium (3.92% of U-235) as the fuel source.
- India's second stage of nuclear power programme also requires plutonium-based fuel fabrication plants, produced by U-238.
- Recycling of uranium can extend fuel supply for centuries of consumption.

(Source: American Nuclear Society)

Moving towards thorium

India has gradually made a foray into thorium-based reactors. The three-stage nuclear power programme is dependent on thorium. India has nearly 360,000 tonnes or 32% of the world's reserves of thorium. With the 500 MW prototype FBR at Kalpakkam coming into operation, India has crossed over to the second stage of the nuclear power programme. Steps towards developing thorium-based energy generation are being taken with the 30 kW research reactor KAMINI being operational since 1996.

Myth

Nuclear waste is a permanent and accumulating environmental hazard owing to the difficulties in its disposal.

Reality

Of all the energy forms, nuclear power generates the least and manageable waste. Unlike other energy sources, nuclear power does not generate greenhouse gases. Nuclear wastes are transported virtually without any incidents or harmful effects. Packages that store waste during transportation are designed to ensure shielding from radiation and containment of waste, even under the most extreme accident conditions.

Setting new records...

- Since 1971, there were 20,000 safe shipments of highly radioactive used fuel and high-level wastes over 30 Million kilometres.
- No property damage or personal injury, no breach of containment and very low radiation has been reported.

(Source: World Nuclear Association)



WE REUSE, REDUCE, RECYCLE...

One of the unique features of a nuclear power plant is the generation of extremely low quantity radioactive waste. Spent fuel containing most of the high-level radioactivity is not considered waste as it produces valuable fuel for future reactors. Spent fuel is sent for reprocessing for the extraction of plutonium, uranium, other useful isotopes, and separation of small quantity of radioactive waste.

Treating wastes effectively...

- High level waste (which is minimal compared to any other industry) as separated in a reprocessing plant is immobilised by vitrification in glass matrix, encapsulated in stainless steel double-walled canisters and kept for interim storage (concrete walled lined with stainless steel) for about 30 years under surveillance for decay of radioactivity.
- Ultimately, waste is disposed off in deep underground geological repository with protective barriers.
- Gaseous wastes are filtered, monitored and disposed off comparable or lower than the natural background through a 100-metre tall stack.
- Liquid wastes are diluted and monitored to ensure its radioactivity levels are comparable or lower than the natural background, before discharging them into the water body.
- Radioactivity levels of gaseous and liquid wastes are significantly low compared to the regulatory stipulation.
- Impact of these wastes on the environment is estimated to be less than 1% of the stipulated dose limit for the general public.

The volume of high-level waste generated in a day for supplying electricity to a metro, such as Mumbai or Delhi, would be about the volume of 2 bricks (just 6 kg).

Myth

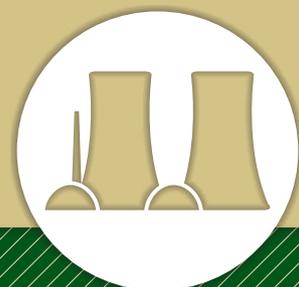
Post-Fukushima, countries are downsizing and revisiting their nuclear energy plans.

Reality

Nuclear power still remains the key source to generate low-carbon energy. Even in Japan, the post-Fukushima policy affirms its renewed commitment to nuclear power. Japan has restarted two of its nuclear reactors in July 2012. In general, countries are neither stopping nor downsizing their nuclear energy projects. Many countries have firmed up their plans to carry on nuclear energy generation and increase its contribution to the energy mix.

RE-ENTERING THE NUCLEAR AGE

All countries having nuclear power plants in operation rechecked and reconfirmed the safety of their nuclear power plants, particularly with respect to external natural events.



Japan relied on nuclear energy for about 30% of its energy needs prior to the Fukushima incident in March 2011. One year after the Fukushima disaster, Japan has restarted nuclear power production to sustain its energy supplies. In July 2012, Kansai Electric Power Co Ltd restarted the Ohi nuclear plant's No. 3 and No. 4 reactors. Since Fukushima, several other countries have been firming up their plans on nuclear energy.

These are:

- New plants connected to the grid in 5 countries (China, Iran, Russia, South Korea and Pakistan).
- UK, France, Japan, China, Korea and Russia have announced plans on nuclear energy expansion.
- Bangladesh, Turkey, Vietnam, UAE– the first timers in nuclear energy– have decided to set up nuclear power plants.
- Despite being rich in hydro power, Brazil has decided to focus more on nuclear energy.
- South Korea, which depends heavily on nuclear power, is projected to complete 8 new nuclear power plants by 2016.
- China is on a reactor-building spree. Currently, it has 21 NPPs simultaneously under construction. It has lined up an ambitious plan to create 70,000 MW installed capacity of nuclear power by 2020, which will be further increased to over 130,000 MW by 2030.

Fukushima – A case study

The prime reason for the Fukushima Nuclear Power Plant incident at Japan in March 2011 was the severe earthquake and the ensuing tsunami of a large height.

The catastrophic earthquake resulted in an automatic plant shutdown. All the instrumentation/equipment in the plant worked as designed, without any loss of function. Post shutdown, cooling of the fuel inside the reactor started as intended in the design even when offsite power supply was lost due to the earthquake. However, after about half an hour, tsunami of a height of 14-15 meter, as against the designed height of 5.7 meter disrupted all the power supplies including the diesel generators at the plant, impairing the core cooling which resulted in the incident.

Nevertheless, there were no deaths reported due to radiation. Nuclear plants in the vicinity (Onagawa, Fukushima Daiini and Tokai) reported no damage due to the earthquake or tsunami as minimum power supply continued in spite of the natural calamity. This clearly emphasises a nuclear plant's ability to withstand natural disasters.

Can Fukushima happen in India?

As against Japan's NPPs, India's NPPs are in relatively earthquake stable continental region (low to moderate earthquake zone).

Nevertheless, the NPPs in India are designed conservatively considering the local earthquake and the postulated flood levels. The water reservoirs can cater to the cooling requirement in case of emergency for a period of 7 days or more; in some cases, even up to 30 days. NPPs at coastal sites (Kalpakkam, Kudankulam, Tarapur and Jaitapur) are also way above the possible tsunami level in their respective zones. The safety of plants have been reviewed afresh after the Fukushima incident and additional strengths in safety being executed.

TOGETHER, WE GROW

NPCIL is committed towards the economic and social development of the local communities near its plants' sites. Its CSR policy is to function as a responsible corporate citizen, while discharging its social responsibilities towards the stakeholders.

The pace of work on CSR gained momentum during 2011-12 through its Neighbourhood Development Programmes (NDP), with a renewed determination to positively impact the lives of people living near the plant sites.

- Primary focus of NDP: Education, Health & Sanitation, Employment
- Amount embarked during FY 2012: ₹ 23.4 Crore
- Allocated to: 6 sites, besides KKNPP and the new project sites
- Number of projects: 116 projects (67 infrastructure, 17 health and 32 education)



Distribution of educational kits to school students

Education

To facilitate quality education for students, we undertook several projects. These included construction of school buildings, (new schools and hostels, construction of additional classrooms and infrastructure facilities, repair, renovation and painting of school buildings), financial assistance to schools, scholarships to students and sponsorship for higher education, development of *aganwadis*, etc.

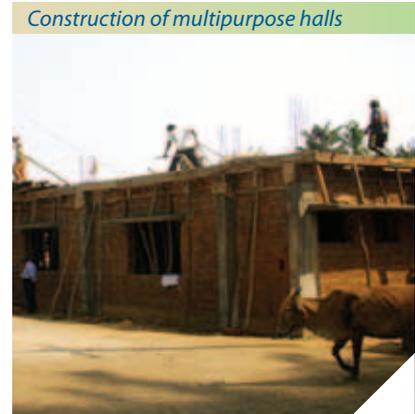
Other projects include providing computers, science laboratory and equipment, drinking water purification and storage facilities, books, notebooks, geometry boxes, uniforms, footwear, school bags, lunch boxes and eatables to the students. In some schools, NPCIL also provided additional school teachers to improve the quality of education.



Running of primary healthcare centres

Health & Sanitation

Projects under healthcare include construction, furnishing and running of primary healthcare centres, running mobile medical vans, providing ambulance to Government hospitals, opening of Ayurvedic hospitals, organising medical camps, providing free medicine, etc, to the local population. Additionally, projects for improving environmental hygiene by providing drainages were also taken up in the neighbourhood. For instance, we have set up a dormitory to facilitate cancer patients stay at a hospital at Chiplun near Ratnagiri. At Kaiga, Tarapur and Jaitapur sites, we have engaged an NGO called Karuna Trust, which executes our CSR activities.



Construction of multipurpose halls

Infrastructure

Under infrastructure development, projects like street lighting, approach roads, drinking water supply facility, and construction of bridges multi-purpose community halls, community centers, installation of street lights, *grampanchayat ghar*, playgrounds, cremation sheds, drainage projects, etc, were taken up.

Skills development

NPCIL has initiated several training programmes around some of its sites for Project Affected Persons (PAPs) and local people for developing their competencies in various skills to enhance their employability within and outside NPCIL, including self employability. The various training/skill development programmes instituted include stenography, computer operation, electrician, welding, carpentry, masonry, plumbing, stitching & tailoring, driving, horticulture, etc. NPCIL has taken up the initiative/programme of skills development of the PAPs.

REACHING OUT

The Fukushima incident generated apprehension among a section of the society. These apprehensions were heightened by the groups ideologically opposed to nuclear power by spreading misinformation about the safety of nuclear power and associated radiation and environmental aspects. Recognising the need of reaching out to people around its sites and sharing the information on nuclear power to generate correct perspective about nuclear power, NPCIL scaled up its Public Awareness programmes in a structured manner using a multi-pronged approach.



Students of ITI, Ratnagiri visiting the JNPP Information Centre



Participation of KKNPP at the Chennai Science Festival held in January 2012, themed 'Science in Everyday Life'

Objective

Launching long-term sustainable programs to create permanent capacity to innovatively communicate and create better awareness about nuclear power.

Initiatives

NPCIL adopted a multi-pronged approach to disseminate accurate information on nuclear power to different target groups on a regular basis. These include:

- Exhibitions to directly communicate with the public, industry experts and students.
- Structured lectures to students and teachers of school and colleges, policy makers, planners, people's representatives, villagers, press and media personnel, etc.
- Organising NPCIL-facilitated visits of school children to the Hall of Nuclear Power in Mumbai and visits to nuclear power plants.
- Scientific meets on radiation and cancer aimed towards media, doctors and para-medical staff across the country on an on-going basis.
- Arranging plant visits for locals to create awareness levels on safety, radiation and environmental benignness of nuclear power.
- Team visits to Kudankulam to review safety measures at the plant and to interact with the protestors.
- Clear communication in regional languages through books and publications, jingles on mobile phones, FM radio and TV, distribution of over one million handouts.
- Screening of short films on nuclear power using cinema and other electronic media.
- Effective use of NPCIL website and other social media sites to improve perception.

Special initiatives

- Launched India's first-ever Nuclear Gallery, a permanent exhibition Hall of Nuclear Power, at Nehru Science Centre, Mumbai, in August 2011. This aims to communicate about nuclear science in an interactive manner to the general public. Since then, over 10 Lacs people, including students, have visited here. Similar tie-ups have been planned at 11 other locations across India, such as an MOU with Tamil Nadu Science Centre, known as the Hall of Nuclear Power.
- Locals' queries regarding health, safety, security and benefits from a nuclear plant have been dealt with in a creative manner through the 'Budhiya' series of comics. This narrates stories based on the benefits of nuclear energy; these are made available in regional languages and also being converted into an animated movie.

AWARDS & ACCOLADES



The then Union Power Minister Sushil Kumar Shinde confers the prestigious Power Line Award 2012 to Kaiga Generating Station for being the Best Performing Nuclear Power Station

Tarapur Maharashtra Site (TMS)

TAPS 1 & 2

- Appreciated by the Ministry of Labour, Government of India, for NSCI (National Safety Council of India) Safety Award for 2010, for recognition of appreciable achievements in Occupational Safety & Health during 2007-2009.

TAPS 3 & 4

- NSCI – Maharashtra Chapter Maharashtra Safety Award in 2010 for Longest Accident Free Period.
- NSCI – Maharashtra Chapter Maharashtra Safety Award in 2010 for Lowest Accident Frequency Rate.
- NSCI – Safety Award 2010 – won the 'Suraksha Puraskar'.
- DGFA SLI, Ministry of Labour – National Safety Award for 2009 for outstanding performance in industrial safety.
- Shri M. Anil Kumar, FMA of TAPS 3 & 4, received the Ministry of Labour's National Award 'Shram Shri' from the Honourable Prime Minister.

Rawatbhata Rajasthan Site (RR Site)

- RAPS-1&2 was awarded 'Shreshta Suraksha Puraskar' (Silver trophy) by NSCI, Mumbai, by the Honourable Union Labour and Employment Minister at Vigyan Bhawan, New Delhi.
- Awarded Golden Shield by Ministry of Power for 2010-2011 under the 'Performance of Nuclear Power Plant' category.

Madras Atomic Power Station (MAPS)

- Won the AERB Fire Safety Award by AERB in 2010 under Production Units category among the establishments of DAE.
- Awarded the 'Suraksha Puraskar' (Bronze trophy) by NSCI for 2010. This was awarded in recognition of development and implementation of effective management systems and procedures for achieving good performance in Occupational Safety & Health.
- Awarded 2nd Prize for the best House Magazine. Also won a Consolation Prize for implementation of the official language under the category of Production Units from Town Official Language Implementation Committee (TOLIC).



Tarapur Atomic Power Station bags the prestigious CEA Shield Award for outstanding performance in 2010-11



Rawatbhata Rajasthan site wins the Gold Shield Award from the Ministry of Power in March 2012

Narora Atomic Power Station (NAPS)

- Won the AERB Green Site Award for 2010.
- Won the 2nd position under the scheme 'Shreshta Rajbasha Patrika Puraskar' for 2010-11 for NAPS inhouse magazine Anuvihar, among all the magazines in DAE establishments.

Kakrapar Atomic Power Station (KAPS)

- Won the 'Shreshta Suraksha Puraskar – 2010' (Silver trophy) from NSCI for assessment periods 2007-2009.
- Runner-up in Scheme-1, Schedule-15 of National Safety Awards (performance year 2009) from Ministry of Labour and Employment, Government of India, on Lowest Average Frequency Rate.
- Runner-up in Scheme-1, Schedule-15 of National Safety Awards (performance year 2009) from Ministry of Labour and Employment, Government of India, on Accident Free Year.
- Winner of the 'Gujarat State Safety Award – 2010' and Certificate of Honour for Lowest Disabling Injury Index. This was amongst Category-V, Group-A among industries in Gujarat for the outstanding safety performance during 2009.

Kaiga Generating Station (KGS)

KGS 1 & 2

- Won the 'Suraksha Puraskar' from NSCI, Mumbai.
- Won the 'Unnata Suraksha Puraskar' from NSCI, Karnataka Chapter.

KGS 3 & 4

- Won the AERB Fire Safety Award
- Won the 3rd prize amongst DAE units for KGS' inhouse Hindi magazine Anusanket



DIRECTORS' REPORT



Kudankulam Nuclear Power Project

Dear Stakeholders,

Your Directors have immense pleasure in presenting the twenty-fifth Annual Report of the Company, together with the Audited Accounts for the year ended 31st March 2012.

Performance Highlights

The financial performance of the Company for the year ended 31st March 2012 is summarised below.

₹ in Crore

Particulars	2011-12	2010-11
Revenue from Operations	7914	6012
Other Income	795	874
TOTAL INCOME	8709	6886
Operating & Maintenance Expenses	4681	3670
Finance Costs	672	661
Depreciation and Amortisation Expenses	961	868
TOTAL EXPENDITURE	6314	5199
Profit for the year	2395	1687
Prior period adjustments	(13)	(1)
Profit Before Tax	2382	1686
Provision for Taxation	476	310
Profit After Tax	1906	1376
Add: Balance brought forward from previous year	1516	1122
Add: Transfer of excess provision of Dividend Tax	1	-
Balance available for Appropriations	3423	2498
a) Interim Dividend	280	150
b) Tax on Interim Dividend	45	25
c) Proposed Dividend	292	263
d) Tax on proposed Dividend	47	44
e) Transfer to General Reserve	1000	500
f) Balance carried to Balance Sheet	1759	1516
Earning per Share in ₹ (Equity share having face value of ₹1000/- each)	188	136

Note: The summary has been prepared based on new Revised Schedule VI reporting applicable from the Financial Year 2011-12. The previous year 2010-11 figures have been regrouped / rearranged in line with the requirement of new schedule to match with the figures of current financial year.

The Company has achieved higher average capacity factor of about 79% as against 71% for the previous year. The use of imported fuel for reactors under safeguards and improved domestic fuel availability for reactors fuelled by domestic uranium resulted in higher capacity utilisation. The year under report recorded the highest nuclear power generation since the inception of the Company. Electricity generation, as per the billing cycle, in 2011-12 has been 32451 Million KWh (MUs) as against 26469 MUs in 2010-11 showing an increase of 23%.

The Department of Atomic Energy (DAE) had issued revised tariff norms for determining tariff for sale of electricity by Atomic Power Stations vide notification dated 8th December 2010. The tariffs, based on revised norms, which are inclusive of recovery of tax are effective from 1st July 2010 for all atomic power stations and

are to remain effective for 5 years. The revised tariffs, as per new tariff norms, have been notified by the DAE during the FY 2011-12 except for TAPS Unit-1&2. Accordingly, the impact of the said notification has been accounted for during the year under report. The revenue from operation includes ₹140 Crore, the net impact of revised tariff for the year 2010-11.

The revenue from sale of power generated from wind farm with an installed capacity of 10 MW at Kudankulam during the year was ₹ 5.26 Crore as against ₹ 6.42 Crore for the previous year.

The provision for taxation during the year was ₹ 476 Crore as compared to ₹ 310 Crore last year. The increase was on account of hike in book profit before tax to ₹ 2382 Crore as against ₹ 1686 Crore in the previous year. Presently, the Company is being subjected to Minimum Alternate Tax @ 20.01% including



DIRECTORS' REPORT

surcharge and cess on tax after availing tax holiday benefits available under provisions of the Income-Tax Act, 1961.

The amount received towards interest on Research & Development Fund, Renovation & Modernisation Fund and Decommissioning levy with interest thereon has not been considered as income of the Company. These funds are held by NPCIL on behalf of the DAE and the Decommissioning levy is collected from beneficiaries based on a statutory notification issued by the DAE. The Income Tax Tribunal has decided that the interest earned on these funds be treated as income of the Company. While an appeal has been filed in the Honorable High Court of Maharashtra, Mumbai, the Company has appropriated ₹ 43 Crore from these funds towards the income tax, if finally, payable on these levies.

The Company has been able to regulate its operational efficiency and has been able to achieve a net profit of ₹ 1906 Crore after tax.

The accumulated deferred tax liability as on 31st March 2012 was ₹ 1291 Crore on account of timing differences between book and tax profits. Out of the deferred tax liability of ₹ 1291 Crore, ₹ 1275 Crore is recoverable from the beneficiaries on account of income from generation of power, since the income tax payable on income from generation of power is recoverable from beneficiaries up to 30th June 2010. The amount of ₹ 1275 Crore of deferred tax is recoverable on becoming a part of the current tax. Therefore, such deferred tax is considered as recoverable and netted from such deferred tax liability / expense.

Capital

NPCIL is a Government Company with 100% share holding by the President of India and nominees, through administrative control of Department of Atomic Energy. The Company has only one class of shares having par value of ₹ 1000/- each with equal rights for Dividend and Vote.

During the year, Equity Shares amounting to ₹ 29 Crore have been issued at par by utilising/converting the interest free loan from Government of India (GoI) in terms of GoI approval dated 27th September 2011. As such, the loan stands repaid against the issue of Equity Shares. Apart from this, there was no addition to the paid-up share capital during the year. The Company has not drawn any budgetary support from the Government of India since FY 2004-05 onwards. The total equity paid-up capital is ₹ 10174 Crore as on 31st March 2012 against the Authorised Capital of ₹ 15000 Crore.

Dividend

The Board has recommended a final dividend @ 30% of Profit After Tax (PAT) of the Company. This amounts to ₹ 571.85 Crore, including the interim dividend of ₹ 280 Crore. The dividend per share is ₹ 56.28 for the FY 2011-12 as against ₹ 40.70 for the previous year.

Resource Mobilisation

During the year, the Company has raised ₹ 878 Crore through External Commercial Borrowings (ECB). The ECB represents mobilisation of debt to meet the requirement of capital

expenditure for the procurement of capital equipment for various sites. The ECB has been arranged from State Bank of India, Singapore Branch. The applicable rate of interest is LIBOR + Margin (predetermined spread of 2.35%). The total ECB sanctioned is 250 Million US \$, out of which 175 Million US \$ has been withdrawn in two trench. The Company has redeemed Bonds of ₹ 55 Crore during the year, as per the terms of their issue. The Company has also repaid term loan of ₹ 3000 Crore during the year availed from various banks, as per the terms of the said loan.

Financial Security for the Civil Liability for Nuclear Damage

As per the provisions of the Civil Liability for Nuclear Damages Act, 2010 which came into force w.e.f. 11th November 2011, the Company is liable to pay damages up to ₹ 1500 Crore per incident on happening of any nuclear accident. The balance liability shall be borne by Government of India. As per the Act, the Company is required to take out insurance policy or such other financial security or combination of both to cover its liability. Accordingly, the Company has taken a financial security in the form of Bank Guarantee favouring Government of India on 18th July 2012 for the value of ₹ 1500 Crore.

Operating Performance of the Stations

The performance of all operating units was satisfactory during the year 2011-12 and these generated 32455 MUs of electricity, recording the highest ever generation in a financial year, crossing the MOU target. The overall Capacity Factor was 79% and the weighted average Availability Factor was 91%. In addition, Kudankulam Wind Farm generation during the year was 18 MUs.

Major Highlights

- TAPS-1, TAPS-2, TAPS-3, RAPS-2, RAPS-3, RAPS-5, MAPS-2, NAPS-2, KAPS-1, KAPS-2, KGS-1, KGS-2 AND KGS-4 attained greater than 90% Availability Factor during the financial year.
- The uninterrupted continuous run greater than 300 days was as follows:

Reactor	No of days	From	To
TAPS-3	522	11.10.2010	15.03.2012
KGS-1	347	20.10.2010	03.10.2011
MAPS-2	309	27.02.2011	02.01.2012
RAPS-2	304	15.01.2011	14.11.2011
TAPS-2	303	02.05.2011	29.02.2012
KGS-2	302	03.06.2011	31.03.2012

- During the year 2011-12, six Biennial Shut Downs (BSDs) were availed to execute all the planned jobs. These units were: TAPS-4, RAPS-4, MAPS-1, NAPS-1, KGS-1 and KGS-3.
- For the first time, ISI of coolant channel was conducted in a 540 MW reactor in TAPS-4.

Highlights of the Operating Performance of the Stations

The commercial generation, the yearly Capacity Factor (CF) and the annual Availability Factor (AF) are summarised in the Table.

Station	Unit No.	Capacity (MW)	Generation (MUs)	CF (%)	AF (%)
TAPS	1	160	1371	98	99
	2	160	1337	95	97
	3	540	4325	91	96
	4	540	2781	59	74
STATION TOTAL		1400	9814	80	88
RAPS	2	200	1821	104	96
	3	220	1938	100	98
	4	220	1645	85	85
	5	220	1974	102	97
	6	220	1764	91	86
STATION TOTAL		1080	9142	96	92
MAPS	1	220	1240	64	87
	2	220	1276	66	98
STATION TOTAL		440	2516	65	93
NAPS	1	220	1047	54	87
	2	220	937	48	92
STATION TOTAL		440	1984	51	89
KAPS	1	220	1919	99	98
	2	220	1868	97	98
STATION TOTAL		440	3787	98	98
KGS	1	220	1270	66	90
	2	220	1381	71	99
	3	220	1231	64	80
	4	220	1330	69	95
STATION TOTAL		880	5212	67	91
NPCIL TOTAL		4680	32455	79	91

Fuel Availability

The progressive improvement in fuel supply resulted in operation of PHWRs at higher capacity factors. The imported fuel was made available for TAPS-1&2, RAPS-2, RAPS-3&4, RAPS-5&6 and KAPS-1&2 reactors placed under IAEA safeguards, in accordance with the Separation Plan. The total capacity of these operating reactors under safeguards stands at 1840 MW.

Ongoing Projects

Kudankulam Nuclear Power Project-1&2 (2x1000 MW VVERs)

The Kudankulam project, located in Tirunelveli District of Tamilnadu, is being implemented with Technical cooperation from Russian Federation within the framework of the Inter-Governmental Agreement signed between USSR and India. The

power generated from the project (2x1000 MW) shall be fed to Tamilnadu and other beneficiary states in the southern grid.

The construction of Kudankulam Project commenced on 31st March 2002 with the first pour of concrete, after receipt of the financial sanction in November 2001. The project has recorded a cumulative progress of 97% as of March 2012 (Unit-1: 99% and Unit-2: 95%) with cumulative expenditure of ₹ 14,714 Crore. On supplies front, Unit-1 supplies have been completed and Unit-2 balance supplies are expected to be completed by third quarter of the year 2012.

The Unit-1 of the project has entered into the final commissioning phase. The project has achieved significant milestones during the year 2011-12. After receipt of clearance from Atomic Energy Regulatory Board (AERB), Hot Run, continuous operation for 200 hours of primary coolant system including tests like Reactor Coolant Pumps (RCPs) hot and cold combination tests, Control Protection System Absorber Rods (CPSAR) tests were completed

DIRECTORS' REPORT

The construction activities of KAPP-3&4 the first twin reactor of 700 MW series being launched by NPCIL, commenced by laying the First Pour of Concrete on 22nd November 2010. As of now around 43% of total expected main plant concrete quantity has been poured.

at nominal parameters (pressure 15.7MPa & temperature 280°C). Operability of safety system equipment from Shielded Control Room has been checked. Performance tests of safety system of all the four trains were carried out. Subsequent to completion of hot run, inspection of primary coolant system equipment & piping was commenced and is in progress.

In Unit-2 construction activities are at advanced stage of completion with all civil works, reactor equipment erection, turbo-generator boxing up, ventilation system erection, seawater system erection and common service system erection completed and balance piping of Nuclear Steam Supply System and secondary side are in advanced stage of completion.

For electrical system all the equipment erection has been completed and more than 45% Cabling works has been completed. For I&C systems, all the received panels have been erected and cable laying & termination work is in progress.

Commissioning activities of Unit-2 commenced with the successful charging of Reserve Auxiliary Transformer and other downstream HT & LT buses on priority basis. Commissioning of fire water system, chilled water system in Reactor Building & Reactor Auxiliary Building, essential load cooling pump (1 train) has been completed. Sea water system commissioning, DG system commission, valve commissioning, reactor auxiliary system and ventilation system commissioning is in progress.

During the period 13th October 2011 to 19th March 2012, there was a local agitation in the villages around KKNPP. Due to this agitation, though the progress of work at KKNPP slowed down, the manpower required to carry out the essential activities throughout this period was maintained, including surveillance of all the equipment, preventive maintenance works and essential commissioning activities related to regulatory clearances. The documentation works like commissioning reports, construction completion certificates, DCNs, etc. were carried out in full swing.

Due to agitation, the erection and commissioning activities of balance work of Units-1&2 got delayed. However, all the other activities viz. detailed design of the project, manufacturing and supply of equipment / components / materials, stage-wise consent from AERB and maintenance/preservation of the equipment and associated systems continued satisfactorily.

For this, a full-fledged office was established in KKNPP Township wherein activities such as the preparation and supply of design work by Russian specialists and their review by NPCIL officers for implementation, receipt of equipment and material from Russian Federation etc. continued. In fact, a temporary storage facility in KKNPP Township was also established where about 41 containers containing these supplies were temporarily stored. The interaction with AERB at KKNPP office in the Township for their consent regarding preparation of documents and supply of relevant information to AERB continued with due support of Headquarters. Regulatory inspection by AERB and IAEA safeguard inspection were also carried out during the period of agitation. Various systems which were to be commissioned were kept continuously operating to preserve the health and chemistry of the relevant systems.

The total revised completion cost of the project is estimated at ₹ 17,270 Crore from ₹ 15824 Crore indicating an increase of ₹ 1446 Crore.

Unit-1&2 are expected to commence operations in the year 2012 and 2013.

New Projects under Construction

Kakrapar Atomic Power Project-3&4 (KAPP-3&4)

The construction activities of KAPP-3&4 the first twin reactor of 700 MW series being launched by NPCIL, commenced by laying the First Pour of Concrete on 22nd November 2010. As of now around 43% of total expected main plant concrete quantity has been poured.

Presently, works are being executed simultaneously for all main plant buildings. First time in Indian PHWR concreting of Inner Containment wall with Carbon Steel Liner has been taken up after elaborate mockup exercise was done at site. This is a big achievement as the entire system has been successfully developed indigenously.

In addition to Main Plant Civil Contract, the works for other similar contracts have also commenced. This includes Balance of Turbine Island (BOTI), Plant Water Package and construction of Induced Draft Cooling Tower (IDCT). PCC for Turbine Building-3 has started after completion of excavation. Civil works for all Buildings/structures up to El.100 M under Plant Water Package are nearing completion. IDCT excavation work to the extent of approx. 50% has been completed.

The project is progressing well ahead of schedule. KAPP-3&4 are slated for completion in the year 2016.

Rajasthan Atomic Power Project-7&8 (RAPP-7&8)

After completion of excavation and the regulatory clearances, First Pour of Concrete in Nuclear Building NB-7 was carried out on 18th July 2011. First Pour of Concrete in NB-8 was achieved on 30th September 11.

Completion of one of the concrete pours (Pour-2) on 3rd November 2011 marked the biggest pour of size 5757CuM having been carried out in the history of Nuclear sector in India.

Raft concreting in Nuclear Buildings is in progress. Works are being executed simultaneously for all main plant buildings.

RAPP-7&8 has completed 556 reportable accident free days.

The project is slated for completion towards end 2016.

Kudankulam Nuclear Power Project-3&4 (KKNPP-3&4)

The Kudankulam Project unit-3&4, an expansion of Unit-1&2, located in Tirunelveli district of Tamilnadu, is being implemented with cooperation from Russian Federation (RF) within the framework of the Inter-Governmental Agreement signed between RF and India.

Environmental Impact Assessment studies for Kudankulam expansion units have been carried out by National Environmental Engineering Research Institute (NEERI), Nagpur. Based on the report, public hearing has been successfully completed by the Tamilnadu Pollution Control Board.

Environmental clearance was obtained from the Ministry of Environment & Forests (MoEF) as per the provisions of Environmental Impact Assessment (EIA) Notification 2006. The process for Coastal Regulation Zone clearance from MoEF is in progress. Siting consent was received from AERB and excavation consent submitted to AERB is under review.

Techno Commercial Offer was received from Atomstroyexport, Russian Federation. The division of responsibility and various terms and conditions of the contract are in the advanced stage of finalisation. The General Framework Agreement is under review by the sides.

A contract for the first priority design works for initial design activities has been signed with Atomstroyexport and the work is in progress. The layout has been finalised and seawater intake and outfall scheme is in advanced stage of finalisation. The preliminary activities for finalisation of Design and Technical specification for the Indian scope of works have been initiated.

The pre-project activities like Geo-technical investigation work in Onshore & Offshore areas, thermal dispersion studies (2-D modeling) of KKNPP expansion programme, Coastal Regulation Zone mapping of KKNPP coastline, Study on the impact of cooling water discharge on marine environment, Comprehensive main plant survey work etc has been completed. The work for

bathymetric survey of larger off-shore area is also completed.

Work on Phase-1 Plant site & Township Infrastructure like Property fencing, Security fencing, Development of master plan for township & plant site has been completed. Construction of Quality assurance building and canteen building started on infrastructure front.

Engineering service contract is awarded for basic design and finalisation of technical specification of system and equipment in the Indian scope of responsibility and the work is under progress.

Recently, India has signed Protocol with Russian Federation on 17th July 2012 in Moscow for financing the KKNPP Unit-3&4.

As per the protocol, the Russian Federation will extend credit amounting upto US\$ 3400 Million for financing 85% value of works, supplies and services provided by the Russian organisations for construction of KKNPP Units-3&4. The Protocol also has provisions for a State export credit amounting to US\$ 800 Million for financing upto 85% nuclear fuel and control assemblies. The credit carries interest at 4% p.a. The project credit is payable in 14 years and repayment commencing one year after commissioning of the project whereas fuel credit would be payable in 4 years and repayment commences after 2 years of receipt.

Jaitapur Nuclear Power Project (JNPP)

The Jaitapur Nuclear Power Project (JNPP) is proposed to be set up in technical collaboration with AREVA, France. Two units are planned in the first phase and the project will have finally six units of 1650 MW. Government of India accorded the 'in-principle' approval for the site and land is in NPCIL possession. All the safety guidelines of International Atomic Energy Agency and Atomic Energy Regulatory Board are strictly adhered to. The land acquired in Jaitapur is predominantly barren and several geographical and environmental assessments are carried out to ensure the safety of ecology and local population. The Environmental and Coastal Regulation Zone clearance have been accorded by MoEF, Government of India, in 2010. The Project will augment electricity generation of 36-39 MU/day from each unit of 1650 MW.

Revised Techno-Commercial Offer submitted by AREVA is under negotiation. The scope of Early Works Agreement (EWA) signed between NPCIL and AREVA on 6th December 2010 is under revision to the lessons learned from Fukushima incident.

Various pre-project activities like geo-technical investigation, boundary wall construction, consultancy contracts, etc., are in progress at sites of Main Plant and residential complex.

Several public awareness activities on the various aspects of Nuclear Power and the project were undertaken to dispel misconceptions among the people from surrounding villages of the project, local and national press and media and the various activist groups. An information centre has been set up at Ratnagiri to disseminate information regarding Nuclear Power including JNPP.



DIRECTORS' REPORT

Projects at New Sites

In 2009, the Government of India has given In-principle approval for full potential of Sites at Kudankulam and Jaitapur and also for five new sites; two for indigenous PHWRs and three for LWRs based on foreign cooperation. The details of the 'In-principle' approval / full potential are –

Location	Reactor Type	Capacity (MW)
1. Haryana	Indigenous	4 x 700
2. Madhya Pradesh	PHWRs	2 x 700
3. Kudankulam, Tamilnadu		4 x 1000
4. Jaitapur, Maharashtra	LWRs based	6 x 1650
5. Mithi Virdi, Gujarat	on	6 x 1000 *
6. Kovvada, Andhra Pradesh	international cooperation	6 x 1000 *
7. Haripur, West Bengal		6 x 1000 *

* Indicative capacity.

Jaitapur and five sites located in Haryana, Madhya Pradesh, Gujarat, Andhra Pradesh and West Bengal as mentioned above are greenfield sites. In July 2011, the Government of India accorded 'in-principle' approval for three more inland sites for setting up 700 MW PHWRs – Mahi Banswara (4x700 MW) in Rajasthan, Bhimpur (4x700 MW) in Madhya Pradesh and KGS expansion (4x700 MW) in Karnataka.

The pre-project activities at new sites are in progress. These include opening of the NPCIL offices in nearby towns, Environment Impact Assessment for MoEF clearance, design input for regulatory clearance, steps for obtaining siting consent from the regulator, public awareness programmes and actions for land acquisition to prepare the sites ready for project construction within shortest time. The land acquisition applications for issuance of Section 4 notification under Land Acquisition Act, 1894 have been already submitted to the respective District Authorities, Gujarat, Madhya Pradesh and Andhra Pradesh. In the case of Haryana, an amount of ₹ 460 Crore was paid on 23rd June 2012 to the Land Acquisition Collector, Fatehbad.

Public Hearing was organised by Haryana State Pollution Control Board (HSPCB), Hisar Region on 17th July 2012. The award under Section-11(1) of Land Acquisition Act, 1894 was declared on 18th July 2012 and disbursement of land compensation has started.

In respect of new sites at Mahi Banswara and Bhimpur, pre-project activities like seismotectonic studies, flood studies, meteorological data, geo-technical investigation, land acquisition processes, etc. are also at various stages of progress. Preliminary discussions with foreign vendors for setting up 1000 MW or larger-capacity LWRs based on international cooperation at Kovvada in Andhra Pradesh and Chhaya Mithi Virdi in Gujarat are in progress.

New Initiatives and Business Development

NPCIL is taking various new business initiatives for public-public as well as public-private partnership to strengthen the Indian Nuclear Power Capability and expanding power generation capacity.

NPCIL with L&T Ltd.

NPCIL and Larsen & Toubro (L&T Ltd.) set up a Joint Venture Company in the FY 2009-10 under the name 'L&T Special Steel & Heavy Forgings Private Limited' (LTSHF) as a subsidiary of L&T Ltd. with NPCIL having 26% shareholding. This Public-Private Partnership will produce special steels and ultra heavy forgings including those required for Nuclear Power Plants.

In March 2012, the Company commenced trial production of Special Steels & hot trials of 9000 MT forge press at the facility in Hajira, Gujarat State.

NPCIL with NTPC Ltd.

NPCIL and NTPC Limited have incorporated a Joint Venture Company under the name of 'Anushakti Vidhyut Nigam Limited' on 27th January 2011 to set up Nuclear Power Projects in the country. The JV Company is a subsidiary of NPCIL with 51% of share capital held by NPCIL. The Company received the Certificate for Commencement of Business on 4th April 2011 from the Registrar of Companies, Mumbai, Maharashtra.

NPCIL with IOC Ltd.

A Joint Venture Agreement was signed in January 2011 between NPCIL and Indian Oil Corporation Limited (IOCL), a Government of India Enterprise, to form a joint venture company to set up Nuclear Power Projects in the country. The JVC under the name 'NPCIL - Indian Oil Nuclear Energy Corporation Limited' was incorporated on 6th April 2011 as a subsidiary of NPCIL. The Certificate for Commencement of Business was issued to the Company by Registrar of Companies, Mumbai, Maharashtra on 26th May 2011.

NPCIL with NALCO Ltd.

NPCIL-NALCO Power Company Limited, a Joint Venture Company between NPCIL and National Aluminium Company Limited (NALCO) was incorporated on 2nd March 2012 with NPCIL as the majority Partner and NALCO as the minority Partner, for setting up Nuclear Power Plants in the country. The Joint Venture Company is a subsidiary of NPCIL. The Company received the Certificate for Commencement of Business on 19th May 2012 from the Registrar of Companies, Mumbai, Maharashtra.

NPCIL with THDC India Ltd.

NPCIL and THDC India Limited had signed an agreement for Survey & Investigation and preparation of Detailed Project Report (DPR) of the Malshej Ghat Pumped Storage Scheme (PSS) having installed capacity of 700 MW at Malshej Ghat, near Mumbai. The survey and investigations have been completed and the DPR is submitted to the Government of Maharashtra. The JV partners are expecting formal award of the project by the Government of Maharashtra.

Joint Venture with Oil & Natural Gas Corporation Ltd.

ONGC have shown interest in joining hands with NPCIL in setting up Nuclear Power Plants in India. A Steering Committee consisting of officials from NPCIL and ONGC has been constituted for identification of projects to be taken up by the proposed Joint Venture Company.

Engineering & Procurement

NPCIL is spearheading efforts for capacity add-ons following indigenous route of proven PHWR technology which has been well adopted and mastered.

3D-modelling of the complete plant is being done for the first time in NPCIL so as to issue construction drawings after ascertaining virtual constructability. Engineering deliverables generated thereof are of high level of accuracy. With the result, better definition of scope of work contracts and minimising changes during construction would result in improved cost and schedule performance.

Open Tendering process followed by NPCIL for procurement has resulted in participation of many more industries. New industries are taking interest in participating in Nuclear programme with competitive spirit. Purchase orders for long delivery equipment and materials have already been placed for Projects under Construction. Constant follow up is being done with the manufacturers and shop floor progress is continuously monitored to ensure equipment delivery as per targeted schedule of the Project. Manufacturing of critical equipment like Steam Generators, End Shields, Calandria, Reactor Headers, Coolant Channels, Reactivity devices, Primary Coolant Pumps & Motors, Fuelling Machine Heads and Fuelling Machine Column & Bridge for eight units have already begun. Auxiliary Airlock for KAPP-3 has been delivered.

A strategic breakthrough was made by forging alliance with BHEL and ALSTOM for the supply of Turbine and Generator for 700 MW units of KAPP-3&4 and RAPP-7&8. Critical packages of nuclear piping, common services piping, Balance of Turbine island works and Field Instrumentation works are already ordered and procurement of materials and infra development at site are currently on. C&I packages of Control Centre & Nuclear Island are in different stages of awarding process.

Contracts & Materials Management

During the FY 2011-12, stress was given for issuance of all types of tenders in electronic mode across NPCIL in order to bring more transparency in tendering process, encourage competition and save time in processing the bids received. The Government of India in exercise of powers conferred by Section 48 of the Civil Liability under Nuclear Damage Act, 2010, has notified the Civil Liability for Nuclear Damages Rules, 2011 in November 2011. The notification of Rules has posed a lot of challenges as to implementation and spreading awareness about the same among the prospective vendors/bidders. In line with the Rules, necessary modifications/corrections in the tender documents and contract documents have been incorporated.

In addition to the above, a Vendor Awareness Programme has been conducted across India by organising workshops, buyer seller meets.

During the year, on-line Vendor Registration Process was introduced. The process includes on-line processing of files through different committees, tracking of status, on-line evaluation by Quality Assurance Group and others and finally issuance of registration certificate. Another remarkable achievement is e-publishing of all types of tenders on Central Public Procurement Portal in compliance with the directives of the Government of India.

In line with the directives received from the Government of India regarding new public Procurement Policy for Micro and Small Enterprises (MSEs) under the Micro, Small and Medium Enterprise Act, 2006, the Company has set up its targets accordingly for procurement of goods and services for the FY 2012-13 from micro and small category and quoted by Micro & Small Enterprises and also sub-target within this from MSEs owned by SC/ST entrepreneurs.

3D-modelling of the complete plant is being done for the first time in NPCIL so as to issue construction drawings after ascertaining virtual constructability. Engineering deliverables generated thereof are of high level of accuracy.

DIRECTORS' REPORT

In line with the commitment of practising the international safety standards, RAPS-5&6 and KGS-3&4 were offered for peer review which was conducted by WANO. During the year, the Corporate Reviews were carried out for MAPS, RAPS-5&6, KGS-1&2, KGS-3&4, TAPS-3&4 and RAPS-3&4.

Health, Safety And Environment

Nuclear Power Plants of the Company have registered more than 355 reactor years of safe, reliable and accident-free operation.

NPCIL accords utmost importance to nuclear, radiological, industrial, fire and environmental safety overriding the demands of production or project schedules. Continuing with its policy of "Safety First" and striving for maintaining the highest standards of safety within NPPs, the occupational exposures of employees of the Company at various NPPs were maintained well below the values specified by the regulator, Atomic Energy Regulatory Board (AERB). Continuing with the emphasis on the principle of ALARA (As Low As Reasonably Achievable), the environmental releases of radioactive effluents from NPPs were maintained well within the limits specified by AERB.

For ensuring effective safety culture in line with NPCIL policies, different levels of reviews are in place to bring excellence in safety performance such as review by Directorate of Health, Safety & Environment, peer review by World Association of Nuclear Operators (WANO), Corporate Review by a team of senior officers from Stations & Headquarters, Internal Review / Self Assessment by Station and Regulatory Review by Regulatory Body. In line with the commitment of practising the international safety standards, RAPS-5&6 and KGS-3&4 were offered for peer review which was conducted by WANO. During the year, the Corporate Reviews were carried out for MAPS, RAPS-5&6, KGS-1&2, KGS-3&4, TAPS-3&4 and RAPS-3&4. The Internal Reviews / Self Assessments were undertaken by Stations for assessment and reinforcement of safety practices and safety culture.

Health Physics

Operational Health Physics functions at all NPPs were performed prioritising the safety. The radiological safety aspects of Preliminary Safety Analysis Report of KAPP-3&4 and RAPP-7&8 were reviewed. The post closure safety assessment of Near Surface Disposal Facility (NSDF), Kakrapar site and NSDF, Rawatbhata site were also reviewed.

Environmental Safety

The Environmental Management System (EMS) and Occupational Health and Safety Management System (OHSMS), as per ISO-14001:2004 and IS-18001:2007 respectively, were maintained at all the stations.

Approval for Terms of Reference for Environmental Impact Assessment (EIA) for Kovvada in Andhra Pradesh, Project at New Site was obtained from MoEF, New Delhi. For CRZ clearance for KKNPP 3 to 6, EIA study including marine impact assessment was completed which was reviewed by MoEF. Work Orders were issued to the MoEF approved agencies for development of Biodiversity Conservation Plan for Jaitapur region, in this respect winter season monitoring for terrestrial environment is completed. As a part of EIA studies for new projects at Gorakhpur - Haryana, Chutka - Madhya Pradesh, Mithi Virdi - Gujarat and Kovvada - Andhra Pradesh the three seasons environmental monitoring is completed. For these projects, draft EIA reports are under review. Other supporting studies like Preliminary Pre-operational Radiological Survey, Dose apportionment study, marine ecological studies, thermal discharge studies, CRZ demarcation studies, and flood analysis studies for the new projects are in the advanced stage of completion.

Under Corporate Environmental Policy, periodic reviews / audits of NPPs were carried out to establish adherence to environmental legislations, integration of environmental concerns into NPPs, conserve and ensure judicious use of environmental resources and to ensure continual improvement in environmental performance of NPPs.

Industrial & Fire Safety

During the year, focus was on strengthening of Industrial & Fire Safety activities at stations and projects. Strengthening of safety organisation and manpower planning up to 2018 was carried out. A Safety guide on Construction Safety Management was also brought out in this direction. Implementation of Behavior Based Safety (BBS) programmes was given thrust. Celebration of National Safety Day with numerous awareness programmes carried significant importance for Safety propagation. Many Plants of NPCIL received prestigious Industrial & Fire Safety Awards from National bodies like National Safety Council, Central Labor Institute and AERB. Independent review cum exchange visits to Projects, self assessment of stations and corporate reviews were taken up as review techniques for strengthening Industrial & Fire safety.

Nuclear Safety

Safety has always been NPCIL's continuous endeavor. In pursuit to safety improvements, it carries out comprehensive and systematic safety assessments by multi-tier multi-disciplinary review system during design, construction, commissioning and operation of NPPs. The assessments are well documented, subsequently updated (in the light of operating experience and significant new safety information) and reviewed at station level and corporate level and subsequently by the regulatory body. Verification by analysis, surveillance, testing and inspection is

carried out to ensure that the physical state and the operation of a nuclear installation continue to be in accordance with its design, applicable national safety requirements and operational limits and conditions.

Every event in an operating NPP is reviewed and lessons are learnt. The internationally reported events and their applicability to Indian NPPs are checked. Analysis of events is done to establish their root cause and accordingly the systems, procedures, aspects related to training and safety culture are further improved. These mechanisms have resulted in progressive improvements in the safety and reliability of units over the years. The inputs from operational experience are utilised for design improvements in the new reactors. Self assessment, at sectional level, station level and corporate level, are routinely organised to assess safety culture from an individual's perspective to the Company's goals on this issue. The targets are reviewed regularly to ensure that they continue to promote improvement. Peer review services by WANO are effectively utilised to gain safety assessment and insights on international level and avoid insular thinking on safety matters and broadening the range of 'operational feedback'.

After the nuclear incident at Japan's Fukushima NPP, which was triggered by Tsunami, NPCIL had proactively constituted four task forces, one each for different generations of reactor design, which reviewed preparedness and recommended measures for the 'beyond design basis scenarios'. These recommendations, along with other recommendations from international agencies and Indian Regulatory Body, are in advance stage of implementation.

Reactor Safety and Analysis

Safety assessment and design review of new generation reactors as well as operating Indian Nuclear Power Plants ensuring safe designs for operation and regulatory clearances is an on-going process. Some of the achievements of Directorate of Reactor, Safety & Analysis during the year under report are as under.

- Taking into consideration Fukushima incident, rigorous safety review assessment was performed for Indian nuclear power plants under prolonged station black-out, initiated by extreme external events viz., earthquake and floods of beyond design basis level, with an objective of evaluating inherent safety margins and design improvements, if necessary. The safety review indicated that large coolant inventory surrounding the fuel is available in the reactor core as well as in the spent fuel storage bay, which adequately ensures fuel safety coping station black-out scenario. A report titled 'Safety Evaluation of Indian NPPs Post Fukushima Accident' was released.

For strengthening prolonged decay heat removal scenarios, necessary action was taken for implementation of the following additional provisions:

- i) Hook up points for water injection into reactor pressure vessel, shell side of passive isolation condenser and fuel pools for TAPS-1&2;

- ii) Hook up points for water injection into reactor core, steam generators, end shields, calandria and calandria vault and spent fuel storage bays for PHWRs;
- iii) Provision of additional water sources and additional mobile power sources.

The above measures are at various stages of implementation at Indian nuclear power plants.

- A computer code was developed for estimation of stored fuel temperature in spent fuel storage bay (SFSB). The safety analysis indicated that fuel pools have sufficient cooling capacity keeping fuel submerged and cooled for over a week under prolonged SBO conditions, ensuring fuel integrity.
- Severe accident analysis was performed for formulating severe accident management guidelines for Indian nuclear power plants.
- Participated in IAEA Coordinated Research Project on containment response during station black-out for CANDU containment, related to code comparison and results were found comparable with different codes.
- During severe accident i.e. LOCA with simultaneous failure of ECCS and moderator cooling, calculations were done -
 - i) to optimise the number of Passive Auto Catalytic Re-combiners for hydrogen management, and,
 - ii) estimation of the dose rates at various distances from KAPS-1&2 site.
- Attended the round robin exercise simulating Tsunami and inter code comparison of all the participants'.
- GFLOW-3D, CFD code developed for groundwater flow and contaminant transport was validated against the National Round Robin Exercise.
- Development of 3-D kinetic module based on flux synthesis method for full scope simulator of 700 MW with reference plant as KAPP-3&4 for operator training.
- Optimisation study with SEU bundles employing different bundle shift scheme carried out to assess feasibility of using 0.9% SEU in 220 MW PHWR.
- Completion of probabilistic seismic hazard analysis for KAPS-1&2.
- Review of the Reliability Analysis of Safety Systems has been carried out as part of periodic Safety Review of TAPS-3&4. Safety Report, Volume-II: Accident Analysis for KGS-1&2 and RAPS-3&4 were revised as part of Periodic Safety Review and submitted to AERB.

DIRECTORS' REPORT

Quality Assurance

NPCIL, in all its endeavours, is committed towards upgradation and continuous improvement in Quality Management, Quality Assurance, Pre-service Inspection/In-service Inspection and interface with regulatory body. Quality Assurance / Surveillance activities have been carried out expeditiously for all Projects and Stations. QA Directorate has ensured timely and effective QS coverage to meet the Projects and Stations schedules.

In-service inspection programme documents of RAPS-2, KGS-1&2 and KGS-3&4 were revised and issued. Developmental activities related to NDE tooling required for performing In-service inspections have been continued.

Corporate QA reviews of Projects and Stations have been completed in a planned way. QA reviews have been conducted based on WANO guidelines.

Strengthening of QA activities has been undertaken by effective implementation of ISO-9001. External and internal audits were completed as per schedule and ISO 9001 certification was upheld.

Emphasis was given for training and certification of QA manpower. In-house NDE training has also been imparted to QA Engineers and Scientific Assistants.

NPCIL continued to provide QA consultancy services to BARC, BHAVINI, DRDO and ITER-India.

Human Resource Management

Human Resource is the most vital asset of the organisation and its performance has been improving year after year due to investment in enhancement of knowledge through training and skilled development. Human Resource Development plays a significant role in the successful implementation of power programmes in the current and future scenario. There are many complexities involved in the recruitment, induction, grooming and development of scientific, engineering and technical manpower for the different facets of the nuclear power programme.

The assessment of the human resource requirement has been carried out in-depth. To augment the manpower and to take care of depletion on account of superannuations, recruitment policies for accelerated nuclear power programme are put in place.

Necessary training infrastructure exists and capacity is being further augmented at the various training centres. A detailed projection of human resource management is made in the Management & Discussion Analysis which is annexed as Annexure-B to the report.

Implementation of Reservation Policies

SC / ST / OBC reservation policies are being fully complied with and development of SC / ST personnel is being given paramount importance.

Reservation has also been provided to physically challenged as per rules / policy. Presently, 90 physically challenged persons are on rolls of NPCIL. The following represents the statistical information on reservation and related matters:

Strength of physically challenged persons as on 31st March 2012

Group	HH	OH	VH	TOTAL
A	-	15	3	18
B	1	36	3	40
C	2	24	6	31
TOTAL	3	75	12	90

Strength of reserved categories as on 31st March 2012

Group	Total No. of Employees	SC	ST	OBC
A	4295	343	81	445
B	4551	753	304	885
C	2816	636	317	797
TOTAL	11662	1773	702	2127

Promotion effected during the year 2011-12

Group	Total No. of Promotions	SC	ST
A	930	81	15
B	317	67	13
C	213	66	8
TOTAL	1460	214	36

Note: For group B & C, the information relates up to December 2011

Implementation of Official Language

NPCIL fully complies with the Government of India directives on implementation of Rajbhasha, "Hindi". During the year, the Company continued its efforts in propagating and implementation of the provisions of Official Language Act, 1963. NPCIL has been relentlessly making all efforts towards continuous improvements in the progressive use of official language among all its units, projects and HQs. NPCIL's efforts in propagation of official language have been receiving commendations and awards at various forums.

Awards and Recognitions for Implementation of Official Language:

- NPCIL was awarded second prize for best work done in the field of Official Language Implementation among Public Sector Enterprises of Government of India by Aashirwad Sansthan.
- NPCIL was awarded Rajbhasha Shield by the Department of Atomic Energy in "Rajbhasha Puraskar and Samman Samaroh" held in November 2011.

To encourage the officers / employees of NPCIL to do their official work in Hindi and allay their apprehensions regarding use of the language, 32 workshops were organised during the year and 835 officers / employees were trained in these workshops.

During the period, total 96 Hindi monthly competitions were conducted to promote the use of official language which were attended by more than 3250 participants.

The Parliamentary Committee on Official Language visited NPCIL Headquarters in Mumbai on 11th May 2011. The Official Language implementation work being carried out by NPCIL was appreciated by the Committee during its visit.

Knowledge Management

Knowledge Management Group at HQ is engaged in collection and dissemination of knowledge. In order to enhance the competency level at senior and middle level officers, a training programme on 'Leadership excellence' and training programmes on 'Human Resource Management for Line Managers' were organised at various institutes. Senior management personnel from HQ, stations and project sites have participated in these programmes. A programme on 'Works and Service Contract' has been developed and implemented for training the officials who have recently taken over or going to take over senior positions. In addition, training programmes on various topics for updation and awareness including certification have also been organised.

To fulfill the growing need of trained graduate Engineers the Knowledge Management group has been coordinating recruitment process of engineers, one year orientation training and placement of newly recruited engineers. Final placement of engineers from OCES-2010 batch consisting of 74 Engineers from NPCIL NTCS, 10 engineers/scientific officers from BARC Training School and 2 from IGCAR Training School was organised. During the year 214 fresh NPCIL engineers were inducted through OCES 2011. Also one year orientation training of 19 fresh NTPC engineers and one IOCL engineer, employees of NPCIL's JV partners along with fresh NPCIL engineers has been undertaken.

Video Conferencing based Corporate Induction Training was organised for the first time for 214 fresh Executive Trainees of NPCIL.

A Qualification / Training curriculum including syllabus, course material and such others has been developed for 'Construction Personnel'. This programme is aimed at training senior officers in project management and enhancing efficiency and knowledge of all personnel engaged in construction activities. The first programme launched for qualification of senior engineers (Level-I) at KAPP-3&4 and RAPP-7&8 sites has been completed.

Simulator Group

The Simulator Group is responsible for the development, commissioning and testing of Operator Training Simulators (OTSs) for NPPs. These simulators enhance the operator reflexes and provide a lasting mental model of plant transients thus improving operator understanding and efficacy.

Over and above the upgrading of the three existent simulators at KGS, RAPS and TAPS to match the upgrades in their respective reference plant, the group has also worked in various areas for increasing the depth of simulations in the existent simulators, to improve the quality of training to the operators.

Work on a new OTS for the first 700 MW project, KAPP-3 was started. Similarly, the detailed layout for the second 700 MW OTS facility for RAPP-7 has been completed.

The activities for development of soft-panel based full-scope simulator for KGS-3 / RAPS-5 to meet WANO requirements were started. Model development activities for this simulator are in full swing.

A Remote On-line Support System (ROSS) to provide remote support for all the existing simulators at different sites was commissioned, thus enhancing the periodicity of simulator upgrades and also improving the promptness of troubleshooting.

The group has completed a study of contemporary state-of-the-art simulation tools in the global market and is poised to initiate tendering activities for procurement of such tools for future simulators.

Engineers from the group have also participated in Verification & Validation activities for the PFBR Simulator of BHAVINI and various systems of Indian PHWRs.

Strengthening of QA activities has been undertaken by effective implementation of ISO-9001. External and internal audits were completed as per schedule and ISO 9001 certification was upheld.



DIRECTORS' REPORT

Corporate Social Responsibility

NPCIL being responsible corporate citizen is committed for the philosophy of caring and sharing. NPCIL has always been well aware of the need to benefit society by enhancing the quality of lives of people in and around its power plants and surrounding areas. The organisation continues to play an active role through a host of community development initiatives. The focus was on healthcare, education, infrastructure development and environment.

A dedicated group headed by an official in the rank of Executive Director has been entrusted with the responsibilities for Rehabilitation and Resettlements for new Projects as well as the policy formulation, planning, developing the system of implementation and monitoring the Projects and activities pertaining to Corporate Social Responsibilities (CSR) for operating nuclear power stations and projects of NPCIL as well as initial community development near new projects.

During the year, a CSR policy was developed and approved for uniform implementation by all the units. Additionally, a comprehensive guidance document, Headquarter Instruction (HQI) – 8501 on CSR and R&R was also issued. The HQI brings out the purpose, governing principles, organisational set-up, decision rules, activities to be included in CSR programme, funding, programme implementation, monitoring and control etc. A webpage has been added to the public website of the Company on internet on which CSR information is posted.

During the year 2011-12, ₹ 21.5 Crore was allocated for CSR activities and ₹ 1.9 Crore was available in the non-lapsable fund from year 2010-11 totalling to ₹ 23.4 Crore. Using this fund, the CSR projects worth ₹ 1.81 Crore have been completed and remaining CSR projects worth ₹ 21.61 Crore are in progress.

At TMS, ₹ 6.80 Crore has been deposited with the state government for construction of roads and provision of drinking water supply. These projects are to be completed by the relevant state government agencies.

The CSR programme being very comprehensive in nature, the resulting CSR projects have a very diverse scope. These projects are required to be implemented through NGOs. During the year, empanelment of 85 NGOs was done for undertaking CSR projects. A training programme for Chairmen and Member-Secretaries of CSR teams of different stations was also conducted. The list of these agencies is available on the Company intranet as well as on the NPCIL website.

NPCIL continues to focus on three major key dimensions like health, education and infrastructural support for over all development of the villages around Nuclear Power Plants. Total 116 projects were taken up during the year which comprised of 67 infrastructure projects, 17 health projects and 32 education projects.

The CSR projects of the units were monitored on quarterly basis during the year. An internal audit committee was constituted to independently audit the work of CSR committees at different sites. The committee has since completed audit and submitted its report. In addition to this, senior officials had visited several units and the nearby villages to interact with villagers and to assess the

CSR works. Independent evaluation of CSR programme of the Company is being planned to be started shortly.

Corporate Environmental Responsibility

NPCIL, as a responsible public sector enterprise, is conscious about its Corporate Responsibility towards Environment. The 'Environment Safety' has been prominently included in its Mission Statement and is also reflected in the HSE Policy Statement. There is a functional group established at HQ for oversight and guidance on Environmental Safety. The stations and projects are pursuing the Environmental Goals and Objectives of NPCIL. Operating Stations have also adopted Environment Management Systems, in line with ISO-14001, and are audited and certified periodically by the accredited agencies. The Environment Management Meets are organised to propagate the knowledge and requirements of Environmental Safety and share Good Practices in this regard.

NPCIL functions in conformity with its Corporate Environment Policy adopted in January 2012.

Corporate Communication

Communication, both internal and external, plays a pivotal role in keeping the Company well connected to its stakeholders and in brand building exercise of the organisation. NPCIL has upheld the confidence of its stakeholders by proactively sharing Company's achievement, utilising the media optimally and innovatively. Periodically, the achievements of NPCIL were highlighted through print and electronic media throughout the country. NPCIL web site was strengthened by loading large public information material essentially to raise awareness on nuclear power, safety of nuclear power, radiation aspects and so on. News article repository system was uploaded regularly to the Company's intranet as an internal communication strategy implemented by NPCIL.

The Fukushima incident in March 2011 generated apprehensions about safety of nuclear power in some sections of the public. This necessitated enhancing of the public outreach to allay the people's concerns in a credible manner around existing and future nuclear power plant sites and at the national level.

The Government at the highest level initiated a comprehensive effort at public outreach on nuclear power and issued a broad plan of action with specific timelines.

NPCIL had accordingly enhanced and re-engineered its public awareness programme to effectively reach out to a much larger populace and address all their concerns in a credible manner.

The various communication activities are being carried out for the dissemination of accurate and authentic information on nuclear power to different target groups on regular basis.

The Company has organised exhibitions on nuclear power as a platform to directly communicate with the public, industry experts, students and so on. In addition, pavilions were set up in local, national and international level exhibitions to showcase its technical capabilities. Some of the notable participations during



Release of documentary film 'Say No to Corruption' by Dr. S.K. Jain then CMD, NPCIL. Shri Sushil Chandra, CVO, NPCIL is also seen.

the year were; Conference and Exhibition in PMI India, Research and Academic Conference at NICMAR (Pune).

Country's first-ever Nuclear Gallery, a permanent exhibition "Hall of Nuclear Power", launched at Nehru Science Centre, Mumbai by NPCIL was a prominent means to communicate nuclear science in an interactive way to the general public. Visits of many schools were organised to this exhibition. Similar halls are being planned to establish in Science centres across the country.

During the year, a structured programme on nuclear power awareness, customised for engineering college students and faculty members, was organised up by the Company. The programme has been implemented in over twenty five colleges across the country including IITs and other premier institutes. Besides above, visits of students and general public to the nuclear power plants for their better understanding of nuclear power were arranged.

The Company also carried out media interaction on regular basis and organised technical visits of media personnel to stations and projects. A number of Press Releases were issued from time to time about important events and the major milestones achieved.

During the year, a national level scientific press meet on Occupational Health Safety was organised at World Trade Centre, Mumbai and during the occasion, a booklet "Retrospective Analysis of Health Profile of Employees of Nuclear Power Corporation of India Limited - Operating Sites" was also released. Ten more similar Scientific Meets were organised at various places around the NPPs in the country.

Assistance from Media and Communication Research Foundation (MCRF) and Nuclear Friends Foundation (NFF) - a dedicated website on nuclear power - were taken to facilitate the ongoing public awareness campaigns. In addition to that, to enhance the public outreach activities, NPCIL has initiated a partnership with Vigyan Prasara (Department of Science & Technology, Government of India) at national level. To reach large section of public, NPCIL has also arranged to screen short films promoting nuclear energy at multiplexes and theaters across the country. To start with, the promotional films on nuclear power are being screened in

states Andhra Pradesh, Maharashtra, Madhya Pradesh, Haryana and Gujarat. Screening in Tamilnadu and Kerala is under process. Collaboration with the National Geographic Channel has been initiated to produce short films on nuclear power.

NPCIL produced short films and multimedia presentations to disseminate information on the Company and nuclear power. Interesting and interactive multimedia film on the Company's profile and on the birds found in and around NPCIL plants has been produced. Animated comic films "Ek Tha Buddhia." and "Buddhia Ki Sair." were launched in multiple languages to remove the fear and apprehension about nuclear energy. Various promotional short films by professional agencies were also produced to educate the masses about various applications of nuclear energy.

Nu-Power – an international journal of nuclear power is being published by the Company in every quarter.

The Company provided financial assistance to several institutions and events.

Vigilance

Vigilance is an important management function. It not only helps in eradicating corruption and malpractices from the organisation but also increases the transparency. It also acts as a deterrent for wrong doers. Vigilance Directorate of NPCIL is headed by a full time Chief Vigilance Officer on deputation from Indian Railways Service of Mechanical Engineers. The Vigilance Directorate has been playing an important role in imparting knowledge and enhancing awareness by sensitising our employees throughout the year. Vigilance Directorate has been suggesting a number of system improvements in critical areas. Some of the initiatives taken by Vigilance are as follows:

- A book on 'Preventive Vigilance Personnel & General Matters' was published by the Vigilance Directorate and released in February 2012. The book covers the important aspects pertaining to Disciplinary matter, Hospital management, Finance, etc. and alerts employees while claiming LTC, Hostel subsidy, CHSS facility, etc.

DIRECTORS' REPORT

During the year WANO Peer Reviews of two of its plants namely RAPS-5&6 and KGS-3&4 were carried out by teams consisting of experts from several countries representing global nuclear safety standards and sharing best international practices.

- A number of system improvements concerning the procedure of Design Concession Request, e-auction of Civil Engineering Scrap/Surplus materials, estimation for the rates for non-schedule items, etc. were suggested and implemented.
- Vigilance Awareness Week was observed in NPCIL Headquarters in Mumbai and all the Units located outside Mumbai during the period 31st October to 5th November 2011. A number of programmes such as debate competitions, seminars, etc. were organised as per guidelines issued by the CVC.
- A documentary film titled 'Say No To Corruption' containing vigilance message by CMD, NPCIL was produced in-house by Vigilance Directorate. The same was released during Vigilance Awareness Period. The 15 minute film effectively communicates the message of vigilance and anti-corruption theme. It was screened at Headquarters and all units of NPCIL.
- 'CHETNA' – Annual edition of Vigilance Magazine was released by the CMD on 31st October 2011. It contains a number of articles, poems and other reading material on vigilance matters, contributed by the NPCIL employees and their family members. The magazine serves as medium to involve NPCIL families to spread vigilance awareness.
- As a preventive vigilance measure and to spread vigilance awareness, 8 one day seminars were organised at Headquarters and Units. Experts from Central Vigilance Commission and other eminent speakers from outside organisations were invited to address the seminars.
- The CVO and other senior vigilance officers participated and delivered lectures in the training programmes on Works & Service Contracts organised by the Corporation at Headquarters, TMS, RRS and MAPS. The participants were explained the anomalies and precautions to be taken while dealing with the contracts through a number of case studies.
- A five days in-house training programme for prospective Vigilance Officers / Deputy Vigilance Officers was designed

and conducted from 6th to 10th February 2012. The course broadly covered topics related to vigilance working like techniques for investigation, handling of complaints, anomalies in Works & Purchase Contracts, preventive vigilance, disciplinary matters, etc.

- CVO and Vigilance Officers carried out 126 inspections including surprise inspections of on-going contract works.

The Right to Information Act, 2005

An elaborate mechanism exists with 7 Nos. of Assistant Public Information Officers, one at each site, one Central Public Information Officer and an Appellate Authority at Headquarters to deal with the requests received under the RTI Act.

CPIO's Office has been established with adequate manpower to carry out its functions. The mandatory information required under the Act [section 4(1)(b)] has been posted on NPCIL website and the information was updated as required.

Presentations / lectures were organised in NPCIL for creating awareness about the importance and ways to implement the Act.

709 requests were received during the year 2011-12 under RTI Act, 2005, and out of which, 568 have been replied. 99 numbers of first appeals were disposed off.

Participation in International Activities

NPCIL is a member of various international organisations viz. World Association of Nuclear Operators (WANO), Candu Owner's Group (COG) and World Nuclear Association (WNA) and actively participated in various programmes of these organisations to enhance the safety and reliability of its nuclear power plants.

NPCIL also participates in various activities of International Atomic Energy Agency (IAEA) and Nuclear Energy Agency (NEA). It participated in the preparation of National Report for International Convention of Nuclear Safety and responded to the queries from various countries on some of the issues described in the report. An IAEA OSART (Operational Safety Review Team) review of RAPS-3&4 is planned next year on the request of NPCIL. Therefore, IAEA conducted a training programme at Rajasthan Rawatbhata Site to prepare the station / NPCIL for OSART review. This will be the first such review of any NPCIL plants done by IAEA.

NPCIL is one of the members of WANO and is currently affiliated to two WANO regional centres at Tokyo and Moscow. All the nuclear power plants operating in over 30 countries are its members. Dr. S.K. Jain, then Chairman and Managing Director, NPCIL has been on worldwide WANO governing board and is presently Chairman, WANO, Tokyo Centre, Japan. He is also Director on the Board of WNA.

During the year WANO Peer Reviews of two of its plants namely RAPS-5&6 and KGS-3&4 were carried out by teams consisting of experts from several countries representing global nuclear safety standards and sharing best international practices. These reviews have been found very useful in bringing international perspective

to our plants. WANO organised six Technical Support Missions at our stations to enable them to achieve next higher level of safety and reliability; effective implementation of OE for improvement in plant safety and reliability, foreign material exclusion, training effectiveness and its evaluation, conduct of error free operations with application of tools, single point vulnerability, development of safety culture assessment methodology. Several persons from NPCIL participated in important meetings, seminars and peer reviews organised by WANO and had the opportunity to discuss various issues related to improvements of plant performance with experts from other countries.

NPCIL hosted COG-NPCIL Technical Seminar in Mumbai in which about 20 overseas participants from many PHWR operating countries and from organisations like COG and IAEA participated. In addition, there were 40 participants from NPCIL. COG has formed a Fukushima International Team to discuss various issues emanating from Fukushima incident and develop a common approach for all PHWR plants. NPCIL participated in many meetings over video-conference in which action taken by various PHWR utilities was discussed.

NPCIL is also benefitted from the membership of WNA as it provides detailed worldwide reports on fuel availability, utilisation and forecast for future. NPCIL provided requisite support and all kind of assistance to WNA in successfully conducting India International Nuclear Symposium (IINS-2012) at New Delhi during 22nd to 23rd February 2012. NPCIL representatives participated in Advisory Committee meetings. Some of the representatives from NPCIL also participated in the WNA Working Group meetings.

NPCIL got the opportunity to participate in the meetings, seminars organised by these international agencies to discuss Fukushima incident and chalking out strategies and planning for prevention and mitigation. The information provided by these international agencies was very much useful in carrying out the safety assessment of our plants.

Directors' Responsibility Statement

As required under Section 217(2AA) of the Companies Act, 1956, the Directors confirm:

1. that in the preparation of the annual accounts, the applicable accounting standards have been followed, along with proper explanation relating to material departures;
2. that they have selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit or loss of the Company for that period;
3. that they have taken proper and sufficient care for the maintenance of adequate accounting records, in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
4. that they had prepared the annual accounts on a going concern basis.

Conservation of Energy / Technology Absorption / Foreign Exchange Earnings and outgo

Particulars as required under Section 217(1) (e) of the Companies Act, 1956 read with the Companies (Disclosure of Particulars in the Report of the Board of Directors) Rules, 1988, are given in Annexure-A to this report.

Particulars of Employees

Pursuant to Section 217(2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) Rules, 1975 as amended, none of the employees of the Company were in receipt of remuneration in excess of limits prescribed under the said rules.

Management Discussion and Analysis

Annexed as Annexure-B to this report.

Corporate Governance

The Department of Public Enterprises (DPE) has laid down guidelines on Corporate Governance for CPSEs. The Department of Atomic Energy (DAE), the administrative ministry of NPCIL, has requested NPCIL to comply with the instructions. The guidelines are similar to the Corporate Governance Clause in the Standard Listing Agreement of Stock Exchanges.

The Board members and senior management have reaffirmed the compliance with the code of conduct.

A compliance report on Corporate Governance is given as Annexure-C.

The Company has obtained a certificate from M/s. Parikh & Associates, a firm of Practicing Company Secretaries regarding compliance of conditions of corporate governance as indicated in the DPE Guidelines. The Compliance Certificate is annexed to this report as Annexure-D.

Susidiary Companies

The financial statements of subsidiary companies viz. Anushakti Vidhyut Nigam Limited and NPCIL - IndianOil Nuclear Energy Corporation Limited along with respective Auditors' Report and Directors' Report are placed elsewhere in this Annual Report. However, financial statements in respect of NPCIL-NALCO Power Company Limited were not placed since the first financial year of the Company is for the period from the date of its incorporation i.e. 2nd March 2012 to 31st March 2013.

Statement showing holding Company's interest pursuant to Section 212 of the Companies Act, 1956 relating to subsidiary companies is enclosed as Annexure-E.

Statutory Auditors

The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India. M/s Kalani & Co., Chartered Accountants, Jaipur were appointed as Statutory Auditors for the Financial Year 2011-12.



DIRECTORS' REPORT

Cost Auditors

The Ministry of Corporate Affairs (MCA), Government of India has vide its order F.No.52/26/CAB-2010 dated 2nd May 2011 directed, inter alia, for commencement of Cost Audit of cost records of companies in Electricity Industry under Section 233B of the Companies Act, 1956. NPCIL, being covered in the criteria specified in the said Circular, required to get its cost audit records audited by a Cost Auditor from the FY 2011-12 onwards.

M/s. N.I. Mehta & Co., Cost Accountants, Mumbai were appointed as Cost Auditors for the Financial Year 2011-12 under Sec. 233B of the Companies Act, 1956. The due date for filing Cost Audit Reports for the FY 2011-12 with the Cost Audit Branch of MCA is 30th September 2012 and the same will be filed within the stipulated time.

Observations of the Statutory Auditors

There is no observation of Statutory Auditors on the Financial Statements of the Company for FY 2011-12.

Comments of the Comptroller and Auditor General of India

The accounts for the year ended 31st March 2012 were reviewed by the Comptroller and Auditor General (C&AG) of India. Comments of the C&AG on annual accounts have been given as Annexure to the report.

Changes in the Board of Directors

- Dr. S.K. Jain superannuated on 31st May 2012 as Chairman and Managing Director, NPCIL.
- Shri S.A. Bhardwaj, Director (Technical), NPCIL was acting Chairman and Managing Director for a brief period from 1st June 2012 to 25th June 2012.
- Shri K.C. Purohit, Director (Projects), NPCIL assumed charge as Chairman and Managing Director w.e.f. 25th June 2012.
- Dr. Ratan Kumar Sinha, who has been appointed as Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy, has relinquished charge of the post of Director, BARC w.e.f. 19th June 2012 and consequently ceased to be Director of NPCIL.

- Shri Preman Dinaraj, IAAS has assumed charge as Director (Finance), NPCIL w.e.f. 10th January 2012 vice Shri J.K. Ghai.
- Shri A.S. Bakshi, Chairperson, Central Electricity Authority (CEA) has been appointed as a part-time Director on the Board w.e.f. 29th February 2012.
- Shri Hemant G. Contractor, Managing Director & Group Executive (International Banking), State Bank of India has been appointed as part-time Director on the Board w.e.f. 26th September 2011 vice Shri T.S. Bhattacharya.
- Shri V.M. Kaul, Director (Personnel), Power Grid Corporation of India Ltd., who had been appointed as a part-time Director on the Board w.e.f. 15th July 2010 ceased to be Director w.e.f. 31st March 2012 consequent on his superannuation.
- Dr. Arbind Prasad, Senior Adviser (Power & Energy), Planning Commission, who had been appointed as a part-time Director on the Board w.e.f. 17th June 2011, ceased to be Director as he relinquished the charge of post of Senior Adviser, Planning Commission upon acceptance of his voluntary retirement w.e.f. 9th April 2012.

The Board welcomes appointment of Shri K.C. Purohit, Shri Preman Dinaraj, Shri A.S. Bakshi and Shri Hemant G. Contractor and places on record its sincere appreciation of the valuable services rendered by Dr. R.K. Sinha, Dr. S.K. Jain, Shri V.M. Kaul and Dr. Arbind Prasad during their association with the Company.

Appreciation

The Board would like to express its gratitude to the Department of Atomic Energy, Ministry of Power, Ministry of Programme Implementation & Statistics, Central Electricity Authority, Planning Commission, Ministry of Environment & Forests, other Ministries, Departments of the Government of India, State Governments for their cooperation, banks, financial institutions and other investors who have continued to repose their confidence in the Company.

The Board would also like to place on record its appreciation of the services rendered by the auditors for their service and valuable advice.

The Board wishes to express its special appreciation of the hard work put in by each and every employee of the Company and the cooperation extended by the Employees' Union, Supervisors' and Officers' Associations.

For and on behalf of the Board of Directors

(K.C. PUROHIT)
Chairman & Managing Director

Place: Mumbai
Date : 13th August 2012.

ANNEXURE 'A' TO THE DIRECTORS' REPORT

Information under section 217(1)(e) of the Companies Act, 1956 read with Companies (Disclosure of Particulars in the Report of the Board of Directors) Rules, 1988 and forming part of the Directors' Report for the year ended 31st March 2012.

Conservation of Energy

A. Energy Conservation measures taken:

Conservation of energy and optimisation of resources has been given high priority in all the operating Nuclear Power Stations of NPCIL. Head Quarter Instructions to guide all the stations to take necessary measures for the conservation of energy is in place. Following measures were continued at operating power stations for the conservation of energy:

Energy Conservation Committees, existing at each station, met periodically to review the consumption of energy, resources and suggested various measures for energy conservation. During the year, following specific activities were undertaken by the stations for energy conservation and optimisation of resource consumption:

1. Energy audit of TAPS-1&2, TAPS-3&4 and NAPS-1&2 was carried out by external agency Electrical Research & Development Association. The report of the energy audit and the recommendations are an important input to explore further energy conservation measures.
2. Energy conservation efforts were continued by all the stations. These included replacement of conventional lamps by energy efficient lamps in a phased manner, continuous use of solar water heating systems in canteens, switching off the air conditioning systems and lights in office areas when not in use.
3. Optimum operation of equipment was carried out at plants in northern states taking advantage of seasonal temperature variations resulting in substantial saving of electrical energy.
4. Areas which are not occupied throughout the day were identified and provision of switching control was made in such a way that whenever area is unoccupied, lights can be switched off to conserve the energy.
5. In KGS-3&4, solar panels, solar inverters were installed and tested. Fourteen LED fixture installation has been planned at locations like SCR passage, control room and SB locations.
6. RAPS-5&6 installed 70 LED light fixture in control building. RAPS-2 replaced five 150W street lights with 35W LEDs.
7. In TAPS-1&2, package and window type AC machines were replaced with energy efficient split type machines in Rad-waste control room and planning office.
8. In KAPS, two 50 HP horizontal pumps and two 25 HP vertical pumps in filter pump house were obsolete and inefficient. These were replaced with two 60 HP pumps. This resulted in 50% saving on electrical energy resulting in total saving of 0.24 MU in the year.
9. All the stations kept a close vigil on various routes to prevent energy loss and have taken prompt actions for rectification of steam/air leaks, thermography mapping of hot pipes and strengthening of insulation wherever needed. For example, in RAPS-2 improved Deaerator Storage Tank insulation by providing an additional layer

of 50 mm thick mineral wool insulation mattresses of 150 kg/m³ density resulted in reduction of average surface temperature from 45°C to 38°C during full power operation; KGS-4 improved insulation in FM vault and brought down the temperature by 1°C.

10. Continuous trend monitoring of heavy water and light water collections during reactor operation has helped stations in taking appropriate remedial measures resulting in reduction in consumption of energy.

14th December 2011 was celebrated as National Energy Conservation day in NPCIL stations to create awareness towards energy conservation among officers, employees and also their families. Various programmes were arranged at stations.

B. Additional Investments and Proposals for Reduction of Consumption of Energy:

In NPCIL stations use of solar energy has been initiated. Solar heaters in plant canteen, guest house and solar lights at appropriate plant areas and township have been installed. Energy saving lamps are being replaced in place of conventional lighting fixtures in almost all the stations. Domestic LP gas is being used in plant canteens and conventional electric heaters have been phased out.

All the stations have set targets of their own for next year to bring down energy consumption in terms of reduction in auxiliary consumption, replacement of old equipment with energy efficient ones, replacement of lighting fixtures with energy efficient lamps/LED, replacement of conventional fan regulators with electronic regulators, installation of solar powered lamps and reduction in consumption of consumables.

C. Impact of Measures at A and B above for Reduction of Energy Consumption:

Various measures taken by the stations for conservation of energy resulted in reduction of Station Auxiliary consumption as a percentage of total generation of NPCIL plants from 9.68% in 2010-11 to 9.55% in 2011-12.

Foreign Exchange Used / Earned

	(₹ in Crore)	
	2011-12	2010-11
1. Foreign Exchange Outgo		
a) Value of Import based on CIF basis	512	762
b) Expenditure		
- Project Related Payments	120	70
- Interest and Agency Fees	-	-
- Others	5	5
2. Foreign Exchange Earned	-	0.04

ANNEXURE 'A' TO THE DIRECTORS' REPORT

Form-B

A. Research & Development/
Technology Development1. Specific areas in which R&D/TD is
carried out:

R&D / TD activities in the Company are oriented towards addressing the specific requirements emanating from its operating stations, projects under construction and the support groups within NPCIL. These efforts are focused more towards continued enhancement of nuclear safety, improvement in plant performance parameters, reduction in operational costs, reduction in project gestation period & costs and reduction in Person-Sievert (man-rem) expenditure. Greater thrust is also being imparted to indigenisation of hitherto imported components and equipment and broadening the vendor base to facilitate the expansion of nuclear programme.

The R&D-ES efforts are mostly application-oriented design & development specifically addressing the Control & Instrumentation (C&I) requirements emanating from power plants under construction and from operating stations to support the existing C&I electronics systems. The design and development efforts are concentrated towards electronics and computer based controls and instrumentation systems for 700 MW projects.

Specific areas of development in R&D-ES are standardisation of Hardware Modules, Software building blocks, Human Machine Interface, Generic Embedded Software, development of computer based C&I systems, interaction with academic and research institutions to identify future needs for modernisation of C&I, upgradation of computer based systems in operating stations.

2. Benefits derived as a result of the above
R&D / TD:

i) During the financial year 2011-12, following significant progress has been achieved by Technology Development Group:

- The Hydrogen Recombiner Test Facility (HRTF) was commissioned in December 2011 and several tests have been carried out with the Passive Catalytic Recombiner Device (PCRD) installed inside the HRTF vessel. These preliminary tests show that PCRD assembly is effective in recombining the hydrogen under dry conditions.
- The Integrated Thermal-Hydraulic Test Facility (ITTF) comprising of scaled test loops for 700 MW PHWR and AHWR has seen significant progress in terms of construction of both Structural and Annex buildings having reached their full height

plus delivery and erection of major equipment. The significant upcoming activities constitute the piping, cabling and instrumentation work. Several critical items, equipment for the ITTF were delivered such as directly heated fuel simulator assembly, VFD driven primary coolant pumps, instrumented Steam Generators and SS Clad steam drum. Based on the present status this facility would be commissioned before the end of calendar year 2012.

- Joint collaborative effort led to first time successful (i) inspection of coolant channels by BARCIS for TAPS-3&4, (ii) inspection and removal of sludge and debris from steam generators, (iii) removal of large numbers of SPNDs at TAPS-4 during November 2011 BSD by SPND removal device developed specifically for this job.
 - On indigenisation front, successful development and in-pile sensitivity test of indigenous 3 Pitch integral Inconel SPNDs in Phase-I and development, qualification testing and in-situ installation of Liquid Ring Compressors for LZC system were significant activities completed during the year.
 - Offers were invited for indigenous steam generator forgings from NPCIL L&T Joint Venture and the relevant technical discussions have taken place.
 - Feasibility studies were performed to assure that all the critical components required for preliminary coolant pumps could be manufactured with adequate quality assurance. Based on this offer, indigenous development of these is being processed.
 - Design of Cobalt absorber rods has been finalised and proto-type manufacture of critical coupler element has been carried out.
 - Prototype electrical penetration assemblies were manufactured by several vendors based on extensive trial and error in the Phase-1 of the development. Based on the confidence gained, Phase-2 development of these electrical penetration assemblies have been taken up.
 - For the indigenous development of Primary Coolant Pump Motors, two vendors have been identified and relevant technical discussions have taken place.
- ii) The establishment and maintenance of in-house R&D-ES laboratories and facilities enabled the Company in the following areas:
- a) Renovation and Modernisation of major Computer Based Systems (CBS) for I&C Systems has been done in 220 MW plants during respective

bi-annual shutdowns, to resolve obsolescence of electronics components/boards, to meet feedbacks from Site and additional regulatory requirements. Upgradation has been done by installing new systems which use technologies identical to similar in-house developed systems in the latest plants. Development of software for upgradation of two important systems of TAPS-3&4 to implement the changes in the requirements has been completed. Symptom Based Intervention Guidelines Management System (SIGMAS) has been developed and installed in Control Room of RAPS-5&6 and KGS-1&2 and also in Training Simulators for training plant operators.

In-house development of prototypes of Smart Radiation Monitors (SRM), Proportional Counter based Portal Monitoring System (PMS), MCA based Stack Monitoring System (SMS), IR based H₂O Leak Detection System for MSLB applications have been completed.

It is observed that PMS prototype installed at RAPS-2 gives better efficiency to detect even very low contamination. SRM and MCA-SMS prototypes are being installed at TAPS-3&4 and MAPS-1&2 respectively for field trial test. Development of MCA based system to detect radio-nuclides in Annulus Gap is in progress.

b) Activities for 700 MW Projects:

- In-house development of electronic modules for safety I&C systems and all hardware modules for 700 MW Computer Based Systems have been completed. Accordingly details were worked out and provided as inputs for tendering of Control Centre Instrumentation Package (CCIP) and Nuclear Instrumentation Package (NIP) for KAPP-3&4 and RAPP-7&8.
- Laboratory is being augmented by establishing dedicated Prototype Systems along with testing simulators at TV Stores, Trombay, for carrying out software development and testing. These prototypes are replica of computer based systems of 700 MW projects and will be used for validating the software.
- Also completed development of SPND Amplifier modules and prototype modules are installed in TAPS-4 during November 2011 BSD, as a part of 3-pitch SPNDs field tests and they are functioning satisfactorily.

Expenditure on R&D/TD

a. Capital	-	₹ 21 Crore
b. Recurring	-	₹ 6 Crore
c. TOTAL	-	₹ 27 Crore
d. Total R&D expenditure as % of total turnover		0.34%

B. Technology Absorption, Adaptation & Innovation

Company's self-reliance in the areas of design, construction, commissioning and operation of Pressurised Heavy Water Reactors (PHWR) is near total. Continued efforts are made to upgrade and update the Company's knowledge-base and to adapt and absorb new technologies that are being evolved. Boiling Water Reactors (BWR) are also operated by the Company meeting international standards on both safety and performance. Assimilation of technology with respect to the construction of Pressurised Water Reactors (PWR) is also underway. Innovative 'First of A Kind' features are detail engineered and incorporated in the 700 MW design. Some of these are now physically available for the under construction units viz. KAPP-3&4.

The role of R&D-Electronics Systems Group is redefined to put greater thrust on development of all safety, safety related C&I Systems with the goals of higher reliability, availability and cost reduction and meeting requirements of AERB, indigenisation of radiation monitoring and leak detection instruments and providing prompt solutions and long term support to sites. The Company will achieve the status at par with the international nuclear power plant operators for 'event handling' by using SIGMAS as part of plant system. Realisation of self dependence, measures for security and safety issues are the results of in-house development of state-of-the-art hardware modules for computer based systems and system software.



Annexure 'B' to the Directors' Report

MANAGEMENT DISCUSSION AND ANALYSIS



Kaiga Plant Site

Economic Environment

For the Indian economy, GDP growth in FY 2011-12 is estimated at 6.9% against 8.4% in FY 2010-11. Notwithstanding this, by any cross-country comparison, India remains among the front-runners. During FY 2011-12, agriculture and services continued to perform well but industrial production particularly in manufacturing sector slowed perceptibly.

Industry Overview

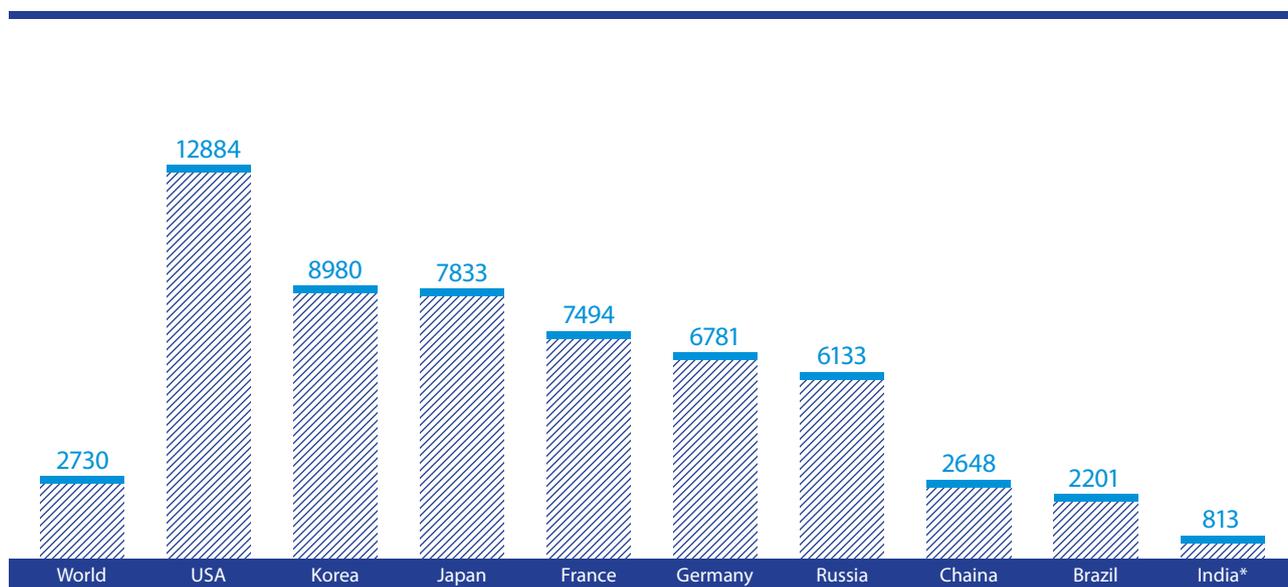
Electric power is part of the basic infrastructure required for the economy's sustained growth. The Indian power sector has registered significant progress since the process of planned development of the economy began in 1950. Over the years, from 1950 to March 2012, the installed capacity of power utilities has increased from a meagre 1713 MW to 199877 MW, the electricity generation increased from about 5.1 billion KWh to 877 billion KWh, about 170 times. The per capita annual consumption of electricity in the country also increased to about 55 times, from 15 KWh in 1950s to about 813 KWh in 2010-11.

India's overall electricity generation registered a growth rate of 8% in the year 2011-12. The electricity generation from nuclear power grew at a much higher rate by 23% and contributed about 3.7% in total generation in the country in 2011-12 against 3.2% in 2010-11.

However, despite a sustained growth in electricity generation, demand outstripped supply. The country's energy and peak shortages were about 8.5% and 11% respectively during the year 2011-12. The per capita consumption of electricity continues to be very low, at about one third of the world average.

Per Capita Electricity Consumption (Indicators are for year 2009)

KWh/Capita



Source: 2011 Key world energy statistics-International Energy Agency. * Data on India is for year 2010-11 as per CEA

There is a need for large capacity addition to meet the growing demand, to ensure lifeline energy needs of all citizens and also provide adequate energy to sustain growth to meet the development objectives.

The Integrated Energy Policy (2006) of India has projected augmentation of installed capacity to about 800 GW by the year 2032 for a growth rate of 8%. This is projected to be reached by deploying all the sources of energy, including nuclear energy. Of the 800 GW, the projected contribution of nuclear power is 63,000 MW.

MANAGEMENT DISCUSSION AND ANALYSIS

NPCIL has attained maturity in the first stage of nuclear power programme. Today, NPCIL is unique in having comprehensive capacity in the various facets of nuclear technology viz. site selection, design, construction, commissioning, operation & maintenance and life extension of nuclear power plants.

Nuclear Power – a preferred option for India

Theoretically, nuclear energy offers the most potent means towards India's long term energy security. India has to succeed in realising the three-stage development process and thereby tap its vast thorium resource to become energy independent beyond 2050 in the true sense.

India's nuclear power programme was envisaged as a three-stage programme with a closed fuel cycle to utilise uranium and large thorium reserves in the country for electricity generation. The three stages of the programme are:

- Natural uranium fuelled Pressurised Heavy Water Reactors (PHWRs) in the first stage.
- Fast Breeder Reactors (FBRs) utilising plutonium based fuel extracted from the spent fuel of the first stage, and
- Advanced nuclear power systems for utilisation of thorium.

Continuing support to the three-stage development of India's nuclear potential is essential.

Light Water Reactors with international cooperation are planned as additionalities to the programme for faster capacity addition to meet the growing demand of electricity.

NPCIL has already taken up development of design of a light water reactor and so will be able to set up more light water reactors in future of indigenous origin and indigenous design.

Considering the climate change concerns, it is desired to move towards a low carbon energy growth path which is the growth path that not only the diminished fossil fuel resources demand but also the climate concerns. In this context, the concerns about global warming and carbon emissions or greenhouse gas (GHG) emissions have made nuclear power even that much more important for India than it was ever before.

India is highly vulnerable to the effects of climate change and has a strong interest in efforts aimed at minimising climate change

risks. Although India contributes only one-fourth of greenhouse gas emissions of global average in per capita terms, it has proactively instituted several measures in this direction and has defined self imposed target to reduce the emissions intensity.

Electricity generation contributes about 38% of total GHG emissions and 51% of CO₂ emissions in the country. Hence, reducing the emission intensity of the electricity generation is of prime importance. Nuclear power, which is clean and has life cycle emissions comparable to renewables like wind and hydro power, is an important low carbon electricity generating technology.

Public Concerns about Safety – Post Fukushima

Following the recent incident at Fukushima-Daiichi nuclear power plant in Japan following the massive earthquake ensuing tsunami, there are concerns in the public about safety of nuclear power plants. In order to accelerate the nuclear power programme, it is vital to reassure the public about safety of nuclear power plants and address other concerns like waste management, fears about radiation and economics of nuclear power. In this direction, enhanced public communication and outreach activities are planned.

A massive public outreach programme was launched to allay the apprehensions of the people about safety of nuclear power plants in a structured manner, by adopting a multipronged approach in and around nuclear power plant sites. The campaigns have also been extended to other parts of the country. To supplement the scaled-up outreach activities, NPCIL has entered into partnership with several special agencies like Vigyan Prasara of the Department of Science & Technology, DAVP, etc.

Safety reviews of the reactors in operation and under construction were undertaken by NPCIL task forces, which found that they were safe and had margins and features in designs to withstand extreme natural events. An expert committee of the Atomic Energy Regulatory Board (AERB), which reviewed the safety of nuclear power reactors in the country, also reached similar conclusion. The committees also made recommendations to take the safety to a much higher level, which are being implemented.

The Government has decided to invite IAEA missions, namely, Operational Safety Review Team (OSART) and Integrated Regulatory Review Service (IRRS), for peer review of safety of nuclear power plants and of the regulatory system, respectively.

A review of emergency preparedness plans, in association with the National Disaster Management Authority (NDMA) was carried out. Mock drills were carried out at all sites and the plans validated and improved. Measures to strengthen the monitoring of radioactivity and response to incidents involving radioactivity at other locations across the country (all police stations) were discussed and plans to implement the same finalised.

Indian Nuclear Sector

India embarked upon an indigenous three-stage nuclear power programme in the fifties, aimed at optimum utilisation of the

country's nuclear resources to provide long-term energy security. Comprehensive capabilities in respect of indigenous reactor technologies and associated fuel cycle have been developed in the country. The facilities for the front-end and back-end fuel cycle, special materials like zirconium and heavy water have been set up by the Department of Atomic Energy (DAE). These are in successful operation. Considerable efforts were put in to develop the Indian industries to meet the exacting standards for manufacturing of nuclear components and equipment. Today, Indian industries have the capacity and capability to supply components, equipment and execute works for the indigenous nuclear power programme.

In view of expanding nuclear power programme, including imported nuclear power reactors of higher unit sizes, industrial manufacturing capability and capacity need to be significantly enhanced. Towards this, steps of forming various Joint Ventures have been taken up.

Company Overview

Role of NPCIL

In India, nuclear power generation commenced as a government activity and it entered the commercial domain in 1987 with the formation of the Nuclear Power Corporation of India Limited, a public sector enterprise under the aegis of Department of Atomic Energy, Government of India.

NPCIL has attained maturity in the first stage of nuclear power programme. Today, NPCIL is unique in having comprehensive capacity in the various facets of nuclear technology viz. site selection, design, construction, commissioning, operation & maintenance and life extension of nuclear power plants.

Generation Performance

Starting with six reactors in 1987, NPCIL now has a fleet of 20 reactors in operation. NPCIL owns and operates 19 nuclear power reactors, in addition to operating Rajasthan Atomic Power Station Unit-100 MW PHWR) owned by the DAE. The Company has to its credit more than 355 reactor years of safe operation of nuclear power plants. A very high availability factor, the hallmark of operational efficiency of a nuclear power plant, sets apart the nuclear power reactors of NPCIL. In the year 2011-12, NPCIL reactors achieved a weighted average availability factor of 91%.

NPCIL recorded significantly improved generation performance during the year 2011-12. The year recorded highest-ever nuclear power generation, registering 32455 MUs. This was 23% higher than the last year's generation of 26472 MUs. This has been possible mainly due to operation of reactors with imported fuel at higher capacity factors. The overall capacity factor improved to 79% compared to 71% capacity factor for the previous year. Also, TAPS-3 recorded a continuous run of 522 days.

Nine reactors viz. KAPS-1 (372 days), RAPS-4 (394 days), RAPS-3 (404 days), KAPS-2 (406 days), MAPS-2 (432 days), KGS-1 (487 days), KGS-2 (529 days), TAPS-2 (590 days) and TAPS-3 (522 days) have so far recorded continuous run of more than a year.

Status of Ongoing Projects

KKNPP-1&2 are at the advanced stages of commissioning. The physical progress of Unit-1 and Unit-2 were 99% and 95% respectively as on March 2012. These units are expected to commence operations in the year 2012 and 2013.

The work on two other ongoing projects, KAPP-3&4 and RAPP-7&8 comprising of indigenous 700 MW PHWRs is progressing. These projects are expected to be completed by 2016 with a capacity addition of 2800 MW.

New Projects

In respect of KKNPP-3&4, the site has been made ready in all respects to take up excavation works. Siting consent from AERB and Environmental clearance from MoEF have been received. Excavation consent is under review by AERB. The CRZ clearance is awaited. Additional site infrastructure development work is in progress.

As regards Jaitapur Project i.e. JNPP-1&2, MoEF environmental clearance and CRZ clearances have been received. Siting consent is under AERB review. Geo-technical investigations are initiated. The post-Fukushima design review is in progress. An information centre has been established at Ratnagiri for public awareness.

The Government accorded 'in principle' approval in October 2009 for five new sites - Gorakhpur in Haryana and Chutka in Madhya Pradesh to locate indigenous 700 MW PHWRs and Kovvada in Andhra Pradesh, Chhaya Mithi Viridi in Gujarat and Haripur in West Bengal to locate LWRs based on international technical cooperation. In July 2011, the Government accorded 'in principle' approval for three more inland sites for setting up 700 MW PHWRs - Mahi Banswara in Rajasthan, Bhimpur in Madhya Pradesh and KGS expansion in Karnataka.

Studies for Environmental Impact Assessment for Gorakhpur, Chutka, Kovvada and Chhaya Mithi Viridi sites are at various stages of progress. NPCIL has established local offices at these new sites and extensive public outreach programmes have been organised for target groups.

Pre-project activities including seismotectonic studies, flood studies, meteorological data, geotechnical investigation, land acquisition process and so on are at various stages of progress. These are being initiated for new sites at Mahi Banswara and Bhimpur.

MOU Performance

The provisional MoU rating for the year 2011-12 is 'Very Good'. With availability of imported fuel for reactors under IAEA safeguards, NPCIL surpassed the generation target for the year 2011-12.

Power Tariffs

The Department of Atomic Energy is the apex body for tariff regulation of nuclear power plants in India. It determines the tariffs in coordination with the Central Electricity Authority.



MANAGEMENT DISCUSSION AND ANALYSIS

The effective tariff of NPCIL stations considering the receivables pertaining to the year under report was ₹ 2.58 paise/KWh (as against ₹ 2.49 paise/KWh for 2010-11).

Ensuring viable tariffs, in a manner that nuclear power tariffs are comparable to those from other contemporary power plants of other technologies in the area, is absolutely essential. Capital costs of nuclear power projects are comparatively high and form the largest component of nuclear power tariffs. The cost of indigenous PHWRs is being accordingly optimised by variety of means including proper project management leading to reduction in gestation period of projects, etc. The LWR projects cost are being optimised by adopting suitable business models, increased indigenisation and adopting appropriate financing methods. The effort to reduce the tariff is an ongoing and dynamic exercise.

SWOT Analysis

NPCIL has presently both opportunity for expanding nuclear power in the country as well as challenges for implementing the same in view of the prevailing public perception about nuclear power post-Fukushima, huge capital requirement, need for rapid enhancement of indigenous industrial capacity/capability, difficulties in land acquisition for new sites, and so on. The Company has achieved maturity in implementing the first stage of the three-stage nuclear power programme of the country. As additionality, it has also got experience of project implementation based on international cooperation by executing Kudankulam Nuclear Power Project with Russian cooperation. These, along with qualified human capital, over 355 reactor-years experience of safe operation of nuclear power plants and 'AAA' rating for NPCIL Bonds indicating highest safety are the strength of the Company. However, difficulties in attracting the best talent and the limited manufacturing capability for the expanding nuclear power programme may prove to be weakness. This is being taken care of by marshalling HR policy and forming Joint Ventures for manufacturing as well as funding of the nuclear power projects.

Growing energy demand and global environmental concerns in managing the carbon footprints has necessitated the increased contribution for environmentally benign sources of electricity. The environmentally benign attributes of nuclear power and availability of international civil nuclear cooperation have offered great opportunities for the Company for expanding its nuclear power capacity base, thus enhancing its contribution in meeting the increased energy demand of the country. However, the deteriorated public perception about nuclear power post-Fukushima incident in Japan is posing a threat to launching new nuclear power projects. It is vital to reassure the public about safety of nuclear power plants and address other concerns like waste management, fears about radiation and economics of nuclear power. This is being taken care of by an enhanced public outreach programme disseminating authentic and reliable information about nuclear power to the general public.

Outlook

Electricity is an essential requirement for all facets of our lives. It is one of the key drivers for rapid economic growth and poverty alleviation. Growth of power sector in India since its independence has been noteworthy. However, the demand for power has been outstripping the growth in its availability. Substantial energy and peak energy shortages prevail in the country. The country faced energy deficit of 8.5% and peak deficit of 11.1% during 2011-2012. The per capita electricity consumption during the year 2009-10 was 813 MUs, which is far lower compared to the countries like USA, France, China and various other developed countries. Thus, India needs to increase its electricity production manifold for economic growth as well as for meeting the electricity deficits. No single energy of the country can meet the required production of electricity. Hence, for India, utilisation of all the available sources of energy is inevitable for meeting the energy requirements. The other challenging factors for power sector are environmental issues like greenhouse gas emissions from burning of fossil fuel. This, along with country's energy resource profile, necessitates an enhanced contribution from nuclear power from both short-term as well as long-term perspectives. Nuclear power in the country has already overcome the infant problems and is now poised for its rapid expansion. Considering all the factors, Integrated Energy Policy of the country has projected 63,000 MW contribution from nuclear power by the year 2032. Thus, for NPCIL, being the flagship company along with Bharatiya Nabhikiya Vidyut Nigam Limited for implementation of the three-stage programme, the outlook is bright and challenging.

Human Resource Management

Human Resource plays an important role in the growth of an organisation. NPCIL has strong and dedicated workforce of 11662 employees consisting of 3417 engineer and scientists, 5991 technicians and supervisors, 1665 non-technical executives and staff and 589 auxiliary support staff who spearhead the activities of the organisation. NPCIL's workforce includes 1082 women employees.

The group-wise staff strength consists of 4295 in Group A, 4551 in Group B and 2816 in Group C categories of employees.

All HR initiatives are directed towards fulfilling the NPCIL's mission and vision by attracting, motivating and retaining the right talent and intellect. While developing the strategic and incremental packages for employees, the individual goals and aspirations were encouraged by way of training culminating in achievement of goals of NPCIL. During the year, 5056 man-days of training was imparted and 37 employees were sponsored for higher studies in technology and management.

Optimisation of manpower continued to be an important strategy towards best utilisation of human resource. Accurate and comprehensive manpower optimisation models for Projects, Stations and Headquarters, including multi-Unit Sites are developed separately in NPCIL. Staffing has been done strictly in accordance with these models.

During the year, as a part of annual induction programme for inducting young talent to the Organisation, 214 trainee

engineers were taken for NPCIL Batch-19, 14 direct recruits in Scientific categories and 64 posts in the non-technical categories (Group-A&B) were filled through centralised recruitment process. In the career progression front, 884 employees in Scientific and Technical categories, 78 (46 executives and 32 non-executives) in non-technical categories were elevated to next higher grade.

Employee Relations

Harmonious Employee Relations prevailed in all the stations, Projects and Headquarters. Regular and structured meetings were held with the recognised Unions at Station/Project levels and with the Joint Consultative Council at the apex level to discuss and resolve the various employees' related issues. The harmonious employee relations are a result of sound and constructive participative approach adopted by Management in decision making in matters affecting the general welfare and service conditions and conflict resolutions based on mutual understanding, which resulted in increased production and productivity.

A structured mechanism exists for redressal of grievances which is sensitive and attentive to employee grievances at all levels. Further grievances are now being heard and resolved through online Grievance Redressal and Monitoring System (GRAMS).

Achievement by Stations

TAPS-1&2, TAPP-3&4, RAPS-1&2, RAPS-3&4 and KGS-1&2 qualified as Excellent Performing Stations during the year and a reward of ₹ 2,000/- was sanctioned to each employee of the above Stations.

Special reward of ₹ 5000/- for longest continuous operation of NPCIL unit beyond 300 days was earned by the employees of TAPS-1&2 and reward of ₹ 3000/- was earned by the employees of KGS-1&2, MAPS-1&2 and RAPS-1&2.

Continuous run of Industrial Accident Free Period was achieved by RAPS-1&2, MAPS, KAPS-1&2, KGS-1&2, TAPS-3&4, RAPS-3&4, KGS-3&4 and KAPP-3&4 and the employees were given a memento.

Other Welfare Measures

NPCIL (Benevolent Fund) Scheme was introduced as a special welfare measure to give support to the members of the fund or to their families who are in distress due to medical reasons, permanent disablement, etc. The scheme also provides for Sustenance Relief amount to an employee who is on prolonged absence due to medical reasons.

The amount of ex-gratia payable to the families of employees who die while in service and missing employees was increased from ₹ 5 Lacs to ₹ 7.5 Lacs.

NPCIL plays a role of philanthropic organisation while extending help to the surrounding population to include them in the growth of organisation. As a part of these activities, NPCIL relaxed age and percentage of marks while considering appointments of Project Affected People whose land is acquired for NPCIL Projects.

Financial Review

Results of Operations

(Profit and Loss Statement Analysis)

Total Income

The total income comprises of income from sale of electricity, consultancy services and interest earned on investments of temporary surplus in term deposits with banks and bonds. The total income for FY 2011-12 is ₹ 8709 Crore as against ₹ 6886 Crore in the previous year thereby registering an increase of 26%.

Sale of Electricity

The Company's bulk customers are electricity utilities mostly owned by State Governments and Union Territories. Revenue on sale of electrical energy is recognised net of levies.

Income from sale of electricity for the FY 2011-12 is ₹ 7914 Crore which constituted 91% of the total income. The income from sale of electricity has increased by 32% over the previous year's income of ₹ 6012 Crore. The net increase of ₹ 140 Crore, which is accounted for during the current year pertaining to year 2010-11, is on account of implementation of revised tariff notified by the DAE effective from 1st July 2010 for all atomic power stations except TAPS unit 1&2. Apart from this, the increase in sale of electricity is on account of increase in level of operations. Electricity generation, as per the billing cycle, in 2011-12 has been 32451 MUs as against 26469 MUs in 2010-11 showing an increase of 23%.

It is noteworthy that the year under report recorded the highest electricity generation since the formation of the Company.

Other Income

The Company's other income in the FY 2011-12 is ₹ 795 Crore as compared to ₹ 874 Crore in the FY 2010-11 indicating a decrease of 9%. The decrease in other income is on account of payment of term loans and bonds on its maturity. This has resulted in the decrease of the investments of temporary surplus and consequent interest income.

Total Expenditure

Total expenditure of the Company consisting of Operating & Maintenance Expenditure, Interest and Depreciation is ₹ 6314 Crore for the FY 2011-12 as against ₹ 5199 Crore in the previous year thereby registering an increase of 21%.

Expenditure related to Operations

The expenditure incurred on fuel & heavy water, operation & maintenance, employee benefits and administration & other expenses for the FY 2011-12 was ₹ 4681 Crore, which is around 28% more than the expenditure of ₹ 3670 Crore incurred during the previous year. The fuel charges and heavy water charges were ₹ 1848 Crore and ₹ 1031 Crore as against ₹ 1670 Crore and ₹ 621 Crore for the previous year. This increase in fuel charges was mainly on account of increase in level of operations. The increase



MANAGEMENT DISCUSSION AND ANALYSIS

In spite of the factors affecting operational revenue, the Company has earned a Profit After Tax of ₹ 1906 Crore during FY 2011-12 as compared to ₹ 1376 Crore in FY 2010-11 registering an increase of 39%.

in heavy water charges was on account of revision of pool price of heavy water for the period starting from 1st April 2003 by the Heavy Water Board. The amount of ₹ 330 Crore has been accounted for during the year under report on account of such revision for the period from 1st April 2003 to 31st March 2011. The operation & maintenance expense was ₹ 614 Crore as against ₹ 390 Crore for the previous year. The employee benefits expense was ₹ 916 Crore as against ₹ 763 Crore for the previous year showing an increase of 20 percent. The administration & other expense was ₹ 272 Crore as against ₹ 226 Crore for the previous year recorded also an increase of 20 percent. The increase in operation & maintenance and administration & other expense are mainly on account of increase in level of operations. However, the increase in employee benefits expense was due to annual increment and higher dearness allowance.

Interest Charges

Interest charges (excluding Interest during construction period) consist of interest amount on long term borrowings. Interest charges stood at ₹ 672 Crore for the FY 2011-12 as compared to ₹ 661 Crore in the previous year.

Depreciation

As per the accounting policy of the Company, depreciation is provided on straight line method on the capitalised cost at the rates specified in Schedule XIV of the Companies Act, 1956 except for computers and peripherals where depreciation is charged @ 19% and for software where depreciation is charged @ 20%. Cost of computers and peripherals are depreciated on straight line method over a period of 5 years to the extent of 95% and software to the extent of cent percent. The depreciation charges were ₹ 961 Crore in FY 2011-12 as compared to ₹ 868 Crore in the previous year.

Profit before Tax, Provisions and Prior Period Adjustments

The profit of the Company before tax provisions and prior period adjustments for the FY 2011-12 was ₹ 2395 Crore as compared to ₹ 1687 Crore in the previous year.

Prior Period Adjustments

Prior period items are incomes or expenses which arise in the current period as a result of 'errors' or 'omissions' in the financial statements prepared in earlier years. Effects of changes in estimates are not treated as omission or error. For the FY 2011-12, prior period adjustments amount to ₹13 Crore.

Provision for Taxation

An amount of ₹ 476 Crore has been provided towards current Income tax under Minimum Alternate Tax provisions and deferred tax.

Profit after Tax

In spite of the factors affecting operational revenue, the Company has earned a Profit After Tax of ₹ 1906 Crore during FY 2011-12 as compared to ₹ 1376 Crore in FY 2010-11 registering an increase of 39%. The increase in profit was due to higher capacity utilisation resulting in increased generation of electricity.

Financial condition

(Balance Sheet Analysis)

Net worth

The net worth of the Company at the end of FY 2011-12 increased to ₹ 23434 Crore from ₹ 22162 Crore in the previous year, thereby registering an increase of 6% mainly due to increase in retained earnings. Correspondingly, the Book Value per share also increased to ₹ 2306 from ₹ 2185.

Loan Funds

The loans including the current maturities payable within a period of 12 months from the Balance Sheet date as on 31st March 2012 is ₹ 15467 Crore in comparison to ₹ 17360 Crore as on 31st March 2011, indicating a decrease of 11%. Summary of the loans outstanding is given below:

Details	(₹ in Crore)	
	As on 31st March 2012	As on 31st March 2011
Secured Loans		
Bonds	2799	2854
Term Loans from Banks	6186	9186
SUB-TOTAL	8985	12040

Details	₹ in Crore	
	As on 31st March 2012	As on 31st March 2011
Unsecured Loans		
Loans from Government of India	5580	5320
External Commercial Borrowings	902	---
Sub-Total	6482	5320
TOTAL	15467	17360

During the year, the Company raised ₹ 878 Crore through External Commercial Borrowings (ECB). The ECB represents mobilisation of debt to meet the requirement of capital expenditure for the procurement of capital equipment for various sites. The ECB was arranged from State Bank of India, Singapore Branch at an applicable rate of interest of LIBOR + Margin (predetermined spread of 2.35%). The total amount of ECB sanctioned was 250 Million US \$, out of which 175 Million US \$ has been withdrawn in two trench. The final balance of ECB as on 31st March 2012 was ₹ 902 Crore including the exchange rate variation.

The Company has redeemed Bonds amounting to ₹ 55 Crore during the year. The Company has also repaid term loan of ₹ 3000 Crore during the year taken from the various banks, as per the terms of the said loan.

During the year 2011-12, the Company has repaid ₹ 461 Crore to the Department of Atomic Energy, Government of India, as per the Inter Governmental Agreement towards the loan (Russian Credit) availed from the former. The final balance of Unsecured Loan on account of Russian Credit as on 31st March 2012 was ₹ 5580 Crore including the exchange rate variation.

DAE loan (Russian Credit) represents funds provided by DAE to deposit with Controller of Aid Accounts & Audit (CAA&A) for repayment of credit extended by Government of Russian Federation to Government of India, after repayment in terms of various contracts entered into with M/s. Atomstroyexport to set up two units of 1000 MW each at Kudankulam, with an understanding that exchange fluctuation on repayment of the credit by Government of India shall be on account of the Corporation.

Fixed Assets

The Company's gross block increased from ₹ 21337 Crore as in FY 2010-11 to ₹ 21447 Crore in FY 2011-12 representing a marginal growth of 1%.

Investments

The investments consist mainly of power bonds and equity participation in joint venture, subsidiary companies and associate company. The equity participation in joint venture consists of investment in M/s. L&T Special Steels & Heavy Forgings Pvt. Ltd.

to produce special steels and ultra heavy forgings. The equity participation in subsidiary companies consists of investment in M/s. Anushakti Vidhyut Nigam Limited and M/s. NPCIL - IndianOil Nuclear Energy Corporation Limited to establish nuclear power stations to generate electricity with nuclear fuel. The equity participation in Associate Company consists of investment in Bharatiya Nabhikiya Vidyut Nigam Ltd., a Company under the same management. The Company has also invested in NPCIL Employees' Group Leave Encashment Scheme with Life Insurance Corporation of India, SBI Life Insurance Co. Ltd. and ICICI Prudential and NPCIL Employees' Gratuity Schemes with LIC of India, SBI Life Insurance Company Limited and ICICI Prudential Life Insurance Company Limited.

During the year, the Company has not made any non-trade investments.

Total investments including the current maturity due within a period of 12 months from the Balance Sheet date stood at ₹ 2392 Crore as on 31st March 2012 as against ₹ 2290 Crore as on 31st March 2011.

Working Capital

Current Assets after netting off current liability i.e. net working capital stood at ₹ 5802 Crore as on 31st March 2012 as against ₹ 6356 Crore as on 31st March 2011.

Credit Rating

The Company's Bonds have been accredited with a 'AAA' rating indicating highest safety from both CRISIL and CARE since FY 2001-02 onwards.

Risk Management

Enterprise Risk Management Policy has been formed for identification of key risk areas and to formulate appropriate risk mitigation plans for taking corrective action in a time bound manner.

Internal Control System and their adequacy

The Company has adequate internal control system commensurate with the nature and size of business which meets the objectives of efficient use and safeguarding of resources, compliance with statutes, policies and procedures and maintaining accuracy of recording of transaction and reporting the same promptly. The scope of internal audit involves examination and evaluation of the adequacy and effectiveness of the system of internal accounting, system and procedures and other operational areas. Independent firms of Chartered Accountants who are appointed with the approval of the Audit Committee carry out the internal audit. The observations raised out of the audit are subject to periodic review and compliance monitoring by Audit Committee.

Financials at a Glance

The financial performance of NPCIL for the last 10 years along with the key financial ratios is summarised as "Financials at a Glance".



MANAGEMENT DISCUSSION AND ANALYSIS

Financials at a Glance*

	2011-12	2010-11	2009-10	2008-09
Particulars				
FOR THE YEAR				
Revenue and Other Income	8,709	6,886	4,479	3,782
Total Expenditure	4,681	3,670	2,629	2,190
Interest	672	661	441	489
Depreciation	961	868	721	706
Profit for the year	2,395	1,687	688	397
Profit before Tax	2,382	1,686	474	481
Profit after Tax	1,906	1,376	416	441
Dividend	572	413	150	132
AT THE END OF YEAR				
Gross Block	21,447	21,337	19,231	16,759
Net Block	12,791	13,658	12,427	10,718
Total Fixed Assets	30,388	28,562	28,539	28,078
Investments	1,994	1,994	2,413	2,733
Other Non Current Asset	2,316	1,461	-	-
Current Assets	8,929	12,802	9,333	6,908
Total Assets	43,627	44,819	38,448	36,663
Inventories	452	393	389	378
Sundry Debtors	2,235	1,144	503	507
Net Current Assets	5,802	6,355	7,084	5,669
Share Capital	10,174	10,145	10,145	10,145
Reserves	13,260	12,017	11,122	10,881
Net Worth	23,434	22,162	21,268	21,027
Capital Reserve and Other Fund	1,994	1,822	1,718	1,617
Long Term Borrowings	14,454	13,844	15,462	14,019
Other Non-Current Liabilities	618	544	-	-
Current Liabilities	3,127	6,447	2,249	1,238
Total Liabilities	43,627	44,819	38,448	36,663
Total No. of Shares (Weighted average)	101,601,496	101,453,327	101,453,327	101,453,327
Generation (MUs)	32,451	26,469	18,798	14,921
Capacity Factors (%)	79	71	61	50
KEY RATIOS*				
For the Year				
LIQUIDITY				
Current Ratio	2.86	1.99	4.15	5.58
Quick Ratio	2.71	1.92	3.98	5.27
SOLVENCY				
Debt to Equity	0.62	0.62	0.73	0.67
Debt to Asset	0.33	0.31	0.40	0.38
Interest Cover	2.60	3.05	2.63	1.99
PROFITABILITY				
Return on Sales	22%	20%	9%	12%
Return on Equity	8%	6%	2%	2%
Return on Assets	4%	3%	1%	1%
Gross Profit Margin	46%	47%	41%	42%
Net Profit Margin	35%	34%	25%	23%
EFFICIENCY				
Fixed Asset Turnover	29%	24%	16%	13%
Total Asset Turnover	20%	15%	12%	10%
Debtors Turnover Ratio	3.90	6.03	8.90	7.47
Average Collection Period (days)	94	61	41	49
Earnings per share (₹.)	188	136	44	44
Book Value per share (₹.)	2,306	2,185	2,096	2,073
Dividend per share (₹.)	56.28	40.70	14.79	13.05

*The Performance and Key ratio has been prepared based on the new Revised Schedule VI reporting applicable from the Financial Year 2011-12. The previous year 2010-11 figures have been regrouped / rearranged in line with the requirement of new schedule to match with the figures of current financial year.

	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03
	4,266	4,654	4,186	3,967	5,501	4,840
	1,874	1,915	1,793	1,563	1,649	2,390
	455	343	235	279	342	355
	734	664	361	283	457	472
	1,203	1,733	1,797	1,843	3,054	1,622
	1,205	1,726	1,776	1,838	2,970	1,614
	1,079	1,571	1,713	1,705	2,604	1,509
	324	471	514	342	521	269
	16,595	15,060	12,662	9,197	8,945	8,473
	11,221	10,454	8,739	5,673	5,727	5,815
	25,067	24,229	21,875	18,410	14,797	11,884
	2,993	2,936	3,094	3,023	2,647	15
	-	-	-	-	-	-
	7,153	7,389	4,405	5,804	7,189	7,165
	34,269	33,196	28,105	25,960	23,270	17,985
	361	356	268	216	229	216
	429	585	373	496	880	3,203
	6,110	6,031	3,136	4,528	5,825	6,086
	10,145	10,145	10,145	10,145	9,245	8,032
	10,595	9,895	8,867	7,743	6,426	4,410
	20,740	20,040	19,012	17,889	15,672	12,442
	1,446	1,396	1,313	1,224	1,313	1,305
	12,083	11,761	7,780	6,848	6,286	4,238
	-	-	-	-	-	-
	1,043	1,358	1,269	1,276	1,363	1,079
	34,269	33,196	28,105	25,960	23,270	17,985
	101,453,327	101,453,327	101,453,327	101,453,327	89,321,727	76,971,727
	16,964	18,785	17,354	16,709	17,785	19,242
	54	63	74	76	81	90
	6.86	5.44	3.47	4.55	5.27	6.64
	6.51	5.18	3.26	4.38	5.10	6.44
	0.58	0.59	0.41	0.38	0.40	0.34
	0.35	0.35	0.28	0.26	0.27	0.24
	3.61	5.08	5.78	5.81	9.62	6.49
	25%	34%	41%	43%	47%	31%
	5%	8%	9%	10%	17%	12%
	3%	5%	6%	7%	11%	8%
	56%	59%	57%	61%	70%	51%
	39%	45%	49%	53%	62%	41%
	17%	19%	19%	22%	37%	41%
	12%	14%	15%	15%	24%	27%
	9.94	7.95	11.23	7.99	6.25	1.51
	37	46	32	46	58	242
	106	155	169	180	315	227
	2,044	1,975	1,874	1,763	1,755	1,616
	31.89	46.45	50.70	36.00	63.00	40.50



Annexure 'C' to the Directors' Report

CORPORATE GOVERNANCE



Rajasthan Atomic Power Station - 5 & 6

1. Company's Philosophy on Corporate Governance:

The NPCIL's business philosophy appreciates the need of upholding the highest standard of corporate governance in its operations. The management of the Company believes that strong and sound corporate governance is an important instrument of protection of stakeholders and good corporate governance practices would enable it to face the challenges of growth effectively and successfully.

2. Board of Directors:

Composition of the Board

The Board comprises of six whole time directors, including Chairman & Managing Director and nine Non-Executive Directors as on 31st March 2012 out of which seven are Independent Directors.

All directors, including non-executive directors, are professionals and have wide experience in their respective fields. A brief resume of all the directors is given in this annual report elsewhere.

The Board functions either as a full board or through committees constituted by it. The Board of Directors and its committees meet at regular intervals. A table showing present composition of the Board and attendance of the members of the Board at board meetings held during the year is given below.

Year 2011-12

Five meetings of the Board of Directors were held during the year on 10.05.2011, 06.08.2011, 07.09.2011, 17.11.2011 and 08.02.2012. The maximum time gap between any two consecutive Board Meetings did not exceed three months. The attendance of directors was as follows:

Name of Board Member	Board meetings attended during the year	Attendance at last AGM (7th September 2011)	No. of other Directorships	No. of Committees on which Chairman/Member apart from NPCIL
CHAIRMAN & MANAGING DIRECTOR				
Dr. S.K. Jain	Five	Yes	(One) CMD, Bharatiya Nabhikiya Vidyut Nigam Ltd. (BHAVINI)	Nil
EXECUTIVE NON-INDEPENDENT DIRECTORS (WHOLE TIME DIRECTORS)				
Shri S.A. Bhardwaj	Four	Yes	(One) Chairman, Anushakti Vidhyut Nigam Ltd.	Nil
Shri Preman Dinaraj (appointed w.e.f. 10.01.2012)	One	Not Applicable	1. Chairman, NPCIL-NALCO Power Company Ltd. 2. Director, Anushakti Vidhyut Nigam Ltd. 1. Director, L&T Special Steels and Heavy Forgings Private Ltd.	(One) As Chairman of Audit Committee of L&T Special Steels and Heavy Forgings Private Ltd.
Shri J.K. Ghai (ceased to be Director w.e.f. 01.08.2011)	One	Not Applicable	(Two)	



CORPORATE GOVERNANCE

Name of Board Member	Board meetings attended during the year	Attendance at last AGM (7th September 2011)	No. of other Directorships	No. of Committees on which Chairman/Member apart from NPCIL
			1. Director, L&T Special Steels and Heavy Forgings Private Ltd. 2. Director, Anushakti Vidhyut Nigam Ltd.	(One) Chairman, Audit Committee of L&T Special Steels and Heavy Forgings Private Ltd.
Shri G. Nageswara Rao	Four	Yes	Nil	Nil
Shri K.C. Purohit	Five	Yes	Nil	Nil
Shri S.B. Agarkar	Five	Yes	Nil	Nil
NON-EXECUTIVE NON-INDEPENDENT DIRECTORS (GOVERNMENT DIRECTORS)				
Shri A.P. Joshi	Four	Yes	(One) Director, BHAVINI	Nil
Shri V.R. Sadasivam	Four	Yes	(Four) Director of: 1. BHAVINI 2. Electronics Corporation of India Ltd. (ECIL) 3. Indian Rare Earths Ltd. (IREL) 4. Uranium Corporation of India Ltd. (UCIL)	(Four) As Member, Audit Committee
NON-EXECUTIVE INDEPENDENT DIRECTORS				
Dr. R.K. Sinha	Four	Not Attended	(One) Director, BHAVINI	(One) As Member, Audit Committee of BHAVINI
Shri Rakesh Nath (appointed w.e.f. 26.04.2011)	Five	Yes	Nil	Nil
Dr. Nalini Bhat	Four	Not Attended	Nil	Nil
Shri V.M. Kaul (ceased to be Director w.e.f. 31.03.2012)	Two	Yes	(Two) 1. Director, Power Grid Corporation of India Ltd. (PGCIL) 2. Director, Powerlinks Transmission Ltd.	(Three) As Member of Audit Committee of 1. PGCIL 2. Powerlinks Transmission Ltd. and 3. Member of Shareholders' Grievance Committee of PGCIL
Dr. Arbind Prasad (appointed w.e.f. 17.06. 2011)	Four	Yes	(One) Director, BHAVINI	Nil
Shri Hemant Contractor (appointed w.e.f. 26.09.2011)	Two	Not Applicable	Nil	Nil
Shri A.S. Bakshi (w.e.f. 29.02.2012)	Not Applicable	Not Applicable	(One) Director, NHPC Ltd.	Nil

Name of Board Member	Board meetings attended during the year	Attendance at last AGM (7th September 2011)	No. of other Directorships	No. of Committees on which Chairman/Member apart from NPCIL
Shri T.S. Bhattacharya (ceased to be Director w.e.f. 07.05.2011)	Nil	Not Applicable	(Nine) 1. IDFC Securities Ltd. 2. Speciality Restaurant Ltd. 3. Sayaji Hotels Ltd. 4. Amartex Ltd. 5. Surya Roshani Ltd. 6. Bhutan National Bank 7. AGS Transact Technologies Ltd. 8. Jindal Stainless Ltd. 9. Abhijeet Power Ltd.	(Two) As Chairman of Audit Committee 1. Jindal Stainless Ltd. 2. Abhijeet Power Ltd. (One) As Member of Audit Committee 1. IDFC Securities Ltd.

Notes:

- For the purpose of reckoning chairmanship / membership of the Committees, only Audit Committee and the Shareholders' Grievance Committee have been considered.
- None of the above non-executive directors has any material pecuniary relationship or transactions with the Company, its management, which in the judgment of the board may affect independence of judgment of the director.
- None of the Directors are related to each other.
- All the Directors have made necessary disclosures about their Committee positions they occupy in other companies.

Shri Umesh Chandra, Sr. Executive Director (Safety, Knowledge Management) is Permanent Invitee to the meetings of Board of Directors.

The following changes were taken place in the composition of Board of Directors after 31st March 2012.

- Dr. S.K. Jain superannuated on 31st May 2012 as Chairman and Managing Director, NPCIL.
- Shri S.A. Bhardwaj, Director (Technical), NPCIL was acting Chairman and Managing Director for a brief period from 1st June 2012 to 25th June 2012.
- Shri K.C. Purohit, Director (Projects), NPCIL assumed charge as Chairman and Managing Director w.e.f. 25th June 2012.
- Dr. Ratan Kumar Sinha, who has been appointed as Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy, has relinquished charge of the post of Director, BARC w.e.f. 19th June 2012 and consequently ceased to be Director of NPCIL.

- Shri V.M. Kaul, Director (Personnel), Power Grid Corporation of India Ltd., who had been appointed as a part-time Director on the Board w.e.f. 15th July 2010 ceased to be Director w.e.f. 31st March 2012 consequent on his superannuation.
- Dr. Arbind Prasad, Senior Adviser (Power & Energy), Planning Commission, who had been appointed as a part-time Director on the Board w.e.f. 17th June 2011, ceased to be Director as he relinquished the charge of post of Senior Adviser, Planning Commission upon acceptance of his voluntary retirement, w.e.f. 9th April 2012.

The Company has a process to provide the information to the Board as required under Annexure IV of the Guidelines on Corporate Governance for Central Public Sector Enterprises (CPSEs), 2010 ('Guidelines') issued by the Department of Public Enterprises (DPE) which was followed.

Compliance of all laws, rules and regulations is ongoing process. The steps would be taken to review the same periodically.

CORPORATE GOVERNANCE

Code of Conduct

The Board of Directors has laid down Code of Conduct for the Board members and senior management personnel of the Company. A copy of the Code is available on the website of the Company.

All the members of the Board and Senior Management Personnel have affirmed compliance of respective Code of Conduct during the financial year ended on 31st March 2012.

The following are the sub-committees of the Board:

1. Board Sub-Committee on Contracts & Purchases.
2. Board Sub-Committee on Resource Mobilisation.
3. Audit Committee.
4. Bonds Allotment / Transfer Committee.
5. Shares Allotment / Transfer Committee.
6. Investors' Grievance Redressal Committee.

3. Audit Committee:

Composition

As on 31st March 2012, the Audit Committee consisted of three members, out of which two are Non-Executive Independent Directors. The members of Audit Committee are experienced and have fair knowledge of project finance, accounts and corporate laws. The Director (Finance) and Executive Director (Finance) are the Permanent Invitees at the meetings and the Statutory Auditors attend as Special Invitees. The Internal Auditors are also invited, on rotation basis (unit-wise), at Audit Committee meetings for participation in discussions.

Number of meetings held and the dates on which they were held

Four meetings of the Audit Committee were held during the year 2011-12. The meetings were held on 10.05.2011, 23.07.2011, 05.11.2011 and 02.03.2012. The maximum time gap between any two audit committee meetings did not exceed four months. The composition of the Audit Committee is given below:

Name of the Member	Category	Number of meetings attended
Shri Rakesh Nath, Member (Tech.), Appellate Tribunal for Central Electricity Authority.	Chairman	Four
Shri V.M. Kaul, Director (Personnel), PGCIL	Member	Four
Shri V.R. Sadasivam, Jt. Secretary (Finance), DAE	Member	Three

The following are the Permanent Invitees to the meetings of the Audit Committee:

1. Shri Preman Dinaraj, Director (Finance), NPCIL
2. Shri V. Nagabushana Rao, ED(Finance), NPCIL

Role of Audit Committee

The terms of reference of the Committee are spelt out in Section 292A of the Companies Act, 1956 and Guidelines on Corporate Governance for CPSEs 2010.

The role of the Audit Committee shall include the following:

1. Oversight of the Company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.
2. Recommending the fixation of audit fee of external auditors and also approval for payment for any other services.
3. Reviewing, with the management, the annual financial statements before submission to the Board for approval, with particular reference to:
 - a. Matters required to be included in the Directors' Responsibility Statement to be included in the Board's report in terms of clause (2AA) of section 217 of the Companies Act, 1956.
 - b. Changes, if any, in accounting policies and practices and reasons for the same.
 - c. Major accounting entries involving estimates based on the exercise of judgment by management.
 - d. Significant adjustments made in the financial statements arising out of audit findings.
 - e. Compliance with listing and other legal requirements relating to financial statements.
 - f. Disclosure of any related party transactions.
 - g. Qualifications in the draft audit report.
4. Reviewing, with the management, the financial statements before submission to the Board for approval.
5. Reviewing, with the management, performance of internal auditors, adequacy of the internal control systems.
6. Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit.
7. Discussion with internal auditors and / or statutory auditors any significant findings and any follow up thereon.
8. Reviewing the findings of any internal investigations by the internal auditors / auditors / agencies into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board.
9. Discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as

post-audit discussion to ascertain any area of concern.

10. Looking into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non payment of declared dividends) and creditors.
11. Reviewing the follow up action on the audit observations of the C&AG audit.
12. Reviewing the functioning of whistle blower mechanism.
13. To review the follow up action taken on the recommendations of Committee on Public Undertakings (COPU) of the Parliament.
14. Provide an open avenue of communication between the independent auditor, internal auditor and the Board of Directors.
15. Review all related party transactions in the Company. For this purpose, the Audit Committee may designate a member who shall be responsible for reviewing related party transactions.

Explanation: The term "related party transactions" shall have the same meaning as contained in the Accounting Standard 18, issued by the Institute of Chartered Accountants of India.

16. Review with the independent auditor the co-ordination of audit efforts to assure completeness of coverage, reduction of redundant efforts, and the effective use of all audit resources.
17. Consider and review the following with the independent auditor and the management:
 - The adequacy of internal controls including computerised information system controls and security, and
 - Related findings and recommendations of the independent auditor and internal auditor, together with the management responses.
18. Consider and review the following with the management, internal auditor and the independent auditor:
 - Significant findings during the year, including the status of previous audit recommendations,
 - Any difficulties encountered during audit work including any restrictions on the scope of activities or access to required information.

Explanation: If the Company has set up an Audit Committee pursuant to provision of the Companies Act, the said Audit Committee shall have such additional functions/features as contained in these guidelines.

19. Carrying out any other function as is mentioned in the terms of reference of the Audit Committee.

Powers of Audit Committee

- (i) To investigate any activity within its terms of reference.
- (ii) To seek information on and from any employee.
- (iii) To obtain outside legal or other professional advice, subject to the approval of the Board of Directors.
- (iv) To secure attendance of outsiders with relevant expertise, if it considers necessary.

- (v) To protect whistle blowers.

The Company Secretary acts as the Secretary of the Audit Committee.

4. Remuneration Committee:

The Company follows Government of India pattern of pay scales and Dearness Allowance for its employees. The perks available to the employees are broadly based on the pattern followed by the Government of India for its employees or as available to the employees of other PSEs of the Government of India. The same principle is applicable in case of remuneration and perquisites of whole time directors: Non-official part-time independent Directors are paid only sitting fees at the rate approved by the Government for attending the Board Meetings as well as Sub-Committee Meetings. Shri T.S. Bhattacharya, Director was the only eligible director for sitting fees during the year as aforesaid. Hence, no remuneration committee has been constituted. *However, the formation of Remuneration Committee under the guidelines on corporate governance will be reviewed.*

Details of remuneration paid to the Chairman & Managing Director and other Directors are given below:

(In ₹)		
Sl. No.	Name of Director	All elements of remuneration of the Directors i.e. Salary, Bonus, LTC, Employers' PF Contribution, Pension Contribution, wherever applicable, benefits, etc.
1.	Dr. S.K. Jain, CMD	2992786
2.	Shri S.A. Bhardwaj	3709778
3.	Shri Preman Dinaraj	340502
4.	Shri J.K. Ghai	2320137
5.	Shri G. Nageswara Rao	3445305
6.	Shri K.C. Purohit	3451479
7.	Shri S.B. Agarkar	3509738
TOTAL		19769725

5. Board Sub-Committee on Contracts & Purchases:

This Sub-Committee is entrusted with the responsibility of implementing the decisions of the Board relating to Contracts & Purchases for the Company. The Committee has financial powers upto a limit of ₹100 Crore. Further the Sub-Committee has powers upto a limit of ₹ 300 Crore to approve contract on Public / Limited tender basis and for single / nomination basis upto a limit of ₹100 Crore. The Committee meets from time to time depending upon the requirements of the business.



CORPORATE GOVERNANCE

Composition of the Committee

1.	Dr. S.K. Jain, CMD	Chairman
2.	Shri Preman Dinaraj, Director (Finance)	Member
3.	Shri S.A. Bhardwaj, Director (Technical)	Member
4.	Shri A.P. Joshi, Special Secretary, DAE	Member
5.	Shri V.R. Sadasivam, Joint Secretary (Finance), DAE	Member

Shri A. Sridharan, ED(C&MM) and Shri V. Nagabhushana Rao, ED(Finance) are permanent invitees to the Committee.

6. Board Sub-Committee on Resource Mobilisation:

This Sub-Committee considers the requirements of funds raising from the market for the Ongoing Projects of the Company as per the approval received from the Government of India and decides various modalities for the same. This Committee has also been assigned the additional responsibility of considering disposal of Bonds in the market received from the SEBs against the outstanding dues in accordance with the recommendations of the Ahluwalia Committee.

Composition

1.	Dr. S.K. Jain, CMD	Chairman
2.	Shri Preman Dinaraj, Director (Finance)	Member
3.	Shri A.P. Joshi, Special Secretary, DAE	Member
4.	Shri V.R. Sadasivam, Joint Secretary (Finance), DAE	Member

Shri V. Nagabhushana Rao, ED(Finance) is Permanent Invitee to the Committee.

7. Shares Allotment/Transfer Committee:

This Committee considers the allotment and transfer of Shares and issuance of share certificates and other matters incidental thereto.

Composition

1.	Dr. S.K. Jain, CMD, NPCIL	Chairman
2.	Shri Preman Dinaraj, Director (Finance), NPCIL	Member
3.	Shri A.P. Joshi, Special Secretary, DAE	Member
4.	Shri V.R. Sadasivam, Joint Secretary (Finance), DAE	Member

8. Bonds Allotment/Transfer Committee:

The Committee considers the allotment of Bonds to the applicants and subsequent transfers of holdings, issuance of bond certificates and other matters incidental thereto.

Composition

1.	Dr. S.K. Jain, CMD	Chairman
2.	Shri Preman Dinaraj, Director (Finance)	Member

9. Investors' Grievance Redressal Committee:

Composition

1.	Shri A.P. Joshi, Special Secretary, DAE	Chairman
2.	Shri V.M. Kaul, Director (Personnel), PGCIL	Member
3.	Preman Dinaraj, Director (Finance), NPCIL	Member

The Committee is vested with the following powers:

- To look into/monitor investors' complaints like transfer of bonds/debentures/securities, non-receipt of interest, redemption proceeds, etc.
- To investigate any activity within its terms of reference.
- To seek information from any employee.
- To obtain outside legal or other professional advice.
- To secure attendance of outsiders with relevant expertise, if it considers necessary.
- To advise on the matters relating to rendering of services to the Investors.

The Company Secretary acts as the Secretary to the Committee and also as compliance officer to liaise with the regulatory authorities.

One meeting of the Committee was held during the year on 29th March 2012. The following were present at the meeting:

- Shri V.M. Kaul
- Shri Preman Dinaraj

Name, address, telephone no. of Compliance Officer:

Shri Srikar R. Pai, Company Secretary,
16th Floor, Centre-1, World Trade Centre,
Cuffe Parade, Colaba, Mumbai-400 005.
Tel. No. (O) 022-22180281 (Fax) 022-22185464.

Details of the bondholders' grievances received during the year:

Queries received from the bondholders were replied to promptly. As on 31st March 2012, no complaints were pending.

10. Disclosures:

1. During the year, there were no transactions of material nature with the directors or their relatives or the management that had potential conflict with the interest of the Company.
2. A statement of related party transactions during the year as per AS18 is given in notes forming part of Annual Accounts of the Company for the year 2011-12. *As such, no statement was placed before the Audit Committee.*
3. There were no instances of non-compliance on any matter related to any guidelines issued by the Government during the last three years.
4. The Company has complied with the 'Corporate Governance Guidelines for CPSEs' issued by the Department of Public Enterprises as directed by the DAE and quarterly compliance reports have been regularly submitted to the DAE.
5. In NPCIL, risk management is a part of management system based on a Safety conscious approach. A policy on Risk Management has been approved by Board of Directors in its meeting held on 28th November 2009 and is being implemented in accordance with the Guidelines on Corporate Governance.
6. The Company being PSU, Central Vigilance Commission Guidelines are applicable, which provide adequate safeguard against victimisation of employees. No person has been denied access to the Audit Committee.
7. CEO / CFO Certificate was placed before the Board at its meeting held on 24th May 2012 and is being provided in the Annual Report.

11. Means of Communication:

1. Half yearly financial results of the Company for the half year ended on 30th September 2011 were published in all editions of The Economics Times (English) and Navbharat Times (Hindi), Mumbai edition and financial results for the year ended 31st March 2012 were published in all editions of The Economics Times (English) and The Navbharat Times (Hindi) Mumbai edition.
2. The Company's website (<http://www.npcil.nic.in>) provides a variety of information on the Company like profile, organisation, plant performance statistics,

financial performance, FAQ, reference articles, etc. The hit-rate of the web site is significant.

3. The Company participates in important exhibitions as an exercise towards public awareness on nuclear power and informative booklets/pamphlets are distributed to the visitors.
4. Matters of interest to employees are circulated internally in the form of Notices, Office Orders and Instructions.
5. Management's Discussion & Analysis forms part of the annual report.

12. General Shareholders Information:

The total share holding of the Company is by the Government of India through its nominees.

General Body Meetings

The last three Annual General Meetings were held as under:

Financial year	Date & Time	Venue
2010-11	7th September 2011 2.30 p.m.	Registered Office, 16th Floor, Centre-1, World Trade Centre, Cuffe Parade, Colaba Mumbai-400 005.
2009-10	27th August 2010 2.30 p.m.	same as above
2008-09	12th August 2009 2.00 p.m.	same as above

Special resolutions were passed in the Annual General Meeting held on 22nd August 2008 for alteration of the Articles of Association.

Postal Ballot

At the ensuing Annual General Meeting, there is no resolution proposed to be passed by Postal Ballot. However, the Company will extend the facility of voting by postal ballot, as and when decisions of shareholders/investors will be sought (on matters of critical nature and notified by the Government of India).

Annual General Meeting

25th Annual General Meeting for the financial year 2011-12 will be held on 13th August 2012 at Registered Office of the Company in Mumbai.



CORPORATE GOVERNANCE

Market Price Data

The shares of the Company are not listed on any Stock Exchange. However, bonds issued by the Company are listed with the National Stock Exchange of India since December 1996. The Bonds are traded on the Wholesale Debt Market Segment of the NSE. Trading of the bonds does occasionally take place, however, market value of the bonds does not fluctuate much; therefore, information relating to market price movements of bonds, being of no significance, is not given.

Financial Calendar

From April 2012 to March 2013

Key Financial reporting dates for the financial year:

- Financial Results for the half year ending 30th September 2012 will be published on or before 14th November 2012;
- Financial Results for the year ending 31st March 2013 will be published on or before 30th May 2013.

The Financial Results will be simultaneously hosted on the website (www.npcil.nic.in) of the Company.

Since 100% shares are owned by the Government of India, information regarding date of payment of Dividend and book closure is not given here.

Distribution of Bonds Holding

The bonds are issued by private placement. The bonds are mostly held by the Banks, Financial Institutions and Employees Gratuity / Provident / Death Relief Funds of various organisations.

Dematerialisation

The Company has entered into agreements with The National Securities Depository Ltd. (NSDL) and Central Depository Services Ltd. (CDSL) for dematerialisation facility. All bonds issued so far are admitted to depository systems of the NSDL and CDSL.

Registrars and Transfer Agent appointed for servicing of the Bonds issued by the Company

TSR Darashaw Limited,
6-10, Haji Moosa Patravala Industrial Estate,
20, Dr. E. Moses Road, Mahalaxmi,
Mumbai - 400 011.
Telephone No.022-66568484, Fax 022-66568494
Email: csg-unit@tsrdarashaw.com

Subsidiary Companies

As on date, the Company has three subsidiary companies viz.

1. Anushakti Vidhyut Nigam Limited (incorporated on 27th January 2011)
2. NPCIL - IndianOil Nuclear Energy Corporation Limited (incorporated on 6th April 2011)
3. NPCIL-NALCO Power Company Ltd. (incorporated on 2nd March 2012)

None of the above subsidiaries are covered within the criteria laid down in the Guidelines.

Plant Locations:

The details of the plant locations of the Company are available elsewhere in the report.

Address for Correspondence

1. **Registered Office:**
16th Floor, Centre-1, World Trade Centre,
Cuffe Parade, Colaba, Mumbai - 400 005.
2. **Corporate Office:**
Nabhikiya Urja Bhavan, Anushaktinagar,
Mumbai - 400 094.

Based on the affirmation received from Board Members and Senior Management Personnel, declaration regarding compliance of Code of Conduct made by Chairman & Managing Director is given below:

All the members of the Board and Senior Management Personnel have affirmed compliance of respective Code of Conduct for the Financial Year ended on 31st March 2012.

(K.C. PUROHIT)

Chairman & Managing Director

ANNEXURE – D TO DIRECTORS' REPORT

Certificate of the practising company secretary on corporate governance

To

The Members of

Nuclear Power Corporation of India Limited
World Trade Centre
Mumbai – 400 005.

We have examined the compliance of the conditions of corporate governance by Nuclear Power Corporation of India Limited, for the year ended on 31st March 2012, as stipulated in the guidelines on Corporate Governance for Central Public Sector Enterprises, 2010, which were forwarded by the Department of Atomic Energy (DAE), the Administrative Ministry of NPCIL, for compliance with the instructions contained therein.

The Corporate Governance requirements specified in the said guidelines on Corporate Governance for Central Public Sector Enterprises are mandatory. The compliance of the conditions of Corporate Governance is the responsibility of the management. Our examination was limited to a review of the procedures and implementation thereof, adopted by the Company for ensuring the compliance with the conditions of the Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanation given to us and the representations made by the management, we certify that the Company has, subject to the statements made in the report in italics, generally complied with the conditions of Corporate Governance to the extent possible as stipulated in the said guidelines on Corporate Governance for Central Public Sector Enterprises, 2010.

We further state that such compliance is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For PARIKH & ASSOCIATES
Practising Company Secretaries

P. N. PARIKH
FCS: 327 CP: 1228

Place : Mumbai

Date : 30th July 2012



ANNEXURE E

Statement pursuant to section - 212 of The Companies Act, 1956 relating to subsidiary companies

(₹ in Lacs)

Particulars	Financial Year	Previous Year
	2011-12	2010-11
1. NAME OF THE SUBSIDIARY - ANUSHAKTI VIDHYUT NIGAM LIMITED		
1 Extent of the Holding Company Interest in the subsidiary at the end of year	51 percent	Not Applicable
2 The net aggregate amount of subsidiary's losses, so far as it concerns members of the holding company and is not dealt with in the holding company's account:-		
i) for the financial year	3.31	Not Applicable
ii) for the previous financial years since it became the holding company's subsidiary	-	Not Applicable
3 The net aggregate amount of subsidiary's losses, so far as those are dealt with in the holding company's account:		
i) for the financial year	-	Not Applicable
ii) for the previous financial years since it became the holding company's subsidiary	-	Not Applicable
2. NAME OF THE SUBSIDIARY - NPCIL-INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED		
1 Extent of the Holding Company Interest in the subsidiary at the end of year	74 percent	Not Applicable
2 The net aggregate amount of subsidiary's losses, so far as it concerns members of the holding company and is not dealt with in the holding company's account:		
i) for the financial year	8.81	Not Applicable
ii) for the previous financial years since it became the holding company's subsidiary	-	Not Applicable
3. The net aggregate amount of subsidiary's losses, so far as those are dealt with in the holding company's account:		
i) for the financial year	-	Not Applicable
ii) for the previous financial years since it became the holding company's subsidiary	-	Not Applicable

For and on behalf of

NUCLEAR POWER CORPORATION OF INDIA LTD.

Place : Mumbai

(SRIKAR R. PAI)

(PREMAN DINARAJ)

(K.C. PUROHIT)

Date : 13th August 2012

Company Secretary

Director (Finance)

Chairman and Managing Director

CEO/CFO CERTIFICATION

It is certified that:

- (a) We have reviewed Financial Statements and the Cash Flow Statement for the year ended 31st March 2012 and that to the best of our knowledge and belief:
 - (i) these statements do not contain any materially untrue statement or omit any material fact or statements that might be misleading;
 - (ii) these statements together present a true and fair view of the Company's affairs and are in compliance with existing Accounting Standards, applicable Laws and Regulations.
- (b) There are to the best of our knowledge and belief, no transactions entered into by the Company during the year which are fraudulent, illegal or violative of the Company's code of conduct.
- (c) We accept responsibility for establishing and maintaining internal controls and that we have evaluated the effectiveness of the internal control system of the Company and we have disclosed to the auditors and the Audit Committee, deficiencies in the design or operation of internal controls, if any, of which we are aware and the steps we have taken or propose to take to rectify these deficiencies.
- (d) We have indicated to the auditors and the Audit Committee
 - (i) significant changes in internal control during the year;
 - (ii) significant changes in accounting policies during the year and that the same have been disclosed in the notes to the financial statements; and
 - (iii) instances of significant deviations in the Company's internal control system.

For and on behalf of

NUCLEAR POWER CORPORATION OF INDIA LTD.

Place : Mumbai

Date : 24th May 2012

(PREMAN DINARAJ) (S.K. JAIN)

Director (Finance)

Chairman & Managing Director



AUDITORS' REPORT

To the Members of

NUCLEAR POWER CORPORATION OF INDIA LIMITED

1. We have audited the attached Balance Sheet of **Nuclear Power Corporation of India Limited** (herein after referred to as "Corporation") as at 31st March 2012, the Statement of Profit & Loss and also the Cash Flow Statement of the corporation for the year ended on that date annexed thereto, in which, are incorporated the accounts of Power Stations, Projects and offices audited by us and also by the Branch Auditors specifically appointed by the Comptroller & Auditor General of India and whose reports have been considered in preparation of this report. These financial statements are the responsibility of the Corporation's Management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. Except in the matter stated in paragraph 6(a) below, we conducted our audit in accordance with Auditing Standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the Management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. The Corporation is also governed by The Atomic Energy Act, 1962, the provisions of said Act have prevailed wherever they have been inconsistent with the provisions of the Companies Act, 1956 ('the Act').
4. As required by the Companies (Auditor's Report) order, 2003 (as amended by Notification No. GSR 766(E) dated 25.11.2004) issued by the Government of India (hereinafter referred to as 'Order') in terms of Sub-Section (4A) of Section 227 of the Act and on the basis of such checks as we considered appropriate and according to information and explanations given to us, we enclose in the **Annexure**, a statement on the matters specified in paragraph 4 and 5 of the said order.
5. Further to our comments in **Annexure** referred to in paragraph 4 above, we report that:
 - a) As mentioned in Note No. 43 (a) & (b), the information as required by Para 5 (viii) of General Instructions under Part II of Revised Schedule VI under the Act has not been disclosed being confidential in nature.
 - b) i) In view of technical reasons, we have relied on the Management's representation/Technical Staff certification affirming future economic benefit, serviceable and good condition in respect of Capital goods & Stores, Construction surplus and Non-Moving/Slow Moving Stores & Spares.
ii) We have also relied on Management's assessment on technical grounds that during the period of agitation by local villagers from 13th October 2011 to 19th March 2012 at Kudankulam Nuclear Power Project (KKNPP), as mentioned in Note No. 47, the active development of project work was continued, albeit at a slow pace and substantial technical and administrative work was also continued. Accordingly, cost incurred during the said period has been treated as cost of project by the Corporation.
6. Further to above, we report that:
 - a) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit. However, in relation to quantitative usage of fuel and heavy water, which as explained to us being sensitive and confidential in nature, are not made available to us for verification, due to secrecy attached as per the Atomic Energy Act, 1962. We have relied upon the reconciled expenditure statement, in relation to usage of Fuel/Heavy Water during 2011-12, as confirmed/certified by the duly appointed committee consisting of members from Corporation, Nuclear Fuel complex (NFC) and Department of Atomic Energy (DAE).
 - b) In our opinion, proper books of accounts as required by the law have been kept by the Corporation so far as appears from our examination of such books and proper returns adequate for the purpose of our audit have been received from power stations and projects not visited by us. The Branch Auditor's reports have been forwarded to us and have been appropriately dealt with while framing this report.
 - c) The Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement dealt with by this report are in agreement with the books of accounts and the audited returns received from the power stations and projects.
 - d) In our opinion, the Balance Sheet, Statement of Profit and Loss and Cash Flow Statement dealt with by this report comply with the Accounting Standards as referred to in sub-section (3C) of Section 211 of the Act.
 - e) Being a Government company, pursuant to Notification No. G.S.R. 829 (E) dated 21.10.2003 issued by the Department of Company Affairs, Government of India, provisions of clause (g) of sub section (1) of Section 274 of the Act are not applicable to the corporation.
 - f) Subject to matters contained in paragraph 5 and 6(a) above, in our opinion and to the best of information and according to explanations given to us, the said accounts read together with Significant Accounting Policies and Notes on Accounts (attached as I & II to the financial statements), give the information as required by the Act, in the manner so required and give a true and fair view in conformity with accounting principles generally accepted in India:
 - i) in the case of Balance Sheet, of the state of affairs of the Corporation as at 31st March 2012;
 - ii) in the case of Statement of Profit and Loss, of the Profit of the Corporation for the year ended on that date; and
 - iii) in the case of Cash Flow Statement, of the Cash Flows of the Corporation for the year ended on that date.

For KALANI & COMPANY
Chartered Accountants
FRN-000722C

(VIKAS GUPTA)
Partner
M.No.: 077076

Place: Mumbai
Dated: 1st June 2012

ANNEXURE TO THE AUDITORS' REPORT

Statement referred to in paragraph (4) of our report of even date on the Accounts of the Corporation for the year ended 31st March 2012

- (i) (a) The Corporation has generally maintained proper records showing full particulars including quantitative details and situation of fixed assets.
- (i) (b) Although all the fixed assets have not been physically verified by the management during the year, however there is a regular program of verification which, in our opinion, is reasonable having regard to the size of the Corporation and nature of its assets. As informed to us no material discrepancies have been reported on such physical verification.
- (i) (c) During the year, the Corporation has not disposed off substantial part of its fixed assets, hence the going concern status of the corporation is not affected.
- (ii) (a) The inventory has been physically verified by the management at reasonable intervals. Necessary certificates have been obtained by the corporation in respect of material lying with the third parties.
- (ii) (b) The procedures for physical verification of inventories followed by the management are reasonable and adequate in relation to the size of the Corporation and the nature of its business.
- (ii) (c) The Corporation is maintaining proper records of inventory. No material discrepancies were reported to be noticed on verification between physical stocks and book records at various units of the Corporation.
- (iii) The Corporation has not granted or taken any loans secured or unsecured to/from companies, firms or other parties covered in the register maintained u/s 301 of the Act. Accordingly provisions of clause 4(iii) (a) to (g) of the Order are not applicable to the Corporation.
- (iv) In our opinion and according to the information and explanations given, there are adequate internal control systems commensurate with the size of the Corporation and nature of its business for the purchase of inventories, fixed assets, equipment and other assets and with regard to sale of electricity and rendering of services. Further on the basis of examination of books and records of the Corporation and according to the information and explanations given to us, neither we have observed nor reported by the branch auditors for any continuing failure to correct major weaknesses in the Internal controls systems.
- (v) (a) As informed by the management, there are no contracts and arrangements referred to in Section 301 of the Act, that needs to be entered into the register required to be maintained under the said Section 301.
- (v) (b) In view of the clause (v) (a) above, clause (v) (b) is not applicable.
- (vi) In our opinion and according to the information and explanations given to us, the Corporation has not accepted any deposits in terms of Section 58A and 58AA or any other relevant provisions of the Act. According to information and explanations given to us, no order has been passed by the Company Law Board or The National Company Law Tribunal or Reserve Bank of India or any Court or any other Tribunal.
- (vii) In our opinion, the Corporation has an Internal Audit system commensurate with its size and nature of its business.
- (viii) The Central Government has prescribed the maintenance of cost records by the Corporation under clause (d) of sub-section (1) of Section 209 of the Act and prima facie the prescribed accounts and records have been made and maintained by the units of the Corporation.
- (ix) (a) The Corporation is generally regular in depositing with appropriate authorities the undisputed Statutory dues including Provident Fund, Investor Education and Protection Fund, Income Tax, Sales tax, Customs duty, Wealth tax, Excise duty, Cess, Service Tax and other statutory dues applicable to it.
- Provident Fund dues in respect of employees on deputation from Department of Atomic Energy (DAE), Government of India (GOI) are credited to the DAE's account in the books of the Corporation and intimated to DAE. As informed, Provision of Employees State Insurance Act, 1948 are not applicable to the Corporation.
- According to the information and explanations given to us, no undisputed amounts payable in respect of aforesaid dues were in arrears as at 31st March 2012, for a period of more than six months from the date they became payable.



ANNEXURE TO THE AUDITORS' REPORT

(ix) (b) The disputed Statutory dues, as detailed below, have not been deposited on account of matters pending before appellate authorities :

Statute	Nature of Dues/ Matter of Dispute	Amount (₹ in Crore)	Forums where the dispute is pending
Income Tax Act, 1961	Additions to Returned Income by AO AY 2007-08	26.28	CIT (Appeals) Mumbai
Income Tax Act, 1961 (Withholding tax)	AY 2008-09	30.51	ITAT, Mumbai
	AY 2007-08	50.58	
	AY 2006-07	49.55	
	AY 2005-06	7.96	
	AY 2004-05	12.33	
TOTAL		150.93	
Water (Prevention and Control of Pollution) Cess Act, 1977	Water Cess payable to Maharashtra Pollution Control Board	20.79	Cess Appellate Committee of Maharashtra Pollution Control Board
Water (Prevention and Control of Pollution) Cess Act, 1977	Water Cess payable to Rajasthan State Pollution Control Board	5.68	Rajasthan High Court

- (x) The Corporation has neither accumulated losses as at 31st March 2012 nor has incurred any cash losses during the financial year covered under audit and in the immediately preceding financial year.
- (xi) In our opinion and according to the information and explanations given, the Corporation has not defaulted in repayment of dues to a financial institutions, banks or bond holders.
- (xii) According to the information and explanations given to us, the Corporation has not granted any loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
- (xiii) The Corporation is not a chit fund or a nidhi/mutual benefit/society. Therefore, the provisions of clause 4 (xiii) of the Order are not applicable to the Corporation.
- (xiv) According to the information and explanations given to us, the Corporation is not dealing in or trading in the shares, securities, debentures and other investments. Accordingly, the provisions of clause 4(xiv) of the Order are not applicable to the Corporation.
- (xv) According to the information and explanations given to us, the Corporation has not given any guarantee for loans taken by others, from Banks or Financial Institutions.
- (xvi) In our opinion the term loans have been generally applied for the purpose for which they were raised. However, External Commercial Borrowing (ECB) to the tune of ₹ 693.07 Crore remained unutilised at the end of the year.
- (xvii) According to the information and explanations given and based on overall examination of Balance Sheet of the Corporation, we report that funds raised on short-term basis have not been utilised for long-term investment.
- (xviii) According to the information and explanations given, the Corporation has not made any preferential allotment of shares during the year.
- (xix) Securities have been created by the Corporation in respect of bonds issued.
- (xx) The Corporation has not raised any money by way of public issue during the year.
- (xxi) According to the information and explanations given, no fraud on or by the Corporation has been noticed or reported during the year.

For KALANI & COMPANY
Chartered Accountants
FRN-000722C

(VIKAS GUPTA)
Partner
M.No. 077076

Place: Mumbai
Dated: 1st June 2012

COMMENTS OF THE COMPTROLLER and Auditor General of India

UNDER SECTION 619 (4) OF THE COMPANIES ACT, 1956 ON THE ACCOUNTS OF NUCLEAR POWER CORPORATION OF INDIA LIMITED FOR THE YEAR ENDED 31ST MARCH 2012.

The preparation of financial statements of **Nuclear Power Corporation of India Limited** for the year ended 31st March 2012 in accordance with the financial reporting framework prescribed under the Companies Act, 1956 is the responsibility of the management of the Company. The Statutory Auditors appointed by the Comptroller and Auditor General of India under Section 619 (2) of the Companies Act, 1956 are responsible for expressing opinion on these financial statements under Section 227 of the Companies Act, 1956 based on the independent audit in accordance with the Auditing and Assurance Standards prescribed by their professional body, the Institute of Chartered Accountants of India. This is stated to have been done by them vide their Audit Report dated **01.06.2012**.

I, on the behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit under Section 619 (3) (b) of the Companies Act, 1956 of the financial statements of

Nuclear Power Corporation of India Limited for the year ended 31st March 2012. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records.

Based on my supplementary audit, nothing significant has come to my knowledge which would give rise to any comment upon or supplement to Statutory Auditor's report under Section 619(4) of the Companies Act, 1956.

For and on the behalf of the Comptroller
and Auditor General of India

(JOHN K. SELLATE)

Place : New Delhi

Date : 05.07.2012

Pr. Director of Commercial Audit &
Ex-Officio Member, Audit Board-IV



BALANCE SHEET

as at 31st March 2012

(₹ in Lacs)

Particulars	Note No.	As at	
		31st March 2012	31st March 2011
I. EQUITY & LIABILITIES			
1. Shareholder's Funds			
a) Share Capital	1	1017433.27	1014533.27
b) Reserves and Surplus	2	1525373.29	1383926.37
		2,542,806.56	2,398,459.64
2. Non Current Liabilities			
a) Long Term Borrowings	3	1445388.87	1384416.86
b) Deferred Tax Liability (Net)	4	1571.31	0.00
c) Other Long Term Liabilities	5	1329.21	2314.91
d) Long Term Provisions	6	58928.31	52036.06
		1507217.70	1438767.83
3. Current Liabilities			
a) Short Term Borrowings	7	0.00	142000.00
b) Trade Payables	8	37514.14	17472.56
c) Other Current Liabilities	9	236018.83	450417.03
d) Short Term Provisions	10	39127.43	34759.23
		312660.40	644648.82
TOTAL		4362684.66	4481876.29
II. ASSETS			
1. Non Current Assets			
a) Fixed Assets			
i) Tangible Assets	11	1278606.24	1365419.58
ii) Intangible Assets	11	476.45	371.86
iii) Capital Work In Progress	12	1759609.22	1490319.54
iv) Intangible Assets under development		63.55	63.55
		3038755.46	2856174.53
b) Non Current Investments	13	199385.67	199419.07
c) Long Term Loans and Advances	14	180903.56	103524.22
d) Other Non Current Assets	15	50735.80	42539.25
		3469780.49	3201657.07
2. Current Assets			
a) Current Investments	16	39781.05	29541.83
b) Inventories	17	45222.28	39262.41
c) Trade Receivables	18	223524.45	114443.71
d) Cash & Cash Equivalents	19	516055.01	1006958.44
e) Short Term Loans and Advances	20	10795.01	21599.84
f) Other Current Assets	21	57526.37	68412.99
		892904.17	1280219.22
TOTAL		4362684.66	4481876.29

The Significant Accounting Policies (I) and Notes (II) are integral part of these Financial Statements.

In terms of our Audit Report of even date attached

For KALANI & COMPANY
Chartered Accountants
FRN. 000722C

For and on behalf of

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(VIKAS GUPTA)
Partner
M. No. 077076

(SRIKAR R. PAI)
Company Secretary

(PREMAN DINARAJ)
Director (Finance)

(S.K. JAIN)
Chairman and Managing Director

Place : Mumbai
Date : 1st June 2012

Place : Mumbai
Date : 24th May 2012

STATEMENT OF PROFIT AND LOSS

for the year ended 31st March 2012

(₹ in Lacs)

Particulars	Note No.	For the year ended 31st March 2012	For the year ended 31st March 2011
I INCOME / REVENUE			
Revenue from operations	22	791380.72	601253.16
Other income	23	79509.89	87392.69
TOTAL REVENUE		870890.61	688645.85
II EXPENSES			
Fuel & Heavy Water	24	287885.50	229109.40
Operation and Maintenance Expenses	25	61434.58	39030.11
Employee benefits expense	26	91548.44	76289.30
Finance costs	27	67240.56	66146.03
Depreciation and amortisation expense	11	96147.81	86765.18
Administration and other expenses	28	27197.23	22588.56
TOTAL EXPENSES		631454.12	519928.58
III PROFIT BEFORE EXCEPTIONAL AND EXTRAORDINARY ITEMS AND TAX		239436.49	168717.27
Prior Period Adjustments	29	1271.43	110.70
Exceptional items		-	-
IV PROFIT BEFORE EXTRAORDINARY ITEMS AND TAX		238165.06	168606.57
Extraordinary Items		-	-
V PROFIT BEFORE TAX		238165.06	168606.57
VI TAX EXPENSES	30		
1) Current Tax		45978.32	30974.00
2) Deferred Tax		1571.31	-
Total Tax Expenses		47549.63	30974.00
VII NET PROFIT FOR THE YEAR		190615.43	137632.57
VIII EARNING PER EQUITY SHARE (FV OF ₹ 1000 EACH)			
1) Basic	} (Amount in ₹)	187.61	135.66
2) Diluted			

The Significant Accounting Policies (I) and Notes (II) are integral part of these Financial Statements.

In terms of our Audit Report of even date attached

For KALANI & COMPANY
Chartered Accountants
FRN. 000722C

For and on behalf of

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(VIKAS GUPTA)
Partner
M. No. 077076

(SRIKAR R. PAI)
Company Secretary

(PREMAN DINARAJ)
Director (Finance)

(S.K. JAIN)
Chairman and Managing Director

Place : Mumbai
Date : 1st June 2012

Place : Mumbai
Date : 24th May 2012



CASH FLOW STATEMENT

for the year ended 31st March 2012

(₹ in Lac)

Particulars	2011-12	2010-11	
A CASH FLOW FROM OPERATING ACTIVITIES			
Net Profit before tax and extraordinary items	238165.06		168606.57
Adjustments for :			
Add: (a) Depreciation	96147.81	86,765.18	
(b) Prov. For Obsolete stock	(158.06)	(2.71)	
(c) Prov. For Trade Receivables	0.11	(43.04)	
(d) Prov. For doubtful advances	(0.22)	(24.68)	
(e) Prov. For Gratuity, Leave encashment & other benefits	7982.35	12,103.70	
(f) Loss on sale of fixed assets	60.84	76.11	
(g) Prior Period depreciation/Obsolescence	379.50	327.77	
(h) Wealth Tax Provision	120.00	158.41	
(i) Foreign Currency transactions differences	14.79	0.00	
(j) Interest Expense on Financing Activities	67240.56	66,146.03	165,506.77
	409,952.74	334,113.34	
Less : (a) Prov. No longer required	1140.48	1,721.30	
(b) Profit on sale of fixed assets	20.00	1.79	
(c) Transfer from R & D	601.19	447.02	
(d) Interest Income on Investing Activities	74000.97	81,985.20	84,155.31
Operating Profit before changes in Assets and Liabilities	334,190.10	249,958.03	
Adjustments for changes in Assets and Liabilities:			
Decrease/(Increase) in Trade Receivables	(109080.85)	(64,051.71)	
Decrease /(Increase) in Inventories	(5801.81)	(380.83)	
Decrease/(Increase) in Other Assets	(17317.09)	18,913.55	
Decrease/(Increase) in Loans & Advances	(4747.18)	6,869.33	
Increase/(Decrease) in liabilities	60759.55	78,819.79	40,170.13
CASH GENERATED FROM OPERATION	258,002.72	290,128.16	
less : Taxes Paid (Net of Refund)	26,010.38	26,500.00	
NET CASH FROM OPERATING ACTIVITIES	231,992.34	263,628.16	
B CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of Fixed Assets	(12916.03)	(214,710.26)	
Sale of Fixed Assets	1949.85	1,009.75	
Capital Work in Progress & Capital Advances	(301042.51)	31,218.44	
Investments(Net)	(10205.83)	14,747.69	
Loan to JV Company	0.00	(30,000.00)	
Interest on Investments	94687.19	67,788.06	
Interest on Earmarked Funds	11219.68	8,995.61	
Taxes paid on earmarked funds (Net of Refund)	945.90	(2,700.00)	
Levies collected	5824.65	4,709.54	
NET CASH (USED IN) / FROM INVESTING ACTIVITIES	(209,537.10)	(118,941.17)	
C CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from issue of Equity share capital	-	-	
Interest paid on Borrowings	(121843.21)	(86,058.44)	
Loan from banks and Russian credit	119081.73	(40,492.99)	
Raising of bonds/Loan (Net of Repayment)	(447500.00)	285,242.00	
Interim Dividend for current year (including tax thereon)	(32542.30)	(17,491.31)	
Final Dividend Paid for previous year (including tax thereon)	(30554.89)	0.00	
NET CASH (USED IN) / FROM FINANCING ACTIVITIES	(513,358.67)	141,199.26	
Net (Decrease)/Increase in cash and cash equivalents (A+B+C)	(490,903.43)	285,886.25	
Cash & Cash equivalents as at the commencement of the year	1,006,958.44	721,072.19	
Cash & Cash equivalents as at the close of the year	516,055.01	1,006,958.44	

Previous year figures have been regrouped/rearranged, wherever found necessary.

In terms of our Audit Report of even date attached

For KALANI & COMPANY
Chartered Accountants
FRN. 000722C

For and on behalf of

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(VIKAS GUPTA)
Partner
M. No. 077076

(SRIKAR R. PAI)
Company Secretary

(PREMAN DINARAJ)
Director (Finance)

(S.K. JAIN)
Chairman and Managing Director

Place : Mumbai
Date : 1st June 2012

Place : Mumbai
Date : 24th May 2012

I SIGNIFICANT ACCOUNTING POLICIES

forming part of financial statements for the year ended 31st March 2012

A. Basis of Accounting

The financial statements are prepared under historical cost convention, on an accrual basis and in accordance with generally accepted accounting principles, accounting standards, relevant provisions of the Companies Act 1956, Electricity(Supply) Act, 2003 and Atomic Energy Act, 1962.

B. Inventories

Inventory consists of Operations & Maintenance (O&M) stores & spares which includes maintenance supplies, consumables and loose tools awaiting use, to be consumed in the operations & maintenance process.

Spares which can be used only in connection with particular items of fixed assets & whose use is expected to be irregular are considered as capital spares/Insurance Spares and capitalised as Fixed Assets.

Stores & spares are valued at lower of cost / engineers estimate (where costs are not ascertainable) and net realisable value. 'Costs' include 'cost of purchase' and 'cost of conversion', including incidentals like freight, octroi etc.

Issue of stores & spares including inter unit transfer of stock and closing stocks are valued at monthly moving weighted average.

O&M stores & spares, including consumable stores and loose tools, are charged to revenue at the time of issue.

Non moving and slow moving items of inventory are subjected to continuous technical monitoring. Diminution in value of obsolete and unserviceable stores and spares is ascertained on review and provided for.

C. Prior Period Items

Prior period items are incomes or expenses, which arise in the current period as a result of 'errors' or 'omissions' in the financial statements prepared in earlier years. Effects of changes in estimates are not treated as omission or error.

D. Depreciation/Amortisation

Depreciation on fixed assets is provided on straight line method, on the capitalised cost, at the rates specified in Schedule XIV of The Companies Act, 1956 to the extent of 95% except for Computers and Peripherals including Software.

Cost of Computers and Peripherals are depreciated on Straight Line Method over a period of 5 years to the extent of 95%.

Individual Assets costing upto ₹ 5000/- are fully depreciated in the year of acquisition

Depreciation on assets added on or after 1st April 2004 is provided on pro rata basis with reference to the date of addition. Assets added prior to 1st April 2004 were depreciated with effect from start of subsequent financial year.

Assets acquired on lease arrangement are depreciated at the respective rate of depreciation applicable to asset or written off over lease period – whichever is higher. Leasehold land is amortised over the period of lease.

E. Revenue Recognition

Revenue is recognised on accrual basis and when its collection or receipt is reasonably certain.

E.1 Sale of Electrical Energy

Revenue on sale of electrical energy is recognised net of levies and is on the basis of the net units exported to beneficiaries at tariff notified by DAE. In cases where tariff is not notified, the same is recognised in Accounts at provisional tariff subject to final notification of tariff.

In case the Power Purchase Agreement with any beneficiaries has expired, pending renewal of the same, rebates are accounted for in accordance with the old Power Purchase Agreement.

Delayed payment charges / Surcharge on late or non payment of dues by Sundry Debtors for Sale of Energy is not treated accrued due to uncertainty of its realisation and is therefore accounted for on its receipt.

E.2 Consultancy Income

Income from consultancy services is accounted for on the basis of actual progress/technical assessment of work executed in line with the terms of respective consultancy contracts.

E.3 Sale of scrap is accounted for as & when the sale is completed.

E.4 Liquidated Damages

Liquidated damages recovered from suppliers/contractors are recognised as income at the time of final settlement. Till such time they are shown under liabilities.

E.5 Claims lodged with insurance companies & others, are accounted for as & when these are settled by the concerned agencies.

F. Fixed Assets

Fixed assets taken over from the Department of Atomic Energy (DAE), Government of India (GOI), are recorded at the cost available from records of DAE or Engineers estimates - where ever costs are not ascertainable.

All fixed assets acquired/constructed by the Corporation thereafter are capitalised at cost of acquisition/ construction/ fabrication/erection or on engineers' estimates where ever the actual cost is not available.

The cost of fixed asset comprises its purchase price and any attributable costs of bringing the asset to its working condition for its intended use.

Item(s) retired from active use and held for disposal, is stated at its 'net book value or net realisable value, which ever is lower'.

Assets acquired on lease: Lease premium paid and other costs incurred for acquiring lease rights of assets, is treated as cost of the lease hold asset.

For Joint Ownership : Wherever ownership is available, such assets are capitalised

In case of receipt of Contribution : At cost, net of contribution from other parties



I SIGNIFICANT ACCOUNTING POLICIES

forming part of financial statements for the year ended 31st March 2012

In case of payment of Contribution : At Contribution so paid to other parties.

Wherever Ownership is not available, payments made are treated as revenue expenditure and charged to the Statement of Profit & loss.

Intangible Assets

Software which is not an integral part of related hardware, is treated as intangible asset and is depreciated on straight line method over a period of five years or its licence period, whichever is less.

Research & Development

Expenditure on acquisition of fixed assets for R&D is included in fixed assets and depreciation thereon is provided as applicable. Revenue expenditure on research & development (R&D) is charged to the Statement of profit & loss in the year the expenditure is incurred.

G. Capital Work-in-Progress

Capital work in progress (CWIP) includes all expenditure for acquisition and construction of assets. Such expenditure includes cost of preparing project report, conducting feasibility study, land survey and location study etc. CWIP also includes all direct incidental expenditure during construction (EDC). All common costs are allocated on a rational basis. EDC is allocated on pro rata basis to the assets capitalised on commencement of commercial operation.

Major Renovation, modernisation and Up gradation of Units at Stations needing long shut down resulting in increased efficiency of the unit are considered as projects.

All direct expenditure during such major renovation, modernisation & upgradation is considered as 'CWIP' and capitalised on its completion.

H. Reserves and Surplus

Levy collected from beneficiaries for decommissioning of power plants is credited to Decommissioning Fund account. Amounts appropriated from Research & Development Fund (R&D fund) and Renovation & Modernisation Fund (R&M fund) towards capital expenditure is transferred from these funds to Capital Reserve and attributable amounts towards depreciation & revenue expenditure is transferred from R&D fund to the Statement of Profit & Loss. Interest earned on respective fund investments and income tax paid are also adjusted in the said Funds.

I. Foreign Exchange Transactions

Foreign currency transactions are initially recorded at rates of exchange ruling at the date of transaction.

At Balance Sheet date, foreign exchange monetary items are reported using the closing rate. Non-monetary items denominated in foreign currency are reported at the exchange rate ruling on the date of transaction. Exchange difference arising from settlement/translation of Long Term Foreign Currency Monetary Items relating to fixed assets/capital work in progress (whether treated as borrowing cost or otherwise) are adjusted

in the carrying cost of related assets. Other exchange difference are recognised as income or expense in the period in which they arise.

In terms of MCA Notification No. G.S.R. 225 (E) dated 31.03.2009 as amended by Notification No. 914 (E) dated 29.12.2011, Corporation exercised the option as given in the said Notification. Exchange rate variation (ERV) arising from settlement / translation of Long Term Foreign Currency Monetary Items, in so far as it relates to the acquisition / construction of capital assets (whether treated as borrowing cost or otherwise) have been adjusted in the carrying cost of the related capital assets / CWIP. Balance ERV, i.e. not related to acquisition / construction of capital assets is being accumulated in the 'Foreign Currency Monetary Item Translation Difference Account' (FCMITD) and amortised / adjusted over the balance period of such long term loan not beyond 31.03.2020.

J. Investments

Long term Investments (Non-Current) are stated at cost after deducting provision, if any made for permanent diminution in the values.

Current Investments are stated at lower of cost and market/fair value.

K. Employee Benefits

K. (i) DAE/GOI Employees

Leave salary, pension contribution and Provident Fund contributions in respect of employees on deputation from DAE/GOI are paid to DAE/GOI in accordance with the norms prescribed by DAE/GOI.

Pension contribution in respect of employees who have opted for combined pension, is paid to DAE/GOI, in accordance with the norms prescribed by DAE/GOI.

K. (ii) Corporation Employees

Contribution to Provident Fund is defined contribution scheme and contributions are charged to the Statement of Profit & Loss of the year when the contribution to the fund are due.

Liability on account of gratuity, long term earned leave, half pay leave, and post retirement medical benefits are defined benefit obligations and are determined on the basis of actuarial valuation made at the end of each financial year and provided for in the books of accounts. Leaves encashed during the year are charged to the Statement of Profit & Loss.

Actuarial gains/losses are recognised in the Statement of profit and loss.

Provision for ex-gratia is made as per orders of Govt. of India. Incentives are provided as per the schemes adopted by the Corporation, as applicable from time to time.

L. Borrowing Costs

Borrowing cost includes interest, commitment charges, brokerage, underwriting costs, discounts/ premiums, financing charges, exchange difference to the extent they are regarded as interest costs and all ancillary /incidental costs incurred in connection with the arrangement of borrowing.

I SIGNIFICANT ACCOUNTING POLICIES

forming part of financial statements for the year ended 31st March 2012

Borrowing costs which are directly attributable to acquisition/construction of a fixed asset, are capitalised as a part of cost pertaining to that asset. Other borrowing costs are considered as an expenditure in the period in which these are incurred and are charged to the Statement of Profit & Loss or EDC – as the case may be.

M. Taxation

Tax expense comprises of current tax and deferred tax charged to the Statement of profit and loss for the year. Current tax includes Income Tax and Wealth Tax.

Provision for Income tax is made on the basis of estimated taxable income for the current accounting year in accordance with the Income Tax Act, 1961. Provision for Wealth Tax is made in accordance with Wealth Tax Act, 1957.

The deferred tax is recognised on timing differences between the book profit and taxable profit for the year. It is accounted for by applying the tax rates and the tax laws that have been enacted or substantively enacted as on the balance sheet date. Deferred tax assets arising from timing differences are recognised to the extent there is reasonable certainty that the assets can be realised in future.

Deferred tax assets in case of unabsorbed losses and unabsorbed depreciation are recognised only if there is virtual certainty that such deferred tax asset can be realised against future taxable profits.

N. Provisions, Contingent Assets and Contingent Liabilities

Contingent Liabilities in respect of show cause notices received are considered only when they are converted into demands and contested / contestable.

Contingent Liabilities under various fiscal laws include those in respect of which the Corporation/ Department is in appeal.

Contingent Assets are neither recognised, nor disclosed.

Provisions and Contingent liabilities are reviewed at each Balance sheet date and adjusted to reflect the current management estimate.

O. Allocation of Head Office Expenditure

Identifiable expenses of Head Office are directly transferred to the respective locations. Expenditure incurred for rendering services for project related activities are allocated to the Projects, and expenditure incurred for rendering services for station related activities are allocated to the Stations.

Expenditure incurred to projects at Head Office is allocated to projects in equal proportion. The Head Office expenditure related to stations is allocated to stations in equal proportion.

Unidentifiable expenses are charged to the Statement of Profit & Loss.

P. Cash Flow Statement

Cash Flow Statement is prepared in accordance with the indirect method prescribed in Accounting Standard (AS) 3 on "Cash Flow Statements".



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

I SHARE CAPITAL

(₹ in Lacs)

Particulars	As at	
	31st March 2012	31st March 2011
Authorised Share Capital		
150,000,000 Equity shares of ₹ 1000/- each	1500000.00	1500000.00
Issued, Subscribed and Paid up Share Capital		
10,17,43,327 (Previous year 10,14,53,327) Equity Shares of ₹ 1,000/- each fully paid up	1017433.27	1014533.27
TOTAL	1017433.27	1014533.27

- (i) The Company is a Government Company with 100% share holding by the President of India and nominees, through administrative control of Department of Atomic Energy. The Company has only one class of shares having par value of ₹ 1000/- each with equal rights for Dividend and Vote.
- (ii) During the year 2.9 Lacs fully paid up Equity Shares of ₹ 1000/- each have been issued at par by utilising / converting the interest free loan from Government of India (GOI) in terms of GOI approval dated 27th September 2011. As such the loan stand repaid against issue of Equity Shares.

(iii) Reconciliation of number of shares outstanding at the beginning and end of the reporting period are given below :

Particulars	2011-12		2010-11	
Equity Shares at the beginning of the period		101,453,327		101,453,327
Add : Equity Shares Allotted during the period		290,000		–
Equity Shares at the end of the period		101,743,327		101,453,327

- (iv) The Board of Directors has recommended a final dividend @ 30 percent (Previous Year - 30 percent) of Profit After Tax (PAT) of the Company. This amounts to ₹ 57185.00 Lacs (Previous Year ₹ 41290 Lacs), including interim dividend of ₹ 28000 Lacs (Previous Year ₹ 15000 Lacs). Applicable dividend distribution tax has been paid / payable of ₹ 9279.84 Lacs (Previous Year ₹ 6756.20 Lacs).

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

2 RESERVE AND SURPLUS

(₹ in Lacs)

Particulars	As at	
	31st March 2012	31st March 2011
Capital Reserve		
Balance as per last Balance Sheet	60215.53	56031.71
Add : Transferred from Renovation & Modernisation Fund	0.00	3200.00
Add : Transferred from Research & Development Fund	2074.18	1162.99
	62289.71	60394.70
Less : Depreciation on R&D Assets for current year	197.25	179.17
	62092.46	60215.53
See description Note (i)		
Bond Redemption Reserve		
Balance at the beginning & end of Reporting Period	80000.00	80000.00
See description Note (ii)		
Decommissioning Fund*		
Balance as per last Balance Sheet	92022.43	83076.26
Add : Levy for the year	5824.65	4709.54
Add : Reversal / Refund of Income Tax	2789.00	0.00
Add : Interest on Fund Investments	8643.68	6430.63
Add : Interest on Income Tax Refund	179.02	0.00
	109458.78	94216.43
Less : Payment of Income Tax	2955.21	2194.00
	106503.57	92022.43
See description Note (iii)		
Renovation and Modernisation Fund*		
Balance as per last Balance Sheet	188.72	3191.94
Add : Reversal / Refund of Income Tax	859.00	0.00
Add : Interest on Fund Investments	14.54	245.78
Add : Interest on Income Tax Refund	20.88	0.00
	1083.14	3437.72
Less : Transferred to Capital Reserve	0.00	3200.00
Less : Payment of Income Tax	8.45	49.00
	1074.69	188.72
See description Note (iii)		
Research and Development Fund*		
Balance as per last Balance Sheet	29783.15	29530.96
Add : Reversal / Refund of Income Tax	739.00	0.00
Add : Interest on Fund Investments	2326.63	2319.20
Add : Interest on Income Tax Refund	34.92	0.00
	32883.70	31850.16
Less : Transferred to Capital Reserve	2074.18	1162.99
Less : Payment of Income Tax	477.44	457.00
Less : Transfer to P&L	601.19	447.02
	29730.89	29783.15
See description Note (iii)		



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(₹ in Lacs)

Particulars	As at	
	31st March 2012	31st March 2011
General Reserve		
Balance as per last Balance Sheet	970075.00	920075.00
Add : Transferred from Surplus	100000.00	50000.00
	1070075.00	970075.00
Surplus		
Opening Balance	151,641.54	112156.73
Add : Transfer from Statement of Profit & Loss	190,615.43	137632.57
Add : Transfer of Excess provision of Dividend Distribution Tax	101.55	0.00
	342,358.52	249789.30
Less : Interim Dividend paid	28,000.00	15000.00
Less : Tax on Interim Dividend paid	4,542.30	2491.31
Less : Proposed Dividend	29,185.00	26290.00
Less : Tax on Proposed Dividend	4,734.54	4366.44
Less : Transfer to General Reserve	100,000.00	50000.00
	175896.68	151641.54
TOTAL	1525373.29	1383926.37

*Specifically represented by Earmarked Investments and Balance with Banks (refer Note No. 13 & 19)

- (i) The Capital Reserve has been created by transferring the amount on utilisation of Renovation & Modernisation Fund and Research & Development Fund for approved & sanctioned Capital Expenditure of the respective funds as per the approval & sanction of the Government of India (GOI) .
- (ii) The Bond Redemption Reserve has been created against the balance Redemption Liability of Secured Bonds issued by the Company, year-on-year basis, as per prevailing statutory requirement.
- (iii) (a) Vide Notification no. DAE/OM/No.-3/10(17)/87-PP dated 22nd December 1988, the Corporation is collecting levy from beneficiaries for Decommissioning of power plants, on behalf of DAE and the levy is credited to Decommissioning Fund account, as required by the notifications. During the year Decommission Fund levy aggregating to ₹ 5824.65 Lacs (Previous year ₹ 4709.54 Lacs) has been collected on the basis of net units exported to the beneficiaries & others, as per tariffs notified by DAE.
- (iii) (b) Regular Interest earned on the fund's investments and income tax thereon are adjusted in the respective Funds, viz., (1) Renovation & Modernisation Fund, (2) Research and Development Fund, and (3) Decommissioning Fund. Presently, the collection for Renovation & Modernisation Fund and Research & Development Fund has been stopped as per the Govt. directives /notification. The utilisation of all the three Funds have been made as per the requirement of respective notification.
- (iii) (c) Income tax demanded/ Refunded by Income Tax Department on levies collected from beneficiaries for Decommissioning, Renovation & Modernisation and Research & Development Fund and also the interest earned on respective fund investments are adjusted to the respective Fund. However the Corporation has disputed such demand before the appropriate Appellate Authorities under Income Tax Act, 1961.

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

3 LONG TERM BORROWINGS

(i) Long Term Borrowings are given below :

Particulars	(₹ in Lacs)	
	As at 31st March 2012	As at 31st March 2011
A. Secured Borrowings - Bonds		
Redeemable Non-Cumulative Scheme (Face value of ₹ 1.00 Lacs & ₹ 10.00 Lacs each)	271,862.00	279,862.00
See description Note (ii)		
B. Secured Borrowings - Term Loans from Banks	578,600.00	618,600.00
See description Note (iii)		
C. Un-Secured Borrowings		
i) From Department of Atomic Energy - GOI		
(a) Russian Credit - Loan KK Project	504,749.37	483,054.86
(b) Interest Free Loan - KK Project	-	2,900.00
ii) Foreign Currency Loan - External Commercial Borrowing from State Bank of India, Singapore Branch	90,177.50	-
See description Note (iv) & (v)	594,926.87	485,954.86
	1,445,388.87	1,384,416.86

(ii) (a) Descriptive details for "Bonds" - Secured Borrowings :

Secured Borrowings - Bonds

Category	Series	Particulars	Face Value	Redeemable on	(₹ in Lacs)	
					As at 31st March 2012	As at 31st March 2011
A	XXV	Floating Rate Bonds with +189 bps markup to the Benchmark Interest rate (1 year G-Sec-Semiannual) with annual reset & bullet Redemption at the end of 10th year .	10.00	16-11-2019	65,000.00	65,000.00
B	XXVI	8.50% with bullet Redemption at the end of 10th year	10.00	16-11-2019	70,000.00	70,000.00
B	XXIV	4.75% Tax-free with Put/call Option on 26/03/2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017 & 2018.	10.00	26-03-2019	920.00	920.00
B	XV	8.25% Tax-free with Put & Call option at par on 06-01-2008, 2009, 2010, 2011, 2012, 2013, 2014 & 2015	1.00	06-01-2016	4,542.00	4,542.00
C	XXIII	5.25% Taxable Infrastructure with Put/Call Option on 23/03/2009,2010, 2011, 2012 & 2013	10.00	23-03-2014	9,500.00	9,500.00
A	XXII	6.10% Taxable	10.00	15-03-2014	82,000.00	82,000.00
C	XXI	5.50% Infrastructure with Put and Call option at par on 14.08.2010, 2011, 2012	1.00	14-08-2013	6,900.00	6,900.00
B	XIX	5.30% Tax-free with put & call option at par on 31-12-2007, 2008, 2009, 2010 & 2011	1.00	31-12-2012	2,500.00	2,500.00
A	XX	6.15% Taxable - Redeemable at equal instalment of ₹ 5500 Lacs each, Repayable on 14.08.2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017 and 2018	1.00	14-08-2018	38,500.00	44,000.00
					279,862.00	285,362.00
		Less : Current Maturities of Long Term Borrowings (carried to note no. 9)				
		a) 6.15% Taxable - ₹ 5500 lac. - Third Instalment/series repayable on 14/08/2012 (for previous year on 14/08/2011)	1.00	14-08-2012	5,500.00	5,500.00
		b) 5.30% Tax-free with put & call option at par on 31-12-2007, 2008, 2009, 2010 & 2011	1.00	31-12-2012	2,500.00	-
		See description Note (ii)-(b) & (ii)-(c).				
		SUB-TOTAL (i)			271,862.00	279,862.00



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(ii) (b) Bonds redeemed during the Period through Put/Call Options are given below :

(₹ in Lacs)

	2011-12	2010-11
Redemption during the Period		
1) Part Redemption on put option of Sr. XV (8.25%) Bonds, CY - NIL (PY 06/01/2011)	-	1,458.00
2) Part Redemption of Sr. XIX (5.30%) Bonds, CY - NIL (PY 31/12/2010)	-	800.00
3) Part Redemption of Sr. XX (6.15%) Bonds, CY - 14/08/2011 (PY 14/08/2010)	5,500.00	5,500.00
4) Part Redemption of Sr. XXI (5.50%) Bonds, CY - NIL (PY 14/08/2010)	-	7,000.00
	5,500.00	14,758.00

(ii) (c) Following series of Bonds are secured by way of Trusteeship Agreement coupled with covenants of negative lien and irrevocable power of attorney in favour of Trustees to create equitable mortgage over the fixed assets.

Bonds' Series	Secured by Fixed Assets of'
XX & XXI	Rajasthan Atomic Power Station - Unit 3 & 4
XV & XIX	Kaiga Generating Station - Unit 1 & 2
XXII, XXIII & XXIV	Tarapur Atomic Power Project - Unit 3 & 4
XXV & XXVI	Kaiga Atomic Power Project - Unit 3 & 4 and Rajasthan Atomic Power Station - Unit 5 & 6

(iii) (a) "Long Term Borrowings" payable within 12 months from the reporting date, as per offer term, are reduced from "Long Term Borrowing" and disclosed separately under "Other Current Liability". Current maturity of Long Term Borrowing is worked out considering the due Redemption date as per the original Offer document/agreement and excluding the optional liability exercisable under the PUT/CALL Options attached to respective Bonds/Term Loans.

(iii) (b) Descriptive details of "Term Loans from Banks" - Secured Borrowings:

(₹ in Lacs)

Particulars	Redeemable on	As at 31st March 2012	As at 31st March 2011
i Canara Bank	28.10.2015	13,000.00	13,000.00
(i) With bullet repayment after 10 years, (ii) Floating Rate - G-Sec. Rate (+) 30bps, reset at the end of each year (iii) Secured by negative lien of asset of MAPS			
ii Canara Bank	28.10.2015	45,600.00	45,600.00
(i) With bullet repayment after 10 years, (ii) Floating Rate -G-Sec. Rate (+) 30bps, reset at the end of each year (iii) Secured by negative lien of asset of TAPS-3&4			
iii Dena Bank	29.06.2015	25,000.00	25,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate-SBAR' Rate (-) 4.56%, reset at the end of each year (iii) Secured by negative lien of asset of KK 1&2			
iv Bank of India	28.06.2015	50,000.00	50,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate-SBAR' Rate (-) 3.81%, reset at the end of each year, (iii) Secured by negative lien of asset of KK 1&2 and KAPP 3&4			
v Bank of India	14.06.2015	100,000.00	100,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate-BPLR' Rate (-) 4.06%, reset at the end of each year, (iii) Secured by negative lien of asset of KAIGA 3&4			
vi State Bank of India	31.05.2015	25,000.00	25,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -SBAR' Rate (-) 3.81%, reset at the end of each year, (iii) Secured by negative lien of asset of KAIGA3&4 and RAPS5&6			

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(₹ in Lacs)

Particulars	Redeemable on	As at 31st March 2012	As at 31st March 2011
vii State Bank of India	31.05.2015	100,000.00	100,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate - SBAR' Rate (-) 3.81%, reset at the end of each year, (iii) Secured by negative lien of asset of KK 1&2			
viii State Bank of India	28.03.2015	70,000.00	70,000.00
(i) With bullet repayment after 10 years, (ii) Floating Rate- G-Sec. Rate (+) 50bps reset at the end of each year, (iii) Secured by negative lien of asset of TAPS-3&4			
ix State Bank of India	26.02.2015	25,000.00	25,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate-SBAR' Rate (-) 3.81%, reset at the end of each year, (iii) Secured by negative lien of asset of KAIGA 3&4			
x State Bank of India	24.12.2014	50,000.00	50,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate-SBAR' Rate (-) 3.81%, reset at the end of each year, (iii) Secured by negative lien of asset of KAIGA 3&4			
xi Bank of India	14.12.2014	50,000.00	50,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -BPLR' Rate (-) 4.06%, reset at the end of each year, (iii) Secured by negative lien of asset of KAIGA3&4 and RAPS5&6			
xii Dena Bank	10.12.2014	25,000.00	25,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -BPLR' Rate (-) 4.56%, reset at the end of each year, (iii) Secured by negative lien of asset of RAPS-5&6			
xiii Bank of Maharashtra	13.03.2013	20,000.00	20,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -G-Sec Rate (+) 100bps, reset at the end of each year, (iii) Secured by negative lien of asset of Kaiga-3&4			
xiv Bank of Maharashtra	07.03.2013	20,000.00	20,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -G-Sec Rate (+) 100bps, reset at the end of each year, (iii) Secured by negative lien of asset of Kaiga-3&4			
xv Canara Bank	26.03.2012	-	20,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -G-Sec. Rate (+) 125bps, reset at the end of each year, (iii) Secured by hypothecation of asset of Kaiga-3&4 on <i>pari passu</i> charge basis.			
xvi Canara Bank	31.01.2012	-	25,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -G-Sec. Rate (+) 125bps, reset at the end of each year, (iii) Secured by hypothecation of asset of Kaiga-3&4 on <i>pari passu</i> charge basis.			
xvii State Bank of India	29.11.2011	-	25,000.00
(ii) With bullet repayment after 5 years, (ii) Floating Rate -G-Sec. Rate (+) 125bps, reset at the end of each year, (iii) Secured by negative lien of asset of Kaiga-3&4			
xviii State Bank Of Hyderabad	28.08.2011	-	10,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate -G-Sec. Rate (+) 100 bps, subject to minimum of 8% reset at the end of each year (iii) Secured by negative lien of asset of TAPS-3&4			
xix Bank of Baroda	04.08.2011	-	30,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate G-Sec. Rate (+) 125 bps reset at the end of each year, (iii) Secured by negative lien of asset of TAPS-3&4			



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(₹ in Lacs)

Particulars	Redeemable on	As at 31st March 2012	As at 31st March 2011
xx Bank of India	02.08.2011	–	30,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate G-Sec. Rate (+) 125 bps reset at the end of each year, (iii) Secured by negative lien of asset of TAPS-3&4			
xxi State Bank of India	25.07.2011	–	50,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate G-Sec. Rate (+) 125 bps reset at the end of each year, (iii) Secured by negative lien of asset of TAPS-3&4			
xxii Canara Bank	14.07.2011	–	55,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate G-Sec. Rate (+) 125 bps reset at the end of each year, (iii) Secured by hypothecation of asset of TAPS-3&4 on <i>pari passu</i> charge basis.			
xxiii State Bank of India and its Associate Banks	26.04.2011	–	55,000.00
(i) With bullet repayment after 5 years, (ii) Floating Rate G-Sec. Rate (+) 100 bps, reset at the end of each year, (iii) Secured by negative lien of asset of Kaiga-1&2 and RAPS-3&4			
TOTAL (i to xxiii)		618,600.00	918,600.00
Less: Current Maturity on Redemption as per term of offer - Term Loan from Bank:			
a) CANARA BANK	26.03.2012	–	20,000.00
b) CANARA BANK	31.01.2012	–	25,000.00
c) STATE BANK OF INDIA	29.11.2011	–	25,000.00
d) STATE BANK OF HYDERABAD	28.08.2011	–	10,000.00
e) BANK OF BARODA	04.08.2011	–	30,000.00
f) BANK OF INDIA	02.08.2011	–	30,000.00
g) STATE BANK OF INDIA	25.07.2011	–	50,000.00
h) CANARA BANK	14.07.2011	–	55,000.00
i) STATE BANK OF INDIA AND IT'S ASSOCIATE BANKS	26.04.2011	–	55,000.00
j) BANK OF MAHARASHTRA	13.03.2013	20,000.00	–
k) BANK OF MAHARASHTRA	07.03.2013	20,000.00	–
see description Note (iii)-(c)		40,000.00	300,000.00
TOTAL (i to xxiii) - NET OF CURRENT DUE FOR REDEMPTION		578,600.00	618,600.00

(iii) (c) Term Loan repayable, with in 12 months from the Reporting date, as per offer term, are deducted from “Long Term Borrowing - Term Loan From Banks” and disclosed separately under “Other Current Liabilities”.

(iv) (a) DAE loan (Russian credit) represents funds provided by DAE to deposit with Controller of Aid Accounts & Audit (CAA&A) for repayment of credit extended by Government of Russian Federation to Government of India, after repayment in terms of various contracts entered into with M/s Atomstroyexport to set up two units of 1000 MW each at Kudankulam (KK), with an understanding that exchange fluctuation on repayment of the credit by GOI shall be on account of the Corporation. The applicable rate of interest is 4% p.a.

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(iv) (b) Details of Un-Secured Borrowings - DAE Loan (Russian Credit) are given below:

Particulars	₹ in Lacs	
	2011-12	2010-11
Balance at the end of the year	604,729.16	578,600.03
Less: Amount deposited with CAA&A	46,711.87	49,486.97
Net Balance of Loan	558,017.29	529,113.06
Amount Payable within a period of 12 months (Carried to Note- 9)	53,267.92	46,058.20
Closing Balance	504,749.37	483,054.86

(iv) (c) The Russian Credit shall be repayable in 14 installments as under :

- Loan Unit - I - 14 Installments starting from Financial Year 2008-09.
Loan Unit - II - 14 Installments starting from Financial Year 2009-10.

(iv) (d) During the year 2.9 Lacs fully paid up Equity Shares of ₹ 1000/- each have been issued at par by utilising / converting the interest free loan from Government of India (GOI) in terms of GOI approval dated 27th September 2011. As such the loan stand repaid against issue of Equity Shares.

(v) (a) External Commercial Borrowings (ECB) represents the mobilisation of debt to meet the requirement of capital expenditure for the procurement of capital equipments for various sites such as KKNPP 1&2, KKNPP 3&4, KAPS 3&4 and RAPP 7&8. The ECB has been arranged from State Bank of India Singapore Branch. The applicable rate of interest is LIBOR + Margin (Predetermined spread of 2.35%). The total ECB sanctioned is 250 Million US \$, out of which 175 Million US \$ (83 Million US \$ in Trench A facility and 92 Million US \$ in Trench B facility) has been withdrawn till 31/03/2012.

(v) (b) The ECB is repayable as under :

- a) Under Trench A facility (83 Million US \$) : At the end of 5 years from the first utilisation date.
b) Under Trench B facility (167 Million US \$) : In two installments at the end of 6th & 7th year from the first utilisation date.

(vi) Treatment of Exchange Rate Variation in the Financial Statements

In terms of MCA Notification No.G.S.R. 225 (E) dated 31.03.2009 as amended by Notification No. 914 (E) dated 29.12.2011, Corporation exercised the option as mentioned in Accounting Policy No. I, the detailed disclosure is summarised as under:

Particulars	₹ in Lacs	
	2011-12	2010-11
a) On Russian Credit		
Total ERV Loss / (Income) for the year	80,173.53	(4,330.50)
Less: ERV regarded as adjustment to interest cost (KK)	38,854.49	-
Balance ERV adjusted to carrying cost of CWIP (KK)	41,319.04	(4,330.50)
b) On External Commercial Borrowing		
Total ERV Loss / (Income) for the year	2,371.90	-
Less: ERV regarded as adjustment to interest cost*	368.97	-
Balance ERV to be adjusted**	2,002.93	-

* Out of ₹ 368.97 Lacs regarded as borrowing cost, ₹ 135.76 Lacs adjusted in the carrying cost of capital assets / CWIP of related projects and balance ₹ 233.21 Lacs not related to acquisition / construction of Capital Assets charged as expenditure (Note No. 27).

** Out of ₹ 2002.93 Lacs regarded as ERV, ₹ 463.57 Lacs related to acquisition / construction of capital asset / CWIP has been adjusted to carrying cost of capital assets / CWIP of related projects. Balance ₹ 1539.36 Lacs has been accumulated in FCMITD, out of which ₹ 14.79 Lacs amortised during the current year as expense (Note No. 28), balance unamortised amount of ₹ 1524.57 Lacs is not charged to Statement of Profit and Loss due to exercising of above option and carried forward (Note No. 15).



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

4 DEFERRED TAX LIABILITY & ASSET (NET)

(i) The deferred tax liability and asset (Net) as at the end of the reporting period are given below:

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Deferred Tax Liability	129118.46	189296.13
Less : Deferred Tax Recoverable (Assets)	127547.15	189296.13
TOTAL	1571.31	0.00

(ii) The item wise details of deferred tax liability (net) in accordance with Accounting Standard 22 : "Taxes on Income" are given under :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Difference of book depreciation and tax depreciation (Deferred Tax Liability)	143024.30	205125.39
Less : Provisions & other disallowances (Deferred Tax Asset)	13905.84	15829.26
DEFERRED TAX LIABILITY (NET)	129118.46	189296.13

During the year there is net decrease of ₹ 60177.67 Lacs (Previous year increased ₹ 4667.46 Lacs) of deferred tax liability. Out of total deferred tax liability, ₹ 127547.15 Lacs (net of ₹ 1571.31 Lacs being deferred tax liability of Head Office) is recoverable from the state electricity beneficiaries on becoming part of Current tax.

5 OTHER LONG TERM LIABILITIES

(i) Summary of Other Long Term Liabilities :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Trade Payable		
Amount due to Micro, Small & Medium Enterprises	31.40	3.57
Payable to Others	441.89	679.79
	see description Note (ii)	
	473.29	683.36
2. Other Liability	855.92	1631.55
TOTAL	1329.21	2314.91

(ii) The Details of liabilities to Micro, Small and Medium Enterprises, to the extent information available with the Corporation are given under. These liabilities are not due for payment as per the contractual term of payment.

(₹ in Lacs)

Due to MSME Enterprise	As at	As at
	31st March 2012	31st March 2011
1. The principal amount and the interest due thereon (to be shown separately) remaining unpaid to any supplier as at the end of the accounting year (No amount is due for more than 45 days & Interest due ₹ Nil).	31.40	3.57
2. The amount of interest paid by the buyer in terms of Section 16 of the Micro Small and Medium Enterprise Development Act, 2006, alongwith the amounts of the payment made to the supplier beyond appointed day during the accounting year	0	0
3. The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under Micro Small and Medium Enterprise Development Act, 2006	0	0

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

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(₹ in Lacs)

	As at 31st March 2012	As at 31st March 2011
Due to MSME Enterprise		
4. The amount of interest accrued and remaining unpaid at the end of the accounting year	0	0
5. The amount of further interest remaining due and payable even in the succeeding years. Until such date when the interest dues as above are actually paid to the small enterprise for the purpose of disallowance as a deductible expenditure under Section 23 of the Micro Small and Medium Enterprise Development Act, 2006	0	0
	31.40	3.57

6 LONG TERM PROVISIONS

(i) Details of Long Term Provisions :

(₹ in Lacs)

Particulars	As at 31st March 2012	As at 31st March 2011
1. Provisions for Employee Benefits		
Gratuity	24262.27	22051.38
Leave Encashment	19829.17	17515.71
Other Employee Benefits	19924.76	16466.76
	64016.20	56033.85
Less : Provisions payable within 12 months (Carried to Note -10)	Refer Note 33	5087.89
		3997.79
TOTAL	58928.31	52036.06

7 SHORT TERM BORROWINGS

(i) Details of Short Term Borrowings are as under :

(₹ in Lacs)

Particulars	As at 31st March 2012	As at 31st March 2011
A. Secured Borrowings		
i) Loans repayable on demand		
From Banks	–	–
From other parties	–	142,000.00
ii) Loans & Advances from Related Parties	–	–
iii) Deposits	–	–
iv) Other Loans & Advances	–	–
	see description Note(ii)	–
		142,000.00
B. Un-Secured Borrowings		
i) Loans repayable on demand		
From Banks	–	–
From other parties	–	–
ii) Loans & Advances from Related Parties	–	–
iii) Deposits	–	–
iv) Other Loans & Advances	–	–
	–	–
TOTAL	–	142,000.00

(ii) Secured - "Short Term Loans from banks" includes Temporary Overdraft from banks against the security of Term deposits pledged with Banks. The value of TDR/FDR pledged as Security is ₹ Nil (Previous Year ₹ 200000 Lacs).



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

8 TRADE PAYABLES

(i) Summary of Trade Payables

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Trade Payable		
Amount due to Micro, Small & Medium Enterprises	128.10	68.77
Payable to Others see description Note (ii)	37386.04	17403.79
TOTAL	37514.14	17472.56

(ii) The Details of liabilities to Micro, Small and Medium Enterprises, to the extent information available with the Corporation are given under. These liabilities are not due for payment as per the contractual term of payment :

(₹ in Lacs)

Due to MSME Enterprise	As at	As at
	31st March 2012	31st March 2011
1. The principal amount and the interest due thereon (to be shown separately) remaining unpaid to any supplier as at the end of the accounting year (No amount is due for more than 45 days & Interest due ₹ Nil).	128.10	68.77
2. The amount of interest paid by the buyer in terms of Section 16 of the Micro Small and Medium Enterprise Development Act, 2006, alongwith the amounts of the payment made to the supplier beyond appointed day during the accounting year	–	–
3. The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under Micro Small and Medium Enterprise Development Act, 2006	–	–
4. The amount of interest accrued and remaining unpaid at the end of the accounting year	–	–
5. The amount of further interest remaining due and payable even in the succeeding years. Until such date when the interest dues as above are actually paid to the small enterprise for the purpose of disallowance as a deductible expenditure under Section 23 of the Micro Small and Medium Enterprise Development Act, 2006	–	–
	128.10	68.77

9 OTHER CURRENT LIABILITIES

(i) Details of Other Current Liabilities :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Current Maturities of Long Term Debt / Borrowing (Carried from Note-3), (see description Note.(ii))	101267.92	351558.20
2. Interest accrued but not due on Borrowings (See description Note (iii))	16018.79	21830.38
3. Income Received in Advance	79.01	4.11
4. Unpaid/Unclaimed Bonds and Interest accrued thereon (See description Note (iv))	167.21	16.24
5. Other Payables (See description Note (v))	118485.90	77008.10
TOTAL	236018.83	450417.03

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(ii) Details of Current Maturities of Long Term Debts :

(₹ in Lacs)

Particulars	Redeemable on	As at 31st March 2012	As at 31st March 2011
A. Bonds (excluding Put/Call options):			
1. 6.15% Taxable - ₹ 5500 lac. - Third Instalment / Series repayable on - 14-08-2012 (for previous year Second Instalment on 14/08/2011)	14.08.2012 & 14.08.2011	5500.00	5500.00
2. 5.30% Tax-free with put&call option at par on 31-12-2007, 2008, 2009, 2010 & 2011	31.12.2012	2500.00	-
CURRENT MATURITY OF BONDS		8000.00	5500.00
B. Term Loans:			
1. From Canara Bank	26.03.2012	-	20,000.00
2. From Canara Bank	31.01.2012	-	25,000.00
3. From State Bank of India	29.11.2011	-	25,000.00
4. From State Bank of Hyderabad	28.08.2011	-	10,000.00
5. From Bank of Baroda	04.08.2011	-	30,000.00
6. From Bank of India	02.08.2011	-	30,000.00
7. From State Bank of India	25.07.2011	-	50,000.00
8. From Canara Bank	14.07.2011	-	55,000.00
9. From State Bank of India and it's Associate Banks	26.04.2011	-	55,000.00
10. From Bank of Maharashtra	13.03.2013	20,000.00	-
11. From Bank of Maharashtra	07.03.2013	20,000.00	-
CURRENT MATURITY OF TERM LOANS		40,000.00	300,000.00
C. Current maturity of Russian Credit (Loan KK Project)		53,267.92	46,058.20
TOTAL CURRENT MATURITY OF BONDS, TERM LOANS FROM BANKS & RUSSIAN CREDIT		101,267.92	351,558.20

(iii) Details of interest accrued but not due on Borrowing are given below :

(₹ in Lacs)

Particulars	As at 31st March 2012	As at 31st March 2011
Interest Accrued but Not Due on Borrowing		
1. Interest on Bonds	7413.07	12863.24
2. Interest on Term Loan	2568.40	3490.00
3. Interest on Loan from DAE-Russian Credit-KK Project	5898.58	5477.14
4. Interest on ECB	138.74	0.00
TOTAL	16018.79	21830.38

(iv) Unpaid / Unclaimed Bonds & Interest includes the amount of Redeemed Bonds and Accrued Interest on those Bonds which remain Unclaimed / Unpaid till date. The total Unpaid amount is transferable to "Investors' Education and Protection Fund" on expiry of 7 years as per the requirement of Companies Act and related rules.



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(v) Details of Other Payables are given below :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Payable to DAE/DAE Undertakings*	63550.96	20583.34
2. Employee Liabilities	8826.50	8986.26
3. Payable to Statutory Authority - TDS & With-holding Tax	879.05	610.70
4. Other Liabilities	45229.39	46827.80
TOTAL	118485.90	77008.10

*Payable to DAE/DAE undertakings includes for Fuel & Heavy Water liability of ₹ 48295 Lacs (Previous year ₹ 12614 Lacs).

10 SHORT TERM PROVISIONS

(i) Details of Short Term Provisions are as under :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Provision for Employee Benefits (Carried from Note - 6)		
Gratuity	1431.12	1059.60
Leave Encashment	1561.07	1723.79
Other Employee Benefits	2095.70	1214.40
	Refer Note 33	
	5087.89	3997.79
2. Other Provisions		
Income Tax*	0.00	0.00
Wealth Tax	120.00	105.00
Proposed Dividend	29185.00	26290.00
Tax on Proposed Dividend	4734.54	4366.44
	34039.54	30761.44
TOTAL	39127.43	34759.23

* Refer foot Note to Note No. 20 (ii)

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

11 TANGIBLE AND INTANGIBLE ASSETS

(i) Details of Tangible and Intangible Assets with Reconciliation of Gross & Net Carrying amount of each class of Assets at the beginning and end of the Reporting Period are given below, with separate disclosure for additions, and deductions/adjustment for each class of Assets.

	(₹ in Lacs)									
	Gross Block			Depreciation/Obsolescence Loss			Net Block			
	As at 01.04.2011	Addition	Deduction Adjust.	As at 01.04.2011	For the Year	Deduction Adjust.	As at 31.03.2012	As at 31.03.2011		
Fixed Assets										
A. Tangible Assets										
Land (Free Hold)	15938.32	35.70	0.00	0.00	0.00	0.00	15974.02	15938.31		
Land (Lease Hold)	58.70	0.00	0.00	6.36	0.65	0.00	51.69	52.34		
Buildings (Free Hold)	121796.09	3427.70	107.29	17594.75	2071.88	44.84	105494.71	104201.35		
Buildings (Lease Hold)	787.67	0.00	0.00	402.28	9.54	0.00	375.85	385.38		
Plant And Equipments	1959999.25	6545.02	1578.53	728371.58	93555.56	(244.08)	1142794.52	1231627.67		
Furniture & Fixtures	10730.25	613.78	48.66	6112.90	542.79	(23.96)	4615.72	4617.36		
Vehicles	1456.66	74.58	31.29	1015.57	78.50	30.22	436.10	441.09		
Office Equipment	22075.80	1936.57	(24.26)	13933.66	1265.23	22.62	8860.36	8142.14		
Others - Railway Sidings	34.03	0.00	0.00	32.32	0.00	0.00	1.71	1.71		
TOTAL TANGIBLE ASSETS	2132876.77	12633.35	1741.51	2143768.61	97524.15	(170.36)	865163.93	1278604.68	1365407.35	
B. Assets held for Disposal										
	12.35	1.40	12.06	0.12	0.01	0.00	0.13	1.56	12.23	
TOTAL TANGIBLE ASSETS : (including held for disposal)	2132889.12	12634.75	1753.57	2143770.30	97524.16	(170.36)	865164.06	1278606.24	1365419.58	
C. Intangible Assets										
Software	771.63	281.28	83.54	399.77	113.51	20.36	476.45	371.86		
TOTAL	2133660.75	12916.03	1837.11	2144739.67	97637.67	(150.00)	865656.98	1279082.69	1365791.44	
PREVIOUS YEAR TOTAL	1923057.97	214710.26	4107.48	2133660.75	90529.80	3023.41	767869.31	1365791.44	1242695.05	



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(ii) Intangible Assets includes Software and are amortised in 5 years.

(iii) Reconciliation of Depreciation charged to Statement of Profit and Loss is given below :

	2011-12	2010-11
Depreciation for the Year ₹ 97787.68 Lacs (previous year 2010-11 ₹ 87506.39 Lacs) is reconciled as under		
Depreciation charged to Profit & Loss	96147.81	86765.18
Add : Depreciation included under Expenses During Construction period pending allocation (Note.12 (v))	1216.64	3533.77
: Depreciation relating to prior period (Note. 29)	379.51	38.45
: Depreciation on R&D Assets	197.25	179.17
: Obsolescence Loss Trf. to prior period (Note 29)	0.00	13.23
Less : Deduction / Adjustments	153.54	3,023.41
	97,787.67	87,506.39

(iv) Gross Block of Fixed Assets and related Accumulated Depreciation include the Value of assets taken over from DAE are accounted at their original cost and related accumulated depreciation based on its classification.

(v) (a) Land includes cost incurred on its development.

(b) Title deed of land owned by TMS remains in name of erstwhile Tarapur Atomic Power Project.

(c) **Land at Rawatbhata Rajasthan Site (RRS) includes :**

- 267.21 hectares of Revenue Department & Private land acquired for which title (Jamabandi) is available; and does not include:
- 393.58 hectares of Forest and Revenue Department land acquired on the condition that its legal status would remain unchanged;
- 983.40 hectares of forest land taken on notional rent of ₹ 1 per annum.

(vi) **Building Includes :** (a) Lease premium in respect of premises taken on long lease at various places; (b) Proportionate cost in respect of buildings constructed on the land belonging to DAE & others, as per the respective arrangements/ understandings; (c) Buildings Constructed on Land belonging to DAE as per respective arrangements/ undertakings.

12 CAPITAL WORK IN PROGRESS

(i) **Details of Capital Work in Progress are as under :**

Particulars	(₹ in Lacs)	
	As at 31st March 2012	As at 31st March 2011
Capital Work-in-Progress	1097873.11	1010208.13
See description Note (ii)		
Capital Goods and Stores	74898.54	84842.31
Less : Provision for Obsolescence/Loss	37.62	37.62
See description Note (iii)	74860.92	84804.69
Payment For Project Procurements	16848.47	3084.90
Payment - Against Material Pending Acceptance		
Against Capital Expenditure Considered good	32139.79	29899.18
Against Capital Expenditure Considered doubtful	1291.56	1291.77
	33431.35	31190.95
Less : Provision for doubtful advances	1291.56	1291.77
See description Note (iv)	32139.79	29899.18
Expenditure - During Construction Pending Allocation	521460.56	347545.61
See description Note (v)		
Expenditure - on Upcoming Projects/ Sites	16426.37	14777.03
TOTAL	1759609.22	1490319.54

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(ii) CWIP of Contracts & Materials Management division (C&MM) includes Materials lying with Fabricators amounting to ₹ 26185.22 Lacs (Previous year ₹ 15809.17 Lacs).

(iii) (a) **Capital Goods and Stores stated above includes Goods in Transit and Goods lying with Contractors. The value of these items are given below :**

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Goods in Transit (Included in Capital Goods & Stores)	3.55	44.84
Goods lying with Contractors (Included in Capital Goods & Stores)	48.90	53.31

(iii) (b) As per Technical appraisal made by the management, it is of the opinion that slow moving and non-moving inventory lying with the Corporation as at the year-end are serviceable and in good condition. (b) The management affirms correct identification of Shortage/ obsolescence of stores, spares and capital inventories which are non-moving/ slow moving, in view of technical reasons and provided for.

(iv) Payment Against Material Pending Acceptance includes Expenditure/Advance which are predominantly supply/stage payments made to Suppliers/fabricators against dispatch documents or against materials received by sites/units and under inspection or delivered to fabricators for further processing, which are in the process of adjustment/reconciliation. In the opinion of the management, stagnancy in respect of such advances is periodically reviewed and provisions required, if any is accordingly made.

(v) **Details of Carrying balance of Expenditure During Construction during the reporting year is given below :**

(₹ in Lacs)

Expenditure during construction period Pending Allocation	As at	As at
	31st March 2012	31st March 2011
Opening Balance	347545.61	345327.28
Add : Expenses during the year		
Fuel - Use Charges	0.00	10.20
SUB-TOTAL (A)	0.00	10.20
Salaries & Wages	8867.64	9585.51
Bonus / Incentives	772.87	1207.56
Staff Welfare expenses	1691.38	2026.09
Contribution to Provident and Other Funds	540.19	653.39
Gratuity, Leave encashment & Other employee benefits	3.90	1.67
Allocation of Head Office Expenditure	14806.20	14928.45
SUB-TOTAL (B)	26682.18	28402.67
Stores and Spares Consumed	475.65	815.33
Repairs and Maintenance		
a) Building	170.61	206.74
b) Plant and Machinery	488.99	1058.61
c) Others	577.13	821.36
Security expenses- Plant site	788.12	506.53
Insurance	1155.04	801.42
Rates and Taxes	0.00	8.62
Electricity and Water Charges -Plant Site	8269.69	4429.95
Rent	5.53	5.39
Travelling and Conveyance expenses	163.03	130.73
Printing and Stationery	57.75	78.87
Electricity and Water Charges - Township	350.52	318.98
Advertisement Expenses	44.19	35.15
Rates and Taxes	0.09	0.58



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(₹ in Lacs)

	As at 31st March 2012	As at 31st March 2011
Other Expenses	1500.37	1867.34
Security Expenses	81.39	258.58
Consultancy Charges	3404.81	3509.55
Net gain/loss on foreign currency transactions and translation	41782.60	0.00
SUB-TOTAL (C)	59315.51	14853.73
Detailed Project Report Expenses (Foreign Exchange Fluctuations)	0.00	116.55
Depreciation	1216.64	3533.77
Finance Cost - Interest on Borrowed Funds	24886.10	16697.91
Finance Cost - Interest on Russian Credit - GOI-DAE Loan	24029.06	22752.19
Finance Cost - Other Borrowing Cost	244.87	0.00
Finance Cost - Net Gain/Loss on Foreign Currency Transactions and Translation.	38854.49	0.00
Prior Period Expenses/Income (Net)	0.00	2.38
SUB-TOTAL (D)	89231.16	43102.80
TOTAL EXPENDITURE (A+B+C+D)	175228.85	86369.40
Less : Income		
Interest (Others)	49.19	63.93
Infirm Power	0.00	20.19
Other Income	1268.42	1176.64
Prior Period Income/Expense (Net)	-3.71	-6.05
	1313.90	1254.71
NET EXPENSES FOR THE YEAR	173914.95	85114.69
Balance at the end of the year	521460.56	430441.97
Less : Allocated to Fixed Assets	0.00	82896.36
NET TOTAL	521460.56	347545.61

13 NON CURRENT INVESTMENTS*

(i) Details of Unquoted Trade & Other Investments (Long Term) :

(₹ in Lacs)

Particulars	As at 31st March 2012	As at 31st March 2011
I. Trade Investments		
1. Investment in Equity/Shares		
(a) Joint Venture / Subsidiary Companies	11779.10	7800.00
	See description Note (ii) (a) to (d)	
2. Investment in Debenture/Bonds		
(a) Power Bonds	110068.95	126719.42
	See description Note (iii)	
TOTAL TRADE INVESTMENTS	121848.05	134519.42
II. Other Investments		
1. Investment in Equity/Shares Instrument		
(a) Investment in Shares of Co-Operative Societies at Units		
(i) 10264 Shares of KAPS Co-Operative society of ₹ 10/- each fully paid.	1.03	1.03
(ii) 7102 Shares of NAPS Co-operative society of ₹ 10/- each fully paid.	0.71	0.71
(iii) 4923.5 Shares of MAPS Co-operative society of ₹ 10/- each fully paid.	0.49	0.49
(iv) 1200 Shares of TAPS Co-operative society of ₹ 10/- each fully paid.	0.12	0.12
	See description Note (iv)	
	2.35	2.35

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(₹ in Lacs)

	As at 31st March 2012	As at 31st March 2011
(b) Investment in Shares of Associates Company BHAVINI (Under same management)		
(i) 600000 (Previous year 300000) Equity shares of ₹ 1000/- each fully paid up See description Note(v)	6,000.00	3,000.00
2. Other Investments		
(a) Employees Leave Encashment Scheme		
(i) Life Insurance Corporation of India	21743.91	19410.04
(ii) SBI Life Cap Assure	8866.50	8558.47
(iii) ICICI Prudential	2584.44	0.00
See description Note (vi) (a) to (c)	33194.85	27968.51
(b) Employees Gratuity Scheme		
(i) Life Insurance Corporation of India	11042.16	9614.39
(ii) SBI Life Cap Assure	10123.82	9724.40
(iii) ICICI Prudential	2584.44	0.00
See description Note (vi) (a) to (c)	23750.42	19338.79
(c) Deposit with HUDCO - Earmarked Fund Investment See description Note (vii)	14590.00	14590.00
TOTAL OTHER INVESTMENTS	77537.62	64899.65
TOTAL	199385.67	199419.07

* For valuation method refer Accounting Policy No. 'J'.

(ii) (a) Details of Investment in Joint Venture / Subsidiary Companies by NPCIL :

Name of Company	As at 31.03.2012	
	No. of Equity Share held of Face Value ₹ 10/- each**	Cost of Investment** (In ₹)
1. L&T Special Steels and Heavy Forgings Private Limited (JV)	117,000,000 (78,000,000)	1,170,000,000 (780,000,000)
2. Anushakti Vidhyut Nigam Ltd. (JV & Subsidiary)	51,000 (Nil)	510,000 (Nil)
3. NPCIL Indian Oil Nuclear Energy Corporation Ltd. (JV & Subsidiary)	740,000 (Nil)	7,400,000 (Nil)
TOTAL		1,177,910,000 (780,000,000)

**Figures in bracket denotes Previous year figures



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

- (ii) (b) The Corporation along with Larsen & Toubro Limited entered into a Joint Venture (JV) named as "L&T Special Steels and Heavy Forgings Private Limited" for establishing, manufacturing and supply of forgings for Indian Nuclear programme (both civilian and non-civilian) including for exports. NPCIL is having 26% share in the Joint venture with Issued, Subscribed and Paid up Equity Share Capital of ₹ 45000 Lacs (Previous year Subscribed Capital ₹ 30000 Lacs). The joint venture company is in its early stage of operation. The Corporation has subscribed ₹ 11700 Lacs (Previous Year ₹ 7800 Lacs) as at end of current reporting period.

Based on Financial Statements of the JV entity, the Corporation's share of assets, liabilities and income & expenses as required by AS-27 'Financial Reporting of interests in Joint Ventures' are given below

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
A. Assets		
Long Term Assets		
Tangible	849.37	97.45
In-Tangible	50.62	3.54
Capital Works in Progress	32,740.42	15,678.90
Other Non - Current Assets	776.26	2,513.43
Current Assets	5,076.49	3,716.93
B. Liabilities		
Secured Loan	16,345.73	3,902.92
Short Term Liability	2,876.69	2,454.20
C. Income	-	11.83
D. Expense	293.24	135.91

- (ii) (c) The Corporation along with NTPC Ltd., entered into a Joint Venture (JV) named as "Anushakti Vidhyut Nigam Ltd." for establishing nuclear power stations which is also a subsidiary of the corporation. The JV was incorporated on 27th January 2011 with NPCIL share of 51% in the issued, subscribed and paid up equity share capital of ₹ 10 Lacs. The JV is in its early age of operation and no activity has been undertaken so far. Based on Financial Statements of the JV entity, the Corporation's share of assets, liabilities and income & expenses as required by AS-27 'Financial Reporting of interests in Joint Ventures' are given below :

(₹ in Lacs)

Particulars	As at
	31st March 2012
A. Assets	
Tangible Assets	-
Intangible Assets	-
Capital work in Progress	-
Other Non Current Assets	-
Current Assets	5.10
B. Liabilities	
Non Current Liabilities	-
Current Liabilities	0.06
C. Income	-
D. Expenses	3.31

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

- (ii) (d) The Corporation along with Indian Oil Corporation Ltd. has entered into Joint Venture (JV) named as "NPCIL Indian Oil Nuclear Energy Corporation Ltd." for establishing nuclear power stations which is also a subsidiary of the corporation. It was incorporated on 6th April 2011 with NPCIL share of 74 % in the issued, subscribed and paid up equity share capital of ₹ 100 Lacs (previous year Nil). The JV is in early age of operations and no activity has been undertaken so far. Based on Financial Statements of the JV entity, the Corporation's share of assets, liabilities and income & expenses as required by AS-27 'Financial Reporting of interests in Joint Ventures' are given below :

(₹ in Lacs)

Particulars	As at 31st March 2012
A. Assets	
Tangible Assets	–
Intangible Assets	–
Capital work in Progress	–
Other Non Current Assets	–
Current Assets	68.02
B. Liabilities	
Non Current Liabilities	–
Current Liabilities	0.35
C. Income	–
D. Expenses	8.81

- (iii) (a) Details of all Investments in Bonds - Power Bonds, at Cost as at the end of the year are given below:

(₹ in Lacs)

	As at 31st March 2012	As at 31st March 2011
Investments in Bonds (At Cost) Unquoted		
Investment in Power Bonds	127350.00	156261.25
Less : Due for maturity with in 12 months from reporting date (Carried to Note- 16)	17281.05	29541.83
Investment in Power Bonds (Non Current)	110068.95	126719.42
	110,068.95	126,719.42

(₹ in Lacs)

Particulars of Bonds	As at 31st March 2012	As at 31st March 2011
Long Term Investment		
1. 8.5 % tax free Govt. of Andhra Pradesh Special Bonds	3608.16	4,510.20
2. 8.5 % tax free Govt. of Gujarat Special Bonds	14798.08	18,497.60
3. 8.5 % tax free Govt. of Haryana Special Bonds	11538.40	14,423.00
4. 8.5 % tax free Govt. of Himachal Pradesh Special Bonds	646.48	808.10
5. 8.5 % tax free Govt. of Kerala Special Bonds	180.32	225.40
6. 8.5 % tax free Govt. of Punjab Special Bonds	854.64	1,068.30
7. 8.5 % tax free Govt. of Uttar Pradesh Special Bonds	11970.40	14,963.00
8. 8.5 % tax free Govt. of Uttaranchal Special Bonds	1346.00	1,682.50
9. 8.5 % tax free Govt. of Maharashtra Special Bonds	2261.36	2,826.70
10. 8.5 % tax free Govt. of Jammu & Kashmir Special Bonds	11631.20	14,539.00
11. 8.5 % tax free Govt. of Madhya Pradesh Special Bonds	39251.20	49,064.00
12. 8.5 % tax free Govt. of Delhi Long Term Advance	6305.80	6,936.38
13. 8.5 % Govt. of Jammu & Kashmir Special Bonds (Tax Refundable)	22957.96	26,717.07
TOTAL	127,350.00	156,261.25



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

- (iii) (b) Investments in Bonds, include Bonds having face value of ₹ 1000 each (except Govt. of Delhi advance) received from various beneficiaries in the form of RBI Securitised 8.5% tax free and taxable bonds/ long term advance against Debtors outstanding on Sale of Power upto September 2001, in accordance with the recommendations of Ahluwalia Committee. These Investment in Bonds/Advance are with planned maturity in equal half yearly instalment (5% in each half year) and due for redemption on 1st October & 1st April every year. The instalments due for maturity/redemption with in 12 months from the current reporting date, as per the pre defined term has been shown separately under "Current Investments". The redemption of bonds/ advance started during 2006-07 for serial No. 1 to 11, during 2007-08 for serial No. 12 and during 2008-09 for serial No.13.
- (iv) Company invested in Equity Share Capital of Co-Operative Societies registered under the Society Act at respective State in four Unit's location. The Co-Operative Societies are created for extending services to the employees of the Company at respective site/unit. The investment is for creation of initial corpus for the society to start functioning. These are non participative shares and no dividend is accrued from operational surplus.
- (v) Bharatiya Nabhikiya Vidyut Nigam Ltd, (BHAVINI) is registered as Power (Nuclear) Generating Company under the same management, by virtue of majority holding by GOI through same administrative ministry, the Department of Atomic Energy (DAE). As at end of the reporting period it is in project stage. NPCIL has committed 5% Equity investment, out of which balance commitment ₹ 16708 Lacs (Previous year 19708 Lacs). During the reporting period ₹ 3000 Lacs (Previous year ₹ 3000 Lacs) has been paid as contribution.
- (vi) (a) These Investments are primarily held for meeting Long Term Liabilities of Employee related retirement benefit expenses. The intention of holding these investments are of long term. However, these investments are being reviewed on yearly basis to fetch the better return from such investments.
- (vi) (b) The corporation has taken up the " Nuclear Power Corporation of India Ltd. - Employee Group Leave Encashment Scheme" (NPCIL EGLES) from Life Insurance Corporation against the Leave Encashment Liability, a sum of ₹ 21743.91 Lacs (Previous year 19410.04 Lacs) have been invested under this scheme. In addition to this, a sum of ₹ 8866.50 Lacs (Previous year ₹ 8558.47 Lacs have also been invested in SBI Life-Cap Assure Leave Encashment Scheme and a sum of ₹ 2584.44 Lacs (Previous year Nil) have been invested in ICICI Prudential Leave Encashment Scheme.
- (vi) (c) A sum of ₹ 10123.82 Lacs (Previous year ₹ 9724.40 Lacs) have also been invested in SBI Life-Cap Assure Gratuity Scheme, a sum of ₹ 11042.16 Lacs (Previous year 9614.39 Lacs) towards LIC Gratuity Fund and a sum of ₹ 2584.44 Lacs (Previous year Nil) have been invested in ICICI Prudential Gratuity Scheme.

(vii) These investments are held against Earmarked Funds with an intention to hold for long term.

(₹ in Lacs)

Particulars of Bonds	As at	As at
	31st March 2012	31st March 2011
Bonds of HUDCO- Non-Trade (Earmarked Fund)		
1. 7.7% HUDCO Bonds- R&M Fund	188.72	13,400.00
2. 7.7% HUDCO Bonds- Decommissioning Fund	8,603.15	1,190.00
3. 7.7% HUDCO Bonds- R&D Fund	5,798.13	–
	14,590.00	14,590.00

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

14 LONG TERM LOANS AND ADVANCES

(i) Details of Long Term Loans & Advances are given below :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Capital Advances		
Secured & Considered Good	131,491.41	56,514.18
Un-Secured & Considered Good	69.28	291.39
Considered Doubtful	0.00	0.13
	131,560.69	56,805.70
Less : Provision for Doubtful Advances	0.00	0.13
	131,560.69	56,805.57
2. Security Deposits		
Secured & Considered Good	392.78	304.08
Un-Secured & Considered Good	248.55	250.06
Considered Doubtful	0.00	0.00
	641.33	554.14
Less : Provision for Doubtful Deposits	0.00	0.00
	See description Note (ii)	
	641.33	554.14
3. Other Loans & Advances		
(I) To JV Company-L&T Special Steels & Heavy Forgings Pvt. Ltd		
Secured & Considered Good	30,000.00	30,000.00
Interest accrued but not due on loan to JV Company	2,871.02	919.11
	See description Note (iii)	
	32,871.02	30,919.11
(II) Others		
Secured & Considered Good	5,958.28	5,799.01
Un-Secured & Considered Good	9,872.24	9,446.39
Considered Doubtful	0.00	0.00
	15,830.52	15,245.40
Less : Provision for Doubtful Advances	0.00	0.00
	See description Note (iv)	
	15,830.52	15,245.40
LONG TERM LOANS & ADVANCES (1+2+3 (I)+3 (II))	180,903.56	103,524.22

(ii) Security Deposits includes cash or it's equivalent deposit made with different bodies for carrying regular business operation.

(iii) Balance shown under Loans & Advances to JV Company - L&T Special Steel & Heavy Forgings Pvt. Ltd., includes Loans extended during the reporting year by the Corporation for ₹ NIL (Previous Year ₹ 30000 Lacs) to the JV Company which is secured by first *pari passu* charge over the project assets & immovable properties of the JV Company. Interest payment on this Loan has a moratorium of 7 years from the first anniversary due date.

(iv) (a) Details of Other Loans & Advances - Others' are given below :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Employees		
Secured & Considered Good	7,316.50	6,871.96
Un-Secured & Considered Good	10,899.68	10,197.30
	18,216.18	17,069.26
Less : Amount recoverable within a period of 12 months (Carried to Note.21)	3,708.11	2,945.15
	14,508.07	14,124.11



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(₹ in Lacs)

	As at 31st March 2012	As at 31st March 2011
2. Govt. Companies/Departments, Public Bodies & State Electricity Entities & Others		
Secured & Considered Good	22.89	29.29
Un-Secured & Considered Good	1,299.56	1,092.00
Considered Doubtful	0.00	0.00
	1,322.45	1,121.29
Less : Provision for Doubtful Advances	0.00	0.00
	1,322.45	1,121.29
LOANS & ADVANCES - OTHERS	15,830.52	15,245.40

(iv) (b) Secured Advances to Employees includes the HBA against which the Corporation obtained the Title Deed till Loan is fully repaid along with accrued Interest.

(iv) (c) "Unsecured & Considered Good" Advances include all other loans and advances extended to employees except HBA.

(iv) (d) Advances to Employees includes ₹ 0.59 Lacs (Previous Year: ₹ 6.50 Lacs) due from Directors and other Officers of the Corporation.

15 OTHER NON CURRENT ASSETS

(i) Details of Other Non Current Assets :

(₹ in Lacs)

Particulars	As at 31st March 2012	As at 31st March 2011
1. Foreign Currency Monetary Item Translation Difference Account (FCMITD)	1,539.36	0.00
Less : Amortised during the year	14.79	0.00
Unamortised FCMITD	1,524.57	0.00
Less : Current portion (Carried to Note- 21)	220.38	0.00
See description Note(ii)	1,304.19	0.00
2. Heavy Water Lease Charges Recoverable	46,247.74	38,570.24
Less : Current portion (Carried to Note- 21)	1,172.27	0.00
See description note (iii)	45,075.47	38,570.24
3. Others - (Interest accrued but not due on staff loans)	4,356.14	3,969.01
TOTAL	50,735.80	42,539.25

(ii) Refer Description Note(vi) of Note No. 3

(iii) Heavy Water Lease Charges Recoverable (HWLCR) has been paid for EMCCR (Long Shut Down) period of the Projects and eligible to be part of the capital cost for the purpose of fixation of tariff. ₹ 27712.42 Lacs as on 31.03.2012 (₹ Nil on 31.03.2011) has been considered for present tariff fixation and balance ₹ 18535.32 Lacs (Previous year ₹ 38570.40 Lacs) shall become part of capital cost at the time of fixation of tariff in future.

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

16 CURRENT INVESTMENTS*

(i) Details of Unquoted Trade & Other Investments :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Investment in Debenture/Bonds	17281.05	29541.83
(a) Power Bonds (Carried from Note.13 (iii) (a))		
	See description Note (ii)	
2. Investment in Mutual Funds	22500.00	0.00
	See description Note (iii)	
TOTAL	39781.05	29541.83

* For valuation method refer Accounting Policy No. 'J'.

(ii) Details of Bonds are given below :

(₹ in Lacs)

Particulars of Bonds	As on	As on
	31.03.2012	31.03.2011
Due for maturity with in 12 months from reporting date *		
1. 8.5 % tax free Govt. of Andhra Pradesh Special Bonds	451.02	902.04
2. 8.5 % tax free Govt. of Gujarat Special Bonds	1,849.76	3,699.52
3. 8.5 % tax free Govt. of Haryana Special Bonds	1,442.30	2,884.60
4. 8.5 % tax free Govt. of Himachal Pradesh Special Bonds	80.81	161.62
5. 8.5 % tax free Govt. of Kerala Special Bonds	22.54	45.08
6. 8.5 % tax free Govt. of Punjab Special Bonds	106.83	213.66
7. 8.5 % tax free Govt. of Uttar Pradesh Special Bonds	1,496.30	2,992.60
8. 8.5 % tax free Govt. of Uttaranchal Special Bonds	168.25	336.50
9. 8.5 % tax free Govt. of Maharashtra Special Bonds	282.67	565.34
10. 8.5 % tax free Govt. of Jammu & Kashmir Special Bonds	1,453.90	2,907.80
11. 8.5 % tax free Govt. of Madhya Pradesh Special Bonds	4,906.40	9,812.80
12. 8.5 % tax free Govt. of Delhi Long Term Advance	1,261.16	1,261.16
13. 8.5 % Govt. of Jammu & Kashmir Special Bonds(Tax Refundable)	3,759.11	3,759.11
TOTAL	17,281.05	29,541.83

* Refer note 13 (iii) (a) & (b)

(iii) Details of Mutual Fund are given as under: (Previous year Nil)

(₹ in Lacs)

Name of Scheme	No. of Units	NAV as on	Cost
		31.03.2012	
IDBI Liquid Fund - Growth	871,160.27	10,028.68	10,000.00
SBI Premier Liquid Fund - Super Institutional - Growth	594,631.82	10,028.68	10,000.00
Canara Rebeco Liquid Super Institutional - Growth	192,179.04	2,507.04	2,500.00
TOTAL		22,564.40	22,500.00

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

17 INVENTORIES*

(i) Details of Inventories :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Stores & Spares (O&M)	45,685.58	39,883.77
Less : Provision for Obsolescence/Loss	463.30	621.36
See description Note. (ii) & (iii)		
	45,222.28	39,262.41

* For valuation method refer Accounting Policy No. 'B'.

(ii) As per Technical appraisal made by the management, it is of the opinion that slow moving and non-moving inventory lying with the Corporation as at the year-end are serviceable and in good condition. (b) The management affirms correct identification of Shortage/ obsolescence of stores, spares and capital inventories which are non-moving/ slow moving, in view of technical reasons and provided for.

(iii) Inventory stated above includes Goods in Transit and Goods lying with Contractors. The value of these items are given below :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Goods in Transit (Included in Inventory)	454.98	385.11
Goods lying with Contractors (Included in Inventory)	0.00	0.00

18 TRADE RECEIVABLES

(i) Summary Details of Trade Receivables :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Trade Receivables - Secured & Considered Good		
Outstanding Exceeding Six Months from due date of payment	0.00	0.00
Others	42,634.35	29,846.73
	42,634.35	29,846.73
Trade Receivables - Un-Secured & Considered Good		
Outstanding Exceeding Six Months from due date of payment	14,063.30	9,373.07
Others	166,826.80	75,223.91
	180,890.10	84,596.98
Trade Receivables - Doubtful		
Outstanding Exceeding Six Months from due date of payment	313.76	313.65
Others	0.00	0.00
	313.76	313.65
Less : Provision for Doubtful Receivables	313.76	313.65
	0.00	0.00
	223,524.45	114,443.71

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(ii) Receivables at NAPS include ₹ 7733 Lacs (previous year ₹ 7733 Lacs) recoverable from Delhi Electric Supply Undertaking (DESU) which are more than 3 years old. These dues have been confirmed by the Ministry of Power, hence being fully recoverable, no provision is required to be made.

(iii) Details of receivables due from Bhartiya Nabhikiya Vidyut Nigam Limited (BHAVINI), a company under the same management are given below in respect of units stated.

(₹ in Lacs)

	As at 31st March 2012	As at 31st March 2011
Details of Receivables due from BHAVINI		
Receivables due at Head Office - Mumbai	0.00	160.16
Receivables due at Contract & Material Management Division - Mumbai	0.00	0.00
TOTAL	0.00	160.16

19 CASH & CASH EQUIVALENTS

(i) Details of Cash & Cash Equivalents are given below:

(₹ in Lacs)

Particulars	As at 31st March 2012	As at 31st March 2011
1. Balances with Banks		
Current Accounts' Balance	18,459.37	16,501.24
Deposit Accounts' Balance	393,608.96	883,315.21
See description Note (ii) & (iii)	412,068.33	899,816.45
2. Balances with Banks - For Earmarked Funds		
Current Accounts' Balance	0.06	1,330.73
Deposit Accounts' Balance	103,909.91	101,951.36
See description Note (iv) (a) & (b)	103,909.97	103,282.09
3. Cheques Drafts on hand	0.00	3,760.25
4. Cash on hand	1.99	2.38
5. Others - Including Imprest Balance	74.72	97.27
	516,055.01	1,006,958.44

(ii) Deposit Accounts' Balance includes ₹ Nil (Previous Year ₹ 200000 Lacs) pledged against Short Term Loan/Overdraft for ₹ Nil (Previous year ₹ 142000 Lacs).

(iii) Deposit with more than 12 months Maturity ₹ 180000 lac (Previous Year ₹ 435000 Lacs).

(iv) (a) Deposit with more than 12 months Maturity for earmarked fund were ₹ 97442.80 lac (Previous Year ₹ 97442.80 Lacs).

(iv) (b) Deposit for earmarked fund are not available in the normal course of business operation.

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

20 SHORT TERM LOANS AND ADVANCES

(i) Details of Short Term Loans & Advances :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Loans & Advances		
(I) Others		
Secured & Considered Good	6,727.07	19,777.62
Un-Secured & Considered Good	4,067.94	1,822.22
Considered Doubtful	14.97	14.98
	10,809.98	21,614.82
Less : Provision for Doubtful Advances	14.97	14.98
	See description Note (ii)	
TOTAL	10,795.01	21,599.84

(ii) Details of Short Terms Loans & Advances - To Others' are given below :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
1. Govt. Companies/Departments, Public Bodies & State Electricity Entities		
Secured & Considered Good	959.16	861.48
Un-Secured & Considered Good	476.92	381.60
Considered Doubtful	0.27	0.27
	1,436.35	1,243.35
Less : Provision for Doubtful Advances	0.27	0.27
	1,436.08	1,243.08
2. Advance Income Tax / Tax Recoverable*	5034.46	18807.79
3. Others	4324.47	1548.97
TOTAL	10,795.01	21,599.84

*Details of Advance Income Tax/Tax recoverable Net of Provision

(₹ in Lacs)

Particulars	2011-12	2010-11
	Gross Amount (including tax paid for Current Year ₹ 46896.89 (Previous Year ₹ 26500.00))	84,129.22
Less: Provision for taxation (including for Current Year ₹ 45500.00 (Previous Year ₹ 30974.00))	79,094.76	64,568.76
TOTAL	5,034.46	18,807.79

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

21 OTHER CURRENT ASSETS

(i) Details of Other Current Assets :

(₹ in Lacs)

Particulars	As at	As at
	31st March 2012	31st March 2011
Heavy Water Lease Charges Recoverable (Carried from Note 15)	1,172.27	0.00
Interest Accrued But not Due on Deposits/Advances	26,830.11	49,468.24
Interest Accrued But not Due on Loans to staff	322.37	366.08
Interest Accrued But not Due on Earmarked Funds	13,354.56	5,746.13
Current Maturity of Employees Long Term Advances (Carried from Note 14 (iv) (a))	3,708.11	2,945.15
Others (See description Note (ii))	11,918.57	9,887.39
Foreign Currency Monetary Item Translation Difference (Carried from Note 15)	220.38	0.00
	57,526.37	68,412.99

(ii) Others includes amount recoverable from subsidiaries ₹ 9.74 Lacs (Previous year ₹ Nil) against preliminary expenses incurred on their behalf.

22 REVENUE FROM OPERATIONS

(i) Revenue from operation for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year	For the Year
		31st March 2012	31st March 2011
1 Sales of Electrical Energy	(ii) to (vi)	791,380.72	601,253.16
TOTAL	–	791,380.72	601,253.16

(ii) Sales include Internal Consumption of Power for Projects amounting to ₹ 211.33 Lacs (Previous Year ₹ 1046.35 Lacs) which is considered at cost of generation.

(iii) (a) The Department of Atomic Energy (DAE) has issued revised tariff norms for determining tariff for Sale of Electricity by Atomic Power Stations to the Electricity undertakings, vide notification No. 1./2(20)/2005-Power/Vol-III/11689 dated 8th December 2010. The revised tariff norms, which is inclusive of recovery of tax was due to be effective from 1st July 2010 for the all Atomic Power Stations and shall remain effective for five years. Accordingly, the tariff has been revised during the year except TAPS 1&2 as stated above. The impact of the said notification has been accounted for during the current year 2011-12. The Revenue includes ₹ 14017.28 Lac, the net impact of revised tariff for the year 2010-11.

(iii) (b) Pending finalisation of Tariff for TAPS Unit 1& 2, the sale of electrical energy was billed on provisional basis adopting existing notified tariff of TAPS 1&2. The details of net sale of electrical energy billed on provisional tariff (excluding Tax reimbursement) are given below :

(₹ in Lacs)

Particulars	TAPS 1&2	TAPS 1&2
	For 2011-12	For 2010-11
Net Sales (in MUs)	2514.73	NIL
Net Sales (₹ In Lacs)	23096.19	NIL

(iii) (c) During the year 2011-12, the Company has received Notification No. HWB/Accts/HWPM/107/2011/781 dated 8th November 2011 from Heavy Water Board towards revised pool price of Heavy water for the period from 1st April 2003 to 31st March 2011. Accordingly the revised charge has been considered for the raising of energy bills. The Revenue includes ₹ 26494.00 Lacs accounted during the period 2011-12, the impact of such a revision for the period from 1st April 2003 to 31st March 2011.

(iv) Revenue on Sale of Energy is recognised net of Decommissioning Fund Levy aggregating to ₹ 5824.65 lac (Previous year ₹ 4709.54 Lacs) on the basis of net unit exported to the beneficiaries and others at tariffs notified by DAE.



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(v) The operation of the Corporation of generation of electricity is considered as a single segment, which operates in one geographical segment; hence Segment Reporting as required under Accounting Standard (AS)-17 is not applicable.

(vi) Sale of Energy includes Sale of Steam amounting to ₹ 5365.64 Lacs (Previous year 4577.02 Lacs).

23 OTHER INCOME

(i) Other Income for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st March 2012	For the Year 31st March 2011
1. Interest Income			
i) on deposits / bonds		44,218.19	61,200.87
ii) on staff loans		1,666.91	1,414.61
iii) on others	(ii)	27,212.56	19,885.49
		73,097.66	82,500.97
2. Delayed Payment Charges		10.58	248.61
3. Excess Provision written back		1,140.48	1,721.30
4. Profit on sale of fixed assets		20.00	1.79
5. Miscellaneous Income		3,451.30	2,619.58
6. Income from Consultancy Services		596.08	576.33
7. Income from Current Investments		2,570.22	898.84
		80,886.32	88,567.42
Less: Transferred to EDC Note No 12 (v).		1,317.61	1,132.93
Transferred to Adjustment with Other Dues (DAE) Note No. 46		58.82	41.80
TOTAL		79,509.89	87,392.69

(ii) Interest income on others includes amount of ₹ 6690.92 lac (Previous year NIL) received on Interest on Income Tax refund.

24 FUEL & HEAVY WATER CHARGES

(i) Fuel and Heavy water Charges for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st March 2012	For the Year 31st March 2011
1. Fuel Charges	(ii) & (iii)		
(a) Fuel Use Charges		166,491.71	153,207.10
(b) Fuel Recovery Charges		12,518.90	11,134.00
(c) Fuel Lease Charges		5,796.47	2,628.41
		184,807.08	166,969.51
2. Heavy Water charges	(ii) & (iii)		
(a) Heavy Water Lease Charges		97,085.01	55,783.59
(b) Heavy Water Make up Charges		4,329.87	6,366.50
(c) Other Cost relating to Heavy Water		1,663.54	-
		103,078.42	62,150.09
Less: Transferred to EDC Note No 12 (v).		-	10.20
TOTAL		287,885.50	229,109.40

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

- (ii) Being a Unique industry i.e. Nuclear Power, NPCIL is not maintaining any inventory with respect to Fuel and Heavy Water. All Fuel and Heavy Water costs are charged as per directives of DAE as applicable from time to time. Being confidential in nature, the quantitative details of above are not disclosed as per DAE Order No.AEA/18/1/89-ER/3345 dated 22.11.1989
- (iii) All Fuel costs (including Fuel Recovery Charges) and Heavy Water Costs are charged as per direction of DAE as applicable from time to time. During financial year 2011-12 Company has received Notification No. HWB/Accts/HWPM/107/2011/781 dated 8th November 2011 from Heavy Water Board towards revised pool price of Heavy Water. The "Heavy Water Lease Charges" includes the impact of revised Heavy Water prices for the period 1st April 2003 to 31st March 2011 amounting to ₹ 32980.91 Lac which has been accounted for during the year.

25 OPERATIONAL AND MAINTENANCE EXPENSES

(i) Operational and Maintenance Expenses for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st March 2012	For the Year 31st March 2011
Stores and Spares consumed *		3640.65	3480.48
Repairs and Maintenance			
a) Buildings	5,749.09		5,653.26
b) Plant & Machinery	21,763.55		19,684.75
c) Office Equipments	1,248.38		1,286.00
d) Others	4,185.47		3,236.34
		32,946.49	29,860.35
Insurance		2,373.23	1,806.57
Rates and Taxes- Direct		986.71	825.76
Electricity and Water Charges Plant Site		26,581.71	5,810.13
Security Expenses- Plant		7,195.93	6,276.79
		73,724.72	48,060.08
Less: Transferred to EDC Note No 12 (v).		11,925.23	8,648.55
: Transferred to Adjustment with Other Dues (DAE) Note No. 46		364.91	381.42
TOTAL		61,434.58	39,030.11

* Refer Note No.43

26 EMPLOYEES REMUNERATION & BENEFITS

(i) Employees Remuneration & Benefits for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st Mar, 2012	For the Year 31st Mar, 2011
1. Salaries & Wages			
Salaries & Wages		69,995.35	59,822.18
Bonus		17,415.75	15,929.91
Gratuity & Leave Encashment and other Employee Benefits	Refer Note.33	11,274.08	15,117.31
		98,685.18	90,869.40
2. Contribution to Provident and other funds	Refer Note.33	4,954.13	4,430.03
3. Staff Welfare expenses		18,942.27	14,384.69
		122,581.58	109,684.12
Less: Transferred to EDC Note No 12 (v).		26,682.18	28,402.67
: Transferred to Adjustment with Other Dues (DAE) Note No. 46		3,941.98	4,469.48
Transferred to CWIP Note No 12 (i).		408.98	522.67
TOTAL		91,548.44	76,289.30



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

27 FINANCE COSTS

(i) Finance costs for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st Mar, 2012	For the Year 31st Mar, 2011
1. Interest expense			
(a) On Bonds		49,246.57	51,689.12
(b) On Terms Loans		39,175.97	31,001.86
(c) On ECB /Foreign Currency Loan		138.74	-
(d) On Russian Credit		23,991.70	22,752.19
2. Exchange differences arising as adjustment to borrowing costs	(ii)	39,223.46	152.96
3. Other borrowing costs	(iii)	3,478.64	-
		155,255.08	105,596.13
Less: Transferred to EDC Note No 12 (v).		88,014.52	39,450.10
TOTAL		67,240.56	66,146.03

(ii) Refer Note No. 3 (vi)

(iii) Expenses incurred in connection with arrangement of loans are treated as other borrowing cost in accordance with Accounting Standard 16 "Borrowing Cost".

28 ADMINISTRATIVE AND OTHER EXPENDITURE

(i) Administrative and Other Expenses for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st Mar, 2012	For the Year 31st Mar, 2011
Rent		160.13	113.02
Rates and Taxes*		168.44	177.00
Travelling and Conveyance expenses		1,415.30	1,279.64
Printing and Stationery		508.67	383.90
Electricity and Water Charges		1,328.23	979.63
Loss on sale of fixed asset		60.84	76.11
Advertisement Expenses		639.81	630.21
Net gain/loss on foreign currency transactions and translation	Note - 3 (vi)	41,800.13	(0.51)
Rebates/ Discount		11,154.41	11,622.49
Research and Development Expenditure		601.19	447.02
CSR expenses		2,171.85	276.01
Security Expenses		473.44	619.61
Bad debts / Advances written off		-	0.41
Others Written off		-	2.86
Other Expenses	ii & iii	14,975.00	12,815.30
Provisions :			
- for loss/Obsolete Stocks		21.02	26.11
- for doubtful debts		-	66.04
- for doubtful advances		-	3.45
		21.02	95.60
		75,478.46	29,518.30
Less: Transferred to EDC Note No 12 (v).		47,390.29	6,205.17
: Transferred to Adjustment with Other Dues (DAE) Note No. 46		289.75	277.55
: Drawn from R&D Fund		601.19	447.02
TOTAL		27,197.23	22,588.56

* This includes Wealth Tax amounting to ₹ 134.56 Lac (Previous Year ₹ 158.41 Lacs)

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

(ii) Remuneration to Auditors

(₹ in Lacs)

	2011-12	2010-11
Particulars		
Audit Fees		
To Statutory Auditors	20.32 *	10.8
To Branch Auditors	18.07 **	7.8
Tax Audit Fees		
To Statutory Auditors	4.47	4.47
To Branch Auditors	3.71	3.71
As expenses		
Paid to Statutory Auditors	6.65	3.87
Paid to Branch Auditors	0.76	1.98
Certification Fees		
Paid to Statutory Auditors & Branch Auditors	0.84	1.9

* Including ₹ 3.36 Lacs for the year 2010-11 approved during 2011-12

** Including ₹ 3.96 Lacs for the year 2010-11 approved during 2011-12.

(iii) Other Expenses includes following :

(₹ in Lacs)

	2011-12	2010-11
Particulars		
Telephone & Internet	1,095.52	918.66
Vehicles Expenses	3,795.91	3,108.32
Legal and Professional charges	2,189.03	943.05
Testing Charges	82.47	202.10
Fees and subscription	279.24	604.54
Office Expenses	528.24	490.09
Inventory/Freight related Expenses	757.44	260.62
Banks charges	8.80	9.52
Other Expenses	6,238.35	6,278.40
TOTAL	14,975.00	12,815.30



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

29 PRIOR PERIOD ADJUSTMENTS

(i) Prior Period adjustments for the year are given below :

(₹ in Lacs)

Particulars	Description Note No.	For the Year 31st Mar, 2012	For the Year 31st Mar, 2011
Debits			
Salaries and Wages & Contribution		-	106.87
Depreciation / obsolescence		547.21	329.66
Miscellaneous		4.76	267.87
Rates & Taxes (RLDC Charges)		1630.69	-
		2182.66	704.40
Less : Transferred To EDC Note No.12(v)		3.71	8.86
Transferred to Adjustment with Other Dues (DAE) Note No. 46		11.88	-
		15.59	8.86
SUB-TOTAL		2167.07	695.54
Credits			
Stores & Spares		-	414.04
Repairs & Maintenance		244.04	-
Miscellaneous		483.89	168.91
Depreciation		167.71	1.89
		895.64	584.84
Less : Transferred To EDC Note No.12 (v)		-	-
Transferred to Adjustment with Other Dues (DAE) Note No. 46		-	-
		895.64	584.84
TOTAL		1271.43	110.70

30 TAX EXPENSES

(i) Tax Expenses for the year are given below :

(₹ in Lacs)

Particulars		For the Year 31st Mar, 2012	For the Year 31st Mar, 2011
1 Current Tax			
(a) Current Year	45,500.00		30,974.00
(b) Earlier Year	478.32		-
		45,978.32	30,974.00
2 Deferred Tax (Refer Note No. - 4)			
(a) Deferred Tax Expense / (Income)- Current Year	(59,250.75)		4,667.46
Less : Reduction in Recovery / (Recoverable)	59,714.21		(4,667.46)
	463.46		-
(b) Earlier Years (Non-recoverable)	1,107.85		-
		1,571.31	-
TOTAL		47,549.63	30,974.00

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

31 CONTINGENT LIABILITIES & COMMITMENTS

(i) Contingent Liabilities not provided for includes :

(₹ in Lacs)

Particulars	2011-12		2010-11	
(a) Claims against the Corporation not acknowledged as debts	18286.30		13704.47	
(b) Sales tax/ Entry Tax Demands contested in Appeals (Amount paid under protest ₹ 259.03 Lacs, Previous year ₹ 259.03 Lacs.	13.00		11.91	
(c) Unexpired value of Letters of Credits/ Bank Guarantees given on behalf of corporation	114.73		11.89	
(d) Income-tax demands contested in appeals net of provisions (Amount paid under protest ₹ 2971.00 Lacs, (Previous Year ₹ 20575.45 Lacs)	23360.12		33068.70	

(ii) In the opinion of management, the aforesaid contingent liabilities relating to income-tax demands, if eventually arise on the Corporation, would be claimed from the beneficiaries except withholding tax of ₹ 20432.82 Lacs (Previous Year ₹ 12683.49 Lacs) which shall be added to project cost of Kudankulam (KKNPP1&2).

(iii) Amount payable to Project Affected People on rehabilitation at Tarapur Maharashtra Site (TMS) has been paid and provided in respect of demands received till date, as per court orders. In view of pending court cases, the future liability is unascertainable

(iv) Claims under point (a) above includes :

- (a) Notice received from Maharashtra Pollution Control Board (MPCB) by TMS for payment of Cess under Water Cess Act, 1977 amounting to ₹ 2,078.98 Lacs (Previous Year ₹ 2078.98 Lacs) disputed by TMS before the Cess Appellate Committee of MPCB. If the claim eventually arise on the Corporation, would be claimed from the State Electricity Beneficiaries.
- (b) Contingent liability for ₹ 568 lac on account of water cess in respect of Rajasthan Atomic Power Station (RAPS 2) for the period from 01.04.1984 to 12.03.2003 has been contested and is pending with Rajasthan High Court, Jaipur. If the claim eventually arise on the Corporation, would be claimed from the State Electricity Beneficiaries.
- (c) Demand of interest raised by Surat Canal Division towards unpaid charges for consumption of Water on Gross intake basis ₹ 4352.07 Lacs
- (v) Estimated amount of Contracts remaining to be executed on Capital Account (net of advances) ₹ 768887.41 Lacs (Previous Year ₹ 517818.35 Lacs). Corporation has also committed to subscribe Share Capital of:
- (a) Bharatiya Nabhiya Vidyut Nigam Ltd, (BHAVINI) ₹ 16708 Lacs (previous year ₹ 19708 Lacs) and
- (b) Larsen & Toubro Special Steels & Heavy Forgings Pvt Ltd (LTSSHF) ₹ NIL (previous year ₹ 3900 Lacs).
- (c) Anushakti Vidhyut Nigam Ltd., ₹ NIL, (Previous Year ₹ 5.10 Lacs)
- (d) NPCIL - NALCO Power Company Ltd. ₹ 7.40 Lacs (Previous Year ₹ NIL)

Further the corporation has committed for providing Loan for ₹ 5000 Lacs (Previous Year 5000 Lacs) to Larsen & Toubro Special Steels & Heavy Forgings Pvt Ltd (LTSSHF).

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Upon the Pronouncement of 'The Civil liability for Nuclear Damages Act, 2010' w.e.f. 11-Nov-2011 the Company is liable to pay damages upto ₹ 1500 Crore per incident on happening of any Nuclear Accident, balance liability shall be borne by Government of India. The NPCIL management is in the process of taking a financial security to meet the liabilities as per provisions of the Act.



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

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- (i) (a) Disclosure as per Accounting Standard 15 'Accounting for Employee Benefits':
- (i) (b) General description of various Defined Employee Benefit schemes are as under:
- (i) (c) Provident Fund : The Corporation pays fixed contribution to Provident fund at predetermined rates to a separate Trust, which invests the funds in permitted securities. The contribution to the Fund for the year is recognised as expense and is charged to Profit & Loss Account. The obligation of the Corporation is to make such fixed contribution.
- (i) (d) Gratuity : The Corporation has a defined benefit gratuity plan. Every employee who has rendered continuous service of five years or more is entitled to get gratuity at 15 days salary (15/26 X last drawn basic salary plus dearness allowance) for each completed year of service subject to a maximum of ₹ 10 Lacs on superannuation, resignation, termination, disablement or on death. The liability for the same is recognised on the basis of actuarial valuation.
- (i) (e) Leave Encashment / Half Pay Leave : The Corporation provides for earned leave benefit (including compensated absences) and half-pay leave to the employees of the Corporation which accrue annually at 30 days and 20 days respectively. A maximum of 300 days of earned leave and 240 half pay leaves is en-cashable as per the rules of the Corporation. The liability for the same is recognised on the basis of actuarial valuation.
- (i) (f) Post Retirement Medical Benefit Scheme (PRMBS) : The Corporation has Post Retirement Medical Benefit Scheme (PRMBS), under which retired employee and family are provided medical facilities in the Corporation hospital / empanelled hospitals. The liability for the same is recognised on the basis of actuarial valuation.

(ii) The summarised position of various defined benefits recognised in the profit and loss account & balance sheet is given below :

Particulars	Gratuity as on		Leave Encashment as on	
	31st March 2012	31st March 2011	31st March 2012	31st March 2011
I Assumptions				
Mortality	LIC(1994-96)Ult	LIC(1994-96)Ult	LIC(1994-96)Ult	LIC(1994-96)Ult
Discount Rate	8.75%	8.50%	8.75%	8.50%
Rate of increase in compensation	6.00%	6.00%	6.00%	6.00%
Rate of return (expected) on plan assets	-	-	-	-
II Changes in present value of obligations				
PVO at beginning of period	2,205,137,517	1,844,743,955	1,751,570,823	1,431,660,267
Interest cost	192,182,580	153,750,947	155,292,494	116,510,498
Current Service Cost	108,813,867	137,071,246	161,589,315	112,825,031
Benefits paid	-105,959,706	-99,263,471	-172,379,243	-151,648,632
Actuarial (gain)/loss on obligation	26,052,357	168,834,840	86,843,167	242,223,659
PVO at end of period	2,426,226,615	2,205,137,517	1,982,916,556	1,751,570,823
III Changes in fair value of plan assets				
Fair Value of Plan Assets at beginning of period	-	-	-	-
Expected Return on Plan Assets	-	-	-	-
Contributions	105,959,706	99,263,471	172,379,243	151,648,632
Benefits paid	-105,959,706	-99,263,471	-172,379,243	-151,648,632
Actuarial gain/(loss) on plan assets	-	-	-	-
Fair Value of Plan Assets at end of period	-	-	-	-
IV Fair Value of Plan Assets				
Fair Value of Plan Assets at beginning of period	-	-	-	-
Actual Return on Plan Asset	-	-	-	-
Contributions	105,959,706	99,263,471	172,379,243	151,648,632
Benefit paid	-105,959,706	-99,263,471	-172,379,243	-151,648,632
Fair Value of Plan Assets at end of period	-	-	-	-
Funded Status	-2,426,226,615	-2,205,137,517	-1,982,916,556	-1,751,570,823
Excess of actual over estimated return on Plan Assets	-	-	-	-

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

Particulars	Gratuity as on		Leave Encashment as on	
	31st March 2012	31st March 2011	31st March 2012	31st March 2011
V Actuarial Gain/(Loss) Recognised				
Actuarial Gain/(Loss) for the period (Obligation)	-26,052,357	-168,834,840	-86,843,167	-242,223,659
Actuarial Gain/(Loss) for the period (Plan Assets)	-	-	-	-
Total Gain/(Loss) for the period	-26,052,357	-168,834,840	-86,843,167	-242,223,659
Actuarial Gain/(Loss) recognised for the period	-26,052,357	-168,834,840	-86,843,167	-242,223,659
Unrecognised Actuarial Gain/(Loss) at end of period	-	-	-	-
VI Amounts to be recognised in the balance sheet and Statement of profit & loss account				
PBO at end of period	2,426,226,615	2,205,137,517	1,982,916,556	1,751,570,823
Fair Value of Plan Assets at end of period	-	-	-	-
Funded Status	-2,426,226,615	-2,205,137,517	-1,982,916,556	-1,751,570,823
Unrecognised Actuarial Gain/(Loss)	-	-	-	-
Net Asset/(Liability) recognised in the balance sheet	-2,426,226,615	-2,205,137,517	-1,982,916,556	-1,751,570,823
VII Expense recognised in the statement of P&L A/C				
Current Service Cost	108,813,867	137,071,246	161,589,315	112,825,031
Interest Cost	192,182,580	153,750,947	155,292,494	116,510,498
Expected Return on Plan Assets	-	-	-	-
Net Actuarial (Gain)/Loss recognised for the period	26,052,357	168,834,840	86,843,167	242,223,659
Expense recognised in the statement of P&L A/C	327,048,804	459,657,033	403,724,976	471,559,188
VIII Movements in the liability recognised in Balance Sheet				
Opening Net Liability	2,205,137,517	1,844,743,955	1,751,570,823	1,431,660,267
Expenses as above	327,048,804	459,657,033	403,724,976	471,559,188
Benefits paid	-105,959,706	-99,263,471	-172,379,243	-151,648,632
Closing Net Liability	2,426,226,615	2,205,137,517	1,982,916,556	1,751,570,823

(iii) Disclosure for Half pay leave & Post Retirement Medical Benefit Scheme (PRMBS) on the basis of actuarial valuation :

Particulars	Half Pay Leave As on		Post Retirement Benefit Scheme (PRMBS) As on	
	31st March 2012	31st March 2011	31st March 2012	31st March 2011
I Assumptions				
Mortality	LIC(1994-96)Ult	LIC(1994-96)Ult	LIC(1994-96)Ult	LIC(1994-96)Ult
Discount Rate	8.75%	8.50%	8.75%	8.50%
Rate of increase in compensation	6.00%	6.00%	-	-
Rate of Withdrawal	1.00%	1.00%	1.00%	1.00%
Value of Liability (as at end of the year)	₹ 1,15,07,84,453	₹ 95,10,12,994	₹ 84,16,92,823	₹ 69,56,63,736



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

34 RELATED PARTIES DISCLOSURE (AS 18) :

- (i) **Subsidiary Companies** - (a) Anushakti Vidhyut Nigam Ltd.
(b) NPCIL IndianOil Nuclear Energy Corporation Ltd.
- (ii) **Joint Venture Company** - L&T Special Steels and Heavy Forgings Private Limited
- (iii) **Related Parties - Key Management Personnel :**

- a) Shri Shreyans Kumar Jain
b) Shri S.A. Bhardwaj
c) Shri Preman Dinaraj
d) Shri G. Nageswara Rao
e) Shri K. C. Purohit
f) Shri S. B. Agarkar
g) Shri J. K. Ghai

Chairman & Managing Director
Director, Technical
Director, Finance (w.e.f. 10.01.2012)
Director, Operations
Director, Projects
Director, HR
Director, Finance (till 31-07-2011)

(iv) Transaction with related parties mentioned in (i) above :

Amount recoverable from subsidiaries ₹ 9.74 Lacs (Previous year ₹ Nil) against preliminary expenses.

(v) Transaction with related parties mentioned in (ii) above :

Loan given - ₹ 300 Crore (Previous year 300 Crore)

Interest accrued but not due (net of tax) as on 31.03.2012 ₹ 28.71 Crore (Previous year 9.19 Crore) including for the year 19.52 Crore (Previous year 9.19 Crore).

(vi) Transaction with related parties mentioned in (iii) above :

- (a) Remuneration - ₹ 197.70 Lacs (Previous Year ₹ 114.23 Lacs)
(b) Dues outstanding to the Corporation as on 31st March 2012 ₹ 0.59 Lacs (Previous Year ₹ 4.36 Lacs)
(c) Other payments ₹ 6.21 Lacs (Previous Year ₹ 2.45 Lacs)

35 LIST OF SUBSIDIARIES

(₹ in Lacs)

Name of subsidiary	Country	Holding (%)	
		As at 31.03.2012	As at 31.03.2011
(a) Anushakti Vidhyut Nigam Ltd.	India	51%	Nil
(b) NPCIL IndianOil Nuclear Energy Corporation Ltd.	India	74%	Nil

36 DISCLOSURE IN RESPECT OF ACCOUNTING STANDARD 20: EARNINGS PER SHARE

Earning per share (EPS) Basic and Diluted (after tax) is calculated as under:

Year	Numerator - Net Profit as per Profit & Loss Statement (Amount in Lacs)	Denominator – Weighted Average number of equity shares outstanding (Face Value of ₹ 1000/- each)	Earning Per Share (Amount in ₹)
2011-12	190,615.43	101601496	187.61
2010-11	137632.57	101453327	135.66

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As stipulated in AS-28 Impairment of Assets, the Corporation assessed potential generation of economic benefits from its business units and is of the view that assets employed in continuing businesses are capable of generating adequate returns over their useful lives in the usual course of business, there is no indication to the contrary and accordingly the management is of the view that no impairment provision is called for in these accounts

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

38 DISCLOSURE OF PROVISION AS REQUIRED UNDER AS-29 PROVISIONS CONTINGENT LIABILITIES AND CONTINGENT ASSETS 2011-12

(₹ in Lacs)

Nature of Provision & expected time of outflow	Provision outstanding at the beginning of the year	Provision made during the year	Provision utilised during the year	Provision reversed the year	Provision outstanding at the end of the year
Income Tax	62321.61	45500	30974.01	0	76847.60
Fringe Benefit Tax	2247.15	0	0	0	2247.15
Wealth Tax	105	120	105	0	120.00
Proposed Dividend	26290	29185	26290	0	29185.00
Tax on Proposed Dividend	4366.44	4734.54	4264.89	101.55	4734.54
Gratuity	22051.38	3270.49	1059.60	0	24262.27
Leave Encashment	17515.71	4037.25	1723.79	0	19829.17
Half Pay Leave	9510.13	2302.36	304.65	0	11507.84
Post Retirement Medical Benefit Scheme	6956.62	1460.31	0	0	8416.93

39 EXPENDITURE IN FOREIGN CURRENCY (ON PAYMENT BASIS)

(₹ in Lacs)

Particulars	2011-12	2010-11
	(i) Project related payments including Kudankulam (KK) Project (Net of Tax)	11954.33
(ii) Other matters (Travelling, subscription to books, periodicals, membership fee, etc.)	547.21	541.77

40 RECEIPTS IN FOREIGN CURRENCY

(₹ in Lacs)

Particulars	2011-12	2010-11
	Guest House Receipt (at KK Project)	NIL

41 FOREIGN CURRENCY EXPOSURES NOT HEDGED AS ON 31ST MARCH 2012 ARE AS UNDER

(₹ in Lacs)

Particulars	Currencies	2011-12	2010-11
	Sundry Creditors / Deposits / Loans / Retention Money	USD	13488.29 Lacs
EURO		0.13 Lacs	1.72 Lacs

42 VALUE OF IMPORTS CALCULATED ON CIF BASIS

(₹ in Lacs)

Particulars	2011-12	2010-11
	Value of imports calculated on CIF basis	51169.92



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

43 DISCLOSURE AS REQUIRED BY PARA 5 (VIII) OF GENERAL INSTRUCTIONS TO PART II OF REVISED SCHEDULE VI OF COMPANIES ACT, 1956

Particulars
(a) The information regarding value of imported spare parts and components consumed and value of all indigenous spare parts and components consumed and percentage of each to the total consumption being confidential in nature, in the opinion of the management, has not been disclosed as per DAE Order No. AEA/18/i/89-ER/3345 dated 22nd November 1989.
(b) The break up between (i) Components and Spare Parts and (ii) Capital Goods, being confidential in nature, has not been disclosed.

44
During the year Company has incurred expenses in connection with "Corporate Social Responsibility" (CSR) amounting to ₹ 2171.85 Lacs (Previous Year ₹ 276.01 Lacs) at its various Projects and Stations.

45 (i) Licensed and Installed Capacities

Particulars	Nuclear Energy		Wind Energy	
a) Licensed Capacity		Not applicable		Not applicable
b) Installed Capacity		4680 MW		10 MW
(Commercial units)	Previous year	4680 MW		10 MW

45 (ii) Quantitative information in respect of Generation and Sales of Electricity :

Electricity		Nuclear Energy		Wind Energy	
Generation (In Millions KWh) (Includes Pre-commercial)	2011-12 *	32450.61	18.40		
	2010-11 *	26468.70	22.62		
Sales (In Millions KWh) (Includes Pre-commercial)	2011-12 *	29123.25	18.30		
	2010-11 *	23532.80	22.54		
Value (₹ in Lacs)	2011-12 **	790,854.80	525.92		
	2010-11 **	600,610.86	642.30		

* Generation and Sales in MUs of Nuclear Energy includes 180.57 MUs (Previous Year 180.06 MUs) for Sale of Steam.

** Generation and Sales in Rupees in lac of Nuclear Energy includes ₹ 5365.54 Lacs (Previous Year ₹ 4577.02 Lacs) for Sale of Steam.

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The Unit is operating and managing Rajasthan Atomic Power Station, Unit - 1 (RAPS-1), which is owned by DAE, Government of India. The direct expenditure and allocated common expenditure in respect of RAPS-1 have been accounted for and claimed as per the agreement with DAE.

47
The activities at the Kudankulam Nuclear Power Project at Plant Site, which is under construction phase was temporarily slowed down for a certain period of time (i.e. from 13/10/2011 to 19/03/2012 (158 days)) during the year 2011-12 due to agitation by the local villagers. However, the management had taken adequate steps to ensure that project related work was continued without any interruption, albeit at a slow pace. The work at Plant Site resumed its full pace since 19/03/2012. In view of the above, the management is of the opinion that active development of the project was not disrupted. Accordingly, interest cost ₹ 33192.75 Lacs and other cost ₹ 4844.55 Lacs (totalled to ₹ 38037.30 Lacs) incurred during the agitation period has been treated as part of the project cost.

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

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In the opinion of the Management, the value on realisation of Non- Current Assets (except Fixed Assets not held for disposal), Current Assets in the ordinary course of business will not be less than the amount at which these are stated and provision for all known liabilities is adequate and not in excess than reasonably necessary. Letters seeking confirmation of balances have been sent to most of the parties which are either confirmed by them or are deemed to be confirmed due to non-response to the letters sent to them. In certain cases of creditors balance outstanding as per records of the parties was asked by the corporation, however responses are yet to be received from them.

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During the year certain clarificatory changes/alterations have been made in the wording of Accounting Policy No. 'D', 'I', 'J' and 'N', which has no impact on the profit for the year. The impact of exercising option as mentioned in the Accounting Policy No. 'I' is disclosed in Note No. 3(vi).

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All assets and liabilities are presented as current or non-current as per the criteria set out in revised Schedule VI of the Companies Act, 1956 notified by the Ministry of Corporate Affairs vide notification No S.O. 447 (E) dated 28th February 2011 and S.O. 653 (E) dated 30th March 2011. Based on the nature of the products, power generating process and realisation, the Company has ascertained its operating cycle of less than 12 months. Accordingly 12 months period has been considered for the purpose of current / non-current classification of assets and liabilities.

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The figures of the current and previous year have been rounded off to the nearest Lacs. The figures of previous year have been reclassified, regrouped and rearranged to make them comparable with the current year's figures to comply with the requirement of revised Schedule VI.

In terms of our Audit Report of even date attached

For KALANI & COMPANY
Chartered Accountants
FRN. 000722C

For and on behalf of

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(VIKAS GUPTA)
Partner
M. No. 077076

(SRIKAR R. PAI)
Company Secretary

(PREMAN DINARAJ)
Director (Finance)

(S.K. JAIN)
Chairman and Managing Director

Place : Mumbai
Date : 1st June 2012

Place : Mumbai
Date : 24th May 2012



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Anushakti Vidhyut Nigam Limited

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DIRECTORS' REPORT

Dear Stakeholders,

Your Directors have immense pleasure in presenting the 1st Annual Report of the Company, together with the Audited Accounts for the period ended 31st March 2012.

FINANCIAL RESULTS

The Company has not yet commenced its commercial operations. As per the extant accounting policy, Preliminary Expenses & Pre-operative Expenditure incurred up to 31st March 2012 of ₹ 6,48,987 has been charged to the Profit & Loss Account for period ended 31st March 2012.

	For the period ending on 31st March 2012
Financial results	
Total Income	Nil
Profit / (Loss) before Tax	(₹ 6,48,987)
Less : Provision for Tax	Nil
Profit / (Loss) after Tax	(₹ 6,48,987)

DEPOSITS

During the year under review, the Company has not accepted any deposit from the Public.

CAPITAL EXPENDITURE

The Company has not made any capital expenditure.

SHARE CAPITAL AND FINANCE

The initial Authorised Share Capital of the Company is ₹ 5 Crore.

During the year, the Shareholders have paid ₹ 10 Lacs towards Share Capital of the Company.

PROJECT IDENTIFICATION:

The discussions were held between NPCIL and NTPC Ltd., the promoters of the Company, for identification of the Project Site and technology route to be taken up by the Company. It was decided that the Company may take up 2x700 MW PHWR units at Gorakhpur, Haryana.

The Board of AVNL has been kept updated by NPCIL about the status of various pre-project activities including land acquisition undertaken in respect of the project. Formal allotment of project to the Company by the Government is awaited.

DISCLOSURE OF PARTICULARS

The Company did not carry out business activities and hence there are no particulars to be disclosed as per Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988.

PARTICULARS OF EMPLOYEES U/S 217 (2A)

There are no employees covered by the provisions of Section 217 (2A) of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975.

DIRECTORS' RESPONSIBILITY STATEMENT

As required under Section 217 (2AA) of the Companies Act, 1956, the Directors confirm :

- I. that in the preparation of the annual accounts, the accounting standards have been followed to the extent applicable and there has been no material departure;
- II. that the selected accounting policies were applied consistently and the Directors made judgement and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company as on 31st March 2012 and of the profit or loss of the Company for that period;
- III. that proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- IV. that the annual accounts have been prepared on a going concern basis.

DIRECTORS

The current Directors of the Company are :

1. Shri S. A. Bhardwaj
2. Shri Preman Dinaraj
3. Shri M. K. Kannan
4. Shri A. K. Singhal
5. Shri D. K. Jain (ceased to be Director w.e.f. 30th June 2012)

AUDIT COMMITTEE

The Audit Committee has not been constituted as the formation of the Audit Committee as per Companies Act, 1956 is mandatory for the Companies having Paid-up Share Capital more than ₹ 5 Crore.

The Role, Terms of Reference, the Authority and Power of the Audit Committee when constituted would be in conformity with the requirements of the Companies Act, 1956 for an Audit Committee.

STATUTORY AUDITORS

The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India. M/s K. U. Kothari & Co. Chartered Accountants, Mumbai were appointed as Statutory Auditors for the Financial Year ended on 31st March 2012.

DIRECTORS' REPORT

SECRETARIAL COMPLIANCE CERTIFICATE

The Company has obtained a compliance certificate pursuant to the provisions of Section 383A of the Companies Act, 1956 from M/s. K.M. Jhaveri & Co., a firm of Practising Company Secretaries. The Compliance Certificate is annexed to this report.

OBSERVATIONS OF THE STATUTORY AUDITORS

The Auditors' Report to the Shareholders does not contain any qualifications.

The notes to the accounts referred to in the Auditors' Report are self-explanatory and therefore do not call for any further comments of Directors.

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

The accounts for the period from 27th January 2011 to 31st March 2012 were reviewed by the Comptroller and Auditor General of India (C&AG). The comments of C&AG on the accounts have been given as annexure to the report.

ACKNOWLEDGEMENTS

The Directors acknowledge the invaluable support extended to the Company by the employees and management of the parent companies.

For and on behalf of the Board

Place : Mumbai
Date : 25th July 2012

(S.A. BHARDWAJ)
Chairman



COMPLIANCE CERTIFICATE

(Under sub-section (1) of section 383A of the Companies Act, 1956)

CIN of the Company: U40300MH2011GOI212727

Nominal Capital: ₹ 5,00,00,000/-

Paid up Capital: ₹ 10,00,000/-

To,

The Members

ANUSHAKTI VIDHYUT NIGAM LIMITED

16th Floor, Centre 1, World Trade Centre,
Cuffe Parade, Mumbai- 400005

We have examined the registers, records, books and papers of ANUSHAKTI VIDHYUT NIGAM LIMITED (the Company) as required to be maintained under the Companies Act, 1956, (the Act) and the rules made thereunder and also the provisions contained in the Memorandum and Articles of Association of the Company for the financial year ended on 31st March 2012. In our opinion and to the best of our information and according to the examinations carried out by us and explanations furnished to us by the Company, its officers and agents, we certify that in respect of the aforesaid financial year:

1. The Company has kept and maintained all registers as stated in Annexure 'A' to this certificate, as per the provisions of the Act and the rules made thereunder and all entries therein have been recorded.
2. The Company has filed the forms and returns as stated in Annexure 'B' to this certificate, with the Registrar of Companies, Mumbai, under the Act and the rules made thereunder.
3. The Company, being a Public Limited Company, comments are not required.
4. The Board of Directors met 5 (Five) times respectively on 21st February 2011, 30th June 2011, 23rd September 2011, 26th December 2011 and 29th March 2012 in respect of which meetings generally notices were given and the proceedings were recorded. There was no Circular resolution passed during the period.
5. The Company was not required to close its Register of Members during the financial year.
6. The Company was incorporated on 27th January 2011. Being the first financial year of the Company, no Annual General Meeting was required to be held during the period.
7. No Extra Ordinary General Meeting was held during the financial year.
8. The Company has not advanced any loans to its directors or persons or firms or companies referred in Section 295 of the Act.
9. The Company has not entered into any contracts falling within the preview of Section 297 of the Act.
10. The Company was not required to make any entries in the register maintained under Section 301 of the Act.
11. As there were no instances falling within the purview of section 314 of the Act, the Company has not obtained any approvals from the Board of directors, members or Central Government.
12. The Company has not issued any duplicate share certificates during the financial year.
13. The Company:
 - (i) has delivered all the share certificates on allotment of shares to the promoters/ subscribers of the Company and on lodgment thereof for transfer of shares during the financial year. There was no transmission of shares during the financial year.
 - (ii) to (v) comments are not applicable during this financial year as the Company was incorporated on 27th January 2011.
14. The Board of Directors of the Company is duly constituted. There was appointment of director during the period. There was no appointment of additional directors, alternate directors and directors to fill casual vacancy during the financial year.
15. The Company has not appointed any Managing Director / Whole-time Director / Manager during the financial year.
16. The Company has not appointed any sole selling agents during the financial year.
17. The Company was not required to obtain any approvals of the Central Government, Company Law Board, Regional Director, Registrar of Companies and/or such authorities prescribed under the various provisions of the Act during the financial year.
18. The Directors have disclosed their interest in other firms / companies to the Board of Directors pursuant to the provisions of the Act and the rules made thereunder.
19. The Company has not issued any shares/ debentures/ other securities during the financial year.
20. The Company has not bought back any shares during the financial year.
21. The Company has no preference shares or debentures, therefore comments in respect of redemption of preference shares or debentures are not applicable.
22. There were no transactions necessitating the Company to keep in abeyance the rights to dividend, rights shares and bonus shares pending registration of transfer of shares.
23. The Company has not invited / accepted any deposits including any unsecured loans falling within the purview of section 58A during the financial year.
24. The Company has not made borrowings during the financial year ended on 31st March 2012.
25. The Company has not made loans and investment or given guarantees or provided securities to other bodies corporate and consequently no entries have been made in the Register kept for the purpose.
26. The Company has not altered the provisions of the Memorandum with respect to situation of the Company's registered office from one State to another during the year under scrutiny.

COMPLIANCE CERTIFICATE

(Under sub-section (1) of section 383A of the Companies Act, 1956)

27. The Company has not altered the provisions of the Memorandum with respect to the objects of the Company during the year under scrutiny.
28. The Company has not altered the provisions of the Memorandum with respect to name of the Company during the year under scrutiny.
29. The Company has not altered the provisions of the Memorandum with respect to share capital of the Company during the year under scrutiny.
30. The Company has not altered its Articles of Association during the financial year.
31. There was no prosecution initiated against or show cause notice received by the Company and no fines or penalties or any other punishment was imposed on the Company during the financial year, for offences under the Act.
32. As informed to us the Company does not have any employee during the financial year. Hence, receipt of any money as security from its employees during the financial year does not arise.
33. As informed to us, the Company does not have any employee during the financial year. Hence, constituting a separate provident fund trust for its employees or class of its employees as contemplated under section 418 of the Act does not arise.

KAUSHIK M. JHAVERI & CO.
Practising Company Secretary
C.P. No. : 2592

Place : Mumbai
Date : 21st June 2012

ANNEXURE: A

REGISTERS AS MAINTAINED BY THE COMPANY :

- | | |
|--|----------|
| 1. Register of Members and Share Ledger | u/s. 150 |
| 2. Register of Share Transfer | |
| 3. Minutes Book of Proceedings of Board Meeting | u/s. 193 |
| 4. Minutes Book of Proceedings of General Meeting | u/s. 193 |
| 5. Register of Directors, Managing Directors, Managers and Secretary | u/s. 303 |
| 6. Registers of Contracts | u/s. 301 |
| 7. Register of Directors' Shareholdings | u/s. 307 |

ANNEXURE : B

FORMS AND RETURNS AS FILED BY THE COMPANY WITH REGISTRAR OF COMPANIES, MUMBAI DURING THE FINANCIAL YEAR ENDING 31ST MARCH 2012

Sr. No.	Form No./ Return	Filed under Section	For	Date of filing	Whether filed within prescribed time Yes / No	If delay in filing whether requisite additional fee paid Yes / No
1	Form 20	u/s. 149	Declaration of compliance with the provisions of section 149(2)(b) of the Companies Act, 1956	01/04/2011	Yes	N.A
2.	Form 32	u/s 303	Appointment of Mr. Preman Dinaraj as an Additional Director	09/02/2012	Yes	N.A
3.	Form 32	u/s 303	Resignation of Mr. Jagdeep Ghai	04/11/2011	No	Yes

Place : Mumbai
Date : 5th June 2012

KAUSHIK M. JHAVERI & CO.
Practising Company Secretary
C.P. No. : 2592



AUDITORS' REPORT

To the Members of

ANUSHAKTI VIDHYUT NIGAM LIMITED

1. We have audited the attached Balance Sheet of **ANUSHAKTI VIDHYUT NIGAM LIMITED** as at 31st March 2012, the Statement of Profit and Loss and the Cash Flow Statement for the period ended on that date annexed thereto. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audit.
2. We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan & perform the audit to obtain reasonable assurances about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts & disclosures in the financial statements. An audit also includes assessing the accounting principles used & the significant estimates made by the management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. The Company is also governed by The Atomic Energy Act, 1962; the provisions of the said act will prevail wherever they are inconsistent with the provisions of the Companies Act, 1956.
4. As required by the Companies (Auditor's Report) Order, 2003, issued by the Central Government of India in terms of sub-section (4A) of section 227 of the Companies Act, 1956, we enclose in the annexure a statement on the matters specified in paragraphs 4 and 5 of the said Order.
5. Further to our comments in the Annexure referred to in paragraph 4 above, we report that:
 - i We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;
 - ii In our opinion, proper books of account, as required by law, have been kept by the Company, so far as appears from our examination of those books;
 - iii The Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement dealt with by this report are in agreement with the books of account;
 - iv In our opinion, the Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement dealt with by this report are in compliance with the accounting standards referred to in sub-section (3C) of Section 211 of the Companies Act, 1956;
 - v Being a Government company, pursuant to Notification no. G.S.R No. 829 (E) dated 21.10.2003 issued by the Department of Company Affairs, Government of India, provisions of clause (g) of sub-section (1) of section 274 of the Companies Act, 1956 are not applicable to the Company.
 - vi In our opinion and to the best of our information and according to the explanations given to us, the said accounts, read together with notes thereon, give the information required by the Companies Act, 1956 in the manner so required and give a true & fair view in conformity with the accounting principles generally accepted in India:
 - a. In the case of the Balance Sheet, of the state of the affairs of the Company as at 31st March 2012;
 - b. In the case of the Statement of Profit and Loss, of the loss for the period ended on that date; and
 - c. In case of the Cash Flow Statement, of the Cash Flows for the period ended on that date.

For K. U. KOTHARI & CO.
Chartered Accountants
FRN: 105310W

(PRAKASH CHECHANI)

Partner

Place: Mumbai

Date : 21st June 2012

M. No.: 104203

ANNEXURE TO THE AUDITORS' REPORT

Statement referred to in paragraph (4) of our report of even date on the accounts of the Company for the period ended 31.03.2012

- (i) (a) There are no fixed assets, hence no question arises of maintaining proper records showing full particulars, including quantitative details and the situation of the fixed assets;
- (b) There are no fixed assets, hence the clause of physical verification by the management of the fixed assets is not applicable;
- (c) There are no fixed assets, hence the clause of substantial part of fixed assets being disposed of during the period is not applicable;
- (ii) (a) There is no inventory, hence the clause of physical verification of inventory is not applicable;
- (b) There is no inventory, hence the clause of procedures of physical verification of inventory followed by the management is not applicable.
- (c) There is no inventory, hence the clause of maintaining proper records of inventory is not applicable.
- (iii) (a) The Company has not granted any loans, secured or unsecured to companies, firms or other parties covered in the register maintained under section 301 of the Companies Act, 1956.
- (b) The Company has not granted any loans, hence the clause of rate of interest & other terms & conditions of the loan given by the Company is not applicable.
- (c) The Company has not granted any loans, hence the clause of payment of principal amount & interest thereon is not applicable;
- (d) The Company has not granted any loans, hence the clause of overdue amount of loan is not applicable;
- (e) The Company has not taken any loans, secured or unsecured, from companies, firms or other parties covered in the register maintained under section 301 of the Companies Act, 1956.
- (f) The Company has not taken any loans, hence the clause of rate of interest & other terms & conditions of the loan taken by the Company are not applicable.
- (g) The Company has not taken any loans, hence the clause of payment of principal amount & interest thereon is not applicable;
- (iv) The Company has not started any commercial activities, hence the clause of adequate internal control system being commensurate with the size of the Company and the nature of its business with regard to purchase of inventory and fixed assets & sale of goods and services is not applicable;
- (v) (a) According to information and explanations provided to us, there are no contracts or arrangements referred to in section 301 of the Companies Act,
- (b) As stated in clause (a) hereinabove, there are no contracts or arrangements referred to in section 301 of the Companies Act, hence the clause of reasonableness of price with regard to prevailing market price at the relevant time is not applicable.
- (vi) The Company has not accepted any deposits from the public;
- (vii) The clause of internal audit system commensurate with its size and nature of its business is not applicable to the Company.
- (viii) According to the information & explanations given to us, the Central Government has prescribed the maintenance of cost records by the Company under Section 209(1)(d) of the Companies Act, 1956. However, the Company has not started operations during the period, hence no accounts or records have been made and maintained by the Company.
- (ix) This Clause is not applicable as there are no statutory dues.
- (x) The Company has been in existence for a period of less than five years, hence the clause of accumulated losses and cash losses is not applicable.
- (xi) The Company has not taken any loan from financial institution or bank, hence the clause of default in repayment of dues to the said parties is not applicable.
- (xii) The Company has not granted any loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
- (xiii) The Company is not a chit/nidhi/mutual benefit fund/society, hence clause (xiii) (a), (b) and (c) of the Order is not applicable.



ANNEXURE TO THE AUDITORS' REPORT

(xiv) The Company is not dealing or trading in shares, securities, debentures & other investments.

(xv) Based on our audit procedure and the information and explanations given to us, the Company has not given any guarantee for loan taken by others from banks or financial institutions.

(xvi) The Company has not raised term loans during the period.

(xvii) The Company has not raised any funds on short term basis, hence this clause is not applicable.

(xviii) During the period the Company has not made any preferential allotment of shares to parties and companies covered in the register maintained under section 301 of the Companies Act, 1956.

(xix) The Company has not issued any debentures during the period.

(xx) The Company has not raised money by public issues during the period.

(xxi) Based on the audit procedure performed and information and explanation given to us by the management, we report that no fraud on or by the Company has been noticed or reported during the period.

For K. U. KOTHARI & CO.
Chartered Accountants
FRN: 105310W

(PRAKASH CHECHANI)
Partner
M. No: 104203

Place: Mumbai
Date : 21st June 2012

COMMENTS OF THE COMPTROLLER and Auditor General of India

UNDER SECTION 619 (4) OF THE COMPANIES ACT, 1956 ON THE ACCOUNTS OF ANUSHAKTI VIDHYUT NIGAM LIMITED, MUMBAI FOR THE YEAR ENDED 31st MARCH 2012.

The preparation of financial statements of **Anushakti Vidhyut Nigam Limited, Mumbai** for the year ended 31st March 2012 in accordance with the financial reporting framework prescribed under the Companies Act, 1956 is the responsibility of the management of the Company. The Statutory Auditors appointed by the Comptroller and Auditor General of India under Section 619 (2) of the Companies Act, 1956 are responsible for expressing opinion on these financial statements under Section 227 of the Companies Act, 1956 based on the independent audit in accordance with the Auditing and Assurance Standards prescribed by their professional body, the Institute of Chartered Accountants of India. This is stated to have been done by them vide their Audit Report dated **21st June 2012**.

I, on the behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit under Section 619 (3) (b) of the Companies Act, 1956 of the financial statements of

Anushakti Vidhyut Nigam Limited, Mumbai for the year ended 31st March 2012. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records.

Based on my supplementary audit, nothing significant has come to my knowledge which would give rise to any comment upon or supplement to Statutory Auditor's report under Section 619(4) of the Companies Act, 1956.

For and on the behalf of the Comptroller
and Auditor General of India

(JOHN K. SELLATE)

Place : New Delhi
Date : 24.07.2012

Pr. Director of Commercial Audit &
Ex-Officio Member, Audit Board-IV



BALANCE SHEET

as at 31st March 2012

(In ₹)

Particulars	Note No.	As at
		31st March 2012
I. EQUITY & LIABILITIES		
1. Shareholder's Funds		
a) Share Capital	1	1,000,000
b) Reserves and Surplus	2	(648,987)
2. Share Application Money pending allotment		–
3. Non Current Liabilities		–
4. Current Liabilities		
Other Current Liabilities	3	648,987
TOTAL		1,000,000
II. ASSETS		
1. Non Current Assets		–
2. Current Assets		
Cash & Cash Equivalents	4	1,000,000
TOTAL		1,000,000

The Significant Accounting Policies (I) and Notes (II) are an integral part of this Financial Statement.

As per our Audit Report of even date attached

FOR K.U. KOTHARI & CO.
Chartered Accountants
FRN : 105310W

For and on behalf of

ANUSHAKTI VIDHYUT NIGAM LIMITED

(PRAKASH CHECHANI)
Partner
M. No. : 104203

(S.A. BHARDWAJ)
Chairman

(PREMAN DINARAJ)
Director

(M.K. KANNAN)
Director

Place : MUMBAI
Date : 21st June 2012

(A.K. SINGHAL)
Director

(D.K. JAIN)
Director

STATEMENT OF PROFIT AND LOSS

for the period ended 31st March 2012

(In ₹)

Particulars	Note No.	For the period ended 31st March 2012
I INCOME / REVENUE		
Revenue from operations		-
Other Income		-
TOTAL REVENUE		-
II EXPENSES		
Administration and Other expenses	5	648,987
TOTAL EXPENSES		648,987
III PROFIT BEFORE EXCEPTIONAL AND EXTRAORDINARY ITEMS AND TAX (I - II)		(648,987)
IV EXCEPTIONAL ITEMS		-
V PROFIT BEFORE EXTRAORDINARY ITEMS AND TAX (III - IV)		(648,987)
VI EXTRAORDINARY ITEMS		-
VII PROFIT BEFORE TAX (V - VI)		(648,987)
VIII TAX EXPENSES		
Current tax		-
Deferred tax		-
IX PROFIT/(LOSS) FOR THE PERIOD (VII - VIII)		(648,987)
X EARNING PER EQUITY SHARE (FACE VALUE ₹ 10/- EACH)		
Basic & Diluted		-6.49

The Significant Accounting Policies (I) and Notes (II) are integral part of this Financial Statement.

As per our Audit Report of even date attached

FOR K.U. KOTHARI & CO.

Chartered Accountants

FRN : 105310W

For and on behalf of

ANUSHAKTI VIDHYUT NIGAM LIMITED

(PRAKASH CHECHANI)

Partner

M. No. : 104203

Place : MUMBAI

Date : 21st June 2012

(S.A. BHARDWAJ)

Chairman

(A.K. SINGHAL)

Director

(PREMAN DINARAJ)

Director

(D.K. JAIN)

Director

(M.K. KANNAN)

Director



CASH FLOW STATEMENT

for the year ended 31st March 2012

(In ₹)

Particulars	Period ended 31st March 2012	
A CASH FLOW FROM OPERATING ACTIVITIES		
Net Profit/(Loss) before tax and extraordinary items		(648,987)
Adjustments for :		
Increase/(Decrease) in Current liabilities	648,987	648,987
NET CASH FROM OPERATING ACTIVITIES		-
B CASH FLOW FROM INVESTING ACTIVITIES		
NET CASH (USED IN) / FROM INVESTING ACTIVITIES		-
C CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from issue of Equity share capital	1,000,000	1,000,000
NET CASH (USED IN) / FROM FINANCING ACTIVITIES		1,000,000
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS (A+B+C)		1,000,000
Cash & Cash equivalents as at the commencement of the period		-
CASH & CASH EQUIVALENTS AS AT THE CLOSE OF THE PERIOD		1,000,000

As per our Audit Report of even date attached

FOR K.U. KOTHARI & CO.
Chartered Accountants
FRN : 105310W

For and on behalf of

ANUSHAKTI VIDHYUT NIGAM LIMITED

(PRAKASH CHECHANI)
Partner
M. No. : 104203

(S.A. BHARDWAJ)
Chairman

(PREMAN DINARAJ)
Director

(M.K. KANNAN)
Director

Place : MUMBAI
Date : 21st June 2012

(A.K. SINGHAL)
Director

(D.K. JAIN)
Director

SIGNIFICANT ACCOUNTING POLICIES

and notes to accounts for the period ended 31st March 2012

COMPANY OVERVIEW

The Company Anushakti Vidhyut Nigam Limited is a Public Limited Company having an Authorised Share Capital of ₹ 5,00,00,000/- incorporated on 27.01.2011 having its registered office in Mumbai, Maharashtra.

The business activity of the Company is Development of Nuclear Power, Protection of Environment, Manufacturing of Nuclear Components and Trading of Electricity. The commencement of business certificate is dated 4th April 2011.

I. SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Accounting & Preparation of Financial Statements

The Financial statements of the Company have been prepared in accordance with the Generally Accepted Accounting Principles in India (Indian GAAP) to comply with the Accounting Standards notified under the Companies (Accounting Standards) Rules, 2006 (as amended) & the relevant provisions of the Companies Act, 1956. The financial statements have been prepared on accrual basis under the historical cost convention.

B. Use Of Estimates

The preparation of the financial statements in conformity with Indian GAAP requires the Management to make estimates & assumptions considered in the reported amounts of assets

& liabilities (including contingent liabilities) and the reported income & expenses during the period. The Management believes that the estimates used in the preparation of financial statements are prudent & reasonable. Future results could differ due to these estimates and the differences between the actual results & the estimates are recognised in the periods in which the results are known/materialise.

C. Cash & Cash Equivalents

Cash comprises of cash in current account.

D. Cash Flow Statement

Cash flows are reported using the indirect method, whereby profit/(loss) before extraordinary items & tax is adjusted for the effects of transactions of non-cash nature & any deferrals or accruals of past or future cash receipts & payments. The cash flows from operating, investing & financing activities of the Company are segregated based on available information.

E. Deferred Tax

Deferred Tax Assets on carried forward losses are recognised & carried forward to the extent that there is a virtual certainty that sufficient future taxable income will be available against which such deferred tax assets can be realised.



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

I SHARE CAPITAL

(i) Details of Authorised, Issued, Subscribed and Paid up Share Capital :

	(In ₹)
	As at 31st March 2012
Particulars	
Authorised Share Capital	
50,00,000 Equity shares of ₹ 10/- each	50,00,000
Issued, Subscribed and Paid up Share Capital	
1,00,000 Equity Shares of ₹ 10/- each fully paid up	1,00,000
TOTAL	1,00,000

(ii) The Company is a public limited company with 51% share holding by the Nuclear Power Corporation of India Limited (NPCIL) and its nominees and 49% share holding by the National Thermal Power Corporation of India Ltd (NTPC) and its nominees. All the Shares are general equity shares having equal rights and are issued at par for value ₹ 10/- each. The shares are not listed in any of the Stock Exchange within India or outside the country as at 31.03.2012.

(iii) Reconciliation of number of Shares Outstanding at the beginning & end of the reporting period :

	As at 31st March 2012
Particulars	
Equity Share at the beginning of the period (in Numbers)	-
Equity Share Allotted during the period (in Numbers)	100,000
Equity Share at the end of the period (in Numbers)	100,000

(iv) Reconciliation of money received pending allotment of Equity Shares at the beginning & end of the reporting period :

	(In ₹)
	As at 31st March 2012
Particulars	
Money received pending allotment of Shares at the beginning of the period	-
Money received for issue of Shares during the period	1,00,000
Money utilised for issue of Equity Share during the period	1,00,000
Money received pending allotment of Shares at the end of the period	-

2 RESERVES AND SURPLUS

	(In ₹)
	As at 31st March 2012
Particulars	
Opening Balance	-
Add : Net Profit/(Net Loss) for the current period	(648,987)
Closing Balance	(648,987)

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

3 OTHER CURRENT LIABILITIES

(In ₹)

	As at 31st March 2012
Particulars	
Outstanding Expenses payable to NPCIL	637,751
Audit Fee payable	11,236
TOTAL	648,987

4 CASH & CASH EQUIVALENTS

(In ₹)

	As at 31st March 2012
Particulars	
Balances with Scheduled Banks	
Current Accounts' Balance	1,000,000
TOTAL	1,000,000

5 ADMINISTRATIVE AND OTHER EXPENDITURE

(In ₹)

	Description Note No.	Period ended 31st March 2012
Particulars		
Preliminary Expenses	5 (i)	637,751
Audit Fees	5 (ii)	11,236
TOTAL		648,987

5 (i) Details of Preliminary Expenses are given below :

(In ₹)

	Period ended 31st March 2012
Particulars	
Stamp Duty	100,300
Registration and ROC filing fees	358,000
Consultant's Professional fees	179,451
TOTAL	637,751

5 (ii) Details of Audit Fees are given below :

(In ₹)

	Period ended 31st March 2012
Particulars	
Statutory Auditor Fees	11,236
TOTAL	11,236



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

6

Being the first financial year of the Company, the accounts have been drawn up from the date of incorporation i.e., 27th January 2011 upto 31st March 2012.

7

Preliminary expenses prior to incorporation of the Company are charged to Profit & Loss Account.

8

No deferred tax was recognised on the grounds of prudence.

9

There is no Contingent Liability as at the Balance Sheet date.

As per our Audit Report of even date attached

FOR K.U. KOTHARI & CO.

Chartered Accountants

FRN : 105310W

For and on behalf of

ANUSHAKTI VIDHYUT NIGAM LIMITED

(PRAKASH CHECHANI)

Partner

M. No. : 104203

Place : MUMBAI

Date : 21st June 2012

(S.A. BHARDWAJ)

Chairman

(A.K. SINGHAL)

Director

(PREMAN DINARAJ)

Director

(D.K. JAIN)

Director

(M.K. KANNAN)

Director

DIRECTORS' REPORT

Dear Stakeholders,

Your Directors have immense pleasure in presenting the 1st Annual Report of the Company, together with the Audited Accounts for the period ended 31st March 2012.

FINANCIAL RESULTS

The Company has not yet commenced its commercial operations. As per the extant accounting policy, Preliminary Expenses & Pre-operative Expenditure incurred up to 31st March 2012 of ₹ 11,91,379 has been charged to the Profit & Loss Account for period ended 31st March 2012.

	For the period ending on 31st March 2012
Financial results	
Total Income	Nil
Profit / (Loss) before Tax	(₹ 11,91,379)
Less : Provision for Tax	Nil
Profit / (Loss) after Tax	(₹ 11,91,379)

DEPOSITS

During the year under review, the Company has not accepted any deposit from the Public.

CAPITAL EXPENDITURE

The Company has not made any capital expenditure.

SHARE CAPITAL AND FINANCE

The initial Authorised Share Capital of the Company is ₹ 10 Crore.

During the year, the Shareholders have paid ₹ 1 Crore towards Share Capital of the Company.

DISCLOSURE OF PARTICULARS

The Company did not carry out business activities and hence there are no particulars to be disclosed as per Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988.

PARTICULARS OF EMPLOYEES U/S 217 (2A)

There are no employees covered by the provisions of Section 217 (2A) of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975.

DIRECTORS' RESPONSIBILITY STATEMENT

As required under Section 217 (2AA) of the Companies Act, 1956, the Directors confirm:

- I. that in the preparation of the annual accounts, the accounting standards have been followed to the extent applicable and there has been no material departure;
- II. that the selected accounting policies were applied consistently and the Directors made judgement and estimates that are

reasonable and prudent so as to give a true and fair view of the state of affairs of the Company as on March 31, 2012 and of the Profit or Loss of the Company for that period;

- III. that proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- IV. that the annual accounts have been prepared on a going concern basis.

DIRECTORS

The current Directors of the Company are :

1. Shri G. Nageswara Rao
2. Shri B. B. Choudhary
3. Shri M. K. Balaji
4. Shri M. K. Kannan
5. Shri M. K. Dass

The 1st Board of Directors of the Company were as follows:

1. Shri K. B. Dixit, - Chairman
ED (Engg. & Procurement), NPCIL
2. Shri M. K. Balaji, - Director
ED (Operations - LWR), NPCIL
3. Shri M. K. Kannan, - Director
AD (Business Development), NPCIL
4. Shri V. Nagabhushana Rao, - Director
ED (Finance), NPCIL
5. Shri S. K. Sarangi, - Director
ED (Renewable Energy & Sustainable Develop.), IOCL

Shri K. B. Dixit has retired from services of NPCIL w.e.f. 31st May 2012 and consequent to that Shri Dixit submitted his resignation from Directorship of the Company. Therefore, pursuant to the provisions of Article 76 and 80 of the Articles of Association, Shri G. Nageswara Rao, Director (Operations) of NPCIL was nominated by NPCIL as Director and Chairman vice Shri K. B. Dixit.

Shri V. Nagabhushana Rao has also retired from services of NPCIL w.e.f. 30th June 2012 and submitted his resignation from Directorship of Company.

Shri M. K. Dass, Additional General Manager (F&A), NPCIL has been nominated by NPCIL as Director vice Shri V. Nagabhushana Rao.

Also, Indian Oil Corporation Ltd. have nominated Shri B. B. Choudhary, ED (E&P and RE&SD), IOCL vice Shri S. K. Sarangi consequent to change in his port-folio in IOCL.



DIRECTORS' REPORT

The Board of Directors in its meeting held on 5th July 2012 have appointed Shri G. Nageswara Rao, Shri M. K. Dass and Shri B. B. Choudhary as Additional Directors and they shall hold office upto the date of the Annual General Meeting i.e. 7th August 2012. The Board has also recommended the appointment of the above Additional Directors as Directors (Part-time) in the AGM and shall hold the office for such a duration as determined by NPCIL and IOCL respectively

The Board of Directors put their appreciation on record for the services rendered by Shri K. B. Dixit, Shri V. Nagabhushana Rao and Shri S. K. Sarangi during their tenure as Directors of the Company.

AUDIT COMMITTEE

The Audit Committee has not been constituted as the formation of the Audit Committee as per Companies Act, 1956 is mandatory for the Companies having Paid-up Share Capital more than ₹ 5 Crore.

The Role, Terms of Reference, the Authority and Power of the Audit Committee when constituted would be in conformity with the requirements of the Companies Act, 1956 for an Audit Committee.

SECRETARIAL COMPLIANCE CERTIFICATE

The Company has obtained a compliance certificate pursuant to the provisions of Section 383A of the Companies Act, 1956 from M/s. K.M. Jhaveri & Co., a firm of Practising Company Secretaries. The Compliance Certificate is annexed to this report.

STATUTORY AUDITORS

The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India. M/s Porwal & Porwal, Chartered Accountants, Mumbai were appointed as Statutory Auditors for the Financial Year ended on 31st March 2012.

OBSERVATIONS OF THE STATUTORY AUDITORS

The Auditors' Report to the Shareholders does not contain any qualifications.

The notes to the accounts referred to in the Auditors' Report are self-explanatory and therefore do not call for any further comments of Directors.

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

The Comptroller and Auditor General of India, have decided not to review the report of Statutory Auditors on the accounts of NPCIL-IndianOil Nuclear Energy Corporation Limited for the year ended 31st March 2012 and as such have no comments to make under Section 619 (4) of the Companies Act, 1956.

ACKNOWLEDGEMENTS

The Directors acknowledge the invaluable support extended to the Company by the employees and management of the parent companies.

For and on behalf of the Board

G. NAGESWARA RAO
Chairman

Place : Mumbai
Date : 1st August 2012

COMPLIANCE CERTIFICATE

(Under sub-section (1) of section 383A of the Companies Act, 1956)

CIN of Company: U40104MH2011GOI215870

Nominal Capital: ₹ 10,00,00,000/-

Paid up Capital: ₹ 1,00,00,000/-

To,

The Members,

NPCIL – INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED

16th Floor, Centre – 1, World Trade Centre

Cuffe Parade, Colaba

Mumbai – 400 005

We have examined the registers, records, books and papers of NPCIL - Indianoil Nuclear Energy Corporation Limited as required to be maintained under the Companies Act, 1956, (the Act) and the rules made thereunder and also the provisions contained in the Memorandum and Articles of Association of the Company for the financial year ended on 31st March 2012. In our opinion and to the best of our information and according to the examinations carried out by us and explanations furnished to us by the Company, its officers and agents, we certify that in respect of the aforesaid financial year:

1. The Company has kept and maintained all registers as stated in Annexure 'A' to this certificate, as per the provisions of the Act and the rules made thereunder and all entries therein have been generally recorded.
2. The Company has filed the forms and returns as stated in Annexure 'B' to this certificate, with the Registrar of Companies, Maharashtra under the Act and the rules made thereunder.
3. The Company, being a public limited company, comments are not required.
4. The Board of Directors duly met Four (4) times respectively on 20th April 2011; 5th July 2011; 21st November 2011 and 26th March 2012 in respect of which meetings generally notices were given and the proceedings were generally recorded and signed in the Minutes Book maintained for the purpose. There were no circular resolutions passed.
5. The Company was not required to close its Register of Members during the financial year.
6. The Company was incorporated on 6th April 2011. Being the first financial year of the Company, no Annual General Meeting was held during the period.
7. No Extra Ordinary General Meeting was held during the financial year.
8. The Company has not advanced any loans to its directors or persons or firms or companies referred in Section 295 of the Act.
9. The Company has not entered into any contract falling within the purview of Section 297 of the Act.
10. The Company was not required to make any entries in the register maintained under Section 301 of the Act.
11. As there were no instances falling within the purview of section 314 of the Act, the Company has not obtained any approvals from the Board of directors, members or Central Government.
12. The Company has not issued any duplicate share certificates during the financial year.
13. The Company:
 - (i) has delivered share certificates to subscribers on 29th June 2012. There was no transfer/ transmission of shares during the financial year.
 - (ii) to (v) comments are not applicable being the first financial year of the Company.
14. The Board of Directors of the Company is duly constituted. There was no appointment of additional directors, alternate directors and directors to fill casual vacancy during the financial year.
15. The Company has not appointed any Managing Director/ Whole-time Director/ Manager during the financial year.
16. The Company has not appointed any sole selling agents during the financial year.
17. The Company has obtained approval from Registrar of Companies towards the Commencement of Business. The Company has not obtained any approval of Central Government, Company Law Board, Regional Director and/or such authorities as may be prescribed under the various provisions of the Act.
18. The Directors have disclosed their interest in other firms / companies to the Board of Directors pursuant to the provisions of the Act and the rules made thereunder.
19. The Company has not issued any shares/ debentures/ other securities during the financial year.
20. The Company has not bought back any shares during the financial year.
21. The Company has no preference shares or debentures, therefore comments in respect of redemption of preference shares or debentures are not applicable.
22. There were no transactions necessitating the Company to keep in abeyance the rights to dividend, rights shares and bonus shares pending registration of transfer of shares.
23. The Company has not invited / accepted any deposits including any unsecured loans falling within the purview of section 58A during the financial year.
24. The Company has not made borrowings during the financial year ended on 31st March 2012.
25. The Company has not made loans and investment or given guarantees or provided securities to other bodies corporate.
26. The Company has not altered the provisions of the Memorandum with respect to situation of the Company's registered office from one State to another during the year under scrutiny.



COMPLIANCE CERTIFICATE

(Under sub-section (1) of section 383A of the Companies Act, 1956)

- | | |
|---|---|
| <p>27. The Company has not altered the provisions of the Memorandum with respect to the objects of the Company during the year under scrutiny.</p> <p>28. The Company has not altered the provisions of the Memorandum with respect to name of the Company during the year under scrutiny.</p> <p>29. The Company has not altered the provisions of the Memorandum with respect to share capital of the Company during the year under scrutiny.</p> <p>30. The Company has not altered its Articles of Association during the financial year.</p> <p>31. There was no prosecution initiated against or show cause notice received by the Company and no fines or penalties or any other</p> | <p>punishment was imposed on the Company during the financial year, for offences under the Act.</p> <p>32. As informed to us, the Company does not have any employee during the financial year. Hence, receipt of any money as security from its employees during the financial year does not arise.</p> <p>33. As informed to us, the Company does not have any employee during the financial year. Hence, receipt of any money as security from its employees during the financial year does not arise.</p> |
|---|---|

KAUSHIK M. JHAVERI & CO.
Practising Company Secretary
C.P. No. : 2592

Place : Mumbai
Date : 5th July 2012

ANNEXURE: A

REGISTERS AS MAINTAINED BY THE COMPANY:-

- | | |
|--|-------------|
| 1. Register of Members and Share Ledger | u/s 150 |
| 2. Register of Share Transfer | |
| 3. Minutes Book of Proceedings of Board Meeting | u/s 193 |
| 4. Minutes Book of Proceedings of General Meeting | u/s 193 |
| 5. Register of Directors, Managing Directors, Managers and Secretary | u/s 303 |
| 6. Register of Directors' Shareholdings | u/s 307 |
| 7. Register of Disclosure | u/s 301 (3) |

ANNEXURE: B

THE COMPANY HAS FILED FOLLOWING FORMS AND RETURNS WITH REGISTRAR OF COMPANIES, MAHARASHTRA DURING THE FINANCIAL YEAR ENDING 31ST MARCH 2012.

Sr. No.	Form No./ Return	Filed under Section	For	Date of filing	Whether filed within prescribed time Yes / No	If delay in filing whether requisite additional fee paid Yes / No
1	Form 20	u/s 149	Declaration of compliance with the provisions of section 149 (2) (b) of the Companies Act, 1956	24/05/2011	Yes	N.A

Place : Mumbai
Date : 5th July 2012

KAUSHIK M. JHAVERI & CO.
Practising Company Secretary
C.P. No. : 2592

AUDITORS' REPORT

To the Members of

NPCIL-INDIANOIL NUCLEAR ENERGY CORPORATION LTD

1. We have audited the attached Balance Sheet of **NPCIL-INDIANOIL NUCLEAR ENERGY CORPORATION LTD** as at 31st March 2012, the Statement of Profit and Loss and the Cash Flow Statement of the Company for the period ended on that date annexed thereto. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. The Company is also governed by The Atomic Energy Act, 1962; the provisions of the said act will prevail wherever they are inconsistent with the provisions of the Companies Act, 1956.
4. As required by the Companies (Auditors' Report) order, 2003 (as amended by notification no. GSR 766(E) dated 25.11.2004) issued by the Government of India (herein referred to as 'ORDER') in terms of sub section (4A) of Section 227 of the Act and on the basis of such checks as we considered appropriate and according to the information and explanations given to us, we enclose in the Annexure, a statement on the matters specified in paragraphs 4 & 5 of the said order.
5. Further to our comments in the Annexure referred to in paragraph 4 above, we report that:
 - i We have obtained all the information and explanations, which to the best of our knowledge and the belief were necessary for the purpose of our audit;

- ii In our opinion, proper books of accounts as required by law have been kept by the Company so far as appears from our examination of those books;
- iii The Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement dealt with by this report are in agreement with the books of account;
- iv In our opinion, the Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement dealt with by this report are in compliance with the accounting standards referred to in sub-section (3C) of Section 211 of the Companies Act, 1956;
- v Being a Government company, pursuant to Notification no. G.S.R No. 829 (E) dated 21.10.2003 issued by the Department of Company Affairs, Government of India, provisions of clause (g) of sub-section (1) of section 274 of the Companies Act, 1956 are not applicable to the Company.
- vi In our opinion and to the best of our information and according to the explanations given to us, the said accounts, read together with notes thereon, give the information required by the Companies Act, 1956 in the manner so required and give a true & fair view in conformity with the accounting principles generally accepted in India:
 - a. In the case of Balance Sheet, of the state of the affairs of the Company as at 31st March 2012;
 - b. In the case of Statement of Profit and Loss, of the loss for the period ended on that date; and
 - c. In case of Cash Flow Statement, on the Cash Flows for the period ended on that date.

For **PORWAL & PORWAL**
Chartered Accountants,
F.R.NO.118727W

N.N. PORWAL
Partner
M. No: 049610

Place: Mumbai
Date : 5th July 2012



ANNEXURE TO THE AUDITORS' REPORT

Statement referred to in paragraph (4) of our report of even date on the accounts of the Company for the period ended 31.03.2012

- (i) This Clause is not applicable as there are no Fixed Assets.
- (ii) This Clause is not applicable as there are no Inventories.
- (iii) This Clause is not applicable as there are no Loans taken.
- (iv) This Clause is not applicable as there are no transactions related to purchases of inventory, fixed assets and with regard to the sale of goods.
- (v) This clause is not applicable as there are no transactions that are to be maintained under Section 301 of Companies Act, 1956.
- (vi) This clause is not applicable as the Company has not accepted any deposits from the public.
- (vii) As informed to us, the Company does not have any internal audit system.
- (viii) According to the information & explanations given to us, the Central Government has prescribed the maintenance of cost records by the Company under Section 209(1)(d) of the Companies Act, 1956. However the Company has not started operations during the period, hence no accounts or records have been made and maintained by the Company.
- (ix) This Clause is not applicable as there are no Statutory dues.
- (x) This clause is not applicable as the Company does not have accumulated losses more than fifty percent of its net-worth.
- (xi) This clause is not applicable as the Company does not have any dues payable to any Bank.
- (xii) This clause is not applicable as the Company has not granted any loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
- (xiii) This clause is not applicable as the Company is not a chit fund.
- (xiv) This clause is not applicable as the Company is not dealing in or trading in shares, securities, debentures and other investments.
- (xv) Based on the information & explanation given to us, the Company has not given any guarantee for loans taken by others from banks or financial institutions.
- (xvi) The Company has not raised term loans during the period.
- (xvii) According to the information and explanations given to us and on an overall examination of the Balance Sheet of the Company, we report that no funds raised on short term basis have been used for long term assets and no long term loans have been used to finance short term assets.
- (xviii) This clause is not applicable as the Company has not made any preferential allotment of shares.
- (xix) This clause is not applicable as the Company has not issued any debentures.
- (xx) The Company has not raised money by public issues during the period.
- (xxi) To the best of our knowledge and belief and according to the information and explanations given to us, no fraud on or by the Company has been noticed or reported during the course of our audit.

For PORWAL & PORWAL
Chartered Accountants
F.R.NO.118727W

N.N. PORWAL
Partner
M. No: 049610

Place: Mumbai
Date : 5th July 2012

COMMENTS OF THE COMPTROLLER and Auditor General of India

UNDER SECTION 619 (4) OF THE COMPANIES ACT, 1956 ON THE ACCOUNTS OF NPCIL-INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED FOR THE YEAR ENDED 31ST MARCH 2012.

The preparation of financial statements of **NPCIL-IndianOil Nuclear Energy Corporation Ltd.** for the year ended 31st March 2012 in accordance with the financial reporting framework prescribed under the Companies Act, 1956 is the responsibility of the management of the Company. The Statutory Auditors appointed by the Comptroller and Auditor General of India under Section 619 (4) of the Companies Act, 1956 is responsible for expressing opinion on these financial statements under Section 227 of the Companies Act, 1956 based on the independent audit in accordance with the auditing and assurance standards prescribed by their professional body, the Institute of Chartered Accountants of India. This is stated to have been done by them vide their Audit Report dated **05.07.2012**.

I, on the behalf of the Comptroller and Auditor General of India, have decided not to review the report of Statutory Auditors on the accounts of **NPCIL-Indian Oil Nuclear Energy Corporation Limited** for the year ended 31st March 2012 and as such have no comments to make under Section 619(4) of the Companies Act, 1956.

For and on the behalf of the Comptroller
and Auditor General of India

(JOHN K. SELLATE)

Place : New Delhi
Date : 24.07.2012

Pr. Director of Commercial Audit &
Ex-Officio Member, Audit Board-IV



BALANCE SHEET

as at 31st March 2012

Particulars	Note No.	(In ₹)
		As at 31st March 2012
I. EQUITY & LIABILITIES		
1. Shareholder's Funds		
a) Share Capital	1	10,000,000
b) Reserves and Surplus	2	(1,191,379)
2. Share Application Money pending allotment		-
3. Non Current Liabilities		-
4. Current Liabilities		
Other Current Liabilities	3	383,079
TOTAL		9,191,700
II. ASSETS		
1. Non Current Assets		-
2. Current Assets		
Cash & Cash Equivalent	4	9,191,700
TOTAL		9,191,700

The Significant Accounting Policies (I) and Notes (II) are an integral part of this Financial Statement.

As per our Report of even date attached

FOR PORWAL & PORWAL
Chartered Accountants
FRN : 118727W

For and on behalf of

NPCIL - INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED

(N.N. PORWAL)
Partner
M. No : 049610

(G. NAGESWARA RAO)
Chairman

(M.K. BALAJI)
Director

(M.K. KANNAN)
Director

Place : MUMBAI
Date : 5th July 2012

(M.K. DASS)
Director

(B.B. CHOUDHARY)
Director

STATEMENT OF PROFIT AND LOSS

for the period ended 31st March 2012

Particulars	Note No.	(In ₹)
		For the period ended 31st March 2012
I INCOME / REVENUE		
Revenue from operations		-
Other Income		-
TOTAL REVENUE		-
II EXPENSES		
Administration and Other expenses	5	1,191,379
TOTAL EXPENSES		1,191,379
III PROFIT BEFORE EXCEPTIONAL AND EXTRAORDINARY ITEMS AND TAX		(1,191,379)
IV EXCEPTIONAL ITEMS		-
V PROFIT BEFORE EXTRAORDINARY ITEMS AND TAX (III - IV)		(1,191,379)
VI EXTRAORDINARY ITEMS		-
VII PROFIT BEFORE TAX (V - VI)		(1,191,379)
VIII TAX EXPENSES		
CURRENT TAX		-
DEFERRED TAX		-
IX PROFIT/(LOSS) FOR THE PERIOD (VII - VIII)		(1,191,379)
X EARNING PER EQUITY SHARE (FACE VALUE ₹ 10/- EACH)		
Basic & Diluted		-1.19

The Significant Accounting Policies (I) and Notes (II) are an integral part of this Financial Statement.

As per our Report of even date attached

FOR PORWAL & PORWAL

Chartered Accountants

FRN : 118727W

For and on behalf of

NPCIL - INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED

(N.N. PORWAL)

Partner

M. No : 049610

Place : MUMBAI

Date : 5th July 2012

(G. NAGESWARA RAO)

Chairman

(M.K. DASS)

Director

(M.K. BALAJI)

Director

(B.B. CHOUDHARY)

Director

(M.K. KANNAN)

Director



CASH FLOW STATEMENT

for the year ended 31st March 2012

(In ₹)

Particulars	Period ended 31st March 2012	
A CASH FLOW FROM OPERATING ACTIVITIES:-		
Net Profit before tax and extraordinary items		(1,191,379)
Adjustments for :		
Increase/(Decrease) in Current liabilities	383,079	383,079
NET CASH FROM OPERATING ACTIVITIES		(808,300)
B CASH FLOW FROM INVESTING ACTIVITIES		
NET CASH (USED IN) / FROM INVESTING ACTIVITIES		-
C CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from issue of Equity share capital	10,000,000	10,000,000
NET CASH (USED IN) / FROM FINANCING ACTIVITIES		10,000,000
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS (A+B+C)		9,191,700
Cash & Cash equivalents as at the commencement of the period		-
CASH & CASH EQUIVALENTS AS AT THE CLOSE OF THE PERIOD		9,191,700

As per our Report of even date attached

FOR PORWAL & PORWAL
Chartered Accountants
FRN : 118727W

For and on behalf of

NPCIL - INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED

(N.N. PORWAL)
Partner
M. No : 049610

(G. NAGESWARA RAO)
Chairman

(M.K. BALAJI)
Director

(M.K. KANNAN)
Director

Place : MUMBAI
Date : 5th July 2012

(M.K. DASS)
Director

(B.B. CHOUDHARY)
Director

SIGNIFICANT ACCOUNTING POLICIES

and notes to accounts for the period ended 31st March 2012

COMPANY OVERVIEW

The Company NPCIL- Indian Oil Nuclear Energy Corporation Limited is a Public Limited Company having an Authorised Share Capital of ₹ 10,00,00,000/- incorporated on 06.04.2011 having its registered office in Mumbai, Maharashtra.

The business activity of the Company is Development of Nuclear Power, Protection of Environment, Manufacturing of Nuclear Components and Trading of Electricity. The commencement of business certificate is dated 26th May 2011.

I. SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Accounting & Preparation of Financial Statements

The Financial statements of the Company have been prepared in accordance with the Generally Accepted Accounting Principles in India (Indian GAAP) to comply with the Accounting Standards notified under the Companies (Accounting Standards) Rules, 2006 (as amended) & the relevant provisions of the Companies Act, 1956. The financial statements have been prepared on accrual basis under the historical cost convention.

B. Use of Estimates

The preparation of the financial statements in conformity with Indian GAAP requires the Management to make estimates & assumptions considered in the reported amounts of assets

& liabilities (including contingent liabilities) and the reported income & expenses during the period. The Management believes that the estimates used in the preparation of financial statements are prudent & reasonable. Future results could differ due to these estimates and the differences between the actual results & the estimates are recognised in the periods in which the results are known/materialise.

C. Cash & Cash Equivalents

Cash comprises of cash in current account.

D. Cash Flow Statement

Cash flows are reported using the indirect method, whereby profit/(loss) before extraordinary items & tax is adjusted for the effects of transactions of non-cash nature & any deferrals or accruals of past or future cash receipts & payments. The cash flows from operating, investing & financing activities of the Company are segregated based on available information.

E. Deferred Tax

Deferred Tax Assets on carried forward losses are recognised & carried forward to the extent that there is a virtual certainty that sufficient future taxable income will be available against which such deferred tax assets can be realised.



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

I SHARE CAPITAL

(i) Details of Authorised, Issued, Subscribed and Paid up Share Capital :

(In ₹)

	As at 31st March 2012
Particulars	
Authorised Share Capital	
1,00,00,000 Equity shares of ₹ 10/- each	100,000,000
Issued, Subscribed and Paid up Share Capital	10,000,000
(10,00,000 Equity Shares of ₹ 10/- fully paid up.)	
TOTAL	10,000,000

(ii) The Company is a public limited company with 74% share holding by Nuclear Power Corporation of India Limited (NPCIL) and its nominees and 26% share holding by Indianoil Corporation Ltd.(IOCL) and its nominee. All the Shares are general equity shares having equal rights and are issued at par for value ₹ 10/- each. The shares are not listed in any of the Stock Exchange within India or outside the country as at 31.03.2012.

(iii) Reconciliation of number of Shares Outstanding at the beginning & end of the reporting period :

(In ₹)

	As at 31st March 2012
Particulars	
Equity Share at the beginning of the period (in Numbers)	–
Equity Share Allotted during the period (in Numbers)	1,000,000
Equity Share at the end of the period (in Numbers)	1,000,000

(iv) Reconciliation of money received pending allotment of Equity Shares at the beginning & end of the reporting period :

(In ₹)

	As at 31st March 2012
Particulars	
Money received pending allotment of Shares at the beginning of the period	–
Money received for issue of Shares during the period	10,000,000
Money utilised for Issue of Equity Share during the period	10,000,000
Money received pending allotment of Shares at the end of the period	–

2 RESERVES AND SURPLUS

(In ₹)

	As at 31st March 2012
Particulars	
Opening Balance	–
Add : Net Profit/(Net Loss) For the current period	(1,191,379)
Closing Balance	(1,191,379)

II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

3 OTHER CURRENT LIABILITIES

	(In ₹)
	As at 31st March 2012
Particulars	
Outstanding Expenses payable to NPCIL	336,043
Outstanding Expenses payable to IOCL.	35,800
Audit Fee payable	11,236
TOTAL	383,079

4 CASH & CASH EQUIVALENTS (CURRENT ASSETS)

	(In ₹)
	As at 31st March 2012
Particulars	
Balances with Scheduled Banks	
Current Accounts' Balance	9,191,700
TOTAL	9,191,700

5 ADMINISTRATIVE AND OTHER EXPENDITURE

	(In ₹)	
	Description Note No.	Period ended 31st March 2012
Particulars		
Preliminary Expenses	5 (i)	1,180,143
Audit Fees	5 (ii)	11,236
TOTAL		1,191,379

5 (i) Details of Preliminary Expenses are given below :

	(In ₹)
	Period ended 31st March 2012
Particulars	
Stamp Duty	200,300
Registration and ROC filing fees	608,800
Consultant's Professional fees	371,043
TOTAL	1,180,143

5 (ii) Details of Audit Fees are given below :

	(In ₹)
	Period ended 31st March 2012
Particulars	
Statutory Auditor Fees	11,236
TOTAL	11,236



II. NOTES FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 31st March 2012

6

Being the first financial year of the Company, the accounts have been drawn up from the date of incorporation i.e., 6th April 2011 upto 31st March 2012.

7

Preliminary expenses prior to incorporation of the Company are charged to Profit & Loss Account.

8

No deferred tax was recognised on the grounds of prudence.

9

There is no Contingent Liability as at the Balance Sheet date.

As per our Report of even date attached

FOR PORWAL & PORWAL

Chartered Accountants

FRN : 118727W

For and on behalf of

NPCIL - INDIANOIL NUCLEAR ENERGY CORPORATION LIMITED

(N.N. PORWAL)

Partner

M. No : 049610

Place : MUMBAI

Date : 5th July 2012

(G. NAGESWARA RAO)

Chairman

(M.K. DASS)

Director

(M.K. BALAJI)

Director

(B.B. CHOUDHARY)

Director

(M.K. KANNAN)

Director

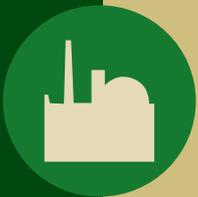
THE MISSION CONTINUES...



Mr. S. A. Bhardwaj, Director (Technical), taking over as the Acting CMD of NPCIL from Dr. S. K. Jain on 31st May 2012



Mr. K. C. Purohit, assumed charge as the CMD, NPCIL from Mr. S. A. Bhardwaj Acting CMD on 25th June 2012



Nuclear Power Corporation of India Limited
(A Government of India Enterprise)

Registered Office
16th Floor, Centre - I, World Trade Centre,
Cuffe Parade, Colaba, Mumbai - 400 005, India.

www.npcil.nic.in