

NHPC LIMITED

Corporate Office Complex, Faridabad (Haryana)

Building Profile

NHPC Limited (Formerly known as National Hydroelectric Power Corporation Ltd.), A Govt. of India Enterprise, was incorporated in the year 1975 with an authorised capital of Rs. 2000 million and with an objective to plan, promote and organise an integrated and efficient development of hydroelectric power in all aspects. Later on NHPC expanded its objects to include development of power in all its aspects through conventional and non-conventional sources in India and abroad.

At present, NHPC is a Mini Ratna Category-I Enterprise of the Govt. of India with an authorised share capital of Rs. 1,50,000 Million. With an investment base of over Rs. 3,17,000 Million Approx. , **NHPC is among the TOP TEN companies in the country in terms of investment.**

NHPC has executed 13 projects with an installed capacity of 5175 MW on ownership basis including projects taken up in joint venture. NHPC has also executed 5 projects with an installed capacity of 89.35 MW on turnkey basis. Two of these projects have been commissioned in neighbouring countries i.e. Nepal and Bhutan.



NHPC office complex is located in Sector-33, Faridabad. This building is multi storeyed comprising of basement, ground plus four floors. This building has four wings. There is canteen cum office building in the same campus. The building has been provided with Centralized HVAC system and automatic fire alarm, public address and fire fighting system. 3 Nos passengers lift have been provided in the building for the official and visitors. Total built up area of office complex is 21739 Sq m.

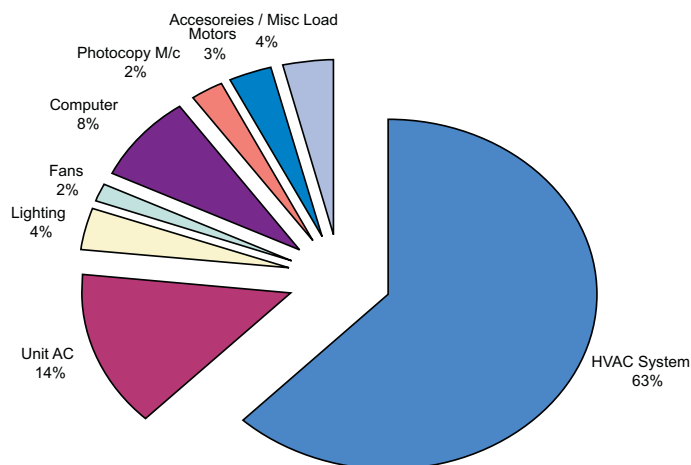
Electric power in NHPC, office complex is received from DHBVNL through 11 KV feeder. The Sanctioned Load of NHPC office Complex is 3331 KVA. The Electric Supply is received in HT Panel at New Sub station. The electric supply is then fed to HT side of 2500KVA step down transformer through VCB installed in HT panel. 2 Nos transformers of 2500 KVA each, 11/0.415KV rating are installed in office complex. Form the transformers the LT supply is fed to LT panel installed at New Sub-Station. The electrical supply is fed to different floors of the main office building through electrical panels situated at cable-duct in lift lobby at respective floors

For meeting the load requirement in case power failure from DHBVNL one DG set of 2000 KVA, 2 nos DG Sets of 1000 KVA and one DG Set of 312.5 KVA are installed in office complex.

Energy Conservation Achievements

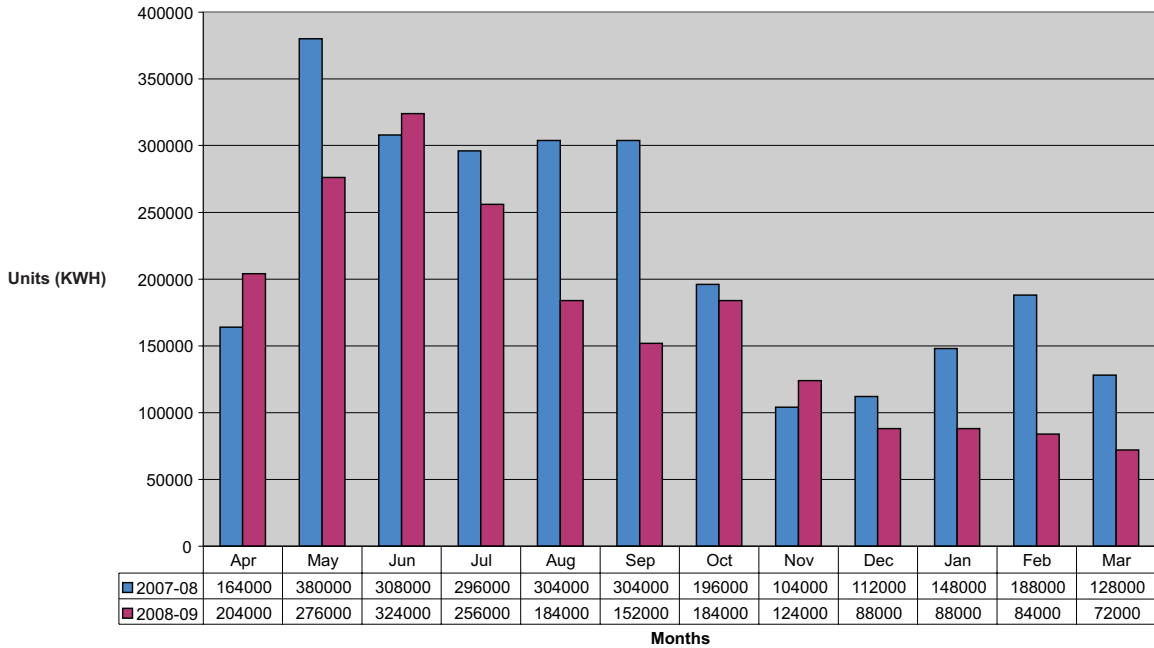
The below given chart shows the connected load pattern of NHPC Office Complex

Connected Load Details

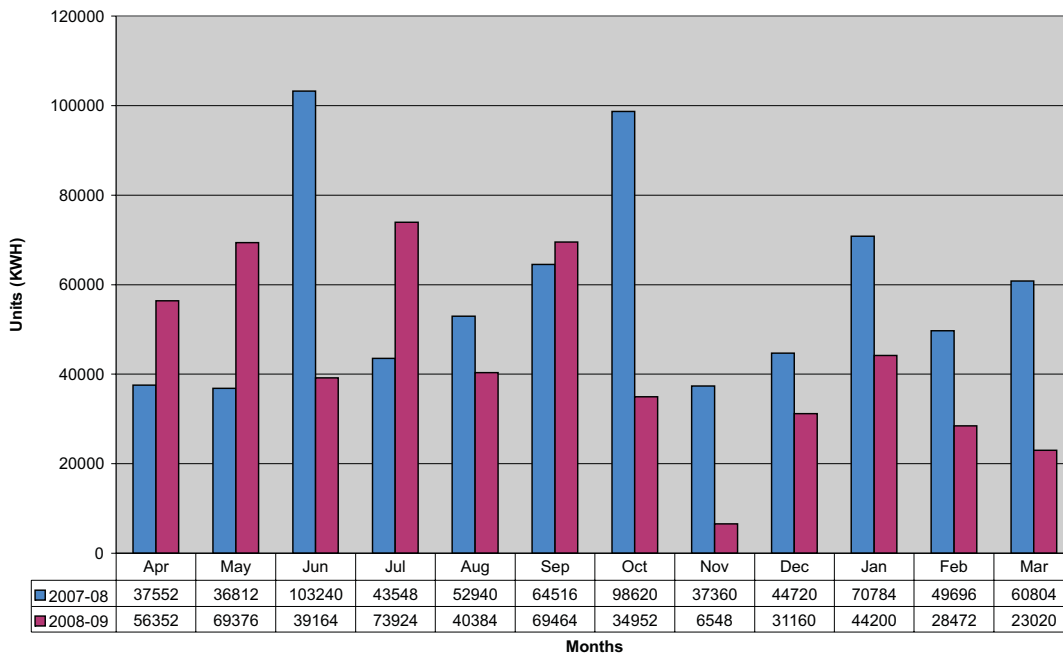


The month's wise pattern of power consumption during 2007-08 and 2008-09 is as under:

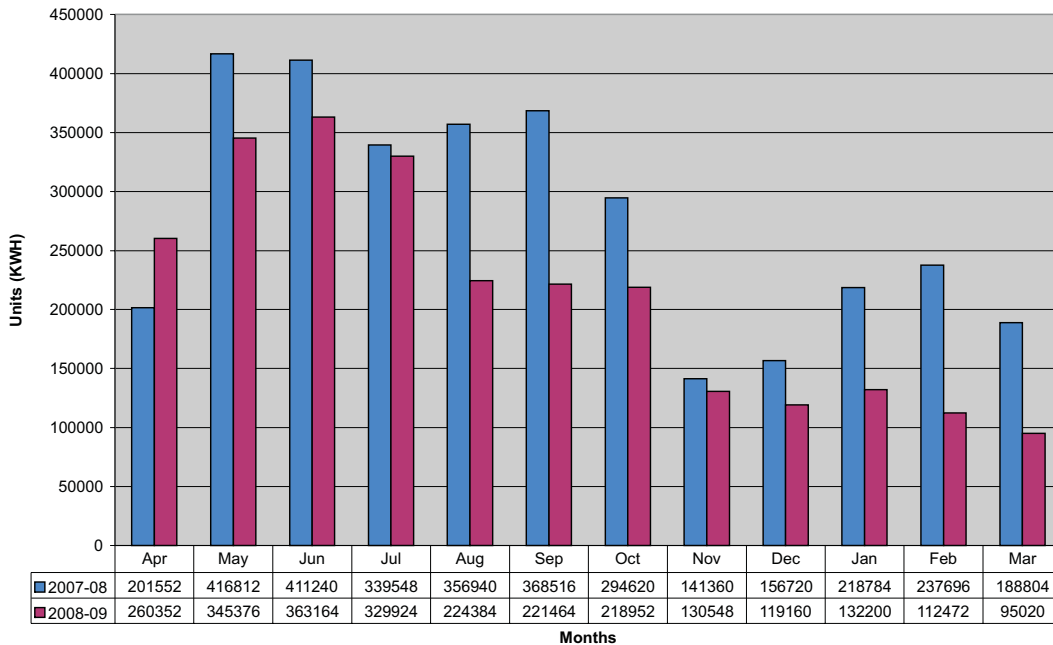
Comparison of Power Purchased from DHBVNL



Comparison of Power Generated from DG Sets



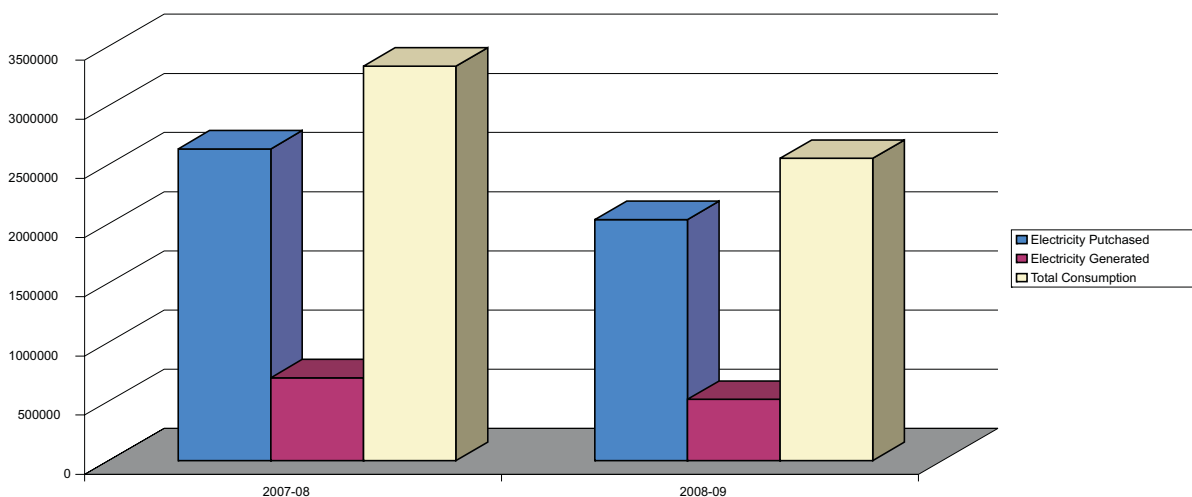
Comparison of Total Power Consumption



The Power consumption during 2007-08 and 2008-09 is as under

Year	Units purchased from DHBVNL	Unit Generated from DG	Total Unit
2007-08	2632000	700592	3332592
2008-09	2036000	517016	2553016
Saving	596000	183576	779576

Electrical Energy Consumption



Energy Conservation Achievements

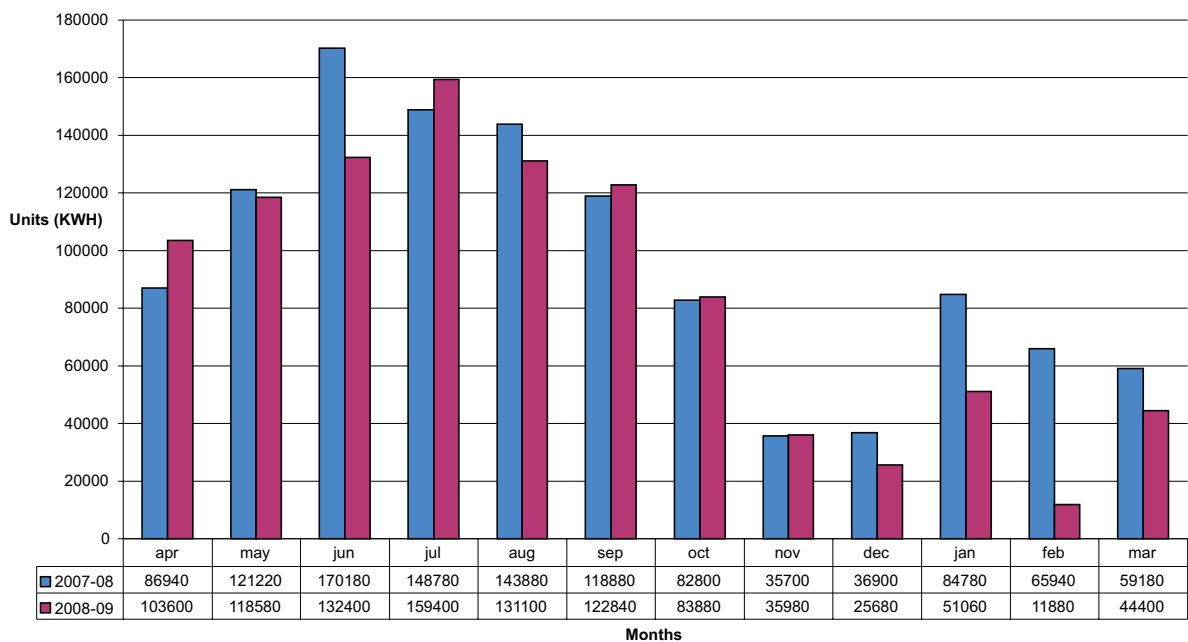
1. Installation of 24 Nos Solar Street lights in NHPC Office Complex:

24 Nos Solar Street Light have been installed in NHPC Office complex with the total investment of Rs 6.69 Lacs. With the replacement of 24 Nos 250 Watt HPSV street light fitting with solar street lights fitting energy consumption comes down from 22075 Unit to 12348 units. **This gives the Annual Energy Saving of 9727 Units.**

2. Management of Centralized Air Conditioning System

As the centralized AC is the 63 % of the load connected So the operation of centralized Air Conditioning system was controlled minutely. The Centralized AC system is regulated depending upon the temperature in the office. In the evening Chillers are stopped earlier than the office hours and cool air is circulated. This saved the working hours of the AC and thus energy saving.

Comparison of energy consumption in Central Air-conditioning system between 2007-08 and 2008-09



3. Management of Lights and Room Unit AC's

70 Nos conventional 40 watt tube light fittings were replaced with the energy efficient T-5 fitting under modernization programme in phased manner with the total investment of Rs 54731.00 and **saves of 4536 Units per year**. As on date out of 5095 Nos tube light fittings, 4675 Nos have been changed to energy efficient T-5 fittings.

12 Nos AC's older than 10 years were replaced with modern and energy efficient star rated AC unit under modernization programme in phased manner with the total investment of Rs 6.05 Lacs. **This saves of 9600 Units per year**

Instruction were given to the maintenance staff and one maintenance staff was deputed to each floor to check all the room/ halls from 05:30 PM onwards and switch OFF unwanted lights and room unit AC's.

4. General Awareness for Energy Conservation

The Energy conservation Programme has been given a major thrust in NHPC. So for implementing monitoring and review of various energy conservation measures Energy Conservation Task Force was constituted.

Various steps were taken to create General Awareness for Energy Conservation among the employee. At the intranet following have been displayed:

- (i) Energy Saved is Energy Generated.
- (ii) Shut Down the computer & peripherals before leaving the office.
- (iii) Switch Off the lights & fan before leaving the office.
- (iv) Switch Off Split AC / window AC before leaving the room.
- (v) Every Month Electricity Consumption of Each division of Corporate Office has been displayed on intranet and it is monitored minutely and it is suggested to the division to look every possibility in the direction of Energy conservation.