

SHASTRI BHAWAN

Rajendar Parsad Lane (New Delhi)

Building Profile

Shastri Bhawan is a very important central vista office building located on Dr. Rajender Parsad Road near Rajpath. It has offices of Cabinet / State Ministers / Secretaries of 13 Ministries like Information and Broadcasting, HRD, Petroleum & Natural Gas, Law & Justice, Corporate Affairs, Women and Child Development, Social Justice & Empowerment, Sports & Youth Affairs, Chemical and Petrochemical, Coal, Mines, Culture and Tribal Affairs and many other important departments of Govt. of India. Approximately 18000 officers /officials are working in this building besides daily visitors also. It will be not out of context to say that Shastri Bhawan is a nerve centre of Govt. activities and symbol of state.



Energy Consumption

Against the trend of increase in the load in recent times due to more number of AC's, the maximum demand of the building was reduced from **6200 KVA in 2014-15 to 5200 KVA during 2015-16** and consumption of electricity from 128.85 lakh units to 125.19 lakh units after adoption of energy conservation measures.

The savings in monetary terms for year 2015-16 vs 2014-15 is not comparable as NDMC has changed tariff from Rs. 6.50 to Rs.7.15 per unit and additional surcharge @8% in August 2014 and further additional PPAC charges levied @5% in July 2015. Subsequently the additional surcharge has been withdrawn w.e.f oct, 2015, but PPAC charges @5% continued.

Description of Energy Conservation Measures

Project-I : Conversion of CFL / FL Luminaires to LED Luminaires - Majority of approx. 12500 Luminaires in Shastri Bhawan were having CFL / Fluorescent lamps of 2x3/36 Watt and 2x36/40 Watt rating. During the year, a drive was undertaken to convert CFL/FL Luminaires of 2x3/36 Watt and 2x36/40 Watt with 40 Watt LED Luminaires and nearly 30% work has been completed at a approximate cost of Rs. 50 lakhs.

Result : This drive has resulted in 50 to 80% saving in energy costs per luminaires and 400 KVA reduction in total maximum demand of the building.



Project-II : Conversion of Old AC Units with

Star Rated / Inverter Units - Shastri Bhawan has more than 2000 window / split type AC units of different user ministries. On persistent drive of CPWD, user ministries have replaced nearly 800 old AC's with star rated / inverter AC's at approximate cost of Rs. 50 lakhs.

Result : This drive has resulted in 33% saving in energy costs per AC and overall reduction of 500 KVA in the maximum demand of the building.

Project-III : Installation of 250 KWp Solar PV Panel - During the year, a 250 KWp capacity solar PV panel has been installed & commissioned in December, 2015 in the building through PPP mode.

Result : It is producing nearly 22000 units of clean electricity per month besides saving in electricity tariff by 50% as rate being reimbursed to producer is 4.681 per unit against NDMC tariff of Rs. 9.34 per unit.

SHRAM SHAKTI BHAWAN / TRANSPORT BHAWAN (New Delhi)

Building Profile

1. SHRAM SHAKTI BHAWAN

Shram Shakti Bhawan is a multi storey office building situated at Rafi Marg, New Delhi. The building comprises of three blocks A, B & C. Block A & B are G+6 storey and Block-C is G+3 storey. Ground floor of block-C is parking area. The plinth area of the building is approx. 20118 Sq. mtr. and built-up area approx. 11585 Sq. mtr. The building was inaugurated by the then Hon'ble Defence Minister Sh. Yashwant Rao Balwant Rao Chawhan on 19th April 1965. This building have offices of followings Ministries i/c the office of Hon'ble Ministers.

1. Ministry of Power
2. Ministry of Labour and Employment
3. Ministry of Water Resources



2. TRANSPORT BHAWAN

Transport Bhawan office is a multi storey building situated at Sansad Marg, New Delhi. This building is G+5 storey. The plinth area of the building is approx. 14057 Sq. mtr. and built up area approx. 8960 Sq. mtr. The building was inaugurated by the then Hon'ble Broadcasting Minister Smt. Indira Gandhi on 20th September 1965. This building have offices of followings Ministries i/c the office of Hon'ble Ministers.

1. Ministry of Road Transport & Highways
2. Ministry of Tourism
3. Ministry of Shipping



Both the buildings are equipped with all E&M services such as sub-station, lifts, fire alarm & fire fighting, DG Sets & EI & fans. The maintenance of all the E&M services of both office buildings i.e. Shram Shakti Bhawan & Transport Bhawan is being maintained by CPWD through Electrical Division-16, New Delhi. Both the buildings have common sub-station installed at Shram Shakti Bhawan. The sanction load is 2205 KW and installed capacity of the sub-station is 3250 KVA. The APFC panels have been provided in the sub-station to achieve a power factor of 0.98 or more.

Energy Conservation Measures:

1. Shram Shakti Bhawan:-

- i) There were approx. 3100 Nos. indoor/ outdoor light fixtures of various type such as T-5/CFL/ sodium vapour/ metal halide. The same have been replaced by LED light fixtures having approx. 50% wattage.
- ii) Ordinary ceiling fans (approximate 630 Nos.) have been replaced by 5 star rating ceiling fans.
- iii) Window/Split Air Conditioners below 3 star rating have been replaced by 5 star rating Air Conditioners directly by Ministries through EESL.
- iv) Four nos. of old lifts have been replaced with Energy Efficient Lifts in the year 2013-14 and 2014-15.

2. Transport Bhawan:-

- i) There were approx. 1570 Nos. indoor/outdoor light fixtures of various type such as T-5/CFL/ sodium vapour/ metal halide. The same have been replaced by LED light fixtures having approx. 50% wattage.



The 11KV / 433V sub-station for supplying electrical energy to both the office buildings is located in Shram Shakti Bhawan. The total electrical consumption in the year 2014-15 was 46.67 Lakh units. After replacement of old fittings with LED luminaries, 5 star rating ceiling fans & 5 star Air conditioners, the electrical consumption reduced to is 33.69 Lakh units in the year 2015-16. The annual saving in the year 2015-16 comes to Rs. 76.30 Lakhs.

Recent initiatives

The work of installation of Solar PV System on the roof top of both the buildings have been completed and the generation of electricity have been started.

1. Shram Shakti Bhawan:- Solar PV System of capacity 125 KWp has been installed and generation started in October-2016.
2. Transport Bhawan:- Solar PV System of capacity 70 KWp has been installed and generation started June- 2016.