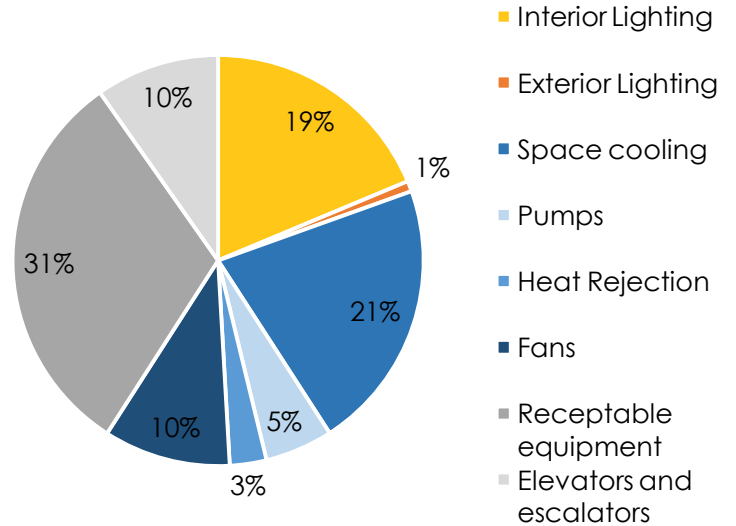


Project Description

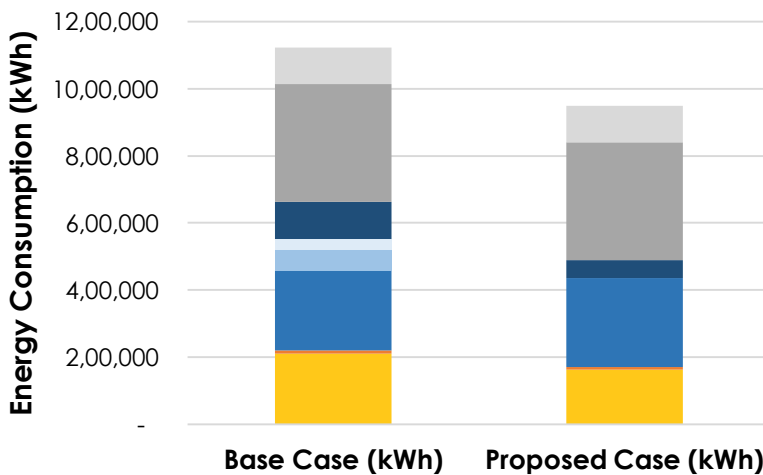
The building is located in the UNESCO Heritage precinct of Mumbai and is more than 50 years old. It is a commercial building which consists of the basement and G+5 floors. The building has office spaces with directors' cabins, board rooms, conference rooms and executive dining. It accounts for 70% conditioned spaces and 30% unconditioned spaces. All the spaces in the building are owner occupied. The energy consumption of the base case, proposed case and proposed case with the intervention of Solar PV have been analyzed.

Annual energy enduse breakdown of Base Case



Energy Comparison	Base Case	Proposed Case	Proposed case with 23 kWp Solar PV
Annual energy consumption (kWh)	11,22,709	9,49,120	9,17,253
Annual cost of energy consumption (Rs)	1,68,40,640	1,42,36,800	1,37,58,799
Total cost savings (Rs)		26,03,840	30,81,841
Total percentage savings (%)		15.5%	18.3%

Annual energy comparison of Base and Proposed Case



The following **energy conservation measures** in the **Heritage building** helped in the energy and cost savings from the Base to Proposed Case:

- Installation of glass for the windows of lower U value and SHGC
- Installation of energy efficient LED lighting fixtures
- Installation of energy efficient HVAC systems – VRV having variable speed fans and COP of 3.8
- Installation of 23 kWp Solar PV.

Project Highlights



ENERGY SAVINGS
2,05,456 kWh/year



RENEWABLE ENERGY
Solar PV 23 kWp



COST SAVINGS
Rs 30,81,841/year