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| 1 | ID: 67 | Title of measure | Sector: Office Buildings |
| 2 | Survey Year: 2006 | Auto Synchronization of the Engine Alternator sets | Technology: Auto Synchronizer |
| 3 | Name of the Company : Bangalore East Telephone Exchange, Bangalore, Karnataka, INDIA | | |
| 4 | Agency that executed the project : In-house | | |
| 5 | Year of Implementation : 2006-07 | | |
| 6 | <p>Unit Profile: Bharat Sanchar Nigam Limited known as BSNL, India Communications Corporation Limited, is a public sector communications company in India. BSNL is India's oldest and largest Communication Service Provider (CSP). Currently BSNL has a customer base of 65.3 million (Basic & Mobile telephony). It has footprints throughout India except for the metropolitan cities of Mumbai and New Delhi. As on July 31, 2007 BSNL commanded a customer base of 32.7 million Wire line, 3.7 million CDMA-WLL and 28.9 million GSM Mobile subscribers. BSNL's revenue for the financial year 2006-07 is US\$ 9.67 b1billion. The Bangalore East Telephone exchange of BSNL is situated in a residential locality in the East side of Bangalore city.</p> | | |
| 7 | <p>Description of Energy Conservation Measure:- The Auto Synchronization of the available 3 nos. 350 kVA with 1 no. 500 kVA EA sets in the following combinations was resorted to in order to optimally utilize the inventory on hand and save time in procurement of high capacity imported sets, besides energy conservation. Through this measure, significant conservation of energy was achieved in the pre- commissioning and running in period of the Data Centre, as requisite combination of DG sets were put in operation in order to cater to electricity demand at the optimum capacity utilization of engines. The combinations used are: a) 500 kVA b) 350 + 350 = 700 kVA c) 350 + 500 = 850 kVA d) 350 + 350 + 350 = 1050 kVA e) 350 + 350 + 350 + 500 = 1400 kVA The above arrangement substantially reduced the operational expenses by way of optimum diesel consumption thereby leading to Energy conservation.</p> | | |
| 8 | <p>Bangalore East Telephone Exchange</p>  | <p>Picture After Modification</p>  <p>Auto synchronization panel</p>  <p>500 kVA DG set</p> | |

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| 9 | Total investment : | Nil |
| 10 | First year energy cost savings : | 2,178 US\$ |
| 11 | First year additional savings beyond energy (i.e. water, raw materials etc.): | Nil |
| 12 | Annual oil consumption before, kl | - |
| 13 | Annual oil consumption after, kl | - |
| 14 | First year oil savings, kl | 3 |
| 15 | First year tons of CO ₂ mitigated | 9 |
| 16 | Assumed sustainability, years | 10 |
| 17 | Expected tons of CO₂ mitigated throughout life cycle | 90 |