



वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्

Council of Scientific & Industrial Research

अभियांत्रिकी सेवा प्रभाग

ENGINEERING SERVICES DIVISION

अतुल कुमार गोयल

मुख्य अभियंता

Atul Kumar Goel

Chief Engineer

11-1(3)-CSIR/2018-Engg.

03.07.2018

Directors of all National Labs./ Instts.

Dear Sir,

Keeping in view the instructions issued by Govt. of India from time to time for achieving savings in the electricity bills, a set of Guidelines has been formulated and the same is enclosed as **Annexure-A**. These Guidelines may please be followed scrupulously by all CSIR Labs./ Instts. for savings on electricity bills as well as to avoid audit objections on account of payment of fixed charges/ penalty to State Electricity Boards. It is further requested that these Guidelines may be brought to the notice of concerned Engineers of the Lab./ Instt. These Guidelines are available on CSIR website also.

With regards

Yours sincerely

(Atul Kumar Goel)

ANNEXURE-A

Guidelines for achieving savings on account of Fixed Charges on "Sanctioned load" being paid by CSIR Labs/Instts. to State Electricity Boards.

All CSIR Labs are paying electricity charges to State Electricity Boards (SEB) as per the norms/procedures of respective states. The Labs/Instts. have "sanctioned Loads" as per their requirement and pay fixed charge to SEBs for the same.

It is seen that "sanctioned load" of many CSIR Labs/Instts. is not congruous with their requirement of maximum demand. The correlation between "sanctioned load" and "maximum demand" is explained as under:-

Labs pay fixed charges even if their maximum demand is less than their "sanctioned load" and in case their maximum demand is greater than their "sanctioned load" they pay penalty for higher consumption of power.

To avoid the above situation, all CSIR Labs may take following measures which will lead to savings in electricity bills across CSIR on account of fixed charges/penalty being paid to SEBs:-

1. Labs/Instts. may monitor their Electricity Bills for Demand Charges.
2. Labs/Instts. may prepare data of all energy meters installed in the labs.
3. The Labs/Instts. may record that which part of the day/week/month has maximum demand of power. This record will help lab in load management where shifting of load of equipments and appliances is required.
4. The energy saving programmes under BEEP (Building Energy Efficiency Programmes) recommends energy efficient appliances like LED fittings, energy efficient AC units/equipments etc. The Labs/Instts may ensure usage of such energy efficient appliances. This will help in reduction of total wattage consumption of lab and resultantly it will reduce electricity load. With reduction of load eventually the fixed costs will come down and the labs would be able to save on electricity bills.
5. Labs/Instts may take necessary steps to conduct energy audit. The primary objective of Energy Audit is to determine ways to reduce energy consumption and energy costs. The Energy Audit would give a positive orientation to the energy cost reduction, preventive maintenance and quality control programmes which are vital for production and utility activities of CSIR. Its insight to energy efficiency and conservations can lead to significant savings in the electricity bills.
6. Power Factor shall always be maintained close to unity.
7. The Labs/Instts. must ensure that they never exceed the consumption more than their sanctioned load. The labs can achieve this by checking their systems and disconnecting



the non-critical loads by defining the different time periods without affecting the Research of the Labs/Instts.

8. Considering the above facts, the labs/Instts. may calculate their maximum/peak demand by preparing data of monthly energy consumption and if necessary, may apply for revised "sanctioned load" based on actual requirement after evaluating their load, load factor, diversity factor rather than simply equating the connected load to sanctioned load.
9. In case the Labs./ Instts find that they require revision of their "sanctioned load" i.e **"to be reduced"** or **"to be increased"** then prompt action should be taken by the Labs./ Instts. in this matter so as to achieve timely savings & avoid Audit objections on account of payment of Fixed Charges/ Penalties to State Electricity Boards.

A handwritten signature in black ink, appearing to read 'R. G. Patel'.