

Frequently Asked Question- PAT Scheme

(As per interactive session at the National Level PAT Workshop)

Question: 1 Who will conduct the Monitoring & Verification (M&V) of Specific Energy Consumption (SEC) in the target year?

Answer : The M&V would be done by EMAEA who will be notified by BEE in due course.

Question: 2 How would the expansion work of a DC be taken care of while calculating total energy consumption in the target year?

Answer: Yes, any expansion work or temporary construction work may increase the annual energy consumption of a DC. Such additional energy will be excluded from the total energy consumption. In this case the DC would be required to furnish the detail of this consumption.

Question: 3 If a new plant is coming up in the PAT cycle period, whether this will participate in the scheme?

Answer: No. The new plants coming up during the PAT cycle would be taken up in the next cycle.

Question: 4 Whether energy consumption due to environmental regulation be considered?

Answer: Additional energy consume for the requirement under environmental regulations will not be considered while calculating the total energy consumed by the DC's. The segregation will have to be provided by the DC's itself.

Question: 5 As per business requirement, different types and grades of cement are produced by cement units which affects the energy consumption significantly. How this product variation be taken care of?

Answer: The estimation of gate to gate SEC will be done on equivalent clinker based on conversion factors of different products. BEE is working with NCCBM (**National Council for Cement and Building Materials**) to develop normalization factors for product quality.

Question: 6 For powers plants, CERC or SERC is setting the target while fixing the tariff? Hence will there be two different targets for Thermal Power Sector i.e. one for CERC and one for PAT?

Answer: No. There would be a single target for Thermal Power Station which will be in complete synchronization with CERC.

Question: 7 There would be too much information flow in place during the implementation of the PAT Scheme. How BEE as scheme administrator will take care of this challenge?

Answer: Yes, there would be volume & complexity in the information flow from different entities like system administrator, DCs, State Designated Agency, Designated Energy Auditors, Power Exchangers etc. at different point of time. BEE is in the process of developing web-based information flow system called PAT NET which will simplify the entire system.

Question: 8 Whether waste heat recovered from blast furnace or other sources be considered while estimating the baseline etc?

Answer: Yes any internal energy generated from waste heat has been taken care of while estimating baseline SEC.

Question: 9 Many DCs have their own CPP's to cater to their needs of electrical energy. Whether CPP has been separately considered under thermal power sector?

Answer: If the CPP has been registered as a separate DC and outside the plant operational boundary, it is considered separately under Thermal Power station. In other case it will be included in the same plant boundary.

Question: 10 For integrated steel plants whether the product has been selected as tonnes of crude steel or saleable steel?

Answer: For calculation SEC of integrated steel plant, tonnes of crude steel has been taken into account. Suggestions are invited whether to go for saleable steel in this regard.

Question: 11 Is there any yearly target and whether it is based on average of the 3 years?

Answer: No, there would not be any yearly target for any DC. The target would be evaluated at the end of the 3 years of PAT cycle.

Question: 12 Whether obligation trading and intra-sector trading are possible?

Answer: Yes, intra-sector obligations and ESCerts trading will be possible.

Question: 13 There are few plants which are having CPP and connected to grid to supply excess power. Due to grid restriction and unacceptability of power tariff, DC's are forced to operate the CPP at low PLF. So the specific energy consumption goes up. How to take care of this situation?

Answer: Module for adjustments is being developed to take care of this situation in the target year. However, in the base year the energy consumption will be calculated as per the present scenario.

Question: 14 Is target common to all power plants or different?

Answer : The target will be different for different plants, based on deviation from Net Design Heat Rate.

Question: 15 Why 8 sectors be covered in PAT cycle-I?

Answer: The genesis of the PAT mechanism flows out from the Energy Conservation Act, 2001. The EC Act details the notified industrial units and other establishments consuming energy more than the defined threshold energy consumption. These 8 sectors are typically energy intensive.

Question: 16 How will the change in production variation over the implementation period be accounted for at the end of the given three year period.

Answer: The targets and achievement at the end of 3 years SEC will be calculated using the Base year production to accommodate for change in production variation. The base year production for PAT Cycle- I was the average of 2007-08, 2008—09 and 2009-2010.

Question: 17 How the quality of product and raw material in Pulp &Paper Sector be considered.

Answer: High quality paper may lead to higher energy consumption, while raw material mix too may lead to changing SEC. For estimation of baseline SEC, the plants will be grouped as per raw material. CPPRI (Central Pulp & Paper Research Institute) is working on the adjustments which may be applied to the SEC in the target year, in case of change of quality of paper.

Question: 18 Since only Urea is considered in the Fertilizer sector, will the energy consumption for the other products be included for target setting?

Answer: As per gate-to-gate concepts, the SEC will be estimated based on total energy input to the plant and Urea as product.

Question: 19 Our plant is now running under an average specific energy consumption of 2300-3400 Kcal/Kwh, and our unit design is 2248. My question is that if the specific energy consumption goes below 2300, would we get ESCerts.

Answer: You get ESCerts for the energy saving efforts you make. You don't get ESCerts for being where you are.

Question: 20 The new power plants will not be able to achieve the design heat rate. What methodology BEE follow to address them.

Answer: New plants may not be able to achieve the design heat rate, which is fair enough. This scheme is being applied for the existing ones, new plants would be considered in the next PAT cycle. As for the thermal power plants and fertilizer sector, the target setting would be as per the regulatory commissions' recommendation. There would be a separate methodology for thermal power plants, which is described in the PAT consultation document. Deviation from the designed heat rate and operating heat rate would decide the target. The best operating plant would have a very less target.

Question: 21 Is Energy Audit mandatory by accredited energy auditor after implementation of PAT Scheme?

Answer: About energy auditors, every industry has to do mandatory audit by an accredited energy auditor within 18 months of first notification. First notification came on 27 May 2014.

Question: 22 If we add renewable energy, it will reduce the specific energy consumption, so can the ESCerts be claimed?

Answer: Use of renewable energy will reduce the gate-to-gate SEC. If achieved SEC is less than the target, the ESCerts can be claimed.

Question: 23 If target is set by CERC and BEE, will there be double penalization ?

Answer: There is absolute synchronization between targets set by BEE and CERC. It will be a single target.

Question: 24 Since you are in the target setting process, can some correction measures be taken up in the later stage as and when some environmental obligations would come in?

Answer: Those factors which are out of your control would be accounted for.

Question: 25 In case of IPP and CPP, target setting for both may not be feasible as IPP has different philosophy of operation and CPP has different philosophy of operation. Are you treating them separately?

Answer: In case of CPP & IPP, CPP is not considered as a separate case. Cases of CPP with 10-30 MW comes under the same plant boundary. There is no separate norm for CPP as such.
Regarding environmental issues, only those factors which are under your control, would be considered, those not in control there would be excluded.

Question: 26 The new Plant which do not have the historical data, how these will be included in the PAT?

Answer: If the plant is new, instead of three year we'll take the data of available years and plant would be considered in the next PAT cycle.

Question: 27 Can the unit be better replaced to Carbon39 Equivalent in place of Oil Equivalent?

Answer: BEE is dealing with the Energy and the unit for the saving must be in energy terms i.e. oil equivalent.

Question: 28 If the Designated Consumers do the fuel substitution with the green fuel, how do you account for it?

Answer: In gate to gate concept, with the use of green fuel, the total energy going in will be less and hence the SEC will reduce.

Question: 29 DCs are drawing the power from the External Grid and sometime the power is of bad quality and dripping. In that case the SEC goes up. How this factor will be taken in to account?

Answer: As BEE is taking the average of 3 years data and this problem may have come earlier and is already accounted in the average data.

Question: 30 Who is going to issue the ESCerts (Energy Saving Certificates)?

Answer: The ESCerts will be issued by Bureau of Energy Efficiency (BEE), Ministry of Power, Govt. of India to eligible Designated Consumers (DCs).

Question: 31 Is banking of ESCerts allowable?

Answer: Yes, the ESCerts can be banked for a consecutive two cycles of PAT.

Question: 32 Whether the prices of ESCerts would be varying?

Answer: Yes, the prices of ESCerts will get varied from time to time depending upon the market price of coal, gas & Crude oil. The value of ESCerts would be made available through PAT NET.

Question: 33 Is there any early price discovery mechanism? What would be the regulatory control on banking of ESCerts by BEE?

Answer: BEE is working on the mechanism of the early price discovery and regulatory control of banking of ESCerts.

Question: 34 Who will issue ESCerts – is it BEE or State designated authorities? What is the philosophy behind allowing banking of ESCerts for 1 year?

Answer: ESCerts would be issued by BEE. ESCert banking would be permitted for two consecutive PAT cycles not 1 year. The idea is that some of the companies may have energy efficiency achievement period – investment & payback period – which may extend to 3 year. Second, this will also give them confidence to accelerate energy efficiency drive and motivate them to target for more and knowing fully well that these achievements can be banked.

Question: 35 What would be the pricing criteria for ESCerts? With fluctuations in raw material, capacity utilization also fluctuates, will this be accounted for?

Answer: ESCert pricing would be market driven and dynamic, we take capacity utilization diversity factor into account.

Question: 36 (a) Can we have an indicative price of ESCerts?

(b) Since ESCerts are going to be bankable commodity, what are the regulatory control BEE is going to take in terms of putting a cap or what is the quantity that can be banked.

Answer: Yes, as ESCerts is a bankable commodity, there has to be a regularity mechanism by BEE. BEE is working on this aspect which would be made available to you soon.

Question: 37 We understand there would be ESCert calculation on mtoe and Kgoe. But how are you going to compare ESCerts in Mtoe and Kgoe ?

Answer: The ESCert calculation will be done on Mtoe.

Question: 38 If the Banking is allowed, then there would be no ESCert in the market. How that will be accounted?

Answer: The Designated Consumers can not bank 100% Escert, they will only able to bank 25-30% of the Escerts issued to them so as to create the liquidity in the market.

Question: 39 Whether an industry can avail the CDM benefit in addition to ESCerts?

Answer: Yes, in case a project has resulted in reducing the energy consumption and is certified for CDM, DCs free to take that advantage in addition to the issuance of ESCerts under PAT mechanism.

