

ENERGY CONSERVATION RULES, 2012 (PAT RULES)

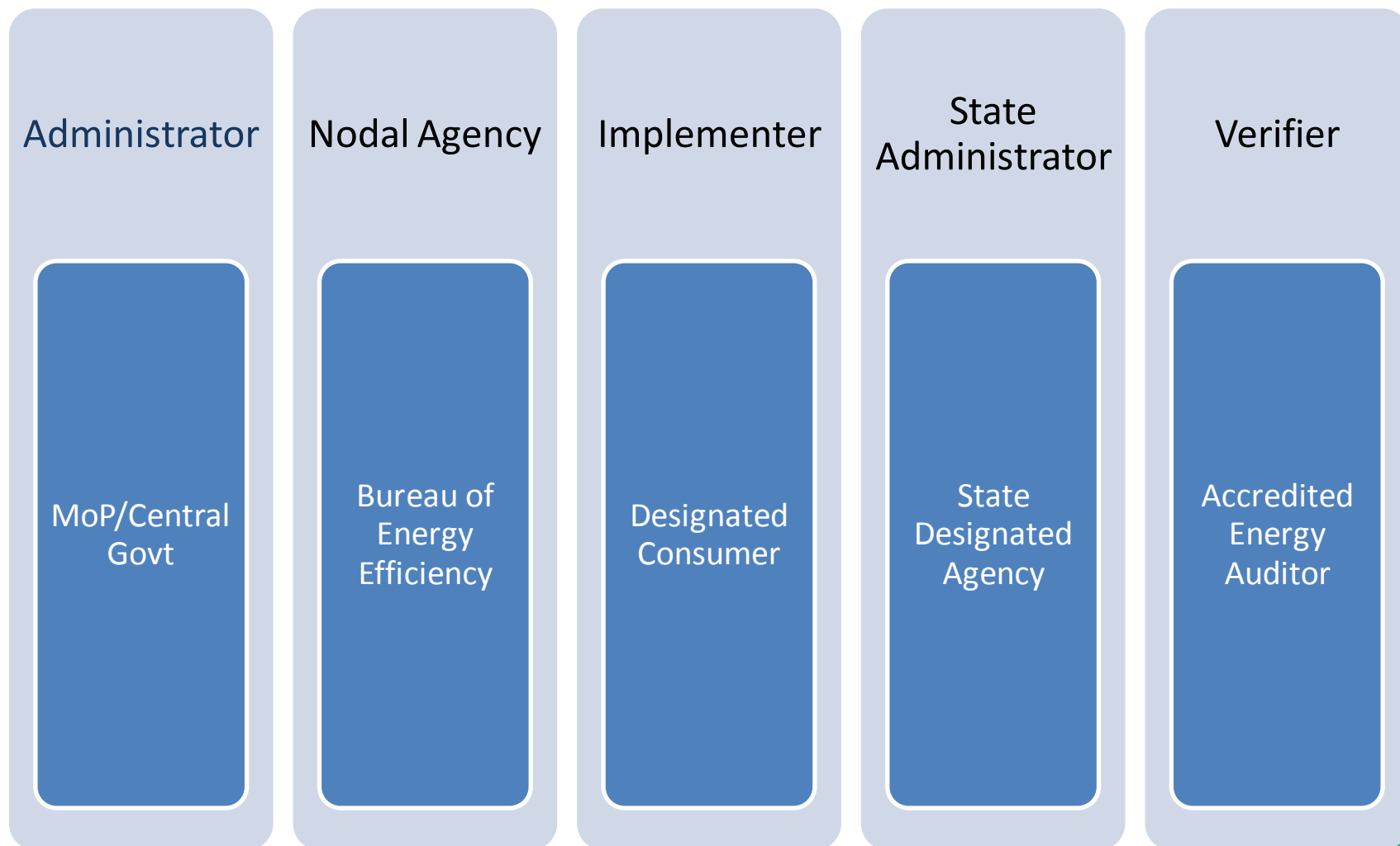
Bureau of Energy Efficiency



Definitions

- **Act:** Energy Conservation Act, 2001
- **Baseline Year:** The year in which the base level of Energy Consumption is used as reference.
- **Target Year:** Year by which a DC shall achieve compliance with Energy consumption Norms & Standards
- **Cycle:** Period of 3 years available for DC to comply with the consumption norms and standards.
- **Certification:** Process of Certifying the verification or check verification report by the Accredited Energy(AEA) Auditor
- **Verification:** The evaluation by the AEA of the activities undertaken by DC for compliance with EC Norms & Standards.
- **Check Verification:** The evaluation by Bureau through AEA in any of 3 year of activities undertaken by DC for compliance with EC Norms & Standards.
- **EC Norms & Standards:** SEC of Baseline year notified under clause (g) of Sec 14

Stakeholders

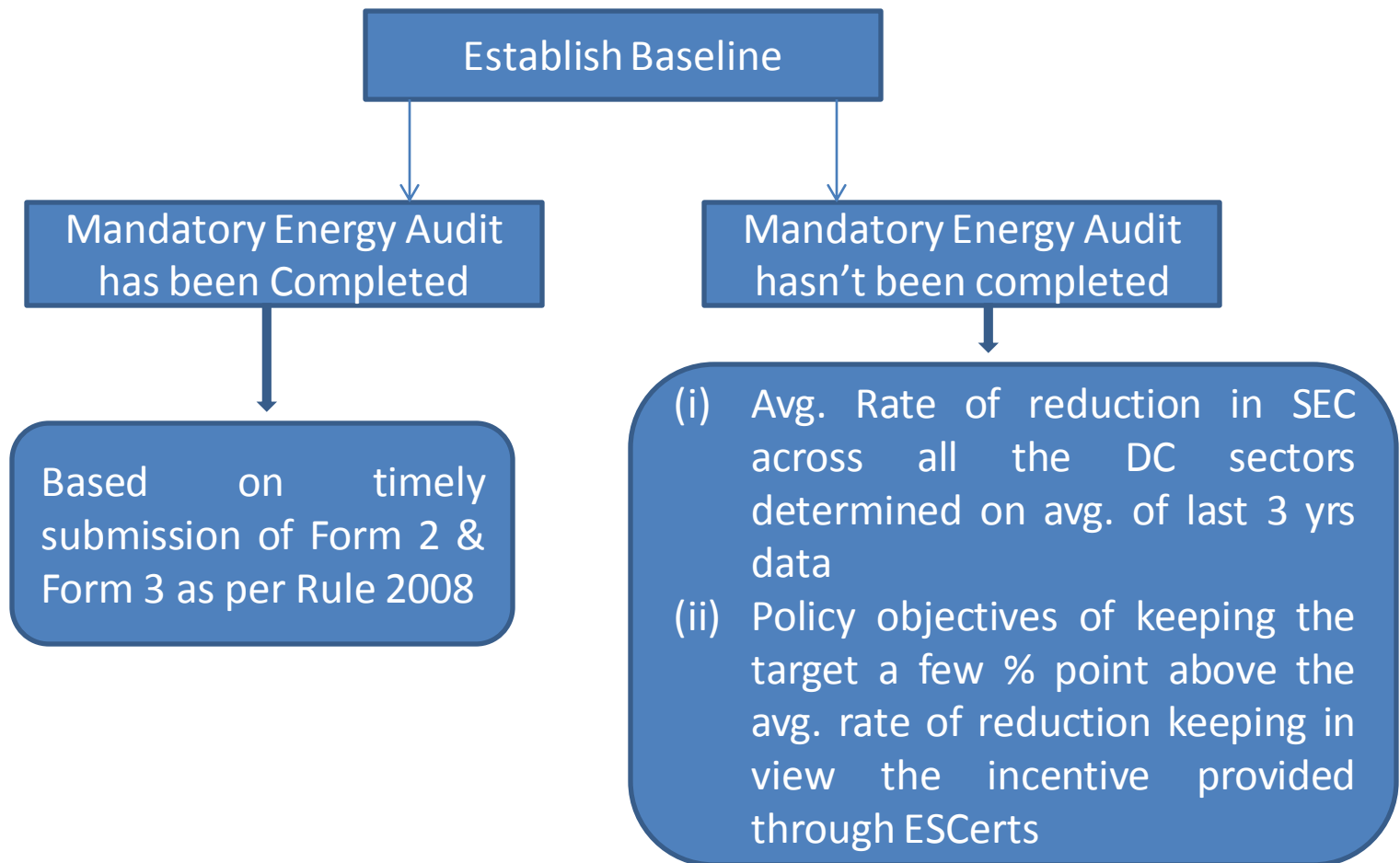


TARGET SETTING PHASE

1. Establishment of Baseline
2. Review of Baseline
3. Finalization of SEC reduction Targets

Role of BEE

1. Establishment of Energy Consumption Norms & Standards for DCs



Procedure for establishment of Energy Consumption Norms & Standards

Technical Committee set up by BEE shall:

- Calculate net energy input to the plant (taking into account various factors)
- Calculate annual SEC in baseline year by verifying the data in the previous 3 years submitted by the DCs under rules 2007.
- Calculate the effect of capacity utilization and other factors if any, on the SEC for the previous 3 yrs.
- Calculate the SEC in the baseline yr and projected SEC in the Target yr on a gate-to-gate basis.
- Take account of effects caused by following factors namely:
 - ✓ Natural Disaster
 - ✓ Rioting or social unrest
 - ✓ Major change in Govt. policy including environmental standard
 - ✓ Impact of market & Shortage of raw material or sales) in any of previous three years.
- **The Technical Committee shall prepare a report and Submit to BEE**

NOTIFICATION PHASE

1. Recommendation by BEE to Central Govt.
2. Notification by Govt.
3. Formal intimation to DCs

Role of BEE

2. The Bureau shall examine the report and recommend the report to Central Govt.

Role of Central Govt.

The Central Govt. shall by notification :

1. Establish and specify the energy consumption norms & standards for every DC's plant under clause(g) of section 14
2. Give direction to all DCs for compliance with the energy consumption norms and standards under clause(n) of section 14 and inform the Bureau & all the SDAs

IMPLEMENTATION PHASE

1. Reporting to BEE / SDA
2. Energy Audit
3. Compliance Mechanism

Role of DC

1. Preparation of scheme for implementation of efficient use of energy and its conservation

Every Designated Consumer, within three months (30th March,12 - 30th June,12) of the issue of notification under sub-rule (6) of rule 4 shall submit a scheme to State designated agency with a copy to Bureau, which may include: -

- ✓ **Action Plan containing inter- alia, a brief description of identified energy saving measures to comply energy consumption norms and standards by the target year.**
- ✓ **The estimated cost of each identified energy saving measures.**
- ✓ **Implementation plan to achieve energy consumption norms and standards through implementation of energy saving measures or through purchase of energy savings certificates.**

Role of DC

2. Procedure for monitoring and verification

- preparation and maintenance of quarterly and yearly data reports by the designated consumers for following:
 - on the performance of plant and production processes;
 - on the outcome of internal field audits of plant and production processes
 - regarding a year-wise report on production achieved, energy consumed, and specific energy consumption achieved, specific energy consumption reduction achieved, measures adopted for energy conservation and quantity of energy saved

Role of DC

3. Assessment of Performance

- Every DC within three months of the conclusion of the target year from the baseline year shall submit to the SDA with a copy to the Bureau, the performance assessment document (PAD) in Form 'A', duly verified together with certificate in Form 'B' given by the Accredited Energy Auditor (AEA).
- The DC within 3 months after the end of first or second year of the cycle may submit PAD in Form 'A' to the SDA with a copy to BEE for issuance of proportionate energy saving certificates covering the performance for a period not less than one year from the date of notification specifying the energy consumption norms and standards duly verified together with form 'B' given by AEA along with documents mentioned in sub-rule(1).

Role of AEA for verification of Form A

- Shall assess the correctness of the information provided by the designated consumer regarding the compliance with energy consumption norms and standards.
- Shall report the results of assessment and his opinion along with the supporting documents.
- In case the AEA records a positive opinion in his report, BEE shall consider that all the requirements with regard to the compliance with energy consumption norms and standards, entitlement about issue or liability to purchase energy savings certificate have been met.

Role of SDA

- After submission of duly verified Form 'A' by designated consumer, state designated agency may will convey its comments, if any, on Form 'A' to the Bureau within fifteen days of the last date of submission of Form 'A'

Recommendation for issue of energy savings certificates

- The Bureau on satisfying itself about the correctness of verification report, and check-verification report, wherever sought by it, send its recommendation to the Central Government, based on the claim raised by the designated consumer in Form 'A', within ten working days from the last date of submission of said Form 'A' by the concerned state designated agency, for issuance of energy savings certificates.

Formula for determining no. of ESCerts

- For Thermal power plant sector:

No of ESCerts = (heat rate notified for target yr- heat rate achieved in target yr) X production in baseline yr in million kWh/10

- For other sectors :

No. of ESCerts = (SEC notified for target yr.- SEC achieved in target yr) X production in baseline yr.

Note: DC may seek issue of ESCerts not more than 80% in proportions of its performance achieved during 1st or 2nd yr.

Procedure for issue of ESCerts

- Central Govt. after receiving recommendation from Bureau issue ESCerts of desired value to DC within 15 working days.
- ESCerts shall only be in electronic form
- 1 ESCerts= 1 toe
- The DC who has been issued energy savings certificates may sell them through the power exchange.
- ESCerts issued in current cycle shall remain valid till compliance period of next cycle.
- ESCerts purchased by DC for compliance shall after their submission to Bureau stand expire.

Accredited Energy Auditor for Verification and Check Verification

Registered under Partnership act 1932 or Company act 1956 or any other legal entity competent to sue or to be sued shall be entitled to undertake verification or check verification process if it:

- Has at least 1 AEA
 - Has 3 energy auditors
 - Has expertise of field studies
 - Has minimum turnover of 10 Lakh rupees in at least one of previous 3 years or in case of newly formed organization, a net worth of 10 Lakh rupees.
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- Bureau shall invite applications from the firms for the work of verification and check verification
 - Selected applicants shall be issued a certificate of empanelment and unique identification number.

Obligation of AEA

- AEA shall constitute a team comprising team head and other members including experts.
- A person who was employed in DC within previous 4 yrs shall not be eligible
- Any firm or company or other legal entity who was involved in energy audit in any DC within previous 4 yrs shall not be eligible for such DC
- AEA shall ensure team members must be impartial & free of potential conflict of interest
- AEA shall have documented system for preparing the plan for verification or CV which should contain the task required to carried out in each type of activity, in terms of mandays.

Obligation of AEA

- The name and Bio data of team members shall be provided by AEA to concerned DC in advance
- Team shall be provided by AEA with concerned documents indicating their full responsibilities with limitations to concerned DC
- AEA shall ensure the confidentiality of all information & data obtained or created during verification or check verification
- AEA shall submit the check verification report together with certificate in Form-C to Bureau.

Check Verification

The Bureau may on its own or receipt of a complaint within 1 yr from date of submission of compliance report or within six month from the date of issue of ESCerts whichever is later shall initiate action for review of compliance report which includes:

- a) Issuing a notice to DC and AEA asking for comment within 10 working days.
- b) Within 10 working days from receipt of comment, Bureau shall after taking into consideration the said comments, decide to undertake or not to undertake review and the Bureau shall record the reasons in writing for its decision;

Check Verification

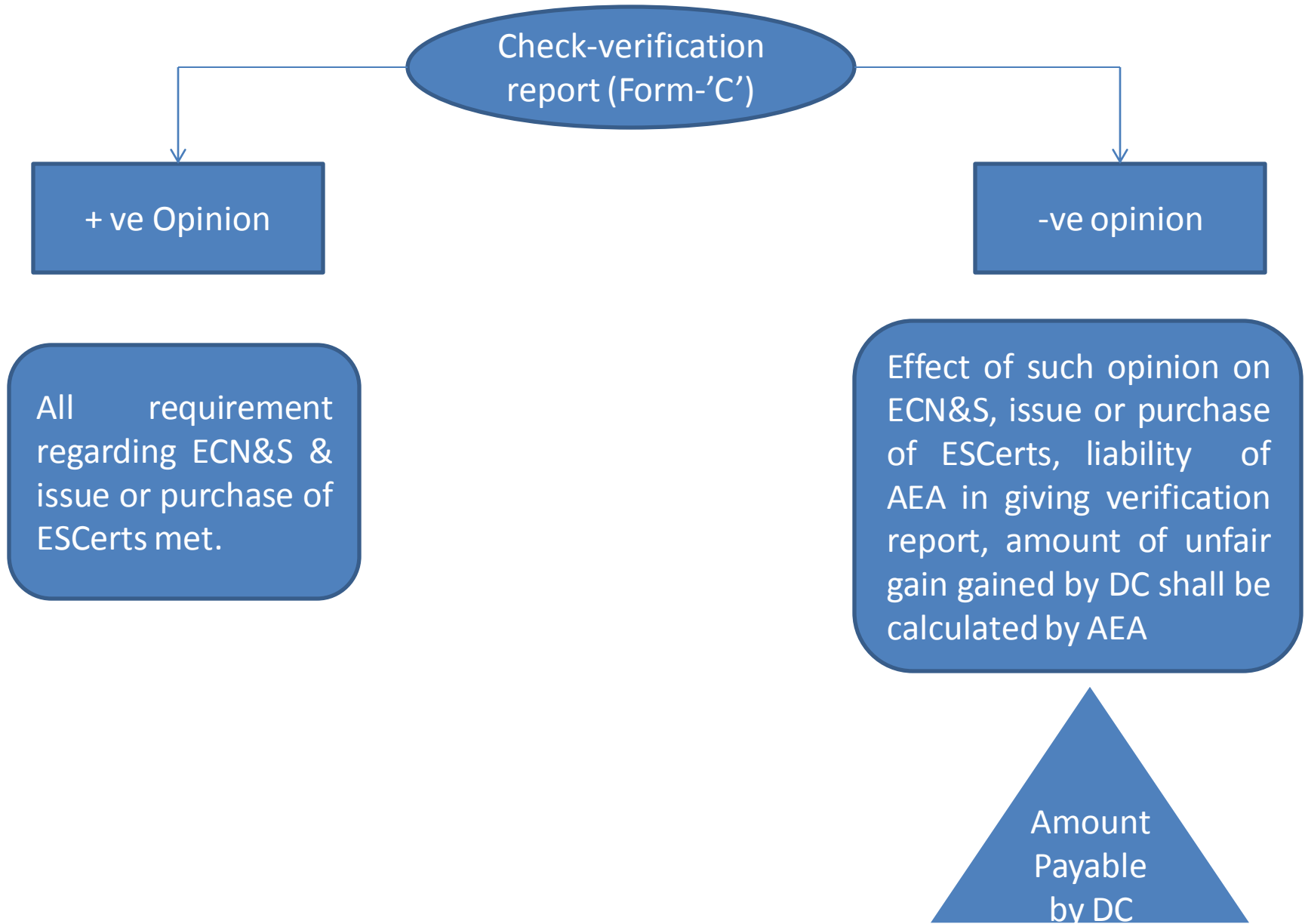
If Bureau decides to take review:

- it shall appoint an AEA who has not performed the verification functions with respect to the concerned DC to conduct the check-verification.
- on a complaint, the said check-verification shall be carried out at the cost of the complainant.
- The said accredited energy auditor shall assess and verify that the activities performed by the DC for compliance with the energy consumption norms and standards are in accordance with these rules.
- The DC shall furnish full and complete data, provide necessary documents and other facilities required by the AEA for the purpose of performing the function of check-verification under these rules.

Check Verification

- The AEA in-charge of check-verification function shall report the results of his assessment in a check-verification report to BEE.
- If he has a positive opinion, it shall be concluded that all the requirements have been met.
- If he has a negative opinion the effect of such opinion on the energy consumption norms and standards, issue or purchase of energy savings certificate, the liability of the AEA giving the verification report and amount of the unfair gain gained by the DC as a result of such verification report shall be calculated by the AEA conducting the check-verification.
- The AEA in-charge of check-verification shall submit his report with due certification in Form 'C' to the Bureau and the concerned State Designated Agency.

Check-verification report (Form- 'C')



Details provided by Bureau to SDA

- No. of ESCerts wrongfully obtained by DC
- No. of ESCerts which DC was liable to purchase for non-compliance
- Details of misrepresentation & unfair gain due to misrepresentation.
- Cost of check verification

Amount Payable by DC

- Value of amount payable by DC shall be as worked out in report PLUS 25% of such value because of unfair practice used by DC
- Amount of toe of energy specified because of unfair gain
- Cost of check-verification

Penalties Proceedings (After Check Verification)

- Within 2 month from date of receipt of Form C shall initiate:
- Action to recover from DC the loss to central Govt. by unfair gain
- Penalty proceedings against persons mentioned in report under intimation to BEE
- Register complaint for unfair gain if DC doesn't pay penalty & loss to exchequer in specified time

Timeline & activity chart

Time	Activity	Where	Related work of DENA/SDA
Within 3 month from Notification	Action plan submission	SDA/BEE	
Within 3 month from conclusion of target	Form A, Form B along with others documents	SDA/BEE	
Within 3 months after end of 1 st or 2 nd year of cycle	Form A, Form B along with others documents	SDA/BEE	
After Completion of relevant cycle	Monitoring & verification	Plant	
Within 10 working days from date of receipt of notice	Check Verification	BEE	AEA

THANK YOU

K. K. Chakarvarti

Energy Economist

kkchakarvarti@beenet.in

k1kchakarvarti@hotmail.com

