

Introduction to Law on Electricity
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Lecture 39
Energy Conservation Act, 2001

Welcome to all the learners. Today, we will be discussing on the Energy Conservation Act 2001. In the last session, we have discussed about the significance of energy conservation.


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And then, we have also looked into the various provisions of the Electricity Act 2003 that how the Electricity Act addresses the issue of conservation and energy savings. Now, let us look at the law which has been made to address the issue of energy conservation, energy efficiency and energy saving. So, in today's session, we will be talking about the background of the law. We will also look into the salient features of the Energy Conservation Act.

Then we will see that what are the rules given to the Bureau of Energy Efficiency? How is the Act going to get enforced? Who are the authorities? Who shall be given the responsibility to enforce the Act? And then, we will also understand that what are the professionals? What are the individuals or offices which are being created for successful implementation of the Act?

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- Energy Management Center (EMC) was set up in 1989, with a mandate to promote energy efficiency and energy conservation
- EMC created initial awareness of energy conservation
- In 1994, a working group was constituted by the Ministry of Power to formulate legislation on energy conservation
- In 1997, Ministry of Power realized to strengthen EMC with statutory powers to promote energy conservation, considering the vast potential of energy saving and benefits of energy efficiency – BEE took over the responsibility of EMC

Now, if you can recall, in the last session, I have discussed about the very drive on conservation driven by the very fact of oil crisis due to Arab War. Now, that drive basically started considering the very significance of imported fuel. And that is why a dedicated association was being formed to guide on fuel efficiency. But then later on, it was realised that overall there is huge scope of energy conservation and energy saving, with better planning.

And in order to make the plan, in order to make the strategy, there was a cell which was established under the aegis of the Ministry of Power that is Energy Management Cell. Now, this Energy Management Cell was given the mandate to promote energy efficiency. Because there has been a thought process that it is not only about working on the installation of power plant and improving or increasing the generated capacity but also much can be done to achieve energy security when the focus is on energy conservation. And that is why the cell was constituted.

The cell was constituted to give advice. Later on, it was thought that energy conservation should get a sort of legal mandate because merely awareness may not be good enough for achieving the goal which is intended through this cell. And that is why it was suggested that the cell should have a better legal backing; it should have a better statutory status. And that is why the activities what the cell was doing was being conferred on the Bureau of Energy Efficiency under the Energy Conservation Act.

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- Energy Conservation Act, 2001 –
 - Designated Consumers – (Sec. 2(g) and Sec. 14 (e))
 - mainly energy intensive industries - specific energy consumption norms for the manufactured products and services and establishment of energy management system
 - to be notified by the CG
 - Some prominent industries notified are Cement, Fertilizers, Iron and Steel, Sugars, DISCOMS
 - Building can also be notified as Consumer

So, in 2001, Energy Conservation Act was enacted. If you look at the very functioning of the Energy Conservation Act. Right at the beginning, Energy Conservation Act identifies the consumers who shall be responsible, who shall be duty bound, to use the energy in an efficient manner, and those consumers are being called as designated consumer under the Act. Now, these designated consumers are generally those consumers which are into energy intensive industry.

And what was suggested is that there shall be a sort of standard consumption norm to be prescribed by the government in consultation with the Bureau, and these energy intensive industries need to follow the same. Because they are the one who are the bigger consumer of energy. And that is why if they focus on conservation, it would serve the purpose of achieving energy security in a better way.

So, the responsibility of laying down the norm is of the central government, and the central government also notifies that who shall be the designated consumer under the Act. We have a schedule which identifies the industry which falls under the category of designated consumer. So, the prominent one is enlisted here just to get the idea that what kind of industries are enlisted in the schedule of the Act.

That is fertiliser industry, iron and steel industry, and sugar industry. DISCOMS is the recent addition in the list. Now, building can also be notified as designated consumer, and it has been notified, particularly the large complex. The complexes are being identified as consumer.

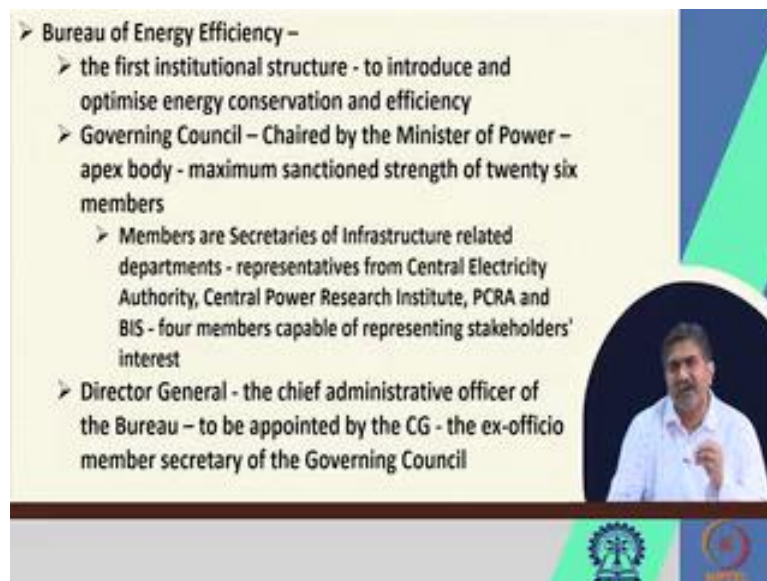
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- Obligations of Designated Consumer (Sec. 14)
 - Appoint energy manager
 - Submit a report on the status of energy consumption – at the end of financial year
 - Energy audit to be conducted by accredited energy auditor – if directed
 - Inform the energy consumed and action taken on the recommendation of the accredited energy auditor – if directed

Now, designated consumer has obligation under the Electricity Act, which is given under Section 14. They have to appoint energy manager who shall be responsible for ensuring that the norms set up by the government has been complied with by the designated consumer. Then the designated consumer also has a responsibility to submit an annual report. The annual timeframe is decided as per the financial year. And in order to verify that whether the designated consumer is meeting the standard or not and whether the designated consumer is following the norm suggested for the industry, it is suggested that there could be energy audit of the industry. And this energy audit can be done by the accredited energy auditor, but then this has to be done only when it has been directed. And also, it has been suggested that the designated consumer shall inform the energy consumed and the action taken on the recommendation of the accredited energy auditor.

So, accredited energy auditor will visit, will inspect the premises and then evaluate that whether the designated consumer is following the norms laid down by the government or not. And how this has to be done? This has to be done by seeing the annual report which has been submitted by the designated consumer.

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- Bureau of Energy Efficiency –
 - the first institutional structure - to introduce and optimise energy conservation and efficiency
 - Governing Council – Chaired by the Minister of Power – apex body - maximum sanctioned strength of twenty six members
 - Members are Secretaries of Infrastructure related departments - representatives from Central Electricity Authority, Central Power Research Institute, PCRA and BIS - four members capable of representing stakeholders' interest
 - Director General - the chief administrative officer of the Bureau – to be appointed by the CG - the ex-officio member secretary of the Governing Council

Now, Bureau of Energy Efficiency is the institution under the Energy Conservation Act. In fact, much of the objective of the Act gets implemented through the Bureau of Energy Efficiency. As I have told you earlier, that the task which Energy Management Cell was handling that has also been transferred to the Bureau. So, Bureau has basically the task of suggesting and advising the government that what shall be the strategy for energy conservation.

Technically, this is the first institution which has got a legal backing to suggest the measures on energy saving and conservation. And therefore, it is not very difficult to imagine that what kind of significance this institution enjoys in achieving the overall target of energy security in the country. The Bureau is governed by a governing council which is chaired at the Government of India level. The Minister of Power chairs it, and then they have a strength of 26 people; maximum 26 people can become a member of it.

Now, when you look at the composition, it is largely the one drawn from the ministries which are related with infrastructure, ministries which are related with renewable, ministries which are related with coal and all. So, they are the higher senior officials, secretary level officers who become the member of the Bureau.

And then apart from that, there is also a representative from the Central Electricity Authority, then there are representatives from Central Power Research Institute, and then you have a representative from also petroleum and natural gas organisation. And then also Bureau of Indian Standards representatives are also there. Along with that, you also find that there is a representative from the stakeholder also; when I say stakeholder, obviously, what I mean is

the one who represents the industry, they will also have the representation. Overall, when you look at the structuring, you will find that is more on bureaucratic structure. Now, this is what is the apex body, and the Governing Council is the apex body. Then they have the body which implements the decision of the Governing Council, which is headed by the Director General, who is the Chief Administrative Officer of the Bureau and is appointed by the central government. Director General is also the ex officio member secretary of the governing council.

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➤ Power and Functions - Bureau of Energy Efficiency (Sec. 13)

- Recommend to the CG–
 - the norms for processes and energy consumption
 - Issuance of the energy savings certificate
 - the particulars required to be displayed on label on equipment or on appliances
 - notifying any user or class of users of energy as a designated consumer
- To prescribe guidelines for energy conservation building code
- Awareness and disseminate information for efficient use of energy and its conservation
- Capacity Building

Now, when you look at the power and function which is given under Section 13 of the Act, Bureau recommends the central government on the norms of processes and energy consumption. That what shall be the norm? What criteria is to be followed? What standard is to be followed? Which will lead to the conservation of energy? And also, it is the Bureau which suggests the central government on the issuance of energy saving certificates. Energy saving certificates, if you can recall, we have discussed in the last class that this is all about complying with the norms and the industry which fails to comply, they can buy energy saving certificate. So that they can legally meet the obligation laid down under the Act, that is what it says. And then you have the labelling of equipment, appliances, which is there. And on that again, the Bureau of Energy Efficiency advises the central government that how the labelling should take place, what you call as a star rating and all, which you see in the equipment, what even we use in our residences. And then it also suggests the central government on who shall be the designated consumer because the designated consumer is the one who has been

entrusted with the prime responsibility to meet the requirement and the standard which is laid down under this Act.

A Bureau of Energy Efficiency also prescribed the energy conservation building code, which will be discussing in detail, when we will talk about the different schemes which are being notified under the Energy Conservation Act. The Bureau also has a responsibility to spread awareness.

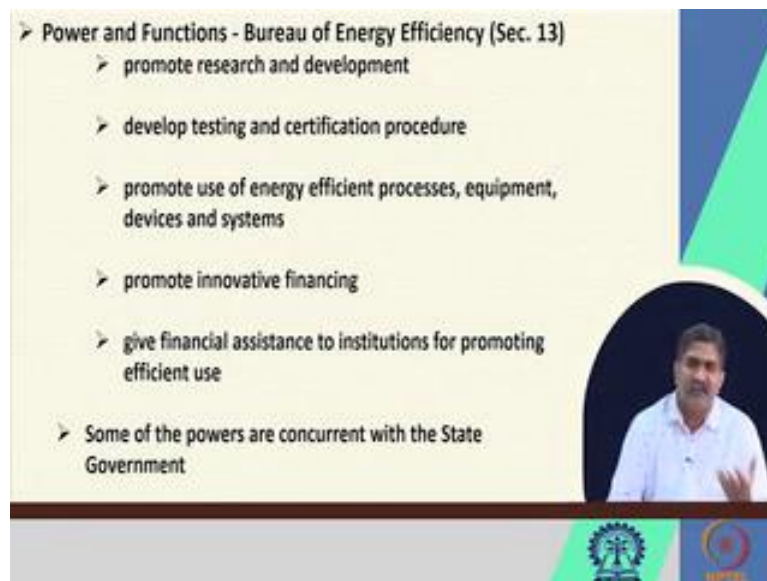
It also has a responsibility to disseminate information. Because please do take note of this fact that electricity comes with a lot of cost and it is not available to everyone. And that is why the ones who is having the luxury of 24 into 7 electricity, those individuals have a bigger responsibility to use it efficiently so that no electricity should go waste. So, that the needy people can also be given the reliable supply of electricity.

So, conservation becomes important. And in order to successfully ensure the conservation, what is needed is to inform the end user, inform the consumer that why you need to conserve electricity? It is not only about ensuring, it is not only about contributing and providing electricity to the needy people, but it also adds to the cost saving of the consumer.

If I conserve electricity, in a way, I am also managing my electricity bill. And that is why it has both benefits. It serves a larger social purpose wherein the saved electricity is being diverted to the needy people, and it is being channelized to the needy people. And on the other hand, as an individual, end user also gets the benefit in terms of cost savings. Bureau of Energy Efficiency also helps in the capacity building programme because you can very well imagine that a lot of technical innovation is needed to come up with the suggestion on efficient use of energy.

Technological innovation is needed for innovating new kinds of equipments. Technological innovation is needed to come up with a better use of the equipments. And for all this, there is a need to impart training, and there is a need to inculcate training. And for all this, the Bureau of Energy Efficiency who has been entrusted with the task to engage with the professionals to upgrade their skills so that they can effectively contribute in the drive of conservation.

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Section 13 further indicates that Bureau of Energy Efficiency has a responsibility to commit on research and development. As I said that research and development is very important because if we are talking about efficient use, obviously, it is not going to happen one day by regulating the behavioural pattern of the end consumer.

Large role is also to be played by the equipments which are being used, that how those equipments are optimally using the electricity. And in that regard, research and development is very important. It is also important to see that the equipment which are being marked as efficient, which are being marked as measures to save the cost to the end user, whether it has been properly tested or not. And all these are also responsibility of Bureau of Energy Efficiency where it does the testing. It also suggests that what shall be the certifying procedure for issuing the appliances, for selling the appliances in the market. And then, it also has a responsibility to promote the use of those equipments which are energy efficient equipment. That is also the responsibility of the Bureau of Energy Efficiency.

Now, all these will certainly involve the cost. If we are expecting innovation in this field, then it would certainly involve the funding. Therefore, Bureau also has a responsibility to suggest the funding scheme and mechanisms so that the investors would have the idea, would have the kind of confidence, that okay, the investment is secured. The investment is going to bring the necessary return; at least the optimal return is assured.

So, some kind of innovative financial scheme is desirable. And that is what even the Bureau undertakes the responsibility. Apart from that, it also come up with a plan to give financial

assistance to the institutions which are into this very activity of energy efficient use of energy. So, all these are the responsibilities of Bureau of Energy Efficiency.

Some of these functions are also there with the state government when you look at it. Because as I said, that Bureau of Energy Efficiency basically makes recommendations to the central government. So, some of these can also be implemented through the central government. So, there is a concurrent jurisdiction, one may say, of the central government and the state governments.

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➤ Power and Functions - Bureau of Energy Efficiency (Sec. 13)

- levy fee, as may be determined by regulations, for services provided for promoting efficient use
- maintain a list of accredited energy auditors
- prepare educational curriculum on efficient use of energy
- implement international co-operation programmes

➤ The Bureau has also developed programmes for the certification of Energy Auditor and Energy Manager and accreditation of Accredited Energy Auditor (AEA) for industrial sector and building sector to establish a cadre of energy professionals in the country

Then, Bureau also levy fee as may be determined by the regulation made by itself for services provided for efficient use. The reason being, when there is a provision for accredited energy auditor, then the training is being imparted, the certification is being given. So, that the accredited energy auditor is doing the job as per the legal requirement under the Act and for all these, the Bureau can very well levy fee, which can be a sort of revenue generation model for the Bureau. Also, Bureau can charge necessary fee for certification of the equipment.

So, all these are, in a way, source of revenue generation for the Bureau. Bureau also maintains the list of energy auditors so that as and when industry demands for the same, they can very well opt the energy auditor from that list. As I said that if you look at conservation in a very broader perspective, it is connected with the national campaign, it is connected with national interest. Because we are talking about the resources which are not in abundance, we are talking about the resources which are depleting. Therefore, it is needed that a sort of national campaign should take place.

And one way of achieving the same is introducing the very importance of conservation in the curriculum at the educational institution level. And that is what also the responsibility of the Bureau. Also, in order to engage with the other jurisdictions engaged with the international agencies, there is a need to have a kind of one point entity which shall engage in cooperation. We shall try to find out that what are the best practices in the world, and Bureau also has been given the responsibility to implement international cooperation in this field.

Now, Bureau has developed the programme for certification for the energy auditor, energy manager and accreditation of the energy auditor. That is what it has done. And basically, this is for the industrial sector and the building sector. And this very training programme is important for increasing the human resources, which shall be effectively used for the very purpose of conserving and saving energy.

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But then, when you look at the power and function, you would find that Bureau of Energy Efficiency does not have judicial or quasi-judicial power. It is not similar to the institution what we have read under Electricity Act on regulatory commission. It does not have that kind of power, which is given to the regulatory commission under the Electricity Act 2003. Basically, the function of the Bureau is of executive nature or of legislative nature.

Legislative nature, when it prescribes the regulation of the standards, when it suggests some standards of performance to be followed. Executive when it, in a way, recommends to the central government on certain measures. So, it does not have judicial or quasi-judicial power; that is what is important. And that is why, what you find that the very functioning of the Bureau is more on collaborative and consensus driven.

Collaborative and consensus driven meaning thereby that it tries to come up with the strategies, to come up with the policy prescription, which is doable, and which can be acceptable to all the stakeholders. So, it is not more of like top-down model where it has been thrust upon. Obviously, once it is being prescribed, the designated consumers are obligated to follow. But the process of identifying that standard, the process of identifying that measures, that somewhere is identified widely through a collaborative and consensus approach.

So, it also has the onus of advising the central and the state government on energy conservation. And when you look at the overall functioning power of the Bureau, you will find that it is more of a facilitator than of the regulator. It is facilitating the very drive on energy conservation. It comes up with the schemes for different sectors, which has to be implemented by the state, and designated agencies.

So, it is more like suggesting a scheme, coming up with a scheme which is doable, and then leave it for the designated agency to implement, to see that it is being enforced in its true spirit. So that is what is the responsibility. That is what is the role, power and function of the Bureau of Energy Efficiency.

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➤ Enforcement –

- Designated agency – to coordinate, regulate and enforce the provisions – State Government to notify (Sec. 15)
- Inspecting Officer – to be appointed by the Designated Agency (Sec. 17)
 - Can consult with Accredited Energy Auditor
 - completed the inspection he is required to submit an inspection report to the SDA
 - On satisfaction, the Agency will direct Inspecting Officer to file the case before the respective SERC and prove its non-compliance before the Adjudicating Officer
 - SDA shall intimate the decision for undertaking inspection to the Director-General of the Bureau

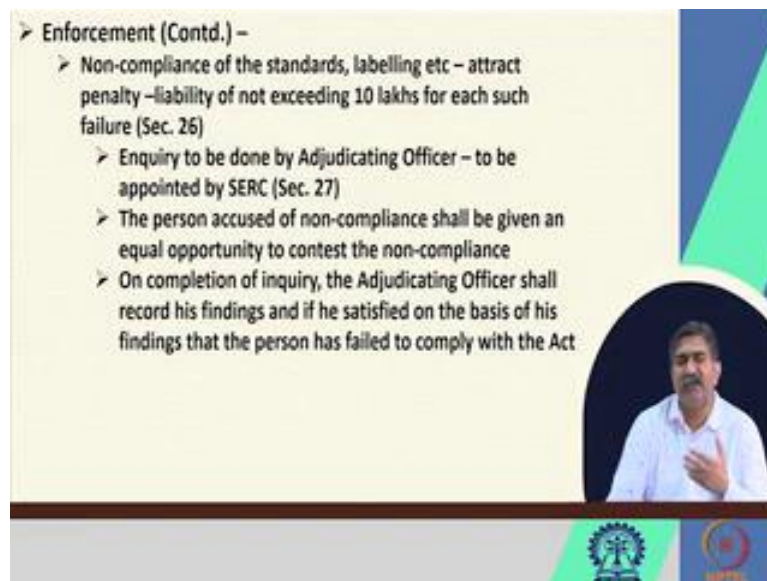
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How this is getting enforced? Section 15 says that, there shall be a state designated agency, which shall have the responsibility to coordinate, to regulate, to enforce the provisions. That is what it says and how it does it? State designated agency appoints inspecting officer.

This inspecting officer can consult the accredited energy auditor. It can submit the inspection report to the designated agency and on satisfaction, the agency will ask the inspecting officer to file the case before the State Electricity Regulatory Commission. State Electricity Regulatory Commission also looks into the issues of non-compliance of the standards laid down under the Energy Conservation Act.

And then, as we have studied that, Regulatory Commission appoints an adjudicating officer which is generally a senior member of the regulatory commission and the issue of non-compliance comes before the adjudicating officer. And then it is the adjudicating officer who decides on the issue of compliance or non-compliance. Then, it is the designated agency intimates the decision for undertaking inspection to the Director General of the Bureau, which we have said that Director General is the Chief Administrative Officer.

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➤ Enforcement (Contd.) –

- Non-compliance of the standards, labelling etc – attract penalty – liability of not exceeding 10 lakhs for each such failure (Sec. 26)
 - Enquiry to be done by Adjudicating Officer – to be appointed by SERC (Sec. 27)
 - The person accused of non-compliance shall be given an equal opportunity to contest the non-compliance
 - On completion of inquiry, the Adjudicating Officer shall record his findings and if he is satisfied on the basis of his findings that the person has failed to comply with the Act

Now, non-compliance of the standards when you look at it, what it attracts the penalty. If you look at it is liability of not extending 10 lakhs for each such failure and then for a regular or consequent non-compliance, there is a penalty per day. Inquiry to be done by the adjudicating officer which is to be appointed by the SERC, as we have also studied in detail about this while discussing the power and function of the regulatory commission. On the completion of inquiry, what you find is that, adjudicating officer decides on whether the penalty has to be imposed or not. But then it is said that before imposing the penalty, it is needed, that the opportunity is to be given to the person who has been alleged to be not following the norms. And further it says that the adjudicating officer is under an obligation to record the reason of arriving at that conclusion. So, you can very well make out that this is all to ensure that a reasoned order, a speaking order is to be passed by the adjudicating officer so that the wrongdoer should know that what are the factors on which he has been penalised?

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- Appellate Tribunal for Energy Conservation (Sec. 30)
 - Appellate Tribunal constituted under the Electricity Act, 2003 shall be the Tribunal for the purposes under the Energy Conservation Act, 2001
 - To hear appeals against the orders of the adjudicating officer or the Central Government or the State Government or any other authority
 - Appeal against the order of the Appellate Tribunal will lie before the Supreme Court (Sec. 45)
 - Grounds to file an appeal – substantive questions of law

2001 Act provides for a separate appellate tribunal for energy conservation under Section 30 of the Act. But then necessary amendment was done in the year 2010. And this appellate tribunal which was constituted under the Electricity Act was also conferred with the necessary jurisdiction on the Energy Conservation Act also. So, section 30 has not been given effect.

There is no separate appellate tribunal for conservation constituted till date. So, it is the appellate tribunal for electricity constituted under the Electricity Act is the appellate forum for the purposes of the Energy Conservation Act. And as we have discussed in detail, the power and function of the appellate tribunal while discussing the salient features of the Electricity Act, all those discussions become relevant also to understand the power under Section 30, which is given under the Energy Conservation Act.

To hear the appeal against the adjudicating officer or the central government or the state government, the appellate forum is being empowered to. So, appellate forum shall hear the appeal from all these entities. Appeal against the order of the appellate tribunal is go to the Supreme Court. We have read that similar provision is also there under Section 125 of the Electricity Act. The Supreme Court can entertain the appeal only when there is substantive question of law. If there is no substantive question of law involved, then Supreme Court should not entertain the appeal. This is like second appeal.

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- Professionals:
 - Energy Auditor – Minimum qualification be prescribed by BEE
 - To be appointed by Designated Consumers
 - Carry out detailed energy audit under the direction of accredited energy auditor
 - Perform efficiency evaluation of energy and utility systems
 - Identify and prioritization of energy saving measures
 - Recommend energy efficient technologies and alternate energy sources

Now, coming to the professionals which are also been provided under the Act. Energy auditor is the one which is being identified under the Act for which the minimum qualification is to be prescribed by the Bureau of Energy Efficiency. It is the responsibility of designated consumer to appoint energy auditor and energy auditor will carry out the energy audit under the direction of the accredited energy auditor.

So, accredited energy auditor is someone who is not from the system. The responsibility of the energy auditor is to evaluate that how the designated consumer is efficiently using the energy and also to identify and advise the designated consumer that what all measures are to be taken for energy saving. And accordingly, designated consumers should employ the necessary technology which will help the designated consumer in saving the the cost and also energy, maintaining the efficient use of energy.

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- Professionals:
 - Energy Accredited Auditor - Minimum qualification be prescribed by BEE
 - List to be maintained by the BEE
 - Undertake energy audit of the plant of Designated Consumers
 - Verification of data of energy consumption, submitted to the SDA by the Energy Manager
 - Monitoring and Analysis of use of energy data for energy audit

Then apart from energy auditor, you have an energy accredited auditor which again the minimum qualification for the same is to be prescribed by the Bureau. The list of the accredited energy auditor is to be maintained by the Bureau and they have been given the responsibility to undertake energy audit of the plant of designated consumers, of the premises of the designated consumers.

And what they do is that they verify the data related to energy consumptions submitted by the state designated agency which the Energy Manager is submitting to the designated agency. Just to see that whether standards are being followed or not whether, there is a compliance or not. Also, they do have a responsibility to monitor and analyse the use of energy for energy audit. So, the accredited auditor is there to look at sort of overall scenario that whether the designated consumers are complying with the necessary norms or not.

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➤ Professionals:

- Energy Manager – to be appointed by the Designated Consumers
- Shall prepare an annual activity plan and present to management by way of attractive investments to reduce energy costs
- Shall initiate activities to improve monitoring and process control in order to reduce energy costs
- Shall assist the officers of State Designated Agency and Bureau of Energy Efficiency in implementation of the programmes

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Then there is Energy Manager which is again to be appointed by the designated consumer. The responsibility of the manager to is to prepare the annual plan, it is to prepare the annual plan and presented to the designated consumer. So, that how the overall financial planning to be taken by the designated consumer for energy saving and efficient use of energy.

Energy Manager also have the responsibility of initiating the activities which will reduce the use of energy and in a way save the cost for the designated consumer. And also, it has a responsibility to assist the designated agency of the state and Bureau of Energy Efficiency for overall implementation of the programme. Thank you very much.