Introduction to Law on Electricity
Professor Uday Shankar
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology Kharagpur
Lecture 40
Energy Conservation Act, 2001 (Continued)

Greetings to all the learners. Now, we have come to the last session of this course. We will continue to discuss on the Energy Conservation Act. In today's session, we will be discussing about the various schemes which have been launched under the Energy Conservation Act.

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So, in this, we will be talking about Perform, Achieve and Trade scheme. We will be discussing about the standards and labelling scheme. We will also talk about Energy Conservation Building Code. And then, we will also have a cursory look on other schemes which are being implemented under the Act.

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Now, let us look at the Perform, Achieve and Trade, and also, please take note of this fact that all these schemes are being suggested by the bureau under Section 14. So, Perform, Achieve and Trade is one initiative which basically got patronage under the National Mission for Enhancing Energy Efficiency. And then, it has also bought a legal status under the Energy Conservation Act.

Because that mission, if you can recall, we have discussed in one of the sessions, was plan of the national action plan, and one of the missions was this energy efficiency mission announced by the government. This Perform, Achieve and Trade is all about encouraging the industry to achieve the energy saving target. And if they are performing better than that, then they can get the certificate and trade the certificate in the market.

So, the Act empowers the central government to implement this scheme, Perform, Achieve and Trading scheme. What is this scheme? This scheme is all about targeting the large intensive industries, e.g., the steel industry, fertilizer industry, which are basically the industries where huge amount of electricity is being consumed for operational purposes. So, the idea is that to encourage the industries to use the electricity in an efficient manner.

So, that there shall be reduction in the cost and at the same time, they can perform better and then get the necessary certificate, which can be sold to the industry which is not meeting the standard laid down.

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So, this energy consumption norm and standard, this is to be prescribed by the ministry in consultation with Bureau of Energy Efficiency, that what shall be the consumption and norm for an industry. So, Bureau of Energy Efficiency, they do it at the national level, the overall framework they lay down. And then state designated agency plan it at the state level, and they do it at the state level by also providing technical support to the designated consumers.

Now, industries, as I said, which surpasses the target, are the one who is performing better. Now, for encouraging them and not to stop at that threshold. There is a scheme which was suggested that let them perform better and, for the same, let them be entitled to get this energy savings certificates by the central government and which can be traded. And we have studied that this trading shall happen through the power exchange. Now, one point to be noted that this is something where certificate is given by the central government; it is not given by the Bureau of Energy Efficiency, unlike what we have seen in the Electricity Act.

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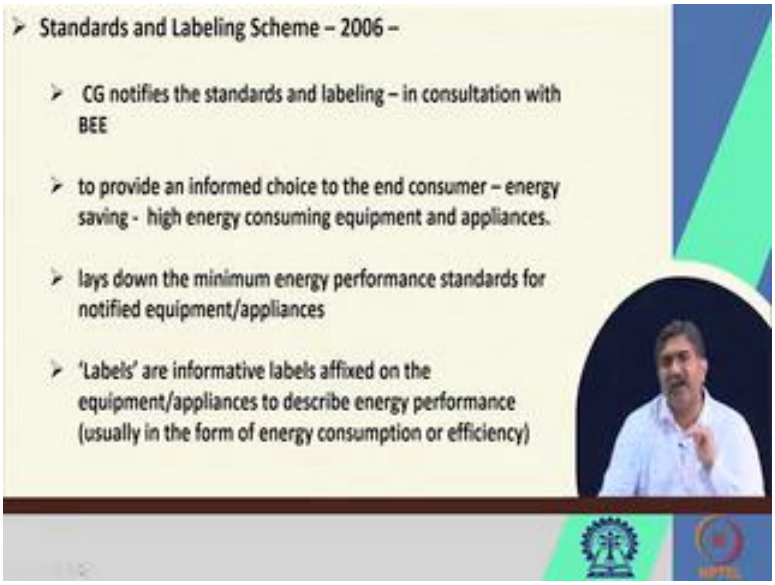

The second scheme is on the scheme of standards and labelling scheme, which was introduced in 2006. Where the central government notifies the standards and labelling as it has been suggested by the Bureau of Energy Efficiency, they do have a responsibility. And this is more of communicating to the end consumer that if you buy the appliances, if you buy the equipment, it would help you in saving the cost.

So, this is more like giving choices to the consumer. And through that, creating a sort of ecosystem where consumer would be bound to go for the appliances which will save the cost. On the other hand, it also suggests the mandatory selling of the equipments only with standards and labelling prescribed by the central government. So, it has both components, voluntary and mandatory.

So, it lays down the threshold level. It lays down the minimum energy performance standards for equipments, and then no products shall be allowed to be sold in the market unless and until it meets that standard. And that is why, it says that labelling is a sort of information to the consumer that what is the performance of the equipment, and how this equipment will help in efficient use of electricity in minimising, in optimally maintaining the consumption.

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So, as I said, it is both mandatory and voluntary. For example, when you look at the mandatory, you find that air condition falls into the mandatory category, distribution transformers falls into the mandatory category, and colour TV, you find that it falls under mandatory category. And then you have a voluntary category, e.g., pump sets, ceiling fans, washing machines, computers and all.

But then, as I said to you, that awareness plays an important role. If there is a very successful campaign to inform the consumer that even if you pay slightly higher for a better rated equipment, in a long term, it will be helpful in maintaining the electricity bill, it will be minimising the electricity bill. So, the labelling plays a significant role in that process.

So, awareness has a significant role, and this campaign will certainly be bringing a transformational change in the purchasing pattern of the consumer. Now, for labelling purposes, the bureau consults the technical experts; it consults the industry people also in order to arrive at the different star ratings. You must have seen when you buy the appliances, and there is a star rating which has been given. The state designated agency or inspecting officer has a responsibility to enforce the compliance under the Act.

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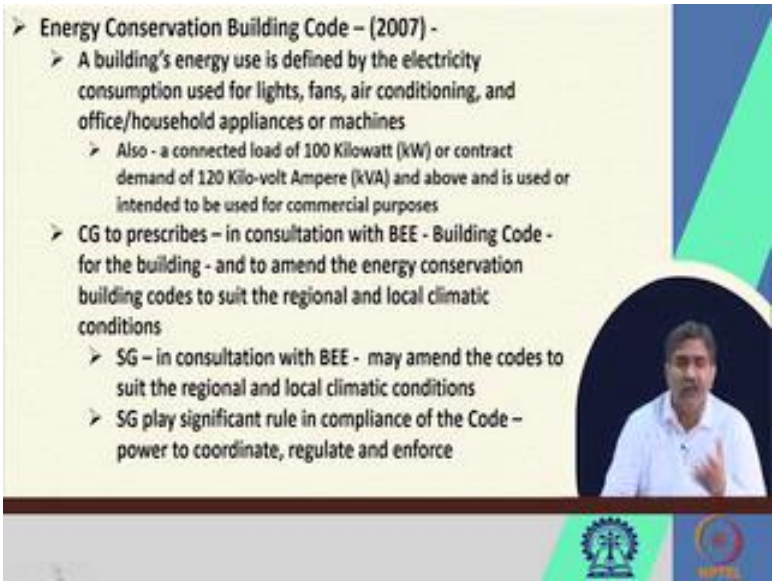

Now, you have also Energy Conservation Building Code. Now, you kindly observe the transition which is happening. It was initially thought that let the energy conservation be targeted only for bigger industries, energy intensive industries. Gradually, a thought process has come that even commercial complexes, and residential complexes, they are also consuming electricity in a large volume, and there is a possibility of saving the electricity by scientifically designing the building without compromising on comfort. And for the same, Energy Conservation Building Code was notified in 2007.

When you look at the energy consumption by the building, it has generally been seen that how the light is being used, how the fans are being used, and how the air conditions are being used. And also, it has to do with the office and household appliances, and how it is being used. Apart from that, it is also to be seen that what kind of load factor which is there.

A connected load of 100 kilowatt or contract demand of 120 kilovolt-ampere and above is to be seen that those building is there for the commercial purposes, and those buildings need to follow the Energy Conservation Building Code 2007. It is the central government which comes up with the Energy Conservation Building Code e in consultation with the bureau. Earlier, there was a National Building Code.

Now, it has been attempted that this Energy Conservation Building Code should also get integrated in that. So, Energy Conservation Building Code is for the commercial building. And then, it is suggested that whatever threshold has been prescribed, it can suitably be altered or modified considering the climatic conditions of that region. We know very well

that India is a country with a different topography. In the western part, we have the desert. In the eastern part, you will find good amount of rainfall.

So, considering this topography, it has been suggested that suitable amendment can be done in the implementation of the code. And the similar power is also been given to the state government that they can also amend the code considering the climatic and regional requirements.

Now, the state government plays a significant role in compliance with the code because they do have a power to coordinate, regulate and enforce. Now here, as a law student, you would also acknowledge the role of third tier government, e.g., municipal corporations. Municipality comes up with the bylaws, which generally is being implemented for the construction of residential houses, construction of commercial complexes within the municipal limits. So, if this Energy Conservation Building Code is getting integrated in those bylaws, then it is getting extra-legal backing, and implementation would become more robust.

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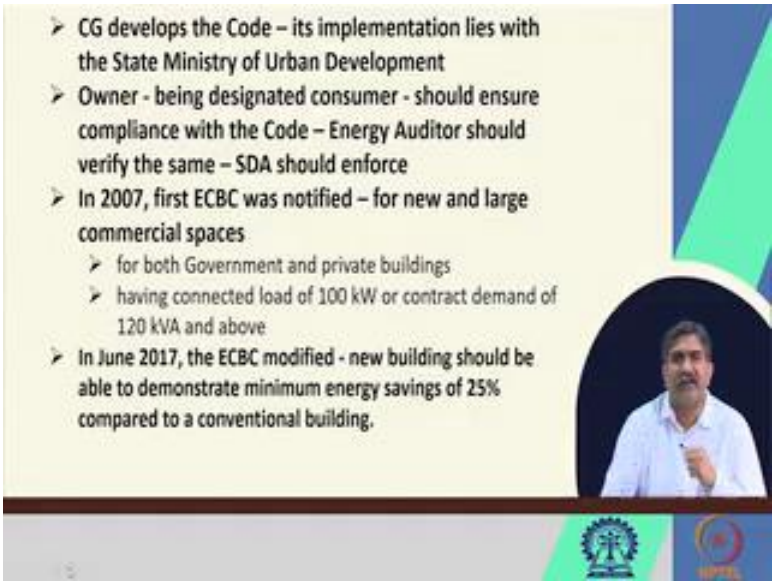

In fact, some of the states, they have already made this mandatory implementation of the conservation code become very mandatory. Then, you have the very point that the central government develops the code, and then implementation is there for the Ministry of Urban Development to take up. Obviously, in the case of the Energy Conservation Building Code, it is the owner who becomes the designated consumer, and the responsibility lies on the owner to ensure compliance with the code. And it is the energy auditor who shall be verifying that whether the owner is meeting the standard or not. And it is for the designated agency to enforce the same.

In 2007, first code was introduced for new and large commercial spaces to be made applicable for both government as well as private buildings. It was done for both. And I have already indicated about the connected load or the contract demand. It has been lowered down so that good number of buildings can be covered. In June 2017, Energy Conservation Building Code was modified, and it has been suggested that new buildings should be able to demonstrate minimum energy savings of 25 percent compared to the conventional one.

So, obviously, what we are moving towards is the greener building. So, that lesser appliances are to be installed, lesser number of air conditioning is to be installed. It would not only serve the purpose of managing the electricity bill, but it would serve a larger purpose of mitigating the challenges that this humanity is facing from global warming.

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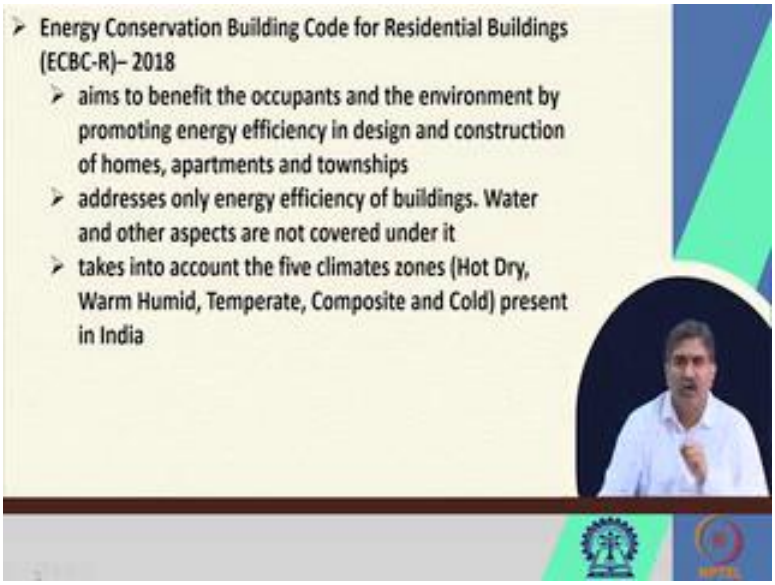

In 2018, we have a code also for residential buildings. In 2007, we have seen that there is a code for the commercial complexes. In 2018, we have a conservation building code for residential buildings. What does it say? It basically aims to benefit the occupier, benefit the owner, benefit the one who is enjoying, who is staying in the building. And the idea is to design the building in such a way so, that the natural light would be available.

So, that optimal or minimal use of energy sources would be there, and the use of energy sources would be required only when it is needed. So, this is being suggested for construction of home. This has been suggested for the construction of apartment or township. It is only for the construction purpose. The building code does not cover water and other related aspects. And it also takes into account the different climatic zone what we have in India, e.g., hot dry, warm, humid, temperature, composite and cold climatic zone.

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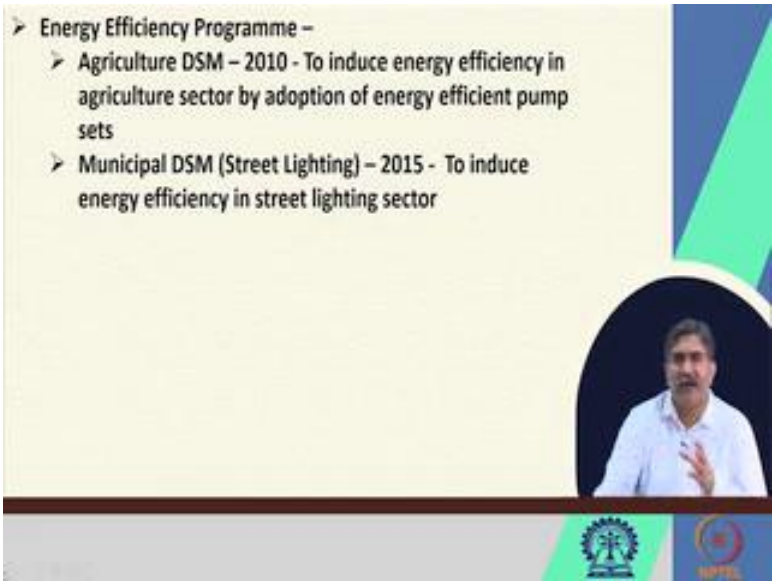

We also have other programme. We know very well that agriculture sector is one sector which consumes a lot of energy, and therefore, it has been suggested that let there be a demand side management in agricultural sector. In 2010, this is what was introduced that agriculture sector should adopt energy efficient pump set because irrigation consumes a lot of electricity. Therefore, it has been suggested that let that pump set be used of those which are meeting the standards laid down by the government.

Also municipal demand side management has also been suggested in 2015 for the street lighting. Again, this is to minimise the uses of electricity which are there for common places. And that is why it has been suggested that let the energy efficiency be a mantra, be a driving factor, for the street lighting sector.

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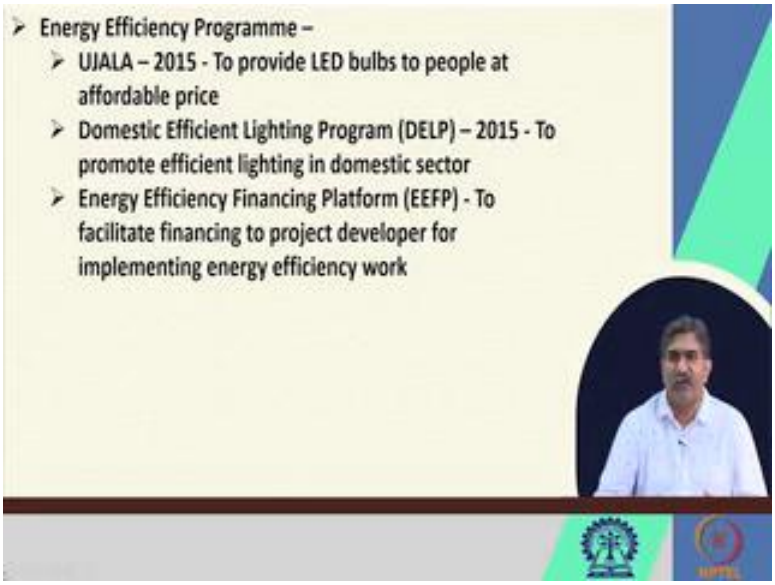

Apart from that, you have other programmes also; you have UJALA Scheme, which is to provide LED bulbs to people at the affordable price. All of us have witnessed it, and all of us have experienced it, that the government has come up with a plan to provide LED bulbs on a very affordable price so that people should replace the older bulbs. The LED bulb does not only give brighter light, but it also saves in on the front of electricity bill.

So, this is an important programme for energy security, for energy efficiency. Then, you have a Domestic Efficient Lighting Programme, which is again of 2015, which is to promote efficient lighting in domestic sector. These days, you will find that LED is becoming very popular; older tube lights are getting replaced with the LED tube lights. And then, you have Energy Efficiency Financing Platform, which is again to facilitate the financing aspect of the developer for implementing the efficiency programme.

Because you need innovation, you need entrepreneurs to come forward and suggest the necessary technologies for achieving a better target, and for that, you need to financially support at the initial stage. And for that, this programme was also designed.

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These are the references for the sessions what I have taken on energy conservation. And with this, I conclude the session. And also, with this, conclude the overall course on introduction to law on electricity. Thank you very much.