

**Introduction to Law on Electricity**  
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**Lecture 27**  
**Tariff**

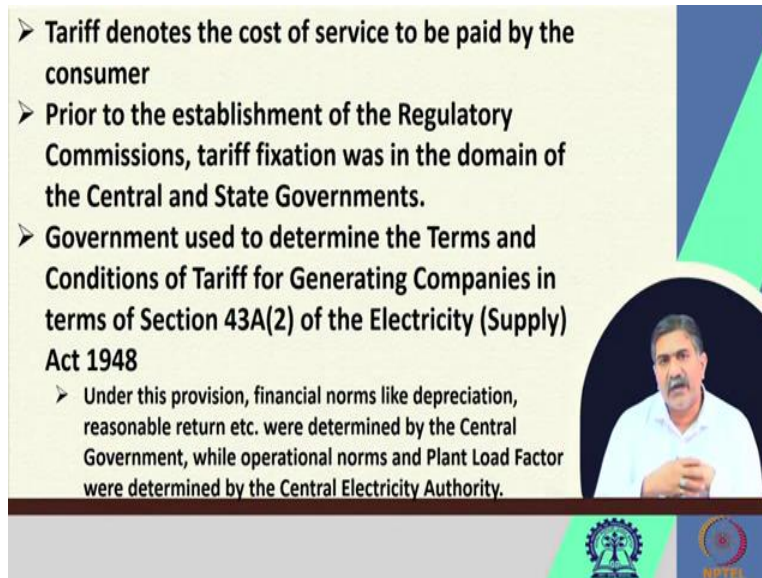
Welcome to all the learners. We have studied till now that what are the laws related to generation, transmission, distribution; how the law is promoting competition in the power sector. Then, we have also read in detail about the interest of consumers given in the Act. Now, let us look at a very critical component, which in a way drives, which in a way influences the overall functioning of the Act and also holds a key for the successful implementation of the Act, and that is tariff.

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Now, when you look at the discussion on tariff, when you look at the way the very provision under the Act deals with the issue of tariff determination, you would find that a fundamental shift has been anchored in the legislative scheme. Therefore, in this session, we will be studying about tariff, the necessary power which has been entrusted to the commission, what are the components of tariff, what are the approaches which the commission follows and then, we will look into the legislative scheme also.

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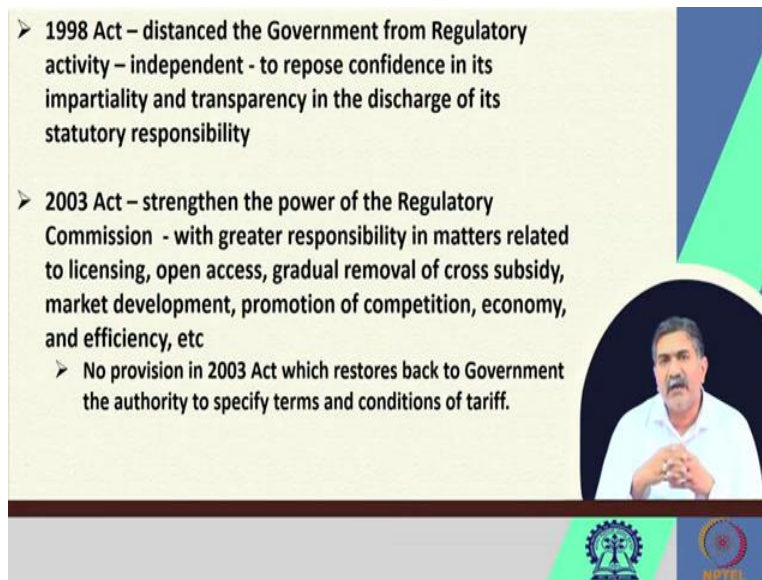


- **Tariff denotes the cost of service to be paid by the consumer**
- **Prior to the establishment of the Regulatory Commissions, tariff fixation was in the domain of the Central and State Governments.**
- **Government used to determine the Terms and Conditions of Tariff for Generating Companies in terms of Section 43A(2) of the Electricity (Supply) Act 1948**
  - **Under this provision, financial norms like depreciation, reasonable return etc. were determined by the Central Government, while operational norms and Plant Load Factor were determined by the Central Electricity Authority.**

Now, tariff, loosely speaking, denotes the cost of service what a consumer pays for availing the service, so that is what tariff in general means. The word tariff has not been defined under the Act. Therefore, we can very conveniently adopt, consider the plain meaning to understand, plain meaning to relate with the scheme of the law given under the Electricity Act 2003.

Now, when you look at the issue of tariff determination, you would find that under the Electricity Supply Act of 1948, the determination was largely or primarily the task of the government. It was the government which was entrusted with the task of tariff determination, and in that financial norms like depreciation, like reasonable return, all these things were to be determined by the central government and then operational norms, plant load factor to be determined by the Central Electricity Authority.

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- 1998 Act – distanced the Government from Regulatory activity – independent - to repose confidence in its impartiality and transparency in the discharge of its statutory responsibility
- 2003 Act – strengthen the power of the Regulatory Commission - with greater responsibility in matters related to licensing, open access, gradual removal of cross subsidy, market development, promotion of competition, economy, and efficiency, etc
  - No provision in 2003 Act which restores back to Government the authority to specify terms and conditions of tariff.

So, tariff fixation was exclusive domain of the government. Now, this situation has changed and in the 1998 Act, which formally established a regulatory body, a regulatory commission to deal with the power sector through an independent body which shall cater the interest of the market and also address the interest of the consumer.

So, as we have studied earlier that post 1991, the whole landscape of power industry has changed by opening up the sector for private players and in order to concretize the steps taken during 1991, a law was enacted to give statutory recognition to the regulatory commission. And the rationale, the idea underlying of establishing the regulatory commission to keep the government away on the issue of determining the factors which are needed for the growth of the power market and also to infuse confidence amongst all the stakeholders of the market.

So, the regulatory commission was vested with the power to frame necessary regulations, including tariff to make the sector competitive. And that is the reason because of the task assigned to the regulatory commission very rightly the lawmakers conferred an independent status on the commission.

So, the 1998 Act very categorically identified the status and also the responsibility of the commission. Now, building upon this premise under the 2003 Act, the regulatory commission has been entrusted with more responsibilities, and what was additional responsibility to the regulatory commission? To frame the regulations for open access, to make the sector

competitive, reduce the cross-subsidy, to promote the market, to promote the competition, to ensure the optimal use of resources.

So, additional responsibilities were being entrusted upon the regulatory commission, and regulatory commission has become a very powerful body under the 2003 Act. We will discuss more about this body, its composition, power and function in coming slides. But then, one thing is very clear when you look at this scheme of the 2003 Act. In no uncertain terms, it has been decided that government shall have no role to play in laying down the terms and conditions of tariff. Government has no role. Government can give necessary directions to the generating companies, and necessary directions to the licensees, but then tariff determination is something where the government's role has not been agreed upon.

Government certainly has been given the responsibility to decide on privileges in terms of extending subsidy, that if government decides to ensure the supply of electricity to a marginalized section on a subsidized rate, government can very well give subsidy under section 65, we have discussed about it, but then on tariff determination it was said that government shall have no role to play.

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➤ **Electricity Act, 2003 and Tariff Policy guides the Regulatory Commission in tariff fixation**

- CERC determines - generating companies owned or controlled by the Central Government, generating companies having composite scheme for generation and sale of electricity in more than one state and inter-State transmission systems
- SERC determines - generating stations within a state
- **Mandate to prepare the Policy by the CG**
  - after consultation with SG and Authority – highlights the need to adopt pan-India approach in the determination of the tariff (Sec. 3)
  - CERC shall advise the Government on the Tariff Policy – statutorily responsibility – not consultation – thus advice is expected to be accepted (Sec. 79(2))

The slide features a portrait of a man in a white shirt on the right side. At the bottom, there are logos for the Central Electricity Regulatory Commission (CERC) and the National Power Training Institute (NPTI).

Now, for tariff fixation or the regulation, the commission shall get guided by the tariff policy in addition to the statutory provisions which are there under the Act's sections 61, 62 or 63. So, tariff policy is something on which the commission has a responsibility to look at. And as per the

tariff policy and the Electricity Act, the responsibility lies with the Central Electricity Regulatory Commission to determine the tariff for generating companies owned or controlled by the central government or generating companies having composite scheme for generation and sale of electricity in two or more than two states.

And Central Electricity Regulatory Commission has also been entrusted with a task to determine tariff for interstate transmission. And you can very well relate with early discussions that with grid getting interconnected, interstate transmission system has become very robust, and thus the responsibility of Central Electricity Regulatory Commission has grown.

On a similar line, State Electricity Regulatory Commission deals with generating stations within a state and intrastate transmission system, there the state regulatory commission plays a role. And this hierarchical structure is due to the constitutional scheme where electricity falls in the concurrent list of the constitution.

Now, when you look at the responsibility to frame tariff policy, the responsibility is given to the central government. And the central government is required to consult the state government and the Central Electricity Authority. Now, what is this consultation for? It is in order to ensure that whatever policy determination has been made, it must have a sort of uniformity across the country.

So, there must be a sort of pan-India approach. So, that the investors, the consumers, the operators, all these entities should have a same level playing field as far as possible. And that is why it says that central government while formulating the policy, needs to consult the state government and the authority.

And Central Electricity Regulatory Commission has been asked to advice the government. So, under section 79 sub section 2, Central Electricity Regulatory Commission has a responsibility, and because it is given in the Act, we can very well say it is a statutory responsibility of the regulatory commission to give advice. And because it is a statutory responsibility on a formulation of tariff policy, as a law student, we can very well infer that unless and until the advice goes against the scheme of the Act, in all likelihood, the advice must be accepted by the government.

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- **App. Commission shall determine the terms and conditions of tariff (Sec. 61)**
  - whereas actual tariff determination by the App. Commissions (Sec. 62)
- **Dual functions discharged by the Regulatory Commissions – Price fixation and terms and conditions of tariff fixation**
- **The term “tariff” includes within its ambit not only the fixation of rates but also the rules and regulations relating to it**

It is not only about empty formality. Now, section 61 is a provision which enables the appropriate commission to determine the terms and conditions of tariff. So, actual tariff determination, tariff fixation is done under section 62 of the Act, which we will be discussing in next session. But then, to formulate the regulation is the responsibility of the appropriate commission, so appropriate commission here, what did you mean? Central or the state regulatory commissions.

So, to lay down the broader framework is the responsibility of the regulatory commission. So, if closer reading of sections 61, 62, & 63, brings this understanding that appropriate commission are into two roles, they discharge two functions. One, they determine the regulation under section 61, they lay down a broader framework which has to be considered while fixing the tariff, and the second one is, they actually determined the tariff; they decide the ceiling of tariff. So, the responsibility to formulate, responsibility to frame tariff regulation is given under section 61 and to fix the tariff is given under section 62 of the Act.



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➤ **Approach of the Commission – (Sec. 61) – broad principles -**

- aims at providing direction to the power sector keeping in view the economic and financial scenario of the country
- regulatory certainty is an integral part of tariff approach
- reflect the changing market condition and macroeconomic parameters
- The multi-year tariff principle is followed to maintain certainty, both to the generators and the procurers

Now, what is the broad principle that section 61 deals with? If you read the language of section 61, it says subject to the provisions of this Act, appropriate commission shall notify the terms and condition, shall specify the terms and conditions, subject to the provisions of this Act. So, this expression subject to the provisions of the Act very well may clear that appropriate commission must determine the things within the boundary of, within the scope of, within the framework of the Electricity Act 2003. And how to identify the framework? Obviously, preamble is a good way to start with.

So, what are the broad principles on which terms and conditions of regulation is to be determined. It says aims at providing direction to the power sector keeping in view of economic and financial scenario of the country. So, the appropriate commission needs to come up with a regulation to guide the prospective investors to suggest the pathway to the existing players, so that the market would operate in an efficient manner. That is what is the responsibility given to the appropriate commission under section 61.

And for that, it is suggested that appropriate commission shall come up with certainty in the regulatory framework. Because certainty in the regulatory framework is very important, and one way of establishing certainty in the regulatory framework is that how the tariff determination policy is, how the tariff determination regulation is being designed by the appropriate commission.

Because if there is a certainty on the installation of new power plant, if there is a certainty on improvement of transmission network. But then, if there is no certainty on tariff then any investment of time to improve the generating units, all the transmission system would be of no good for the market.

And in order to satisfy this, in order to fructify this, what has been suggested is that the appropriate commission must be open to accommodate the changes which are taking place in the market. So, integration with the market condition is very important as far as laying down the broader principles are concerned.

Any archaic thought process, any laid-back approach could be a fatal one. So, what is one way of bringing the certainty in tariff is to introduce multiyear tariff principle. Multiyear tariff principle is something which has already been introduced in India by the appropriate commission. So, this certainly gives a certainty to the generating units as well as to the other licensees. It certainly gives sort of confidence to the investors that if you have a multiyear tariff then it is certain that that power generated will get sold. There is a procurement which shall happen.

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➤ **Approach of the Commission – (Sec. 61)**

- economic efficiency
- encouraging competition
- economical use of the resources
- good performance and optimum investments
- strike a balance between the consumers' interest and the investors' (generating company, transmission licensee and distribution company) interest, with emphasis on the need for applying commercial principles in conducting the activities of generation, transmission, distribution and supply of electricity

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Section 61 further says that let there be economic efficiency in the operation. So, whether the return on equity is encouraging or not, whether desirable investment is getting attracted or not, all this depends on how the regulations are being made. And then whether the competitive policy



where the competitiveness is becoming a sort of critical factor or not. That is another important thing.

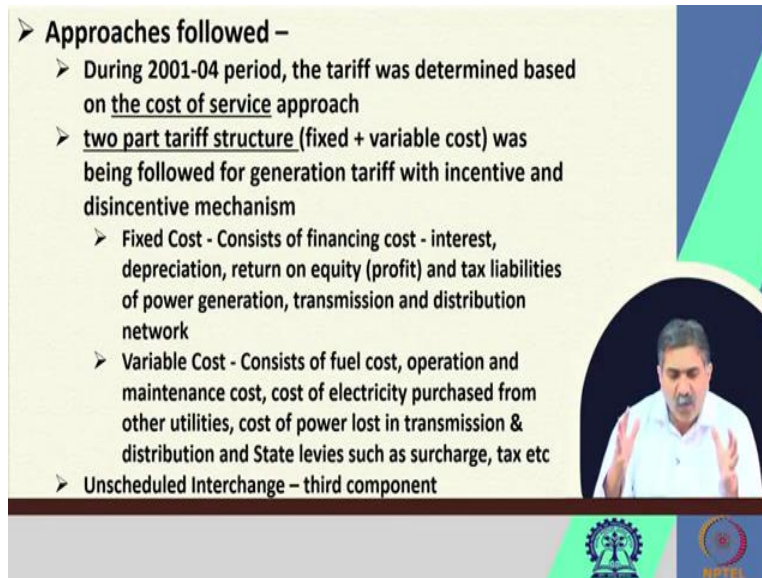
Why? Because with competition, it is to be ensured that the price would fall and it would become affordable to the consumers. And that is possible only when the appropriate commission considers it while deciding on the broader rules and regulations. And also, section 61 says that there should be economical use of the resources.

Economical use of the resources not only in terms of how efficiently the power plant is working, whether the installed capacity and the generated capacity is working on an efficient level or not, but also to see that how all other available resources are being pulled in for increasing, enhancing the generating capacity or not.

And then, to lay down kind of norms for improving the performance of the power plant, the licensees and the most prominent one is to strike a balance between consumer's interest and the investor's interest. Why? Because consumer would like to get electricity on a cheaper price, whereas investor would like to expect reasonable return on the investment which has been made.

So, how to draw that balance? So, section 61 says that one way of bringing the balance is by complying with the commercial principles. And how do you understand commercial principle? It is whether it is market aligned policy or not. Because if it is market aligned, then obviously, this balancing will be assured, because then, in that case, it would not extend undue benefit to the investors and at the same time, it will guaranty, it will assure affordable price to the consumer.

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➤ **Approaches followed -**

- During 2001-04 period, the tariff was determined based on the cost of service approach
- two part tariff structure (fixed + variable cost) was being followed for generation tariff with incentive and disincentive mechanism
  - Fixed Cost - Consists of financing cost - interest, depreciation, return on equity (profit) and tax liabilities of power generation, transmission and distribution network
  - Variable Cost - Consists of fuel cost, operation and maintenance cost, cost of electricity purchased from other utilities, cost of power lost in transmission & distribution and State levies such as surcharge, tax etc
- Unscheduled Interchange – third component

Now, what are the approaches which are being followed for determination of regulation? If you look at the initial period, you would find that initially, it was cost of service which was a determining factor. And how the cost of service was to be taken into account? By considering two components. One is the fixed component and other one is the variable component.

Fixed component encapsulates financing cost, interest, depreciation, return on equity, what you may call as profit, tax liabilities of the investor and licensees. Variable cost is more related to the fuel cost, operation and maintenance cost, cost of electricity purchased from other utilities, cost of power lost in transmission and distribution, and then other surcharges and tax which the state's levee.

So, these two components used to determine what shall be the cost of service. And accordingly, tariff is to be fixed. Now, there is a third component which has come into existence with better technology, that is unscheduled interchange, that is the third component which has come.

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- The tariff structure of transmission system was governed through single component of annual transmission charges with incentive and disincentive linked to availability
- Gradually, the cost of service approach has been modified by introducing benchmark norms for determination of one or more components of the tariff
- Normative approach has been introduced for operational parameters, operation and maintenance expenses, rate of return, working capital etc
- Hybrid approach consisting of actual cost of service and pre-specified normative parameters

Now, when you look at the tariff structure, for generating unit it appears to be on the two part component, but for transmission, it is single component of annual transmission charges with incentive and disincentive linked to availability, so if certain norm has been set up for the transmission utility that transmission utility would be performing as per that norm.

If it is performing better than that, there will be some incentivization. If it is not following that norm, if there is a downfall from that norm then there shall be disincentive for that. Now, this cost of service approach is not getting transformed and wherein there is a talk going on, there is a discussion going on amongst the regulatory bodies that we also need to bring in the benchmarking norm. So that the consumer need not pay higher tariff because of inefficient operation of the generating units.

Because fixed cost is already there and therefore this benchmarking norm would bring in a sort of obligation for the entities operating in the sector to always fulfill the norm. So, that the generating units not remain idle for a longer duration because, anyway fixed cost is to be paid by the consumer. Optimal operation should be introduced so that the responsibility lies with the generating units to at least perform to that level. Let us say, for example, availability, capacity and the load factor and it certainly has to do also with the demand in the market.

Therefore, a new thought process is coming that let there be in addition to cost of service, normative approach also needs to be built. Normative approach in a sense that if certain

percentage of the generated electricity is being consumed for running the power plant, how efficiently that can be maintained to a lower level? How efficiently one can ensure that the cost for operation and maintenance is maintained at the economic level.

How it is ensured that the one who is investing is gaining the confidence that it is a very strategic and meticulous decision to invest in this sector. So, that will give in a sort of confidence to the investor. So, the rate of return, which overall, in a way, determines the pattern of investment should be sound enough.

And that is the reason why it has been said that let there be a hybrid approach, that actual cost of service should also be clubbed with the normative approach. So that consumers will get the competitive price, so that generating units will work efficiently, transmission system will work efficiently.

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➤ **Jharkhand State Electricity Board v. M/S Laxmi Business & Cement Co. Pvt. Ltd. (2014 – SC)**

- The appellant claimed to charge the tariff as was determined in 1994
- Respondent contested in view of new tariff regulation notified by the Commission

➤ **Held:**

- It is, thus, beyond the pale of doubt that the State Electricity Boards have no power whatsoever to frame tariff which is under the exclusive domain of the Commission.
- When old law replaced by a new law - The line of enquiry would be, not whether the new Act expressly keeps alive old rights and liabilities but whether it manifests an intention to destroy them.

Now, let us look at one such case where the Supreme Court has highlighted on the responsibility of the regulatory commission to determine tariff. In 2014, Supreme Court in Jharkhand State Electricity Board versus M/S Laxmi Business & Cement Company Limited answers the question that whether an agreement which was signed between the electricity board and the consumer prior to the enactment of the 2003 Act. Whether it would continue to govern the tariff determination.

Because appellant in this case said that the tariff determination will be charged as per the agreement, which was interred and that was interred way back in 1994. Respondent said no, once we have a new Act, once we have a new tariff schedule, determined under the new Act, it is the new Act which shall be applicable.

Court looked into the scheme of the Act, and court has said that as far as the 2003 Act is concerned, there is a complete clarity that government shall have no role to play in tariff determination. And then, the court also examined that what shall happen when old law gets replaced with a new law. Then how the whole hand-holding should happen? And then in that case, the court said that how do you really understand the continuance of the rights and liabilities which were accrued under the old laws.

Court said that let us look at the intention of the new law, whether new law intends to continue the same or intends to destroy the same, discontinue the same. And in this case, the court has said that as far as the 2003 Act is concerned, the idea is very clear that all other operative legislations prior to 2003 would come to an end. Those Acts would not be operative anymore, and there is a new beginning post-2003 Act and the activities which spare, that needs to go on under this.

So, this is on tariff, and this is on the broader principles which the commission follows for formulating the regulations. And we have also studied that how this normative approach is now influencing the regulation on tariff. Thank you very much.