

SECTION 11: DIRECTIONS AND CONCLUSIONS

11.1 In this section of the Tariff Order the Commission presents:

- (a) A summary of the directions issued for FY 2005-06;
- (b) A discussion of three important issues for the power sector:
 - (i) Reduction of cross subsidies;
 - (ii) Promotion of Renewable energy;
 - (iii) Transition to Multi-Year Tariffs;
- (c) Conclusions of the FY 2005-06 Tariff Order

FY 2005-06 Directions

- 11.2 In the preceding sections, the Commission has given some directions to the petitioners. These directions are summarised and specific directions issued as applicable to each petitioner. The Commission wishes to specifically note that the directives provided in the last tariff order have not been complied with satisfactorily nor have the licensees provided sufficient explanations for not complying with the directives.
- 11.3 The Commission would further like to state that the purpose of issuing directives is to help the licensees work towards adopting a purposeful and directed approach towards fulfilling their roles as enshrined in their Licence conditions and to successfully play their roles in delivering quality power to the consumers of Assam as well play a pivotal role in the development of Assam.
- 11.4 While the Commission recognises that the power sector in Assam is in a transitional phase it hopes that the licensees will accord appropriate attention to the directives issues by the Commission, failing which the Commission will be forced to consider stricter correctives which may involve penalties. It also notes with displeasure that the tariff petitions submitted were pedestrian, incomplete and not logical in their approach and hopes that the licensees will submit their petitions in a more complete form in future. While it has been indulgent in accepting the current petitions it shall certainly be stricter in its expectations for future tariff petitions.
- 11.5 The Commission also requires each of the Licensees to submit detailed business plans for the next 5 years having details of its Capital expenditure and Financing plans as well the future projections of operational performance like losses and collection efficiency. This is will be an important input to the multiyear tariff discussion that the Commission will initiate soon.

AEGCL

- 11.6 In accordance with the move to a normative approach to tariff regulation, the Commission issues the following directions to the AEGCL:
- (a) Transmission Losses –The AEGCL is to submit data regarding the current and future level of transmission losses with the next tariff petition for FY 2006-07 including the impact of transmission network projects on the reduction of losses. AEGCL shall attempt to submit transmission line wise energy transactions so that accurate transmission losses can be determined.
 - (b) Transmission Performance Standards – The AEGCL is to put into a place a process to measure the availability of the transmission system along with the other performance measures set out Schedule II of the (Transmission Licensee Standards of Performance), Regulations, 2004. The AEGCL is to submit a report with the next tariff petition for FY 2006-07 describing the current achievements of the performance standards and how they will be improved once the transmission system projects are complete.
 - (c) Operations and Maintenance expenditures – The AEGCL is to submit a report within the next three months that provides data on regarding length of transmission lines, transformation capacity, and number of bays in substations, auxiliary power consumption by substation, and number of staff by organisation unit. The report should also explain how manpower reductions will be achieved given that the new substations do not need to be managed with the same levels of deployment as being done currently due to the use of remote control and monitoring from the new SCADA system.
- 11.7 In the Commission's view, the unbundling of the SLDC costs from the transmission network are a high priority and as it will enable the SLDC to assume a role which will become more important in view of the formation of distinct companies having separate jurisdictions. SLDC has to play a very significant allocative role in ensuring optimum utilisation of available power, avoiding congestion and ensuring reliability, a role which will become more important as the Distribution activity will be open to players other than the present entities also. In keeping with such a role, the functioning of SLDC may have to be considered at arms length from the STU, for which purpose, the accounting of SLDC has to be bifurcated from that of AEGCL. The AEGCL is directed to ensure that this is achieved in time of consideration of ARR and tariff revision for FY 2006-07.

APGCL

- 11.8 APGCL is directed to prepare a plan to reduce stranded employees of the BTPS and CTPS to the minimum required for repairs and maintenance in phases so as to redeploy/eliminate all unnecessary employees by 2007, and submit the plan to the Commission within the next four months.

Discoms

- 11.9 In accordance with the move to a normative approach to tariff regulation, the Commission issues the following directions to the LAEDCL, CAEDCL, and UAEDCL:
- 11.10 Distribution Losses –The Commission recognises that Distribution losses; technical and non – technical constitute the biggest malaise facing the sector and also that this is a deep-rooted systemic problem. However the Licensees have to deal swiftly and systematically with this issue. Specifically with an aim of tackling and reducing Distribution losses the Commission proposes the following measures to the three Discoms for the studying and controlling losses.
- (a) Energy Auditing and study on Distribution losses- The Discoms are required to take up pilot projects to study the exact nature and causes of losses.
 - (b) Introduce accountability and responsibility within the divisions and subdivisions and hence look at each of these as profit centres and monitor losses and revenue performance of these centres.
- 11.11 The three Discoms are to submit data regarding the current and future level of Distribution losses for FY 2006-07 including the impact of Distribution network projects on the reduction of losses no later than three months from the issue of his order.
- 11.12 The Commission recognises the massive efficiency gains that can result out of effective Computerisation of Billing and Management Information Systems (MIS) and wishes the Discoms to submit soon after this order, a status report of the its Billing and MIS being followed by each of the Discoms.
- 11.13 The Commission will also review the Management Information Systems currently being used or proposed to be operationalised soon by the respective Discoms for the purpose of reviewing performance of each Distribution profit centre.
- 11.14 The Commission also directs the Discoms to conduct studies for determining the Cost of Supply for each consumer category. The Commission will soon discuss this particular topic along with the Multi Year Tariff principles and will require accurate data inputs from the Licensees and wishes to prepare the Licensees in advance for these data requirements
- 11.15 With respect to the new tariff categories that have been introduced, the Commission directs that the Licensee create new accounting codes for these categories and submit every month two months from this order till the next filing the following -the number of consumers, their Load, Energy sold to these consumers and the revenue from each category so that it can monitor the steps taken by the Licensee in effecting this tariff order.

All Petitioners

- 11.16 The five petitioners are to provide details of interface metering points of the five petitioners for energy accounting, and also the status of accounting as directed by the Commission in the Interim Tariff Order dated 31 March, 2005.
- 11.17 The Commission will issue new formats for the submission of tariff petitions for FY 2006-07 by 31 August, 2005. All petitioners are directed to submit their petitions in the required format in electronic and hard copy form by 1st December, 2006.
- 11.18 The Commission has made various other important observations on relevant matters elsewhere in this Order. Not all these are mentioned in the paragraphs above in this section. In due course the Commission will be issuing guidance and directions on these matters, which are for the benefit of consumers and the licensees both, in the expectation that those who are to act on these will do so in all seriousness. Such action will enable to the Commission to determine tariffs properly in future years.

Reduction of Cross Subsidies

- 11.19 The Commission's obligations for the removal of cross subsidies are set out in the Electricity Act, 2003 as follows:

- (a) Section 42 (2) of the Act states:

“The State Commission shall introduce open access in such phases and subject to such conditions, (including the cross subsidies, and other operational constraints) as may be specified within one year of the appointed date by it and in specifying the extent of open access in successive phases and in determining the charges for wheeling, it shall have due regard to all relevant factors including such cross subsidies, and other operational constraints:

Provided that such open access may be allowed before the cross subsidies are eliminated on payment of a surcharge in addition to the charges for wheeling as may be determined by the State Commission:

Provided further that such surcharge shall be utilised to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee:

Provided also that such surcharge and cross subsidies shall be progressively reduced and eliminated in the manner as may be specified by the State Commission:

Provided also that such surcharge shall not be leviable in case open access is provided to a person who has established a captive generating plant for carrying the electricity to the destination of his own use.”

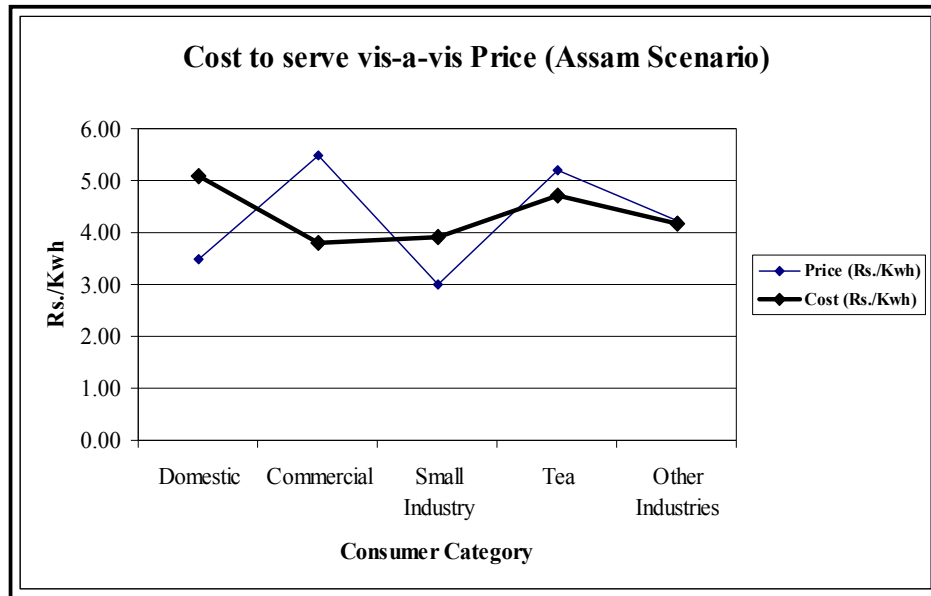
11.20 Section 61 (g) of the Act states:

“That the tariff progressively reflects the cost of supply of electricity and also reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission.”

11.21 In many developed countries, the industrial and commercial sector tariffs are set on a voltage based cost to serve basis. These consumer categories do not pay cross subsidies to domestic and other consumers. However, there are still cross subsidies between domestic and rural consumers which are paid for directly by the government.

11.22 The Commission recognises that importance of the removal of cross subsidy to the industrial and commercial sectors. In particular, the commercial and tea sector is the major source of private sector employment as many small businesses are family operated businesses and higher electricity costs reduces their disposable income. A reduction in the cross subsidy for the commercial and tea sector will benefit these families by redistributing income to them.

11.23 The first task for the Commission is to decide what method will be used to determine the level of cross subsidy. Currently most Commissions are using an average cost to serve method because the data does not exist to support the voltage based cost to serve method. The diagram below illustrates the flaws in the average cost method. It can be seen that under the average cost method, industrial and commercial consumers are still contributing the recovery of costs for domestic consumers.



11.24 With the data available at present, it is not possible to calculate the cost to serve on voltage or category basis. The Commission staff has made an attempt to formulate the cost of supply depending on nature and time of use which has been considered for this

tariff. It may be noted that inter-category cross subsidy has not increased from the existing level.

- 11.25 However, the Commission will be conducting a further study to calculate the cost to serve on a voltage basis later this year. This study will be revised once better data can be provided by the three Discoms. This is dependent on the installation of meters to capture the required data.
- 11.26 The Commission's preferred approach is to gradually reduce cross subsidies in tandem with the reduction in non-technical losses to avoid tariff shock to consumers.
- 11.27 All consumers should realise that the single greatest cross subsidy in the current tariff system is between those who pay and those who steal power. The removal of theft will reduce the cost to serve for all consumers and therefore will reduce the need for large tariff increases to remove cross subsidies.

Promotion of Renewable Energy

- 11.28 Under section 86 (e) of the Act, the Commission to:

“(e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licence;”

- 11.29 The Commission has considered this requirement and decided that it is too early to prescribe any purchase requirements on the Discom who have only been established late last year.
- 11.30 The Commission is interested in encouraging renewable energy for stand alone power systems or for remote villages not connected to the grid where a renewable energy source may be a more cost effective option to improve the reliability of supply instead augmenting the existing network.
- 11.31 ASEB had prepared a policy for small hydro power development up to 25 MW in the State of Assam and sent the draft policy to Assam Electricity Regulatory Commission for comment. AERC suggested a number of modifications in the policy.
- 11.32 To encourage generation of power from renewable sources, the Commission may consider fixing appropriate tariff for such generation if such a generation system is connected to grid. Wheeling charges for wheeling the generated energy will also be determined by the Commission.
- 11.33 The Commission is also decided in this tariff order to create an incentive for consumers to switch to solar hot water systems. In Assam, during winter months very high consumption of electricity is observed during the morning hours resulting in peaking of demand in morning in addition to normal peak hours. One of the reason for

this peaking of demand in the morning during winter matters is use of water heating appliances like geysers, immersion rods etc. These heating appliances consume high amounts of electricity.

- 11.34 For proper grid management it is essential that consumers should be encouraged to opt for alternative methods to meet their water heating requirements. Solar water heaters offer an excellent alternative to electrical water heating system and can help in a big way in reducing the demand during the morning hours. It also results in substantial reduction in the consumers' energy bills. So use of solar heating is, thus, a win-win situation for consumers as well as utilities.
- 11.35 In order to encourage consumers to switch over to solar water heating system, the Commission proposes to introduce a monthly rebate of Rs.30 for all consumers who have installed such solar water heating systems for meeting their hot water requirements and these are actually used. To avail this rebate, the consumer will be required to give the licensee an affidavit to the effect that such a system has been installed on his premises and is being used to meet his water heating requirements. The declaration can be verified by the licensee's meter readers / representative, if required. In case, any such declaration is found to be false, the licensee apart from taking appropriate legal action against such consumer would be entitled to recover the entire rebate allowed to such consumers with 100% penalty.

MULTI YEAR TARIFF PRINCIPLES

- 11.36 AERC has finalised after discussions and hearing the Terms and Conditions of Tariff. These regulations state explicitly that in the determination of Tariff the commission will be guided amongst others by multi-year tariff principles
- 11.37 The broad principles for the applicability and procedure to be followed for a MYT regime has been outlined in the regulations, but the Commission deems it fit to discuss the philosophy of the Multi Year Tariff regime and its essentials for the benefit of wider awareness and discussion.
- 11.38 The broad aims of the MYT regime are that since the state of the network and operations of the licensee, especially the distribution licensees are in a critical shape, ideally a long term plan for the resurrection and commercial and operational viability of these licensees should be in place. Some long term targets for the licensees should also be set to impart predictability in terms of the ideal outcomes expected from the licensees. On the front of costs, it is recognised that there are a set of costs which a licensee can satisfactorily control and there is another set of costs over which the licensee does not have significant control. The treatment of these two different sets would have to be different during the control period of the tariff regime.

- 11.39 The Commission would like to see all the above happening since these measures are intended to help mitigate the licensee's business uncertainty and financial risk. The cost of uncertainty and risk, as is clear, falls on both licensees and consumers.
- 11.40 The Commission thus recognises the requirement of a well defined and enduring set of financial principles that may be applied on a multi - year basis to provide a stable tariff regime and reduce any regulatory risk. It believes that the successful achievement of these objectives will create conditions for inflow of capital and improvement of the operating efficiency.
- 11.41 The Commission would however like to mention that the operating conditions for Assam are unique and the design of tariff related financial principles must address the specific problems faced by the power sector in the state of Assam. The Commission would like to further highlight that introduction of the multi year tariff regime is an intensive and interactive process and has to be accompanied by discussions, hearings and submission from different stakeholders about the applicability of conditions and provisions under the proposed regime. The commission will have to also satisfactorily deal with data inadequacies and starting levels of performance of the Licensee as well its achievements.
- 11.42 Hence it will follow up this Tariff Order with a special order on the multi year tariff regulations and process to be followed subsequently.
- 11.43 The Commission by this Tariff Order fixed Tariff for FY 2005-06, which will be made effective from 3rd June, 2005 till 31st March, 2006 or until replace by an order of the Commission. The Commission will consider claim of Petitioners for any shortfall of revenue that may arise due to continuation of Tariff for FY 2004-05 for April and May, 2005.