

## **Section - 6**

### **Directions to the JSEB**

The Commission has identified several areas where the Petitioner needs to make substantial efforts for improvement. The Commission is, therefore, issuing these directives to the petitioner and the petitioner is required to follow these directives on a priority basis. The Commission would require the petitioner to submit six compliance of the progress made in implementation of these directives. These directives are grouped under the following heads.

#### **Sales estimates and projections**

6.1 Inadequacy of data comes in the way of estimation of accurate demand, which is necessary for any planning and estimation. Present estimation on irrational assumptions does not reflect the true demand of electricity. The Commission is of the view that the Board needs to undertake a detailed study for load research and demand forecast in order to correctly workout its short term and long term peak energy requirements. The study should also compile information on the demand from various consumer categories at different times of the day as well as on consumption of energy during various intervals.

6.2 Further, the Commission directs the Board to submit in the next petition correct estimates for category wise actual consumption for the period FY 2001-02 to FY 2003-04. For this purpose, the Commission directs the Board to estimate circle wise consumption by different categories including unmetered category and should furnish circle-wise number of hours of supply to various categories of consumers.

#### **Metering and Kutir Jyoti scheme**

6.3 As per the requirement of the provisions of the Electricity Act, 2003, the Petitioner cannot supply energy without energy meters after June 2005. The Commission therefore directs the Board to submit an action plan by March 2004 for complete metering by the end of June 10, 2005 (two years post the issue of the Electricity Act on June 10, 2003). It is further directed that no new connection should be issued without a meter from the date of issue of this order.

6.4 With regard to Kutir Jyoti consumers, the Commission found that the existing single point connections under Kutir Jyoti scheme are withdrawing more power than their connected load permits. The Commission directs the Board to undertake strict measures to check such consumption and bring all such consumers in the next domestic category where the permissible load is up to two kilowatts.

#### **T&D loss estimate and unmetered consumption**

6.5 The Commission is concerned with regard to high T&D losses in the State, even though the State has a favourable sales mix with a high percentage of HT sales in total sales. Since the industries are consuming more than 60% in the total sales mix; it is quite possible that they are the largest contributors to this menace. Dishonest consumers need to understand that reduction in losses will help them through reduction in tariff. The Commission therefore, directs that the Board to formulate a task force for supervising the T&D loss in the State. The task force should report to the Commission quarterly about the various efforts that has been undertaken to reduce these losses with its results.

6.6 The Commission holds that information base of the Board, which is not only inadequate but is also marked with various inconsistencies, has been a major constraint in authenticating the T&D losses. In this backdrop, the Board is directed to undertake a proper energy audit of its system and provide a voltage-wise break up of technical and commercial losses in the next petition. The Board should also provide a circle wise break up its T&D losses in the next petition. This would help in benchmarking various circles and introducing competition along with incentives for the employees among the various circles.

6.7 The Commission further directs the Board to undertake a study to estimate category wise unmetered consumption and provide the results in the next petition. The study should reveal the number of hours of supply and the connected load in various unmetered categories. The Commission agrees that this would presumably be based on availability at the substation and not actually at the consumers' end.

### **Performance of PTPS substation**

6.8 The Commission observes that PTPS plant is running at abysmally low PLF and is plagued with various inefficiencies. The Commission directs the Board to undertake necessary measures in terms of economic scheduling of working units in order to reduce SHR (station heat rate) from its existing level and increase the PLF to its optimal level. The Commission also directs the Board to account separately the consumption in the nearby areas of PTPS and estimate auxiliary consumption net of this level.

6.9 With regard to fuel management, the Commission advises the Board to explore the possibility of procuring washed coal with reduced ash content to minimize the ash disposal problem. Further, the Commission notes that that there is a transit loss of 15% while transporting coal to the power plant. Given that the PTPS is situated in a pit head such a level of transit loss is very high and is indicative of poor supervision on part of the Board. The Commission directs the Board to step up its supervision to reduce this loss.

6.10 The Commission notes that there are numerous operational inefficiencies with regard to management of fuel consumption by the Board, and it is not only the 'old age' of plant, which is responsible for poor performance, as held by the Board. The Commission directs the Board to undertake appropriate measures with proper fuel management system in place to improve the efficiency of plant and submit an action plan in this regard within three month from the date of issue of this order.

### **Evacuating 100% power from TVNL station**

6.11 The Commission observes that the Board has not been fully utilizing the cheap sources of power. For instance, TVNL plant is lying partly idle because of Board's inability to evacuate the full available power. The Commission believes that sourcing maximum power from the TVNL would not only reduce the financial burden of the Board but also will reduce the burden of transmission loss, the cost of which has to borne by the utility while purchasing power from outside sources.

6.12 The Commission therefore, directs the Board to undertake necessary capital and R&M expenditure to augment its transmission capacity for evacuating 100% power from TVNL station, and an action plan in this regard should be submitted to the Commission within one month from the date of issue of this order.

### **Quality of supply and service**

6.13 The Electricity Act 2003 provides for consumer protection through certain standards of performance to be met by the utilities. In this regard, Section 57 of the Act deals with the standards of performance of licensee. It states that the Commissions may after consultation with the licensees and persons likely to be affected, specify standards of performance of a licensee or a class of licensees and also determine the penalty/compensation to be paid to the consumer if the licensee fails to meet these standards. Therefore, the JSEB is directed to prepare and submit to the Commission a proposal on a set of standards of performance along with penalties for non-adherence to these. The petition should include the condition for minimum hours of supply that the Board has to supply.

### **Minimum charge from different category**

6.14 The Commission directs the JSEB to provide details of the Minimum charges collected from different categories of consumers and prepare a schedule of rational demand charge, which may replace this minimum charge. The Commission directs the JSEB to provide details on the category wise number of consumers who pay only the minimum charges

### Supply to BPL family in Urban Slum

6.15 In the pocket of urban areas, there are houses of population Below Poverty Line (BPL). The Commission observes that the Board should extent supply to these consumers at single point as in case of 'Kutir Jyoti'. For this purpose the Board may approach the Commission after obtaining the "Slum area declaration" from the concerned authority.

### Non-Conventional Energy

6.16 Section 86 (e) of the Electricity Act, 2003, mandates the Commission to promote 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 there area of a distribution licensee. As a first step towards this direction, the Commission directs the Board to submit in three months their plan of action and strategy for rural electrification through promotion of non-conventional form of electricity. The Commission also directs the Board to coordinate with JREDA (Jharkhand Renewable Energy Development Agency) in this regard for successful implementation of various initiatives.

### Next Tariff petition and auditing of accounts

6.17 The Commission directs the Board to come up with a new petition for FY 2004-05 removing the various data deficiencies highlighted throughout the tariff order. The Commission also directs the Board to audit the books of accounts for FY 2001-02 and FY 2002-03 and submit the same to the Commission by March 2004.

This order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this day the 26th of December 2003.

Place: Ranchi

Date 27th of December 2003

Chairman

## Annexure 5.1

### Tariff schedule of the Jharkhand State Electricity Board Applicable with effect from January 1, 2004

Category: Domestic Service (DS)

#### 1. Applicability

This schedule is applicable for use for domestic purpose including domestic pumping set and household electric appliances in private residence such as radios, televisions, desert coolers, air conditioners, motors upto 1 BHP for lifting water for domestic purposes and other household electrical appliances not covered under any other schedule. This rate is also applicable for supply to institutions such as Temples, Gurudwaras, Mosques, Church and Burial/Crematorium grounds and other recognized charitable institutions, where no rental or fees are charged whatsoever. of any fees and rentals are charged, such institutions will be charged under Non domestic category.

#### 2. Category of service

##### a. Domestic Service: DS-I (a)

For Kutir Jyoti connection only for connected load upto 100 Watts for rural areas.

##### b. Domestic Service: DS-I (b)

For rural areas not covered by area indicated under DS-II and for connected load not exceeding 2 kW.

c. **Domestic Service: DS-II**

For urban areas covered by notified Area Committee/Municipality/Municipal Corporation/All District Town/All Sub Divisional Town/All Block Headquarters/Industrial Areas/contiguous sub-urban area all market places urban or rural and for connected load not exceeding 4 kW.

d. **Domestic Service: (DS-III)**

For loads exceeding 4 kW.

e. **Domestic Service: (DS- HT)**

For power supply at 11 kV to housing colonies and housing complex/multi-storeyed buildings for purely residential use for load above 75 kW.

### 3. Character of service

- For DS-I (a): AC, 50 Cycles, Single Phase at 230 Volts for Kutir Jyoti connection for load below 0.03 kW
- For DS-I (b): AC, 50 Cycles, Single Phase at 230 Volts for load below 2 kW
- For DS-II: AC, 50 Cycles, Single Phase at 230 Volts for installed load upto 4 kW
- For DS-III: AC, 50 Cycles, Three Phase at 400 Volts for installed load exceeding 4 kW

### 4. Tariff

#### Tariff for DS-I (a)-Kutir Jyoti Connections

| DESCRIPTION          | TARIFF |
|----------------------|--------|
| Rs./connection/month | 27     |

#### Tariff for DS-I (b)-Other rural domestic consumers

| DESCRIPTION          | TARIFF |
|----------------------|--------|
| Rs./connection/month | 65     |

#### Optional Metered tariff for DS-I (a) and DS-I (b) categories

|                 | TARIFF        |
|-----------------|---------------|
|                 | ENERGY CHARGE |
| KWh/month       | Rs./kWh       |
| All consumption | 1.00          |

#### Tariff for DS-II category

|                      | TARIFF        |
|----------------------|---------------|
|                      | FIXED CHARGE  |
| Rs./connection/month | 20            |
|                      | ENERGY CHARGE |
| KWh/month            | Rs./kWh       |
| 0-200 kWh            | 1.35          |
| Above 200 kWh        | 1.70          |

#### Tariff for DS-III category

|                      | TARIFF        |
|----------------------|---------------|
|                      | FIXED CHARGE  |
| Rs./connection/month | 40            |
|                      | ENERGY CHARGE |
| KWh/month            | Rs./kWh       |
| All consumption      | 1.70          |

**Tariff for DS- HT category**

|                 | <b>TARIFF</b>        |
|-----------------|----------------------|
|                 | <b>FIXED CHARGE</b>  |
| Rs./kVA/month   | 30                   |
|                 | <b>ENERGY CHARGE</b> |
| KWh/month       | Rs./kWh              |
| All consumption | 1.50                 |

**5. Delayed Payment Surcharge:** As per Clause 1.1**Category - Non Domestic Service (NDS)****1. Applicability**

For the use of lights, fans, and power loads-non-domestic purposes like shops, hospital (private or government), clinic, nursing homes, dispensaries, restaurants, hotels, clubs, guest house, boarding/lodging houses, marriage houses, public halls, show rooms, workshops, central air conditioning units, office (private or Central/State Governments and their undertakings), show-rooms, commercial establishments, cinemas, X-ray plants, schools and colleges (private or government), libraries (private or government), recognized research institutions, railway stations, fuel-oil stations, (including vehicle service station), all India radio/TV installations, printing presses, housing co-operative societies for availing power, common services in multi storeyed commercial office/buildings, universities, trust, museums, poultry farms, banks, dharmshala and such other installations not covered under any other category.

**2. Category of service****a. Non Domestic Service: NDS-I**

For rural areas not covered by area indicated for CS-II and for connected load not exceeding 2 kW.

**b. Non Domestic Service: NDS-II**

For urban areas covered by Notified Areas Committee/Municipality/Municipal Corporation/All District Town/All Sub-Divisional Town/All Block headquarters/Industrial Area and contiguous sub-urban area, market place rural or urban and for connected load upto 75 kW. This schedule shall also apply to commercial consumers of rural area having connected load above 2 kW.

**3. Character of service**

- For NDS-I: AC, 50 Cycles, Single Phase at 230 Volts for loads upto 2 kW
- For NDS-II: AC, 50 Cycles, Single Phase at 230 Volts or Three Phase at 400 Volts for load exceeding 2 kW and upto 4 kW

**4. Tariff****Tariff for NDS-I**

| <b>DESCRIPTION</b> | <b>TARIFF</b>   |
|--------------------|---|
|                    | Rs.110/kW/month or part thereof for connected load upto 1 KW<br>Rs.50/KW/month for each additional 1 kW or part thereof |

**Optional Metered tariff for NDS-I category**

|  | <b>TARIFF</b> |
|--|---------------|
|--|---------------|

|                 | ENERGY CHARGE |
|-----------------|---------------|
| KWh/month       | Rs./kWh       |
| All consumption | 1.25          |

#### Tariff for NDS-II category

|                              | TARIFF               |
|------------------------------|----------------------|
|                              | <b>FIXED CHARGE</b>  |
| Rs./kW/month or part thereof | 100                  |
| KWh/month                    | <b>ENERGY CHARGE</b> |
|                              | Rs./kWh              |
| All consumption              | 3.60                 |

**5. Delayed Payment Surcharge:** As per Clause 1.1

### Category: Low Tension Industrial and Medium Power (LTIS)

#### 1. Applicability

For electrical motors and other industrial appliances and medium power upto 107 HP. The use of arc welding set, electric motors in public water works, flour mills, oil mills, dal mills, atta chakki, haulers, spellers etc. will also be covered under this category.

**Character of Service:** AC, 50 Cycles, Single Phase supply at 230 Volts or Three Phase at 400 Volts for connected load upto 107 HP

#### 2. Tariff

#### Tariff for LTIS category

|                              | TARIFF               |
|------------------------------|----------------------|
| Rs./HP/month or part thereof | <b>FIXED CHARGE</b>  |
| LTIS                         | 60                   |
| KWh/month                    | <b>ENERGY CHARGE</b> |
| All consumption              | Rs./kWh              |
| LTIS                         | 3.50                 |

**3. Delayed Payment Surcharge:** As per Clause 1.1

**4. Power factor penalty and power factor rebate** will be applicable in case of maximum demand meters as per clauses 1.2 and 1.3 respectively.

### Category: Irrigation and Agriculture service (IAS)

#### 1. Applicability

For the use of electrical energy for agriculture purposes including processing of agricultural produce, confined to Chaff-Cutter, Thresher, Cane crusher and Rice-Hauler, when operated by the agriculturist in the field or farm and does not include rice mills, flour mills, oil mills, dal mills or expellers.

**2. Category of service**

- a. IAS-I: For private tube wells and private lift irrigation schemes
- b. IAS-II: For state tube wells and state lift irrigation schemes

**3. Character of Service:** AC, 50 Cycles, Single Phase at 230 Volts or Three Phase at 400 Volts

**4. Tariff****Tariff for IAS category**

|              | <b>TARIFF</b>       |
|--------------|---------------------|
|              | <b>FIXED CHARGE</b> |
| Rs./HP/month |                     |
| IAS-I        | 50                  |
| IAS-II       | 200                 |

**Approved metered Tariff (optional) for IAS I & II category**

|                            | <b>TARIFF</b>        |
|----------------------------|----------------------|
|                            | <b>ENERGY CHARGE</b> |
| KWh/month                  | Rs./kWh              |
| All consumption for IAS-I  | 0.50                 |
| All consumption for IAS-II | 0.75                 |

**5. Delayed Payment Surcharge:** As per Clause 1.1

**6. Power Factor Penalty:** As per Clause 1.2

**7. Power Factor rebate:** As per Clause 1.3

**Category: High Tension Service (HTS)****1. Applicability**

For consumers having contract demand above 100 kVA

**2. Character of service**

50 cycles, 3 Phase at 6.6 KV/11 Kv/33 kV or 132 kV.

**3. Tariff****Tariff for HTS**

| <b>DESCRIPTION</b> | <b>TARIFF*</b>       |
|--------------------|----------------------|
| Rs./kVA/month      | <b>DEMAND CHARGE</b> |
| HTS                | 140                  |
|                    | <b>ENERGY CHARGE</b> |
| KWh/month          | Rs./KWh              |
| All consumption    | 4.00                 |

|                            | Monthly minimum charge |
|----------------------------|------------------------|
| For Supply at 11 and 33 kV | Rs.250/kVA             |
| For Supply at 132 KV       | Rs.400/kVA             |

**Voltage rebate for HT consumers**

| Load Factor      | Voltage rebate |
|------------------|----------------|
| Supply at 33 kV  | 5%             |
| Supply at 132 kV | 7.5%           |

**Load factor rebate for HT consumers\***

| Load Factor | Load factor rebate |
|-------------|--------------------|
| 40-60%      | 5%                 |
| 60-70%      | 7.5%               |
| Above 70%   | 10%                |

\*The above rebate will be available only on monthly basis and Consumer with arrears shall not be eligible for the above rebates.

**TOD tariff for HT consumers**

| Description   | TOD Tariff |
|---|------------|
| Rs./KWh/month   |            |
| Peak Hour<br>06.00 AM - 10.00 AM<br>06.00 PM - 10.00 PM | 4.60       |
| Off Peak Hour<br>10.00 PM - 06.00 AM                    | 3.60       |

**8. Delayed Payment Surcharge:** As per Clause 1.1

**9. Power Factor Penalty:** As per Clause 1.2

**10. Power Factor rebate:** As per Clause 1.3

**Category: HT Special Service (HTSS) (HT consumer with Induction furnace)**

**1. Applicability**

For contracted demand of 300 kVA and more for induction furnace, however, not applicable to casting units having induction furnace of melting capacity of 500 kg or below.

**2. Tariff****Tariff for HTSS consumers**

| DESCRIPTION     | TARIFF               |
|-----------------|----------------------|
| Rs./kVA/month   | <b>DEMAND CHARGE</b> |
|                 | 300                  |
|                 | <b>ENERGY CHARGE</b> |
| kWh/month       | Rs./kWh              |
| All consumption | 2.50                 |



|  |                               |
|--|-------------------------------|
|  | <b>Monthly minimum charge</b> |
|  | Rs.400/kVA                    |

**Voltage rebate for HTSS consumers**

| <b>Load Factor</b> | <b>Voltage rebate</b> |
|--------------------|-----------------------|
| Supply at 33 kV    | 5%                    |
| Supply at 132 kV   | 7.5%                  |

**Load factor rebate for HTSS consumers**

| <b>Load Factor</b> | <b>Load factor rebate</b> |
|--------------------|---------------------------|
| 40-60%             | 5%                        |
| 60-70%             | 7.5%                      |
| Above 70%          | 10%                       |

\*Consumer with arrears shall not be eligible for the above rebates. The above rebate will be available only on monthly basis

**3. Delayed Payment Surcharge:** As per Clause 1.1

**4. Power Factor Penalty:** As per Clause 1.2

**5. Power Factor rebate:** As per Clause 1.3

**Category: Railway Traction Service (RTS)****1. Applicability**

For use of railway traction only.

**2. Character of service**

AC 50 Cycles, Single Phase at 25 kV or 132 kV.

**3. Tariff****Tariff for RTS consumers**

| <b>DESCRIPTION</b> | <b>TARIFF</b>        |
|--------------------|----------------------|
| Rs./kVA/month      | <b>DEMAND CHARGE</b> |
|                    | 140                  |
|                    | <b>ENERGY CHARGE</b> |
| KWh/month          | Rs./KWh              |
| All consumption    | 4.30                 |

**Voltage rebate for RTS consumers\***

| <b>Load Factor</b> | <b>Voltage rebate</b> |
|--------------------|-----------------------|
| Supply at 132 kV   | 7.5%                  |

\*Consumer with arrears shall not be eligible for the above rebate

**4. Delayed Payment Surcharge:** As per Clause 1.1

**5. Power Factor Penalty:** As per Clause 1.2

**6. Power Factor rebate:** As per Clause 1.3

**Category: Street Light Service (SS)**

**1. Applicability**

For use for Street Light System, including single system in Corporation, Municipality, Notified Area Committee. Panchayats, etc. and also in areas not covered by Municipalities and Notified Area Committee provided the number of lamps served from a point of supply is not less than 5.

**2. Character of service**

AC 50 Cycles, Single phase at 230 Volts or three phase at 400 Volts

**3. Category of service**

- a. **S.S -I:** Metered Street Light Service
- b. **S.S -II:** Unmetered Street Light Service

**4. Tariff**

**Tariff for SS-I category (Metered category)**

| DESCRIPTION          | TARIFF                    |
|----------------------|---------------------------|
|                      | <b>MAINTANANCE CHARGE</b> |
| Rs./connection/month | 20                        |
| KWh/month            | <b>ENERGY CHARGE</b>      |
|                      | Rs./KWh                   |
| All consumption      | 3.50                      |

**Tariff for SS-II category (unmetered category)**

| TARIFF   |
|--|
| Rs./lamp/month   |
| Rs.100 per 100-watt lamp.<br>In addition, Rs.25 would be charged for each additional 50 watt |

**5. Delayed Payment Surcharge:** As per Clause 1.1

**Category: Rural Electric Co-operative (Bulk Supply) - REC**

**1. Applicability**

For use of electricity in Rural Electric Co-operatives (licensee) for supply at 33 kV or 11 kV. The schedule proposed by the Board extends this to include Village Panchayats where the domestic and non-domestic rural tariff is not applicable.

**2. Character of Service**

AC 50 Cycles, Three Phase at 11 kV

### 3. Tariff

#### Tariff for RECs

| DESCRIPTION     | TARIFF  |
|-----------------|---------|
| kWh/month       | Rs./KWh |
| All consumption | 0.70    |

#### 4. Delayed Payment Surcharge: As per Clause 1.1

#### Category: Bulk Supply to Military Engineering Services (MES)

##### 1. Applicability

For bulk supply to Military Engineering Services (MES) for mixed load in defence cantonment area

##### 2. Tariff

#### Tariff for MES

| DESCRIPTION     | TARIFF               |
|-----------------|----------------------|
|                 | <b>FIXED CHARGE</b>  |
| Rs./kVA/month   | 150                  |
| KWh/month       | <b>ENERGY CHARGE</b> |
|                 | Rs./KWh              |
| All consumption | 2.50                 |

#### 3. Delayed Payment Surcharge: As per Clause 1.1

#### Terms and Conditions of supply

##### 1.1 Delayed Payment Surcharge

Delayed payment surcharge is recoverable from the defaulting industrial consumers at the rate of 1/2 (half) percent interest per week. For other defaulting consumers, the delayed payment surcharge will be at the rate of 2 percent (%) per month or part thereof irrespective of the period of delay.

##### 1.2 Power factor penalty

For HT service, HT Special Service (Induction furnace), Irrigation & Agriculture (State), Railway Traction and LTIS with maximum demand meter.

In case average power factor in a month for a consumer falls below 0.85, a penalty @1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 2% for every 0.1 fall below 0.60 to 0.30 (upto and including 0.30) shall be levied on demand and energy charges.

##### 1.3 Power factor rebate

For HT service, HT Special Service (Induction furnace), Irrigation & Agriculture (State), Railway Traction and LTIS with maximum demand meter.

In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if

power factor is more than 95%, a rebate of 2% on demand and energy charges shall be applicable.

1.4 All other Terms and Conditions in respect of Meter Rent, Supply at Lower Voltage, Capacitor Charge, Circuit-Breaker Charge, Electricity Duty, rebate, security deposit, surcharge for exceeding contract demand etc shall remain the same as existing in the state.