

## **COST OF SERVICE**

The Petitioner has considered same approach for determining the cost of supply for different voltage levels as adopted by the Hon'ble Commission in its Tariff Orders.

The total ARR has been allocated in the Wheeling and Retail Supply business to different voltage levels and the same has been considered along with the energy sales to the respective voltage level to arrive at the per unit Wheeling charge and Retail Supply Charge for that voltage level.

## **ALLOCATION OF WHEELING ARR**

The Petitioner has considered the gross energy sales (MU) for the FY 2022-23 and has allocated the same to different voltage levels in the proportion of energy sales (MU) to these voltages to total sales. The voltage wise estimated energy sales for FY 2022-23 is as shown in the following table:

**Table 6.1: Estimated Energy Sales for FY 2022-23 (MU)**

<b>Particulars</b>	<b>MUs</b>
Sales above 66 kV level	47.37
Sales at 33/66 kV level	46.99
Sales at 11 kV level	821.83
Sales at LT level	7,835.81
<b>Total</b>	<b>8,752.01</b>

The Petitioner has thereafter grossed up the energy sales (MU) at the specific voltage level with the respective distribution losses (%) at that level to arrive at the Energy Input (MU) for that level. The summary of the voltage wise distribution losses considered by the Commission are as follows:

**Table 6.2: Estimated Distribution Loss for FY 2022-23 (%)**

Particulars	%
Loss above 66 kV level	0.00%
Loss at 33/66 kV level	0.77%
Loss at 11 kV level	2.60%
Loss at LT level	8.29%
Average Loss	7.70%

The Petitioner would like to mention that the voltage wise distribution losses considered above are estimates and based on same the Energy Input (MU) for the respective voltage levels are shown as follows:

**Table 6.3: Estimated Energy Input for FY 2022-23 (MU)**

Particulars	MUs
Input for 66 kV level	47.37
Input for 33/66 kV level	47.36
Input for 11 kV level	843.77
Input for LT level	8,543.70
<b>Total</b>	<b>9,482.20</b>

Based on the ratio given in Business Plan Regulations, 2019 Wheeling ARR for FY 2022-23 is computed as below:

Wheeling Business		Ratio	Amount in Rs Cr.
	Particulars		
<b>A</b>	O&M Expenses	62%	589.45
<b>B</b>	Depreciation	77%	228.54
<b>C</b>	ROCE	72%	393.22
<b>D</b>	Carrying cost	14%	95.21
<b>E</b>	Non-Tariff Income	40%	34.91
<b>F</b>	<b>Total Wheeling ARR</b>		<b>1,271.52</b>

The Wheeling ARR for the year has been apportioned in proportion of the energy input at different voltage levels. The wheeling cost allocated to different voltage levels is tabulated as follows:

**Table 6.4: Wheeling cost for different voltages for FY 2022-23 (Rs. Crore)**

Particulars	Amount
Above 66 kV level	6.35
At 33/66 kV level	6.35
At 11 kV level	113.15
At LT level	1145.67
<b>Total</b>	<b>1271.52</b>

Based on the energy sales at the respective voltage levels the Petitioner has determined Wheeling Charge per unit for different voltages for FY 2022-23 as follows:

**Table 6.5: Wheeling Charges for FY 2022-23 (Rs/Unit)**

Particulars	Rs-kWh Per unit
Above 66 kV level	1.34
At 33/66 kV level	1.35
At 11 kV level	1.38
At LT level	1.46
<b>Average</b>	<b>1.45</b>

### ALLOCATION OF RETAIL SUPPLY ARR

Based on the ratio given in Business Plan Regulations, 2019 Wheeling ARR for FY 2022-23 is computed as below:

Retail Business		Ratio	Amount in Rs Cr.
	<b>Expenditure</b>		
<b>A</b>	Power Purchase Cost	100%	6,398.87
<b>B</b>	O&M Expenses	38%	361.28
<b>C</b>	Depreciation	23%	68.27
<b>D</b>	ROCE including Tax	28%	152.92
<b>E</b>	Carrying Cost	86%	584.88
<b>F</b>	NTI	60%	52.36
<b>G</b>	<b>Total Retail Business ARR</b>		<b>7,513.84</b>

The Petitioner has allocated the Retail Supply ARR in the ratio of energy input determined above for different voltage levels. The Petitioner has thereafter determined the Retail Supply charge for a particular voltage level by considering energy sales at that voltage level. The summary of Retail supply ARR Allocation to different voltage levels for FY 2022-23 is given as follows:

**Table 6.6: Retail Supply cost for different voltages for FY 2022-23 (Rs. Crore)**

Particulars	Amount
Above 66 kV level	37.54
At 33/66 kV level	37.53
At 11 kV level	668.62
At LT level	6770.16
<b>Total</b>	<b>7513.84</b>

Based on the energy sales at the respective voltage levels, the Petitioner has determined retail supply charges per unit for different voltages for FY 2022-23 as follows:

**Table 6.7: Retail Supply Charges at different voltages for FY 2022-23 (Rs/Unit)**

Particulars	Rs-kWh/unit
Above 66 kV level	7.92
At 33/66 kV level	7.99
At 11 kV level	8.14
At LT level	8.64
<b>Average</b>	<b>8.59</b>

The cost of supply determined by the Commission for the different voltage levels is shown as follows:

**Table 6.8: Tariff at different voltages for FY 2022-23 (Rs/Unit)**

Particulars	Rs-kWh/unit
Above 66 kV level	9.27
At 33/66 kV level	9.34
At 11 kV level	9.51
At LT level	10.10
<b>Average</b>	<b>10.04</b>