

**Addendum to the original petition submitted on 25<sup>th</sup> May 2016 of Inland Power limited (IPL)**

**1. For the True-up period**

- i. **Capital cost of unit 1 of the power project:** As explained above, the capital cost of the unit 1 of the power plants is Rs. 345.99 cr and the same is considered for depreciation. IPL has also attached a CA certificate showing the capital cost of unit 1 of the project. The same is attached for your perusal at Annexure 3.

Rs. crore

Sr No	Details	Estimate	Actuals	Variation	Variation (%)
1	Land	7.60	7.43	-0.17	-2%
2	Site development & Civil works	30.94	39.93	8.99	29%
3	Plant & Machinery	238.28	246.87	8.59	4%
4	Preliminary Expenses & Pre-operative Expenses	12.43	22.27	9.84	79%
5	Interest During Construction (IDC)	25.40	29.49	4.09	16%
	<b>Total</b>	<b>314.65</b>	<b>345.99</b>	<b>31.34</b>	<b>10%</b>

- ii. **Debt – equity ratio for unit 1 of the project:** The total debt of unit1 of the project is Rs. 253.59 Crore which is 73% of the total project cost. The balance Rs 92.04 Crore is funded through equity contribution. The debt-equity ratio of the unit 1 of the project is 73:27 as on CoD.

Rs. crore

Particulars	Approved	Actual
Capital Cost	319.84	345.99
Equity	92.40	92.40
Term loan from banks	227.44	221.46
Funds from promoters/others and project creditors	-	32.13
Debt Equity Ratio	71 - 29	73 - 27

- iii. **Interest on Capital asset loan:** Considering the changes that have taken place since the submission of the original petition by IPL, IPL has updated the loan numbers. The Petitioner has computed the Interest on long term Loan in line with the actual interest amount paid during the Control Period. The Petitioner has considered actual loan and the repayment shown is also the actual repayment. The Petitioner has not repaid any principal amount on term loan from banks in FY 2014-15 as the banks provided for a moratorium on the same.

Rs. crore

Particulars	FY 2014-15 Approved	FY 2014-15 Actual	FY 2015-16 Approved	FY 2015-16 Actual
Opening Balance for long term Loans	227.44	253.58	214.24	253.54
Additions during the Year	-	0.06	-	0.18
Repayments during the Year	13.20	0.10	15.91	24.11
Closing Balance for long term Loans	214.24	253.54	198.33	229.61
Weighted Average interest rate (%)	12.75%	16.24%	12.75%	13.36%
Interest on Loan	<b>23.37</b>	<b>35.53</b>	<b>26.30</b>	<b>32.26</b>

- iv. **Interest on working capital:** The Petitioner also would like to submit that the Hon'ble Commission vide its order in case no 26 of 2014 and 06 of 2016 has directed the respondent to make payments to the Petitioner based on the invoice raised. However, the respondent has to this date failed to clear the dues of the Petitioner. The actual working capital of the Petitioner has increased significantly from FY 15 to FY 16 because of the fact that the JUVNL has not paid the Petitioner according to the bills raised by the Petitioner.

Rs. crore

Particulars	FY 2014-15 computed	FY 2014-15 actual	FY 2015-16 computed	FY 2015-16 actual
Working capital	5.21	2.82	7.37	6.56

- v. **Computation of Fixed cost:** Based on the above discussed changes in fixed cost components, the total fixed charges for unit 1 of IPL for FY 2014-15 to FY 2015-16 has been computed. The Hon'ble Commission is requested to approve the fixed charges as discussed in the table below:

Rs. crore

Particulars	Units	FY 2014-15 approved	FY 2014-15 Actuals	2015-16 approved	2015-16 Actuals
Depreciation	Rs Crore	13.20	13.63	15.91	15.84
Interest on Loan	Rs Crore	23.37	35.53	26.30	32.26
Return on Equity	Rs Crore	14.86	12.76	17.90	14.78
Interest on Working Capital	Rs Crore	5.45	2.82	6.54	6.56
O & M Expenses	Rs Crore	12.57	18.56	16.01	25.12
Secondary Oil Consumption	Rs Crore	1.72	2.10	2.07	2.07
Fixed cost as computed	Rs Crore	71.18	85.40	84.73	96.64
Fixed cost after PLF / PAF adjustment	Rs Crore	<b>71.18</b>	<b>75.94</b>	<b>84.73</b>	<b>108.29</b>

The annual total fixed cost after PAF adjustment for the years FY 2014-15 (PAF 67.60%) and FY 2015-16 (PAF 92.14%) is calculated as per regulation 8.12 (a) of the JSERC regulations, 2010.

Rs. crore

Particulars	Units	FY 2014-15 Actuals	FY 2015-16 Actuals
Fixed cost as computed	Rs Crore	85.40	96.64
Fixed cost after PLF / PAF adjustment	Rs Crore	75.94	108.29

- vi. **Actual Tax paid:** The petitioner has not grossed up the RoE with the tax and the Petitioner requests the Hon'ble Commission to allow tax as actually paid by the Petitioner.

Rs crore

Year	FY 2014-15 actuals	FY 2015-16 actuals
<b>Tax paid</b>	0	1.1

IPL requests the Hon'ble Commission to approve the tariff for supply of Regulated Capacity to JUVNL with the changed numbers as shown above.

## 2. For the MYT period

- i. **Return on Equity:** The Petitioner has determined the return on equity (RoE) at the rate of 16% as the Petitioner's plant achieved its CoD with the timelines provided in the JSERC regulations, 2010. Further, the RoE has been grossed up by the current applicable MAT rate in order to account for the tax liability incurred during the period.

Rs. crore

Particulars	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
<b>Opening Equity (Rs. Cr.)</b>	92.40	92.4	101.9	101.9	101.9	101.9
<b>Addition / Subtraction (Rs. Cr.)</b>	0	9.50	0.00	0.00	0.00	0.00
<b>Closing Equity (Rs. Cr.)</b>	92.40	101.9	101.9	101.9	101.9	101.9
<b>Average Equity Base (Rs. Cr.)</b>	92.40	97.15	101.9	101.9	101.9	101.9
<b>Rate of Return on Equity (%)</b>	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
<b>Applicable MAT Rate (%)</b>	20.39%	20.39%	20.39%	20.39%	20.39%	20.39%
<b>Gross RoE (%)</b>	20.10%	20.10%	20.10%	20.10%	20.10%	20.10%
<b>Return on Equity (Rs. Crore)</b>	18.57	20.00	20.48	20.48	20.48	20.48

The Petitioner submits that the equity has been raised by Rs. 9.5 cr from July 2016 and the total equity of the promoters in unit 1 of the power plants has reached Rs. 101.9 cr. The Board certificate for approval of equity infusion of Rs. 9.5 cr in the power plant is attached as **Annexure**.

- ii. **Interest on Capital asset loan:** Considering the changes that have taken place since the submission of the original petition by IPL, IPL has updated the loan numbers. The Petitioner has computed the Interest on long term Loan in line with the interest amount to be paid during the Control Period. The Petitioner has considered the loan repayment equal to the depreciation allowed by JSERC. The computation of the same is shown below:

Rs. crore

Particulars	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Balance for long term Loans	247.92	232.19	216.40	200.60	184.81	169.02
Additions during the Year	0.18	-	-	-	-	-
Repayments during the Year	15.91	15.79	15.79	15.79	15.79	15.79
Closing Balance for long term Loans	232.19	216.40	200.60	184.81	169.02	153.22
Weighted Average interest rate (%)	13.56%	12.17%	12.17%	12.17%	12.17%	12.17%
Interest on Loan	32.54	27.30	25.38	23.45	21.53	19.61

- iii. **Operation and Maintenance Expenses (O&M Expense):** IPL proposes to consider O&M at normative levels for the MYT control period. The Petitioner has taken an annual escalation of 6.30% as provided by the Commission. However, the Petitioner maintains that any extra-ordinary expenditure due to change in fuel mix, increased ash production or other reasons will be claimed by the Petitioner during True-up of MYT period.

Rs. crore

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Proposed O&M Expense (Rs. Crore)	17.01	18.08	19.22	20.43	21.72

- iv. **Interest on working capital:** Working capital requirement has been worked out as per the Regulation 7.38 of the JSERC Regulations 2016, for the non-pithead coal based thermal generating stations. For computation of interest on working capital for the MYT control period, the bank rate has been calculated as on 1st April 2016, which comes out to be 12.80% and the same has been used.

Particulars	Norms	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Coal	2 months	16.34	14.19	14.19	14.19	14.19	14.19
Secondary fuel oil	2 months	0.35	0.38	0.38	0.38	0.38	0.38
O&M Expenses	1 month	2.09	1.42	1.51	1.60	1.70	1.81
Maintenance Spares	20% of O&M Cost	5.02	3.40	3.62	3.84	4.09	4.34
Receivables	2 months	33.32	28.95	28.90	28.77	28.66	28.56
Working Capital Requirement	Rs Crore	57.12	48.34	48.59	48.79	49.02	49.28
Interest rate applicable	%	13.01	12.80%	12.80%	12.80%	12.80%	12.80%
Interest on Working Capital	Rs Crore	7.43	6.19	6.22	6.24	6.27	6.31

- v. **Fixed cost for MYT period:** Based on the above discussed changes in fixed cost components, the total fixed charges for generating station of IPL for FY 2016-17 to FY 2020-21 has been computed.

Rs. crore

Particulars	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Depreciation	15.79	15.79	15.79	15.79	15.79	15.79
Interest on Loan	32.54	27.30	25.38	23.45	21.53	19.61
Return on Equity	18.57	20.00	20.48	20.48	20.48	20.48
Interest on Working Capital	7.43	6.19	6.22	6.24	6.27	6.31
O & M Expenses	25.12	17.01	18.08	19.22	20.43	21.72
Secondary fuel oil	2.07	-	-	-	-	-
<b>Total Fixed Cost</b>	<b>101.53</b>	<b>86.29</b>	<b>85.95</b>	<b>85.19</b>	<b>84.51</b>	<b>83.91</b>

- vi. **Gross Station Heat Rate:** IPL proposes to keep SHR at the same level as approved by the Commission for 2014-15 and 2015-16.

Particulars	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
<b>Station Heat Rate (Kcal/kWh)</b>	<b>2,931</b>	<b>2,902</b>	<b>2,902</b>	<b>2,902</b>	<b>2,902</b>	<b>2,902</b>

- vii. **Cost of secondary fuel oil and specific fuel oil consumption:** As per Regulation 8.3 (b) of JSERC Regulations 2016, the cost of secondary fuel oil is to be considered in energy charges. Also, as per 8.6 (e) of JSERC Regulations 2016 specific fuel oil Consumption for Coal based generating stations should be 1.0 ml/kWh. Accordingly, the Petitioner has proposed the secondary fuel cost as part of energy charges based on the computation provided below:

Particulars	Unit	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Gross Units Generated	MUs	485	455	455	455	455	455
Calorific Value of Oil	Kcal/Litre	10,000	10,000	10,000	10,000	10,000.00	10,000.00
Specific Oil Consumption	ml/Kwh	0.86	1.00	1.00	1.00	1.00	1.00
Oil Consumption	kL	416	455	455	455	455	455
Base Price of Oil	Rs / kL	49,803	50000	50000	50000	50000	50000
Cost of Secondary Fuel Oil	Rs Crore	2.07	2.28	2.28	2.28	2.28	2.28

- viii. **Fuel price details:** Based on the availability of fuel, the blending ratio & price of primary fuel might change. In such a scenario, the Petitioner has not proposed any escalation in primary fuel prices for the control period as the same is recoverable as Fuel Price Adjustment on monthly basis, as per Regulation 8.22 of JSERC Regulations, 2015. For the MYT control period the Petitioner has taken the actual values of April – July 2016 for GCV, fuel mix and fuel prices.

Particulars	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Gross Calorific Value of Coal (Kcal/Kg)	3,681	4,100	4,100	4,100	4,100	4,100
GCV of Dolochar	975	900	900	900	900	900
GCV of coal rejects	2,456	2,000	2,000	2,000	2,000	2,000
Price of Coal (Rs./Tonne)	2,823	2,825	2,825	2,825	2,825	2,825
Price of Dolochar (Rs./Tonne)	440	770	770	770	770	770
Price of coal rejects (Rs./Tonne)	1,590	1,025	1,025	1,025	1,025	1,025
Blending ratio (%age) Coal - Dolochar - Coal rejects	37:36:27	54:43:3	54:43:3	54:43:3	54:43:3	54:43:3
Transit Losses	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%

- ix. **Variable Charge for the MYT period:** As per the assumptions and fuel cost discussed in the above paragraph, the variable charge has been computed for the generating stations as provided in table below.

Particulars	Units	FY 2015-16 Actuals	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Capacity	MW	63	63	63	63	63	63
PLF	%	87.80%	82.50%	82.50%	82.50%	82.50%	82.50%
Gross units generated	MU	484.55	455.30	455.30	455.30	455.30	455.30
Auxiliary consumption	%	11.26%	11.50%	11.50%	11.50%	11.50%	11.50%
Auxiliary consumption	MU	54.57	52.36	52.36	52.36	52.36	52.36
Net units Generated	MU	429.98	402.94	402.94	402.94	402.94	402.94
Station Heat Rate	Kcal/ Kwh	2,931	2,902	2,902	2,902	2,902	2,902
Total Heat Required	Kcal	1420314	1321284	1321284	1321284	1321284	1321284
Calorific Value of Sec Fuel	Kcal/Litre	10000	10000	10000	10000	10000	10000
Specific oil consumption	ml/Kwh	0.86	1.00	1.00	1.00	1.00	1.00
Oil Consumption	Kilolitres	416	455	455	455	455	455
Heat generated by Sec fuel	Kcal/kWh	8.59	10.00	10.00	10.00	10.00	10.00
Heat Required from primary fuel	Kcal/kWh	2,923	2892	2892	2892	2892	2892
Weighted average GCV of primary fuel	kCal/Kg.	2,516	3,101	3,101	3,101	3,101	3,101
Primary fuel Consumption	MT	5,62,954	4,24,615	2,892	2,892	2,892	2,892
Annual cost of primary fuel per ton	Rs/ MT	1,755.72	2,005.39	2,005.39	2,005.39	2,005.39	2,005.39
Cost of primary fuel	Rs Crore	98.84	85.15	85.15	85.15	85.15	85.15
Cost of secondary fuel	Rs Crore	-	2.28	2.28	2.28	2.28	2.28
Per unit Fuel Cost	Rs./kWh	2.30	2.17	2.17	2.17	2.17	2.17

The Petitioner requests the Hon'ble Commission to approve the per unit variable charge for FY 2016-17 to FY 2020-21 as proposed in the table above.