

**Petition of Reliance Infrastructure Limited  
(Generation) and Reliance Infrastructure Limited  
(Distribution) for approval of Power Purchase  
Arrangement between RInfra-G and RInfra-D  
Case no. 5 of 2017**

Prayas (Energy Group)

14<sup>th</sup> December 2017

# Background Case 5 of 2017

- RInfra-D and RInfra-G want to extend their PPA for another 18 years (2018 to 2036)
- RInfra claims in support of this power purchase:
  - DTSP is least cost option for Mumbai
  - Islanding scheme
  - Set up pursuant to license condition for Mumbai
  - Low fixed cost, paid by Mumbai consumers

# Prayas' submission

1. DTPS is expensive: 'constraint imposed option'
2. Need to move towards a competitively discovered tariff system
3. A long-term cost-plus power purchase tie-up should not be allowed.
4. As a temporary measure till the constraints are eased, RInfra can be allowed to extend its existing PPA with DTPS till the end of the present MYT period (i.e. till 2020), based on the same terms and conditions.
5. The intervening period till 2020 should be used to remove transmission constraint and enable more economical power purchase options for Mumbai.

# DTPS Costs...1

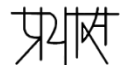
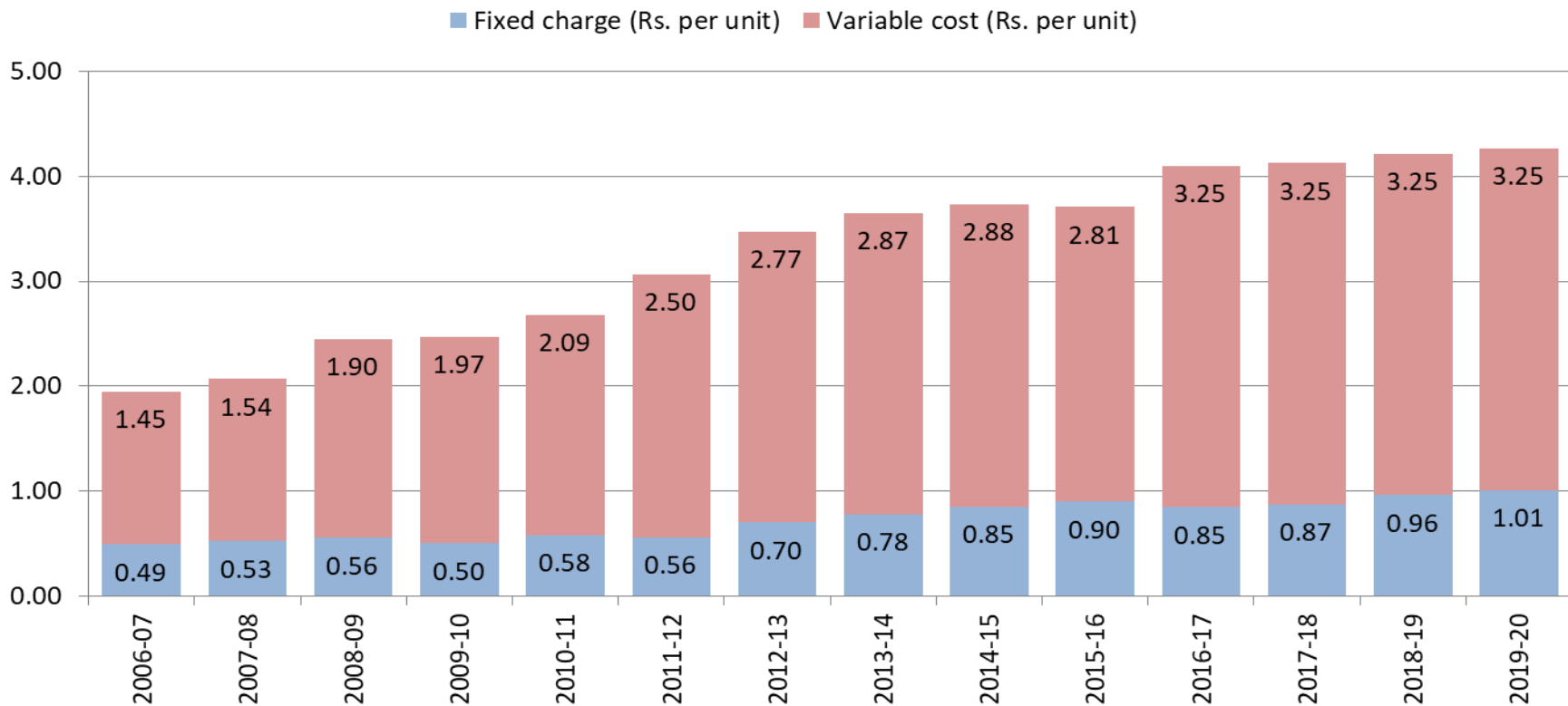
- RInfra-D has chosen not to approach any other generation station either under Section 62 or Section 63
- RInfra-G (DTPS) is expensive in comparison to coal-based capacity contracted by other states (See table below)
- Competitive bidding could lead to more economical tariff discovery

Table: Average power purchase cost for coal-based thermal capacity added by various states between 2012 and 2017

State	Average power purchase cost approved for the 2016-17 (Rs. per unit)	Share of private capacity in the total capacity added between 2012 and 2016
Punjab	3.11	91%
Gujarat	3.11	38%
Madhya Pradesh	3.44	50%
Rajasthan	3.46	59%
Maharashtra	3.66	64%
Haryana	3.72	66%
Bihar	4.05	30%
Uttar Pradesh	4.44	70%

# DTPS Costs...2

- Cost-plus projects have often found it difficult to stick to tariff that they promise at the time of approval. RInfra-D's PPA with its other sister concern, Vidarbha Industries Power Ltd. (VIPL), is a case in point.
- DTPS costs (fixed and variable) have been increasing over the years (see figure below); Since April 2017, in the MOD stack it has been > Rs. 3.5 per unit variable cost



# DTPS Costs...3

- RInfra-G fuel (coal) cost is extremely high
  - Linkage from SECL (80%) : Rs. 4563/MT (approved for MYT)
  - Imported coal (20%): Rs. 5896/MT (approved for MYT)
- Coal linkage only till 2029, which could lead to significant cost uncertainty thereafter

Table: RInfra-G Fuel cost as submitted by RInfra-G

Particulars	Unit	FY 2016-17	FY 2019-20	FY 2016-17	FY 2019-20
		Washed Indian Coal		Imported Coal	
Basic Cost	Rs/MT	1460	1460	4932	5124
Freight	Rs/MT	2503	3169	244	261
Fuel Handling Charges	Rs/MT	194	194		
Taxes and Duties (pl. specify details)	Rs/MT			444	444
Any other charges	Rs/MT	226	226		
<b>Total Price excluding Transit Loss</b>	<b>Rs/MT</b>	<b>4383</b>	<b>5049</b>	<b>5620</b>	<b>5828</b>
Transit Loss (Actual /Estimated)	%	0.80	0.80	0.20	0.20
Transit Loss (Normative)	%	0.80	0.80	0.20	0.20
<b>Total Price including Transit Loss (Actual)</b>	<b>Rs/MT</b>	<b>4418</b>	<b>5090</b>	<b>5631</b>	<b>5840</b>

# DTPS Costs...4

- RInfra-G capital expenditure (CAPEX) for 3<sup>rd</sup> MYT
  - Approved is Rs. 369 crore
  - Does not include the CAPEX on account of the results of the RLA study
  - Does not include cost of installing cooling tower under the MoEF regulations

Table: RInfra-G capital expenditure and capitalisation approved by MERC

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Sum
Capital Expenditure	67	39	224	38	<b>369</b>
Capitalisation	69	39	224	38	<b>370</b>

Fixed Costs of DTPS could increase significantly in the future. Under cost-plus PPA, it would also be able to pass on these costs on to consumers.

Under such circumstances, an 18 year tie-up with DTPS on cost-plus basis is not in consumer interest.

# Transmission constraint and MOD

- The significance, need and costs of islanding need to be evaluated through a public process. Only after such a public process can any decision regarding power procurement to facilitate islanding can be taken.
- Transmission constraint is once again used to justify signing pre-identified contracts. The issue of the constraint has been known for more than a decade now
- Extremely high variable cost but PLF at ~85%: Rlnfra-G runs because of the transmission constraint

Station	Year	Month	Monthly Generation (MU)	PLF%	MoD stack VC
DTPS Unit 1 & 2	2017	April	347.34	95%	3.486
DTPS Unit 1 & 2	2017	May	316.53	87%	3.522
DTPS Unit 1 & 2	2017	June	297.24	81%	3.648
DTPS Unit 1 & 2	2017	July	311.11	85%	3.577
DTPS Unit 1 & 2	2017	August	311.89	85%	3.459
DTPS Unit 1 & 2	2017	September	280.59	77%	3.318
DTPS Unit 1 & 2	2017	October	269.57	74%	3.386
DTPS Unit 1 & 2	2017	November	312.00	85%	3.493



# Prayers

- Reject the proposal to sign PPA from 2018 to 2036.
- As an interim arrangement, till the end of the current MYT control period, allow Rlnfra-D to continue to procure 500 MW from Rlnfra-G under the terms and conditions of the existing cost-plus PPA and at the tariff determined as per the MYT tariff regulations 2015.
- While doing so, the commission should ensure that the said PPA does not create any liability for the consumers beyond the extension period of three years.
- Ensure competitive bidding to be undertaken by Rlnfra-D to discover medium term tariffs from next MYT onwards
- The commission should undertake a *suo moto* status review of the transmission capacity on a quarterly basis to ensure timely completion of projects. The status report of the same should be uploaded on to the MERC website.

# Thank you

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