

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 96 of 2024

Petition for seeking approval for deviations in Standard Bidding Documents for long term procurement of 1600 MW thermal power and deviations to the Tariff based competitive bidding guidelines for long-term procurement of 5000 MW solar power in the state of Maharashtra.

Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)...

Petitioner

Coram

Sanjay Kumar, Chairperson
Anand M. Limaye, Member
Surendra J. Biyani, Member

For the Petitioner

: Ms. Deepa Chawan (Adv)
Mr. Lokesh Chandra (Rep)

ORDER

Date: 12 July, 2024

1. Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL), has filed the present Petition being Case No. 96 of 2024 on 13 June 2024 under Regulation 21 of the MERC (Multi Year Tariff) Regulations, 2019 read with Regulation 39 (c) of MERC (Transaction of Business and Fees & Charges) Regulations, 2022 with following objectives:
 - a. Approval for initiation of competitive bidding process for procurement of 1600 MW Thermal and 5000 MW Solar power.
 - b. Seeking approval for deviations in Standard Bidding Documents (SBD) for long term procurement of 1600 MW thermal power; and

- c. Approval to deviations to the Tariff based Competitive Bidding Guidelines for long-term procurement of 5000 MW solar power in the state of Maharashtra.

2. **MSEDCL's main prayers are as under:**

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- a) *To admit the Petition as per the provisions of Part C : Power Procurement of the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015.*
- b) *To accord approval for initiation of competitive bidding process for procurement of 1600 MW thermal power and 5000 MW solar power.*
- c) *To accord approval for deviation in standard bidding documents for the thermal power procurement in terms of SHAKTI, and the TBCB Guidelines in respect of the solar power procurement and allow incorporation of these deviations in both the Thermal Bid Documents and Solar Bid Documents, as applicable.*
- d) *To consider the submission made by the Petitioner and consider the same positively while deciding the Petition as well as for further actions;*
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3. **MSEDCL in its Petition has stated as follows:**

3.1. **Overview of applicable power procurement framework:**

Procurement of Thermal Power & SHAKTI Policy

- 3.1.1. The Ministry of Coal vide its notification dated 22 May 2017 (which has been amended from time to time), outlined specific guidelines for coal allocation policy to the power sector under the Scheme of Harnessing and Allocating Koyala Transparently in India (SHAKTI).
- 3.1.2. The Ministry for Power (MoP) vide the Resolution No.23/17/2013-R&R (Vol-VI) Part 4 has issued the ‘Guidelines for long term Procurement of Electricity from Thermal Power Stations set up on Design, Build, Finance, Own and Operate (DBFOO) basis and sourcing fuel as provided under Model Bidding Documents including allocation of coal under B (I), B(III) and B(IV) of SHAKTI Policy’.

Furthermore, MoP vide the Notification Number 23/17/2013-R&R(Vol-VI) dated 5 March 2019 has issued the Model Bidding Documents (MBDs) for long term Procurement of Electricity from Thermal Power Stations set up on DBFOO basis.

Procurement of Power from Grid Connected Solar PV Power Projects through Tariff Based Competitive bidding (TBCB):

- 3.1.3. Further, MoP, vide its Notification dated 28 July 2023, has issued guidelines under Section 63 of the Electricity Act (EA), 2003 for Competitive Bidding for long-term procurement of 5 MW and above from grid-connected Solar PV Power Projects.
- 3.1.4. As per Guidelines, the bidders are required to quote a single fixed tariff for the entire term of the power purchase agreement with the supply of solar power being at the CTU/STU interconnection point.

3.2. **Central Electricity Authority – MSEDCL’s Peak Demand Projection:**

- 3.2.1. As per 20th EPS (Electric Power Survey) data published by the Central Electricity Authority (CEA) in November 2022, the peak demand projections of MSEDCL are as below:

FY	Peak Demand in MW	FY	Peak Demand in MW
2022-23	26,558	2023-24	27,732
2024-25	29,115	2025-26	30,582
2026-27	32,271	2027-28	33,897
2028-29	35,573	2029-30	37,601
2030-31	38,781	2031-32	39,884

- 3.2.2. For FY 2022-23, the peak demand of MSEDCL is projected as 26,558 MW. The actual peak demand recorded on 14 April 2022 stands at 25,144 MW. As per CEA, MSEDCL’s demand is expected to gradually increase up to 39,884 MW till FY 2031-32.

3.3. **Resource Adequacy Planning:**

- 3.3.1. Guidelines For Resource Adequacy Planning Framework For India (RA Guidelines):

- a) On 28 June 2023, the GoI has issued guidelines for Resource Adequacy Planning Framework for India with key objectives to ensure that adequate generation capacities are available, round-the-clock, to reliably serve demand under various scenarios.
- b) As per the Guidelines, to meet Distribution Licensee’s ‘Resource Adequacy Requirement’ (RAR), the share of long-term contracts is suggested to be in the range of 75-80% of total supply side RAR, medium-term contracts in the range of 10-20% and rest can be met through short-term contracts.

- 3.3.2. The Commission’s Draft Regulation for Framework for Resource Adequacy (Draft RA Framework Regulations):

- a) In terms of the Draft Framework, resource adequacy is defined as a mechanism to ensure that there is an adequate supply of generation or demand responsive resources to serve expected peak demand reliably. In this context, reliability is

measured through instances / probability of system peak exceeding the installed generation capacity which is effectively available. Adherence to such a framework would ensure a reliable and efficient operation of the power system across all timeframes.

- b) The Draft RA Framework Regulations entails the planning of generation and transmission resources for reliably meeting the projected demand in compliance with specified reliability standards for serving the load with an optimum generation mix.

3.4. Renewable Purchase Obligations (RPO):

3.4.1. MoP Notification dated 22 July 2022

MoP vide its Notification dated 22 July 2022 specified the following RPO Trajectory till FY 2029-30:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.61%
2023-24	1.60%	0.66%	24.81%	27.08%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

3.4.2. MoP Notification dated 20 October 2023

The GoI in consultation with the Bureau of Energy Efficiency, specified the following minimum share of consumption of non-fossil sources (renewable energy) by designated consumers:

Year	Wind renewable energy	Hydro renewable energy	Distributed renewable energy	Other renewable energy	Total renewable energy
2024-25	0.67%	0.38%	1.50%	27.35%	29.91%
2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
2028-29	2.95%	1.42%	3.90%	33.10%	41.36%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

3.4.3. The Commission in its notification dated 23 February 2024 issued MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate

Framework) (First Amendment) Regulations, 2024 has aligned the RPO targets with MoP dated 20 October 2023.

3.5. Current Position of MSEDCL'S Power Supply

3.5.1. In order to meet the demand, MSEDCL has tied-up capacities of total 43,517 MW under various long term power purchase agreements. Details of the same are as below:

(as on 30 April 2024)

Generator name	Type	Installed Capacity (MW)	Contracted Capacity (MW)
Bhusawal Unit – 3	Thermal	210	210
Bhusawal Unit - 4 & 5	Thermal	1000	1000
Bhusawal Unit – 6	Thermal	660	660
Chandrapur Unit - 3 to 7	Thermal	1920	1920
Khaperkheda Unit - 1 to 4	Thermal	840	840
Khaperkheda Unit – 5	Thermal	500	500
Koradi Unit – 6	Thermal	210	210
Nasik Unit - 3 to 5	Thermal	630	630
Parali Unit - 6 & 7	Thermal	500	500
Paras Unit - 3 & 4	Thermal	500	500
Uran GTPS	Gas	672	672
Koradi Unit - 8 to 10	Thermal	1980	1980
Chandrapur Unit – 8&9	Thermal	1000	1000
Parali Unit -8	Thermal	250	250
KSTPS I & II	Thermal	2100	610
KSTPS-III	Thermal	500	108
VSTP-I	Thermal	1260	410
VSTP-II	Thermal	1000	319
VSTP-III	Thermal	1000	258
VSTP-IV	Thermal	1000	270
VSTPS-V	Thermal	500	149
Kawas	Gas	656	204
Gandhar	Gas	657	200
SSTPS- I	Thermal	1980	510
SSTPS- II	Thermal	1000	258
MSTPS-I	Thermal	1000	370
MSTPS-II	Thermal	1320	500
KHTPS-II	Thermal	1500	148
Solapur STPS	Thermal	1320	616
Gadarwara – I	Thermal	1600	50
Gadarwara – II	Thermal	1600	111

Generator name	Type	Installed Capacity (MW)	Contracted Capacity (MW)
Lara Stage – I	Thermal	1600	231
Lara Stage – II	Thermal	1600	228
Khargone	Thermal	1320	50
JSW U1, Jaigad	Thermal	300	300
CGPL, Mundra	Thermal	760	760
RattanIndia Power Ltd. 450 MW	Thermal	450	450
RattanIndia Power Ltd. 750 MW	Thermal	750	750
APML, Tiroda 1320 MW	Thermal	1320	1320
APML, Tiroda 1200 MW	Thermal	1200	1200
APML, Tiroda 125 MW	Thermal	125	125
APML, Tiroda 440 MW	Thermal	440	440
EMCO, Warora	Thermal	200	200
Sai Wardh Power Generation Ltd.	Thermal	240	240
KAPP	Nuclear	440	152
TAPP 1&2	Nuclear	320	160
TAPP 3&4	Nuclear	1080	393
KAPP 3&4	Nuclear	1400	378
SSP	Hydro	1450	391
Pench	Hydro	160	54
Dodson II	Hydro	34	34
Subhansari Hydro	Hydro	2000	183
Hydro (including Ghatghar)	Hydro	2412	2412
Renewable - Non-Solar			8379
Renewable – Solar			8724
Total			43517

3.5.2. Apart from above, MSEDCL has also consented for procurement of power from various sources as under:

Consent given for	MW
Thermal	1280
Solar	3000
Hybrid (33% wind and 66% solar)	2580
Hydro	1137
Total	7997

3.5.3. Even though MSEDCL has contracted around 21,258 MW of thermal capacity, but the actual annual availability of these thermal stations during the last 4 years has been much below the contracted capacity, which is indicated in the below table:

Actual annual availability of Thermal Stations

Generators name	Contracted Capacity (MW)	2020-21 (MW)	2021-22 (MW)	2022-23 (MW)	2023-24 (MW)
Bhusawal Unit 03	210	204	139	120	130
Bhusawal Unit 04 & 05	1000	920	780	760	809
Khaperkheda Unit 1 to 4	840	630	512	538	549
Khaperkheda Unit 05	500	370	415	425	418
Nashik TPS	630	586	529	416	507
Chandrapur Unit 03 to 07	1920	1229	1018	998	1098
Paras Unit 03 and 04	500	410	375	360	414
Parli Unit 06 and 07	500	475	385	375	445
Koradi Unit 06	210	160*	147	149	159
GTPS Uran	672	235	235	188	242
Parli Unit 08	250	235	198	138	185
Chandrapur Unit 08,09	1000	850	750	820	858
Koradi Unit 08,09,10	1980	1267	1247	1267	1352
KSTPS	610	500	537	549	563
KSTPS III	108	103	103	91	109
VSTP I	410	346	347	336	368
VSTP II	319	255	260	282	303
VSTP III	258	238	220	222	258
VSTP IV	270	225	239	260	247
VSTP V	149	135	126	136	137
Kawas	201	166	69	182	202
Gandhar	200	186	98	164	192
KhSTPS-II	148	105	119	128	141
SIPAT TPS 2	258	235	241	231	246
SIPAT TPS 1	510	480	383	418	440
Mauda I	370	342	320	296	357
Mauda II	500	472	425	463	428
NTPC Solapur	616	577	537	450	581
Lara	231	182	191	195	203
Gadarwara	50	43	39	35	47
Khargone	50	33	39	41	44
JSW	300	231	99	207	244
CGPL	760	600	137	486	522
APML 125 MW	125	121	103	103	103
APML 1320 MW	1320	1069	1135	1175	1232
APML 1200 MW	1200	1164	1104	1176	1185
APML 440 MW	440	422	317	290	292
GMR	200	182	162	174	177
RPL 450 MW	450	437	383	365	387
RPL 750 MW	750	728	638	608	644
SWPGL	240	238	194	192	227

Generators name	Contracted Capacity (MW)	2020-21 (MW)	2021-22 (MW)	2022-23 (MW)	2023-24 (MW)
TOTAL	21255	12402	15295	15809	17044

*- Koradi Unit-7 is decommissioned on 03 August 2021

3.5.4. From the above table, it may be observed that most of the MSPGCL's stations were operating at an annual availability varying from 52% to 75%. Maximum thermal availability of MSPGCL till date was of 8335 MW (made available on 4 April 2024) out of contracted 10,872 MW thermal capacity. Clearly, MSPGCL is not meeting the annual availability. MSEDCL in various meetings highlighted the availability issue and made correspondence. In the last three years, there was deficit in supply as against the contracted quantum. Hence, MSEDCL has catered its demand by additional procurement of power from power exchanges/ short term power purchase at prevailing high rates. It may also be noted that the annual fixed charges (AFC) were disallowed to MSPGCL due to less availability from their generating stations are as mentioned below:

Sr. No.	Financial Year	Approved AFC for Normative availability Rs. Crs.	AFC paid as per actual availability Rs. Crs.	AFC disallowed Rs. Crs.
1	FY 2020-21	9156	8026	1130
2	FY 2021-22	8984	7359	1625
3	FY 2022-23	8629	7050	1579
4	FY 2023-24	9171.01	8109.18	1061.83

3.5.5. Out of the 9,540 MW of coal based commissioned plants, MSPGCL has only on few occasions exceeded the availability of 8,400 MW and for most of the time availability from MSPGCL's coal-based plants is found to be in the range of 5,500 MW to 7,500 MW. This has resulted in a deficit of power for MSEDCL from MSPGCL's total contracted thermal capacity.

3.5.6. The PLF for the last four (4) years of the contracting generating stations of MSPGCL are as below:

PLF of tied-up MSPGCL Generation Stations

Unit	2020-21	2021-22	2022-23	2023-24
Bhusawal Unit 03	12%	29%	39%	55%
Bhusawal Unit 04 & 05	54%	64%	71%	74%
Khaperkheda Unit 01 to 04	67%	50%	59%	63%
Khaperkheda Unit 05	70%	79%	79%	81%
Nashik TPS	15%	41%	47%	51%

Unit	2020-21	2021-22	2022-23	2023-24
Chandrapur Unit 03 to 07	54%	50%	48%	52%
Paras Unit 03 and 04	77%	58%	70%	82%
Parli Unit 06 and 07	33%	40%	62%	62%
Koradi Unit 06 & 07	13%	46%	71%	75%
GTPS Uran	34%	35%	26%	32%
Parli Unit 08	45%	49%	49%	57%
Chandrapur Unit 08,09	81%	73%	76%	82%
Koradi Unit 08,09,10	46%	62%	63%	67%

From the above Table, it is evident that the PLF of most of the MSPGCL's Generating Stations has been very low leading to abnormal shortage of power supplied to MSEDCL, compared to the contracted capacities. The lower availability is on account of following:

- d. Lack of availability of sufficient coal;
- e. Poor coal quality;
- f. Inability to achieve performance parameters due to vintage units;
- g. Non-availability of part of contracted power from MSPGCL, due to trappings/forced shutdowns of their stations.

3.5.7. Although MSEDCL is being compensated by MSPGCL for the lower availability declared by its generating stations in the form of reduction in fixed cost, MSEDCL is still constrained to arrange the additional power that MSPGCL generating stations are unable to provide as per their contracted capacity, from other sources like power exchange at much higher prevailing rate. Details of exchange/bilateral purchase are depicted in table below:

FY	Exchange Purchase			Bilateral Purchase (Tender)			Total Purchase		
	Mus	Amt (Cr.)	Rate (Rs./kWh)	Mus	Amt (Cr.)	Rate (Rs./kWh)	Mus	Amt (Cr.)	Rate (Rs./kWh)
2020-21	4084.93	1176.16	2.88	0.00	0.00	0.00	4084.93	1176.16	2.88
2021-22	3627.03	1631.97	4.50	0.00	0.00	0.00	3627.03	1631.97	4.50
2022-23	3516.47	1869.99	5.32	253.79	188.82	7.44	3770.26	2058.81	5.46
2023-24	5184.62	2870.19	5.54	734.04	570.58	7.77	5918.65	3440.77	5.81

3.5.8. Since last four years, due to non-availability of administered pricing mechanism (APM) and non-administered pricing mechanism (N-APM) gas and high rate of RLNG gas, MSEDCL has not been able to schedule power from NTPC Kawas and Gandhar stations as per requirements (i.e. 404 MW). Also, due to lower supply of APM gas to GTPS Uran, MSEDCL is receiving only 200 MW of power against the contracted capacity of 672 MW

from GTPS Uran. Thus, MSEDCL is deprived of around 876 MW (404 MW + 472 MW) from its contracted sources due to non-availability of APM and N-APM gas.

3.5.9. The availability of APM gas for ensuing years is also very uncertain and MSEDCL is not expecting any respite in terms of availability of APM and N-APM gas or any reduction in the prevailing rates of RLNG gas in the near future. Therefore, it is expected that MSEDCL may be deprived of this quantum of power from gas based power stations in the near term period.

3.5.10. The demand of MSEDCL in daytime is catered by conventional as well as renewable energy sources. However, during the evening peak and night hours, the availability of solar power is 'Nil'. Thus, the demand at evening/night is majorly catered by thermal power plants. Further, availability of power from renewable energy sources is unpredictable due to atmospheric conditions and seasonal variations. Owing to this, MSEDCL cannot rely upon the renewable contracted capacity to meet the demand in peak hours/night hours. Under such unavoidable deficit circumstances, MSEDCL is forced to procure power from power exchanges which cost around Rs. 8/kWh to Rs. 10/kWh during peak hours/ months to cater to the increasing demand.

3.5.11. Since availability of power from renewable energy sources is unpredictable, sufficient resources with firm power needs to be contracted by MSEDCL to cater the demand as projected vide the 20th EPS during peak hours, night hours and during peak seasons.

3.6. Latest Resource Adequacy Study Report of the CEA

3.6.1. MSEDCL has prepared a 'Resource Adequacy and Capacity Addition Plan'. Further, as per the latest resource adequacy study report by the CEA for MSEDCL, the peak demand and energy projections are as under:

Year	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
Energy Projection (MUs)	160629	167746	175261	183949	192180	200590	210874	216301	221229	230034	239511
Peak Demand Projection (MW)	23676	24963	27621	30892	34298	35596	37163	38726	39000	40414	41956

3.6.2. The capacity projected by CEA considering 'Loss of Load Probability' and 'Expected Energy Not Served' is as under:

	Year	Coal	Gas	Nuclear	Bagasse + Biomass	Hydro	Wind	Solar	Hybrid (wind + Solar)	STOA/OA	Storage (4 Hours) + PSP	Total
CEA	2033-34	27562	1076	1186	3439	3949	15905	30285	0	1457	2668	87528

The present contracted and consented capacity of MSEDCL is as below:

	Coal	Gas	Nuclear	Bagasse + Biomass	Hydro	Wind	Solar	Hybrid (wind + Solar)	FDRE	Storage (4 Hours) + PSP	Total
MSEDCL	20814	1077	1191	2828	3391	3451	21319	2880	1468	250	36423

3.6.3. Thus, capacity addition required by MSEDCL by FY 2033-34 is worked out as below:

	Coal	Gas	Nuclear	Bagasse + Biomass	Hydro	Wind	Solar	Hybrid (wind + Solar)	FDRE	Storage (4 Hours) + PSP	Total
MSEDCL	6748	0	0	611	558	12454	8966	0		2418	31755

- 3.6.4. In light of the requirements to boost resource adequacy and ensure stable power to its consumer, MSEDCL needs to add 6,748 MW coal based thermal power and 8,966 MW solar power to its energy procurement basket. Out of above requirement, 1600 MW thermal power and 5000 MW solar power are being procured hereunder through the competitive bidding route.
- 3.6.5. MSEDCL has designed the bid in such a manner that procurement of both 1600 MW Thermal power and 5000 MW solar power is envisaged from a single entity. This will ensure that a substantial amount of the power requirement of MSEDCL will be tied up under a single tendering process. This will also ensure additional benefit of economies of scale that would emanate from the large scale procurement. In turn this will ensure that the bidders are able to pass on the economies therein to MSEDCL in the form of a lower tariff, taken on a weighted average basis. The higher per unit cost of thermal power will be offset by the cheaper tariff for the solar power that will be procured in terms of the same tender. Further, the tariffs are being discovered through an e-reverse auction so that the increased competition can help in the discovery of competitive rates. Therefore, the lower averaged out tariff will also help in the reduction of MSEDCL's average power purchase cost basket, while at the same time ensuring stable round the clock power to its consumers
- 3.6.6. A combined award of both thermal and renewable energy power project will help in a net zero approach which will in turn enable the compliance with RGO obligations of such bidder.
- 3.6.7. The procurement of solar power in combination with the thermal power is an innovative approach which will also enhance MSEDCL's ability to meet its RPO obligations.
- 3.6.8. MSEDCL has prepared bidding documents for procurement of both thermal and solar power, in line with the prevalent Guidelines and model Bidding documents. The

deviations that have been taken by MSEDCL under both the Thermal Bid Documents and the Solar Bid Documents are set out in Appendix I of this Order.

4. On 13 June 2024, MSEDCL filed Interlocutory Application No.28 of 2024 in Case No.96 of 2024 for urgent listing of the matter. At the e-hearing held on 25 June 2024, the Representative of the Petitioner elaborated on scheme of arrangement in proposed power procurement. He asserted that the proposed procurement is based on Resource adequacy study and projections made by CEA. Based on submission, the Commission sought clarification on proposed modalities of the scheme and directed MSEDCL to file its submission on the same.

5. **MSEDCL in its Additional Submission dated 28 June 2024 stated as below:**

5.1. Justification for not approaching the Commission before initiating bidding process:

5.1.1. The bidding process was initiated with the floating of Notice Inviting Tender (NIT) on 13 March 2024 for procurement of 1600 MW thermal power and 5000 MW solar power.

5.1.2. The same was done to avoid loss of time that MSEDCL would have faced in view of the then forthcoming Model Code of Conduct that came in to effect from 16 March 2024. The release of document prior to the implementation of the Model Code helped MSEDCL in concurrently running the processes in the interim and complete other activities related to the process involving conduct of pre-bid meetings and response to queries of bidders and making consequent changes in the tender documents.

5.1.3. The bid submission date was proposed to be kept only after the approval of tender documents by the Commission and also incorporate any directions/ suggestions of the Commission, if any prior to bid due date.

5.2. Submission of CEA Report on Resource Adequacy Study of MSEDCL:

CEA has shared the data in presentation form only. MSEDCL has requested CEA to share Report, and will submit the same to the Commission on being made available by CEA.

5.3. Possibility of creation of stranded capacity:

5.3.1. The power procurement from the proposed tenders is synchronized with the incremental demand in respective years in which the proposed capacities are stipulated to be commissioned and not to meet the demand of 2033-34.

5.3.2. The commissioning schedule has been structured to meet incremental demand going forward. Solar capacity has been scheduled to be commissioned in year-wise phase manner. Similarly, Thermal capacity will come on stream in year-wise phase manner. The year wise growth, requirement of additional capacity, MSEDCL plan to enhance capacity and current tender position is provided below:

Capacity (MW)	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	Cumulative requirement up to FY 30
Demand	23676	24963	27621	30892	34298	35596	37163	
Commissioned Capacity (MW)	36111	-	-	-	-	-	-	
Required of additional capacity as per CEA report (MW)								
Thermal	-	1660	0	0	0	228	3606	5494
Solar	-	6499	6410	4500	3500	1217	0	22126
Thermal + Solar	-	8159	6410	4500	3500	1445	3606	27620
Already Planned (MW)								
Thermal	-	0	660	0	0	228	2175	3063
Solar	-	2095	9605	5475	0	0	0	17175
Thermal + Solar	-							
Current Tender								
Thermal	-	-	-	-	0	800	800	1600
Solar	-	-	-	-	2000	2000	1000	5000
Thermal + Solar	-	-	-	-	2000	2800	1800	6600

5.3.3. As observed from above table, to cater demand up to FY 2029-30, MSEDCL has already contracted and consented for 3,063 MW against CEA plan of 5,494 MW thermal power and 17,175 MW against CEA plan of 22,126 MW solar power. In view of significant gap in capacity required to cater the demand, MSEDCL has initiated this current tendering process. Thus, the additional capacity planned by MSEDCL will coincide with projected demand of CEA up to FY 2030. As such, no capacity is expected to remain stranded. Further, once the pumped storage plant is ready, additional solar capacity will be required for charging this capacity. Presently, no stranded capacity is expected as the capacity planning is based on incremental demand estimates.

5.3.4. As per MERC Resource Adequacy Regulation, Distribution Licensee should review periodically the contracted capacities to meet its Resource Adequacy Requirement, in future.

5.4. Rationale for considering combined power procurement of (Solar + Thermal) through single entity:

5.4.1. The procurement of coal based power and solar power are proposed to be carried out on aggregate basis. Tie-up will be done through a single bidding process and the successful bidder will be awarded both solar and thermal projects. The projects will be awarded based on weighted average tariff of solar and thermal projects which is expected to bring down the effective tariff of power.

5.4.2. MSEDCL based on previous experience is also aware that there are possibilities of slippages of solar capacities not being implemented. In view of the same and to ensure that the principle of combined procurement and weighted average tariff remains protected, MSEDCL has also inbuilt a termination provision in case either of the capacities do not come up.

- 5.4.3. Further, the PPA for procurement of Solar power also stipulates that if any extensions in SCOD are sought in terms of the provisions of the PPA, such extensions cannot fall beyond the Scheduled Completion Date of the thermal power project, thus ensuring that the power is procured from both plants thereby protecting the weighted average.
- 5.4.4. Another key provision for ensuring that weighted average tariff (solar + thermal) is available throughout the tenure of PPA and not just for evaluation is incorporated by way of a penalty mechanism to ensure that the penalty in case of shortfall in generation of solar power is adequate to ensure that the weighted average tariff for a particular year is protected.
- 5.4.5. To make the above protective provisions operate effectively, it is essential that the same are binding on a single entity and hence there is a need for combined procurement from a single entity.

5.5. Other benefits

a) Net Zero Purchase:

To comply with RPO obligations, MSEDCL will have to go for procurement of solar power separately. By clubbing solar and coal-based projects through aggregate power procurement, it becomes an effective way to achieve net zero arrangement at tender level itself.

b) Opportunity for Bidders to mitigate carbon footprints:

This proposal for aggregate power procurement will provide equal opportunity for the bidders to mitigate their carbon emissions. It may be seen as an environmentally responsible procurement process, especially when fresh capacity for coal-based power is a necessity.

c) Flexible Operations of coal-based plants:

Central Electricity Authority (Flexible Operation of Coal Based Thermal Power Generating Units) Regulations, 2023 was notified on 25 January 2023. Coal based units are expected to operate at technical minimum levels during specific periods. Supply from alternate sources (primarily solar) are going to substitute coal-based plants during these periods.

d) Renewable Generation Obligations (RGO):

MoP has issued Renewable Generation Obligation (RGO) guidelines for present and upcoming coal/lignite-based generating stations. Further, fresh draft guidelines are also issued to revise these guidelines. As per the draft guidelines, any generating stations coming on stream on or after 1 April 2025 are required to supplement their conventional generation with minimum supply of renewable energy to the extent of

10% of their production. The RGO shall be assessed in terms of annual share of renewable energy generation as a percentage of total annual generation (including both conventional and RE). Awarding both coal-based projects and solar projects to single entity will take care of RGO compliance of thermal power producers.

- e) Reverse auction for both solar and thermal power is planned, and it will result in competitive tariff for both the projects. Power purchase cost for Distribution Licensee will be higher if coal-based power project is awarded on standalone basis.
- f) This will help Distribution Licensee in tying up large scale capacity in one step with optimal mix and it is also expected to get better rates due to benefit of scale for the said project. Further, the solar capacity will be coming on-stream in phases (even before the thermal power becomes available) which will also help during initial growth in demand. Subsequently, the coal-based capacity will be commissioned to fulfil the increased base load.

5.6. Provisions for ensuring weighted average tariff during PPA tenure:

- 5.6.1. In the draft solar PPA, Clause 5.4.2 specifies the compensation to be paid by generator in case of shortfall in minimum generation.
- 5.6.2. As per the PPA, the developer has to assure that the operations are maintained in such a way that the weighted average tariff actually achieved for both the projects is lower than the weighted average tariff calculated as per the formula used for evaluation. In case of violation, the developer must provide adequate compensation to bring down the weighted average tariff to desired level. Therefore, every year during operation, the weighted average tariff will have to be maintained by developer.

5.7. Conditionalities for operation of Thermal unit during solar hours and non-solar hours:

- 5.7.1. The procurement of power by MSEDCL is purely based on Merit Order Despatch and it is expected that in the event the solar generation is adequate to meet the demand at a particular time, the thermal units will be back-down to run on technical minimum levels as per Merit Order.
- 5.7.2. The penalty provision has been made at Clause 5.4.2 of Solar PPA for non-achievement of desired generation levels.

5.8. Mandating bidder to submit bid for 100% capacity:

- 5.8.1. As per suggestion by the Commission, MSEDCL is allowing bidders to offer their bids either for full capacity i.e. 1600 MW thermal & 5000 MW solar power or 50% capacity of both the sources i.e. 800 MW thermal and 2500 MW solar power.
- 5.8.2. The bidder can bid in following combination:

- (a) 1600 MW thermal power and 5000 MW solar power,

Or

(b) 800 MW thermal power and 2500 MW solar power

5.8.3. If the bidder bids for any other combination other than above combinations, the bid will be rejected. In case bidder proposes for 800 MW thermal & 2500 MW solar capacity, SCOD for thermal will be 48 months from appointed date whereas for solar SCOD will be 18 months for 1,000 MW, 24 months for 1,000 MW & 30 months for 500 MW.

5.9. Consumer interest in view of proposed deviations:

5.9.1 Combined bid on weighted average basis:

- a. These projects will be awarded based on weighted average tariff for thermal and solar projects. This will help in achieving lower effective tariff of power. After award of project to successful bidder, separate PPAs will be executed for solar and thermal project. However, the aggregate power procurement will be complied in spirit even after that.
- b. As per the PPA, the developer has to assure that the operations are maintained in such a way that the weighted average tariff actually achieved for both the projects is lower than the weighted average tariff calculated as per the formula used for evaluation.
- c. In case of violation, the developer has to provide adequate compensation to bring down the weighted average tariff to desired level. Therefore, every year during operation, the weighted average tariff of solar and thermal projects will have to be maintained by developer.
- d. This will be directly beneficial for consumers as MSEDCL will be able to obtain lower effective tariff and the electricity supply will be in line with projected demand trajectory.
- e. In case of separate bids for thermal and solar, the consumers do not get any additional advantage. Meanwhile, in case of combined bid, the entire capacity is tied up in one process with eligible bidders who offer lowest tariff.

5.9.2 Reverse e-auction:

- a. After the opening of financial bid, the eligible bidders will participate in the reverse e-auction where they are free to reduce any tariff (solar or thermal) to become competitive.
- b. The projects will be awarded on the basis of lowest weighted average tariff after the reverse e-auction. During the reverse e-auction, the bidders are expected to reduce their tariffs quoted during financial bid. This reduced tariff will directly benefit the consumers.

5.9.3 Implementation of project:

- a. The developer has to implement both the solar and thermal projects in time. In case one of these projects is not implemented, PPA for the other project will also get terminated.
- b. This is beneficial to MSEDCL/consumers in terms of effective tariff as well as timely implementation of projects. Such stringent conditions are not available to procurer in standalone PPAs.

5.9.4 Lower financial capacity and performance security:

- a. Financial capacity required for the eligible bidders has been lowered to attract larger number of bidders. Similarly, the amount of performance security on per MW basis has also been reduced as the capacity of the projects is very large. This will help in increasing the number of bid participants and increase competition.
- b. Because of the increased competition, the tariff is expected to be lower which will be in consumer interest. Even a reduction in tariff by 1 paise per unit will result in saving of around Rs. 21 crore every year for the consumers.

5.9.5 Fuel charge:

- a. In Article 22 (Fuel Charge), drafting changes have been made to make the cost of coal fully pass through. This will help in full transmission of coal cost in the tariff and the bidders will not be able to have any mark-up in the fuel charge.
- b. This will help the consumers as the energy tariff will be fully reflective of actual fuel cost.

5.9.6 New power station

- a. In the tenders, it is stipulated that the successful bidder will have to set up a new thermal power station. This new power station will be commissioned in 4-5 years and it will be operational for next 25 years after commissioning.
- b. Since it is a new power station, the timeline for commissioning has been increased as compared to standard bidding document. The commissioning will also happen in phases and both the units will come within an interval of six months. Similarly, the timeline for financial closure is also increased from 180 days to 360 days as the financial closure for such large projects may take longer time.
- c. New power station with ultra-super critical technology will be more fuel efficient and environment friendly. This will help in bringing down the energy tariff.

5.9.7 Full capacity tie-up:

- a. Entire capacity of the power station will be tie-up with MSEDCL on exclusive basis. This will help in smooth operation of the project and MSEDCL will have full control over the operations.
- b. Full tie-up will also provide flexibility in scheduling to MSEDCL and it doesn't have to depend upon the decision of other procurers for optimum operations of the plant. Optimum operations of the plant will bring down the cost of generation which directly benefits the consumers.

5.9.8 Single stage process:

- a. As per model bidding documents, the technical bid for thermal power is submitted in the first stage in the form of RFQ. The technically eligible players are then asked to submit financial bid in the form of RFP. In place of these two stages, the bidders are being asked to submit both RFQ and RFP in single stage itself.
- b. The financial bid will be opened for only the technical eligible bidders. After that, reverse e-auction will be carried out. This will help in reducing the turnaround time for PPA execution and the projects will come on time as planned. Timely project execution will be beneficial for the consumers as the trend of electricity demand growth is high.

5.9.9 Addressing Transmission bottlenecks:

- a. In case of inter-state thermal as well as solar project, the developer has to connect the power plant to CTU grid and the delivery point is STU periphery. The developer also has an option to set up a dedicated transmission system from the plant till CTU/STU grid. In case of intra-state projects, the power plant will be connected to STU grid directly.
- b. MSEDCL is working in close co-ordination with MSETCL to transmission network development, which is aligned with the requirements of MSEDCL. MSEDCL has communicated to MSETCL its future demand requirements from inter-state power stations. MSETCL has been requested to prioritise development of enhanced transmission adequacy plan including the following:
 - i. Initiating projects to increase the ATC of the interstate transmission network, to accommodate projected procurement from interstate sources
 - ii. Designing the transmission network with scalability to accommodate future increases in generation capacity and demand.
- c. MSETCL vide its letter dated 12 September 2023 and during the meeting date 16 November 2023 has informed that by 2026-27 cumulative ATC availability will increase from 9,700 MW to 22,500 MW.

- d. Further, MSEDCL vide letter dated 18 June 2024, in view of Generation Resource Adequacy notified by CEA, has requested STU to prioritize the development of an enhanced transmission adequacy plan to strengthen Inter-State Transmission Corridor to accommodate projected inter-state sources.
6. At the E-hearing held on 2 July 2024, an Advocate appearing on behalf of MSEDCL presented rationale of the proposed procurement. She provided point wise reply to quires raised by the Commission in its Daily Order dated 25 June 2024. Representative of MSEDCL further stated that proposed thermal capacity will be used for meeting base load and such procurement would not create any stranded capacity.

Commission’s Analysis and Rulings:

7. The Commission notes that MSEDCL has filed this Petition under Regulation 21 of the MERC MYT Regulations 2019. However, MSEDCL at prayer ‘a’ has requested admission of this Petition under provisions of MYT Regulation 2015, which has already been repealed. In the opinion of the Commission, this might be a typographical mistake and hence proceeding with present Petition as per provisions of the prevailing Regulations i.e. MYT Regulations 2019.
8. MSEDCL has filed this Petition seeking approval for initiating bidding process for procurement of 1600 MW thermal and 5000 MW Solar power. The Commission notes that the proposed power procurement is through a single bid and bidders are required to offer both the capacities. MSEDCL in its additional submission categorically stated that the bidders are allowed to offer their bids either for full capacity or 50% capacity of both sources. MSEDCL submitted that this is a novel arrangement whereby demand will be catered in most optimized manner and is one of the least costs approach.
9. During the hearing dated 25 June 2024, the Commission learned that although this Petition has been filed for seeking approval for deviations, MSEDCL has already floated the tender and issued corrigendum/clarifications based on pre-bid meetings. Justifying its actions of floating tender before approval of the Commission, MSEDCL submitted that the same was done to avoid loss of time in view of the then forthcoming Model Code of Conduct for Lok Sabha Election. The release of document prior to the implementation of the Model Code helped MSEDCL in concurrently running the processes in the interim and complete other activities related to the process involving conduct of pre-bid meetings and response to queries of bidders and making consequent changes in the tender documents. MSEDCL further stated that bid submission date is proposed to be kept only after approval of tender documents by the Commission. In this regard, the Commission notes that prior approval of the tender documents is mandatory condition, if it contains the deviations from Guidelines/SBDs. MSEDCL floated the NIT on 13 March 2024 and filed the present Petition on 13 June 2024 i.e. after a lapse of 3 Months. Even if

MSEDCL's justification of floating tender before Model Code of Conduct is accepted, then also there is no justification for filing this Petition after 3 months, Model Code of Conduct did not stop MSEDCL from filing the petitions before the Commission. The Commission expressed its displeasure on such administrative lapses. Henceforth, MSEDCL is directed to be vigilant on timelines and stipulations in Policy/Guidelines/Regulations made under the Electricity Act, 2003.

10. Based on submissions on record, the Commission frames following issues for its consideration:
 - a. Whether the quantum of power procurement proposed by MSEDCL is justified?
 - b. Whether deviations sought from competitive bidding guidelines by MSEDCL in present Petition are justified?
 - c. Justification for composite bid structure
 - d. Considerations for attenuating Transmission Constraints;
 - e. Way forward
11. **Issue A: Whether the quantum of power procurement proposed by MSEDCL is justified?**

- 11.1 Before dealing with this issue, the Commission would like to highlight that it has notified MERC (Framework for Resource Adequacy) Regulations 2024 on 20 June 2024. As per these Regulations, the Long Term/Medium Term- Resource Adequacy Plan and Short Term-Resource Adequacy Plan for the first control period coinciding with fifth control period FY 2025-26 to FY 2029-30 are to be submitted during Current Year (i.e., First Year of FY 2024-25) for Ensuing Years (FY 2025-26 to FY 2029-30) and subsequently, Annual Rolling Plans are to be submitted in each year for the Ensuing Years for any revisions/modifications due to market developments or otherwise. Considering the time required for preparedness of various steps outlined under these RA Regulations, as also, in view of the fact that Central Electricity Authority (CEA) has not yet notified/approved National level RA plan with specification of reliability indices for Planning Reserve Margin (PRM), Loss of Load Probability (LOLP), Normalised Energy Not Served (NENS) for National/State level, it is envisaged that there could be some delays in development of RA Plans by the Utilities/stakeholders at state level. Recognizing this fact, the Commission vide notification dated 3 July 2024 has notified timeline for undertaking various activities which include filing of Resource Adequacy Plan by Distribution Licensees by 30 September 2024 and the Commission to approve the same by 31 October 2024.
- 11.2 In view of above timelines, Resource Adequacy Plan as per MERC Regulations would be available only by 31 October 2024. As MSEDCL has already initiated bidding process in March 2024 based on Resource Adequacy Study conducted by the CEA, the Commission

is time being proceeding with present Petition. Any changes based on detailed Resource Adequacy Plan as per MERC Regulations will be dealt with at the time of approving said plan.

Demand Projections:

11.3 For demand projections, MSEDCL has relied upon the Resource adequacy Study presentation made by CEA. Apart from the Study report, MSEDCL also furnished peak demand projections made by CEA in its 20th EPS.

11.4 The Commission notes that CEA’s Resource adequacy Study presentation has made projections till FY 2033-34. Whereas 20th EPS has projections up to FY 2031-32. Projections made in both documents are as below:

Peak Demand Projections (MW)

Year	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
20th EPS	27732	29115	30582	32271	33897	35573	37601	38781	39884	NA	
CEA’s Resource adequacy Study presentation	23676	24963	27621	30892	34298	35596	37163	38726	39000	40414	41956

11.5 Further, in FY 2023-24, actual incident peak demand pattern of MSEDCL is as below:

Sr. No.	Max. Demand in MW	Date	Time
1.	24326	18 April 2023	16.00 Hrs.
2.	24047	24 May 2023	15.00 Hrs.
3.	24232	21 June 2023	16.00 Hrs.
4.	20817	04 July 2023	12.00 Hrs.
5.	23912	31 August 2023	16.00 Hrs.
6.	23993	02 September 2023	12.00 Hrs.
7.	24175	19 October 2023	12.00 Hrs.
8.	24441	09 November 2023	11.00 Hrs.
9.	24318	27 December 2023	11.00 Hrs.
10.	25310	29 January 2024	11.00 Hrs.
11.	25410	07 February 2024	11.00 Hrs.
12.	24807	12 March 2024	12.00 Hrs.

(Source-SLDC)

From above, it is evident that for FY 2023-24 incident peak demand of MSEDCL is higher than CEA’s Resource adequacy Study but far less than projections in 20th EPS. However, for subsequent 3 years, year-on-year growth considered is 11 to 12%, as shown below:

Year	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
20th EPS	5%	5%	6%	5%	5%	6%	3%	3%	NA	
CEA’s Resource adequacy Study presentation	5%	11%	12%	11%	4%	4%	4%	1%	4%	4%

In the opinion of the Commission, such higher growth rate may not be materialised especially when larger adoption of solar rooftop and green energy open access will have negative impact on Discom's demand. Therefore, the Commission has directed MSEDCL to submit CEA's detailed Report so as to understand assumptions behind such higher growth rate. However, MSEDCL has submitted that such Report is yet to be received from CEA, hence, the Commission could not go into such details.

- 11.6 Notwithstanding above observations, as projections of CEA's Resource Adequacy Study is lower than 20th EPS, the Commission is considering the same for further analysis.

Generation availability assessment:

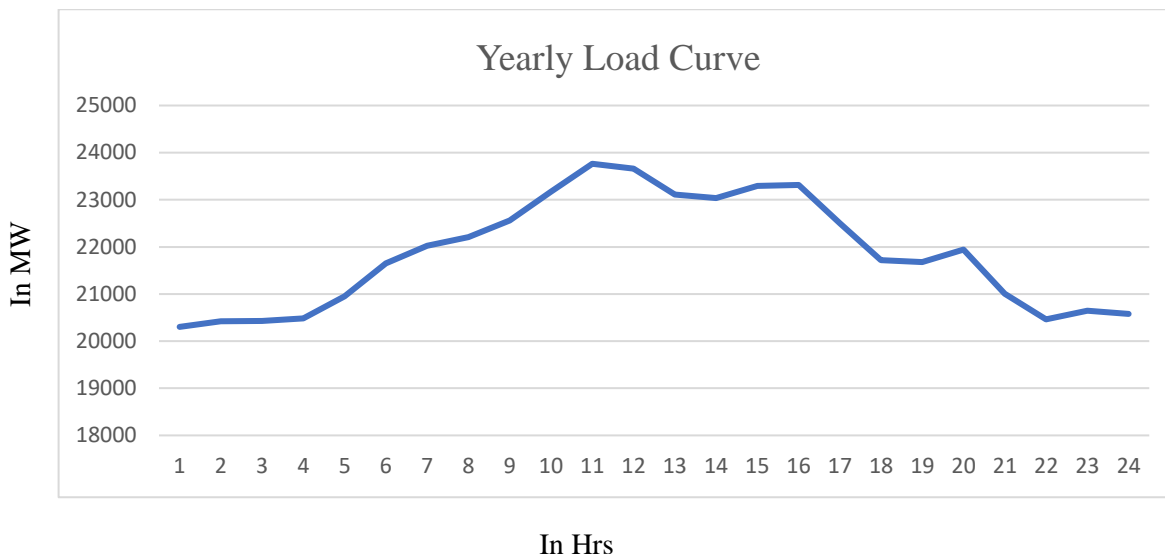
- 11.7 MSEDCL submitted that it has contracted around 21,258 MW of thermal capacity. MSEDCL highlighted that out of the 9,540 MW of coal based commissioned plants, MSPGCL has only on few occasions exceeded the availability of 8,400 MW and for most of the time availability from MSPGCL's coal-based plants is found to be in the range of 5,500 MW to 7,500 MW. Further, due to unavailability of APM and N-APM Gas, MSEDCL is deprived of ~876 MW (404 MW from NTPC Kawas & Gandhar + 472 MW Uran). In absence of contracted power, MSEDCL has to rely upon power purchase through exchanges/bilateral procurement.

- 11.8 The Commission notes that due to lower generation availability of MSPGCL's stations, MSEDCL has to resort to short term bilateral or exchange based power procurement. To supplement the arguments, MSEDCL has furnished the availability data for contracted thermal generation. The Commission noted that it has recorded similar finding of lower availability of MSPGCL's stations in its MTR Ordered dated 31 March 2023 in Case No.227 of 2022 (Mid-Term Review of MSPGCL):

Station/Unit	Target Availability	FY 2019-20	FY 2020-21	FY 2021-22
		Actual Availability	Actual Availability	Actual Availability
	%	%	%	%
Bhusawal	80.00%	96.54%	97.11%	64.69%
Chandrapur	80.00%	61.76%	65.64%	53.51%
Khaperkheda	85.00%	73.38%	75.79%	61.00%
Koradi	72.00%	67.32%	76.73%	72.52%
Nashik	80.00%	81.14%	95.02%	84.43%
Uran	44.92%	44.92%	34.39%	35.33%
Paras Units 3&4	85.00%	81.87%	82.96%	75.00%
Parli Units 6&7	85.00%	78.59%	97.17%	77.58%
Khaperkheda Unit 5	85.00%	81.87%	74.08%	82.85%
Bhusawal Units 4&5	85.00%	83.72%	92.51%	77.81%
Koradi Units 8-10	85.00%	53.76%	65.78%	63.00%
Chandrapur Units 8&9	85.00%	82.09%	84.26%	74.80%
Parli Unit 8	85.00%	67.48%	97.06%	80.32%

From above it is evident that MSPGCL’s certain units are having issues of sustained lower availability. Hence, MSEDCL’s argument is accepted.

11.9 MSEDCL submitted that Solar power procurement is mainly for meeting out day time peak demand. The Commission notes that yearly load curve of MSEDCL’s system is as below:



Solar generation is available between 08:00 Hrs to 18:00 Hrs. Once Solar generation is gone, demand falls on conventional thermal units. Considering above, thermal power coupled with solar seems to be a viable proposition.

11.10 In view of CEA Resource adequacy Study, MSEDCL has worked out capacity to be contracted as below:

Capacity (MW)	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	Cumulative requirement up to FY 30
Demand	23676	24963	27621	30892	34298	35596	37163	
Required of additional capacity as per CEA report (MW)								
Thermal	-	1660	0	0	0	228	3606	5494
Solar	-	6499	6410	4500	3500	1217	0	22126
Thermal + Solar	-	8159	6410	4500	3500	1445	3606	27620
Already Planned (MW)								
Thermal	-	0	660	0	0	228	2175	3063
Solar	-	2095	9605	5475	0	0	0	17175
Thermal + Solar	-							
Current Tender								
Thermal	-	-	-	-	0	800	800	1600
Solar	-	-	-	-	2000	2000	1000	5000
Thermal + Solar	-	-	-	-	2000	2800	1800	6600

11.11 The Commission notes that as against total additional power requirement of 27620 MW (Thermal – 5494 MW & Solar – 22126 MW), MSEDCL in present Petition has proposed procurement of only 6600 MW (Thermal – 5494 MW & Solar – 22126 MW). Thus there

is sufficient scope to correct power procurement projections based on Resource Adequacy Plan which is to be filed in accordance with MERC Regulations. Also, MSEDCL in its submission has stated that proposed power procurement will not create any stranded capacity and thermal capacity will be used for meeting base load. Hence, the Commission allows MSEDCL to go ahead with proposed long term power procurement of 6600 MW.

12. **Issue B: Whether deviations sought from competitive bidding guidelines by MSEDCL in present Petition are justified?**

12.1 The Commission notes that for power procurement, MSEDCL has circulated the following documents:

For Thermal Power:

- e. Request for Qualification (RfQ) - Design, Build, Finance, Own and Operate (DBFOO);
- f. Request for Proposal (RfP) – DBFOO; and
- g. Draft Power Sale Agreement (PSA).

For Solar Power:

- h. Request for Selection (RfS);
- i. Draft Power Purchase Agreement (PPA).

12.2 Further, as per model bidding documents, the technical bid for thermal power is submitted in the first stage in the form of RFQ. The technically eligible players are then asked to submit financial bid in the form of RFP. In place of these two stages, MSEDCL has sought both RFQ and RFP in single stage itself. MSEDCL intends to reduce the turnaround time for PPA execution.

12.3 In present Petition, MSEDCL has sought deviations from Guidelines and SBDs framed thereunder. The deviations have been listed at Annexure 1 of this Order. Important deviations have been dealt as under:

Thermal Power Procurement (Deviations in Standard RFQ, RFP and PSA)

12.4 The Commission notes that Guidelines dated 6 March 2019 for long term procurement of electricity from Thermal Power Stations set up on DBFOO basis and sourcing fuel as provided under Model Bidding Documents including allocation of coal under B (I), B (III) and B (IV) of SHAKTI policy stipulate following in respect of deviations from Model Bidding Documents:

“

3. Any deviation from the Model Bidding Documents shall be made only with the prior

approval of the Appropriate Commission. Provided, however, that any project specific modifications expressly permitted in the Model Bidding Document shall not be construed as deviations from the Model Bidding Documents.”

In view of above provisions of Guidelines dated 6 March 2019, this Commission has jurisdiction to approve deviation from bidding guidelines.

- 12.5 The Commission notes that MSEDCL has prepared the bidding documents i.e. RFQ, RFP and PSA on the basis of Guidelines dated 6 March 2019 and Model Bidding documents dated 5 March 2019 for Tariff based Competitive Bidding for long-term procurement of thermal power set up on DBFOO basis. MSEDCL in its Petition has sought (21) deviations in RFQ, (10) deviations in RFP and (62) deviations in PSA.

It is pertinent to note that RFQ, RFP and PSA are interlinked and have overlaps and hence dealt combinedly.

12.6 Procedural Changes:

12.6.1. MSEDCL has proposed the following procedural deviations:

- (a) Submission of Bid
- (b) Issuing clarifications
- (c) Submission of Application
- (d) Formation of SPV

Additions:

- (e) Fees before submission of Application
- (f) Cost of RFQ
- (g) Right to reject any/all bids.

Deletions:

- (h) Submission of Bid Security
- (i) Modalities for offline submission of bid

- 12.6.2. As per the SBD, the submission of bids will be 2-fold i.e., on the national e-bidding portal developed by PFC Consulting Ltd. (**DEEP**) (along with payment of requisite fees) and physical submission. MSEDCL submitted that the Bharat e-portal is usually used by SECI, MSEDCL and many other discoms for running its tender processes and is approved by STQC Directorate, MeitY, Govt. of India. Therefore, to have consistency in the approach and streamline the tender process both thermal and solar bids in terms of the extant tender are being conducted on the Bharat e-portal.

Further, submission of application will be only through portal and modalities for offline submission of bid have been deleted. As far as submission of bid security is concerned it is mandated to submit Bank Guarantee only and demand draft option have been deleted. Considering hybrid nature of proposed procurement and ease in handling bids, these deviations are allowed.

12.6.3. As per the SBD, the project is proposed to be executed through a special purpose vehicle. MSEDCL has modified RFQ *vide* corrigendum to permit the entity developing the thermal plant to offer capacity in terms of the solar project through a group company of the applicant or group company of the promotor of the applicant. Since bidders are required to establish both thermal and solar power plants, it may not be feasible for the same entity to undertake both projects, particularly on account of financing structures and models that are separate for projects of such nature. Entities may have different corporate objectives. Hence, the Commission finds deviation correct and hence allowed.

12.6.4. As far as timeline for issuing clarification is concerned SBD specifies (10) days timeline for issuing clarification. MSEDCL has reduced it to (5) days. As per proposed RFQ, the sum of Rs. 1,60,000/- which is collected as fees before submission of application is non-refundable and exclusive of taxes. Further, the cost of Thermal Bid Documents is Rs. 5,00,000 non-refundable and exclusive of taxes. These changes are procedural and intended to bring more clarity in bidding process and hence allowed.

12.7 Deviations for increasing competition:

12.7.1. MSEDCL has proposed the following deviations for increasing competition in present tendering. Notable deviations include following:

- (a) Bid security.
- (b) Technical capacity.
- (c) Financial capacity.
- (d) Schedule of bidding process.
- (e) Selection of lowest bidder.

12.7.2. MSEDCL has provided that the bidder shall submit a bid security of Rs. 3,00,000/MW instead of Rs.5,00,000/MW. Further, Model SBD stipulate that in order to demonstrate technical capacity and experience, the bidder should have paid for/ received payments for construction and/or development and/or received revenue from eligible projects in the past 5 years of an amount more than Rs 5,00,00,000. In the present tender MSEDCL has proposed to reduce the same to Rs.3,00,00,000. The financial capacity criteria net worth requirement has been reduced to Rs.1 Crore/MW instead of Rs.1.5 crores/MW. For supplementing above change in criteria, MSEDCL submitted it intends to attract more

bidders and increase competition. The Commission notes that size of the proposed procurement is 6600 MW and contain thermal & solar technologies. The proposed deviations define eligibility of the participant and due to relaxed provisions, it is expected that more players will participate in this exercise. Accordingly, the Commission allows deviations sought in these regards.

12.7.3. As far as the schedule of bidding process is concerned, SBD provides for certain period for each and every event. MSEDCL in present tender has provided higher timelines. Considering the hybrid nature of the bid and permitting bidders to evaluate the bids, such higher timelines have been stipulated. As per MSEDCL it will attract more serious players. The Commission finds this logic tenable and approves the deviation.

12.7.4. Initially, MSEDCL submitted that it has deleted the clause of allowing bidding for part capacity. All power capacity needs to be bid out. Subsequently, after hearing dated 25 June 2024, MSEDCL has accepted to allow bidders to offer their bids either for full capacity i.e. 1600 MW thermal & 5000 MW solar power or 50% capacity of both the sources i.e. 800 MW thermal and 2500 MW solar power. Due to above considerations there will be competition and more players will bid for the project and hence allowed. MSEDCL needs to make appropriate changes in bid documents accordingly as earlier document is based on only single bidder being qualifying for complete power procurement but now two bidders (if opted for 50% capacity) can supply such power requirements.

12.7.5. It is also important to note that Standard Bidding Documents allows the Bidder to quote for minimum 25% of Bid Capacity. But MSEDCL has initially proposed 100% and now revised it to 50% of Bid Capacity, which is deviation from Standard Bidding Document. In this regard, the Commission notes that such 50% capacity becomes 800 MW and as MSEDCL is envisaging only Ultra Super Critical Technology for thermal stations which are more efficient, the Commission allows minimum capacity to be offered for thermal station as 800 MW.

12.8 Project Construction timeline and operational related aspects:

12.8.1 MSEDCL has proposed the following deviations for increasing competition in present tendering. Notable deviations include following:

- (a) Timeline for construction of project
- (b) Damages payable for nonfulfillment of milestones
- (c) Transmission availability
- (d) Payment of Fixed charges, if plant get commissioned prior to Scheduled Completion Date

(e) Substitute supply

- 12.8.2 As per the SBD, the commencement of supply is required to commence within 36 months from the appointed date. MSEDCL has provided that the commencement of supply for Unit #1 and Unit #2 shall commence within a period of (42) months and (48) months respectively from the appointed date. Further, MSEDCL has stipulated a period of (180) days instead of (90) days post Scheduled Commercial Operation Date (SCOD) to achieve the Scheduled Completion Date (SCD). In light of the size of the project and usage of the advanced technology, appropriate time has been provided to the bidder to develop the project in a structured and efficient manner and ensure that the project is not impacted by time and cost overrun issues. The Commission acknowledges this aspect and allows the deviation with regards to construction timeline.
- 12.8.3 As per the SBD, the supplier is required to meet certain project milestones within the defined time periods in terms of the PSA. Any failure to achieve completion would result in damages being payable at the rate of 0.2% (zero point two per cent) of the amount of performance security for each day of delay until project milestones are achieved. However, if the supplier is providing energy from alternate sources, then the damages claimable by the procurer will reduce to the extent of such energy provided. MSEDCL in present tender provided that the supplier is not required to pay damages if: (i) the supplier provides alternate power from any other source in the period beyond the 180 day period; or (ii) MSEDCL refuses to accept power from such alternate source provided by the supplier, then supplier will not be required to pay damages. The Commission notes that provision of alternate supply has been made upon failure to fulfil the milestone. Hence, same is allowed.
- 12.8.4 As per SBD, in case of scheduled maintenance, unscheduled maintenance or force majeure, the supplier may (if permitted by the procurer) supply power to procurer at the same tariff as per the terms of the PSA. MSEDCL has the provision to provide that such substitute supply may be procured at either the tariff discovered under the bidding process or tariff which is lower. Such stipulations is correct and would be in consumer interests, hence allowed.
- 12.8.5 As per the SBD, in case the power station is substantially completed but commercial operation date is delayed due to reasons attributable to procurer, then procurer will pay 15% of the fixed charge as if commercial operation date has occurred for the power station of any unit. MSEDCL in present tender has modified this provision to provide 100% of the fixed charges based on the normative availability as damages for the period till the time transmission system is made available. Such provision will attract more bids and may reduce tariff as bidder will have no risk of transmission availability. But at the same time it puts onus on MSEDCL to ensure that transmission projects, if required, are commission well before commissioning of generation projects. Hence, although the

Commission is allowing such deviation, but directs MSEDCL to ensure that required transmission capacities are commissioning in synchronism with generation capacities.

- 12.8.6 As per the SBD, in case the COD is achieved prior to the SCD, the fixed charges due and payable for the period prior to scheduled completion date will be 70% of the base fixed charge. In present tender, MSEDCL has made provision to provide 100% fixed charges. The above stipulation will incentivise the supplier to commission the plant early and hence approved.
- 12.9 In view of the above, the Commission accords approval to deviations proposed in RFQ, RFP and PSA for procurement of thermal power, subject to observations in aforementioned Paras.

Solar Power Procurement (Deviations from MoP Guidelines dated 28 July 2023)

- 12.10 The Commission notes that MSEDCL has prepared the bidding documents i.e. RfS on the basis of Guidelines dated 28 July 2023 (Tariff based Competitive Bidding process for procurement of power from grid connected Solar PV projects). MSEDCL in its Petition has sought (2) deviations in RfS and (2) deviations in PPA.
- 12.11 The Commission notes that Guidelines dated 28 July 2023 stipulate following in respect of deviations from Guidelines:

*“16. DEVIATION FROM PROCESS DEFINED IN THE GUIDELINES The objective of these Guidelines is to bring standardization & uniformity in processes so that there is fairness & transparency in procurement. As such, these Guidelines need to be strictly followed in the bidding process and no bid, under section 63 of the Electricity Act, for procurement of Solar power from the Projects with or without Energy Storage System shall be issued in contravention to these Guidelines. **However, in case it becomes imperative for the Procurer to deviate from these Guidelines and/or the SBDs, the same shall be subject to approval by the Appropriate Government before the initiation of bidding process itself. The Appropriate Government shall approve or require modification to the bid documents within a reasonable time not exceeding 60 (sixty) days of filing such petition.**”*

In view of above, approval of the Appropriate Government is required for deviations in Guidelines. This Commission does not have jurisdiction to approve such deviations.

- 12.9 During the hearing, MSEDCL has stated that it has not taken any deviation from Competitive Bidding Guidelines for procurement of Solar power and deviation is related only to composite procurement of thermal and solar power. However, on perusal of Petition filed, it is observed that MSEDCL has requested approval for 2 deviation each in RfS and PSA for procurement of Solar power, same is summarised as Annexure I to this Order. Also, competitive bidding guidelines dated 28 July 2023 stipulates minimum offer

capacity as 50 MW, whereas MSEDCL has proposed minimum capacity as 2500 MW. This is clearly a deviation from Bidding Guidelines.

12.10 Hence, the Commission directs MSEDCL to approach the Appropriate Government requesting approval for these deviations in respect of procurement of Solar Power.

13. Issue C: Justification for composite bid structure

13.1. The Commission notes that MSEDCL has proposed a single tender for procuring thermal and solar power.

13.2. Bid structure and its evaluation:

- a. From documents on record, it is evident that bids in different sets of documents have been invited for coal based power and solar power. Financial Bid will be opened for only those bidders who have qualified for both the technical bids (thermal and solar separately).
- b. The Weighted Average Tariff for a bidder will be determined as illustrated in the following table:

Particulars	UoM	Thermal	Solar
Capacity	MW	1450	5000
PLF/CUF	%	85%	24%
Annual Ex-bus energy	MU	10797	10512
Fixed Charge	INR/kWh	2	-
Energy Charge	INR/kWh	3	-
Total tariff	INR/kWh	5	2.75
Weighted Average Tariff	INR/kWh	3.89	

- c. This will be followed by a e-Reverse auction for weighted average tariff and the bidders will be given an opportunity to reduce their bids for both solar and thermal tariffs. At the end of the e-reverse auction, the bids will be compared based on Weighted Average Tariff. The Bidder with lowest Weighted Average Tariff will be the ‘Lowest Bidder’.

13.3. For justifying weighted average tariff approach, MEDCL submitted that higher per unit cost of thermal power will be offset by the cheaper tariff from solar. This will lead to reduction in average power purchase cost.

13.4. MSEDCL highlighted that for ensuring reduced tariff, it is important to have committed solar generation. For the said purpose, MSEDCL has framed following conditionality in Draft PPA for solar procurement:

“Clause 5.4.2

...

Notwithstanding anything contained above, the compensation for shortfall in generation in a year as calculated above, shall in no event be less than an amount that would be

required to arrive at a weighted average tariff, that is not more than the weighted average tariff determined for that year calculated as per the evaluation methodology provided in the Notice Inviting Tender for selection of Successful Bidder. (Emphasis added)*

** Illustration for calculation of weighted average for a particular year:*

<i>Particulars</i>	<i>Thermal</i>	<i>Solar</i>
<i>Capacity (MW)</i>	<i>1496</i>	<i>5000</i>
<i>PLF/CUF</i>	<i>85%</i>	<i>24%</i>
<i>CUF after tolerance @10%</i>	<i>-</i>	<i>21.6%</i>
<i>Generation (MUs)</i>	<i>11,139</i>	<i>9,461</i>
<i>Applicable Tariff for the year</i>	<i>5.50</i>	<i>3.00</i>
<i>Weighted Average Tariff</i>	<i>4.35</i>	

13.5. The Commission notes that above clause of solar generator requiring to compensate MSEDCL to maintain weighted average tariff will ensure that benefit of composite procurement of Thermal and Solar power will be ensured throughout the PPA tenure.

13.6. Further, such composite procurement reduces the burden of Distribution Licensee as bidder has to ensure that required solar generation is always achieved, otherwise compensation has to be paid to Distribution Licensee.

13.7. It is also important to note that Government of India has yet not issued any guidelines under Section 63 of the EA 2003 which allows such composite procurement of Thermal and Solar power. At the same time, it is well settled position that non-issuance of Guidelines under Section 63 of the EA, 2003 does not restrict Distribution Licensee to proceed with competitive bidding process for procurement of power. In present case, MSEDCL has option of running separate bidding process of Thermal and Solar power but MSEDCL has opted for composite bidding. MSEDCL has listed various benefits of such composite bidding which has been summarized under para 5 above. For consumers of distribution licensee, ultimate benefit is achieved if power is procured at cheapest possible tariff. MSEDCL has stated that its proposed approach will reduce the tariff to be discovered through competitive bidding. Such claim of MSEDCL can be verified only after completion of bidding process and scrutinizing discovered tariff vis-à-vis prevalent market rate.

13.8. In view of above, the Commission allows MSEDCL to go ahead with proposed combined procurement of Thermal and Solar power. At the time of tariff adoption Petition, MSEDCL shall justify that discovered tariff vis-à-vis prevalent market conditions.

14. Issue D: Considerations for attenuating Transmission Constraints

14.1. MSEDCL submitted that it is working in close co-ordination with MSETCL for transmission network development, which is aligned with the requirements of MSEDCL.

MSEDCL has communicated MSETCL its future demand requirements from inter-state power stations.

- 14.2. MSEDCL highlighted that MSETCL vide its letter dated 12 September 2023 and during the meeting dated 16 November 2023 has informed that by FY 2026-27 cumulative ATC availability will increase from 9,700 MW to 22,500 MW.
- 14.3. The Commission notes that transmission constraints is one of the crucial issue. Recently the Commission vide its Order dated 27 December 2023 in Case No.56 of 2023 and Case No.92 of 2023 has allowed termination of Solar PPAs on account of non-availability of ATC margin and non-issuance of un-conditional NOC for operationalization of Long Term Access (LTA).
- 14.4. The Commission further notes that the issue of transmission constraint in bringing power from outside Maharashtra is being highlighted at various fora including State Advisory Committee setup by this Commission and judicial proceedings before this Commission.
- 14.5. It is also important to note that gestation period of transmission assets is more than Solar PV generation assets and in worst case scenario is likely coincide with thermal generation assets.
- 14.6. The transmission system considerations are important in present case as MSEDCL in its Thermal tender has committed to provide 100% of the fixed charges based on the normative availability as damages for the period till the time transmission system is made available. Hence, meticulous planning and co-ordination with STU is required. In order to do so MSEDCL is directed to re-assess the transmission corridor availability issue in consultation with STU. Accordingly, MSEDCL in consultation with STU shall chalk out the timeline for the same and may be submitted at the time of adoption of tariff.

15. Issue E: Way Forward

- 15.1. As observed in Para 12, MSEDCL shall approach the Appropriate Government for getting deviations approved in terms of Solar power procurement.
 - 15.2. Post such approval, MSEDCL should provide sufficient time to prospective bidders to file their bids.
 - 15.3. It is also important that as e-reverse auction based on weighted average tariff would be conducted first time, MSEDCL should arranged mock trial sessions to all prospective bidders to make them acquainted with such bidding process.
16. Hence, the following Order:

ORDER

1. The Petition in Case No. 96 of 2024 is partly allowed.

2. The Commission accords its in-principle approval for initiating process for procurement of 6600 MW (1600 MW Thermal + 5000 MW Solar power) on long term basis through competitive bidding.
3. Request for Qualification (RfQ), Request for Proposal (RfP) and Power Supply Agreement (PSA) for thermal power procurement are approved as per observations in Para (11) above.
4. MSEDCL shall approach Appropriate Government for seeking approval to deviations in Guidelines dated 28 July 2023 for Solar power procurement.
5. Post such approval of the Appropriate Government, MSEDCL shall provide sufficient time to prospective bidder to submit their bids.

Sd/-
(Surendra J. Biyani)
Member

Sd/-
(Anand M. Limaye)
Member

Sd/-
(Sanjay Kumar)
Chairperson


(Dr. Rajendra G. Ambekar)
Secretary



Appendix A

LIST OF DEVIATIONS FROM THE MoP STANDARD BID DOCUMENTS (SBDs) – THERMAL

I. DEVIATIONS FROM STANDARD RfQ

A. Amendments

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
1.	Introduction (Corrigendum dated May 17, 2024)	As per the MoP SBD, the commencement of supply is required to commence within 36 months from the appointed date	MSEDCL has provided that the commencement of supply for Unit #1 and Unit #2 shall commence within a period of 42 months and 48 months respectively from the appointed date	In light of the size of the project and usage of the advanced technology, appropriate time has been provided to the bidder to develop the project in a structured and efficient manner.
2.	Bid Security	As per the MoP SBD, the bidder is required to submit a bid security of INR 5,00,000/MW	MSEDCL has provided that the bidder shall submit a bid security of INR 3,00,000/MW	Since the power procurement of 6,600 MW comprises of capacities of 5000 MW solar and 1600 thermal, the bid security amounts have been reduced to attract more bidders and to enhance the competition among bidders.
3.	Submission of bids	As per the MoP SBD, the submission of bids will 2-fold i.e., on the national e-bidding portal developed by PFC Consulting Ltd. (“DEEP”) (along with payment of requisite fees) and physical submission.	MSEDCL has required the bid submission/modification/substitution to be done online, signed with a valid digital signature certificate, on the Bharat portal along with payment of requisite fees as determined by the Bharat portal. Further, in case the bid is deleted from the portal, all the encrypted data will also be deleted and the bidder will be refunded the	The Bharat e-portal is usually used by SECI, MSEDCL and many other discoms for running its tender processes and is approved by STQC Directorate, MeitY, Govt. of India. Therefore, to have consistency in the approach and streamline the tender process both thermal and solar bids in terms of the extant tender are being conducted on

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
			cost of bidding documents within 7 working days of such withdrawal.	the Bharat e-portal. Further, all documents in respect of the bid are being obtained online only to streamline the process and error free.
4.	Technical Capacity	As per the MoP SBD, in order to demonstrate technical capacity and experience, the bidder should have paid for/ received payments for construction and/or development and/or received revenue from eligible projects in the past 5 years of an amount more than INR 5,00,00,000.	MSEDCL has reduced the same to be more than INR 3,00,00,000.	The amounts specified to demonstrate capacity and experience have been reduced to attract more bidders and to enhance the competition.
5.	Financial Capacity	As per the MoP SBD, in order to demonstrate financial capacity, the bidder should have a net worth of INR 1.5 crores/MW.	MSEDCL has reduced the same to INR 1 crore/MW	Given the large capacity of the project and the mandatory requirement that the bidders are required to quote for the entire capacity, the net worth requirement has been reduced to 1 crore per MW of contracted capacity (i.e., INR 1,600 Cr). Further, this will help increase the participation and resultant competition in the bidding process aiding in better tariff discovery.
6.	Issuing clarifications	As per the MoP SBD, procurer will endeavour to respond to the clarifications raised by the bidder no later than 10 days before the application due date.	This timeline has been reduced to 5 days.	This has been revised for quicker response and to ensure speedier closure of the tender process.

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
7.	Submission of application	As per the MoP SBD, the applicants were required to submit multiple copies of the application in an offline form and 2 copies of the bid in a compact disc.	The submission methodology has been revised to make the submission of documents only on the Bharat portal with no physical submissions.	This has been done to ensure that the application process is smoother and is not delayed.
8.	Formation of SPV	As per the MoP SBD, the project is proposed to be executed through a special purpose vehicle but it does not contemplate a hybrid tender comprising of thermal and solar power projects as in the current tender.	The RFQ has been modified <i>vide</i> corrigendum to permit the entity developing the thermal plant to offer capacity in terms of the solar project through a group company of the applicant or group company of the promotor of the applicant.	<p>Since bidders are required to establish both thermal and solar power plants, it may not be feasible for the same entity to undertake both projects, particularly on account of financing structures and models that are separate for projects of such nature. Further, in case they are separate entities then the thermal and solar power producers may not be in a position to have a stake in each other as they would typically have different corporate objectives as well.</p> <p>Considering the above, group companies of the applicant or group company of the promotor of the applicant are being permitted to set up the solar plant / thermal plant as applicable.</p>

B. Additions

S. No.	Clause	Clause in the tender	Remarks
1.	Fees before submission of Application	The sum of INR 1,60,000 is non-refundable and exclusive of taxes	While the MoP SBD is silent on the aspect of the fees being non-refundable, this has been added to ensure that only serious bidders apply.
2.	Cost of RFQ	The cost of Thermal Bid Documents is INR 5,00,000 non-refundable and exclusive of taxes.	While the MoP SBD provides for a sum of INR 1,00,000 and is silent on the aspect of taxes and non-refundable, the increased sum of INR 5,00,000 has been specified to ensure that only serious bidders apply and there is clarity on the applicable taxes.
3.	New Power Station	The term “ New Power Station ” or “ Power Station ” or “ Project ” means the generating station of which the construction is commenced after the Date of Letter of Award (LoA) and grid synchronization, commissioning and Commercial Operation Date (COD) of its units are achieved as per the terms of the Power Supply Agreement (PSA) and as described in Schedules A and B of the PSA-DBFOO. For the avoidance of doubt, it is clarified that construction for this purpose would mean that the Bidder has placed the order for supply of Boiler, Turbine and Generator package after the) issuance of NIT	This has been added because MSEDCL requires consistent power to be supplied for the entire term of the PPA and requires Super Critical Technology or Ultra Super Critical Technology based power plants of 800 MW per unit as per latest MoP directives.
4.	Joint Financial Capacity test	The ‘Financial Capacity of the Applicant’ shall be considered sum of the net worth requirement under the eligibility criteria under both the bids, i.e., thermal and solar.	This has been added to ensure that the bidders have requisite financial capacity to take up <u>both</u> the projects and to encourage only serious bidders.
5.	Power of attorney	The MoP SBD requires that the original power of attorney documents, authorising the signatory of applicant (lead member in case of consortium) should be submitted to MSEDCL and scanned copies to be uploaded on Bharat portal.	This has been added because MSEDCL needs one entity responsible for performance of all the requisite performance under the bid documents and further to hold such entity liable for any breach.

S. No.	Clause	Clause in the tender	Remarks
6.	Eligibility Criteria	If any associate of the bidder/consortium member has defaulted under the financing agreement(s) or admitted into CIRP or liquidation process by NCLT, such bidder/ consortium will not be eligible for the bidding process.	This has been added to ensure that only serious bidders with the requisite technical and financial capability to execute the projects participate in the bidding process.
7.	Right to reject any/all bids	MSEDCL will be allowed to reject a bid if it considers that the implementation of the LoA and / or PSA is affected by implications of any pending litigation or otherwise disputes with the bidder /supplier or the LoA and / or PSA under this RFP will have any impact of implication on the pending litigation or otherwise disputes with the bidder/supplier.	This has been added to ensure that only bidders who are not hampered by any litigations that are material enough to impact the execution of the projects (as envisaged in terms of the bidding document) are permitted to bid for the same.

C. Deletions

S. No.	Clause	Clause in the standard bidding documents	Remarks
1.	Selection of lowest bidder	Any single bidder cannot quote part capacity from different stations and the project will be awarded to the bidder quoting the lowest tariff.	This clause has been removed in line with the draft “Notice Inviting Tender (“NIT”)” since MSEDCL intends to procure the thermal power and solar power from one single successful bidder, who will provide both, thermal and solar power (through different project SPVs), having the lowest weighted average tariff in terms of the NIT.
2.	Submission of bid security	As per the MoP SBD, the bidder can submit the bid security either by way of bank guarantee or by way of demand draft.	The RFQ only permits bank guarantees as the demand draft requirement for such a large project would be unviable for most bidders from a financing and credit perspective. This is a practical change that is required to ensure that

S. No.	Clause	Clause in the standard bidding documents	Remarks
			the participation of bidders is not hampered because of the blocking of credit lines.
3.	Fixed and Fuel Charges	As per the MoP SBD, detailed bifurcation of the same has been deleted	Not applicable, considering that the thermal power plant will source coal under a coal linkage in terms of paragraph B(iv) of SHAKTI.
4.	Eligibility criteria of the Applicant	As per the MoP SBD, it provides for eligibility criteria for the applicant	Considering the current construct of the bid and the tender process requiring that a new thermal power plant with up to date technology is established specifically for MSEDCL's requirements, only the criterion specific to the bid has been retained. Further, MSEDCL will be having requisite coal linkage for assured fuel supply to the plant established hereunder.
5.	Modalities for offline submission of bid	Modalities for offline submission.	This has been deleted since the bidders are required to apply online only on the Bharat portal, and offline submissions are not permitted.
6.	Particulars of the power station		This has been deleted since the current bidding process is for development of a new power station and therefore the said particulars are not required

II. DEVIATIONS FROM STANDARD RFP

A. Amendments

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
1.	Background (Corrigendum dated May 17, 2024)	As per the MoP SBD, the commencement of supply shall begin	MSEDCL has provided that the commencement of supply for Unit #1	In light of the size of the project and usage of the

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
		within 36 months from the Appointed Date	and Unit #2 shall commence within a period of 42 months and 48 months respectively from the Appointed Date	advanced technology, appropriate time has been provided to the bidder to develop the project in a structured and efficient manner and ensure that the project is not impacted by time and cost overrun issues.
2.	Submission of bids	As per the MoP SBD, the submission of bids will 2-fold i.e., on DEEP (along with payment of requisite fees) and physical submission.	MSEDCL has required the bid submission/modification/substitution to be done online, signed with a valid digital signature certificate, on the Bharat portal along with payment of requisite fees as determined by the Bharat portal. Further, in case the bid is deleted from the portal, all the encrypted data will also be deleted and the bidder will be refunded the cost of bidding documents within 7 working days of such withdrawal.	The Bharat e-portal is usually used by SECI, MSEDCL and many other discoms for running their tender processes. Therefore, to have consistency in the approach and streamline the tender process between both thermal and solar bids (under the extant tender) are being conducted on the Bharat e-portal. Further, all documents in respect of the bid are being obtained online only to streamline the process and error free.
3.	Clause 1.2.4 (Bid Security)	Bid security was required to be Rs 5 lakh per MW of capacity offered and refundable not later than 60 days from the bid due date.	Bid security is required to be Rs 3 lakh per MW of maximum capacity offered and refundable not later than 120 days from the bid due date.	Since the power procurement of 6,600 MW comprises of capacities of 5,000 MW solar and 1,600 MW thermal, the bid security amounts have been reduced to attract more

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
				bidders and to enhance the competition among bidders.
4.	Clause 1.3 (Schedule of Bidding process)	As per the MoP SBD, certain period has been provided for each and every event	Higher time periods than the MoP SBD have been provided.	This has been changed due to the hybrid nature of the bid, so to permit the bidders to evaluate the tender conditions and obligations thereunder comprehensively and to encourage increased competition among bidders.
5.	Clause 2.3.1 (Change in Ownership)	As per the MoP SBD, the bidder/the consortium shall hold a certain equity share of the supplier for a period of 2 years from the commercial operation date of the project	MSEDCL has increased this time frame to 10 years	The time period for which change in ownership (as defined under the PSA) is regulated has been increased from two (2) years to ten (10) year in order to ensure that the successful bidder who is technically qualified and is operating a technologically intensive plant remains invested for a longer term. This would in turn ensure operational stability for the project and enhance bankability as well.
6.	Letter Comprising Bid	As per the MoP SBD, the bidder will provide a letter stating that it has considered the freight payable to railways for coal transportation. Further, the distance considered for transportation of coal from mines to plant	MSEDCL has modified the RFP to consider the distance for transportation as weighted average distance	Given that the coal will be procured from different mines located at different regions and different distances, therefore a weighted average cost has been required for

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks																																													
				submission to ease the evaluation processes and provide clarity on the costing.																																													
7.	Letter Comprising Bid	As per the MoP SBD, the bidder will provide the price of the coal linkage and GCV	MSEDCL has modified the RFP and will provide the weighted average cost of fuel and weighted average GCV of fuel	As MSEDCL is arranging for the fuel under the SHAKTI policy, the prices of the same will be same for all bidders. Thus, MSEDCL will provide for the cost of fuel and GCV.																																													
8.	Letter Comprising Bid	<p>As per the MoP SBD, the bid format is as under:</p> <table border="1"> <thead> <tr> <th>Bid parameter</th> <th>Unit</th> <th>Rs and paise (in two decimal)</th> </tr> </thead> <tbody> <tr> <td>(1) Fixed Charge for the base year</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(2) Fuel Charge = Sum of (a) + (b) + (c)</td> <td></td> <td></td> </tr> <tr> <td>(a) Cost of Fuel</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(b) Cost of transportation</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(c) Cost of Washing</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(d) Cost of Taxes/ Duties/ CESS/ etc.</td> <td>per kWh</td> <td></td> </tr> <tr> <td>Total Tariff = Sum of (1) + (2)</td> <td>per kWh</td> <td></td> </tr> </tbody> </table>	Bid parameter	Unit	Rs and paise (in two decimal)	(1) Fixed Charge for the base year	per kWh		(2) Fuel Charge = Sum of (a) + (b) + (c)			(a) Cost of Fuel	per kWh		(b) Cost of transportation	per kWh		(c) Cost of Washing	per kWh		(d) Cost of Taxes/ Duties/ CESS/ etc.	per kWh		Total Tariff = Sum of (1) + (2)	per kWh		<p>MSEDCL has modified it to:</p> <table border="1"> <thead> <tr> <th>Bid parameter</th> <th>Unit</th> <th>Rs and paise (in four decimal)</th> </tr> </thead> <tbody> <tr> <td>(1) Fixed Charge as on the Bid Date</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(2) Fuel Charge = Sum of (a) + (b) + (c)</td> <td></td> <td></td> </tr> <tr> <td>(a) Weighted Average Cost of Fuel</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(b) Weighted Average Cost of transportation</td> <td>per kWh</td> <td></td> </tr> <tr> <td>(c) Weighted Average Cost of Washing</td> <td>per kWh</td> <td></td> </tr> <tr> <td>Total Tariff = Sum of (1) + (2)</td> <td>per kWh</td> <td></td> </tr> </tbody> </table> <p>Bidders to note that the Cost of Taxes/ Duties/ CESS etc. shall be required to be separately provided by</p>	Bid parameter	Unit	Rs and paise (in four decimal)	(1) Fixed Charge as on the Bid Date	per kWh		(2) Fuel Charge = Sum of (a) + (b) + (c)			(a) Weighted Average Cost of Fuel	per kWh		(b) Weighted Average Cost of transportation	per kWh		(c) Weighted Average Cost of Washing	per kWh		Total Tariff = Sum of (1) + (2)	per kWh		<p>The rationale for the changes are as follows:</p> <ol style="list-style-type: none"> 1. The bidder is required to quote the fixed charge on the bid date to provide more transparency and clarity 2. The transmission charges will be quoted separately by all the bidders planning power projects outside Maharashtra. 3. For weighted average cost, please refer to our response at Sr. No. 6 above 4. The bidders will provide for the cost of taxes/duties/cess etc, separately as the same will provide for clarity while evaluating bid submissions and in case of any future
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Bid parameter	Unit	Rs and paise (in four decimal)																																															
(1) Fixed Charge as on the Bid Date	per kWh																																																
(2) Fuel Charge = Sum of (a) + (b) + (c)																																																	
(a) Weighted Average Cost of Fuel	per kWh																																																
(b) Weighted Average Cost of transportation	per kWh																																																
(c) Weighted Average Cost of Washing	per kWh																																																
Total Tariff = Sum of (1) + (2)	per kWh																																																

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
			the bidders for each of the parameters above in the form of an Annexure to the Bid Format at the time of submission of Bid and post completion of the e-Reverse Auction process.	adjustments on account of change in law.

B. Additions

S. No.	Clause	Clause in the tender	Remarks
1.	Clause 1.2.1 (Brief description of Bidding process)	The bidder will pay to MSDECL a sum of INR 5,00,000, inclusive of taxes as cost of the RFP - DBFOO process by demand draft	While the MoP SBD is silent on the aspect of the fees being non-refundable, this has been added to ensure that only serious bidders apply.
2.	Clause 2.11.2(Documents to be submitted online)	A list of documents to be submitted online has been provided	This has been inserted as MSEDCL is conducting the bid process entirely online and therefore any clarification and documents will also be provided online only with no offline submissions.

III. DEVIATIONS FROM STANDARD PSA

A. AMENDMENTS

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
1.	Clause 1.2.1(k) (Interpretation)	The definition of business day refers to a day on which banks in the state wherein the power station is situated and open for business.	The definition of business day refers to a day on which banks in the state wherein the MSEDCL is situated and open for business.	The obligations and timeline which are linked to business days under the PSA are generally the obligations of MSEDCL. Therefore, for operational ease the definition has been amended accordingly

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
2.	Clause 1.3 (Measurements and arithmetic conventions)	As per the MoP SBD, all measurements and calculations shall be rounded to 2 (two) decimal places with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.	All measurements and calculations including calculation of fixed charges and fuel charges along with the components of fuel charge shall be in the metric system and calculations done to 4 (four) decimal places, with the fifth digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.	The increase in decimal places has been carried out to increase the accuracy of any measurements or calculations that would be performed while operating the PSA.
3.	Clause 11.2 (Construction of the Power Station)	As per the MoP SBD, 1050 th day from the appointed date shall be scheduled date for completion of the project. Further a period of 90 days has been provided post Scheduled Commercial Operation Date (SCOD) to achieve the Scheduled Completion Date (SCD).	MSEDCL has increased the time frame to 42 and 48 months for Unit #1 and #2 respectively. MSEDCL has provided 180 days from the COD to achieve SCD. Further, if MSEDCL refused to accept power from alternate sources, then damages shall not be applicable Separately, the time period (before MSEDCL can exercise its termination right) has been increased from 180 (one hundred and eighteen) days to 18 (eighteen) months, except in cases of delay caused by MSEDCL or force majeure, in which case these time periods do not apply.	In light of the size of the project and usage of the advanced technology, appropriate time has been provided to the bidder to develop the project in a structured and efficient manner and ensure that the project is not impacted by time and cost overrun issues. Further termination periods have been increased as the Bidder should be allowed to rectify any issues before the termination rights are exercised and especially since such large projects require additional time (than envisaged in the MoP SBD) in order to be able to rectify any issues. Further, this will improve bankability of the project as well.

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
4.	Clause 11.2.2 (Construction of the Power Station)	As per the MoP SBD, the supplier is required to meet certain project milestones within the defined time periods in terms of the PSA. Any failure to achieve completion would result in damages being payable at the rate of 0.2% (zero point two per cent) of the amount of performance security for each day of delay until project milestones are achieved. However, if the supplier is providing energy from alternate sources, then the damages claimable by MSEDCL will reduce to the extent of such energy provided. Further, MSEDCL would have a termination right in case the commercial operation date of the project is not achieved within 180 days of the scheduled commercial operation date, unless the delay is on account of reasons attributable to MSEDCL or due to force majeure.	The supplier is not required to pay damages if: (i) the supplier provides alternate power from any other source in the period beyond the 180 day period; or (ii) MSEDCL refuses to accept power from such alternate source provided by the supplier, then supplier will not be required to pay damages. Further, MSEDCL has increased the time period post which it can terminate the agreement from 180 days to 18 (eighteen) months from the scheduled completion date of the project, unless the delay is on account of reasons attributable to MSEDCL or due to force majeure.	The supplier's primary responsibility is to complete the obligations in the time periods stipulated in the PSA and to provide power in the timelines therein. If the supplier is providing power from the plant or an alternate source, then the liability to pay damages should not be on the supplier as the primary objective of receiving power (at agreed tariff) is still being met and the utility is not being disadvantaged in any manner. Also, considering the scale and size of the project and the timelines involved therein, the time periods post which termination rights can be exercised have been revised to lower the completion risk of such project.
5.	Clause 13.6 (Phased completion of Power Station)	As per the MoP SBD, if the provisional certificate is provided on the 3 rd anniversary of the appointed date then the provision of clause 14.1.2 shall not apply	MSEDCL has modified it to 4 th anniversary of the appointed date	Given the size of the project and the modified scheduled commercial operation dates under the PSA, additional revisions are being carried out for consistency.

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
6.	Clause 14.1.1 (Commercial Operation Date)	As per the MoP SBD, in case the power station is substantially completed but commercial operation date is delayed due to reasons attributable to MSEDCL, then MSEDCL will pay 15% of the fixed charge as if commercial operation date has occurred for the power station of any unit	MSEDCL has modified this provision to provide 100% of the fixed charges based on the normative availability as damages for the period till the time transmission system is made available	Considering that the power station has been readied by the Supplier and the non-supply of power is only on account of MSEDCL's default, MSEDCL will provide entire fixed charges to the supplier as damages. This is a positive change and will attract more bidders.
7.	Clause 14.1.2 (Commercial Operation Date)	As per the MoP SBD, in case the commercial operation date is achieved prior to the scheduled completion date, the fixed charges due and payable for the period prior to scheduled completion date will be 70% of the base fixed charge.	MSEDCL has modified this provision to provide 100% of the base fixed charge if the commercial operation date is achieved prior to scheduled completion date	This is a positive change, as the same will incentivise the supplier to commission the plant early and MSEDCL could avail the benefit of availing power from an earlier date and improve resource adequacy.
8.	Clause 18.6 (Substitute Supply)	As per the MoP SBD, in case of scheduled maintenance, unscheduled maintenance or force majeure, the supplier may (if permitted by MSEDCL) supply power to MSEDCL at the same tariff as per the terms of the PSA	MSEDCL has modified the provision to provide that such substitute supply may be procured at either the tariff discovered under the bidding process or tariff which is lower	If MSEDCL is permitting such substitute supply and such power is available at a rate cheaper than the discovered tariff, then MSEDCL in its capacity as a public utility should be permitted take advantage of such lower tariff for the benefit of public at large.
9.	Clause 20.1 (Financial close)	The supplier will achieve financial close within 180 days from the date of the agreement	MSEDCL has increased the time frame from 180 days to a total of 360 days.	Given the size of the total project involving both thermal and solar power plants, the increased time

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
				frame is provided to ensure that the supplier is able to achieve financial closure in a reasonable timeframe.
10.	Clause 21.4.1 (Computation of Fixed Charge)	The base fixed charge is set as the fixed charge payable for availability of the power station in each month of the relevant accounting year.	The period of calculation has been revised from a monthly basis to a “cumulative availability” cycle which is annualised.	Since availability of the power station in any accounting year is being considered on a cumulative annualised level across the PSA, the said revision has been carried out for abundant clarity.
11.	Clause 21.4.3 (Computation of Fixed Charge)	In case of any shortfall in the electricity supply on account of deficiency in transmission between the point of grid connectivity and the delivery point, then availability is deemed to be reduced and the fixed charge payable for the same will be 50% of the non-availability.	For the purposes of payment of the fixed charge, the availability in this case has been deemed to be 100%.	The supplier is required to ensure the delivery of power at the point of grid connectivity. Any issues post the delivery of power at such point should not penalise the supplier as the supplier has completed its responsibility of generating and supplying power as required in terms of the PSA. Accordingly, the fixed charges payable has been set at 100%.
12.	Clause 21.4.4 (Computation of Fixed Charge)	If the power station produces more than 72% of the contracted capacity then it will be provided incentive	MSEDCL has increased this to 90%	This is a positive change, as the same will promote higher efficiency of the project.

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
13.	Clause 21.10.1 (Billing and Payment)	As per the MoP SBD, the supplier will within the 5 th day of the succeeding month (the month after achieving COD) submit the monthly invoice	The PPA provides that upon issuance of a certificate from the State Energy Account in relation to availability, the Supplier will raise monthly invoice through email/courier/hand delivery. If it has been raised through email, then within 5 business days from the date of monthly invoice raised the Supplier shall deliver the original hard copy of the invoice. Further, the part may raise a supplementary invoice for payment/adjustment/recovery.	To ensure accuracy and consistency in invoicing, the process has been linked to issuance of certificate from the regional/state energy account (as applicable). Further, timelines for submission of physical /electronic invoices has been provided, to provide operational clarity and prevent disputes in invoicing.
14.	Clause 22.2 (Fuel Charges)	As per the MoP SBD, the components of the fuel charge which have to be quoted by the supplier have been provided which includes cost of the fuel, transportation, washing cost and crushing cost and other charges as specified there	The supplier is required to quote the fuel charges consisting primarily of two components, i.e. the fuel cost and the transportation cost. The fuel charges quoted are based on certain parameters: (i) 'as received price' of coal at the loading point of the mine; (ii) GCV of the coal; (iii) freight charges payable to Indian railway; and (iv) average distance between the loading point of the mine and proposed plant location. The 'as received price' of the coal and freight payable to Indian railway are equivalent or less than 101% 'as received price' of the allocated coal and 110% of the railway freight	The fuel charges payable by MSEDCL and the various components thereof have been listed out in greater detail to avoid any ambiguity in respect of the various components and parameters that have to be considered while arriving at the fuel charge. The detailing will reduce the potential of any disputes with respect to the fuel charges.

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
15.	Clause 22.2.1 (a) (Fuel Charges)	As per the MoP SBD, the provision provides for price of fuel, GCV and freight to be quoted by the supplier.	MSEDCL has modified the provision to include weighted average for price of fuel, GCV and freight	The coal procured in terms of the provided linkage may be from different mines and thus all the parameters are quoted in weighted average to arrive at uniform pricing.
16.	Clause 22.2.1 (a) (Fuel Charges)	As per the MoP SBD, the calculation of the landed fuel cost would be computed basis the indicative price of fuel which shall be computed from the fuel charge	MSEDCL has modified the provision to include weighted average of the fuel at the delivery point for calculation of the landed fuel cost for the relevant month	The modification is a positive change as (i) it provides more clarity to the supplier on the calculation mechanism for fuel price; and (ii) the fuel could potentially be provided from various mines in terms of the coal linkage.
17.	Clause 22.3 (Determination of GCV)	As per the MoP SBD, the average GCV is to be determined in accordance with the provisions of the fuel supply agreement and the certification and classification provided by the fuel supplier	The determination of the average GCV is to be conducted by an independent agency appointed by MSEDCL. The independent agency shall adjust 85 kcal/kg (or such value as notified by MERC) on account of storage/stacking losses while determining the average GCV.	The fuel is provided to the power station through the coal linkage provided to MSEDCL. Therefore, MSEDCL is measuring the average GCV through an independent agency appointed by it
18.	Clause 38.4 (Delayed Payments)	As per MoP SBD, provided for a mechanism for delayed payment and the penalty for such payment	MSEDCL has introduced the compliance of Electricity (Late Payment Surcharge and related matters) Rules, 2022	The Electricity (Late Payment Surcharge and related matters) Rules, 2022 came into force after the date of issue of the MoP SBD and therefore the change has been inserted to ensure regulatory compliance.

S. No.	Clause	Clause in the standard bidding documents	Deviation	Remarks
19.	Scheduled B, Annexure – I (Description of power station)	As per the MoP SBD, the ramp up time from a cold start and reach full capacity is within a period of 8 hours from the time of each start	MSEDCL has modified to include compliance of the relevant provisions of Central Electricity Authority (Flexible Operation of Coal based Thermal Power Generating Units) Regulations, 2023. Each unit of the power station shall have the capacity to ramp up from a cold start and reach full capacity within a period of 12 hours	This has been included to ensure regulatory compliance.

B. ADDITIONS

S. No.	Clause	Clause in the tender	Remarks
1.	Clause 4.1.2(e) (Conditions Precedent)	The supplier will execute and procure the substitution agreement	This inclusion provides comfort to the lenders of the supplier, as the lenders can replace the supplier in case of any default under the financing agreement.
2.	Clause 4.1.3 (Conditions Precedent)	The supplier will be granted an extension of not more than 180 days for fulfilment of conditions precedent	For such large projects, fulfilment of all conditions precedent could take additional time and therefore an additional window of 180 days has been provided to complete compliances.
3.	4.1.3(1) (Conditions Precedent)	The supplier has to identify the delivery point on the intra-state grid of Maharashtra if the supplier is implementing a dedicated transmission system upto the intra-state grid of Maharashtra for evacuation of power.	The pre-identification requirement has been prescribed as a condition precedent so that MSEDCL is aware of the point of delivery and can accordingly assess the transmission systems capabilities for evacuating the power received and take strengthening measures if required.

S. No.	Clause	Clause in the tender	Remarks
4.	Clause 5.1.5 (n) (Obligations of the Supplier)	An obligation to execute the Fuel Supply Agreement' has been specifically cast on the supplier.	The said provision has been added to provide clarity on the obligation of the supplier to duly execute and have the fuel supply agreement in place so that power generation can happen as per schedules contemplated in the PSA.
5.	Clause 5.1.6 (Obligations of the Supplier)	An obligation on the supplier to pay all the transmission charges/loss up to the delivery point. Further, if the transmission line becomes part of the CTU network then supplier shall reimburse to MSEDCL any additional utility charges.	As per the CERC Connectivity and GNA Regulations, 2022 (“ GNA Regulations ”), it is an obligation on MSEDCL procuring power to pay the transmission charges/losses. However, if the supplier chooses to set up a dedicated transmission line for supply of power and factors in the capital expenditure for such establishment into the quoted tariff, then the supplier (if the transmission line later become part of the CTU network) is required to reimburse MSEDCL for any transmission charges (borne by MSEDCL in terms of the GNA Regulations) to prevent MSEDCL from bearing such amounts twice over as these costs are already folded into the quoted tariff.
6.	Clause 5.1.7 (Obligations of the Supplier)	The supplier shall comply with applicable GNA Regulations	This has been included to ensure regulatory compliance and to ensure correct tariff determination.
7.	Clause 5.2.2 (Obligations of the Supplier)	The supplier shall submit all the project agreements except the fuel supply agreement	Since the fuel supply is under a linkage under paragraph B(iv) of SHAKTI and therefore will be executed closer to scheduled commercial operation date, the supplier is not required to submit the fuel supply agreement.
8.	Clause 9.1 (Performance Security)	The performance security shall be provided for 60 months	The time frame for performance security has been increased from 2 years (under the MoP SBD) to 5 years. This has been increased to provide comfort to MSEDCL considering the

S. No.	Clause	Clause in the tender	Remarks
			project size and timelines involved and also taking into consideration that the supplier shall also have a solar power plant.
9.	Clause 13.4.3 and 16.4	Performance under Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014. Installation of meters, meter testing, meter calibration and meter reading in compliance to Central Electricity Authority (Installation and Operation of Meters) regulations, 2006 and the Grid Code.	This has been included to ensure regulatory compliance.
10.	Clause 22 (Fuel Charge)	Any penalty imposed by the coal supplier on the supplier for under lifting of coal and/or failure to meet minimum off-take guarantee, due to lower dispatch by MSEDCL, will be reimbursed by MSEDCL	This is a positive change and has been included to provide comfort to the supplier and improve bankability of the project as any penalty borne by the supplier on account of MSEDCL default will be reimbursed.
11.	Clause 22.2.1 (a)(Fuel Charge)	The definition of “Delivered Price” has been provided	This is a positive change as it provides additional clarity on the components of the fuel charge.
12.	Clause 24.4 (Ramp up of Despatch)	MSEDCL has included a clarification providing that the operation of the power station will be governed in accordance with the provisions of the grid code	This has been included to ensure regulatory compliance
13.	Clause 28.1 (Force Majeure)	Insertion of the disclaimer in respect of dedicated transmission line if extended upto STU periphery of ISTS power supplier	It has been further clarified that the supplier would not be eligible to claim any relief on account of force majeure with respect to the dedicated transmission line that is being established to evacuate the energy from the project
14.	Clause 31.1.1 (Termination for Supplier Default)	Qualification for the payment exceeding INR 1 crores has been defaulted within 3 months after the due date of the invoice or an amount upto INR 1 crore required to be made within 6 months from the due date	Given the size the of project, this qualification is a positive change as it provides for a threshold before termination rights are triggered. It also allows the parties to potentially resolve any issues before exercising termination rights.

S. No.	Clause	Clause in the tender	Remarks
			Without such thresholds, the termination events would become applicable for any small default in payment.
15.	Clause 31.2 (Termination for Utility Default)	MSEDCL fails to make payment for an amount exceeding 15% of the monthly/provisional bill for a period of 90 days after the due date	Given the size the of project, this qualification is a positive change as it provides for a threshold, before termination rights are triggered. It also allows the parties to potentially resolve any issues before exercising termination rights. Without such thresholds, the termination events would become applicable for any small default in payment.
16.	Clause 34.1 to 34.4 (Change in Law)	Clause provided for the events that constitute a change in law without, however, clarifying the exclusions that would apply in the determination of whether a particular event constitutes a change in law. Further, no timelines were provided in case of any notifications pertaining to variation of cost.	<p>To provide abundant clarity to the parties, the specific events that would not be eligible for a change in law relief in terms of the PSA have been listed out. This would prevent any ambiguity in respect of any change in law event and will assist in operational clarity.</p> <p>In addition to above, the parties are now obligated to notify any cost related variation in a time bound manner thus preventing any ambiguity or potential disputes in respect to such notification of cost.</p> <p>It has been further clarified that the supplier would not be eligible to claim any relief on account of change in law with respect to the dedicated transmission line that is being established to evacuate the energy from the project.</p>

C. DELETIONS

S. No.	Clause	Clause in the standard bidding documents	Remarks
1.	Clause 3.2.2 (Extension of Contract Period)	If the contract period is extended due to the supplier, however, if MSEDCL does not grant the same, then the calculation of the lump sum amount to be calculated in lieu of the fixed charge to be paid by MSEDCL to the supplier	MSEDCL should not be burdened with an obligation to extend the contract period and mandated to pay lump sum amounts even if MSEDCL is not extending the contract.
2.	Clause 4.1.3 C (Conditions Precedent)	Execution of the fuel supply agreement	Since the fuel supply is under a linkage under paragraph B(iv) of SHAKTI and therefore will be executed closer to scheduled commercial operation date, the supplier is not required to submit the fuel supply agreement.
3.	Clause 4.1.3 L (Conditions Precedent)	The obligation to procure the environmental clearance and forest clearance of the coal mine block has been removed as a condition precedent of the supplier.	Not applicable as the procurement of coal is under paragraph B(iv) of SHAKTI.
4.	Clause 4.1.3 J (Conditions Precedent)	The supplier is required to submit evidence of the commissioning of the power station, including details thereto	This has been removed because a new power station dedicated to MSEDCL is being constructed.
5.	Clause 5.5 (Obligations related to transmission charges)	The supplier shall be liable for all charges for transmission for electricity from the gird connection to the delivery point.	The revision is inline with the GNA Regulations and is required for regulatory compliance. It may be noted that the GNA Regulations came into force after the date on which the standard bidding documents were floated by the MoP.
6.	Clause 6.1.2(c) (Obligations of the Utility)	The obligation of the utility to ensure the non-applicability of local taxes, tolls or charges has been deleted.	The obligation to impose or amend any taxation related aspects is the prerogative of the state government where the power plant will be established. Accordingly, the utility would not have the ability to legislate on such tax related benefits and accordingly, the provision has been deleted.
7.	Clause 6.1.2(e) (Obligations of the Utility)	MSEDCL will undertake rehabilitation and resettlement of persons affected due to the construction of the power station	This has been removed as the obligation for rehabilitation and resettlement for persons displaced by the establishment of the power station has been made an obligation of the supplier. Further, the power station

S. No.	Clause	Clause in the standard bidding documents	Remarks
			will be established by the supplier at a location chosen by the supplier.
8.	Clause 18.4 (Open Capacity)	The supplier shall not have any right to sell off the 20% of the contracted capacity to any third party	This has been excluded to ensure that the entire new capacity will be contracted solely with MSEDCL.
9.	Clause 18.5.2 and 18.5.3 (Sale of Unutilised Contracted Capacity)	The supplier shall not be entitled to receive the fixed charge of the unutilised contracted capacity. Further, the supplier can sell such electricity to any other buyer, if MSEDCL does not want to purchase it	This has been excluded to ensure that the entire new capacity will be contracted solely with MSEDCL.
10.	Clause 18.7 (Merchant Capacity)	Any generation capacity in excess of the committed capacity and forming part of the installed capacity may be used by supplier as deemed fit.	This has been excluded to ensure that the entire new capacity will be contracted solely with MSEDCL.
11.	Clause 19.1.2 (Appointment of Utility's Engineer)	If more than two utilities enter into an arrangement with the supplier, then they can appoint a common firm to discharge obligations of utility engineer	This has been excluded because the PSA is intended to be solely with MSEDCL and thus the said provision is not applicable
12.	Clause 19.6 (Excuse from appointment of Utility's Engineer)	If the supplier has contracted for lower of 25% of the installed capacity and 200 MW, it is not required to appoint utility's engineer	This has been excluded because the PSA is intended to be entered with a single supplier
13.	Clause 21.4.2 (Computation of Fixed Charge)	Reduction in availability of the power plant due to shortfall in minimum fuel stock	As long as the supplier is making the plant available for supply of electricity, the supplier can be paid for the availability irrespective of the fuel stock available at the plant.
14.	Clause 21.5.2 (Declaration of Availability)	Non-availability of the power plant on account of shortfall in minimum fuel stock	As long as the supplier is making the plant available for supply of electricity, the supplier can be paid for the availability irrespective of the fuel stock available at the plant.
15.	Clause 22.3.5 (Determination of GCV)	The fuel received by supplier at the power station will be stored in stacks.	The obligation to maintain stacking piles as per good industry practice and applicable law (as relevant) is a

S. No.	Clause	Clause in the standard bidding documents	Remarks
			responsibility of the supplier and MSEDCL is not mandating the same.
16.	Clause 22.5 (e) (Terms of FSA)	In the event the supplier of fuel proposes to blend imported fuel with domestic fuel	Not applicable, as the coal is being procured domestically under linkage and therefore no blending is envisaged
17.	Clause 22.8.2 (Fuel Shortage)	In the event there is fuel shortage, the calculation of fixed charge would be done in accordance with provisions of Clause 21.4.2 and no fixed charge is payable in respect of non-availability arising as a result of shortfall in supply of fuel from any coal mine/blocks or captive mine owned or operated by the supplier or its associate.	Not applicable, as the coal is being procured domestically under linkage.
18.	Clause 24.1.3 (Extension of Contract Period)	Scheduling and supply of electricity from open capacity may be undertaken by the supplier in such manner as it may determine in conformity with the Grid Code	This has been removed because the construct of 'Open Capacity' is not required as entire capacity is being contracted by MSEDCL.
19.	Clause 28.2 (d) (Non Political Event)	force majeure event due to delay of an overseas contractor or failure to supply fuel form overseas.	This has been removed because the fuel supply is being procured under the coal linkage and in case of any foreign equipment being procured the risk on account of the same vests entirely with the supplier.
20.	Clause 28.4 (Political Event)	As per the MoP SBD, if any change in law cannot be dealt with under the clause of change in law provided in the PSA, such change in law would be considered a Force Majeure Event	Change in law and any consequences thereof are adequately dealt with in the specific provision on change in law. Therefore, to avoid duplication of remedies the provision of change in law as a force majeure event has been deleted
21.	Clause 30.1.2 (Suspension)	As per the MoP SBD, during the period of suspension, MSEDCL shall pay to the supplier 20% of the fixed charge due and payable to the supplier for and in respect of the contracted capacity.	MSEDCL should not be required to be make any payments in cases where MSEDCL is not receiving any power, particularly when such non-receipt of power is on account of a default by the supplier.

S. No.	Clause	Clause in the standard bidding documents	Remarks
22.	Clause 31.8 (Substitution upon Termination)	The clause provided for a right for the supplier to substitute MSEDCL in case of a default by MSEDCL.	MSEDCL is procuring 100% of the power being produced and is providing adequate payment securities as well to the supplier. Therefore, the requirement to substitute MSEDCL would not arise and therefore this right of the supplier has been deleted.
23.	Clause 32.2 (Partial Divestment)	Restriction of divestment in case the contracted capacity of the power station is below 70% (seventy per cent of the installed capacity on the date of termination of the PSA).	Not applicable, as the plant is being established exclusively for MSEDCL which is then procuring 100% of the power supplied, Further, the coal is being provided is under a linkage in terms of SHAKTI.
24.	Clause 36.3 (Arbitration) and Clause 36.5 (Adjudication by Tribunal)	Arbitration has not been provided as a mechanism for dispute resolution.	For ease of contract management, all disputes will be referred to the MERC for adjudication.
25.	Annexure II, Schedule C, 2.2 (Additional Specifications and Standards)	The power station shall have the capacity to use the following mix of fuel at the level of full Availability: (a) Upto% (.... per cent) of the fuel having an ash content of....% (..... per cent); and (b) upto% (..... per cent) of the fuel having an ash content of% (.... per cent).	Not applicable, as the fuel supply is being procured under the coal linkage and fuel mixing is not envisaged.
26.	Annexure I, Schedule 1, 3.1 (Role and functions of the Utility's Engineer)	Following sub-clauses have been removed: (i) review, inspection and monitoring of O&M; and (ii) review, inspection and monitoring of divestment requirements as set forth.	Divestment requirements are not applicable as the plant is being established exclusively for MSEDCL which is then procuring 100% of the power supplied. The scope of the operations and maintenance requirements should be finalised closer to the commercial operation date of the power plant and it would be premature to determine the scope as on the bidding dates. Therefore, considering the practical aspects it has been determined to finalise the terms of reference for operation and maintenance obligations (including role of utility engineer during operations and

S. No.	Clause	Clause in the standard bidding documents	Remarks
			management phase) closer to the date of commercial operation date of the power plant.
27.	Annexure I, Schedule I, 5 (Operation Period)	Obligations of the utility engineer in the operations phase.	The scope of the operations and maintenance requirements should be finalised closer to the commercial operation date of the power plant and it would be premature to determine the scope as on the bidding dates. Therefore, considering the practical aspects it has been determined to finalise the terms of reference for operation and maintenance obligations (including role of utility engineer during operations and management phase) closer to the date of commercial operation date of the power plant.

LIST OF DEVIATIONS FROM THE GUIDELINES FOR TARIFF BASED COMPETITIVE BIDDING PROCESS FOR PROCUREMENT OF POWER FROM GRID CONNECTED SOLAR PV POWER PROJECTS (“Guidelines”)

IV. Deviations in RFS

S. No.	Clause	Provision in the Guidelines	Deviation	Remarks
1	Grant of capacity	The Guidelines provide that the MSEDCL cannot grant more than 50% of the total generation capacity being bid out under any tender to a single bidder	In terms of the RFS, MSEDCL has granted the total generation capacity being bid out under any tender to a single bidder	As per resource adequacy plan, it is required to procure 1600 MW of thermal power to take care of base load requirements. Further, MSEDCL is procuring 1600 MW of thermal power and 5000 MW of solar power as a combined bid to ensure receipt of a tariff that is averaged out and reduces MSEDCL’s overall purchase cost over the entire tenure of the power purchase agreements for 25 years. This would only be possible if the entire capacity is being provided by one bidder and therefore the threshold of 50% has been deviated from.

S. No.	Clause	Provision in the Guidelines	Deviation	Remarks
2.	Net worth Criterion	The net worth criterion specified in the Guidelines specifies that net-worth requirement should be at least 20% (twenty per cent) of the estimated project cost which is approximately Rs. 40 Lakhs per MW.	MSEDCL has reduced the same to INR 25 Lakhs/MW	Given the large capacity of the project and the mandatory requirement that the bidders are required to quote for the entire capacity, the net worth requirement has been reduced to INR 25 Lakhs/MW of contracted capacity. Further, this will help increase the participation and resultant competition in the bidding process aiding in better tariff discovery.

V. Deviations in PPA

S. No.	Clause	Clause in the Guidelines	Deviation	Remarks
1.	Change in Law	The Guidelines provide change in law shall be in accordance with the Electricity (Timely Recovery of Costs due to Change in Law) Rules, 2021	The change in law provision in the PPA has been aligned with the change in law provision under the PSA.	The change in law provision in the PPA has been aligned with the change in law provision under the PSA in light of the fact that the: (i) bidders required to quote for a composite tender, comprising of both thermal and solar; and (ii) to ensure consistency between the PPA and the PSA for events that could constitute change in law in terms of the PPA and the PSA as applicable
2.	Dispute Resolution through arbitration	If the dispute is not amicably resolved & such dispute cannot be resolved by the appropriate commission, such dispute shall be resolved by arbitration under the provisions of the Indian Arbitration and Conciliation Act 1996.	Arbitration has not been provided as a mechanism for dispute resolution.	For ease of contract management, all disputes will be referred to the MERC for adjudication.