

**COMPREHENSIVE  
PERFORMANCE AWARD  
SCHEME FOR  
THERMAL POWER STATIONS**

**YEAR 2017-18**

# **THERMAL POWER STATIONS PERFORMANCE** **AWARD SCHEME**

## **1.0 PREAMBLE**

The incentive award scheme in force till 2003-04 provided separate awards for important operational parameters viz. Plant load factor, secondary oil consumption and auxiliary power consumption. The scheme since then has been modified and a new scheme has thus been introduced from year 2004-05. The new scheme for ‘Thermal Power Stations Performance Awards’ has been developed with a view to accord recognition to Power Stations based on their all round performance by integrating the four operational parameters viz. Station heat rate, Specific secondary fuel oil consumption, Peaking PLF and Auxiliary power consumption. Plant Operating Availability factor in place of Peaking PLF has been introduced in case of CCGT power stations from the year 2013-14.

## **2.0 OBJECTIVE**

The scheme in its present form is intended to foster the competitive spirit amongst various Power Stations so as to encourage them to improve performance in all spheres of their working. The scheme would also help in evolving benchmarks for various performance indices.

## **3.0 NATURE OF AWARD**

Maximum Eight (8) number awards consisting of one Gold Shield, three Silver Shields and four Bronze Shields will be given to the highest ranking thermal power stations in recognition of their operational performance during the year. One Gold shield will be given to that coal/lignite/CCGT station who obtains highest and more than 90% marks among the central/state/private sector. Three Silver shields will be given to those next higher ranking coal/lignite/CCGT stations that score minimum 80% marks among the central/state/private sector. Four Bronze shields will be given to those next higher ranking coal/lignite/CCGT stations that score minimum 70% marks among the central/state/private sector. While deciding the award, it will be ensured that two awards to the best performing power stations are given in each sector i.e. Central Sector, State Sector

and Private Sector for Coal/Lignite based thermal power stations subject to scoring minimum 70% marks. In case of CCGT power stations of Central/State/Private Sectors total two combined awards will be given subject to scoring minimum 70% marks by the station.

#### **4.0 ELIGIBILITY**

The scheme shall cover all coal/ lignite based and combined cycle gas turbine based thermal power stations of Central, State and Private sector (excluding captive power plants) which meet the following requirements:

- a) Coal/lignite based thermal stations should have at least one unit of size 100 MW or above
- b) Combined Cycle Gas Turbine (CCGT) based power stations should have at least one GT of size 30 MW or above.

#### **5.0 EVALUATION CRITERIA**

The parameters to be evaluated have been listed in the enclosed Annexure-‘A’. The weightage assigned to each of these parameters, in case of coal/lignite based stations and CCGT stations, have also been given therein. The criteria for assigning marks are given in enclosed Annexure-‘B’.

Data received from all thermal power stations shall be processed and marks assigned as per above marking scheme. Total score shall be considered for ranking. All thermal stations (coal/lignite based stations and CCGT stations) of Central, State, and Private Sectors shall be considered at par.

#### **6.0 DATA REQUIREMENT**

The Chief Executives of all Thermal Stations shall be required to furnish complete data in **prescribed formats** to the Nodal Officer of CEA as specified below:

S.No.	Parameter	Formats	
		Coal/ lignite based stations	CCGT stations
1.	Station Heat Rate	Annexure- I (Coal/Lignite)	Annexure-I (CCGT)

2.	Aux. Power Consumption	Annexure- II (Coal/Lignite)	Annexure- II (CCGT)
3.	Peaking PLF	Annexure- III (Coal/Lignite)	Not Applicable
4.	Sp. Secondary fuel oil consumption	Annexure- IV (Coal/Lignite)	Not Applicable
5.	Plant Operating Availability	Not Applicable	Annexure-III (CCGT)

## **7.0 TIME SCHEDULE FOR SUBMISSION OF DATA**

All Thermal Stations will send the above data to CEA **regularly on monthly basis starting from the month of April onwards. In** any case, the data must reach CEA latest by 2<sup>nd</sup> week of the following month for which the data is being reported upon.

## **8.0 NODAL OFFICER**

**Chief Engineer (TPE&CC)  
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**PARAMETERS FOR THERMAL POWER STATIONS PERFORMANCE  
AWARD AND THEIR WEIGHTAGE**

<b>Parameters</b>	<b>Weightage (Marks)</b>	
	<b>Coal/lignite based Stations</b>	<b>CCGT Stations</b>
Peaking PLF	25	Not Applicable
Plant Operating Availability	Not Applicable	40
Station Heat Rate	35	35
Sp. Secondary Fuel Oil Consumption	15	Not Applicable
Auxiliary Power Consumption	25	25
<b>TOTAL</b>	<b>100</b>	<b>100</b>

**ANNEXURE -‘B’****CRITERIA FOR ASSIGNING MARKS**

<b>Parameter (1)</b>	<b>Criteria for Coal/lignite based stations (2)</b>	<b>Criteria for CCGT stations (3)</b>	<b>Remarks (4)</b>
<b>Peaking P.L.F.</b>	$\leq$ National Avg. PLF 0 $\geq$ 90% PLF 25	Not Applicable	<ul style="list-style-type: none"> <li>Marks on pro-rata basis for values in between.</li> <li>Generation during morning &amp; evening peak hours ( 4 hours each) to be extrapolated for the day and averaged over the year</li> </ul>
<b>Operating Availability</b>	Not Applicable	$<$ National Avg. PLF 0 $\leq$ 80% Op. Availability 0 Max.Op.Availability 40	<ul style="list-style-type: none"> <li>Marks on pro-rata basis for values in between.</li> <li>At least National Average PLF is necessarily required to ensure running of Plant</li> </ul>
<b>Station Heat Rate</b>	Deviation of 20% and Above from Design Station Heat Rate 0 Minimum deviation from Design Station Heat Rate 35	Deviation of 20% And Above from Design Station Heat Rate 0 Minimum deviation from Design Station Heat Rate 35	<ul style="list-style-type: none"> <li>Marks on pro-rata basis for values in between.</li> </ul>
<b>Sp. Secondary Fuel Oil Consumption</b>	Compliance with normative value 0 Maximum improvement from Normative value achieved during the year by any station 15	Not Applicable	<ul style="list-style-type: none"> <li>Marks on pro-rata basis for values in between.</li> <li>Norms for stations having different unit sizes shall be worked out on weighted average basis</li> </ul>
<b>Aux. Power Consumption</b>	Compliance with Normative value 0 Maximum improvement from Normative value achieved during the year by any station 25	Compliance with Normative value 0 Maximum improvement from Normative value achieved during the year by any station 25	<ul style="list-style-type: none"> <li>Marks on pro-rata basis for values in between.</li> <li>Norms for stations having different unit sizes shall be worked out on weighted average basis</li> </ul>

Note: for coal/lignite based stations with units of 200 MW and above and central sector CCGT stations, the normative values for various operational parameters shall be as per CERC's notification, as applicable. for lower unit sizes of coal/lignite based stations and other CCGT stations, the normative values shall be as determined by CEA.