APPDCL is operating 2 x 800 MW Super Critical Thermal Power Station namely Sri Damodaram Sanjeevaiah Thermal Power Station (SDSTPS) at Nelatur (V), Muthukuru (M), SPSR Nellore District A.P, India and another 800 MW under Stage-II is in Commissioning stage.

The intent of the EOI is to identify prospective Agencies for Study and Implementation of the Flexibility operation of Thermal Power Plant i.e. lowering the technical minimum of Thermal Power Plant to 20% of the installed capacity as against the existing 55% to 60%.

Interested firms/ organizations are requested to submit their Expression of Interest for Implementation of the Flexibility operation of Thermal Power Plant and the required technical inputs will be arranged by APPDCL / SDSTPS based on requirement. The EOI specification is available in APGENCO website. Interested parties may furnish their details to the following address/ e-mail on or before 10-07-2020

Chief General Manager
APPDCL

ADDRESS:
The Chief General Manager
APPDCL
Plot No: 29, Road No-1
Central Excise Colony,
Andhra Loyola College Road,
Vijayawada- 520008.
0866-2358633/620
Email: appdcl.office@gmail.com
appdcl.office@apgenco.gov.in
ANDHRA PRADESH
POWER DEVELOPMENT COMPANY LIMITED
( A Subsidiary of APGENCO)

Expression of Interest
For
Identifying Agencies
for Study and Implementation of
the
Flexibility operation of
2x800 MW, SDSTPS

Issued by:

Chief General Manager
APPDCL
Plot No.29, Central Excise Colony Road No.1,
VIJAYAWADA, ANDHRA PRADESH
INDIA
Ph: (0866) 2454620/633.
DISCLAIMER

All information contained in this Expression of Interest (EOI) are in good interest and faith. The information contained in this EOI document and the information/clarification subsequently to be provided to Applicant(s), whether verbally or in documentary or in any other form, by or on behalf of APPDCL would not be construed to alter the terms and conditions set out in this EOI in anyway.

The purpose of this EOI is to identify prospective Agencies for Study and Implementation of the Flexibility operation of Thermal Power Plant i.e. lowering the technical minimum of Thermal Power Plant to 20% of the installed capacity as against the existing 55% to 60% with out any oil support. This EOI is not an offer by APPDCL to the prospective Applicant(s) or any other person. This EOI is neither intended nor shall it be construed as creating or requiring any ongoing or continuing relationship or commitment with any party or person. This is not an offer or invitation to enter into an agreement of any kind with any party.

Though adequate care has been exercised in the preparation of this EOI document, the interested firms shall satisfy itself regarding completeness of this document in all respects. The information is not intended to be exhaustive. Interested Agencies are required to make their own enquiries and assumptions wherever required. Intimation of discrepancy, if any, should be given to the specified office immediately. If no intimation is received by this office by the date mentioned in the document, it shall be deemed that the EOI document is complete in all respects and firms submitting their interest are satisfied with the EOI Document in all respects.

The issue of this EOI does not imply that APPDCL is bound to select and shortlist Applicant(s) or to enter into any agreement(s) with any Applicant(s). APPDCL reserves all right to reject any application submitted in response to this EOI document at any stage without assigning any reasons thereof. APPDCL also reserves the right to withhold or withdraw the process at any stage. Neither APPDCL, nor its employees and associates will have any liability on any loss, expense or damage which may arise from or be incurred or suffered in connection with this EOI. APPDCL accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance/use of any statements/information contained in this EOI by the Applicant. APPDCL is not making any representation or warranty, express or implied, as to the accuracy or completeness of any information/statements made in this EOI.
The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery, fees, expenses associated with any demonstrations or presentations which may be required by APPDCL or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Applicant and APPDCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Application, regardless of the conduct or outcome of the EOI.
Expression of Interest

**Sub**: Expression of Interest invited for study on Flexi Generation of 2x800 MW SDSTPS

### 1.0 About Andhra Pradesh Power Development Company Limited

Andhra Pradesh Power Development Company (APPDCL) which is a subsidiary of Andhra Pradesh Generation Corporation Limited (APGENCO, a Public Sector Undertaking of Andhra Pradesh) is operating 2x800MW Super Critical Thermal Power Station (SDSTPS) at Nelatur, (V), Muthukuru (M), near Nellore Town, SPSR Nellore Dist and another 800 MW Unit under stage-II is in construction stage.

### 2.0 Background:

In order to **Ramp Up/Down Capabilities** be acquired by the APPDCL plant for continuous operation without oil support, lowering the technical minimum to 20% of the PLF (as against the existing 55% ~60%). Through this EOI, APPDCL intends to identify interested and capable agencies from India and Abroad for Study and Implementation of the Flexibility operation of Thermal Power Plant i.e. lowering the technical minimum of Thermal Power Plant to 20% of the installed capacity without taking any oil support.

### 3.0 Brief Scope of work

The brief scope of work consists of

a. For complete study of the systems in service at SDSTPS for implementation of Flexibility operation.

b. Addressing the various technical challenges identified by APPDCL and if any other during the detailed study. Some of the technical challenges anticipated are attached in the Annexure-E. During execution of the project, any other challenge identified shall be addressed.

c. Furnishing the report after study for Implementation and submission of operation procedures for Flexibility operation

d. Identification of Agencies for implementation in various areas.

e. Implementation of modifications & Schemes

f. Trial operation of the both the Unit at Minimum Technical Limits

g. Further discussions with Suppliers if required after trail operation
h. Imparting training to operators on the entire modules
i. Coordination for 30 Days operation of each unit after implementation.

4.0 **Intent of EOI:**

The intent is to identify prospective Agencies for Study, supervising required modifications in unit and Implementation of the Flexibility operation of Thermal Power Plant i.e. lowering the technical minimum of Thermal Power Plant to 20% of the installed capacity as against the existing 55% to 60%.

5.0 **Eligibility**

Agencies who have successfully completed Flexi operation studies and execution of Plant operations at technical minimum for the Thermal plants not less than 500 MW, in last 5 years from the date of the submission of the EOI.

6.0 **Inputs to Agency by APPDCL:**

APPDCL will provide the information project at pre-bid stage.

a) Project information
b) Technical details of Boiler, Turbine, Generator and Auxiliaries
c) Operational Data as required
d) Any other data required during the study as per the availability

7.0 **General Information**

i. Through this EOI, APPDCL intends to Study and Implementation of the Flexibility operation of Thermal Power Plant.

ii. Responses to EOI are to be submitted in English only. Supporting documents, as required, should also be in English language. In case of some documents being available in languages other than English, the Applicant shall necessarily provide duly authenticated translated version of the same in English.

iii. Complete document in all respects shall be duly signed & stamped on each and every page by the authorized signatory of the Agency as a token of acceptance of all the terms and conditions of EOI.

iv. Notwithstanding anything contained in this EOI, APPDCL reserves the right to accept or reject any Application and to annul the EOI Process in whole or part, at any time without any liability or any obligation for such acceptance, rejection or annulment without assigning any reasons
thereof.

v. APPDCL reserves the right to verify all statements, information and documents submitted by the Agency in response to the EOI. Any such verification or lack of such verification by APPDCL shall not relieve the Agency of his obligations or liabilities hereunder nor will it affect any rights of APPDCL.

vi. The EOI process shall be governed by, and construed in accordance with, the laws of India and the Courts at Vijayawada shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the EOI process.

vii. All costs incurred for participation in the EOI shall be borne by the Agency(s).

8.0 Information to be submitted along with EOI

Interested Agencies are requested to submit their technical and financial credentials along with other relevant information in the form of documents listed below submitted through e-mail on or before 10.07.2020 14.00hrs.

i. Profile of company indicating type of business and experience in similar type of works.

ii. Duly filled in EOI form as per Annexure-A format

iii. Experience details as per Annexure B format

iv. Details of Manpower as per Annexure C format

v. Financial details as per Annexure D format

Further information/clarification can be obtained at the address below during 10.00 to 17.30 hrs. (IST). Bidders can also raise queries through email.

Chief General Manager
APPDCL
Plot No.29, Central Excise Colony Road No.1, VIJAYAWADA, ANDHRA PRADESH
Ph: (0866) 2454620/633.
E-mail: appdcl.office@apgenco.gov.in : appdcl.office@gmail.com

The details submitted by the Agency (s) shall be complete in all respects and APPDCL may seek clarifications / additional information as considered necessary.
EOI Form
[Annexure-A]

Firm’s ref.No: ……………………………………Date : ………………………

**Subject:** Response to EOI for Identifying Agencies for Study and Implementation of the Flexibility operation of Thermal Power Plant

In response to your EOI, we are pleased to submit the details of our firm as below:

<table>
<thead>
<tr>
<th></th>
<th>Name of the firm and Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Name of the Proprietor/MD/CEO</td>
</tr>
<tr>
<td>3</td>
<td>Address of firm</td>
</tr>
<tr>
<td>4</td>
<td>Contact Person with Designation and Mobile No &amp; Email</td>
</tr>
<tr>
<td>5</td>
<td>Any Other information</td>
</tr>
</tbody>
</table>

(Sign & Company Seal)
Authorized Signature
[Annexure-B]
Experience Details

Firm’s ref. No: ........................................... Date: ........................................

Details of similar works completed or substantially completed in last 5 years

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of Client</th>
<th>Brief Scope and Specialty of work</th>
<th>Date of award</th>
<th>% Completion of work as on date</th>
<th>Attachments* (As applicable)</th>
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<tbody>
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</table>

(*supporting documents like Work Order, Scope of Work, Work Completion Certificate, Performance Certificate etc.)

(Sign & Company Seal) Authorized Signature
[Annexure-C]
Details of Manpower

Firm’s ref. No: ........................................ Date: .................................

Manpower Statistics

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Engineering Staff</td>
</tr>
<tr>
<td>2</td>
<td>Execution Staff</td>
</tr>
<tr>
<td>3</td>
<td>Other Graduates</td>
</tr>
</tbody>
</table>

(Sign & Company Seal)

Authorized Signature
### [Annexure-D]

**Financial Details**

Firm’s ref. No: .......................... Date: ..........................

<table>
<thead>
<tr>
<th>Description/Details</th>
<th>FY 2018-19</th>
<th>FY 2017-18</th>
<th>FY 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn Over</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Worth</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note- Agency to furnish the audited financial accounts (including auditor’s report, balance sheet, profit & loss account and notes) of the last three years

(Sign & Company Seal)

Authorized Signature
## Annexure-E

### Anticipated Technical Challenges for running SDSTPS units at technical Minimum

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Anticipated Technical Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improvement of efficiency of performance of Super critical Boiler at Technical Minimum</td>
</tr>
<tr>
<td>2</td>
<td>Existing TDBFPs cannot have a control of speed below 2900 rpm to control feed water flow to boiler.</td>
</tr>
<tr>
<td>3</td>
<td>Lesser APH outlet flue gas temperatures</td>
</tr>
<tr>
<td>4</td>
<td>Flame instability</td>
</tr>
<tr>
<td>5</td>
<td>Raise of Boiler Metal Temperatures</td>
</tr>
<tr>
<td>6</td>
<td>DCS tuning</td>
</tr>
<tr>
<td>7</td>
<td>MDBFP Booster pump Vibrations</td>
</tr>
<tr>
<td>8</td>
<td>DM Water wastage during Low load operations</td>
</tr>
<tr>
<td>9</td>
<td>AVT / CWT Mode of operation</td>
</tr>
<tr>
<td>10</td>
<td>To reduce start-up time, LDO elevations to be increased</td>
</tr>
<tr>
<td>11</td>
<td>Manual Start-up</td>
</tr>
<tr>
<td>12</td>
<td>Reverse rotation of FANs if one set of Fans are in service</td>
</tr>
<tr>
<td>13</td>
<td>Condition Monitoring the rotating equipment</td>
</tr>
<tr>
<td>14</td>
<td>Passing of Valves, Poor insulation works</td>
</tr>
<tr>
<td>15</td>
<td>Environmental Parameters Shall be in control</td>
</tr>
</tbody>
</table>