



**TELANGANA STATE ELECTRICITY REGULATORY COMMISSION**  
5<sup>th</sup> Floor, Singareni Bhavan, Red Hills, Hyderabad-500 004

**O.P.No.3 of 2015**

**Dated 25.06.2021**

**Present**

Sri T.Sriranga Rao, Chairman  
Sri M.D.Manohar Raju, Member (Technical)  
Sri Bandaru Krishnaiah, Member (Finance)

Between:

M/s Geo Syndicate Power Private Limited,  
344, 3<sup>rd</sup> Floor, Powal Plaza,  
Hiranandani Business Part, IIT Bombay,  
Powai, Mumbai-400 076

... Applicant

AND

Northern Power Distribution Company of Telangana Limited,  
H.No.2-5-31/2, Corporate Office,  
Vidyut Bhavan, Nakkalagutta, Warangal 506 001.

... Respondent

The petition came up for hearing 27.01.2015, 13.04.2015, 22.06.2015, 03.08.2015, 25.08.2015, 08.09.2015, 05.06.2017 before the earlier Commission and stood adjourned. It is now posted for virtual hearing through video conference on 18.01.2021, 01.03.2021 and 02.06.2021. There was no representation on behalf of the petitioner on 18.01.2021, 01.03.2021 and 02.06.2021. Sri T.Madhusudhan CGM, TSNPDCL appeared through video conference on 18.01.2021. Sri Mohammad Bande Ali, Law Attaché for respondent has appeared through video conference on 01.03.2021 and 02.06.2021. The matter having been heard and having stood over for consideration to this day, the Commission passed the following:

**ORDER**

This is a Tariff Application filed by the Applicant u/s 62, 64, 86(1)(a) and 86(1)(b) of the Electricity Act, 2003 for determination of tariff for the supply of

electricity generated from 25 MW Geothermal energy by the Applicant to the Respondent and also for providing for adjustments thereto for royalties, electricity duty, income tax and other taxes, etc.

2. In short, the case of the Applicant Company is as under:

- a) The Applicant Company is incorporated under the Companies Act 1956 with the object of generation of electricity. It proposes to set up a 25 MW (4x0.272+8x3) Geothermal based Power Project, a non-conventional and renewable source of energy, at Aswaraopet Mandal of Khammam District. The NEDCAP (Non-Conventional Energy Development Corporation of Andhra Pradesh Limited and at present being TSREDCO - Telangana State Renewable Energy Development Corporation Limited) accorded approval for the proposed project by its Proceedings NEDCAP/Geothermal/2010/2240, dated 15.03.2010, and in pursuant of it an Agreement/MOU was entered on 15.03.2010 in between the NEDCAP and the Applicant to that effect.
- b) Thereafter, a draft Power Purchase Agreement (PPA) in between Applicant and Respondent herein was signed on 24.08.2010 for the supply of electricity generated by the applicant to the respondent and which is to be finalised the Commission. There are no Regulations framed by the Commission for determination of tariff for geothermal based power projects. The principles of tariff determination applicable to conventional power plants or any other non-conventional or renewable energy power plants are not applicable to geothermal based power plants. Since a different methodologies tariff determination and norms have to be considered for a geo thermal based power plant, the Applicant Company constrained to file this application with a request to determine the tariff for the supply of Electricity generated by it to the respondent for the first initial control period of three (3) years from the Commercial Operation Date (COD) @ Rs.6.86 per unit for the 1<sup>st</sup> year, Rs.6.91 per unit for 2<sup>nd</sup> year and Rs.6.89 per unit for 3<sup>rd</sup> year and for ordering for adjustments, royalties, electricity duty, income tax and other taxes to enable the applicant to take further steps for effective implementation of the project and to tie up the financial arrangements. The summary of Tariff Determination parameters submitted by the Applicant are as hereunder:

Sl. No.	Description	Parameter/Norm
1	Installed capacity of the power plant	25 MW
	Date of Commissioning (COD) 1 <sup>st</sup> Stage	About 5 MW - Within 24 months of the financial closure
	Subsequent 2 <sup>nd</sup> Stage	About 20 MW at an interval of 12 months
	Initial Control Period	Three (3) years thereafter as the nature of the project is unique and no indigenous experience of operation and performance of geothermal energy projects.
2	Capital cost of the project	Rs.277.23 crore.
3	Debt Equity ratio	70:30 and requested for consideration of 50:50.
4	Plant Load Factor for tariff determination as per draft PPA	80% of the installed capacity.
5	Auxiliary consumption	9% of generation at full installed capacity. [2.25 MW]
6	Evacuation transmission losses	1% of the Delivered Energy at the interconnection point.
7	Depreciation on the total capital cost on a straight line basis	7.84%
8	Working capital	2 months fixed cost; and 2 months receivables;
9	Interest rate on working capital	12.75%
10	Interest rate on term Loans	12.75%
11	O&M expenditure	At estimate of actuals.
12	Escalation of O&M expenses	7% year-on year.
13	Return on Equity after MAT	20%
14	Royalties, if any	None at present. To be allowed as pass through if applicable in future.
15	Income Tax/MAT	At actuals
16	NEDCAP revenue share	Rs.0.04/unit on 60% PLF till aggregate of Rs.1.3 crore.
17	Electricity Duty	Rs.0.06/unit at present as a pass through allowed; All taxes and duties on electricity to the extra at actuals.
18	<b>Proposed Tariff from COD</b>	
a)	1 <sup>st</sup> year	<b>Rs.6.86/unit</b>
b)	2 <sup>nd</sup> year	<b>Rs.6.91/unit</b>
c)	3 <sup>rd</sup> year	<b>Rs.6.89/unit</b>

3. The NERDCAP (New & Renewable Energy Development Corporation of Andhra Pradesh) submitted its remarks against the notice issued by the Commission

on Geothermal power projects. The comments/remarks of NERDCAP in brief, hereunder:

- a) The Geothermal energy is used for power generation and other non-electrical utilization such as heating, green house cultivation and other possible uses. So far, no geothermal project is established in India. The Ministry of New and Renewable Energy (MNRE), Government of India, framed draft guidelines for implementation of geothermal energy power projects and communicated them to all concerned.
  - b) The then Government of Andhra Pradesh vide letter No.3938/RES/2007-3, dated 22.08.2007 agreed for the proposal of Applicant Company to carry out geothermal exploration study including Geothermal mapping with certain terms and conditions.
  - c) The applicant company has taken up preliminary studies and submitted a techno-economic report. In the month of February 2009, a request was made by the applicant company to set up a 25 MW capacity Geothermal power plant near Mandalapalli Village of Aswaraopet by giving estimation of project cost as Rs.199.40 Crores (Rs.7,976 per MW). An offer to allocate 15% of the power capacity was made to Government as Royalty. The applicant company also made request with the Government for allotment of 100 acres of land.
  - d) The NREDCAP has accorded in-principle clearance and an agreement was entered on 15.03.2010 and as per the agreement the company shall share revenue @ 4 paisa per unit to NREDCAP from the date of COD for a period of 5 years till the revenue shared with NREDCAP reaches Rs.1.30 crore.
  - e) The geothermal exploration involves huge investments and it will be difficult for the applicant company to raise required finances unless reasonable tariff is considered.
4. The Respondent in its reply pleaded the following:
- a) The initial control period may be fixed at ten (10) years and not as three (3) years as sought by applicant company and after ten (10) years the tariff may be reviewed for balance period of Power Purchase Agreement.

- b) The Capital cost of the project is baseless as such no details are furnished to justify the claim.
- c) The debt equity at the percentage of 70:30 has to be considered but not at the rate of 50:50 as requested.
- d) The plant load factor for the purpose of tariff determination at the rate 80% may be considered as requested.
- e) The Auxiliary consumption 9% may be considered as requested.
- f) The depreciation may be considered at 5.83% (as per CERC guidelines in the notification dated 06.02.2012) for the first twelve (12) years and the remaining depreciation may be spread over for the balance period but, not at 7.84% as requested.
- g) The interest on the working capital may considered at 12% but not at 12.75% as requested.
- h) The interest on the term loan may be considered at 12% but not at 12.75% as requested.
- i) The Operation and Maintenance (O&M) expenditure may be adopted as specified in the Regulation of the Commission.
- j) The escalation of O&M charges may be considered at 5.73% but not at 7% as requested.
- k) The return on equity after MAT may considered at 16% but not at 20% as requested.
- l) The Royalties factor as requested for need not be considered.
- m) The Discoms are not liable for MAT.
- n) The NEDCAP revenue share component as requested may not be factored after the advent of the Electricity Act 2003 as such there is no necessity of NEDCAP approval.
- o) The Electricity Duty shall have to be as per the law in force as on date of tariff determination.

p) Unless the Tariff is less than Rs.3.95 per unit, it is not possible for the respondent to deal with.

5. The Applicant filed a rejoinder in the shape of response wherein it has answered in detail to the objections raised by the respondent.

6. The Commission heard. It also examined the material available on record. In this regard the submission of the parties at the time of hearing are as extracted below:

Record of proceedings dated 27.01.2015 [before the predecessor Commission]

*Sri V.G.Sastry, Advocate representing Sri Hanumanth Reddy, Counsel for petitioner and Sri P.Shiva Rao, Counsel for respondent are present. Sri Sastry, sought adjournment of the hearing of the petition as the counsel for the petitioner is out of station. The counsel for respondent stated that he will also be ready by the next date of hearing. Adjourned.*

Record of proceedings dated 13.04.2015 [before the predecessor Commission]

*... .. The counsel for the petitioner filed a revised DPR for the project with a copy to the respondent. The Advocate on instructions from the respondent stated that respondents are in process of engaging him and he needs time to represent the matter before the Commission. Therefore he sought adjournment of the matter. ... ..*

Record of proceedings dated 22.06.2015 [before the predecessor Commission]

*... .. The Advocate representing the counsel for the petitioner sought adjournment of the matter as the counsel is unable to attend hearing due to personal reasons. The counsel for the respondent expressed his inability to be available between 18th July and 30<sup>th</sup> July. The Commission agreed to adjourn the hearing, but made clear that no further adjournment would be granted to the petitioner or the respondents, the parties should be ready with all the facts to submit arguments. ... ..*

Record of proceedings dated 03.08.2015 [before the predecessor Commission]

*Sri Varun, CMD on behalf of the petitioner made a detailed presentation on the working of the Geothermal project. Commission directed the petitioner to make to presentation to DISCOM officials on the working of the project. Commission asked the DISCOM officials to look into the viability of the project especially from the technological stand point and place its views before the Commission by 25.08.2015 without fail, with a copy to the petitioner. ... ..*

Record of proceedings dated 25.08.2015 [before the predecessor Commission]

*... .. Counsel for the petitioner and respondent sought time. ... ..*

Record of proceedings dated 08.09.2015 [before the predecessor Commission]

*... .. The counsel for the petitioner sought adjournment stating that the Advocate on Record is out of station thus not available for hearing, therefore sought adjournment of the hearing. The counsel for the respondent has no objection as he also sought adjournment stating that the licensee has not be briefed about the project as directed by the Commission at the earlier date of hearing. The Commission adjourned the hearing. It also directed the office to send a notice to the petitioner, CMD, NPDC*

and CMD, TNREDC to be present for a presentation on the subject matter by the petitioner on 03.11.2015.

Record of proceedings dated 04.11.2015 [before the predecessor Commission]

... .. The counsel for the petitioner filed a memo stating that the Commission had listened to a presentation by the petitioner's representatives on 03.11.2015. During the discussion time was sought for 4 weeks on details sought by the Commission. Therefore, the matter may be adjourned by 4 weeks. The Counsel for the respondents agreed with the submissions of the petitioner. The Commission adjourned the hearing without any date and informed the counsel that the date of hearing will be intimated after receipt of the information and consideration of the same by the Commission.

Record of proceedings dated 05.06.2017 [before the predecessor Commission]

... .. The advocate for the petitioner stated that the counsel on record is unable to attend the hearing as he is out station. He is not in a position to explain the case and seeks adjournment. On the other hand, the standing counsel expressed a view that the Commission already directed the petitioner to place before it a comprehensive report for undertaking for determination of tariff, which is not done till date. Even otherwise at the rate proposed by the petitioner, the DISCOMs are not inclined to procure the said power. Therefore, the Commission may decide the matter. The Commission having considered the request of the advocate, ... ..

Record of proceedings dated 18.01.2021

CGM, TSNPDCL for respondent ... .. stated that the counter affidavit had been filed earlier and the matter was listed in the year 2017 for the last time. At that time, the counsel for the petitioner was represented by his colleague and he sought adjournment of the matter due to inconvenience in appearing the matter. The Commission directed earlier to file comprehensive report for undertaking determination of tariff, which action was not taken by the petitioner. The project is high cost project and the DISCOM is not inclined to procure the power. As there is no representation for the petitioner, the matter is adjourned. Office to issue specific notice to the petitioner indicating the next date of hearing as 01.03.2021.

Record of proceedings dated 01.03.2021

... .. The representative of the respondent stated that the respondent was under the impression that the petitioner would file a detailed report and that they will submit their arguments in the matter. At this juncture, the Commission pointed out that the petitioner is not represented despite service of notice and the Commission would like to hear the matter on merits. The representative of the respondent sought time to make submissions in the matter. ... ..

Record of proceedings dated 02.06.2021

... .. The representative of the respondent stated that the respondent was under the impression that the petitioner would file a detailed report and that they will submit their arguments in the matter. However, as directed and as represented by him on earlier hearing, he submitted his arguments. It is stated that the price quoted by the generator is very high at the rate of Rs.8.85. Therefore, the coordination committee of the DISCOMs decided not to procure the power. He also stated and explained the earlier sequence of events in the matter. It is his case that the power generated by the petitioner cannot be procured due to high cost. Therefore, the Commission may consider refusing the request of the petitioner. Heard the representative of the respondent ... ..

7. The Commission has made all endeavour to hear the petitioner and sought to render a reasoned decision in the matter. However, from the record of proceedings extracted above, it is noticed that the petitioner neither pursued the matter properly nor there has been any proper representation from the counsel for the petitioner. Owing to repeated absence of the counsel of the petitioner, the Commission is constrained to proceed with the matter on merits.

8. The application was submitted with the request for determining the Tariff for initial control period of three years from the COD at the rate of at Rs.6.86 per unit for the 1<sup>st</sup> year, Rs.6.91 per unit for 2<sup>nd</sup> year and Rs.6.89 per unit for 3<sup>rd</sup> year. Along with the application a draft PPA also submitted which is said to be not finalised and which is going to be finalised in due course. That draft PPA is dated 24.08.2010. As per Article 7 of the draft agreement that, it is enforceable subject to obtaining consent of the Commission. Neither the applicant nor the respondent any where apprised about the Commission approving or consenting for that draft PPA, but a copy of letter dated 30.08.2010 enclosed to the application disclosing about the respondent submitting that initialled draft power purchase agreement to the Commission for according consent. But it is not made clear by either of the parties about the approval and of giving consent to that draft PPA by the Commission.

9. Along with the application, the applicant company submitted a letter dated 25.02.2011 to the Commission with a request for making amendments in the draft PPA dated 24.08.2010. Along with that letter the copy of proposed amendments also submitted. Upon perusal of that copy proposed amendments, it is appearing that several amendments, deletions and additions in the draft PPA dated 24.08.2010 were sought by the applicant company unilaterally. It is not made clear by either of the parties, whether those proposed amendments, additions and deletions in the draft PPA were sought with the understanding of each other's or not. The amendments, additions and deletions sought by Applicant in the draft PPA appearing as major and radical. As per Article 11.2 of the draft PPA that no oral or written modification of the PPA either before or after its execution shall be of any force or effect unless such modification is in writing and signed by the duly authorized representatives of the applicant company and respondent subject to the condition that any further modification of the agreement shall be done only with the prior



approval of the Commission. It is not made clear by the Applicant that whether it has obtained any prior approval of the Commission for making amendments or modification in the draft PPA.

10. During the pendency of application on 26.03.2015, the applicant company submitted an Interim Application to determine the tariff at revised rates on the premise that there is cost escalation due to delay in the implementation of the project. A request is made in that interim application for determining the tariff at the rate of Rs.8.86 per unit for 1st year, Rs.8.86 per unit for 2<sup>nd</sup> year and the rate of Rs.8.75 per unit for the 3<sup>rd</sup> year. The Section 64(2) of the Electricity Act 2003 mandates for publication of the application made under Section 62 of the Act for Tariff determination by a generating company for calling objections and suggestions from public. It is appearing that, the applicant company has not taken out any such publication of the revised tariff and the respondent not submitted reply to the request of Applicant for determination of tariff at revised rates.

11. It is appearing that, the proposed project of the applicant company is at initial stage. Permission was accorded by the then Government to carry out geothermal exploration and after conducting the exploration the applicant company submitted a report to the Government. The applicant company making a request with the Government for allotment of 100 acres of Government land to set up the project. It is not made clear whether the Government by considering that request allotted or not any land. The applicant has not made clear as to how it is going to meet such huge financial commitment and about any subsidy to the proposed project by the Government.

12. It is noticed from the record that the petitioner sought determination tariff under the provisions of the Act, 2003 in this petition. However, the representative of the respondents submitted that the respondent is not inclined to procure the power at such a high cost as it would be a burden on the consumers of the State and therefore also the licensee in the State are refraining from procuring such high cost power.

13. Be that as it may as a regulator the Commission notices that the status of project is not clear. Absence of the details from the petitioner about the status of the project do not enthuse the Commission from considering the case favourably.

14. At the same time the Commission also is conscious of the fact it's a new technology and is a renewable source of energy, but alas the petitioner has not been able to make out case due to lack of representation.

15. In the circumstances explained and but for non-prosecution of the matter by the petitioner, the Commission is not inclined to entertain the petition. Accordingly, the same along with its interim application is dismissed. No costs.

***This order is corrected and signed on this the 25<sup>th</sup> day of June, 2021.***

**Sd/-**  
(BANDARU KRISHNAIAH)  
MEMBER

**Sd/-**  
(M.D.MANO HAR RAJU)  
MEMBER

**Sd/-**  
(T.SRIRANGA RAO)  
CHAIRMAN

**// CERTIFIED COPY //**