

**BEFORE THE GUJARAT ELECTRICITY REGULATORY
COMMISSION AHMADABAD**

FILING NO.
CASE NO. 1024 of 2010

IN THE MATTER OF:

**PETITION FOR FIXATION OF TARIFF FOR TWO SMALL
HYDRO POWER PROJECTS OF 3 MW AND 2.6 MW AT DAMAN
GANGA DAM/ MADHUBAN RESERVOIR UNDER SECTION 62
READ WITH SECTION 86(1) (A) OF THE ELECTRICITY ACT,
2003**

AND

IN THE MATTER OF:

M/s Tarini Infrastructure Ltd. **...Petitioner**

Versus

Gujarat Urja Vikas Nigam Ltd. & Ors. **...Respondents**

**CONSOLIDATED RECORD OF THE TARIFF PETITION, IN
TERMS OF THE ORDER DATED 04.05.2017 OF THE HON'BLE
COMMISSION**

MOST RESPECTFULLY SHOWETH:

1. The Petitioner, M/s Tarini Infrastructure Ltd., is a Company incorporated under the Companies Act, 1956 and is having its registered office at D-2, 1st Floor, Amar Colony, Lajpat Nagar, New Delhi 110024. The Petitioner Company is involved in the development of small and medium hydroelectricity projects in India. The Petitioner filed the

present petition on 13.05.2010, seeking determination of tariff for sale of power by the Petitioner from its two Small Hydro Power Projects of 3MW (2X1.5) MW and 2.6MW(1X2.6) MW at Madhuban Dam to GUVNL.

2. It is most respectfully submitted that the tariff for the aforesaid two small hydro projects, has to be determined by this Hon'ble Commission in line with the judgment passed by the Hon'ble Supreme Court on 05.07.2016 in Civil Appeal Nos. 5875 of 2012 and the judgment passed by the Hon'ble Appellate Tribunal for Electricity in Appeal No. 29 of 2011 on 31.05.2012.
3. The Petitioner has already placed on record all relevant and necessary details and documents for determination of tariff for its two small hydro projects. However, in line with the directions issued by this Hon'ble Commission by its order dated 04.05.2017, the Petitioner is filing the accompanying consolidated convenience volume and craves to reiterate the following facts for determination of tariff:
 - a. In 2005 the Government of Gujarat issued a policy for promoting the development of small/ mini/ micro hydel projects in Gujarat in terms of the said policy and the power situation in Gujarat, the Narmada Water Resources (a statutory body of the Government of Gujarat) i.e. Respondent No. 2 for the first time called for the bids from private parties for building Small Hydro Power Generation Project in river Daman Ganga at Madhuban reservoir, which

is about 35 Km from Vapi in Vaisad District. The Daman Ganga Dam is a major irrigation Project across river Daman Ganga in the State of Gujarat. The Concession Agreement for development of the Small Hydro Projects, was to be awarded on Build Operate and Own (BOO) basis.

- b. The Petitioner participated in the bid process for taking up the development of the Small Hydro Power Project on the river Daman Ganga. The Petitioner upon being declared as the successful bidder under the swiss challenge route, was awarded the Concession for building two Small Hydro Power Projects of 3 MW (2 X 1500 KW) and 2.6 MW (1 X 2600 KW) at Daman Ganga/ Madhuban Reservoir by Narmada Water Resources (the "Projects"). The Power plants are at a distance of 1 Km from each other and were to be connected to the nearest substation of Gujarat Electricity Board (who is the predecessor in interest of GUVNL) ("GEB"), which according to the tender document was less than 4 Kms from the Dam. Accordingly, the concession Agreement was entered into by the Narmada Water Resources and the Petitioner on August 27, 2007. In terms of the DPR, the Projects were to be completed within 24 months from the date of the start of the Project.
- c. The Petitioner in terms of the Concession Agreement submitted a Detailed Project Report ("DPR") for the development of the two Small Hydro Power Projects of 3MW (2X1500KW) and 2.6 MW(1X2600KW). In terms of the DPR

the two Power Houses to be constructed by the Petitioner were capable of generating energy from the installed capacity of 3MW and 2.6MW. The power can be stepped up to 11/33 KV level at the switchyard of the generating station for further evacuation of the same to the nearest 66KV substation at Rakholi (about 4 Kms from the proposed powerhouse site) previously owned by GEB. This is relevant because later the interconnection point was changed by GETCO. As a result of the same the Petitioner had to draw the transmission line for 23 Kms.

- d. In terms of the Concession Agreement, the Narmada Water Resources by way of long term lease provided the project Site. Use of water to generate power and exclusive right to develop, design, finance, construct and complete the projects and maintain the same. Further, the Projects were to be transferred to the Narmada Water Resources at the end of the Concession Period i.e. 35 years from the date of the signing of the Concession Agreement. Land for the projects has been provided on lease for a period of 35 years by the Irrigation Department and the lease charges has to be paid to the Irrigation Department by the Petitioner. Further, the Petitioner was required to pay the Narmada Water Resources a license fee of 0.23 paise per unit of the electricity produced and transmitted to the interconnection point.
- e. The Petitioner in the DPR for the Projects gave the total cost estimate without including the Interest During Construction (IDC) as follows:

SMALL HYDRO PROJECT 3000KW (SHP-1)

S. No.	Description	SHP-1 (Rs In Lakhs)
1.	Civil Works (including Hydro-Mechanical Works)	301
2.	Electro-Mechanical Works	1351.00
3.	Transmission Works	40.00
	Total	1692

SMAL HYDRO PROJECT 2600 KW (SHP-2)

S.No.	Description	SHP-2 (Rs In Lakhs)
1.	Civil Works (including Hydro-Mechanical Works)	417.00
2.	Electro-Mechanical Works	1026.00
	Total	1443.00

- f. In terms of the Concession Agreement, the Petitioner can use the power generated for captive consumption or can sell the same to Gujarat Electricity Boards or its successors. Accordingly, the Petitioner entered into provisional power purchase Agreements (PPA's) dated January 29, 2008 with Gujarat Urja Vikas Migam Limited ("GUVNL"). The Petitioner agreed to sell the contracted capacity i.e. 3 MW and 2.6MW to GUVNL for a period of 35 years.
- g. In terms of the PPA's, the Petitioner was to construct the projects, including the interconnection facility at its own cost.

In the bid documents as well as the Concession Agreement, the interconnection point was at a distance of 4Kms from the generating station. The DPR was also prepared on this basis. The maintenance of the interconnection facility is at the cost of the Petitioner. In terms of the Tender Document the power was to be evacuated from the nearest erstwhile GEB 11/66KV substation at Rakholi in Dadar and Nagar Haveli. The substation at Rakholi was 4Kms from the switchyard of the Petitioner. The transmission line from the delivery Point in the plant switch yard to the Sub station of Gujarat Electricity Transmission Company was to be constructed at the cost of the Petitioner.

- h. Subsequently, the Petitioner was informed by Gujarat Electricity Transmission Company i.e. Respondent No. 3, who after conducting system for evacuation of that the power from the SHP I and SHP II. That power could no longer be evacuated from Rakholi in Dadar and Nagar Haveli as the distribution in the Union Territory was no longer under the Gujarat Electricity Board or any of its successors. For connecting the delivery point of the Petitioner to the Gujarat Grid the Petitioner had to now lay down a transmission line 66Kv double circuit line for 23 Kms (instead of 11.22Kv line for 4Kms in the DPR) passing through the Union territory of Dadar and Nagar Haveli and then connecting to substation at Mota Pondha in Gujarat. The cost of laying down this 23 Kms transmission line, which was estimated to be around Rs. 8.5 Crores, transmission line was to be borne by the Petitioner. The Petitioner for laying down this transmission facility for

evacuating power from the SHP I and SHP II was to coordinate with GETCO and finalize the evacuation arrangement including appropriate sub-station. Therefore, the increase on account of evacuation of power was at Rs. 10 Crores.

- i. The Petitioner in terms of the Concession Agreement commenced the construction of the Projects on November 24, 2007. The preliminary completion certificate was requested by Petitioner on August 25, 2009. Thereafter, after tests the Independent Engineer issued the Competition Certificate in terms of the Concession Agreement for the Projects on February 25, 2010.
- j. In order to enable commissioning of the project and evacuation of power the Petitioner under duress agreed to lay down the dedicated 66KVDC transmission line for 23 Kms so as to connect to the substation of GETCO at Mota Pondha. On approaching GETCO, the Petitioner was given the option that either they could lay down the lines on their own after paying supervision charges of Rs. 97,76,000/- to GETCO or they could get the same done through GETCO at a cost of Rs. 7 Crores. The Petitioner in order to economize the works and ensure timely completion, under duress opted to the lay down of the transmission lines for evacuating power from the delivery point to the transmission network of GETCO, under the supervision of GETCO. In terms of the agreement between the Petitioner and GETCO all the work of laying down the transmission line and sub-station was carried out

by the Petitioner under the supervision of GETCO for which the Petitioner was to pay the supervision charges of Rs. 97,76,000/- in three instalments.

- k. Accordingly, the Petitioner carried out the work for laying down the transmission facility for evacuating power from the generating station to the Grid at the cost of Rs 10 Crores. The land was also acquired by the Petitioner at its own cost for erecting towers and stringing the transmission lines for 24 Kms through Dadar and Nagar Haveli to Mota Pondha sub-station in Gujarat.
- l. The Petitioner filed the present petition seeking determination of tariff applicable to the Projects. This Hon'ble Commission by an order dated 03.09.2010 disposed of the present petition and held that the Commission had decided tariff for the electricity generated by Small, Mini, Micro Hydel projects in the State vide Order dated 14.6.2007 in Petition No.853/2005 based on the Government Policy and considering the submissions made by the parties. As the Petitioner and GUVNL executed the Power Purchase Agreement dated 29.01.2008 and agreed on the tariff provided in the Commission's order, therefore, there is no compelling reason to modify the tariff determined by the Commission, and hence the argument of the petitioner in this respect is not sustainable.
- m. The present Petitioner filed an appeal against the aforesaid order dated 03.09.2010, before the Hon'ble Appellate Tribunal for Electricity, being Appeal No. 29 of 2011. The

Hon'ble Tribunal by an order dated 31.05.2012 was pleased to allow the appeal and direct this Hon'ble Commission to determine tariff for the Petitioner's small hydro power projects in accordance with the provisions of the Electricity Act, 2003. Certain relevant extracts of the judgment are reproduced hereunder for convenience:

"25. The facts and circumstances of the case and the analysis rendered above impel us to hold that the Commission was not justified in holding that since the PPA is a concluded agreement between the parties redetermination of the tariff sought by the petitioner is not permissible. The Commission itself admits that the Commission had not considered various components of tariff submitted by the appellant. The Commission overlooked the fact that the DPR was submitted and approved in line with the bid document and after approval of the DPR the system study report prepared by the GETCO revealed that the distance between the dam site and the sub-station of the GETCO was a distance of 24.5 kms. Clause 5.4 of the Concession Agreement does not appear to have any relevancy and moreover though Rakholi sub-station was not specifically mentioned in the bid document, it was specifically mentioned in the bid document that the nearest sub-station of the GEB was less than 4 kms. from the dam site. Therefore, the appellant cannot be attributed with any evil design in averring that it was not revealed to it that it has to lay down a transmission line to 24 kms. from the dam site. GETCO's report is dated 5.9.2008 which is more than a year after the approval of the DPR and eight months after the signing of the PPA. When the DPR was approved by the Government, there

is no point in saying that it was the duty of the project developer to verify the correctness of the bid documents data. The observation of the Commission that the appellant having availed itself of the facilities offered by the grantor cannot be allowed to escape from the obligations is misplaced because there is before us no question of finding any escape route from the Concession Agreement or from the PPA. What is being emphasized upon is re-examination of the PPA in the light of the data and materials which were not before the parties to the agreement while coming to the fixation of purchase price and which the Commission did not at all go through. There was thus no occasion on the part of the Commission to examine and scrutinize the PPA and formally, though under the law required, it was not approved by the Commission. Therefore, there is no question at the moment of granting open access to the appellant in the matter of sale of electrical energy to third parties. The only course that appears to be legally permissible is examining the PPA since it has not been visited at all by the Commission under the law in the light of the materials furnished by the appellant. While saying so, we do not say for the moment as to whether the data furnished by the appellant before the Commission would justify its prayer for increase of tariff. We do not say for the moment that the data furnished by the appellant is beyond reproach. We do not suggest for the moment that the tariff in respect of the renewable source of energy supplied by the appellant should be at a particular price. What we mean to say is that the tariff fixation being the function of the Commission under the Act, the Commission should determine the tariff in case upon

examination of the materials, it comes to find that the price fixation agreed to by and between the parties would require intervention of the Commission. Thus, what is being stressed upon is the necessary examination of the materials upon which it is the Commission that reserves to itself the jurisdiction to pass order in accordance with the Law.

26. The very thesis of the Commission that the Power Purchase Agreement was executed containing the tariff on the basis of the Commission's own order dtd. 14.6.2007 which remained un-assailed is open to criticism. It is the Commission's own finding in the Impugned Order that it followed the MNRE guidelines which were issued sometime in the year of 2002. What were the guidelines and how the guidelines were arrived at are not known. The pivotal point is that after the Electricity Act, 2003 came into being w.e.f. 10.6.2003 prior to which MNRE guidelines are said to have been issued some time in the year of 2002, the determination of tariff has to be made in accordance with the Act, 2003. After the enactment of Electricity Act, 2003, the Commission's power to determine tariff is guided by the Act itself. Section 61 of the Act mandates promotion of co-generation and generation of electricity from renewable resource of energy. Therefore, the determination of tariff pursuant to the provision of the Electricity Act, 2003 has to be such as to promote generation of electricity from renewable resource of energy. The Commission's observations that it did not go into the details of capital costs etc. makes its order vulnerable. Therefore, simply because of the fact that Power Purchase Agreement was executed voluntarily and

in accordance with the generic tariff order of 2007, it cannot be said that the Power Purchase Agreement becomes sacrosanct on that account. It is not a question of fleeing away from the Power Purchase Agreement. It is not a question of contract being impossible to perform because of frustration. The question is the question of jurisdiction namely whether a Power Purchase Agreement based on a generic tariff order which is again based on some non-statutory MNRE guidelines has to be regarded as valid and lawful for all time to come and in perpetually even after the enactment of the Act, 2003. Determination of tariff has to be made in accordance with the provision thereof and there is no question of determination of tariff under some guidelines having no force of law. If the generic tariff had been made strictly in accordance with the provisions of the Act, then the position might have been a different one but here in the Impugned Order itself, the Commission has expressly stated that in the present case the Commission has decided the generic tariff based on the Government policy and MNRE guidelines and has not gone into the question of capital cost. Once, the Act came into force with effect from 10.6.2003, there is no question of following MNRE guidelines.. Herein lies the heart of the situation.

...

28. Reading between the lines of Section 86 (1) (b), it appears that a Power Purchase Agreement does not by itself, make it binding on parties unless it gets approved up examination by the Commission. The Section 86 does not make a qualitative distinction between the determination of tariff by the Commission itself and determination through regulation of the price at

which electricity should be procured from the generation companies through Power Purchase Agreement. Necessarily, the price agreed to by and between the parties must follow the principles and provisions of the law and where the price agreed or to arrived at the Power Purchase Agreement is not in consonance with the law but on the basis of some guidelines, the details of which are not known it is not too much to demand that the Power Purchase Agreement should be revisited within the terms of the principles laid down in the Act not in terms of the guidelines on the basis of which a general order was passed which again was not based on any State Regulation. What is more important is that the Power Purchase Agreement was not placed jointly by the parties for approval. In such circumstances, the fundamental principle that it is in the interest of encouragement and giving incentive to the co-generators that the Power Purchase Agreements could be modified upon revisit becomes of paramount importance.

29. To summarize: The Bid Document is dated 9.11.2006 and the Concession Agreement is dated 27.8.2007, while the DPR was submitted in July,2007. This is one aspect of the matter. The Power Purchase Agreement was executed on 29.1.2008, while the report and the letter of GETCO is dated 5.9.2008 so that at the time of finalisation of the Power Purchase Agreement the subsequent materials and developments could not be considered by the parties. After the enactment of the Electricity Act,2003 there is no scope of framing by the Commission generic tariff on the basis of pre-Act,2003 guidelines which hardly carries any force of law. The Power Purchase Agreement has to be subordinated to the

Act,2003. If the Power Purchase Agreement is not in conformity with the Act,2003 then it loses its legal force. This is the broad principle which every statutory authority has to regard. The Commission has statutory power to examine, review and approve the Power Purchase Agreement. The Commission has itself noted in the impugned order that it did not examine the aspect of capital cost. What exactly were the MNRE guidelines are not known and in the impugned order the Commission does not explain it. The principles for determination of tariff as laid down in section 61 cannot be sacrificed even when parties go through Power Purchase Agreement. A Power Purchase Agreement based on MNRE guidelines, particularly in relation to generation through renewable sources of energy, and not after the principles laid down in the law are liable to be reopened and re- examined. The Power Purchase Agreement has not been approved upon examination earlier by the Commission. The provision of Section - 86 (1) has not been complied with so far. In Rithwik Energy Systems case, which we have already noted, it has been held that it is the bounden duty of the Commission to incentivize the generation of energy through renewable sources of energy. Power Purchase Agreements' can be reopened only for the purpose of giving thrust to non-conventional energy projects and not for curtailing the incentive.

30. Accordingly, we allow the appeal, set aside the Impugned Order and remand the matter back to the Commission for examination upon hearing the parties and perusal of the materials of the question as to what should be the tariff in case it upon examination of the data come to find that

there is good reason to be in variance with the PPA. No costs."

(underline supplied)

- n. GUVNL filed an appeal being Civil Appeal No. 5875 of 2012 before the Hon'ble Supreme Court against the aforesaid order dated 31.05.2012 passed by the Hon'ble Appellate Tribunal in Appeal No. 29 of 2011. The Hon'ble Supreme Court by its judgement dated 05.07.2016 dismissed Civil Appeal Nos. 5875 of 2012 and affirmed the order dated 31.05.2012 passed by the Hon'ble Appellate Tribunal in Appeal No. 29 of 2011. Certain relevant extracts of the Hon'ble Apex Court's judgment are reproduced hereunder for convenience:

"1. Is the tariff fixed under a PPA (Power Purchase Agreement) sacrosanct and inviolable and beyond review and correction by the State Electricity Regulatory Commission which is the statutory authority for fixation of tariff under the Electricity Act, 2003 (hereinafter for short 'the Act'). This is the short question that arises for determination in the present appeals. The Regulatory Commission did not consider it appropriate to confer on itself the said power upon a construction of the provisions of the Act and the terms of the PPA(s) in question. The Appellate Tribunal disagreed and held that the power would be available to the State Regulatory Commission. This is how the matter has come up before us in the present appeals filed at the instance of the distribution licensee which is common in both the cases, namely, Gujarat Urja Vikas Nigam Limited.

...

4. The learned Appellate Tribunal by the impugned orders overruled the view taken by the State Regulatory Commission on a consideration of the provisions of the Act and the terms and conditions of the PPA(s). The above view of the learned Appellate Tribunal is primarily based on the reasoning that under the Act it is the State Regulatory Commission which has been statutorily vested with the power to determine the tariff and that the tariff as may be fixed and incorporated in the PPA between the distribution licensee and the power producer is liable to be reviewed in the light of changes in the circumstances of a given case.

...

10. While Section 61 of the Act lays down the principles for determination of tariff, Section 62 of the Act deals with the different kinds of tariffs/charges to be fixed. Section 64 enumerates the manner in which determination of tariff is required to be made by the Commission. On the other hand Section 86 which deals with the functions of the Commission reiterates determination of tariff to be one of the primary functions of the Commission which determination includes, as noticed above, a regulatory power with regard to purchase and procurement of electricity from generating companies by entering into PPA(s). The power of tariff determination/fixation undoubtedly is statutory and that has been the view of this Court expressed in paragraphs 36 and 64 of *Transmission Corporation of Andhra Pradesh v.*

Sai Renewable Power Pvt. Ltd. (supra). This, of course, is subject to determination of price of power in open access (Section 42) or in the case of open bidding (Section 63). In the present case, admittedly, the tariff incorporated in the PPA between the generating company and the distribution licensee is the tariff fixed by the State Regulatory Commission in exercise of its statutory powers. In such a situation it is not possible to hold that the tariff agreed by and between the parties, though finds mention in a contractual context, is the result of an act of volition of the parties which can, in no case, be altered except by mutual consent. Rather, it is a determination made in the exercise of statutory powers which got incorporated in a mutual agreement between the two parties involved.

...

16. All the above would suggest that in view of Section 86(1) (b) the Court must lean in favour of flexibility and not read inviolability in terms of the PPA insofar as the tariff stipulated therein as approved by the Commission is concerned. It would be a sound principle of interpretation to confer such a power if public interest dictated by the surrounding events and circumstances require a review of the tariff. The facts of the present case, as elaborately noted at the threshold of the present opinion, would suggest that the Court must lean in favour of such a view also having due regard to the provisions of Sections 14 and 21 of the General Clauses Act, 1898.

...

19. In view of the above, the appeals are dismissed and the orders dated 31.05.2012 and 02.12.2013 of the Appellate Tribunal are affirmed. In the facts and circumstances of the case, the parties are left to bear their own costs.

(Underline Supplied)

- o. A bare perusal of the aforesaid paragraphs reveals that the Hon'ble Tribunal in Appeal No. 29 of 2011 has laid down the following principles of law to be borne in mind, while determining the tariff of the Petitioner's projects:
- a) the concept of generic tariff not based on the principles laid down in the Electricity Act, 2003 but based on some guidelines does not find any place in the Act and the generic tariff order dated 14.06.2007 was issued by this Hon'ble Commission even before the Petitioner participated in the bid and was declared as a successful bidder and was granted Concession;
 - b) Power Purchase Agreement has to be subordinated to the law;
 - c) tariff to be agreed upon by the parties in the Power Purchase Agreement has to conform to the provision of section 61 of the Act;
 - d) in terms of the Electricity Act, 2003 it is a statutory obligation on the part of the Commission to examine the Power Purchase Agreement and ensure that the Power Purchase Agreement has taken into consideration all the components of tariff and it does duly take note of the provisions of section 61 and the National Tariff Policy;
 - e) the MNRE guidelines have no force of law;

- f) admittedly the component of Capital Cost was not considered;
- g) the consequence of stretching a line of 26 kms instead of 4 kms. was not reflected in the Power Purchase Agreement nor was it considered by the Commission;
- h) it has been the consistent position that the non-conventional energy projects have to be encouraged and incentivized; and
- i) that Power Purchase Agreement can be reopened, re-examined, reviewed to ensure justice.
- p. This Hon'ble Commission while determining tariff for the Petitioner's projects has to bear in mind the principles contained in Section 61 along with the fact that non-conventional energy projects have to be encouraged and incentivized. The Petitioner, in line with the cost-plus principle contained in the Electricity Act, 2003, filed the present petition on 13.05.2010. In the original petition, the Petitioner provided the breakup of the costs incurred towards civil works, electro-mechanical works and transmission works for the two projects, till the time of filing of the petition. The power plants, however, became commercially operational in August 2010. At the cost of repetition, the table is being reproduced hereunder for convenience:

S.No.	Description	SHP-I (Rs. In Lakhs)
1.	Civil Works (including Hydro-Mechanical works)	1000
2.	Electro- mechanical works	1200

3.	Transmission works	500
	Total	2700

S.No.	Description	SHP-II (Rs. In Lakhs)
1.	Civil Works (including Hydro-Mechanical works)	1000
2.	Electro- mechanical works	1600
3.	Transmission works	500
	Total	3400

- q. The increase in cost of the Project was due to the following reasons:

	Cost in DPR	Actual Cost Incurred	Difference
Power Evacuation	Rs 1.5Cr	Rs 9.8Cr	Rs 8.3Cr
Customs and taxes	Rs 2 Cr	Rs 6Cr	Rs 4Cr
IDC to bank	Rs 1.8Cr	Rs 5.5Cr	Rs 3.7Cr
Forex Diff Due to Currency Fluctuation	Rs 19Cr	Rs 25Cr	Rs 6Cr
Steel	Rs 80Cr	Rs 1.5Cr	Rs 70 Cr
Concrete 8000 Cubic Mtr	Rs 2.4Cr	Rs 4Cr	Rs 1.6Cr
Under water works due to Old Dam	NA	Rs 80Cr	Rs 80Cr

GETCO	NA	Rs 98Cr	Rs 60Cr
Addition equip cost Plus fuel cost	NA	Rs 1.30Cr	Rs 1.30Cr
Increase in Total Cost		Rs 34.	Rs 27 Crores

r. The Petitioner has been compelled to incur additional expenditure, substantially higher than the costs estimated in the DPR, on account of *inter alia*, the following reasons:

A. Damanganga SHP I - 3MW (2X1.5) MW at Madhuban Dam

- i. Damanganga Dam/ Madhuban Dam is a masonry cum earthen dam, which is over 40 years old. The Petitioner incurred a cost of approximately Rs. 80 Lakhs towards additional water works such as safe removal of 35 years old gates from the body of the Dam in order to clear the waterway from the reservoir for facilitating the project.
- ii. Apart from the removal of the gates, the powerhouse building (22.5m x 10m) constructed for this project is a unique structure of about 24m height from the deepest foundation level, fully compact and water tight, designed to submerge in the water taking into consideration the highest flood levels in the region. The walls of the power house building are 1 m thick concrete (specification M30) all the way till the top from zero level in order to withstand the water during high floods. The power house is designed on rock bed foundation keeping in mind the 50 years high flood. The approach to the power house is from the top (EL. 61.26m) and descends at generator floor level at (EL. 44.5m)

housing 2 generating units (vertical Kaplan) of 1.5MW each. The roof top is specially designed with sliding arrangement.

It is relevant to point out that in normal circumstances a power house is 4/5m high from the floor level, whereas in case of Damanganga SHP I due to high floods, the structure is about 24M high. The Petitioner had to undertake an additional cost of Rs. 3.5 crores on civil works for this power house building.

B. Damanganga SHP II - 2.6MW(1X2.6) MW at Right Bank Head Race Canal

- i. In case of Damanganga SHP II, the Government of Gujarat vide a letter/order dated 10/06/2013 directed the Petitioner to insert a steel line of diameter 2.5m throughout its 110m concrete box shaped duct with diameter 2.7m. This additional work was not envisaged in the approved project report and was a post completion demand by the government. This additional work required highly skilled manpower for fabrication of the steel plates into designated sizes for inserting through the duct and then welding it piece by piece inside the constrained space in order to achieve the 110m length steel pipe. Due to seepage from the body of the duct, the work was carried out in continuous running water beneath, with specialized water welding tools which had to be sourced from South Africa. Special air vents were also provided to create an exit passage for the toxic fumes emitting due to the welding. Further, highly water proof lighting arrangement was done in order to create conducive working conditions inside the 110m long duct.

This additional post completion work, as demanded by the Government of Gujarat, led to an additional cost of Rs. 3 crores.

C. Power Evacuation Arrangement- Damanganga SHP I and Damanganga SHP – II

The Petitioner had to incur an additional cost of approximately Rs. 10 crores to lay down the 66Kv d/c 23km transmission line for power evacuation from the two plants all the way to the end substation owned by the Government of Gujarat against the originally envisaged 4km transmission line with 11 KV single circuit was envisaged, as proposed in the tender document.

- D. Apart from the above, the Petitioner is also incurring a cost of 0.23 paise per unit (kwh) payable to Govt. of Gujarat as royalty.

- s. Apart from the aforesaid, it may also be relevant to point out that while the DPR was submitted in 2007, the wholesale price index in 2011 was as follows:

Item	Price Index 2007	Price Index 2011	% Change
AIEEMA	117.7	126.4	7.39%
Wires and cables	159.2	170.2	6.70%
Steel	124.13	139	11.97%
Cement	135.39	154.43	14.06%
Foreign Exchange Rate Rupee/ Euro	55.33/euro	68/euro on date of payment of imported machinery of (16.01.2009)	22.89%

- t. There has been a steep escalation in the cost of the Projects from Rs. 35 Crores to Rs. 62 Crores. There is an added liability of Rs 27 Crores since the submission of the DPR's. The cost of power that has been agreed to by the parties in the PPA's at Rs. 3.29 per KWH for the year 2007-2008 subject to escalation of 3% per annum till the Commercial Operation date, however, does not take into account the increased cost of the Projects. Also, from the tariff, the

Petitioner is required to pay 23p/unit as license fee. Therefore, the effective tariff is much lower. There has been an escalation of about 78% in the estimated total cost given in the DPR and the total cost as it stands on date. The increased cost is *inter alia* due to the steep increase in the cost of the steel cement and custom duty paid towards importing the hydro turbines generators and the construction of 23 Kms of Transmission lines and several under water works and fluctuations in the foreign currency during recession. It is also pertinent to mention herein that the project was being built during global recession.

In view of the aforesaid facts and submissions, it is most respectfully prayed that this Hon'ble Commission may graciously be pleased to determine the tariff of the Damanganga SHP I and SHP II @Rs 5.74/- + Rs. 0.23/-, with carrying cost and release arrears as per revised tariff (difference) for last seven years as per the SLDC's statement of injected power into the grid.

THROUGH

**HEMANT SINGH/ SHIKHA OHRI /MATRUGUPTA
MISHRA
ADVOCATES FOR THE PETITIONER**

**PRAXIS COUNSEL
ADVOCATES AND SOLICITORS,
C-250, Ground & LGF
Defence Colony,
New Delhi – 110024
PHONE: 011 – 43552390-91
E-mail: desk@praxiscounsel.com**

PLACE: New Delhi

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