

**BEFORE THE KERALA STATE ELECTRICITY REGULATORY
COMMISSION**

C.V.Raman Pillai Road, Vellayambalam, Thiruvananthapuram-695010

Filing No.

Case No.

In the matter of determination of Compensatory Tariff for rehabilitation of Iruttukanam Small Hydel Power Project Stage I (2 X 1.5) MW and Stage II (1 X 1.5) MW destroyed in the Maha Pralayam on the 9th August and 14th August 2018.

Petitioner : Viyyat Power Private Limited,

Viyyat Kausthubham,

Kariyavattom P .O,Trivandrum 695581,

Represented by Director and Chairperson S Syamala Nair

(Alias Sumati Syamaladevi Nair)

Respondent

1) The Secretary,

Kerala State Electricity Board,

Vydyuthi Bhavanam, Pattom,

Trivandrum-695004

2) State of Kerala represented by Chief Secretary,
Secretariat, Thiruvananthapuram.

3) Principal Secretary,

Power Department,

Government of Kerala, Secretariat

Trivandrum - 695001.

4) The Director, Energy Management Centre,

Sreekrishna Nagar, Sreekariyam,

Trivandrum - 695017.

PETITION FILED UNDER RULE 24 AND 25 OF THE
KSERC(CONDUCT OF BUSINESS) REGULATIONS.

The Petitioner most humbly submits as follows:-

1. Thirteen SHP (Small Hydel Power) projects were allotted by Kerala Government in 2004 based on public tender; 5 projects in CPP (Captive Power Producers) category and 8 projects in IPP (Independent Power Producers) category. The Petitioner is the allottee of Iruttukanam (2 X 1.5) MW SHP project in the IPP category (Later on this project is known as Iruttukanam Stage I). 69 months were given to allottees to complete and commission the project. The allotment letter No. Go (MS) No. 16/04/PD dated 21.06.2004 is attached as **Exhibit – 1.**

2. The Implementation Agreement (IA) was signed by and between the Petitioner and Government of Kerala represented by the Principal Secretary on 10.12.2004 and the scheduled date of commissioning was thus 10.09.2010. The copy of IA is attached as **Exhibit – 2.**

3. After protracted discussions and meetings with KSEBL and hearings with Kerala State Electricity Regulatory Commission the Power Purchase Agreement (PPA) was approved by the Hon'ble Kerala State Electricity Regulatory Commission on 15.12.2006 and thereafter by the Government of Kerala on 02.06.2007 and the PPA was signed by and between Kerala State Electricity Board and the Petitioner on 07.06.2007, 2½ years (30 Months) after signing the Implementation Agreement (IA) The copy of Power Purchase Agreement is attached as **Exhibit – 3.**

4. **Iruttukanam 3 MW Project is the first project in Kerala registered as CDM (Clean Development Mechanism) Project with United Nations Framework Convention for Climate Change (UNFCCC);** registered on 21.03.2008 as project No. 1514 after, the Host Country Approval on 04.06.2007 from the Director (CC) Ministry of Environment & Forest Government of India. Copies of the Host Country Approval and registration document with UNFCCC are attached as **Exhibit No. 4 and 5** respectively.

5. In spite of 11 Court cases, eight in lower courts and two in High Court and one in Supreme Court, and intermittent stoppage of work due to court intervention for almost an year, the Petitioner could complete and commission the project almost on time on 18.09.2010. **Incidentally, till today, even after 15**

years of allotment, Iruttukanam 3 MW is the only project commissioned and connected with the grid, out of the whole lot of 13 SHP projects allotted by the Govt. in 2004.

6. Immensely pleased, the Govt allotted an expansion project of (1 X 1.5) MW to the Petitioner as Iruttukanam Stage II vide Govt. order No. GO (Rt) No. 117/2011/PD dated 25.05.2011 (**Exhibit - 6**). The Supplementary Implementation Agreement (SIA) was signed by and between the Govt represented by the Secretary, Power Department and the Petitioner on 22.09.2011 (Copy attached as **Exhibit - 7**). As per SIA and IA the Govt. allowed 36 months from the date of financial closure to complete and commission the project. The financial closure was reached with SBI on 08.11.2011 and hence the contractual completion and commissioning date was on 07.11.2014.

7. With meticulous planning and achievement motivated approach, the Petitioner completed and commissioned and connected the Stage II project with the grid on 04.04.2012 and obtained COD on 10.04.2012, two and half years ahead of scheduled commissioning date.

8. Vide Kerala State Electricity Regulatory Commission Order dated September 30, 2011 (Copy attached as **Exhibit - 8**) the Petitioner was given the then prevailing Tariff of Rs. 2.94/unit with a complicated administration formula. Thereafter the preferential tariff of Rs. 2.94/unit was changed to a generic tariff of Rs. 4.88/unit by the Hon'ble Kerala State Electricity Regulatory Commission on **01.01.2013**. The generic tariff was made applicable for all projects commissioned during the control period from 01.01.2013 to 31.03.2014. From 01.04.2014 to 31.03.2015 the generic tariff was again changed back dated to Rs. 5.25/unit as per Notification No. 442/CT/2015/KSERC dated 11.11.2015. As mentioned in para 4 above the contractual commissioning date of Stage II project was 07.11.2014 and if only the petitioner had completed and commissioned the project as per schedule on 07.11.2014 as specified by the Govt, the Petitioner would have got a generic tariff of Rs. 4.88 / unit instead of Rs. 2.94 / unit Petitioner's Original Petition seeking change in the tariff as applicable as per notification dated 01.01.2013 was not admitted by the Hon'ble Kerala State Electricity Regulatory Commission terming it as a Revision Petition. The Appellate also dismissed the appeal on the ground that the Appellant cannot

take advantage of a “Subsequent” Tariff Order. **It is unfortunate for the Petitioner that the Appellate did not think for a moment that the Tariff Order of Kerala State Electricity Regulatory Commission dated 01.01.2013 would not have become “Subsequent” had the Petitioner completed the project as per Govt. specified schedule on 07.11.2014.** Further, the Hon’ble KSERC’s tariff order dated 11.11.2015 which is a “subsequent” order was made applicable for projects commissioned in the control period starting 01.04.2015. Normally, a good and fast performer who complete a project earlier than scheduled gets awards, rewards and recognition for completing a project ahead of schedule. But unfortunately here a good performer, instead of getting awards, rewards and recognition, got beating and condemnation for completing a project ahead of schedule. Petitioner’s appeal is taken on file by the Hon’ble Supreme Court on 03.03.2014 and is pending with the Hon’ble Apex Court for the last 5 years for an order.

9. It is humbly submitted that while there is a signed PPA for Stage I (2 X 1.5) MW project there is no signed PPA for Stage II (1 X 1.5) MW Project (pending decision of the Hon’ble Supreme Court).

10. Both Stage I and Stage II had been operating smoothly very well until the land slide disaster (Urul Pottal) of the Maha Pralayam occurred on 09.08.2018 and 14.08.2018. Stage I and Stage II Power Stations have generated and supplied to Kerala State Electricity Board Limited a total of 169,539,000 Kwh units of electricity mostly at a tariff of Rs. 2.70 / unit much below APPC rate which enabled KSEBL to earn an extra profit of more than Rs. 9 Crores [(APPC – 2.70) X 169,539,000 = Rs. 9.16 Crores]

11. The petitioner has informed all concerned as per Implementation Agreement (IA) and Power Purchase Agreement (PPA) on this Force Majeure disaster on 11.08.2018. Two such letters, one addressed to Principal Secretary, Power Govt. of Kerala and another addressed to Chief Engineer (Corporate Planning) KSEBL are attached as **Exhibit No. 9 and 10** respectively.

12. The Petitioner has also informed the Insurance Company. M/s SBI General Insurance Company Limited who has promptly appointed an Insurance Surveyor Mr. Venugopala Pillai who also accompanied the Petitioner when the Petitioner first visited the site after the disaster on 13.08.2018.

13. A comparison of the Power House after the first disaster on 09.08.2018 is attached as **Exhibit - 11**.

14. Some of the Photographs after second disaster on 14.08.2018 are attached as **Exhibit – 12**.

15. Copies of our appeal submitted to the Hon'ble Chief Minister and Hon'ble Minister for Electricity are attached as **Exhibit – 13 and 14** respectively.

16. Copies of our representations submitted to the Hon'ble Chairman, KSEBL and to the Chief Secretary Govt. of Kerala and to the Power Secretary, Govt. of Kerala are attached as **Exhibit – 15, 16(b) and 16(a)** respectively.

17. The Hon'ble Minister for Electricity Sri. M M Mani visited our devastated Power House filled with 28 to 30 feet of Boulders, Mud and Earth on 04.09.2019.

18. The Disaster

(i) A heavy landslide occurred at about 1:00 AM at the upper strata (Penstock side) of the Power House on 09.08.2018. The mud rock and debris came down and hit the Power House, causing collapse of wall and serious damage to panels and generating equipment. The office, control room, switchgear room and battery room are completely destroyed and the equipments were thrown over the turbine and generator. The turbine generator hall was covered with mud, rock and debris, 28 to 30 feet high.

(ii) This has caused total loss of the Control Room Structure and associated equipment such as

- Turbine Governor - all units
- AVR – all units
- Relay Panels – all units
- Synchronizing Panel – all units
- Generator Control Panel – all units
- Turbine Control Panel – all units
- Line Protection and Metering Panels of Stage I and Stage II

Total loss of Battery room structure, Batteries and battery charging Equipment of all units

Total loss of Breaker room structure and Equipments there of all the units.

Loss of Office Equipment and Power House documents.

The Turbine – Generator hall 20 feet deep is full of mud debris and water.

The Power House structure has also suffered serious damages.

Switchyard retaining wall is fully damaged.

The retaining walls in the tailrace side is also damaged.

(iii) A further huge landslide occurred on intervening night between Aug 14 and 15. This landslide appears to be more severe and smashed the remaining portion of the office building and caused breakage of beams. The Turbine Generator hall got over filled with boulders rock and soil to a height of 28 – 30 feet. Power House structure also suffered further damages.

(iv) The area was totally isolated and traffic was allowed only after 20.08.2018 by the Police. Even after that, vehicular access to the Power House was not possible since both the roads to the Power House are damaged heavily. The road from Anaviratti is blocked due to the washing out of the bridge in the small river and the road from Mankadavu is blocked due to caving in of the banks of Western Kallar River and also caving in of the road itself in some portion. No vehicles or earth moving equipments could be transported to Power House initially. Hence the removal of debris of landslide was carried out manually and it was a very slow process. Further problems were encountered in the removing of the debris from the Turbine Generator hall since the mud is in semi fluid condition due to the seepage of water from the wall and the mud cannot support the weight of the workers. Special movable platforms are to be used for the workers to stand and remove the mud. Removing debris without further damaging the machinery was a herculean task. Finally all the debris were removed and the turbine and generator were washed from outside.

(v) The station was inspected by the expert engineers of Energy Management Centre, Ravikumar Associates and Kumar Group for Civil works and the specialist engineers of original equipment manufacturers of Flovel Energy Private Limited and TD Power Systems Ltd for Electrical and Mechanical Equipments.

(vi) After detailed study and discussion with the consultant engineers the following decisions were taken to rehabilitate the station.

(vii) Civil Works

- a) The totally damaged control room, switchgear room, battery room etc. located in the penstock side of power house will be shifted to the tailrace side above the tailrace and located at EL 587.575. This will be constructed using fabricated steel supports, outer wall panel with Ecco boards and inner panel board with laminated water proof MDF panels. The floors will be of 1.25 mm tick deck plates with micro concrete.
- b) The D. G Set room will be repaired and detained and, toilet and the auxiliary transformers will be shifted to the Unit No. III side of the power house and will be located at EL 583.3.
- c) The four nos beams which are heavily damaged will be demolished and recast.
- d) The damaged portions of the 2 columns and crane beam shall be repaired using Hilti Bolts and 12 mm MS Plates.
- e) The damaged RR masonry wall off the switchyard will be replaced with RCC wall.
- f) All damaged retaining wall in the power house and dam area will be removed and new retaining wall constructed.
- g) To eliminate the possibility of further landslide an RCC wall will be constructed below the top portion where the landslide started.
- h) Another RCC wall will be constructed at bottom of Anchor 4 to protect the power house.
- i) Suitable terracing will be carried out in between the RCC protection walls.
- j) A RCC guard wall will be constructed at the side of the switchyard road for additional protection of the power house.
- k) To arrest the seepage of water wherever required holes will be drilled and pressure grouting carried out in the walls of Turbine Generator Hall.
- l) New Plastering and Flooring will be carried out in the power house building.

(viii) Power House Machinery and Equipments

- a) The following completely damaged equipments will be replaced by new equipments.

A	Balance of Plant (BOP)	
1	Lube Oil System	3 Nos.
2	AVR	3 Nos.
3	Oil Pressure System	3 Nos.
4	Oil for OPS	3 Lot
5	Cooling Water System	2 Lot
6	Drainage & De-watering System	2 Lot
B		
1	Digital Microprocessor Based Governor mounted in Turbine Auxiliary Governor Control Panel (TAGP)	3 Nos.
2	LAVT Panel (3.3 kV)	3 Nos.
3	Neutral Grounding Transformer Panel	3 Nos.
4	3.3kV Panel Board with Bus Section Breaker	1 Lot
5	Generator Control, Metering and Protection Panel	3Nos.
6	Transformer. Line Control, Metering and Protection Panel	2 No
7	415 V Station Auxiliary Distribution Board along with AMF Control Cubicle	1 No
8	Battery Charger & DCDB	1 Lot
9	110V, 350 AH Battery Bank	1 Lot
C	Power & Control Cables, Cable Supporting Trays, Glands, Jointing Kits	
1	Power Cable	2 Lot
2	Control Cables	2 Lot
3	Instrumentation Cables	2 Lot
4	Cable Trays & Accessories	2 Lot
5	Cable Accessories	2 Lot
6	Cable Jointing/Termination kits	2 Lot
7	Illumination system and Emergency Lighting for Place of installation	2 Lot
8	Ventilation System & Air Conditioning Equipment	2 Lot
9	Fire Extinguishers	1 Set

b) The following items of turbine and inlet valve which are damaged will be replaced

SL.	Turbine and Butterfly Valve	
1	All Electrical Equipment (Limit Switches, Transducers) for Turbine	3 Set
2	Bushes for Turbine	3 set
3	Maintenance Tools and Tackles	1 Set
4	Generator Side Turbine End Cover	1 No.
5	Labyrinth	1 No.
6	Shaft Seal	1 No.
7	Rubber Gaskets, Seals and O Chords for Turbine	3 Set
8	Recommended Spares for the Turbine	1 Lot
9	Special Tools	1 Set
10	Butterfly Valve Seals	3 Set
11	Bypass valve along with complete Piping	1 Set

b) The generator was taken to the works of the manufacturer at Bengaluru where the generator was dismantled cleaned and thoroughly inspected. The final conclusion of the manufacturer is attached below.

“Normally, the life of the generator we design and manufacture is 25 years. Also, these machines are expected to run non-stop during season. By analyzing the status of the damaged machines, it is impossible to rectify and use any part of the generator. Hence we strongly recommend the customer to go for new generators“

Taking into consideration the recommendation of the manufacturer it was decided to replace all three generators with new generators.

19. Orders were placed for all the new equipments except generators to the original plant suppliers M/s Flovel Energy Pvt Ltd, Faridabad and the order for 3 Nos 1.5 MW generators were placed on original manufacturers M/s TD Power Systems Ltd, Bengaluru, for all deliveries of new equipment to be completed in March, April and May 2019.

20. The Insurance Company, M/s SBI General Insurance Company Limited, helped the Petitioner to rehabilitate the Power Project as fast as possible by giving us adhoc payments as under:

Rs. 1.00 Crore on 28.08.2018

Rs. 2.00 Crore on 07.12.2018

Rs. 2.00 Crore on 07.03.2019

21. The Petitioner's Bankers, State Bank of India, Commercial Branch, Thiruvananthapuram, has sanctioned a term loan of Rs. 7.00 Crore for rehabilitation of the Power Project.

22. The internal resources of the Petitioner Company was also found very handy in the rehabilitation work.

23. With the unstinted cooperation of the Govt. of Kerala, KSEBL, Energy Management Centre, our consultants, suppliers and contractors and above all our dedicated employees the rehabilitation of the Power Project was completed as under

Rehabilitation completed and units synchronized with KSEBL grid on

Stage I	Unit 1	27.06.2019
Stage I	Unit 2	28.06.2019
Stage II	Unit 3	08.07.2019

Thus, before the first anniversary of the Maha Pralayam the Power Project is put back on full stream with the KSEBL grid. The Petitioner salute all the concerned for their unstinted help and cooperation to achieve this herculean task in a record time of 10 months. The Power Station is working very well and has generated more than 4 million units as on 15.08.2019. With new generators and control equipments the project is equivalent to a new project.

24. As on 11.01.2019 the total cost of rehabilitation was estimated by the Petitioner as Rs. 20,55,66,545.00 which is expected to be shared by the Petitioner and the Insurance Company as below.

Petitioner	Insurance Company	Total
Rs.	Rs.	Rs.
12,51,35,548.00	8,04,30,997.00	20,55,66,545.00

Copy of Petitioner's letter No. S/VPPL/PS/PDN/10338 dated 11.01.2019 addressed to the Hon'ble Power Secretary, Govt. of Kerala is attached herewith as **Exhibit – 17**. Vide this letter, the Petitioner mentioned the details of expenses and losses and requested for an extension of BOOT period by 15 years.

25. On 25.01.2019 vide letter No. S/VPPL/KSEB/PDN/10350 addressed to the Hon'ble Chairman KSEBL (Copy attached as **Exhibit – 18**) the petitioner submitted the estimated total cost of rehabilitation as Rs. 20,55,66,545.00 and requested KSEBL's help for refixation of Tariff after rehabilitation based on the new additional investment. On this matter KSEBL advised us vide KSEBL's letter No. CML-EE2-AEE-2/VPPL-SHEP/2018-19/CE (C&T)/453 dated 13.02.2019 (Copy of the letter is attached as **Exhibit - 19**) that, "with the enactment of Electricity Act 2003, tariff fixation, as well as refixation is within the purview of KSERC and KSEBL does not have authority to decide on your request". Accordingly, the Petitioner is humbly submitting this petition before the Hon'ble Commission.

26. In this connection, the Petitioner also humbly request the kind attention of the Hon'ble Commission to a previous case of Meenvallom Small Hydro Project where the Hon'ble Commission had occasion to refix the tariff, in spite of the fact that a signed PPA was existing between the concerned parties. The case in hand is briefly as under.

OP No. 5 of 2014

Petitioner : The Chairman, Palakkad Small Hydro Co. Ltd,

Respondent : KSEB Ltd.

Order Dated 12.01.2015 (Copy Attached as **Exhibit - 20**)

Here, the PPA was signed on 23.01.2007 almost 4½ months before the signing of PPA of Iruttukanam SHP (Stage I). The Hon'ble Commission after hearing gave an order to revise the tariff to Rs. 4.88/Kwh and to get consent from the Govt. of Kerala and KSEBL.

27. It is further humbly submitted that in the matter of Adani Power Limited Vs. Uttar Haryana Bijli Vidyut Nigam Limited and others, Petition No. 155/MP/2012, Hon'ble Central Electricity Regulatory Commission (CERC) took a pragmatic view of a force majeure situation arising out of the enactment of new

coal pricing Regulations by Indonesian Government, issued an order dated 21.02.2014 introducing the concept of **Compensatory Tariff** on already concluded and signed PPAs. Copy of the relevant order dated 21.02.2014 of the Hon'ble CERC is attached here as **Exhibit No. 21**. The Petitioner prays that a similar "Compensatory Tariff", commensurate with the direct losses and the new additional investment made by the Petitioner to make good and rehabilitate the power project may kindly be granted. The tariff of both Stage I and stage II are much below the APPC of KSEBL.

28. The actual expenses incurred and the new investments made and the generation losses suffered till rehabilitation are all now accurately available and are submitted in the following paragraphs. These expenses are supported by actual invoices and are audited by our Chartered Accountants M/s Sankaran & Sekaran for submission before the Hon'ble Commission. Nevertheless, if the Hon'ble Commission so desires copies of the these invoices can be submitted before the Hon'ble Commission for verification / approval.

29. A. Cost of expenses for making good the damages to Power House Building and other Civil Works

SLNo	Description	Amount (Rs.)	Details
1	Cost of removal of Mud, Boulders and Soil from the Power House (More than 5500 cubic M)	61,35,219.00	Annexure – A1
2	Cost of Consulting Engineers	8,39,000.00	Annexure- A2
3	Cost of Civil Construction for the purpose of re-instatement of building to Original position	1,70,79,961.25	Annexure – A3
4	Cost of materials required for replacement for the civil work construction	14,12,468.00	Annexure – A4
	Sub Total	2,54,66,648.25	

B. Cost of Dismantling / Repairs/replacement of Mechanical Equipment

SL No	Description	Amount (Rs.)	Details
1	Cost of dismantling, cleaning, overhauling of equipment	9,44,000.00	Annexure – A5
2	Cost of mechanical equipment required for replacement.	2,13,912.00	Annexure – A6
3	Cost of Electro mechanical equipment required for repairs / replacement.	4,53,220.00	Annexure – A7
4	Cost of Consumables	5,77,731.00	Annexure – A8
	Sub Total	21,88,863.00	

C. Cost of Replacement of Electro-Mechanical Equipment.

SL No	Description	Amount (Rs.)	Details
1	Cost of Electro-mechanical equipment required for replacement.	8,47,89,412.80	Annexure – A9
2	Cost of Erection and Commissioning of Electro Mechanical Equipment.	31,27,000.00	Annexure – A10
3	Cost of Erection Engineers for Supervision of erection, testing and commissioning.	20,85,983.00	Annexure – A11
4	Transportation Cost:	6,34,092.00	Annexure – A12

5	Charges for unloading of Electro-mechanical equipment, shifting to store & further shifting from storage area to erection site.	8,47,100.00	Annexure – A13
	Sub Total	9,14,83,587.80	

D. Cost of civil structure and terracing for protection of Power House against future not applicable for insurance claim.

Sl No.	Description	Vendor Name	Invoice	Date	Price
1	Construction of Protection wall near to Hill Top	TNR Contractions and Developers	001/2019-20	18.04.2019	14,53,028.00
2	Construction of Protection wall near to Hill Top	TNR Contractions and Developers	003/2019-20	06.06.2019	1,50,172.00
3	Construction of Protection wall near tower location	TNR Contractions and Developers	004/2019-20	24.06.2019	1,87,455.00
4	Construction of Protection wall near to tower location	TNR Contractions and Developers	006/2019-20	24.06.2019	5,17,740.00
5	Construction of Protection wall down the hill near to Power House	TNR Contractions and Developers	A2	15.01.2019	12,11,611.67
6	Construction of Protection wall down the hill near to Power House	TNR Contractions and Developers	A7	02.11.2018	2,37,203.90
7	Construction of Protection wall down the hill near to Power House	TNR Contractions and Developers	8	27.07.2019	2,34,526.18
8	Labour charges for terracing and protection work	Viyyat Power Pvt Ltd	Cash Vouchers	16.08.2018 to 31.03.2019	10,93,077.00
9	Labour charges for terracing and protection work	Viyyat Power Pvt Ltd	Cash Vouchers	01.04.2019 to 31.07.2019	5,00,000.00
		Total			55,84,813.75

E. The loss of generation revenue in the rehabilitation period of 326 days (from 09.08.2018 to 01.07.2019) is calculated below based on 3 consecutive years average.

Actual Energy Generation and Income from Generation from 09th August to 01st July (* Mean Re-commissioning Date) in the previous 3 years and its average				
Sl No.	Year	Period	Stage I & Stage II (Kwh)	Gross Income Amount (Rs)
1	2015 - 2016	09.08.2015 to 01.07.2016	19712094	5,43,81,800.00
2	2016- 2017	09.08.2016 to 01.07.2017	13339409	3,61,05,783.00
3	2017 - 2018	09.08.2017 to 01.07.2018	20926109	5,77,31,404.00
4	Total		53977612	14,82,18,987.00
5	Yearly Average for last 3 years from 9th August to 1st July = (Sl No. 4) ÷ 3		17992537.33	4,94,06,329.00
* Note: Calculation of Mean Re-commissioning Date				
	Generating Unit	Date		
	Stage I Unit 1	27.06.2019		
	Stage I Unit 2	28.06.2019		
	Stage II Unit 3	08.07.2019		
	Mean Re-commissioning Date 01.07.2019			

Note: The Salaries and Establishment charges for the rehabilitation period are not considered here as additional expenses, as the same are supposed to be met from the (loss of) generation revenue considered in E above

F. Cost of modernization

As a modernization attempt and facilitate remote sensing and data acquisition for KSEBL Load Dispatch Centre the Petitioner has decided to add SCADA equipment in the Power House at cost of Rs. 28,04,270/-. A copy of Petitioners order for SCADA is attached as **Exhibit – 22**.

30. The Petitioner has the following insurance policies in position at the time of the disaster.

a. SBI General's "Standard Fire & Special Perils Insurance" policy.

PolicyNo. 0000000007461558

b. SBI General's "Burglary Insurance" Policy. **Policy No.**

0000000005246234-01

c. SBI General's "Machinery Breakdown" Insurance Policy. **Policy No.**

0000000001359442-04

d. SBI General's Public Liability Insurance Policy. **Policy No.**

0000000002313885-03

e. SBI General's "Employee Compensation Insurance" Policy. **Policy**

No. 0000000002234088-03

For Standard Fire & Special Perils Insurance policy the amount insured were as under

Buildings (Civil Work)	Rs. 8,50,00,000.00
Equipment	<u>Rs. 14,62,00,000.00</u>
Total	<u>Rs. 23,12,00,000.00</u>

Copies of the insurance policies are attached as **Exhibit – (23,24,25,26&27)**

31. Out of the 5 policies only (a) Standard Fire & Special Perils Insurance policy is triggered (There is no loss of life or injury to people). As against the insured value of Rs. 23,12,00,000.00 the payable amount by the insurance company, was actually worked out by the insurance surveyor as Rs. 7,09,50,313.00.

32. The total cost to be shared with Insurance Company.

A+ B+C = Rs. 2,54,66,648.25 + 21,88,863.00 + 9,14,83,587.80

= Rs. 11,91,39,099.05

Share of Insurance Company Rs. 7,09,50,313.00

Share of the Petitioner (Balance) Say 'G' = Rs. 4,81,88,786.05

33. The loss of generation and total investment of the Petitioner

$$\begin{aligned} G+D+E+F &= \text{Rs. } 4,81,88,786.05 + \\ &\text{Rs. } 55,84,813.75 \\ &\text{Rs. } 4,94,06,329.00 \\ &\underline{\text{Rs. } 28,04,270.00} \\ &= \underline{\text{Rs. } 10,59,84,198.80} \end{aligned}$$

34. Government has appointed a high power committee on 02.03.2019 consisting of Joint Secretary, Power Department Govt. of Kerala, Chief Engineer (Generation) KSEBL, Chief Engineer (Civil Construction - South) KSEBL, Director EMC to conduct a site inspection to assess the damages at the project site of Iruttukanam SHP and suggest measures for rehabilitation. The committee visited the site on 15.03.2019 and made recommendations to the Govt. while KSEBL's findings and recommendations were submitted to the Govt. Director EMC's findings and recommendations were submitted to the Govt vide letter No. EMC/SHP/2018/A7/PD3/19 dated 22.05.2019 under a copy to the Petitioner for taking necessary action. The findings and recommendations of EMC are

Quote ".....it is understood that the project was subjected to heavy damages / destructions owing to the floods. In view of this point, it is suggested that Government may take a favorable stance for supporting M/s Viyyat Power (Pvt) Ltd who has satisfactorily fed about 170 MU to KSEBL grid from 2010 – 2018 for the benefit of the State of Kerala.

M/s Viyyat Power Pvt Ltd is seeking changes in the existing terms of Implementation Agreement (IA) & Power Purchase Agreement (PPA) with respect to BOOT period & Tariff and since the IA has been executed between the Generator and Government and the same is an inherent part of PPA,

Government may take suitable decisions in line with the clauses that deals with matters related to damages incurred to the projects due to Force Majeure events, as detailed below.

Clause 13.5 of PPA provides that if the Company is the aggrieved party in case of Force Majeure event, Article 6.5 of IA shall apply which states that “if a Force Majeure event which is a Non-political event continues or is in the reasonable judgment of the parties likely to continue beyond a period of 120 days, the parties may mutually decide to terminate this agreement or continue this agreement on mutually agreed terms. If the parties are unable to reach an agreement in this regard, the affected party shall after the expiry of the said period of 120 days, be entitled to approach the government to terminate this agreement”

Pursuant to the above clause, M/s Viyyat Power (Pvt) Ltd, has decided not to abandon the project in spite of the Force Majeure conditions extending well beyond 120 days. Also, they are on track to finish the rectification works and re-commission both Stage I (2 X 1.5) MW and Stage II (1 X 1.5) MW by June 2019. They had requested Government to arrive at an agreement for extension to the BOOT period considering the merit of the situation. Government may kindly take up this request as it is a genuine case.

Tariff revision is in the purview of KSERC but Government recommendations for the case is required to open the issue. A similar case in history is the 3 MW Meenvallom SHP by Palakkad Small Hydro Company Ltd promoted by Palakkad District Panchayat, wherein a petition was taken up for hearing by KSERC based on the direction of Government and upon completion of hearing, a revision was effected by KSERC is enclosed for perusal. Considering the existent power shortage in the State of Kerala, this project has been highly beneficial to the state grid by satisfactorily feeding power since 2010. In view of this, Government may kindly forward a recommendation to KSERC.....”

Unquote

35. At present Iruttukanam project has a total catchment area of 75.00 Sq. Km. KSEB is constructing a project called Sengulam Augmentation Scheme (SAS) in the upstream side of the Iruttukanam Project in the Kallar River. SAS consists of a dam at a place called Kallar and a 'D' Shaped tunnel of 3.5 m dia and approximately 8 Km long diverting water from the upstream side of the Kallar River to Sengulam Reservoir to augment the power generation of existing Sengulam Power House of KSEB. As per the approved Techno Economic Feasibility Report (TEFR) also called DPR, SAS has a catchment area of 53.50 Sq. Km and Iruttukanam has the balance of 21.45 Sq Km (Copy of approval letter and relevant pages of TEFR attached as **Exhibit - 28**). Construction of SAS has started in 2008 and is in progress for the last 12 years and when SAS is completed it will divert water from 53.50 Sq. Km of the catchment to Sengulam Reservoir and Iruttukanam will have water from the catchment are of only 21.45 Sq. Km downstream of the SAS dam. Hence after the completion of SAS water availability and consequently the power generation of Iruttukanam SHP will be reduced in the ratio of $21.45 \div 75 \times 100$ percent (= 28.60%) of what it is now.
36. The actual energy generation in the last 3 years, before the disaster, is given below.

<u>Year</u>	<u>Energy Generation</u>
2015 – 2016	24.83 MU
2016 – 2017	19.11 MU
<u>2017 – 2018</u>	<u>23.56 MU</u>
<u>Total</u>	<u>67.50 MU</u>

$$\begin{aligned} \text{Average Yearly Generation} &= 67.50 \div 3 \\ &= 22.50 \text{ MU} \end{aligned}$$

37. **Water availability and corresponding generation from Iruttukanam SHP after completion of SAS.**

a) Prorata $= 28.60 \div 100 \times 22.50 = 6.45 \text{ MU}$

b) Additional generation during over flow period of 71 days

(i) Two additional Units $= \frac{2 \times 36000^* \times 34}{10^6} = 2.448 \text{ MU}$
operation for 34 days at full load

*** Note:** One 1500 KW generator operating at full load for 24 hours a day will generate $24 \times 1500 = 36000 \text{ KWh}$ unit.

ii) Two additional units operating one at Full Load and the other at half full load for 17 days = $\frac{1.5 \times 36000 \times 17}{10^6}$ = 0.918 MU

iii) One additional Unit operating at full load for 15 days = $\frac{1 \times 36000 \times 15}{10^6}$ = 0.54 MU

iv) One additional Unit operating at half full load for 5 days = $\frac{36000 \times 0.5 \times 5}{10^6}$ = 0.09 MU

Sub Total= (i)+(ii)+(iii)+(iv) = 2.448 + 0.918 + 0.54 + 0.09 = 3.996 MU
Say 4.00 MU

Therefore, Total Annual Generation = 6.45 + 4.00 = **10.45 MU**

38. As per PPA Article 8 (Exhibit - 3), the tariff reduces from Rs. 2.70/ KWh unit to Rs. 2.07/KWh unit w.e.f 03.09.2022. Further, after completion of SAS the Annual Generation reduces from 225 Lakh units to 104.5 Lakh units.

- Hence after completion of SAS, and change of tariff w.e.f 03.09.2022 the annual income from Iruttukanam SHP reduces from **Rs. 607.50 Lakh** (225 X 2.70) to **Rs. 216.32 Lakh** (104.50 X 2.07).

39. As per 2017 – 2018 Balance sheet (Full operational year before disaster) the O & M expenses are reproduced below. (Copy of the Balance sheet of 2017 – 2018 is attached as **Exhibit - 29**)

Salaries - 77,51,093.00

Maintenance and Other Establishment Expenses - 74,10,240.00

Total O & M Expenses - 1,51,61,333.00

40. Allowing 5.72 % escalation as per KSERC norm (Notification No. 442/CT/2015/KSERC Dated 02.11.2017) the O & M Expenses for the next 10 years are as under

Year	O & M Expenses (Rs. Lakh)	
2017 – 2018	151.61 (Actual)	
2018 – 2019	160.28	
2019 – 2020	169.45	
2020 – 2021	179.14	
2021 – 2022	189.39	
2022 – 2023	200.22	Expected Annual Income Rs. Lakhs
2023 – 2024	211.68	216.32
2024 - 2025	223.78	216.32
2025 – 2026	236.58	216.32
2026 – 2027	250.11	216.32
2027 – 2028	264.42	216.32
2028 - 2029	279.54	216.32

After 2023 – 2024 the income is less than the O & M Expenses.

41. From the above (Para - 40) it is clear that unless suitable compensatory tariff; as prayed for, is granted by the Hon'ble Commission; the Company will not be able to meet and fulfil its following obligations.

- A) Interest on term loan
- B) Repayment of term loan
- C) Depreciation
- D) Income Tax (for repayment of loan)
- E) Return on Equity

It is humbly submitted further that, since the Petitioner is now supplying all the generated energy to KSEB at a tariff much below the APPC (Average Pooled Purchase Cost) KSEB also stand to gain immensely if the Petitioner is granted Compensatory Tariff, as KSEB will not be then called upon purchase equal measure of energy from other sources at a much higher cost equal to or higher than APPC.

42. In the light of the above facts the petitioner prays as follows

Prayer

Considering the fact that the Petitioner has rehabilitated the power project Stage I & II against heavy odds in a record time of 322 days after the disaster, with almost all new equipments including new generators by spending an additional investment of Rs. 10,59,84,198.80 over and above the insurance cover benefit of Rs. 7,09,50,313.00 the Petitioner humbly prays for the following.

- i) The Hon'ble Commission may be pleased to pass on order granting an additional "Compensatory Tariff" for Stage I and Stage II, commensurate with the new investment made by the Petitioner as done by the Hon'ble CERC in Order dated 21.02.2014 in the case of Petition No. 155/MP/2012 of Adani Power Limited Vs. Uttar Haryana Bijli Vidyut Nigam Limited and Others.
- ii) Any other Order the Hon'ble Commission may be pleased to deem fit considering the fact that the tariff of Iruttukanam Stage I and Stage II of the Petitioner as existing before the disaster, are much below the APPC of KSEBL and if the Petitioner had abandoned the project after the disaster, KSEBL has to purchase the same measure of power from elsewhere at the rate above APPC.

A new CD incorporating all corrections and Supplementary Statement is attached.

Petitioner

Viyyat Power Pvt. Ltd

By Director & Chairperson

S. Syamala Nair

Adv. C.K. Vidyasagar

List of Exhibits

1. Exhibit – 1 Copy of Allotment Letter No. Go (MS) No. 16/04/PD dated 21.06.2004
2. Exhibit – 2 Copy of Implementation Agreement (IA) signed on 10.12.2004.
3. Exhibit – 3 Power Purchase Agreement (PPA) signed on 07.06.2007.
4. Exhibit – 4 Copy of Host Country Approval dated 04.06.2007.
5. Exhibit – 5 Copy of registration certificate with UNFCCC Registration dated 21.03.2008.
6. Exhibit – 6 Copy of Govt. order No. GO (Rt) No. 117/2011/PD dated 25.05.2011
7. Exhibit – 7 Copy of Supplementary Implementation Agreement (SIA) signed on 22.09.2011.
8. Exhibit – 8 Copy of Order of Kerala State Electricity Regulatory Commission dated September 30, 2011.
9. Exhibit – 9 Copy of Letter No. S/VPPL/GOK-PS (P)/PDN/9972 dated 11.08.2018 addressed to The Principal Secretary (Power), Govt. of Kerala.
10. Exhibit – 10 Copy of Letter No. S/VPPL/KSEBL-CE/PDN/9978 dated 11.08.2018 addressed to Chief Engineer (Corporate Planning), KSEBL.
11. Exhibit – 11 A pictorial comparison of the power house after the first disaster on 09.08.2018.
12. Exhibit – 12 Some of the photographs of the Power House after the second disaster on the night of 14 / 15.08.2019
13. Exhibit – 13 Copy of Petitioner's appeal No. S/VPPL/CM-Kerala/PDN/10032 dated 07.09.2018 Addressed to the Hon'ble Chief Minister, Govt. of Kerala.
14. Exhibit – 14 Copy of Petitioner's appeal No. S/VPPL/CM-Kerala/PDN/10056 dated 07.09.2018 addressed to the Hon'ble Minister for Electricity, Govt. of Kerala.
15. Exhibit – 15 Copy of Petitioner's representation No. S/VPPL/KSEB/PDN/10062 dated 07.09.2018 addressed to Chairman, KSEBL.
16. Exhibit – 16(a) Copy of Petitioner's representation No. S/VPPL/Sec-Power/PDN/10044 dated 07.09.2018 addressed to Power Secretary, Govt of Kerala.

17. Exhibit – 16 (b) Copy of Petitioner’s representation No. S/VPPL/Sec-Power/PDN/10038 dated 07.09.2018 addressed to Chief Secretary, Govt of Kerala.
18. Exhibit – 17 Copy of Petitioner’s representation No. S/VPPL/PS/PDN/10338 dated 11.01.2019 addressed to Power Secretary, Govt of Kerala.
19. Exhibit – 18 Copy of Petitioners letter No. S/VPPL/KSEB/PDN/10350 dated 25.01.2019 addressed to the Hon’ble Chairman KSEBL
20. Exhibit – 19 Copy of KSEBL’s letter No. CML-EE2-AEE-2/VPPL-SHEP/2018- 19/CE (C&T)/453 dated 13.02.2019.
21. Exhibit – 20 Copy of Order dated 12.01.2015 of KSERC.
22. Exhibit – 21 Copy of the order dated 21.02.2014 of the Hon’ble CERC
23. Exhibit – 22 Petitioners Order No. S/VPPL/FEPL/PDN/10656 dated 26.07.2019 for SCADA Equipment.
24. Exhibit – 23 SBI General’s “Standard Fire & Special Perils Insurance” policy. Policy No. 0000000007461558
25. Exhibit – 24 SBI General’s “Burglary Insurance” Policy. Policy No. 0000000005246234-01
26. Exhibit – 25 SBI General’s “Machinery Breakdown” Insurance Policy. Policy No. 0000000001359442-04
27. Exhibit – 26 SBI General’s Public Liability Insurance Policy. Policy No. 0000000002313885-03
28. Exhibit – 27 SBI General’s “Employee Compensation Insurance” Policy. Policy No. 0000000002234088-03
29. Exhibit – 28 Copy of Approval Letter and Relevant Pages of TEFR
30. Exhibit – 29 Copy of the Balance sheet of 2017 – 2018