

KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

Present : **Shri. Preman Dinaraj, Chairman**
Shri. S. Venugopal, Member
Shri. K. Vikraman Nair, Member

Petition No. OP 12/2017

In the matter of : Application for the approval of capital investment plan of Technopark for the financial year 2017-18.

Petitioner : Electronics Technology Parks – Kerala (Technopark) Park Centre, Technopark Campus, Thiruvananthapuram - 695581

Petitioner represented by : Shri. Einstein.E.V, Deputy Manager (Electrical)
Shri. Viswanathan N, Asst. Manager (Finance)

KSEBL represented by : Shri. Mohan Kumar, Dy.CE, Transmission circle, Thiruvananthapuram.
Shri. E Mohammed, EE, Transmission Division, Thiruvananthapuram.
Smt. Meharunnisa, EE, TRAC, KSEBL.
Shri. Manoj.G, AEE, TRAC, KSEBL.

Order dated 13.11.2019

1. M/s Technopark is an autonomous society fully owned by Government of Kerala registered under the Travancore Cochin Literary, Scientific and Charitable Societies Registration Act, 1955, established for developing necessary basic infrastructure for facilitating IT and IT enabled industries in the State of Kerala. Since its inception in 1990, the Government of Kerala has granted permission to M/s Technopark for re-distribution of Electricity within their area by creating necessary distribution infrastructure, by purchasing power from KSEB Ltd. M/s Technopark has been creating necessary infrastructure including distribution structure with the Government grants. The main income for them is the rent collected from the IT companies, who were utilizing the facilities created by them.
2. M/s Technopark on 15.09.2017 filed a petition before the Commission for approval of capital investment plan for the year 2017-18 with a total investment of Rs 102.30 Crore. The Commission conducted the hearing on the petition on 21.12.2017. During the hearing, the Commission clarified to the petitioner that, for a proper appraisal of the investment plan, Commission

required additional information and directed the petitioner M/s Technopark to submit the revised application with necessary and sufficient details, with appropriate documents and response to the following queries:

- (1) Whether the proposed capital investment is necessary to discharge the duties and obligation of the distribution licensee as per the Electricity Act, 2003 and rules and Regulations made there under?
 - (2) Whether the proposed capital investment is in line with such provisions, Rules and Regulations?
 - (3) Whether the proposed capital investment and its quantum is necessary and appropriate to set-up the proposed infrastructure?
 1. To strengthen the system to meet the normal load growth.
 2. To supply to new consumer.
 3. For improving the quality of supply to consumers
 - (4) Whether the system and equipments already installed are being operated at their rated capacities? Is there any spare/ idle capacity existing? Has any study been done in this regard before this proposal. If so a copy of the same is to be made available to the Commission.
 - (5) Whether the proposed investment would improve the reliability of supply?
 - (6) Whether the investment is necessary for a reduction in transmission or distribution losses?
 - (7) Whether the timing of the investment is optimum?
 - (8) Whether the investment planned is commensurate with the demand growth?
 - (9) Whether other alternatives schemes have been considered?
 - (10) Whether the proposed investment would result in duplication of existing infrastructure?
 - (11) Whether the proposed investment is a necessity for the conduct of business?
 - (12) Whether the cost estimates are reasonable?
 - (13) Whether it is in line with the cost rates approved by the Commission in the past, if any?
 - (14) Whether the least cost option has been considered?
3. In compliance of the daily order of the Commission dated 29.12.2017, M/s.Technopark (hereinafter referred to as the petitioner or Technopark), filed the revised petition for approval of the Capital Investment Plan before the Commission on 30.06.2018. The summary of the revised petition is given below.

Item No	Licensed area	Name of Project	Estimated cost/ value of the project and funding (Rs. lakh)			
			Government grant	Loan	Equity	Total
1	Technopark Phase-I Campus	Augmentation of existing power transmission system of KSEB Ltd.	6090.00			6090.00
2	All campuses	Purchase of Insulation resistance tester (Megger).			2.11	2.11
3	All campuses	Purchase of underground energized/ de-energized cable locator.			1.85	1.85
4	Technopark Phase-III Campus	Civil works for augmentation of 110kV substation			19.69	19.69
5	Technopark Phase-III Campus	11kV Power Distribution System at the South and South East side of Technopark Phase-III campus.	93.97			93.97
6	Technopark Phase-III Campus	SITC of HT panels at 110kV Substation Technopark Phase-III campus.	30.86			30.86
7	Technopark Phase-III Campus	Supply Installation Testing and Commissioning (SITC) of 200kWp Grid Connected Solar Power Plant	124.60			124.60
8	Technopark Phase-III Campus	Replacement of EHT metering equipment at 110kV Substation Technopark phase-III campus.			25.00	25.00
9	Technopark Phase-IV Campus	Construction of 110kV Air Insulated Substation for Technocity.	1611.00			1611.00
10	Technopark Phase-IV Campus	Laying of 110kV UG cable for feeding power to 110kV substation at Technocity (proposed as deposit work with KSEB Ltd.)	2140.00			2140.00
	Total		10090.43	0.00	48.65	10139.08

As detailed above, the total capital investment proposed as per the revised proposal is Rs 101.39 crore and out of the same, the fund required for meeting the CAPEX of Rs 100.9043 crore (99.50%) is from Government grant and balance Rs 0.4865 crore (0.50%) proposed to be met from the equity of M/s Technopark.

4. Brief description of the capital investments proposed are given in the following paragraphs.

(1) Item No.1: Augmentation of existing power transmission system of KSEB Ltd for catering the additional power requirement of Technopark campuses.

- (i) The petitioner submitted that, the existing contract demand at Technopark phase-1 campus is 15 MVA and the same is likely to

increase to 20.50 MVA by the year 2026-27. Similarly, the existing contract demand for Technopark phase-II and phase-III campus is 5 MVA and the same is likely to increase to 11 MVA by the year 2026-27.

- (ii) In order to provide additional power allocation to Technopark, KSEB Ltd proposed the following additional works.
 - (a) Laying 6.5km 110kV UG cable from 220kV s/s Pothencode to 110kV s/s Kazhakuttom, including its takeoff arrangements.
 - (b) Construction of four feeder bays at 110 kV s/s Kazhakuttom, construction of single bus with sectionalizer for feeding four feeder bays with future transformer bays.
 - (c) Laying 3.5km of 110kV, 1 x 500 mm² XLPE Aluminium single circuit UG cable from 110kV s/s Kazhakuttom to IT campus s/s including its off take arrangements at 110kV s/s at Kazhakoottam.
 - (d) Interlinking of newly constructed bay with existing transfer bus at 110 kV s/s Kazhakuttom.
 - (e) The total cost of the works as per the estimate by KSEB Ltd is Rs 60.90 crore.
- (iii) KSEB Ltd has finalized the above scheme through various discussions with the petitioner and after considering various alternate options for providing additional power allocation to the petitioner M/s Technopark.
- (iv) The work is proposed to be executed as deposit work by KSEB Ltd. The entire investment is proposed through grants from the State Government.

(2) Item No.2: Purchase of Insulation Resistance tester (Megger)

M/s Technopark submitted that, insulation resistance tester is an indispensable tool for electrical trouble shooting and maintenance activity. M/s Technopark, proposed to purchase one insulation resistance tester for electrical trouble shooting and maintenance activity, at a total cost of Rs 2.11 lakh. The fund required for the purchase of insulation resistance tester is proposed to be met through equity.

(3) Item No. 3: Purchase of underground de-energised cable locator

The petitioner submitted that, Technopark uses HT/LT underground power cabling for transmitting power to various building in its campus. At present Technopark is depending on equipment rented from KSEB Ltd @Rs 28000/- per visit. M/s Technopark proposed to purchase underground energized/ de-energised cable locator at the cost of Rs 1.85 lakh. Techopark proposed to meet this investment from the equity.

(4) Item No.4: Civil works for augmentation of 110kV substation in Technopark Phase-III

The existing 110kV substation at Technopark Phase-III campus supplies power to consumers in Technopark Phase – II & III campuses. The total area of the Technopark phase-III campus is around 96 Acres,

M/s Techopark submitted that, they are developing 50 acres of land at the south east side of the Phase-III campus, which is demarcated and leased to various stakeholders. Since the existing 110kV s/s at phase-3 campus is not having adequate space for the installation of HT panels, Technopark proposes to demolish and expand a portion of the existing substation building to install additional HT panels for providing supply to the stakeholders in the newly developing 50 acres of land at the south east side of the phase-III campus. The total estimated cost of the work is Rs 19.69 lakh and the investment is proposed to be met through equity.

(5) Item No.5: 11 kV Power Distribution System at the South and South East side of Technopark Phase-III campus.

M/s Technopark submitted that, the power distribution system for the 48 acres of land in the south and south east side of the Phase-III campus was not implemented at the initial stage as the demarcation of plots was not done. Now this stretch of land is divided to eight SEZ and five non SEZ plots and will be allocated to the various stakeholders. In order to provide a reliable and uninterrupted power to these lands, an 11 kV power distribution system is required. RMUs will be installed by Technopark near the plots from which the stakeholders can draw power to their premises. The total estimated cost of the proposal is Rs 1.38 crore. The project was tendered and the L1 bidder had quoted an amount of Rs.93.37 lakhs. The funding pattern for the project is proposed through government grant.

(6) Item No.6: Supply, Installation, Testing and Commissioning of HT panels at 110kV Substation Technopark Phase-III campus.

In order to meet the additional power requirement of the IT/ITeS stakeholders, additional HT panels are required at phase-III campus. Further, spare 11 kV outlets also required for meeting the future requirements. The total capital outlay proposed for the work is Rs 30.86 lakh funding proposed through government grant.

(7) Item No.7: Supply, Installation, Testing and Commissioning (SITC) of 200kWp Grid Connected Solar Power Plant at Ganga & Yamuna IT Building, ETPK Phase-III SEZ Thiruvananthapuram.

Technopark proposed to install 200 kWp grid connected solar power plant at Ganga and Yamuna IT building at Phase-III, with a total capital investment of Rs 1.76 crore. The Technopark submitted that it had to meet the RPO as per regulations. The project was tendered and the L1 bidder has quoted an amount of Rs.115 lakhs. Therefore, the total amount of the project including the consultancy charges is Rs.124.6 lakhs. The funding pattern for the project is proposed through government grant. The annual energy generation anticipated 0.30 MU.

As per the details submitted, the cost per MW of the scheme including consultancy charges is Rs 6.23 crore/MW.

(8) Item No.8: Replacement of EHT metering equipment at 110kV Substation Technopark phase-III

M/s Technopark plans to replace the existing metering system at 110 kV substation at Phase-III campus with ABT compliant meters having 0.2S accuracy class. The work is proposed to be carried out through KSEB Ltd under the work deposit scheme. The approximate cost of the project is Rs 25.00 lakh. The fund requirement of the project is proposed to met from equity.

(9) Item No.9: Construction of 110kV Air Insulated Substation for Technocity

M/s Technopark submitted that, the Technocity project was officially launched on 5th June 2010. Technocity is proposed to be developed as an integrated township of 451 acre, and will include IT, ITeS infrastructure as well as residential, commercial facilities in addition to public service and educational institutions. The total capital outlay for developing the necessary infrastructure would be in the range of Rs 5000.00 crore to Rs 8000.00 crore. The development is planned in public- private partnership (PPP) model in association with technically and financially competent private developers. The entire project will be implemented through 'multiple special purpose vehicles' in conjunction with leading developers.

For meeting the initial power demand in Technocity, an EHV main receiving substation is proposed. Instead of the conventional 110/33 kV or 110/11 kV s/s, 110/33/11 kV substation is proposed by Technopark considering the following.

- (i) The land parcels proposed by the stakeholders of Technocity varies from large to small land parcels which calls for varied power demand which ranges from 11 kV to 33kV.
- (ii) As per the Kerala Electricity Supply Code, 2014, upto 3 MVA power can be given at 11kV voltage level, and beyond 3 MVA and upto 12 MVA power shall be given at 33 kV level. Therefore, the distribution of power inside Technocity is to be done at 11 kV and 33 kV voltage levels.

The total estimated cost of construction of 110 kV Air Insulated substation is about Rs 16.11 crore and the fund requirement of the project is proposed to be met from Government grant.

(10) Item No.10: Laying of 110kV UG cable for feeding power to 110 kV substation at Technocity

The power supply at 110kV s/s at Technocity campus is proposed to be drawn from 220 kV S/s of KSEB Ltd at Pothencode. KSEB Ltd has to construct additional 110 kV feeder bays at Pothencode for the same.

The main scope of this work includes,

- (a) Construction of 1 No 110kV feeder bay at 220kV substation at Pothencode.
- (b) Laying 4 km, 110kV, UG cable in 3 run from 220 kV s/s, Pothencode to proposed 110 kV substation, Technocity.

The total estimated cost of the project is Rs 21.40 crore.

M/s Technopark also informed that, Government of Kerala has released an amount of Rs 14.00 crore for creation of power infrastructure works at Technocity campus during the financial year 2016-17. The balance amount for creation of power infrastructure will be released in the year 2017-18.

5. KSEB Ltd vide the affidavit dated 18.12.2018, submitted the detailed comments on the 'capital investment plan' proposed by KSEB Ltd. The summary of the comments of KSEB Ltd is given below.

- (1) As per the Section 46 of the Electricity Act, 2003 and also as per the Regulation 36 of the Kerala Electricity Supply Code, 2014, M/s Technopark as a distribution licensee has to recover the expenditure incurred by the distribution licensee for extension or upgradation or both of the distribution for providing supply to the consumers having contract demand above 1 MW from that consumers itself.
- (2) Regarding Item No.1 of the investment proposal of M/s Technopark, KSEB Ltd submitted that, the petitioner estimated an amount of Rs 60.90 crore for the augmentation of the power transmission system of KSEB Ltd for catering additional power requirements of Technopark campuses. The main work involves the strengthening of the incoming feeder from 220kV s/s at Pothencode to 110 kV substation at Kazhakoottam. The source of finance proposed is from Government grants.

As the investment proposed is for catering the additional demand of the phase-1 area and the investment is proposed using Government grant, the capital investment may be approved, clearly stipulating the source of fund as Government grant.

- (3) Item No.2. Purchase of Insulation resister.

KSEB Ltd submitted that, the proposal to purchase insulation resistance tester at a total cost of Rs 2.11 lakh cannot be treated as

capital investment. This is essentially tool for the O&M carried out by the external agencies. Technopark could specify the requirement of insulation resistance tester as a condition for award of O&M contract.

- (4) Item No.3. Purchase of underground de-energised cable locator.

M/s Technopark proposed to purchase the underground energized/ de-energised cable locator at the cost of Rs 1.85 lakh. KSEB Ltd submitted that, this item also is a tool for the agencies carrying out the O&M works and hence specify the requirement of de-energised cable locator as a condition for award of O&M contract.

- (5) Item No.4. Civil works for augmentation of 110 kV substation in Technopark phase III.

KSEB Ltd submitted that the civil works proposed is not part of the augmentation of the substation alone, but is part of developing 50 acres of land at south side of the campus as part of developing infrastructure for park, for allotting to the various stakeholders. This expenditure is an infrastructure development work and there is no need to include the cost of such development work as part of 'electricity distribution business'. Hence, the Commission need not given capital investment approval of this work as part of distribution business.

- (6) Item No.5. 11kV power distribution system at the South and South East side of Technopark phase-III campuses.

According to the KSEB Ltd, the 11 kV system is proposed for the newly developing area at the South and South East side of Technopark Phase III campus. The area is to be allotted for 8 SEZ and 5 non SEZ stakeholders. As part of the development of the Technopark, the developer may fund the same for development activity and charge the same from the 13 stakeholders. The cost estimated is Rs 93.37 lakh. However, the investment is proposed using Government grant. Hence the Commission may approve the capital investment proposed, clearly stipulating the source of fund as Government grant.

- (7) Item No.6. Supply, installation, testing and commissioning of HT panels at 110kV s/s Technopark phase-III campus.

KSEB Ltd vide its reply dated 18.12.2018 submitted that, the Phase-III campus is at the development stage. The cost incurred may include as part of the development of Technopark. The Commission may grant approval of the scheme, clearly stipulating the source of fund as Government grant.

- (8) Item No.7. Supply, installation, testing and commissioning (SITC) of 200 kWp grid connected solar power plant.

KSEB Ltd, submitted that, the capital cost for the solar installation is on the higher side, hence the investment cannot be justifiable though the funding is through Government grant.

- (9) Item No.8. Replacement of EHT metering equipment at 110kV substations at phase-III.

KSEB Ltd submitted that, ABT meters having 0.2 S accuracy class are statutory requirement for interface meters, the request of M/s Technopark may be considered.

- (10) Item 9 & 10. Construction of 110kV air insulated substation for Technocity & laying of 110 kV UG cable for feeding power to 110 kV substation at Technocity.

KSEB Ltd submitted that, Technocity is only at the preliminary stage, and as part of the developing the Techocity, power infrastructure is required. The estimate of the substation is Rs 16.00 crore and the same for laying of 110 kV UG cable is Rs 21.00 crore. It is stated that, GoK has released Rs 14.00 crore for creation of power infrastructure for 2016-17 and the balance will be released in the FY 2017-18. Since the project funding is grant from the State Government, it shall not be loaded in the ARR. The Commission may grant approval of the scheme, specifying that the source of funding is from Government grant.

6. The Commission conducted the hearing on the petition on 12.2.2019 at Court Hall of the Commission. During the hearing, Shri. Einstein, Deputy Manager, presented the petition on behalf of the petitioner. On behalf of KSEBL, Sri. Mohankumar, Deputy Chief Engineer, Transmission circle along with other officers of KSEBL answered the clarifications sought by the Commission.

During the hearing, the representative of M/s Technopark submitted that, the item No.1 of the proposal, for the construction work of the augmentation of the existing power transmission system of KSEBL, is for catering to the additional power requirement of M/s Technopark campuses. M/s Technopark decided to execute the work as a deposit work through KSEBL and has already remitted the entire cost to KSEBL in the year 2016-17. However, the work is yet to start.

Sri. Mohankumar, Dy.CE, Transmission Circle, Thiruvananthapuram clarified that, though the amount was remitted to KSEBL to execute the work on deposit work basis, M/s Technopark is yet to hand over the possession of the land at Kazhakuttom to KSEBL. He also submitted that, KSEBL has already initiated tendering of the work.

The representative of the M/s Technopark submitted that, the approval of the Government is required to transfer the possession of the land to KSEBL for the work. This matter was already taken up with the Government and M/s Technopark is expecting to transfer the land to KSEBL within two months.

During the deliberations, the Commission directed KSEB Ltd to clarify how it had accounted the amount deposited by M/s Technopark for the work. The Commission also stated that, in the event of M/s Technopark is not able to transfer the land within two months from the date of this order, the Commission may decline the investment approval of the proposed augmentation and KSEBL shall return the amount deposited by M/s Technopark to them.

The representative of M/s Technopark further submitted that, the construction of the 110 kV Air Insulated Substation at Technocity (**item No.9**) at a cost of about Rs 16.11 crore and the laying of 110 kV UG cable for feeding power to 110 kV substation at Technocity (**item No.10**) at a total cost of Rs 21.40 crore, is already completed. Many agencies / firms have approached M/s Technopark for setting up establishments at the Technocity.

Based on the deliberations during the hearing and other materials placed on record, the Commission issued the following directions to M/s Technopark and KSEB Ltd for immediate compliance.

- (1) M/s Technopark, within two months from the date of this order, shall take necessary steps to hand over the land required for the construction to KSEBL to carry out the work on deposit basis for the augmentation of the existing power transmission system for catering to the additional power requirement of Technopark campuses.

In the event where M/s Technopark fails to do so, the Commission may decline the investment approval of the scheme and KSEBL shall refund the amount deposited by M/s Technopark to them.

- (2) M/s Technopark shall submit the details of the prospective electricity demand in the Technopark Phase-1, Phase-2 and Phase-3 campuses with documentary evidences, including the details of the firms/prospective consumers who have approached M/s Technopark to avail the facilities in the Phase-1, Phase-2 and Phase-3 campuses.
- (3) Since M/s Technopark informed that, the construction of the 110 kV Air Insulated Substation at Technocity (**item No.9**) at a cost of about Rs 16.11 crore and the laying of 110 kV UG cable for feeding power to 110 kV substation at Technocity (**item No.10**) are already over, M/s Technopark shall submit the following details before the Commission.
 - (i) The estimated cost, the tendered cost, the actual cost of completion, escalation paid if any with full justifications, month and year of starting the construction of the project, month and year of completion, in respect of the items No.9 and item No.10.
 - (ii) The details of the firms/ promoters who have approached M/s Technopark to avail the facilities at Technocity, including the details of the land allotted to each of the firms, the electricity requirement of the firms etc, with documentary evidences,

- (iii) Whether, the Technocity is fully operational? If so, the details of the existing consumers and their electricity demand as on 31.01.2019.
 - (iv) The year wise prospective electricity demand in the licensed area of Technocity for the next 10 years from 2018-19 to 2027-29.
- (4) KSEBL shall submit the accounting details of the amount deposited by M/s Technopark for the construction of the item -1.
7. In compliance of the direction of the Commission, M/s Technopark vide the letter dated 10.04.2019 submitted the following.
- (i) Technopark had already taken action for transferring the existing land in which the 110kV substation is situated, and additional extent of land which is required for the expansion of the feeder bays for the deposit work amounting to Rs 60.90 crore for the augmentation of the existing power transmission system of KSEB Ltd..and placed the matter before the Executive council of Technopark chaired by the Secretary (Industries & IT) to Government.
- As per the direction of the Executive council, Technopark approached the Government for decision on the transfer of land to KSEB Ltd.
- (ii) As instructed by the Commission, M/s Technopark submitted the prospective electricity demand at Phase-1, Phase-II and Phase-III campuses of M/s Technopark.

Additional electricity demand expected at Phase-1 campus

Sl.No	Name of the Co-developer	Leased out area	Expected power demand
1	TCS SEZ	Approx. 26 acres	3000kVA
2	Carnival Technopark	Approx. 2 acres	1600 kVA
3	STPI building	Approx. 50cents	500 kVA
4	Travancore International School	Approx. 40 cents	150 kVA
	Total		5250 kVA

Additional electricity demand expected at Phase-II campus

Sl.No	Name of the Co-developer	Leased out area	Expected power demand
1	Infosys technologies Ltd	Approx. 40 Acres	1250 kVA existing + 1750 kVA additional
2	UST Global	Apprx. 40 acres	5136 kVA

Prospective electricity demand at Phase III campus

Sl.No	Name of the Co-developer	Leased out area	Expected power demand	Remarks
1	M/s Winterfell Realty Pvt Ltd	10 Acres	7977kVA	
2	M/s. Dragonstone Realty Pvt Ltd	7.61 acres	N/A	Power requirement yet to be intimated
3	M/s. Dragonstone Realty Pvt Ltd	2.12 acree	N/A	
4	Ganga / Yamuna IT building Technopark Phase III	Approx. 5 Acres	2500 kVA	

- (iii) As directed by the Commission, M/s Technopark submitted the details of the construction of the 110kV Air insulated substation for Technocity, as detailed below.

<i>Estimated cost of the project</i>	: Rs. 1469.49 lakhs
<i>Tendered cost of the project (Quoted amount)</i>	: Rs. 1854.42 lakhs
<i>Awarded value of the project</i>	: Rs. 1611.16 lakhs
<i>Executed value of the project</i>	: Rs 1579.88 lakhs
<i>Escalation paid if any with full justifications</i>	: Nil
<i>Month and year of starting the construction of the project</i>	: 01 st December 2016
<i>Month and year of completion</i>	: 30 th April 2018

- (iv) M/s Technopark also submitted the details of the firms/ promoters who approached the Technopark to avail the facilities at Technocity is given below.

Allotment Details – TECHNOCITY LAND			
Sl.No	Company Name	Land area	Agreement Date
1	TCS	15 Acres	06.09.2012
		82 Acres	25.09.2013
2	IITMK	10.33 Acres	15.03.2011
3	SUNTECH	10Acres	05.02.2015
4	KASE	5 Acres	26.09.2014
5	NISSAN	30 Acres	28.06.2018 (MoU)
6	BRIGADE	12.87 Acres	27.02.2019 U)

- (v) M/s Technopark further submitted that, Technocity is not operational as on 31.01.2019. Presently, two of the co-developers viz. M/s Suntec and M/s IIITM-K are constructing buildings at the land allotted to them. The construction of the building of M/s IIITM-K completed and the construction of the IT building of M/s Suntec is nearing completion. The tentative power requirement of M/s IIITM-K is about 1066kVA and the power demand of M/s Suntec is about 2000kVA.
- (vi) M/s Technopark also submitted the year wise energy demand from 2018-19 to 2027-28. As per the same, they expect 25 MVA by the year 2027-28.

8. In compliance of the direction of the Commission vide the interim order dated 18.02.2019, the respondent KSEB Ltd submitted the following.

- (i) Accounting details of the amount deposited by M/s Technopark for the augmentation of power transmission system of KSEB Ltd

Account head	Date of remittance	Amount (Rs in Lakhs)
47609**	14.4.2016	3000
	14.10.2016	1000
	14.10.2016	1000
	11.11.2016	1090
	Total	6090

**As per the chart of accounts, account code 47609 is used to indicate account head "for deposits for other works to be done".

- (ii) KSEBL reported the procedure adopted to transfer the amounts received under deposits for deposit work to the consumer contribution account, as follows.

The amount receivable as consumer's contribution shall be credited to consumers contribution account if

1. *The amount is not subject to any conditions to be fulfilled by the Board*
Or
The condition attached to the amount have been fulfilled by the Board
2. *No part of the amount is refundable nor is likely to become refundable by the Board*

Any amount received by Board as consumer contribution or deposit shall be accounted through "deposit for deposit works A/c" until the above two conditions for treating the amount as consumer's contribution have been met, at which time the amount will be transferred to Consumer's contribution account. Amount, if any being refundable shall be debited to the "deposit for deposit work A/c".

(iii) The Technopark has not handed over the land to KSEBL. However, the tendering work is in the final stage. Once the land is made available, KSEB Ltd is able to start the work.

9. In the meanwhile, the State Government vide the order G.O (Ms) No.22/2019/E&ITD dated 09.10.2019, ordered to transfer 5.77 acres of land under the ownership of Technopark to KSEB Ltd. The order of the State Government is extracted below for ready reference.

“1. As per the letter read as first paper above Technopark has reported that Kerala State Electricity Board Ltd. (KSEBL) has requested to transfer 4 acres of land comprised in Survey Nos. 412/1,2,4,6,7,8,9,10,14,15,16,17 of Kazhakuttam Village in Thiruvananthapuram Taluk where the existing 110kV substation is located. As per the mutual agreement between the Technopark and KSEBL, the KSEBL has to bear 50% of cost of land where the substation is located as it provides power to public also. Even though KSEBL had remitted Rs. 25 lakhs as 50% of the cost of 4 acres of land to Technopark in October 1997 the land was not transferred to KSEB owing to issues regarding non-settlement of accounts related to the construction of substation.

2. Project implementation Board (PIB) of Technopark held on 21.06.2014 has accorded permission to transfer 1.77 acres of land comprised in survey No 413/1,2,3, 4-part, 5-part, 7, 11-part, 12, 18, 412/13-part, 17-part of Kazhakuttam Village in Thiruvananthapuram Taluk adjacent to the existing 110kV substation in Phase I Campus, Technopark for the expansion of the substation at free of cost in addition to the 4 acre which will be beneficial for Technopark Phase I and its expansion.

3. In the mean time Technopark had submitted a petition before the Hon'ble Kerala State Electricity Regulatory Commission for the approval of capital investment plan for 2017-18 of Technopark in which the Rs. 60.90 Cr. Deposit work with KSEBL for providing additional power allocation to Technopark Phase – I, II and III campuses. KSERC had conducted hearing on the resubmitted petition on 12.02.2019 and ordered that M/s. Technopark shall take necessary steps to hand over the land required for the construction to KSEBL to carry out the work on deposit basis for the augmentation of the existing power transmission system for catering to the additional power requirement of Technopark campuses other wise the Commission may decline the investment approval of the scheme.

4. Government have examined the matter in detail. 50% of the transformer capacity is utilized by Technopark for the development of IT industry and KSEBL has to get the ownership of land wherein the substation is situated for further expansion. In order to ensure the smooth functioning of both companies and on public interest Government are pleased to order as follows:

(i) The land parcel of 4 acre under the ownership of Technopark where the 110kV substation exists in Sy. No. 412/1,2,4,6,7,8,9,10,14,15,16,17 of Kazhakuttam Village in

Thiruvananthapuram Taluk is transferred to KSEBL as per the agreed terms between Technopark and KSEBL.

- (ii) *1.77 acres of Technopark land adjacent to the above 4 acres of land comprised in Sy. No. 413/1, 2,3,4-part, 5-part, 7, 11-part, 12,18, 412/13-part, 17-part of Kazhakuttam Village in Thiruvananthapuram Taluk is transferred to KSEBL at free of cost for further expansion of Substation.*

5. The Chief Executive Officer, Technopark, shall submit an action taken report to Government in the matter in due course.”

Analysis and Decision

10. The Commission has examined the petition filed by M/s Technopark for the approval of the capital investment plan of Technopark for the year 2017-18, as per the provisions of the Electricity Act, 2003 and the Kerala State Electricity Regulatory Commission (Terms and Condition for Determination of Tariff) Regulations, 2018 and ordered as follows.
11. M/s Technopark is an autonomous organisation fully owned by Government of Kerala registered under the Travancore-Cochin Literary, Scientific and Charitable Societies Registration Act, 1955. Technopark aims to provide all the infrastructure and support facilities needed for IT/ITES and electronic companies to function. In addition to built up office space, it also provides all utility services as well as data connectivity. The units in Technopark includes domestic firms, joint ventures and subsidiaries of foreign companies engaged in software development, smart card technology, enterprise resource planning (ERP), process control software design, IT Enabled services (ITES), process re-engineering etc. Technopark is owned by State Government and administered through a Chief Executive Officer.

The Government of Kerala as per GO (P) No. 19/99/PD dated 12.07.1999 granted licence status to M/s Technopark for supplying electrical energy to various establishments within the Technopark campus. M/s Technopark has been purchasing electricity from KSEB Ltd at the Bulk Supply Tariff (BST) approved by the Commission from to time and distributing the same within their licensed area at the Retail Supply Tariff (RST) approved by the Commission.

The Technopark has now four phases: Phase I, which is the existing park (156 Acres), Phase II (86 acres) is leased out to M/s. Infosys and M/s. UST Global. Phase III extending over 93 acres of land, adjacent to Phase I which is a special economic zone (SEZ). Phase IV is the Technocity (450 acres). Technopark, Kollam (44 acres) is also part of its expansion. M/s Technopark is the distribution licensee for all the above campuses.

Since Technopark is fully owned by the State Government, all the basic infrastructure for facilitating IT&ITES within the area is being created with Government grants.

12. As per the Section 42 of the Electricity Act, 2003, M/s Technopark as a licensee for supplying electricity within their campuses, have to develop and maintain an efficient, coordinated and economical distribution in their area. Further as per the Section 43 of the Electricity Act, 2003, M/s Technopark has to provide electricity supply on request by the consumers within their area of supply. Further, as per the Section 46 of the Electricity Act, 2003, the State Commissions may permit the distribution licensees to charge from a person requiring electricity supply under Section 43 of the EA-2003, the reasonable expenses incurred in providing any electrical line or electrical plant used for the purposes of giving supply to that particular consumer.

Also as per the provisions of the KSERC (Terms and Conditions for determination of tariff) Regulations, 2014, and KSERC (Terms and Conditions for determination of tariff) Regulations, 2018, depreciation, return on equity and interest charges shall not be allowed on the assets created out of Government grant.

13. The Commission has appraised the Capital investment proposed by M/s Technopark as detailed in paragraph 3 above and the decisions of the Commission on the same is given in the following paragraphs.

(1) Augmentation of existing power transmission system of KSEBL.

The petitioner had explained in detail the need of the proposed capital investment plan and the details of the works proposed under the scheme. Since the work involves the augmentation of the existing 110kV substation of KSEB Ltd at Kazhakuttam, the work is proposed to be executed through KSEB Ltd as a deposit work. The total estimated cost of the project was Rs 60.90 crore and M/s Technopark remitted the entire cost to KSEB Ltd.

KSEB Ltd has already tendered the project, but since there was delay in handing over of 5.76 acre of land at Kazhakuttam, from Technopark to KSEB Ltd for augmenting the existing 110 kV substation at KSEB Ltd, the work is yet to be started by KSEB Ltd.

As detailed under paragraph 9 above, State Government vide order dated 09.10.2019 has ordered to handover the 5.76 acre of land, including the 4 acre of land at existing 110 kV s/s at Kazakuttam and 1.77 acre of land adjacent to the above 4 acre of land to KSEB Ltd. Accordingly, KSEB Ltd has to carry out the additional works as detailed under paragraph 4(1) above to cater the additional power requirement of Technopark campus.

Decision of the Commission

The Commission after duly considering the proposal hereby grant approval for the proposed augmentation of the existing power transmission system of KSEB Ltd to cater the additional power requirement of Technopark campus as detailed under paragraph 4(1) above at a total cost of Rs 60.90 crore, as deposit work through KSEB Ltd. Since the source of finance for the project is through grants from State Government, the Commission shall not allow depreciation, interest charges and return on equity on this asset.

(2) Item No.2: Purchase of Insulation Resistance tester (Megger)

M/s Technopark proposed to purchase one insulation resistance tester for electrical trouble shooting and maintenance activities at all Technopark campuses, at a total cost of Rs 2.11 lakh and the fund required is proposed to met through equity.

KSEB Ltd remarked that the purchase of insulation resistance tester cannot be treated as capital investment and this is essentially a tool for the O&M carried out by the external agencies.

The Commission noted the objections of KSEB Ltd. Though the O&M activities at Technopark is being carried out through external agencies, the insulation resistance tester is an essential tool used to test transformers, HT/LT cables, electric switch gears etc. Further, the insulation tester is proposed for the maintenance activities of all the four campuses of M/s Technopark.

Decision of the Commission

The Commission, here by grant approval for the purchase of insulation resistance tester at a total cost of Rs 2.11 lakh. The funds for this item shall be met from the M/s Technopark's own resources.

(3) Item No. 3: Purchase of underground de-energised cable locator

M/s Technopark proposed to purchase underground energized/ de-energised cable locator at the cost of Rs 1.85 lakh and the source of fund for the same is own fund. This equipment can be used for detecting the presence of live UG cables thereby preventing cable damages/ accident during excavations. At present Technopark is depending on equipment rented from KSEB Ltd.

KSEB Ltd submitted that, this item is a tool for the agencies carrying out the O&M works and hence specify the requirement of de-energised cable locator as a condition for award of O&M contract.

The Commission examined the matter in details and noted that de-energised cable locator is an important tool for detecting the presence of live energy cables with precision especially using JCBs etc.

Decision of the Commission

The Commission, here by grant approval for the purchase of de-energised cable locator at a total cost of Rs 1.85 lakh. The funds for this item shall be met from M/s Technopark's own resources.

(4) Item No.4: Civil works for augmentation of 110kV substation in Technopark Phase-III

In order to provide electricity supply to the prospective consumers in the newly developing 50 acres of land at the south - east side of the phase-III campus, M/s Technopark proposes to demolish and expand a portion of the existing substation building to install additional HT panels. The total estimated cost of the work is Rs 19.69 lakh and the investment is proposed to be met from own fund of Technopark.

KSEB Ltd submitted that, the civil works proposed are part of developing the 50 acres of land at the south - east side of the campus as part of creating basic infrastructure for park, for allotting to various stakeholders. Hence this cost has to be part of the cost of creating basic infrastructure for the park and cannot be included as part of the cost of electricity distribution business alone. Hence, the Commission may not approve the proposal.

Commission noted the submission of the petitioner M/s Technopark and comments of KSEB Ltd. M/s Technopark, is the basic infrastructure developer for facilitating the IT &IT enabled companies within the park campus. Further, the civil works are to be done to facilitate the installation of HT panels.

Decision of the Commission

The Commission, here by grant approval for Civil works for augmentation of 110kV substation in Technopark Phase-III at a total cost of Rs 19.69 lakh. The source of funds for this item shall be met from M/s Technopark's own resources.

(5) Item No.5: 11 kV Power Distribution System at the South and South East side of Technopark Phase-III campus.

M/s Technopark is developing 11 kV distribution system in the 48 acre of land in the south and south east side of the Phase-III campus, which was not developed in the initial stage. This stretch of land is divided into eight SEZ and five non SEZ plots and will be allocated to the various stakeholders. The original estimate of the work was Rs 1.38 crore. The project was tendered and the L1 bidder quoted Rs 0.9337 crore. The source of fund for the investment is grant from State Government.

KSEB Ltd commented that, the developer M/s Technopark may fund the development activities initially and charge the same to the 13 stakeholders to whom the land was allotted. However, since the investment is proposed using Government grant, the Commission may approve the investment program stipulating the source of fund as grant from the State Government.

Commission has examined the proposal of M/s Technopark and the remarks of the respondent KSEB Ltd in this regard. M/s Technopark as the infrastructure provider is duty bound to create necessary

infrastructure including the infrastructure for electricity distribution within their campuses. The State Government, as part of facilitating the IT & ITES within the park has been providing grant to Technopark to create necessary infrastructure, so that the prospective consumers are relieved from making initial investments for developing infrastructure.

Decisions of the Commission

Commission hereby grant approval for creating necessary distribution infrastructure in the 48 acres of land in the south and south east side of the Phase-III campus at a total cost of Rs 93.37 lakh. The source of fund for the investment is through grant from the State Government and the Commission shall not allow depreciation, interest charges and return on equity on this asset.

(6) Item No.6: Supply, Installation, Testing and Commissioning of HT panels at 110kV Substation Technopark Phase-III campus.

M/s Technopark submitted that, the existing 110kV s/s at Technopark phase-III supplies power to the Technopark Phase-II and Phase-III campuses. The total area of the phase-III campuses is 96 acres. Now Technopark is developing 50 acres of land at the south east side of the campus for allotting to various stakeholders. The supply installation testing and commissioning of 11 kV panels is an integral part of the 11 kV power distribution system in the south and south-east side of the Technopak phase-III campus project. Additional 11 kV panels are required for providing power supply to the stakeholders in the newly developing areas. The total cost of the project is Rs 30.86 lakh. The funding for the project is entirely through State Government grant and the same has been received during the year 2017-18 from the State Government.

KSEB Ltd commented that, the Commission may grant approval of the Scheme, clearly stipulating the source of fund as grant from the State Government.

Decision of the Commission

The Commission hereby approve the Supply, Installation, Testing and Commissioning of HT panels at 110kV Substation Technopark Phase-III campus at a total cost of Rs 30.86 lakh. The source of fund is grant from the State Government. The Commission shall not shall not allow depreciation, interest charges and return on equity on this asset.

(7) Item No.7: Supply, Installation, Testing and Commissioning (SITC) of 200kWp Grid Connected Solar Power Plant at Ganga & Yamuna IT Building, ETPK Phase-III SEZ Thiruvananthapuram.

Technopark proposed to install 200 kWp grid connected solar power plant at Ganga and Yamuna IT building at Phase-III, with a total capital investment of Rs 1.76 crore. The project was tendered and the L1

bidder has quoted an amount of Rs.115 lakhs. Therefore, the total amount of the project cost including the consultancy charges is Rs.124.6 lakhs. The funding pattern for the project is proposed through government grant. The annual energy generation anticipated 0.30 MU. As per the details submitted, the cost per MW of the scheme including consultancy charges is Rs 6.23 crore/MW.

KSEB Ltd submitted that, the capital cost of the solar installation is on the higher side, hence the investment cannot be justifiable though the source of funding is from Government grant.

The Commission has examined the proposal of Technopark and the comments of KSEB Ltd. The capital investment of installing 200 kWp grid connected solar power plant as per the L1 bid including consultancy charge is about Rs 1.246 crore, i.e., Rs 6.23 crore/kW. Comparing the present market price of solar panels and the cost of installation of the solar PV systems, the cost of installation proposed by the petitioner is on the higher side and the Commission cannot approve such excessive cost. The petitioner may cancel the original bid and select the bidder through e-reverse bid so that most competitive rates may be offered by the bidders for the 200 kWp solar PV installation.

Decision of the Commission

The Commission reject the proposal. However, the petitioner can invite fresh bid through e-reverse bid so that the most competitive rates can be obtained for the 200kWp solar PV plant proposed by the petitioner.

(8) Item No.8: Replacement of EHT metering equipment at 110kV Substation Technopark phase-III

M/s Technopark plans to replace the existing metering system at 110 kV substation at Phase-III campus with ABT compliant meters having 0.2S accuracy class. The work is proposed to be carried out through KSEB Ltd under the work deposit scheme. The approximate cost of the project is Rs 25.00 lakh. The fund requirement of the project is proposed to met from equity.

KSEB Ltd submitted that ABT meters having 0.2 S accuracy class are statutory requirement for interface meters. Hence the Commission may grant approval for the proposal of M/s Technopark.

The Commission examined the proposal of M/s Technopark and the comments of KSEB Ltd on the proposed investments. Since the proposal is for replacing the existing metering system at 110kV substation of Technopark Phase-III campus with 0.2 S class ABT meters, the Commission decides to approve the proposal of M/s Technopark.

Decision of the Commission

The Commission hereby approve the proposal of M/s Technopark to replace the existing metering system at 110kV substation of Technopark with 0.2 S class ABT meters, at a total cost of Rs 25.00 lakh.

(9) Item No.9: Construction of 110kV Air Insulated Substation for Technocity

M/s Technopark submitted that, the Techocity project was officially launched on 5th June 2010 and it is proposed to develop as an integrated township of 451 acre, and will include IT, ITeS infrastructure as well as residential, commercial facilities in addition to public service and educational institutions. For meeting the initial power demand in Technocity, an EHV 110 kV substation is proposed at a total cost of Rs 16.11 crore, with source of fund as grant from State Government. The construction of the substation was completed on 30th April 2018 with details as given below.

<i>Estimated cost of the project</i>	<i>: Rs. 1469.49 lakhs</i>
<i>Tendered cost of the project (Quoted amount)</i>	<i>: Rs. 1854.42 lakhs</i>
<i>Awarded value of the project</i>	<i>: Rs. 1611.16 lakhs</i>
<i>Executed value of the project</i>	<i>: Rs 1579.88 lakhs</i>
<i>Escalation paid if any with full justifications</i>	<i>: Nil</i>
<i>Month and year of starting the construction</i>	
<i>of the project</i>	<i>: 01st December 2016</i>
<i>Month and year of completion</i>	<i>: 30th April 2018</i>

Decision of the Commission

Commission noted that, M/s Technopark commissioned the 110 kV Air Insulated Substation at Technocity at a total cost of Rs 1579.99 lakh. The source of fund for the project is grant from State Government. Since the 110 kV substation is the backbone infrastructure for providing electricity supply within the area of Technocity, the Commission hereby approves the construction of the 110kV Air Insulated Substation at a total cost of Rs 15.799 crore, with grant from the State Government. The Commission shall not allow depreciation, interest charges and return on equity on this asset created with the grant from the State Government.

(10) Item No.10: Laying of 110kV UG cable for feeding power to 110 kV substation at Technocity

The power supply at 110kV s/s at Technocity campus is proposed to be drawn from 220 kV S/s of KSEB Ltd at Pothencode. The main scope of this work includes,

- (c) Construction of 1 No 110kV feeder bay at 220kV substation at Pothencode.

- (d) Laying 4 km, 110kV, UG cable in 3 run from 220 kV s/s, Pothencode to proposed 110 kV substation, Technocity.

The total estimated cost of the project is Rs 21.40 crore. The source of fund for the project is grant from the State Government. M/s Technopark proposed to execute the work through KSEB Ltd as deposit work. During the hearing, the petitioner informed that the laying of 110kV UG cable for feeding power to 110 kV substation at Technocity was completed with a total cost of Rs 21.40 crore.

Decision of the Commission

Commission noted that the laying of 110 kV UG cable for feeding power to 110 kV substation at Technocity is essential to draw power from 220kV s/s at Pothencode to Technocity. The work was executed through KSEB Ltd at a total cost of Rs 21.40 crore and the same was already completed. The source of fund for the project is through grant from the State Government.

14. The petitioner shall submit actual cost and other details including tax invoices and other documents at the time of truing up. The Commission shall not allow depreciation, interest on loans and return on equity on the assets created with Government grant.
15. The petition is disposed off with the decisions detailed in the paragraphs 13 and 14 above.

Sd/-

**K. Vikraman Nair
Member**

Sd/-

**S. Venugopal
Member**

Sd/-

**Preman Dinaraj
Chairman**

Approved for issue

**G Jyothichudan
Secretary**