CHAPTER – 2

ANNUAL REVENUE REQUIREMENT FOR FY20-22

Annual Revenue Requirement (ARR) for the Control Period FY20-22

AEQUS SEZ's Application:

2.1 Filing of ARR for the Control Period FY20-22 and Tariff application for FY20

AEQUS SEZ in its application dated 30th November, 2018, has sought the approval of the Commission for the ARR of Rs.18.05 Crores, Rs.21.30 Crores, and Rs.23.53 Crores for FY20, FY21 and FY22 respectively.

The summary of the proposed ARR for the Control Period FY20-22 is as follows:

TABLE -2.1
Proposed ARR for FY20-22

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Power purchase @ IF Point (MU)	24.803	28.866	31.172
Sales (MU)	23.670	27.547	30.626
Distribution Loss (MU)			
Distribution Loss in %	4.57	4.57	1.75
Revenue			
Revenue From Sale of Power	17.83	21.22	24.24
Total Revenue	**17.83**	**21.22**	**24.24**
Expenditure			
Power Purchase Cost	14.72	17.13	18.50
Employee Expenses	0.74	1.11	1.34
R&M Expenses	0.24	0.26	0.31
A&G Expenses	0.44	0.49	0.55
Total O&M Expenses	**1.42**	**1.86**	**2.20**
Depreciation	0.37	0.47	0.57
Interest on Capital Loans	0.58	0.62	0.56
Interest on Working Capital loans	0.37	0.44	0.50
Interest on Consumer Deposit	0.13	0.15	0.18
Return on Equity	0.53	0.69	1.07
Other Income	-0.06	-0.06	-0.06
Net ARR	**18.05**	**21.30**	**23.53**

The AEQUS SEZ in its filing has proposed the ARR Rs. 18.05 Crores, Rs. 21.30 Crores and Rs. 23.53 Crores for FY20, FY21 and FY22, respectively. AEQUS in proposing the ARR for FY20, has not carried forward the estimated revenue surplus of Rs.0.04 Crores of FY18 and has requested to allow it to retain the surplus, as it has suffered losses in the previous years. Considering the estimated revenue of Rs. 17.83 Crores based on the existing retail supply tariff, AEQUS SEZ, in its application has projected the revenue gap of Rs. 0.22 Crores for FY20. AEQUS SEZ has projected the ARR for FY20-22 by considering the power purchase cost at Rs. 5.936 per unit as approved by the Commission in its Tariff Order dated 14.05.2018 for FY19 and requested the Commission that, in the event of any change in the Power purchase cost, the same has to be passed onto the consumers, through tariff increase for FY20 along with FAC, if any, approved during FY20. AEQUS SEZ in its filing has requested the Commission to accord approval to reclassify in the tariff structure proposed for construction activities by proposing a higher tariff.

Treatment of Revenue gap for FY18:

The AEQUS SEZ in its filing has proposed a revenue surplus of Rs.0.04 Crores as per APR for FY18. The AEQUS SEZ, in its application has stated that, the AEQUS SEZ Management has decided not to pass on the surplus in the revenue to the consumers, as it has suffered losses in the previous years. The Commission, has computed the gap for FY18 in accordance with the MYT Regulations as discussed in the previous chapter and has decided to carry forward the revenue gap of FY18 of Rs.1.13 Crores to FY20. For any change in the power purchase rate from the existing Rs.5.81 per unit for FY18, as approved by the Commission in its Tariff Order dated 8th May 2017, the AEQUS SEZ has requested the Commission to pass on the same to the consumer through tariff increase for FY20.

2.2 Determination of ARR for the control period FY20-22:

The analysis of the expenses and decision of the Commission on each of the expenditures proposed by AEQUS SEZ for the control period FY20-22 are discussed below:

2.3 Capital Expenditure:

AEQUS SEZ in its filing has submitted that the proposed capital expenditure has been worked out by considering required enhancement of distribution system with respect to the capacity and capability to provide reliable quality and quantity energy requirement.

AEQUS SEZ in its filing, has submitted the summary of the proposed activities with respect to the capital investments forecast for the period FY19 to FY 24. AEQUS SEZ has submitted that during FY20, two new consumers are expected to be added and construction of new sub-station is envisaged at the cost of Rs. 0.65 Crores and beside that new RMU and connecting cable works has been proposed to cater the power requirement to new consumers, at the estimated cost of as Rs.1.30 Crore.

TABLE: 2.2

Proposed capital expenditure for FY20

Particulars	Rs. Crores
Construction of new sub-station 4 (Plastic JV plant)	0.65
New RMU 9 has been proposed towards arranging power supply to Plot No. 39	0.65
New RMU 6 and connectivity cables has been proposed towards arranging power supply to Ploy No. 35	0.65
Total	1.95

TABLE: 2.3
Proposed capital expenditure for FY21 to FY24 (Rs. Crores)

Particulars	FY21	FY22	FY23	FY24
Construction of new substation 7 and connectivity cables to cater the needs to upcoming facility (plot 39)	0.90	-	-	-
New RMU 7 and connectivity cables has been envisaged towards arranging supply to proposed new facility.	0.65	-	-	-
Augmentation of sub-station 3 (Warehouse and FMS)	-	0.55	-	-
Construction of new SS 8 and connectivity cables has been envisaged towards arranging supply to proposed new facility	-	0.65	-	-
New RMU 8 and connectivity cables has been envisaged towards arranging supply to proposed new facility.	-	0.90	-	-

Particulars	FY21	FY22	FY23	FY24
Construction of new SS 10 (Phase 2 Expansion)and connectivity cables has been envisaged towards additional supply.	-	-	0.80	-
Construction of new SS 11 (Phase 2 Expansion)and connectivity cables has been envisaged towards additional supply.	-	-	0.60	-
New RMU 10 and connectivity cables has been envisaged towards arranging supply to proposed new facility	-	-	1.0	-
New RMU 11 and connectivity cables has been envisaged towards arranging supply to proposed new facility	-	-	1.0	-
Interconnection of 220/110/11kV KPTCL substation to substation 1 and SS2 including HT connectivity cables	-	-	0.35	-
Augmentation of RMU 2 and RMU 3 unit (for new unit expansion)	-	-	-	1.90
Augmentation of RMU 7 and RMU 9 unit (for new unit expansion)	-	-	-	1.60
Total	**1.55**	**2.10**	**3.75**	**3.50**

Commission's analysis and decisions:

The Commission notes that, the AEQUS SEZ has submitted the proposed capital expenditure for FY20 to FY24, under the business plan. The Commission has considered the capex proposed for the control period FY20 to FY22.

The Commission notes that, the AEQUS SEZ has proposed to carry out the capex works amounting to Rs.1.95 Crores during FY20 towards construction of new substation, new RMU units and connectivity cables, etc. Further, the AEQUS SEZ has stated that, it has taken up the capex program of Rs.1.55 Crores for FY21, which involves construction of new substations, installation of new RMU with cable connections. AEQUS has projected Rs. 2.10 Crores towards construction of new SS, new RMUs and interconnection facilities during FY22.

The Commission notes that the AEQUS SEZ area has a fully developed distribution network and considering the size and volume of business, the proposed capex, in terms of investment and the cost thereon is very significant. In order to avoid front loading of costs and to minimize the interest burden to the consumers, the Commission decides to allow 50% of the proposed capex for the control period. Therefore, the Commission has considered capex at

Rs.0.98 Crores, Rs. 0.78 Crores and Rs. 1.05 Crores for FY20, FY21 and FY22 respectively. The capex reckoned by the Commission is subject to truing up of the ARR during the APR of respective years.

2.4 Sales:

AEQUS in its application submitted that as on October, 2018, there are 26 units registered at AEQUS SEZ, out of which 18 are manufacturing units, 2 are engineering service centres, remaining 5 are trading units (FTWZ) and one is the common facility unit. Majority of the units proposed are either under construction or developmental/commissioning stage. AEQUS SEZ has broadly classified its consumers into three categories on their nature of operation. They are:

- **Industrial Consumers:** Manufacturing, Engineering, IT, BT and FTWZ units, etc.;
- **Common facility:** Administrative Building, drinking water plant and distribution system, STP, ETP canteen, Occupational Health Center, Fire station, custom office, etc.;
- **Construction and temporary connections:** Construction activities and pre-industrialization by consumers.

AEQUS SEZ in their filing have stated that the FY19 estimates are made considering the actual sales of 10.61 MU upto September, 2018 and estimated sales of 9.97 MU for the next half of the year aggregating to 20.58 MU. It is also submitted that four more construction consumers are being added during second half of FY19, making the total number of consumers at 22, in FY19, namely Latecoere, Purosil, API (Squad) and Aequs Force Consumer Products P. Ltd. It is submitted that Indo Schottle has completed the industrialization of the plant and for this consumer the consumption would increase considerably.

Further, it is stated that the estimate for next five years is made based on the inputs provided by each consumer and anticipated growth within the campus. It is also stated that as on October 2018, twenty-six units are registered with the SEZ and that 24 consumers would be in operation in FY20, 26 consumers in FY21 and FY22 and 28 numbers in FY 23 & FY24.

The AEQUS SEZ, in its application, has estimated sales of 23.67 MU for FY20, 27.55 MU for FY21 and 30.63 MU for FY22. The contract demand projected for FY20, FY21 and FY21 is 12.60MVA, 17.11 MVA and 22.36 MVA respectively.

The Commission in its preliminary observation, noted that AEQUS has arrived at sales estimates based on the inputs provided by each consumer. However, AEQUS SEZ had not furnished any documents submitted by these consumers in this regard. As such, AEQUS shall furnish the requests obtained from the individual consumers or any other documents like minutes of the meeting held with consumers in this regard.

AEQUS submitted that it has judiciously approached all the consumers to understand their growth plans and energy needs and same has been reviewed and normalized with the present consumption trends for each of the consumer with best possible estimates. AEQUS also submitted the copies of the e-mails/letters from their customers regarding their energy consumption and projections for the respective years along with the replies.

The Commission notes that out of 21 consumers, AEQUS has furnished the details obtained from 19-consumers and has considered the sales estimates as made by the consumers.

Regarding the Non-Indication of CD for Apollo Aero Space Components India P. Ltd, it is stated that due to rounding off decimals it is not reflected and the CD is 0.008 MVA. In case of New Unit-1 & Unit-2, it is stated that the new consumers are yet to estimate their loads and hence, could not quantify the same. Regarding the other observations, the AEQUS has furnished replies which is noted.

Since, the AEQUS, SEZ is an upcoming SEZ, there is no specific trend available to adopt standard forecast models. As such the Commission decides to approve the Sales as estimated by AEQUS for the Control period as indicated below:

Year	Sales in MU
2019-20	23.67
2020-21	27.55
2021-22	30.63

2.5 Demand Side Management:

The Commission in its preliminary observation, directed AEQUS to furnish the annual DSM plan for FY19 & FY20, if any, indicating the various DSM programs taken up/proposed to be taken up. Further, if the cost of such DSM programs is being incurred by AEQUS, the same shall be included in the Capex program.

AEQUS in its reply to preliminary observation submitted that:

- It has implemented the Energy Management System (EMS) on its distribution network. EMS is a software tool where in real time energy monitoring will be enabled and results is helping in better optimization of the infrastructure resources and effective utilization.

- It has identified CFL and incandescent lamps installed in various units and same has been replaced with LED. The cost of replacement has been borne by the customers. As all the capital expenditures towards DSM has been initiated from consumers, ASEZ has not provisioned in its ARR.

The Commission has noted that there is no expenditure incurred by AEQUS for the proposed DSM program and the same is not included in the ARR.

2.6 Distribution Losses:

AEQUS SEZ in its filing has submitted that total distribution loss of its network, consist of two parts:

- Evacuation line loss: From IF point at Hattargi SS to ASEZPL campus;
- Distribution loss in the internal distribution system within ASEZPL campus.

Evacuation line loss is based on meter reading data available between meter installed at KPTCL Sub-Station at Hattargi and to AEQUS Premises. The actual loss from IF point to AEQUS SEZ based on meter reading data is 3.13%. The evacuation loss percentage is calculated based on April, 2018 to September, 2018 (six months') actual data. The loss of 3.13% has been considered for forecasting evacuation losses for FY20 and FY21 The line losses will seize to exist upon commissioning of 220/110/11 kV substation at AEQUS campus which is proposed to be commissioned at the beginning of FY22.

Internal distribution losses within AEQUS network are calculated based on actual reading at the meter installed at AEQUS Campus and total sale of energy to the consumers in SEZ campus. The distribution loss projected till FY 24 is based on actual data for April, 2018 to September, 2018 (six months'). The commercial losses are nil.

The AEQUS SEZ in its application has projected the following distribution losses for the Control Period FY20-22:

Particulars	FY20	FY21	FY22
% Distribution Losses	4.57%	4.57%	1.75%

The Commission takes note of the distribution loss projected by the AEQUS SEZ for the control period FY20-22. The Commission considering the facts submitted by AEQUS, decides to approve the distribution losses as proposed by the AEQUS SEZ for the control period FY20-22 as indicated below:

Particulars	FY20	FY21	FY22
% Distribution Losses	4.57%	4.57%	1.75%

However, the AEQUS SEZ is required to furnish the computation of distribution losses for each year based on the actual metered data of input and sales at the time of filing the application for APR for the relevant years FY20 to FY22, for correct assessment of the distribution losses.

2.7 Power Purchase cost:

AEQUS's Submission:

AEQUS SEZ in its application has proposed the energy requirement of 24.803 MU, 28.866 MU and 31.172 MU for FY20, FY21 and FY22 respectively and the same is proposed to be procured from the Hukeri RECS. AEQUS has submitted that it has estimated the energy requirement based on the sales forecast grossed up with the distribution loss in the AEQUS system and upstream evacuation line loss from 110kV SS at Hattargi to AEQUS campus.

AEQUS has proposed Rs.14.72 Crores, Rs.17.13 Crores and Rs.18.50 Crores respectively for FY20-22 towards the power purchase cost by considering Rs.5.936 per unit as approved by the Commission for FY19 and submitted that if there is any change in the power purchase rate, the same shall be passed on to the consumers in the retail supply tariff for FY20. AEQUS has requested the Commission to pass through any FAC (if any) approved during the control period.

Commission's analysis and decision:

The Commission takes note of the power purchase quantum and its cost proposed by AEQUS SEZ for the control period for FY 20-22. The Commission, in its Tariff Order dated, 14th May 2018, has modified the methodology to determine the power purchase cost to the deemed licensee (SEZ) operating in the State, for the purpose of determination of ARR and retail supply tariff. The Commission decides to consider the same methodology adopted in Tariff Order dated 14th May, 2018 while computing the power purchase cost for control period FY 20-22. Accordingly, for computing the power purchase cost, the Commission has considered the State's total purchase cost excluding the Hydro power, as the basis to arrive at the average cost of power, at the generation bus.

The Commission notes that the power purchase cost in the State is increasing, year on year, and this is having a direct impact on the SEZ power purchase cost who are procuring from the ESCOMs/ distribution licensees. Thereby the retail supply tariff to the consumers of SEZ is increasing. With the present approach in computing the power purchase costs to the SEZ, the resultant retail supply tariff will be higher than the tariff determined for similarly placed consumers of ESCOMs. A higher tariff to the SEZ consumers will affect the production costs and thus may defeat the purpose of setting up industries within the SEZ distribution area.

Hence, with a view to keep the retail supply tariff to the SEZ consumers comparable with the tariff of the similarly placed consumers in the other ESCOMs, and to avoid extra financial burden on the consumers of SEZ area, the Commission decides to fix the grid support charges, trading margin and energy handling charges, transmission loss etc., at Rs.0.75 per unit (instead of Re.1 earlier fixed), while determining the per unit power purchase cost to be collected by the HRECS from AEQUS SEZ's for FY20-22.

Accordingly, the power purchase cost for the control period is computed as follows:

TABLE: 2.4

Power Purchase Cost for FY20

(Considering State approved PP cost excluding Hydro)

Particulars	Energy in MU	Cost Rs. Crores	Weighted Average PP cost Rs./ Unit
Approved State total power Purchase and cost	70905.56	34095.44	
Less:			
KPC & Other Hydro	10548.38	1046.11	
State PP cost excluding Hydro	60357.18	33049.33	5.476
Add: Trading Margin , Energy handling and Grid support charges, Transmission loss etc.,			0.750
PP cost at Interface Point (Transmission Loss-3.162 %)			6.226

TABLE: 2.5
Power Purchase Cost for FY21
(As per State approved PP cost excluding Hydro)

Particulars	Energy in MU	Cost Rs. Crores	Weighted Average PP cost Rs./ Unit
Approved State total power Purchase and cost	73971.94	37365.78	
Less:			
KPC & Other Hydro	11120.57	1145.07	
State PP cost excluding Hydro	62851.37	36220.71	5.763
Add: Trading Margin , Energy handling and Grid support charges, Transmission loss etc.,			0.750
PP cost at Interface Point (Transmission Loss-3. 083 %)			6.513

TABLE: 2.6
Power Purchase Cost for FY22
(As per State approved PP cost excluding Hydro)

Particulars	Energy in MU	Cost Rs. Crores	Weighted Average PP cost Rs. / Unit
Approved State total power Purchase and cost	77192.34	39684.74	
Less:			
KPC & Other Hydro	10949.29	1188.06	
State PP cost excluding Hydro	66243.05	38496.68	5.811
Add: Trading Margin , Energy handling and Grid support charges, Transmission loss etc.,			0.750
PP cost at Interface Point (Transmission Loss-3. 083 %)			6.561

The above computed per unit rate of power purchase cost at IF point includes a margin on energy handling and grid support charges payable to HRECS besides transmission charges payable to the KPTCL, the PGIL, SLDC and POSOCO. **Hence, the Commission decides to approve the power purchase rate of Rs.6.226 per unit, Rs.6.513 per unit Rs.6.561 per unit of energy delivered to AEQUS SEZ by HRECS at the IF point, for FY20, FY21 and FY22 respectively.**

As per the approved **quantum** of sales, the distribution losses and the power purchase at IF Point of AEQUS SEZ and the power purchase rate computed above, the year wise purchase cost is worked out as under:

TABLE – 2.7
Approved Sales and Power Purchase Cost

Year	Sales in MU	Energy at IF point	PP rate at IF point Rs .Per unit	Total Power Purchase cost in Rs.Crs
FY20	23.670	24.803	6.226	15.440
FY21	27.547	28.866	6.513	18.803
FY22	30.626	31.172	6.561	20.453

Based on the above computation, the Commission decides to approve the power purchase cost of Rs.15.440 Crores, Rs.18.803 Crores and Rs.20.453 Crores for FY20, FY21 and FY22 respectively.

2.8 O & M Expenses:

The AEQUS SEZ in its filing has claimed O & M expenses for the control period FY 20-22, as follows:

TABLE -2.8
O & M Expenses – AEQUS SEZ Proposal

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
No. of consumers	24	26	26
Consumer growth rate-CAGR	9.09%	8.33%	0%
Weighted Inflation Index	8.10%	8.10%	8.10%
Allowable O&M expenses as per KERC Methodology (Crores)	1.65	1.92	2.08
Projected O&M expenses	**1.42**	**1.86**	**2.20**

AEQUS submitted that the O&M expenses computed as per the MYT norms, are on the higher side due to higher consumer growth rate on account of the addition of consumers projected for the control period. AEQUS SEZ has further stated that, for this reason, to arrive at the employee cost for FY20, increase in salary to the existing employees has been assumed in the range of 8-10% over the base level employee cost of FY19, repair and maintenance cost has been considered at 10% of the total R&M of the ASEZL and A&G increased by normal growth rate of 18.92% over the projected expenses of Rs. 0.37 Crores for FY 19.

TABLE -2.9
Break up of O & M Expenses – AEQUS SEZ Submissions

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Employee Expenses	0.74	1.11	1.34
Repairs & maintenance Expenses	0.24	0.26	0.31
Administration & General Expenses	0.44	0.49	0.55
Total	**1.42**	**1.86**	**2.20**

Commission's analysis and decision:

The Commission, in accordance with the provisions of MYT Regulations and the methodology adopted while approving the O&M expenses for the control period for FY20 to FY22 carried out in respect of ESCOMs, proceeds with the determination of normative O&M expenses based on the 12 Year data of WPI and CPI.

Considering the Wholesale Price Index (WPI) as per the data available from the Ministry of Commerce & Industry, Government of India and Consumer Price Index (CPI) as per the data available from the Labour Bureau, Government of India and adopting the methodology followed by the CERC with CPI and WPI in a ratio of 80:20, the allowable annual escalation rate of inflation for the control period is computed as follows:

TABLE – 2.10

Computation of Inflation Index

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2006	70.2	122.9	112.36				
2007	73.6	130.8	119.36	1.06	0.06	1	0.06
2008	80.0	141.7	129.36	1.15	0.14	2	0.28
2009	81.9	157.1	142.06	1.26	0.23	3	0.70
2010	89.7	175.9	158.66	1.41	0.35	4	1.38
2011	98.2	191.5	172.84	1.54	0.43	5	2.15
2012	105.7	209.3	188.58	1.68	0.52	6	3.11

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2013	111.1	232.2	207.98	1.85	0.62	7	4.31
2014	114.8	246.9	220.48	1.96	0.67	8	5.39
2015	110.3	261.4	231.20	2.06	0.72	9	6.49
2016	110.3	274.3	241.50	2.15	0.77	10	7.65
2017	114.1	281.2	247.78	2.21	0.79	11	8.70
A= Sum of the product column							40.23
B= 6 Times of A							241.40
C= (n-1)*n*(2n-1) where n= No of years of data=12							3036.00
D=B/C							0.08
g(Exponential factor)= Exponential (D)-1							0.0828
e=Annual Escalation Rate (%)=g*100							**8.2760**

While determining the normative O & M expenses for the control period, the Commission has considered the following aspects:

a) The actual O & M expenses of the base year as per the audited accounts for FY18.
b) The three year compounded annual growth rate (CAGR) of the number of installations considering the actual number of installations as per the audited accounts up to FY18 and as projected by the Commission for the control period.
c) The weighted inflation index (WII) at 8.276% as computed above.
d) Efficiency factor at 0.5% as considered in the earlier control period

Based on this approach, the O&M expenses for the control period is are arrived at as follows:

TABLE -2.11

Approved O & M Expenses – FY20-FY22

Amount in Rs. Crores

Particulars	FY19	FY20	FY21	FY22
No. of consumers		20	22	24
Weighted Inflation Index in %		8.276%	8.276%	8.276%
3-Year CAGR of Consumers in %		10.06%	8.97%	10.06%
Base Year O&M Cost (as per filed data of FY18) in Rs. Crores	1.19			
Allowable O&M expenses		**1.40**	**1.64**	**1.93**

Accordingly, the Commission approves the O & M expenses of Rs.1.40 Crores, Rs.1.64 Crores and Rs.1.93 Crores for FY20, FY21 and FY22 respectively.

2.9 Depreciation:

The AEQUS SEZ, in its filing, has claimed the depreciation in accordance with the rates specified by CERC vide its Notification in 2009, for the control period FY 20-22 as follows:

TABLE -2.12
Depreciation – AEQUS SEZ Proposal

Amount in Rs. Crores

Particulars	FY20	FY21	FY23
Depreciation	0.37	0.47	0.57

Commission's analysis and decision:

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the allowable depreciation has been determined by the Commission for FY20-22 by considering the following: -

a) The actual rate of depreciation of category-wise assets is determined considering the depreciation and gross block of opening and closing balance of fixed assets as per the audited accounts for FY18.

b) The actual rate of depreciation, so arrived at, is considered to allow the depreciation on gross block of average of opening and closing balance of fixed assets projections, as approved by the Commission for FY19 to FY22.

Accordingly, the depreciation for FY20-22 are as follows:

TABLE – 2.13
Approved Depreciation for FY20-22

Amount in Rs. Crores

Particulars		FY20		FY21		FY22	
	Opening Balance of GFA as on 01.04.2019	Closing Balance of Asset as on 31.03.2020	Depreci-ation	Closing Balance of GFA as on 31.03.2021	Depre ci-ation	Closing Balance of GFA as on 31.03.2022	Depre-ciation
Buildings	1.59	1.87	0.05	1.87	0.06	1.87	0.06
Plant & Machinery	3.18	3.80	0.16	4.60	0.18	5.60	0.22
Line, Cable Network including plant/machinery	0.62	0.62	0.03	0.62	0.03	0.62	0.03
Software	0.04	0.04	0.01	0.04	0.01	0.04	0.01
Office Equipment	0.03	0.03	0.00	0.03	0.00	0.03	0.00
Total	**5.46**	**6.36**	**0.25**	**7.16**	**0.28**	**8.16**	**0.32**

Thus, the Commission decides to approve depreciation of Rs. 0.25 Crores, Rs. 0.28 Crores and Rs. 0.32 Crores for FY20, FY21 and FY22 respectively.

2.10. Interest on loans:

AQUES in its filling has claimed under format D-9, Rs.0.58 Crores, Rs.0.62 Crores and Rs.0.56 Crores respectively towards interest on capital loan for FY 20-22. AEQUS SEZ has not proposed new borrowings for FY 20-22. AEQUS SEZ has submitted that term loan outstanding at the beginning of FY20 is Rs.3.05 Crores. For the existing loan availed from COSMOS bank, the actual interest rate at 13% is considered by AEQUS SEZ on the projected balances for FY20-22. Further, an interest rate at 9.65% is considered for an outstanding vehicle loan amount availed during FY19.

The total amount of interest on capital loan claimed by AEQUS SEZ also includes interest on normative loan for the excess equity amount over and above 30% of GFA, as per the MYT Regulations for Rs. 0.11 Crores, Rs. 0.31 Crores and Rs. 0.30 Crores respectively for FY 20-22.

Commission's analysis and decision:

The Commission has noted the capital loan details made available as per the bifurcated audited accounts of AEQUS SEZ for FY 18. The Commission also notes that the rate of interest considered on the existing capital loans for the control period FY 20-22 at 13%, is on the higher side.

The current interest rates charged by the commercial banks and financial institutions are mainly based on Marginal Cost of fund based Lending Rates (MCLR). These rates are comparatively lower than the base rates considered earlier. Further, in view of the changing economic scenario, it is observed that there is a considerable reduction in the MCLR and also a downward trend is evident in the financial market. Hence, in such a situation, the Commission is of the view that, the AEQUS SEZ can avail Capital loans at competitive interest rates, which would be less than the proposed rates of 13%. The Commission notes that, the present SBI MCLR rate for capital loans with tenure of 3 years is 8.50%. Considering the present MCLR, the Commission decides to allow an interest rate of 11.00% to both the existing loan balances and for the new capital loan borrowings for allowance of interest on capital loan for the control period FY 20-22 as under:

TABLE – 2.14
Allowable Interest on Loan for FY20-22

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Opening balance of loan	3.33	3.48	3.35
Add : new Loans	0.69	0.55	0.74
Less: Repayments	-0.53	-0.68	-0.85
Total loan at the end of the year	3.48	3.35	3.23
Average Loan	**3.40**	**3.41**	**3.29**
Interest Rate allowed in %	11.00	11.00	11.00
Allowable Interest on Capital Loans	**0.37**	**0.376**	**0.36**

In addition, the Commission, as per the provisions of the MYT Regulations, has allowed the interest on normative basis on the excess equity over 30% of GFA at Rs.0.03 Crores and Rs.0.0019 Crores for FY20 and FY21 respectively, as follows:

TABLE: 2.15

Allowable Normative Interest on excess equity for FY20-22

Amount Rs.in Crores

Particulars	FY20	FY21	FY22
Opening balance of GFA	5.61	6.51	7.31
30% of GFA(Eligible for allowance of RoE	1.68	1.95	2.19
Opening balance of Equity	1.97	1.97	1.97
Equity in excess of 30% of GFA (3-2)	0.29	0.02	0.00
Allowable interest in %	11.00%	11.00%	11.00%
Allowable normative interest	0.03	0.0019	0.00

Thus, the Commission decides to approve total interest on capital loans inclusive of interest on normative loans (as per Table 2.14) of Rs.0.41 Crores, Rs.0.38 Crores and Rs.0.36 Crores for FY20, FY21 and FY22, respectively.

2.11 Interest on Working Capital Loans:

The AEQUS SEZ in its filing, has considered the interest rate on working capital loans at 11.60% for the control period and has claimed Rs.0.37 Crores, Rs.0.44 Crores and Rs.0.50 Crores for FY20, FY21 and FY22, respectively.

As per the norms specified under the MYT Regulations, the Commission has computed the interest on working capital which consists of one month's O & M expenses, 1% of opening GFA and two months' revenue.

The Commission notes that the current interest rates charged by the commercial banks and financial institutions are mainly based on Marginal Cost of Fund Based Lending Rates (MCLR). These rates are comparatively lower than the base rates considered earlier. Further, in view of the changing economic scenario, it is observed that there is a considerable reduction in the MCLR and also downward trend is evident in the interest rates. Hence, in such a scenario, the Commission is of the view that, the AEQUS can avail working capital loans at competitive rates which would be less than the proposed rates of 11.60%. The Commission notes that, the present SBI MCLR rate for short term loans with tenure of one years is 8.55%. Considering the present MCLR, and the additional basis points, as per the provision of MYT Regulations, the Commission decides to allow an interest rate of 11.00% for the control period FY20-22 for allowing the interest on working capital loans. This rate of interest now allowed by the Commission while approving the ARR, is subject to review during the APR.

The approved interest on working capital loans are as follows:

TABLE – 2.16

Approved Interest on Working Capital Loans – FY20-22

Amount in Rs. Crores

Particulars	FY 20	FY21	FY22
One-twelfth of the amount of O&M Expenses	0.12	0.14	0.16
Opening GFA as per Audited Accounts	5.61	6.51	7.31
Stores, materials and supplies 1% of Opening balance of GFA	0.06	0.07	0.07
One-sixth of the Revenue	3.02	3.73	4.15
Total Working Capital	**3.20**	**3.94**	**4.39**
Rate of Interest (% p.a.)	11.00%	11.00%	11.00%
Approved Interest on Working Capital Loan	**0.35**	**0.43**	**0.48**

Thus, the Commission decides to approve interest on working capital of Rs.0.35 Crores, Rs.0.43 Crores and Rs.0.48 Crores for FY20, FY21 and FY22 respectively.

2.12 Interest on Consumer Security Deposits:

The AEQUS in its filing, has claimed the interest on consumer security deposits of Rs. 0.13 Crores for FY20, Rs.0.15 Crores for FY21 and Rs. 0.18 for FY22, at the bank rate of 6.25% per annum.

Commission's analysis and decision:

In accordance with the KERC (Interest on Security Deposit) Regulations 2005, the interest rate on consumer security deposit to be allowed is the bank rate prevailing on the 1st of April of the financial year for which interest is due. As per Reserve Bank of India notification dated 7th February, 2019, the bank rate is 6.50%. This being the latest available bank rate, the Commission has considered the same for computation of interest on consumer deposits for FY20-22.

The Commission has considered the closing balance of consumer security deposits as per the bifurcated audited accounts of licensed activity of AEQUS SEZ for FY18 for onward projection for FY19-22.

The Commission by considering the average growth of consumer security deposit during the previous years, has computed, as per the provisions of MYT Regulations, on the average of opening and closing balance of consumers' security deposit of the relevant year and has computed the interest on consumer deposits for FY20-22, as follows:

TABLE – 2.17
Approved Interest on Consumer Security Deposits for FY20-22

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Opening Balance of Consumer Deposits	1.04	1.23	1.42
Closing Balance of Consumers Deposits	1.23	1.42	1.61
Rate of Interest	6.50%	6.50%	6.50%
Allowable Interest on Consumer Security Deposit	**0.07**	**0.09**	**0.10**

Thus, the Commission decides to approve interest on consumer security deposits of Rs.0.07 Crores, Rs.0.09 Crores and Rs.0.10 Crores for FY20, FY21 and FY22 respectively.

Thus, the allowable interest and finance charges for the control period FY 20-22 is indicated as follows:

TABLE –2.18
Allowable Interest and Finance Charges

Amount in Rs. Crores

Sl. No.	Particulars	FY20	FY 21	FY 22
1.	Interest on Loan capital	0.41	0.38	0.36
2.	Interest on working capital	0.35	0.43	0.48
3.	Interest on consumers security deposits	0.07	0.09	0.10
	Total interest and finance charges	**0.83**	**0.90**	**0.94**

2.13 Return on Equity (RoE):

AEQUS SEZ in its filling has claimed the Return on Equity of Rs.0.53 Crores, Rs.0.69 Crores and Rs.1.07 Crores respectively for the control period for FY 20-22 as follows:

TABLE-2.19
RoE for FY 20-22 - AEQUS submission

Amount in Rs. Crores

Sl. No.	Particulars	FY20	FY21	FY22
1	Equity share capital at the beginning of the year	3.26	3.99	4.45
2.	Fresh Equity infusion during the year	0.73	0.47	0.63
3	Reserve and surplus	-0.59	0.02	1.80
4	Net worth	3.39	4.48	6.89
Allowable RoE at 15.5%		0.53	0.69	1.07

Commission's analysis and decision:

The Commission, in accordance with the provisions of the MYT Regulations has considered 15.5% of Return on Equity. Income tax on RoE is not considered as the Company is availing the tax holiday.

The Commission notes that as per the bifurcated audited accounts of AEQUS SEZ licensed activity for FY18, the closing balance of share capital is Rs. 2.85 Crores, and the accumulated deficit under reserve and surplus is -0.88 Crores The Commission has recognized the net equity of Rs.1.97 crores as at the end of March,2018, as the opening balance of net equity for computation of RoE for FY20-22. However, the Commission as per the provisions of MYT Regulations has also considered 30% of the total value of opening balance of the proposed Gross Fixed Assets (GFA), as the maximum allowable equity in allowance of the RoE for the control period FY20-22 and approves the allowable RoE at 15.5% as follows:

TABLE – 2.20
Approved Return on Equity for FY20-22

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Opening balance of Share Capital	2.850	2.850	2.850
Accumulated deficit under Reserves and Surplus	-0.880	-0.880	-0.880
Net equity at the beginning of the year	1.970	1.970	1.970
30% of the opening balance of GFA	1.683	1.953	2.193
Eligible Equity considered for computation of RoE	1.683	1.953	1.970
Allowable RoE at 15.5%	**0.261**	**0.303**	**0.305**

Thus, the Commission decides to approve Return on Equity of Rs.0.261 Crores, Rs.0.303 Crores and Rs.0.305 Crores for FY20, FY21 and FY22 respectively, without the applicable income tax/MAT.

2.14 Other Income:

The AEQUS SEZ in its filing, has claimed the other income of Rs.0.06 Crores, for each of the year of the Control period FY20-22 and the Commission decides to consider the same while approving the ARR of the Control Period.

2.15 Abstract of Approved ARR for FY20-22

Based on the approved items of expenditure as discussed above, the total ARR for FY20-22 is as under:

TABLE – 2.21

Approved ARR for FY20-22

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Power Purchase Cost	15.440	18.803	20.453
O&M Expenses	1.40	1.64	1.93
Depreciation	0.25	0.28	0.32
Interest on Capital Loan	0.41	0.38	0.36
Interest on Working Capital loans	0.35	0.43	0.48
Interest on Consumer Deposit	0.07	0.09	0.10
Return on Equity	0.26	0.30	0.31
Other Income	-0.06	-0.06	-0.06
ARR	**18.12**	**21.86**	**23.89**
Carried forward deficit of FY18	**1.13**	**0.00**	**0.00**
Net ARR	**19.25**	**21.86**	**23.89**

Thus, the Commission approves the Net ARR of Rs.19.25 Crores, Rs.21.86 Crores and Rs.23.89 Crores for FY20, FY21 and FY22 respectively.

2.16 Average Cost of Supply:

Based on the above approved ARR, the average cost of supply for FY20-22 is as follows:

TABLE –2.22
Average Cost of Supply

Year	Approved Net ARR Rs. Crores	Sales(MU)	Average Cost of Supply Rs. per unit
FY20	19.25	23.67	8.13
FY21	21.86	27.55	7.94
FY22	23.89	30.63	7.80

2.17 Revenue:

The AEQUS SEZ in its filing has indicated revenue of Rs.17.83 Crores for FY20 towards sale of 23.67 MU energy, at existing retail supply tariff approved by the Commission in its previous Order. The Commission has considered Rs.18.149 Crores as the revenue at existing tariff for FY20.

2.18 Gap in Revenue

As discussed above, the Commission by considering the carry forward net deficit of Rs. 1.13 Crores, as per the APR for FY 18, has decided to approve the ARR of AEQUS SEZ for Rs.19.25 Crores, Rs.21.86 Crores and Rs.23.89 Crores for FY 20-22 respectively, as against the AEQUS SEZ proposal of ARR of Rs.18.05 Crores for FY 20, without factoring the surplus in revenue of Rs.0.04 Crores for FYY 18, Rs.21.30 Crores for FY 21 and Rs.23.53 Crores for FY 22.

Based on the existing retail supply tariff, the total revenue from sale of power will be Rs.18.149 Crores, which is Rs.1.10 Crores less than the approved ARR of Rs.19.25 Crores for FY 20. The ARR and the gap in revenue for the control period FY 20-22 is shown in the following table:

TABLE:2.23

ARR for the control period FY 20-22 and the revenue gap of FY20

Sl No	Particulars	FY 20	FY 21	FY 22
1	ARR in Rs. Crores	19.25	21.86	23.89
2	Approved sales in MU	23.67	27.55	30.63
3	Average cost of Supply in Rs. / Unit	8.13	7.94	7.80
4	Revenue at existing tariff in Rs. Crores.	18.149	-	-
5	Gap in revenue for FY20 in Rs.Crores	1.10	-	-

The AEQUS SEZ in its filling has projected gap in revenue of Rs.0.22 Crores for FY20 without considering the revenue surplus of Rs.0.04 Crores as per APR of FY18 and has not proposed any tariff increase for its consumers for FY20. AEQUS SEZ has submitted that, any change in purchase rate of Rs.5.936 per unit, the difference in power purchase cost may be passed on to the consumers by revision of retail supply tariff for FY20.

The Commission, by considering the above facts, in order to ensure full recovery of the ARR, has approved the following retail supply tariff for FY20:

TABLE-2.24
Approved Retail Supply tariff for FY20

Amount in Rs.

Particulars		Approved Tariff
HT Industrial / Common facilities		
	Fixed Charges Rs./KVA/month	200
	Energy Charges Rs./kWh	6.80
HT Construction/Temporary Construction/Temporary		
	Fixed Charges Rs./KVA/month	240
	Energy Charges Rs./kWh	10.00

2.19 Wheeling Charges and Cross Subsidy Surcharge

The Commission in its preliminary observation, has observed that AEQUS has submitted that at present there are no consumers opting for Open Access and has requested the Commission to determine the above charges on similar lines as considered in May 2018 Order. Since, the AEQUS has segregated the cost between distribution and supply, it may consider working out the wheeling charges and CSS considering its own costs.

AEQUS in its reply to the preliminary observation, has submitted that the Commission in its Order dated 14th May 2018, had applied the Wheeling charges as determined for HRECS to AEQUS also. Besides, the Cross subsidy surcharges as determined for all the ESCOMs was made applicable to AEQUS also.

Hence, AEQUS submitted that they are a small licensee and do not have any consumers opting for the open access as of now. Therefore, they requested the Commission to pass the Order for Wheeling charges and Cross Subsidy Surcharge[CSS] on similar lines considered by the Commission in May 2018 Order.

Thus, the Commission considering the request of AEQUS decides to continue the approach adopted in the Tariff Order, 2018 for Wheeling charges and CSS.

Therefore, the wheeling charges determined for HRECS shall apply for AEQUS also. As regards the CSS, the Commission has determined a common cross subsidy surcharge for all the ESCOMs and therefore, the same shall be applicable to AEQUS.

The cross subsidy surcharge determined shall be applicable to all open access/wheeling transactions in the area coming under AEQUS. However, the above CSS shall not be applicable to captive generating plant for carrying electricity to the destination of its own use and for those renewable energy generators who have been exempted from CSS by the specific orders of the Commission.

The Commission directs the Licensees to account the transactions under open access separately. Further, the Commission directs the Licensees to carry forward the amount realized under Open Access/wheeling to the next ERC, as it is an additional income to the Licensees.

2.20 Additional Surcharge:

As regards additional surcharge, the Commission has determined a common additional surcharge for all the ESCOMs and therefore, the same shall be applicable to AEQUS also.

2.21 Commission's Order:

1. **In exercise of the powers conferred on the Commission under Sections 62, 64 and other provisions of the Electricity Act, 2003, the Commission hereby approves the ARR for FY18 as per the Annual Performance Review and ARR for the Control Period FY20-22 and determines and notifies the retail supply tariff of AEQUS SEZ for FY20 as stated above.**

2. **The above retail supply tariff shall come into effect for the electricity consumed from the first meter reading date falling on or after 1st of April, 2019, after due notification to the consumers of the AEQUS.**

3. **This Order is signed dated and issued by the Karnataka Electricity Regulatory Commission, at Bengaluru this day, the 30th of May,2019.**

Sd/-	**Sd/-**	**Sd/-**
(Shambhu Dayal Meena)	**(H.M. Manjunatha)**	**(M.D. Ravi)**
Chairman	**Member**	**Member**