



Executive Summary

OF

**Petition filed for Annual Performance Review of FY 2017-18
Annual Revenue Requirement of FY 2018-19
for Its
Distribution and Retail Supply Business**

SUBMITTED TO

HARYANA ELECTRICITY REGULATORY COMMISSION

By:

DAKSHIN HARYANA BIJLI VITRAN NIGAM

Regd. Office: Vidyut Sadan, Vidyut Nagar, Hisar, Haryana (India)

Email feedback@dhbvn.com Phone 01662-223093

Annual Performance Review (APR) for FY 2017-18 under MYT Control Period (FY 2014-15 to FY 2016-17) and Annual Revenue Requirement for FY 2018-19

- DHBVN is filing Petition for True-Up of FY 2016-17, Annual Performance review for FY 2017-18 and Annual Revenue Requirement for FY 2018-19 by Dakshin Haryana Bijli Vitaran Nigam Limited under HERC (Terms and Conditions for Determination of Tariff for Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 along with the other guidelines and directives issued by the Hon'ble Commission from time to time and under Sections 42, 45, 46, 47, 61, 62, 64 and 86 of the Electricity Act 2003 read with the relevant guidelines.
- This Executive Summary of Annual Performance Review (APR) for FY 2017-18 and Annual Revenue Requirement for FY 2018-19 presents the key elements of the MYT ARR filing made by Dakshin Haryana Bijli Vitran Nigam (DHBVN) to the Haryana Electricity Regulatory Commission (the Commission).
- This summary is not a part of the filings made by DHBVN and interested parties are encouraged to examine the documents filed by the licensee for detailed information. Further, some of the annexure mentioned and references made in this document may not be included in this summary and would be available only with the complete document filed with the Commission.

1.1 SALES PROJECTIONS AND ENERGY BALANCE FOR FY 2016-17 & FY 2017-18

In order to estimate the respective consumer category wise energy sales of DHBVNL for FY 2017-18 and FY 2018-19, the Petitioner has relied upon the CAGR of previous year's data of sales. The sales of the base year i.e. FY 2016-17

has been considered for projection of category wise sales to the consumers. Similarly, category wise connected load has been projected for the FY 2017-18 and FY 2018-19 based on the CAGR of 3 to 5 years. The methodology applied by the petitioner for estimating the metered sales is as under:-

- Category wise CAGR of energy sales is calculated. The energy sales for FY 2017-18 and FY 2018-19 is calculated by the escalating the energy sales of FY 2016-17 by CAGR of 3-5 years
- Agriculture consumption for FY 2017-18 and FY 2018-19 is calculated by assuming a growth rate of 5% in sales over FY 2015-16.
- Sales to the railways has been assumed to decrease by 35% in FY 2017-18 as railways has opted for open access from 1st October, 2017 and 70% in FY 2018-19.

Hence, keeping the above basis, DHBVNL envisages the expected sales figures as shown in following table:

Table 1: Statement of sales for FY 2017-18 and FY 2018-19 (Mus)

Sr. No.	Category	FY 2016-17 Actual	FY 2017-18 Approved	FY 2017-18	FY 2018-19
1	Domestic	4,589.16	5,313.18	4,797.79	5,141.09
2	Non-Domestic	2,548.65	2,943.24	2,768.39	3,006.65
3	HT Industry	4,521.60	5,028.86	4,936.99	5,162.83
4	LT- Industry	898.95	1,098.62	934.65	976.44
5	Lift Irrigation	148.29	148.18	166.20	174.51
6	AP Sales	5,034.95	5,053.00	5,286.70	5,551.04
7	Bulk Supply	676.60	641.63	712.81	727.62
8	Railways	197.45	184.86	201.31	143.73
9	Street Light	91.79	95	91.18	95.74
10	PWW	524.91	596.11	589.04	643.75
	Total	19,232.35	21,102.68	20,485.07	21,623.39

It is re-iterated that the sales projections for FY 2017-18 and FY 2018-19 tabulated above are based on previous sales growth trend and has been arrived after nullifying the effect of energy sales to Jind Circle from the energy sales of the previous years.

1.2 Energy Availability for Haryana

For FY 2017-18 and FY 2018-19, Month Wise Energy availability at the state periphery in MUs has been projected based on the Allocated Share to Haryana of Central Generating Stations, State Generation and Independent Power Producers and other Stations.

The Energy Availability in Haryana is calculated based on the average PLF of FY 2016-17, FY 2015-16 and FY 2014-15, Share capacity of Haryana from Central Generating Station IPP and various other sources. The energy availability to DHBVN is calculated by multiplying the total availability with the ratio of drawal of UHBVN and DHBVN.

The Monthly energy sale is determined by distributing the same in the percentage of month of consumption of FY 2016-17. The energy sales hereby projected has been grossed up with the losses approved under UDAY scheme to reach at the normative energy required at the Discom periphery and then by the intrastate transmission losses to arrive at the normative energy required at the State Periphery.

Then the Normative energy required at the State is assumed to be met through the Available Energy from Must Run Plant i.e. plants which cannot be backed down like Hydro Power Plants, Solar Power Plant and Biomass etc.

The remaining demand is met through the Thermal Power Plant i.e. HPGCL, IPPs and NTPC as per the Merit order dispatch based upon the Variable charges as per the actual bills of FY 2017-18.

The Impact of Interstate losses on the Inter State Generating station has already been taken while calculating the availability at the state periphery.

The Backing Down of the Unit is assumed to be limited to the backing down capacity and any surplus created on account of same is assumed to be banked with other states and consumed during next financial year.

In order to arrive at the Energy Charge for the FY 2017-18, The Actual Variable Charges of first six months of FY 2017-18 has been multiplied with the estimated energy scheduled for the FY 2017-18. For calculating the Variable cost of power purchase for the FY 2018-19, the plant wise per unit cost of Power purchase of FY 2017-18 has been escalated at an average rate of 5% and multiplied with the total estimated energy drawn from various generators as per the Merit Order dispatch to arrive at the total variable cost of power generation for FY 2018-19.

Similarly, the fixed charges paid to the generators in FY 2016-17 are escalated at an average rate of 5% to arrive at the fixed charges to be paid for FY 2017-18 and FY 2018-19.

For FY 2017-18, the approved per unit cost of power purchase from HPGCL as approved by the Hon'ble Commission has been considered. Further, in FY 2018-19, The Generation from various units of HPGCL and their cost is based on the inputs received from HPGCL has been considered to arrive at the cost of power purchase. It is also pertinent to mention that the utility reserves the right to change the filed numbers based on the outcome of the Tariff Order on the Tariff petition filed by HPGCL.

Further, the Hon'ble CERC through its various judgements has allowed certain generators like Adani Power, and CGPL recoveries on account of change in law etc. It is submitted that Licensee has already made payment of Rs. 1508.14 Cr, therefore the same has been included in the power purchase cost of FY 2017-18. Further, the monthly impact based on the bills of Adani power on account of above works out to Rs 0.52 per unit, accordingly the licensee has increased the per unit cost of power purchase for the purpose of estimation of Cost of power purchase from Adani Power in FY 2017-18 and FY 2018-19.

The additional power purchase cost due to the impact of Hon'ble CERC Judgment works out to Rs 657.69 Cr for UH and Rs 850.45 Cr for DH respectively which has been added in the overall projected power purchase cost

in FY 2017-18.

Table 2: Power Purchase Quantum Availability and Costs – Projected for 2017-18 and FY 2018-19

S.No	Project	FY 2017-18				FY 2018-19			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
1	Anta	32.87	9.33	7.52	16.84	32.87	9.79	7.89	17.68
2	Auriya	15.94	5.76	10.31	16.07	15.94	6.05	10.83	16.87
3	Dadri	55.68	17.38	9.32	26.70	55.68	18.25	9.78	28.04
4	Faridabad Gas	672.30	168.28	134.95	303.22	672.30	176.69	141.69	318.39
5	Feroz Gandhi Unchahar-1	37.26	11.24	4.51	15.75	37.26	11.80	4.74	16.54
6	Feroz Gandhi Unchahar-2	77.93	23.62	8.72	32.34	77.93	24.80	9.16	33.96
7	Feroz Gandhi Unchahar-3	40.60	12.27	6.29	18.56	40.60	12.88	6.61	19.49
8	Farraka Super Thermal	32.99	9.58	3.77	13.35	32.99	10.06	3.95	14.02
9	Kahalgaon-1	84.02	22.10	10.09	32.19	84.02	23.21	10.59	33.80
10	Kahalgaon-2	234.12	59.18	30.87	90.04	234.12	62.13	32.41	94.55
11	Koldam	179.85	40.60	45.18	85.77	179.85	42.62	47.43	90.06
12	NCTPS (DADRI-II)	-	-	-0.03	-0.03	-	-	-0.04	-0.04
13	Rihand Thermal Power St.-1	232.06	31.39	22.11	53.50	232.06	32.96	23.22	56.18
14	Rihand Thermal Power St.-2	207.91	28.08	19.76	47.84	207.91	29.48	20.75	50.24
15	Rihand Thermal Power St.-3	204.45	27.80	34.35	62.16	204.45	29.19	36.07	65.27
16	Singrauli Super Thermal	773.77	115.61	49.63	165.24	773.77	121.39	52.11	173.50
17	TOTAL NTPC LTD (A)	2,881.74	582.21	397.35	979.55	2,881.74	611.32	417.21	1,028.53
18	NHPC								
19	BAIRASUIL	116.23	11.64	14.25	25.89	116.23	12.22	14.96	27.18
20	SALAL	273.07	16.55	17.66	34.22	273.07	17.38	18.55	35.93
21	TANAKPUR	10.46	1.70	2.58	4.28	10.46	1.79	2.71	4.50
22	CHAMERA-I	206.12	23.14	18.33	41.47	206.12	24.30	19.25	43.55
23	URI	87.53	7.35	7.37	14.73	87.53	7.72	7.74	15.46
24	CHAMERA-II	46.42	4.78	5.34	10.13	46.42	5.02	5.61	10.63
25	DHAULIGANGA	28.31	4.45	5.22	9.67	28.31	4.67	5.48	10.15
26	DHULHASTI	67.46	19.54	18.21	37.75	67.46	20.52	19.12	39.64
27	SEWA-II	17.37	3.91	4.56	8.47	17.37	4.10	4.79	8.89
28	CHAMERA III	41.43	9.14	11.35	20.49	41.43	9.60	11.92	21.52
29	PARBATI III	27.51	7.83	7.76	15.59	27.51	8.22	8.15	16.37
30	URI-II	38.70	9.72	13.23	22.95	38.70	10.20	13.90	24.10

S.No	Project	FY 2017-18				FY 2018-19			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
31	TOTAL NHPC LTD (B)	960.59	119.76	125.87	245.63	960.59	125.75	132.16	257.91
32	SJVNL	165.70	21.00	27.79	48.79	165.70	22.05	29.18	51.23
33	SJVNL (RAMPUR)	38.69	6.49	9.49	15.97	38.69	6.81	9.96	16.77
34	THDC	107.80	30.26	31.11	61.38	107.80	31.77	32.67	64.44
35	THDC KOTESHWAR	28.47	5.79	5.90	11.69	28.47	6.08	6.20	12.28
36	RAPS	307.61	81.88	0.03	81.91	307.61	85.97	0.04	86.01
37	NAPS	102.55	27.54	0.01	27.55	102.55	28.92	0.01	28.92
38	BBMB	1,596.58	93.62	-	93.62	1,596.58	98.30	-	98.30
39	PTC TALA	26.20	5.88	-	5.88	26.20	6.18	-	6.18
40	PTC J&K	161.43	62.44	-	62.44	161.43	65.56	-	65.56
41	Aravali Co. Pvt. Ltd.	1,437.03	425.51	463.60	889.11	1,433.33	445.63	486.78	932.41
42	JHAJJAR POWER LTD.	2,003.02	668.61	469.84	1,138.44	2,008.77	704.05	493.33	1,197.38
43	PRAGATI POWER	188.57	52.00	60.94	112.94	188.57	54.60	63.99	118.59
44	Coastal Gujrat Power Ltd.	1,367.98	195.71	142.54	338.25	1,367.98	205.50	149.66	355.16
45	ADANI POWER LTD	5,627.46	1,528.98	613.49	2,142.47	5,627.46	1,605.43	644.16	2,249.59
46	SASAN POWER LIMITED	1,691.19	246.70	30.11	276.81	1,691.19	259.03	31.62	290.65
47	PTC GMR KAMALANGA	1,185.56	119.98	182.70	302.68	1,185.56	125.98	191.83	317.81
48	PTC KARCHAMWANGTOO	431.09	82.34	107.91	190.25	431.09	86.45	113.31	199.76
49	PTC Lanco Amarkantak	1,037.65	170.35	144.39	314.75	1,037.65	178.87	151.61	330.48
50	DVC MEJIA	265.28	59.47	64.53	123.99	265.28	62.44	67.75	130.19
51	DVC KODERMA	154.55	30.56	41.98	72.55	154.55	32.09	44.08	76.17
52	DVC Raghunathpur	358.70	90.89	14.32	105.21	358.70	95.43	15.04	110.47
53	PTPS-V (HPGCL)	310.90	136.67	45.85	182.53	310.90	143.51	48.15	191.65
54	PTPS-VI (HPGCL)	313.84	114.86	52.46	167.33	312.37	120.04	55.08	175.13
55	PTPS-VII (HPGCL)	897.68	315.89	109.46	425.36	897.68	331.69	114.93	446.62
56	PTPS-VIII (HPGCL)	883.41	335.34	99.59	434.94	883.41	352.11	104.57	456.69
57	YTPP-I&2 (HPGCL)	1,669.65	563.01	247.17	810.18	1,670.27	591.38	259.53	850.91
58	RGTPS 1&2 (HPGCL)	2,218.37	776.65	477.98	1,254.63	2,200.91	809.06	501.88	1,310.94
59	WYC Kakaroi	172.62	37.39	3.10	40.49	172.62	39.26	3.26	42.51
60	HPGCL (FSA)	-	-	-	-	-	-	-	-
61	SLDC CH. OF HPGCL	-	-	-	-	-	-	-	-
62	OTHER LONG TERM (C)	24,749.59	6,285.80	3,446.32	9,732.12	24,733.32	6,594.19	3,618.63	10,212.83
63	P&R GOGRIPUR small hydro	5.48	2.18	-	2.18	5.48	2.29	-	2.29
64	Bhoruka Power Corps. Ltd. Small hydro	16.43	5.21	-	5.21	16.43	5.47	-	5.47

S.No	Project	FY 2017-18				FY 2018-19			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
65	HPSEB/MITTAL SMALL HYD.	-	-	-	-	-	-	-	-
66	Megahalya/ APPC	-	-	-	-	-	-	-	-
67	SHAHBAD SUGAR MILL	91.12	36.90	-	36.90	91.12	38.75	-	38.75
68	CH. DEVI LAL SUGAR MILL	-	-	-	-	-	-	-	-
69	Haryana Co. Sugar Mill.	-	-	-	-	-	-	-	-
70	Hafed Sugar Mill	-	-	-	-	-	-	-	-
71	Meham Sugar Mill	-	-	-	-	-	-	-	-
72	Puri Oil Mill small hydro	7.67	3.06	-	3.06	7.67	3.21	-	3.21
73	SUGAR MILL AND SMALL HYDRO (D)	120.70	47.36	-	47.36	120.70	49.72	-	49.72
74	SDS SOLAR PVT LTD. DH	0.94	0.53	-	0.53	0.94	0.56	-	0.56
75	C&S Electrical DH	0.94	0.53	-	0.53	0.94	0.56	-	0.56
76	CHANDRALEELA SOLAR DH	0.75	0.43	-	0.43	0.75	0.45	-	0.45
77	SUKHBIR SOLAR DH	0.94	0.53	-	0.53	0.94	0.56	-	0.56
78	ZAMIL SOLAR DH	0.94	0.53	-	0.53	0.94	0.56	-	0.56
79	SIWANA SOLAR POWER DH	4.69	3.02	-	3.02	4.69	3.17	-	3.17
80	H.R. MINERAL SOLAR UH	0.94	0.54	-	0.54	0.94	0.57	-	0.57
81	TAYAL & CO SOLAR UH	0.94	0.53	-	0.53	0.94	0.56	-	0.56
82	VKG SOLAR UH	0.94	0.53	-	0.53	0.94	0.56	-	0.56
83	Utrecht Solar Pvt. Ltd.	0.94	0.53	-	0.53	0.94	0.56	-	0.56
84	Subhash Infra Engineers Pvt ltd.	0.94	0.54	-	0.54	0.94	0.57	-	0.57
85	HPGCL-Solar	9.39	4.58	-	4.58	9.39	4.81	-	4.81
83	Solar Energy Corporation of India Ltd.	75.09	41.30	-	41.30	75.09	43.36	-	43.36
84	SOLAR POWER (E)	98.36	54.14	-	54.14	98.36	56.84	-	56.84
85	STAR WIRE INDIA	24.65	19.21	-	19.21	24.65	20.17	-	20.17
86	GEMCO ENERGY LTD.	19.92	16.13	-	16.13	19.92	16.94	-	16.94
87	AB GRAIN SPIRIT PVT LTD.	12.45	9.59	-	9.59	12.45	10.06	-	10.06
88	SRI JYOTI	23.65	18.21	-	18.21	23.65	19.12	-	19.12
89	BIOMASS POWER (F)	80.67	63.14	-	63.14	80.67	66.30	-	66.30
90	Total Long term (A+B+C+D+E+F)	28,891.65	7,152.40	3,969.53	11,121.93	28,875.38	7,504.12	4,168.01	11,672.13
91	New Plants (FY 2017-18)								
92	JBM Solar	18.77	10.66	-	10.66	18.77	11.20	-	11.20
93	Unchahar IV (NTPC)	56.81	16.80	6.58	23.38	56.81	17.64	6.91	24.55
94	Bio-Mass based Generation Projects	8.69	6.80	-	6.80	17.43	14.32	-	14.32
95	Bagasse Nariangarh Sugar mill	31.04	24.28	-	24.28	62.24	51.13	-	51.13

S.No	Project	FY 2017-18				FY 2018-19			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
96	Kishanganga (J&K)- NHPC	24.90	4.26	2.83	7.09	49.95	8.96	5.95	14.91
97	Kotli Bhel (All 3 Stages)-NHPC	76.02	13.00	8.65	21.64	152.47	27.37	18.16	45.53
98	Solar Power Projects HPGCL-1	10.30	5.85	-	5.85	20.65	12.31	-	12.31
99	Teesta III, Sikkim (IPP) , Hydro	262.15	44.81	29.82	74.63	525.74	94.37	62.62	156.99
100	New Plants (FY 2018-19)	488.68	126.46	47.88	174.34	904.05	237.30	93.64	330.94
101	Parbati II, HEP (H.P.)-NHPC					58.98	10.59	7.05	17.63
102	Solar Power Projects HPGCL-2					7.35	4.39	-	4.39
103						66.34	14.97	7.05	22.02
104	Total Cost of Power Purchase	29,380.32	7,278.86	4,017.41	11,296.27	29,845.76	7,756.39	4,268.69	12,025.08
105	Hon'ble CERC Judgement			850.45	850.45				-
106	Total Cost of Power Purchase	29,380.32	7,278.86	4,867.86	12,146.73	29,845.76	7,756.39	4,268.69	12,025.08

The Nigam prays that in case of any variance in the cost of new plants, the Nigam should be allowed to recover the additional cost.

Further, the Nigam has projected the Interstate and Intrastate Transmission charges for FY 2018-19 by escalating the Interstate and Intrastate Transmission charges approved by the Hon'ble during for FY 2017-18 by 5 % which is rate of escalation considered by Hon'ble CERC for escalating the transmission charges. The summary of same is given below:

Summary of Power Purchase in Rs Cr.

<i>Particular</i>	<i>FY 2017-18</i>	<i>FY 2018-19</i>
Power Purchase Cost	11,296.27	12,025.08
Interstate Transmission Cost	790.39	843.74
Intra-state Transmission Cost	904.36	934.38
Prior Period Expenses (CERC Decision) Already Paid in FY 2017-18	850.45	-
Total Power Purchase Cost	13,841.47	13,803.21

The total power purchase cost from external and state sources for DHBVN including impact of CERC Judgment has been assessed at Rs. 13,841.47 Crores for FY 2017-18 and Rs. 13,803.21 Crores for 2018-19.

Transmission losses

For FY 2017-18 and FY 2018-19, the inter-state transmission losses and intra-state transmission losses have been considered as **3.82%** and **2.46%** respectively as approved by the Commission.

Distribution losses

The Hon'ble Commission vide its Tariff Order dated 11.07.2017 has approved a AT&C loss of 22.48% for DHBVN for the FY 2017-18 which is in accordance with the targets laid down in the UDAY MoU. Against the committed AT&C losses of 22.48 % for FY 2016-17 in the UDAY MoU, the Discoms have been able to achieve actual AT&C loss level of 21.14%. Further, as per the UDAY, MoU both the Discoms were required to achieve an AT&C loss level of 15% for the FY 2018-19. As such a

loss reduction of approx. 6% has to be achieved during the current financial year to meet the UDAY targets.

In view of above, DHBVN has considered a realistic AT&C target of 18.76% for FY 2017-18 and 15.00 % for the FY 2018-19.

Energy Balance - DHBVNL

On the basis of the above projections, the Energy Balance for DHBVN for FY 2016-17 and FY 2017-18 is summarized below.

Table 3: Energy Balance for DHBVN

Energy Balance	Units	FY 2017-18	FY 2018-19
Energy Sales to the Consumers	Mus	20,485.07	21,623.39
T&D loss	%age	17.94%	14.14%
Energy Input at Discom Periphery	Mus	24,963.52	25,184.90
Intra- State Transmission Loss	%age	2.46%	2.46%
Energy Input at State Periphery	Mus	25,593.11	25,820.07
Total Energy Available	Mus	37,462.17	38,358.61
Inter-state Power Purchase considering MoD	Mus	12,081.46	12,522.36
Inter State transmission losses	%age	3.82%	3.82%
Inter-state Power Purchase at State Periphery	Mus	11,619.95	12,044.01
Intra state Power Purchase Considering MoD	Mus	17,760.37	17,801.76
Power Purchase at State Periphery	Mus	29,380.32	29,845.76
Surplus	Mus	3,787.21	4,025.69

The Nigam has assumed that the surplus power available will be sold entirely as 'inter-state sales' throughout FY 2017-18 and FY 2018-19 at 80% of average variable power purchase cost.

1.3 Operation & Maintenance Expenses

The operation and maintenance expenditure of DHBVN comprises of Employee Expenses, Repair & Maintenance expenses and Administration & General expenses. The O&M expenses, as per the MYT regulations, 2012 are considered as controllable Factor with the exception of terminal benefits. The cost of terminal benefits has been considered as uncontrollable factor.

The summary of projected O&M expenses for FY 2017-18 and FY 2018-19 is tabulated below for reference:

Table 4: Summary of O&M Expenses for FY 2017-18 and FY 2018-19 (In Crs.)

<i>Particulars</i>	FY 2016-17	FY 2017-18	FY 2018-19
	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>
Employee Expense	669.34	884.90	820.03
A&G Expense	82.18	83.67	85.18
R&M Expense	68.23	129.60	151.06
Terminal Benefit	420.00	301.00	343.25
Total	1,239.76	1,399.16	1,399.52

DHBVN prays the Hon'ble Commission to approve total O&M expenses for FY 2017-18 and FY 2018-19 as tabulated above

1.4 Capital Expenditure

The Hon'ble Commission vide order dated 11th July, 2017 has approved a Capex Plan of Rs 1100 Cr. for FY 2017-18. DHBVN has estimated to undertake an expenditure of Rs 1100 Cr as approved by the Hon'ble Commission in FY 2017-18. In order to achieve the loss targets as proposed in the following chapters, DHBVN proposed to incur a Capital Expenditure of Rs 1300 Cr. In the FY 2018-19.

Capital Work in Progress for the control period has been projected on the basis of estimated capital expenditure and the capitalization schedule assuming 60% transfer of total cap-ex (including the CWIP carry forwarded from the previous year and capex added during the year) to fixed assets and 40% transfer of total cap-ex to capital works in progress (CWIP) for each year of operation.

While estimating CWIP it is assumed that 60% of the opening balance of CWIP and fresh capital investment shall be capitalized during each year of operation.

1.5 Return on Equity

The computation of return on equity for FY 2017-18 and FY 2018-19 is tabulated below:

Table 5: Return on Equity for FY 2016-17 & FY 2017-18

<i>Particulars</i>	FY 2016-17	FY 2017-18	FY 2018-19
Share Capital Opening	1,472.36	2,544.33	3,268.71

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Equity received under UDAY Scheme	1,071.97	724.38	764.38
Share Capital Closing	2,544.33	3,268.71	4,033.09
Average Equity	2,008.34	2,906.52	3,650.90
Rate of RoE	14.00%	14.00%	14.00%
Total RoE	281.17	406.91	511.13

1.6 Interest & Finance Charges

Total interest and finance charges of DHBVN for FY 2017-18 and FY 2018-19 have estimated as below:

Table 5: Net Interest & Finance Charges (Rs. In Crores)

Sr. No	Particulars	FY 2016-17 Actual	FY 2017-18	FY 2018-19
1	Gross Interest on Capex Loans	214.10	242.07	316.67
2	Less: Interest Capitalized	119.50	95.38	131.94
3	Net Interest on Capex Loans	94.60	146.69	184.73
4	Interest on CC/OD	11.91	174.54	339.18
5	Interest on UDAY Loans	461.21	399.94	239.76
6	Interest on Consumer Security Deposits	18.63	74.81	76.87
7	Other Interest and Finance charges	3.53	3.76	4.01
8	Interest Cost of Loan of Jind	-	88.79	56.37
9	Interest on WC loans	295.87	-	-
10	Interest on FRP Bonds	0.12	-	-
11	Interest on HVPNL Bonds	73.88	-	-
12	Net Interest	959.74	888.53	900.92

1.7 Depreciation

For FY 2017-18 and FY 2018-19, DHBVN has estimated depreciation charges on the basis of estimated additions in GFA as per the capital investment plan for the FY 2017-18 and FY 2017-18. The transfer of total Capex to fixed asset has been considered as 60%.

For the purpose of projecting depreciation charges for FY 2017-18 and FY 2018-19, the licensee has considered the category-wise actual depreciation rates (as a percentage of opening balance of asset-class-wise GFA for that year).

The following depreciation workings have been provided for the reference:

Table 7: Depreciation for FY 2017-18 (Rs. Cr.)

S.No.	Particulars	Accumulated depreciation at the beginning of the year	Additions during the year			Balance depreciation at the end of the year
			Rate of depreciation (%)	Depreciation during the year	Total	
1	Land & Land Rights	-		-	-	-
2	Buildings & Civil Structure	51.50	3.34	8.03	8.03	59.53
3	Plant & Machinery	2,260.67	5.28	391.05	391.05	2,651.72
4	Vehicles	12.26	18.00	3.27	3.27	15.53
5	Furniture & Fixture	11.73	6.33	1.35	1.35	13.08
	Less: Depreciation on assets contributed by Consumers and grants			104.63		
	Total	2,336.16		299.06	403.69	2,739.86

Table 7.1: Depreciation for FY 2018-19 (Rs. Cr.)

S.No.	Particulars	Accumulated depreciation at the beginning of the year	Additions during the year			Balance depreciation at the end of the year
			Rate of depreciation (%)	Depreciation during the year	Total	
1	Land & Land Rights	-		-	-	-
2	Buildings & Civil Structure	59.53	3.34	9.42	9.42	68.95
3	Plant & Machinery	2,651.72	5.28	455.72	455.72	3,107.45
4	Vehicles	15.53	18.00	3.78	3.78	19.31
5	Furniture & Fixture	13.08	6.33	1.57	1.57	14.65
	Less: Depreciation on assets contributed by Consumers and grants	-		105.90		
	Total	2,739.86		364.59	470.50	3,210.36

1.8 Non-Tariff Income

The petitioner has projected the same amount for the FY 2017-18 and FY 2018-19 as approved by the Hon'ble Commission of Rs 247.47 Cr.

Table 8: Non-Tariff Income

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	Non - Tariff Income	247.47	247.47

The Petitioner prays the Hon'ble Commission to approve non-tariff income for FY 2017-18 and FY 2018-19 as tabulated above.

In the Petition, the Petitioner has also submitted that delayed payment surcharge is collected against the receivables from the consumers that are not received in time. As there is a delay in receiving the revenue, the Nigam has to procure additional working capital. Therefore, the revenue received on account of delayed payment surcharges is not income of the Nigam, rather it's a carrying cost recovered from consumers to pay the interest on the increased portion of working capital which occur because of delay in receiving the revenue. Therefore, it is requested that the revenue from delayed payment surcharge should not be considered as income of the Nigam.

1.9 Revenue Estimations

The Petitioner has projected the revenue from intra-state sales for the FY 2017-18 based on the sales distributed subcategory wise based on the past years subcategory wise distribution and multiplying the projected and subcategory wise distributed sales of the 1st Quarter with the Tariff determined by the Hon'ble Commission. The Hon'ble Commission had notified the Tariff Order dated 11.07.2017 wherein the Hon'ble Commission had revised the tariff applicable to all the categories except for Domestic consumers having consumption less than 150 units per month and AP consumer. Therefore, the licensee has projected the revenue for the period starting from July'17 to March'18 based on the aforementioned Tariff Order dated 11.07.2017. Similarly, the licensee has projected the revenue for the FY 2018-19. The details of the same have been given as under:

Table 9: Revenue Estimations for FY 2017-18 and 2018-19 (In Crs.)

Sr.	Category	FY 2017-18	FY 2018-19
1	Domestic	2,497.05	2,693.85
2	Non Domestic	1,851.46	2,038.37
3	HT Industry	3,526.81	3,765.08
4	LT industry	663.48	704.19
5	Agriculture	39.06	35.25
6	Lift irrigation	120.71	128.26

Sr.	Category	FY 2017-18	FY 2018-19
7	Railway traction	132.23	96.07
8	Bulk supply	417.77	436.73
9	street lighting	66.03	70.37
10	PWW and Others	426.28	473.16
	Total Energy Charge	9,740.87	10,441.31
11	Fixed Charges	1,136.03	1,226.85
12	Total Revenue	10,876.91	11,668.16
13	Collection Efficiency	99%	99%
14	Revenue Realised	10,768.14	11,551.47

1.10 Revenue from inter-state sales:

Revenue from inter-state sales projected for FY 2017-18 and FY 2018-19 has been considered at 80% of average variable power purchase cost.

1.11 Revenue from FSA:

The Revenue from FSA i.e. Rs 667.40 Cr for the FY 2017-18 has been estimated by projecting the Non-AP sales of 1st Quarter FY 2017-18 @65 paisa per unit and sales of last three quarters by 37 paisa per unit.

1.12 Agriculture Subsidies

Agriculture Subsidy for the FY 2018-19 has been taken after escalating the approved subsidy of FY 2017-18 by 5%.

1.13 Annual Performance Review for FY 2017-18 and Annual Revenue Requirement for FY 2018-19

The following table summarizes the estimated Aggregate Revenue Requirement (ARR) of DHBVN for FY 2017-18 and FY 2018-19.

Table 6: Estimated Aggregate Revenue Requirement (ARR) for FY 2017-18 and FY 2018-19 (In Crs.)

Summary of ARR of DHBVN		FY 2017-18	FY 2017-18	FY 2018-19
Sr.No	Particulars	Approved	Projected	Projected
1	Total Power Purchase Expense	11,925.87	13,841.47	13,803.21
1.1	Power Purchase Expense	11,021.51	12,146.73	12,025.08
1.2	Interstate transmission Charge	-	790.39	843.74
1.3	Intrastate transmission charges and SLDC charges	904.36	904.36	934.38
2	Operations and Maintenance Expenses	1,367.00	1,399.16	1,399.52
2.1	Employee Expense	790.12	884.90	820.03

Summary of ARR of DHBVN		FY 2017-18	FY 2017-18	FY 2018-19
2.2	Administration & General Expense	77.72	83.67	85.18
2.3	Repair & Maintenance Expense	114.16	129.60	151.06
2.4	Terminal Liability	385.00	301.00	343.25
3	Depreciation	288.87	299.06	364.59
4	Total Interest & Finance Charges	343.99	406.23	445.59
4.1	Net Interest on Capex Loans		146.69	184.73
4.2	Interest on Working Capital(Normative Basis)		180.97	179.99
4.3	Interest on Consumer Security Deposits		74.81	76.87
4.4	Other Interest and Finance charges		3.76	4.01
5	Return on Equity Capital	173.16	406.91	511.13
6	Other Expenses		53.84	57.76
7	Total Expenditure	14,098.89	16,406.68	16,581.79
8	Interest on Actual Working Loans		888.53	900.92
8.1	Interest on UDAY bonds		399.94	239.76
	Interest on 25% remaining loans under UDAY (incl FRP & C/C)		174.54	339.18
8.2	Interest on CAPEX loans		146.69	184.73
8.3	Interest Cost on Consumer Security Deposit		74.81	76.87
8.4	Guarantee Fees		3.76	4.01
8.5	Interest Cost of Jind Loans		88.79	56.37
9	Actual Expenditure (Adjusted with Normative interest on Loan)	14,098.89	16,888.98	17,037.12
10	Less: Non-Tariff Income	247.47	247.47	247.47
11	Net Aggregate Revenue Requirement	13,851.42	16,641.51	16,789.65
12	Total Revenue	-	11,518.75	12,388.44
12.1	Revenue from Interstate sales		750.61	836.97
12.2	Revenue from Intrastate sales / Sale of Power		10,768.14	11,551.47
13	Net Gap		(5,122.76)	(4,401.21)
	AP-Subsidy		2,620.34	2,751.36
	GAP After AP Subsidy	-	(2,502.42)	(1,649.85)

Table 14: Wheeling and Retail ARR for FY 2017-18 and FY 2018-19

Summary of ARR of DHBVN			FY 2017-18		FY 2017-18	FY 2018-19	FY 2018-19
S.No	Particulars	Wheeling	Retail	Wheeling	Retail	Wheeling	Retail
1	Total Power Purchase Expense			-	13,841.47	-	13,803.21
1.1	Power Purchase Expense	0%	100%	-	12,146.73	-	12,025.08
1.2	Interstate transmission Charge	0%	100%	-	790.39	-	843.74
1.3	Intrastate transmission charges and SLDC charges	0%	100%	-	904.36	-	934.38
2	Operations and Maintenance Expenses			695.09	704.07	699.89	699.63
2.1	Employee Expense	48%	52%	424.75	460.15	393.61	426.41
2.2	Administration & General Expense	42%	58%	35.14	48.53	35.77	49.40
2.3	Repair & Maintenance Expense	70%	30%	90.72	38.88	105.74	45.32
2.4	Terminal Liability	48%	52%	144.48	156.52	164.76	178.49
3	Depreciation	82%	18%	245.23	53.83	298.97	65.63
4	Total Interest & Finance Charges			150.50	255.74	184.65	260.94
4.1	Net Interest on Capex Loans	90%	10%	132.02	14.67	166.25	18.47
4.2	Interest on Working Capital(Normative Basis)	10%	90%	18.10	162.87	18.00	161.99
4.3	Interest on Consumer Security Deposits	0%	100%	-	74.81	-	76.87
4.4	Other Interest and Finance charges	10%	90%	0.38	3.39	0.40	3.61
5	Return on Equity Capital	90%	10%	366.22	40.69	460.01	51.11
6	Other Expenses	29%	71%	15.61	38.23	16.75	41.01
7	Total Expenditure	11%	89%	1,472.65	14,934.03	1,660.27	14,921.52
8	Interest on Actual Working Loans			198.73	689.81	230.19	670.74
8.1	Interest on UDAY bonds	10%	90%	39.99	359.95	23.98	215.79
8.2	Interest on 25% remaining WC loans under UDAY including CC/OD limits	10%	90%	17.45	157.08	33.92	305.26
8.3	Interest on CAPEX loans	90%	10%	132.02	14.67	166.25	18.47
8.4	Interest on Loans taken after 1st Oct 2015 but before MoU	10%	90%	-	-	-	-
8.5	Interest Cost on Consumer Security Deposit	0%	100%	-	74.81	-	76.87
8.6	Guarantee Fees	10%	90%	0.38	3.39	0.40	3.61
8.7	Interest Cost of Jind Loans	10%	90%	8.88	79.91	5.64	50.73
9	Actual Expenditure (Adjusted with Normative interest on Loan)			1,520.88	15,368.10	1,705.81	15,331.32
10	Less: Non-Tariff Income	11%	89%	27.22	220.25	27.22	220.25
11	Net Aggregate Revenue Requirement			1,493.66	15,147.85	1,678.58	15,111.07

1.14 Recovery of Gaps

The ARR has been prepared on the basis of actual wherein the foreseen expenses and revenue have been projected. The Hon'ble Commission is requested to continue with the current levels of tariff and FSA based on which the total gap after True-up for FY 2016-17 comes at Rs.2,240.15 Crs; after re-assessment of ARR gap for FY 2017-18 comes out to be Rs. 2,502.42 Crs and for FY 2018-19 at Rs. 1,649.85 Crs respectively.

The resultant gap after continuation of current levels of tariff will be met through the OFR as proposed under UDAY.