



REGISTERED WITH ACK/DUE

Ref No. EG.10/1724

February 14, 2022

The Project Engineer,
Bureau of Energy Efficiency,
4th floor, Sewa Bhawan,
RK Puram Sector-1
New Delhi-110066

Dear Sir,

Sub: Clarifications with respect to submission of BEE Energy Audit Report

I submit herewith for your kind consideration the BEE Energy Audit Report (the "Report") for the electricity distribution business of Kanan Devan Hills Plantations Company Private Limited (the "Licensee") in the licensed distribution area Munnar, Kerala for the period from 1st October 2021 to 31st December 2021.

With respect to the Report, I would like to draw your attention to the following points:

- The power procurement and distribution of the Licensee slightly differs from other Licensees. From the Licensee's distribution network, KSEB Limited, the State Electricity distributor, draws power supply from 16 feedback points for distribution to its consumers outside the periphery of the Licensee's distribution network. Hence, for calculation of the distribution line loss of the licensee, KSEB's consumption taken back from Licensee's network should also be considered. This has been the practice followed consistently till date. The same has been approved by the State Electricity Regulator and is used for its regulatory submissions too.

Accordingly, the revised transmission line loss after considering the feedback consumption by KSEB is 9.09% (Line loss – 1.22 MU / Purchased units – 12.27 MU + Feedback units – 1.19 MU).

- The input power supply is taken by the Licensee at two places; one is Pullivasal Generating Station (in one double circuit + one single circuit feeder) and another at Madupatty 2 MW Generating Station.

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Kanan Devan Hills Plantations Company Private Limited
Registered Office: KDHP House, Munnar – 685 612, Kerala



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The metering points of the feeders from Pullivasal Generating Station are in the Licensees Switching Station. The feeder control with meter available in the HT Panel records the input in Licensee's Feeder Meter at the Switching Station. However, the generation from Madupatty 2 MW Generating Station is directly fed to Licensee's Madupatty Feeder. Hence the input is only recorded in the meter kept in Madupatty Generating Station and not included in the Licensee's Feeder Meter at its Switching Station.

Hence the feeder wise import as reported only includes power import from the Pullivasal Generating Station and not the total power import from all the sources. The same should be duly considered while evaluating the T&D lose and Feeder wise T&D loss.

Thanking you,

Yours faithfully,

R. Jayaraman.
Energy Manager,
Engineering Department,
Kanan Devan Hills Plantations Company Pvt. Ltd.,
Munnar – 685612.

General Information

1	Name of the DISCOM	Kanan Devan Hills Plantations Company Private Limited		
2	i) Year of Establishment	2007		
	ii) Government/Public/Private	Private		
3	DISCOM's Contact details & Address			
i	City/Town/Village	Munnar		
ii	District	Idukki		
iii	State	Kerala	Pin	685612
iv	Telephone	04868 255107	Fax	
4	Registered Office			
i	Company's Chief Executive Name	K Mathew Abraham		
ii	Designation	Managing Director		
iii	Address	KDHP House		
iv	City/Town/Village	Munnar	P.O.	Munnar
v	District	Idukki		
vi	State	Kerala	Pin	685612
vii	Telephone	04868 255000	Fax	
5	Nodal Officer Details*			
i	Nodal Officer Name (Designated at DISCOM's)	Raju U Warriar		
ii	Designation	Head- Engineering Department		
iii	Address	Engineering Department, KDHP		
iv	City/Town/Village	Munnar	P.O.	Munnar
v	District	Idukki		
vi	State	Kerala	Pin	685612
vii	Telephone	04868 255101	Fax	
6	Energy Manager Details*			
i	Name	R. Jayaraman		
ii	Designation	Executive	Whether EA or EM	EM
iii	EA/EM Registration No.	Nil		
iv	Telephone	04868 255107	Fax	
v	Mobile	9446130623	E-mail ID	jayaraman.r@kdhptea.co.in
7	Period of Information			
	Year of (FY) information including Date and Month (Start & End)	1st October 2021 - 31st December 2021		

Performance Summary of Electricity Distribution Companies

1	Period of Information Year of (FY) information including Date and Month (Start & End)	1st October 2021 - 31st December 2021	
2	Technical Details		
(a)	Energy Input Details		
(i)	Input Energy Purchase (From Generation Source)	Million kwh	12.28
(ii)	Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	12.28
(iii)	Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	11.05
(b)	Transmission and Distribution (T&D) loss Details	Million kwh	1.23
		%	0.10
	Collection Efficiency	%	98%
(c)	Aggregate Technical & Commercial Loss	%	90%

I/We undertake that the information supplied in this Document and Pro-forma is accurate to the best of my knowledge and if any of the information supplied is found to be incorrect and such information result into loss to the Central Government or State Government or any of the authority under them or any other person affected, I/we undertake to indemnify such loss.

Authorised Signatory and Seal

Name of Authorised Signatory

Name of the DISCOM:

Kanan Devan Hills Plantations

Company Private Limited

Full Address:

ENGINEERING DEPARTMENT
MUNNAR P.O.
KERALA - 685 612

Seal



R. Jayaraman

Signature:-

Name of Energy Manager*:

Registration Number:

Form-Details of Input Infrastructure

1.	Parameters	Total	Covered during In audit	Verified by Auditor in Sample Check	Remarks (Source of data)
i	Number of circles				1
ii	Number of divisions				1
iii	Number of sub-divisions				1
iv	Number of feeders				7
v	Number of DTs				132
vi	Number of consumers				15969
2	Parameters	66kV and above	33kV	11/22kV	LT
a.i.	Number of conventional metered consumers	0	0	0	6040
ii	Number of consumers with 'smart' meters	0	0	0	Nil
iii	Number of consumers with 'smart prepaid' meters	0	0	0	Nil
iv	Number of consumers with 'AMR' meters	0	0	0	Nil
v	Number of consumers with 'non-smart prepaid' meters	0	0	0	9929
vi	Number of unmetered consumers	0	0	0	0
vii	Number of total consumers	0	0	0	15969
b.i.	Number of conventionally metered Distribution Transformers	0	0	0	60
ii	Number of DTs with communicable meters	0	0	0	Nil
iii	Number of unmetered DTs	0	0	0	72
iv	Number of total Transformers	0	0	132	0
c.i.	Number of metered feeders	0	0	7	0
ii	Number of feeders with communicable meters	0	0	0	0
iii	Number of unmetered feeders	0	0	0	0
iv	Number of total feeders	0	0	7	0
d.	Line length (ct km)	0	0	185.05	189.01
e.	Length of Aerial Bunched Cables	0	0	Nil	
f.	Length of Underground Cables		0		
3	Voltage level	Particulars	MU	Reference	Remarks (Source of data)
i	66kV and above	Long-Term Conventional	Nil	Includes input energy for franchisees	
		Medium Conventional	Nil		
		Short Term Conventional	Nil		
		Banking	Nil		
		Long-Term Renewable energy	Nil		
		Medium and Short-Term RE	Nil	Includes power from bilateral/ PX/ DEEP	
		Captive, open access input	Nil	Any power wheeled for any purchase other than sale to DISCOM. Does not include input for franchisee.	
		Sale of surplus power	Nil		
		Quantum of inter-state transmission loss	0	As confirmed by SLDC, RLDC etc	
		Power procured from inter-state sources	0	Based on data from Form 5	
Power at state transmission boundary	0				
ii	33kV	Long-Term Conventional	0		
		Medium Conventional	0		
		Short Term Conventional	0		
		Banking	0		
		Long-Term Renewable energy	0		
		Medium and Short-Term RE	0		
		Captive, open access input	0		
		Sale of surplus power	0.00%		
		Quantum of intra-state transmission loss	0		
		Power procured from intra-state sources	0		
iii		Input in DISCOM wires network	0		
		Renewable Energy Procurement	0		
iv	33 kV	Small capacity conventional/ biomass/ hydro plants Procurement	0		
		Captive, open access input	0		
v	11 kV	Renewable Energy Procurement	0.0047		
		Small capacity conventional/ biomass/ hydro plants Procurement	0		
vi	LT	Sales Migration Input	0		
		Renewable Energy Procurement	0		
vii		Sales Migration Input			
		Energy Embedded within DISCOM wires network	0.0047		
viii		Total Energy Available/ Input	0		
4	Voltage level	Energy Sales Particulars	MU	Reference	
i	LT Level	DISCOM' consumers	3	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	0	Non DISCOM's sales	
		Embedded generation used at LT level	0	Demand from embedded generation at LT level	
		Sale at LT level	3		
		Quantum of LT level losses	0		
		Energy Input at LT level	3		
ii	11 kV Level	DISCOM' consumers	8	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	0	Non DISCOM's sales	
		Embedded generation at 11 kV level used	0	Demand from embedded generation at 11kV level	
		Sales at 11 kV level	8		
		Quantum of Losses at 11 kV	0		
		Energy input at 11 kV level	8		
iii	33 kV Level	DISCOM' consumers		Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	
		Embedded generation at 33 kV or below level		This is DISCOM and OA demand met via energy generated at same voltage level	
		Sales at 33 kV level	0		
		Quantum of Losses at 33 kV	0		
		Energy input at 33kV Level			
iv	> 33 kV	DISCOM' consumers		Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	
		Cross border sale of energy			
		Sale to other DISCOMs			

	Banking			
	Sales at 66kV and above (EHV)	0		
	Total Energy Requirement	0		
	Total Energy Sales	11		

Energy Accounting Summary					
5	DISCOM	Input (in MU)	Sale (in MU)	Loss (in MU)	Loss %
i	LT				
ii	11 Kv	12.28	11.05	1.23	
iii	33 kv				9.09
iv	> 33 kv				
6	Open Access, Captive	Input (in MU)	Sale (in MU)	Loss (in MU)	
i	LT				
ii	11 Kv				
iii	33 kv				
iv	> 33 kv				

Loss Estimation for DISCOM	
T&D loss	0
D loss	0
T&D loss (%)	1
D loss (%)	#DIV/0!

Details of Division Wise Losses (See note below)**

S.No	Name of circle	Circle code	Name of Division	Consumer profile				Energy parameters				Losses		Commercial Parameter		AT & C loss (%)			
				No of connection metered (Nos)	No of connection Un-metered (Nos)	Total Number of connections (Nos)	% of number of connections	Connected Load metered (MW)	Connected Load Un-metered (MW)	Total Connected Load (MW)	% of connected load	Input energy (MU)	Metered energy	Unmetered/a assessment energy	Total energy consumption		T&D loss (MU)	T&D loss (%)	Billed Amount in Rs. Crore
1	KDHP	Nil	Nil	Residential	13471	0	13471	84%	16.11	0	16.11	49%	1.96	0	1.96	18%	0.92	0.9	97.83%
				Agricultural	6	0	6	0%	0.04	0	0.04	0%	0	0	0	0%	0	0	0.00%
				Commercial/Industrial-LT	1276	0	1276	8%	4.79	0	4.79	15%	0.7	0	0.7	6%	0.71	0.68	95.77%
				Commercial/Industrial-HT	31	0	31	0%	8.72	0	8.72	27%	7.74	0	7.74	70%	5.51	5.51	100.00%
				Others	1185	0	1185	7%	2.93	0	2.93	9%	0.65	0	0.65	6%	0.51	0.42	82.35%
	Sub-Total			15969	0	15969	100%	32.59	0	32.59	100%	11.05	0	11.05	100%	7.65	7.51	98.17%	
																			90%

Division Wise Losses
Period From 1st October 2021 To 31st December 2021

Sub-total	0	0	0	100%	0	0	0	100%	0	0	0	0	100%	0	0%	0	0	0.00%	100%
76 Total	Residential	13471	0	13471	84%	16.11	0	16.11	49%	12.28	1.96	0	1.96	18%	1.23	10%	0.92	0.9	97.83%
	Agricultural	6	0	6	0%	0.04	0	0.04	0%		0	0	0	0%			0	0	0.00%
	Commercial/Industrial-LT	1276	0	1276	8%	4.79	0	4.79	15%		0.7	0	0.7	6%			0.71	0.68	95.77%
	Commercial/Industrial-HT	31	0	31	0%	8.72	0	8.72	27%		7.74	0	7.74	70%			5.51	5.51	100.00%
	Others	1185	0	1185	7%	2.93	0	2.93	9%		0.65	0	0.65	6%			0.51	0.42	82.35%
77 At company level	15969	0	15969	100%	32.59	0	32.59	100%	12.28	11.05	0	11.05	100%	1.23	10%	7.65	7.51	98.17%	90%

** Note - It shall be mandatory to record the energy supplied separately for each category of consumers which is being provided a separate rate of subsidy in the tariff, by the state government, so that the subsidy due for the electricity distribution company is quarterly calculated by multiplying the energy supplied to each of such category of consumers by the applicable rate of subsidy notified by the state government.

Color code	Parameter
	Please enter name of circle
	Please enter circle code
0	Please enter numeric value or 0
	Formula protected

I/We undertake that the information supplied in this Document and Pro-forma is accurate to the best of my knowledge and if any of the information supplied is found to be incorrect and such information result into loss to the Central Government or State Government or any of the authority under them or any other person affected, I/we undertake to indemnify such loss.
 Authorised Signatory and Seal


 R. Jayaraman

Signature:-
 Name of Energy Manager:
 Registration Number:

Name of Authorised Signatory:


 Kanan Devan
 Company Private Limited
 ENGINEERING DEPARTMENT
 MUNNAR P.O.
 KERALA 685 612

Form-Input energy (Details of Input energy & Infrastructure)
A. Summary of energy input & Infrastructure

Parameters		Period From October 2021 To December 2021.	Remarks (Source of data)
A.1	Input Energy purchased (MU)	12.28	Feed back unit is not considered
A.2	Transmission loss (%)	9%	Feed back unit is not considered
A.3	Transmission loss (MU)	1.116252	
A.4	Energy sold outside the periphery (MU)	0	
A.5	Open access sale (MU)	0	
A.6	ERT sale	0	
A.7	Net input energy (received at DISCOM periphery or at distribution point) (MU)	-0.15	
A.8	Is 100% metering available at 60/33 kV (Select yes or no from list)	No	
A.9	Is 100% metering available at 11 kV (Select yes or no from list)	45%	
A.10	% of metering available at DT	100%	
A.11	% of metering available at consumer end	0	
A.12	No. of feeders at 66kV voltage level	0	
A.13	No. of feeders at 33kV voltage level	7	
A.14	No. of feeders at 11kV voltage level	0	
A.15	No. of LT feeders	0	
A.16	Line length (ckt. km) at 66kV voltage level	0	
A.17	Line length (ckt. km) at 33kV voltage level	18505	
A.18	Line length (ckt. km) at 11kV voltage level	18901	
A.19	Line length (km) at LT level		
A.20	Length of Aerial Bundled Cables		
A.21	Length of Underground Cables		
A.22	HT/LT ratio	01.01	

Sl.No	Zone	Circle	Voltage Level (kVA)	Division (kVA)	Sub-Division (kVA)	Feeder ID	Feeder Name	Feeder Metering Status (Metered/unmetered/AMR/AMI)	Status of Meter (Functional/Non-functional)	Metering Date (Date of last external meter/communication)	Feeder Type (Agri/Industrial/Mixed)	% data received through automatically if feeder AMR/AMI	Number of hours when meter was unable to communicate in period	Total Number of hours in the period	Meter Size	Period from...		Remarks (Source of data)
																Import (MU)	Export (MU)	
B.1	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	Mudipatty	Mudipatty	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1022312970	2021	2021	2.84
B.2	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	Nayamkud	Nayamkud	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1022312970	2021	2021	1.42
B.3	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	Pulliyal	Pulliyal	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1022312970	2021	2021	0.68
B.4	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	ITD	ITD	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1022312970	2021	2021	2.04
B.5	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	Station	Station	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1107281511	2021	2021	0.00
B.6	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	Town	Town	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1107281511	2021	2021	1.39
B.7	Munnar	Munnar	11 kV	TOTAL CD 9000	TOTAL CD 9000	Nettigudi	Nettigudi	Metered	Functioning	Daily	Mixed	Nil	Nil	24 hrs	1107281511	2021	2021	2.85
B.8																		

Please refer letter No EG. 10 / 1724 dated 14th February 2022

Details of Input Energy Sources

Period From 1st October to 31st December 2021

A. Generation at Transmission Periphery (Details)

S.No.	Name of Generation Station	Generation Capacity (In MW)	Type of Station Generation (Based- Solid (Coal, Lignite)/Liquid/Gas/Renewable (biomass-bagasse)/Others)	Type of Contract (in years/months/days)	Type of Grid (Intra-state/Inter-state)	Point of Connection (POC) Loss MU	Voltage Level (At input)	Remarks (Source of data)
1	Pullivasal	37.5	Hydel	PP Agreement	Intra-state	Not available	11 KV	KSEB taken power supply in between the Station for their distribution been taken in
2	Madupatty	2	Hydel	PP Agreement	Intra-state	Nil	11KV	

(Details of Feeder-wise losses)

Period From: 1st October, 2021 To: 31st December, 2021

Sl No.	Zone	Received at Circle (In MU)	Received at Division (In MU)	Received at Sub-division (In MU)	Name of the Station	Feeder Code/ID	Feeder Name	Type of Feeder (Urban/Mixed/Industrial/Agricultural/Rural)	Type of Feeder meter (AM/AMB/Other)	Received at Feeder (final in MU)	Feeder Consumption (In MU)	Final Net Export at Feeder Level (In MU)	T&D losses	AT&C losses	% Data Received through Automatically (If Feeder AMB/AMB)	Remarks
1	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	Madupatty	Mixed	Others	0.97	2.84	-1.87			nil	2 MW Hydel generation was connected hence 2.89 million units were pumped in this feeder in this Quarter from 1st October to 31st December 2021.
2	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	Navamakkal	Mixed	Others	2.01	1.42	0.59			nil	
3	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	Pullivasal	Mixed	Others	0.74	0.68	0.06			nil	
4	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	ITD	Mixed	Others	2.35	2.04	0.306			nil	
5	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	Station	Auxiliary	Others	0.00	0.00	0.002			nil	
6	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	Town	Mixed	Others	2.19	1.39	0.8			nil	Please refer our letter Ref No. EC/10/124 dated 14th February 2022.
7	Munnar	23.18	23.18	23.18	KDHP Switching Station	Nil	Nettugudi	Mixed	Others	2.61	2.65	-0.04			nil	