Criterion-7 Institutional Values And Best Practices 7.1.2 The Institution has facilities for Alternate Sources of Energy and EnergyConservation Measures

1. Solar energy

As an initiative to adopt renewable energy generation, the Institute has encouraged the students of electrical engineering department to work on the real time project of illuminating street lights in the campus with Solar Energy. As a part of this, the department of EEE at DIET collaborated with EFFISOL Energy Solutions Pvt. Ltd to erect an Off Grid solar PV system with an installed capacity of 2kVA MPPT Technology based solar inverter, six solar panels rated at 1.92kwp and 08 solar batteries with 150Ah rating to meet the street light illumination needs at college premises.

An off grid 2 kwp solar-systems designed and implemented for illumination of LED Street lights in college campus. In order to compute the off-grid solar system components, solar data for Visakhapatnam district is obtained from NREL web site. The design was done based on the shortest day of the year. The solar system set to supply load current for 12 hrs during night time automatically with digital programmable timer.

Project mainly focused on various design aspects like PV sizing, battery sizing and MPPT based inverter sizing also required protection like DC and AC side earthling along with lightening arrester followed by cable sizing. In this computation the shortest day of the year has been assumed. Although the total design is acceptable from engineering point of view, from economical view of the total cost of system is higher than tease that has been designed for summer days.



Solar Panels provided at the entrance of the Institution

Dadi Institute of Engineering & Technology

(Approved by A.I.C.T.E., New Delhi & Affiliated to J.N.T.U.K., Kakinada) NAAC Accredited Institute An ISO 9001 : 2008, ISO 14001 : 2004 & OHSAS 18001 : 2007 Certified Institution NII-5, Anakapalle, Visakhapatnam-531002, A.P. Ph. : 08924-221111,22,33, 9963981111 / www.diet.edu.in / e-mail : info@diet.edu.in

Lr. No.131 Engg./P.O./2018

Date: 10-10-2018

To

New Won

EffiSol Energy Solution Pvt.Ltd. #16-200, Prahaladapuram, <u>Visakhapatnam-530 027</u>.

Dear Sir,

Sub: Purchase Order for 2KW Off-Grid Solar PV System - Reg.

Ref: EFFISOL/Q/2018/06/2, dated 08/06/2018.

With reference to your Proposal cited above, I am herewith placing the Purchase order for 2KW Off-Grid Solar PV System.

S. No	Item Description	Qty	Unit Price	GST	GST Amount	Amount
1.	Off-grid Solar PV System with 2 KVA MPPT Technology Based Soar Inverter, 1.92 kWp Solar Panels and 8numbers of 150 Ah Solar Batteries along with required materials for installation. Automatic Timer Controller,	1	2.07,000	5 %	10,350	2,17,350

(Rupees Two lakhs seventeen thousand and three hundred fifty only)

We are herewith paying an advance amount of Rs .1,00,000 /- through RTGS.

Terms & Conditions:

- 1. The price is inclusive of all taxes
- The equipment shall be under warranty (10 years Modules) (3 years for Inverters) (5 years for Batteries).
- 3. 50 % advance along with purchase order.
- 4. The equipment shall be delivered at the college address within 10 days.
- 5. Remaining payment will be done after commissioning of Solar System.

Thanking you,



Yours Sincerely, (D DI RATNAKAR) Correspondent

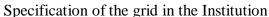
	Effisol Energy Solution			1	1000	In I	Jadi Insul	tute of	Eng	ineerin	10 8.	Tech	nolog
	Limited				pulld h	-	Dadi Instit	C.T.E., New I	Delhi &	Affiliated to .	IN.T.U.I	A CCN	1010g
EFFISOL	#16-200, Main Road Prahaladapo Prahaladapuram, Visakhapatnem Andhra Pradash	ram,		OVST-41		iet)	An ISO 9001 : 2008	NAAC .	Accredit	ted Institute			
		530027	T 4 1				AN 130 9001 . 2000	-5, Annkapalle	c. Visakh	USAS 18001 : anataam.5310	2007 Certi	ified Institu	ion
	GSTIN 37AAECE4349M1Z8			X INVOICE			NH- Ph.: 08924-221111,2	2,33, 9963981	III / www	w.dict.edu.in/	e-mail : ir	1fo@diet.co	lu.in
oice#	Effisol/18-19/44	Place Of Supply Mode/Terms of Payo		ra Pradesh (37)	-								
pice Date		Terms of Delivery	nent : Credit : Ex-Wo	erics		Lr. No.131 En	gg/P.O./2018					Date: 1	0-10-2018
110		Ship To											
di Institute of Technology		Dadi Instituce of Tech National highway 5, Visakhapatnam - 531	anology Anakapalle,			То							
adi Institute of Technology ponal highway 5, Anakapalle, sakhapatnam - 331002 , Andhra	Pradesh.	Visakhapatnam - 531 India	302 , Andhra Pradesh	h		EffiSol Energy #16-200.	Solution Pvt.Ltd.						
		Visakhapatnam - 531 India Contact Person : Mr. Phone :	Dadi Ratnakar			Prahaladapura Visakhapatnar	m. n-530 027.						
		1.					1						
ttem & Description	HSIN/SAC	Qty Rate	CGST S	2.5% Amount 2.5% 195,800.00	0	Dear Sir.	Purchase Order for	av w off-Grie	d Selar P	V System - R	leg.		
	m 85 N.m	1.00 155,800.00 bers	2.5%	23%		0.0	GEFISOL/0/2018/0	16/2, dated 08/	/06/2018.				
 Zew offgrie Solar IM System Components: 1. Solar IM Modules: 320 W Si Au AmP Technology I digrid inverter Bateries: 8 Nots of 150- rating Solar Batteries Mounting Structure: moulting Structure: 5. DcDB and ACDB for protection and maintenant inverter and solar panels. E 	Np : 6 Nos based					Ner.	eference to your Pro		eee La	m herewith	placing ti	he Purchas	e order for
offgrid invertor	AD (0 10					With n	eference to your Pro id Solar PV System.	sposal cited a	anne, i c				
rating) Solar Batteries	GI					2K w Off-Gi			Qty	Unit Price	GST	GST	Amount
mounting structure G DCDB and ACDB for	41					S. No	Item Description					Allen	
protection and maintenance inverter and solar panels, E	ce of solar Earthing					Off-grid	Solar PV System wit	ar Inverter.			5 %	10,350	2,17,350
for DC side 6. BOS:Cable: 10sq.mm above (for wiring from Root	10f				1	1.92 kW	Solar Panels and Si plar Batteries alone	with required	1	2,07,000	2.76	1000	
above (for wiring from Ron invertion)	nop to			in the second second	1	materials	Solar PV System wit schnology Based Ser o Solar Panels and & olar Batteries along for installation. c Timer Controller.				1		
inverser) Other connection accessori 7. Automatic timer controll	er alle argemente	- I grand - 2 -	Sub Tesal	195,809.00 4,895.00		Automati	e Timer Controller, lakhs seventeen tho	usand and thr	ee hundr	ed fifty only)	L STOP		
ocal in Words Supees two lakh five thousand			CGS12.5 (2.5%) SESTZ.5 (2.5%)	00,209 1	Ø	(Rupees Two We are herew	ith paying an advan	ce amount of	Rs.1.00.				
Rupees two lakh live thousand			Total Payment Mada	(-) 100,000,00		Terms & Con	ditions:						
thanks for your business.		1	Balance Due	Rs.105,590.00		1. The pri	ce is inclusive of all to	nder warranty	y (10 ye	ars Modules)	(3 years	for Inver	pers) (5 yes
empany Bank Account Details	r: L fe:SEINCCO1611 State Bank of			1	1	2. The co	uipment shall be u (teries). dvance along with p sipment shall be deliv sing payment will be e	ficial manage					
C No: 35268215018 IFSC Cod	fe : SEINOCO1611 State Eans of		D.Vemi	bis- 1	140	3. 50 % a	dvance along with p	ered at the coll	lege oddri	ess within 10 c	lays. Hent.		
idia		2	Authorized St	gnature		 The equility Remain 	ing payment will be o	lone after com	mission	is the second se			
	2	1		i		Th	anking you.	6.55	auture a				
ems & Conditions	manufactures description							De D	IET	6	Yours	rell	i.e
Warrantee according to				1				· Ralan	alacsi S	4	H	ATNAN	ART
Goods once sold will not All disputes are subjected	d to Visakhapatnam												
Goods once sold will not All disputes are subjected insdiction only	of EffiSol until full payment	is			1			1 con	WO L TE		(DADI I Cor	responde	at
L Goods remain property of	d to Visakhapatnam of EffiSol until full payment	is		,	i i		2	line and	NO ETTO		Cor	responde	at
L Goods remain property of	d to Visakhapatnam to GEffiSol until full payment	is	2			and the second second second	Mercenant and a standard		VO BILL		Cor	responde	at
L Goods remain property of	de United Annual (United Annual) of Efficiel until full payment	5		Effisol Energy Sol	and the second se		No. (c. c. c		NO & THE		Cor	responde	at
L Goods remain property of	of EffSel until full payment			Effisol Energy Sol	utions Private	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -			No. THE		Cor	responde	at
L Goods remain property of	De Workshapatham of EffSci until full payment		FFISOL	ALC TOD Male D. La	utions Private		National and a strategy and		NO B THE		Cor	responde	at
L Goods remain property of	be un Visakhapatham of EffSel until full payment		iffisol	416-200, Main Road Prahate Prahaladopurarn, Wsakhapatsem Andhra Pra	utions Private		<u>Cours</u>				Cor	responde	at
L Goods remain property of	de Orsakhapatnam of EffSel until full payment		:FFISOL	416-200, Main Road Prahata Prahaladapuram, Visaihapattiem Andhra Pra India GSIIN 37AAECE4349MIZ8	utions Private adaptivers, adesh 530027	 	AX INVOIC		No. 1 Tel		Cor	responde	at
L Goods remain property of	d to Visakhapataam			416-200, Main Road Prahate Prahaladopurarn, Wsakhapatsem Andhra Pra	Iutions Private adaptivam, adaptivam, bitsh 530027 Price Of Supply Mote offering of	7 7 7 7	AX INVOIC		No. 1 IL	i i	Cor	responde	at
L Goods remain property of	d to Visakhapataam of EffSol until full payment	meter Instee Ba		416-200, Main Road Prahas Prahaladapuram, Visakhapatsem Andhra Pra India GSTIN 37AAKCE4349M128 : Effici/18-19/47	Intions Private adaptivem, adesh 530027 Price Of Supply Moder Terms of Terms of Delive	7 7 7 7	AX INVOIC				Cor	responde	at
L Goods remain property of	of USsakhapatnam	meleer Invice Dat	s	416-200, Main Road Prahab Prahaladapuran, Visahapatuen Andhra Pra India GSINN 37AAKE4349M128 Effisiol/18-1947 ±12/11/2018	Intions Private adaptaren, Indesh 530027 Piace Of Surphy Macine Terms of Frems of Surphy Ship To	Payment 1 Y 1	AX INVOIC Indhra Pradesh (37) Credit Ex-Works				Cor	responde	at
1 Goods remain property (d to Visakhapataam of EffSel until full payment	meleer Invice Dat	s	416-200, Main Road Prahab Prahaladapuran, Visahapatuen Andhra Pra India GSINN 37AAKE4349M128 Effisiol/18-1947 ±12/11/2018	Iutions Private adaptaren, Indesh 530027 Piace Of Surphy Macine Terms of Frems of Surphy Ship To	Payment 1 Y 1	AX INVOIC Indhra Pradesh (37) Credit Ex-Works				Cor	responde	at
L Goods remain property of	d to visakhapataam of EffSel until full payment	meleer Invice Dat	8	416-200, Main Road Prahab Prahaladapuran, Visahapatuen Andhra Pra India GSINN 37AAKE4349M128 Effisiol/18-1947 ±12/11/2018	Utions Private adapurem, adsh 530027 Pince Of Supply Note of Comp Terms of Johns Bally the David Institute of Homone Bigliow Walk augustralian	Payment 1 Y 1 Technology y 5. Anskepäile SSIG27, Anskepäile	AX INVOIC Indhra Pradesh (37) Credit Ex-Works				Cor	responde	at
L Goods remain property of	de o Visakhapataam of EffSol until full payment	meleer Invice Dat	s	416-200, Main Road Prahab Prahaladapuran, Visahapatuen Andhra Pra India GSINN 37AAKE4349M128 Effisiol/18-1947 ±12/11/2018	Utions Private adapurem, adsh 530027 Pince Of Supply Note of Comp Terms of Johns Bally the David Institute of Homone Bigliow Walk augustralian	Payment 1 Y 1	AX INVOIC Indhra Pradesh (37) Credit Ex-Works				Cor	responde	at
Goods remain property (de o Visakhapataam of EffSol until full payment	vector ve	e ijtute of Technolo ighvay 5. Arakapal inam - 531002. And m & Rescription	416-200, Main Road Prahaya Prohalik Gyuram, India Jona GSTN 377A4/CE54393125 SEfficient Participant Strategy St	Iutions Private Indeproven, Mosh Salazz Place of Surghy Mole of Surghy Mo	Technology S Anskapile, S Stilloz, Andrua P	AX INVOIC Induira Pradesh (37) Credit terworks				Cor	responde	at
L Goods remain property of	of Ursakhapataam	vector ve	e ijtute of Technolo iglway 5. Anatopali anam - 531002 , And m & Description allacon of 2 KW Offgi	416-200, Main Road Prahaya Prohalik Gyuram, India Jona GSTN 377A4/CE54393125 SEfficient Participant Strategy St	Utions Private adapurem, adsh 530027 Pince Of Supply Note of Comp Terms of Johns Bally the David Institute of Homone Bigliow Walk augustralian	Payment : Technology Andread State Saturation : Saturation : Saturat	AX INVOIC Andhra Pradash (37) Credit IsoWorks radesh 36571 Mer 395 9,381				Cor	responde	a
men & Gandisons Warrantee according to Gaoda ence sold will more all digutes and sold sold sold all digutes and sold sold sold sold sold Gaoda semain property of dine	d to Visakhapataam of EffSol until full payment		e ijtute of Technolo iglway 5, Anatopali anam - 531002, And m & Description allacon of 2 kW Offge en	416-5120, Shinh Dang Prahadi Prahadi Gayang Wasi Magantum Andhra Pan Inda Construction Construct	Utions Private Indepruses, Most Salazz Most Cross of Price of Legisla Most Cross of Data Indeprese Salazza Most Cross of Data Indeprese Indeprese Cross of Cross of C	Payment : Technologia Saturation Satura	AX INVOIC Indira Prodech (27) Credit Storat adcub b Total 99 509 75 (5%) 8	2001t 55.00 56.91			Cor	responde	at.
L Goods remain property of	d to Visakhapataam of EffSel until full payment	Vector Invictor Invictor Invictor Internet Inter	e State of Technolo Igiway 5, Anatopali Igiway 5, Anatopali Igiway 5, Anatopali Igiway 5, Anatopali Igiway 1, Anatopali Igiway	416-200, Main Road Prahaya Prohalik Gyuram, India Jona GSTN 377A4/CE54393125 SEfficient Participant Strategy St	Utions Private Indepruses, Most Salazz Most Cross of Price of Legisla Most Cross of Data Indeprese Salazza Most Cross of Data Indeprese Indeprese Cross of Cross of C	Payments 11 Payments 11 Thomosology 12 YS Analysis Status 12 Thomosology 12 Status 12 Thomosology 12 Status 12	AX INVOIC white Products (27) forch schoring status 20 million do track status 20 million 20 millio	Junt 56.00 56.02 36.92			Cor	responde	at.
L Goods remain property of	d to Visakhapataam	Tradition of the second	e situte of Technolo gitway 5, Anakapati unan - Sa1002, And m 6 Description allocon of 2 kW Offge en side see thousand serve your business.	A Scale Main Body Park Probability of the Constraints of the Constrai	Utions Privace adaptures, Widsh 20027 Private dissipation Private	Payments 11 Payments 11 Thomosology 12 YS Analysis Status 12 Thomosology 12 Status 12 Thomosology 12 Status 12	AX INVOIC Indira Prodech (27) Credit Storat adcub b Total 99 509 75 (5%) 8	Junt 56.00 56.02 36.92			Cor	responde	at.
L Goods remain property of	d to visakhapataam of EffSol until full payment	Tradition of the second	e situte of Technolo gitway 5, Anakapati unan - Sa1002, And m 6 Description allocon of 2 kW Offge en side see thousand serve your business.	A Scale Main Body Park Probability of the Constraints of the Constrai	Utions Privace adaptures, Widsh 20027 Private dissipation Private	Technology S Analas José S S Cos S	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at
Goods remain property (de o Visakhapataam of EffSol until full payment	Tradition of the second	e situte of Technolo gitway 5, Anakapati unan - Sa1002, And m 6 Description allocon of 2 kW Offge en side see thousand serve your business.	416-5120, Shinh Dang Phaladi Phaladi Saburah Wasi Magantum Andhra Phala Bada Cashar Shares Cashar Shares Shinha Phaladi Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha Shinha S	Utions Privace adaptures, Widsh 20027 Private dissipation Private	Pagnanan Ty Yy Yanobiagalag Safito ang Ang Ang Safito ang Ang Ang Ang Safito ang Ang Ang Ang Ang Safito ang Ang Ang Ang Ang Ang Safito ang Ang Ang Ang Ang Ang Safito ang Ang Ang Ang Ang Ang Ang Safito ang Ang Ang Ang Ang Ang Ang Ang Ang Safito ang Ang Ang Ang Ang Ang Ang Ang Ang Ang Safito ang A	AX INVOIC white Products (27) forch schoring status 20 million do track status 20 million 20 millio	Junt 56.00 56.02 36.92			Cor	responde	at
L Goods remain property of	d to Visakhapataam	Tradition of the second	e situte of Technolo gitway 5, Anakapati unan - Sa1002, And m 6 Description allocon of 2 kW Offge en side see thousand serve your business.	A Scale Main Body Park Probability of the Scale Park Wight Park Scale Park Wight Park Scale Park Scale Park Scale Park Scale Park P	Utions Privace adapturam, Webh 30007 Microformad Johnson Microformad Johnson Microfore	Technology S Analas José S S Cos S	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at.
L Goods remain property of	d to Visakhapataam of EffSel until full payment	Image:	e Stutte of Technolo glawy 5, Anakapatha anam - Saltóga, Ana ana <u>Bescription</u> allacion of 2 kV Offgo and ana <u>Constitution</u> work sever theusand serve year business. Bank Account Baba Bank Scionent Baba Scionent Baba Bank Scionent Baba Bank Scionent Baba	A SLOBA Main Dood Prahub A SLOBA Main Dood Prahub Prahubstonica Maintenne Maine Pra Maintenne Maintenne Hiller Prakesh Hiller Prakesh Hiller Prakesh A Strategy A Str	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at.
L Goods remain property of	d to visakhapataam of EffSol until full payment	Image:	e Stutte of Technolo glawy 5, Anakapatha anam - Saltóga, Ana ana <u>Bescription</u> allacion of 2 kV Offgo and ana <u>Constitution</u> work sever theusand serve year business. Bank Account Baba Bank Scionent Baba Scionent Baba Bank Scionent Baba Bank Scionent Baba	A SLOBA Main Dood Prahub A SLOBA Main Dood Prahub Prahubstonica Maintenne Maine Pra Maintenne Maintenne Hiller Prakesh Hiller Prakesh Hiller Prakesh A Strategy A Str	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at.
Goods remain property (d to Visakhapataam of EffSel until full payment	I the second sec	e atuate of Technology (angeless), salvas angeless annon-Salv02, And atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates angeless atuates angeless atuates angeless atuates angeless atuates atuates angeless atuates	A Scale Main Body Park Probability of the Scale Park Wight Park Scale Park Wight Park Scale Park Scale Park Scale Park Scale Park P	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at
Goods remain property (d to Visakhapataam of EffSel until full payment	I the second sec	e Stutte of Technolo glawy 5, Anakapatha anam - Saltóga, Ana ana <u>Bescription</u> allacion of 2 kV Offgo and ana <u>Constitution</u> work sever theusand serve year business. Bank Account Baba Bank Scionent Baba Scionent Baba Bank Scionent Baba Bank Scionent Baba	A SLOBA Main Dood Prahub A SLOBA Main Dood Prahub Prahubstonica Maintenne Maine Pra Maintenne Maintenne Hiller Prakesh Hiller Prakesh Hiller Prakesh A Strategy A Str	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at
L Goods remain property of	d to Visakhapataam of EffSel until full payment	I the second sec	e atuate of Technology (angeless), salvas angeless annon-Salv02, And atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates angeless atuates angeless atuates angeless atuates angeless atuates atuates angeless atuates	A SLOBA Main Dood Prahub A SLOBA Main Dood Prahub Prahubstonica Maintenne Maine Pra Maintenne Maintenne Hiller Prakesh Hiller Prakesh Hiller Prakesh A Strategy A Str	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at
L Goods remain property of	d to Visakhapataam of EffSel until full payment	I the second sec	e atuate of Technology (angeless), salvas angeless annon-Salv02, And atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates angeless atuates angeless atuates angeless atuates angeless atuates atuates angeless atuates	A SLOBA Main Dood Prahub A SLOBA Main Dood Prahub Prahubstonica Maintenne Maine Pra Maintenne Maintenne Hiller Prakesh Hiller Prakesh Hiller Prakesh A Strategy A Str	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	resbourde	at
1 Goods remain property (d to Visakhapataam of EffSel until full payment	I the second sec	e atuate of Technology (angeless), salvas angeless annon-Salv02, And atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates angeless atuates angeless atuates angeless atuates angeless atuates	A SLOBA Main Dood Prahub A SLOBA Main Dood Prahub Prahubstonica Maintenne Maine Pra Maintenne Maintenne Hiller Prakesh Hiller Prakesh Hiller Prakesh A Strategy A Str	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at
1 Goods remain property (d to Visakhapataam	I the second sec	e atuate of Technology (angeless), salvas angeless annon-Salv02, And atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates angeless atuates angeless atuates angeless atuates angeless atuates	A SLOBA Main Dood Plashug Praduktionum, A State Million Praduktionum, State Million Page State State State State Million State Plashesh, State Million State Plashesh, State Million State State State Million	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology S Anakapulo, S Ana	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	responde	at
L Goods remain property of	d to Visakhapataan of Efficie until full payment	I the second sec	e atuate of Technology (angeless), salvas angeless annon-Salv02, And atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates and a salva angeless atuates angeless atuates angeless atuates angeless atuates angeless atuates	A SLOBA Main Dood Plashug Praduktionum, A State Million Praduktionum, State Million Page State State State State Million State Plashesh, State Million State Plashesh, State Million State State State Million	Utilans Privace Maguram, Missi 20027 Prior of party Missi 20027 Prior of party Terrs of holes Data States Prior Pr	Pagnessi y Technology y 2 Addapation 53102 Addapation 6 Cost a Cost a Cost Balan Balan SO(2) V So(2) Addapation Cost So(2) Addapation So(2) Add	AX INVOIC which products (27) credit ix Works 3831 Ame 3831 A	Junt 56.00 56.02 36.92			Cor	Les bourge	at

Bills of Solar Panel System Installed in the Institute

2.Wheeling to the Grid

160 KVA Transformer withdrawing 100 KVA

S.No.	Description	Specification
1	Eastern Power Distribution Company of Andhra Pradesh	11 KV [HV]
1	Ltd No Load Voltage	433V [LV]
2	Amporos	8.4A [HV]
Z	Amperes	213.4A [LV]
3	No. of Phases	03
4	Frequency	50Hz
5	Type of Cooling	ONAN Vector Group
5	Type of Cooling	DYN 11
6	Volume of Oil	260 Liters
7	Core & Winding Weight	400 Kgs
8	Total Weight	850Kgs
9	Maximum Temperature rise in Oil	45°C
10	45°CPercentage Impedance Volts	4.5 %
11	Power Factor	0.97
12	Load Factor	5%

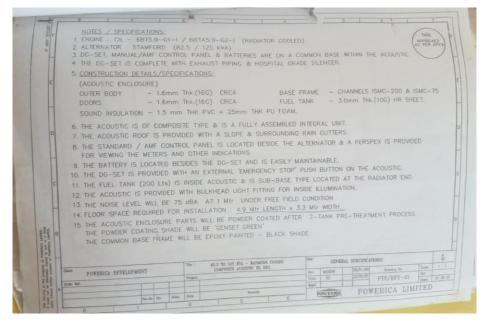




Devices installed for wheeling to the Grid



Transformer and Wheeling to the Grid at South-East portion of the Institution



Instructions and notes regarding specifications and construction details of the wheeling to the grid

ENT)	CIPIENT)	AL FOR REC	ORIGINA	(0											
-									ge 2)	ICE(F	TAX IN				
					ted Dec-21	12			e No.	Inv				4	
			ment	is of Payn	ode/Term	M		000311	/SP212				AND SERVICE PVT LTD	THE REAL PROPERTY OF THE PROPE	
				rences	edit her Refe	C			SANSING P				In for Cummins India Ltd (DBU)	uthorised Deale	
						Reference No. & Date.					Plot No 995, Galuwaka, Visakhapatnam - 5500 - 5				
	Dated				0	Buyer's Order No.					Autonaga: GSTIN: 37AAMCS8066K1ZG State Name : Andhra Pradesh, Code : 37 State Name : AAMCS8066K				
	Delivery Note Date				0						AN NO: (Chia ta)				
								No.	atch Dod	Di			ENGINEERING AND TECHNOLOGY	DU INSTITUTE OF	
				n	estination	E		rough	atched t	D			PALLI,	AR NH-5, ANAKAP	
													: Andhra Pradesh, Code : 37	SAKHAPATNAM ate Name	
								ivery	ns of De	Te				ID HUND	
													ENGINEERING AND TECHNOLOGY	iyer (Bill to)	
													PALLI	AR NH-5, ANAKAP	
													: Andhra Pradesh, Code : 37	SAKHAPATNAM	
latal	Total												: Andhra Prabesh, Odde Tor	ate Name	
	Amount	te Tax Amount	Sta	al Tax Amount	Centr	Taxable	Amount	Disc	Disc. %	ate	O watthe				
			Titte	Anount	Hate	Value		Amt	and a	die	Quantity	HSN/SAC	Description of	Part No.	
							1,188.00						Services	T GITT T	
													SGST-Tax on Service-Output		
5,576.00	15.576	1,188.00		1,188.00											
E. & O.E	1 Chest and	1,100.00	-	1,188.00	1	13,200.0	₹ 15,576.00		-		6 NO'S		X -1-		
	Total		Otata To						100				Tota		
Amount	Tax Amo	mount	State To	Flate	ax nount	Central	Taxable	-	-		Six Only	Seventy	words) INR Fifteen Thousand Five Hundred	sunt Chargeable (in	
2,376.00		1,188.00			1,188.00	Rate A 9%	Value 13,200.00	-							
2,376.00	2,37	1.188.00				3.70		Total:							
		1,100.00)	1,188.00		13,200.00								

Invoice of the wheeling to the grid

3. Sensor Based Energy Conservation

At DIET, the concept of Home Automation is introduced to reduce the usage of power through different mechanisms in which the PIR sensor plays a key role which detects if any movement occurs in specified range, in case of any motion detected, the sensors give the signal of motion to the microcontroller.

The ARDUINO UNO is the micro controller used to process the data in this model, where the data pins in the controller are used to recognize the signal from the PIR sensor, if the signal received from PIR is high, the output device will be switched ON and if the signal received from the PIR is low then the output device will be switched OFF. RELAY is used to protect the electronic devices from the high-power AC supply and act as a switch.

Also, an Android Application has been developed where, through the Bluetooth from mobile control signals are relayed through wireless medium to Bluetooth HC-05 Module. From Bluetooth Module control signals are relayed to Arduino Micro Controller where it controls the output pins. Output in connected to Relays (Magnetic Switch)

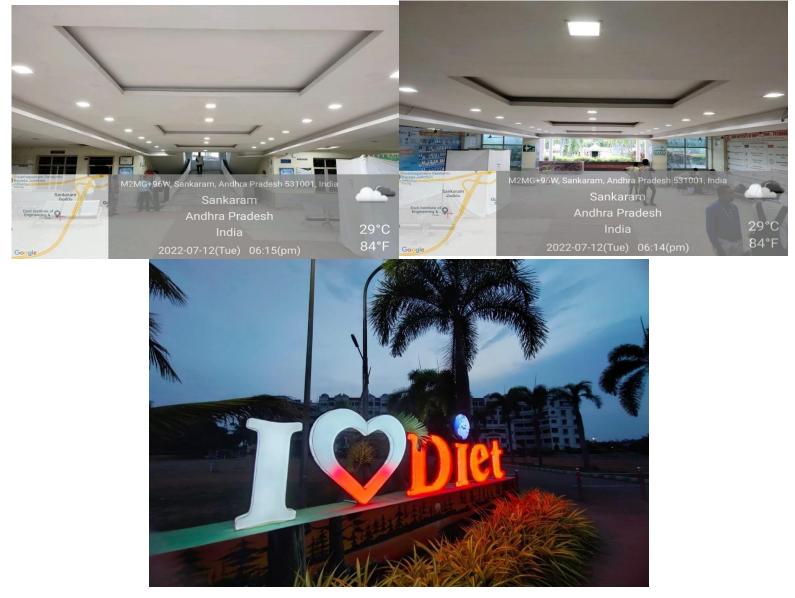


Sensor PIR



4. Use of LED Bulbs/Power Efficient Equipment

DIET is illuminated with Environmental friendly LED [Light Emitting Diode] Lights all over the campus with ratings as per the required luminous intensity at a given location. The details of exterior and interior lighting are provided below:



LED Lights in the campus

External Lighting:

	List of LED Lights used for External Lightings								
S.No	Description	Count of LED Bulbs							
1	40W LED Lights at the Main Gate Cost-Rs.4000 each	4							
2	120W Solar based Lights Cost-Rs.8000each	9							
3	24W - Street Lights - Ground Cost-Rs.2500 each	40							
4	80W - Ground Cost-Rs.6000 each	9							

Interior Lighting:

List of LED Lights used for Interior Lightings

S.No	Description	Count of LED Bulbs
1	24W - Ground Floor Corridor Cost-Rs.2500 each	30
2	12W - Ground Floor Corridor Cost-Rs.120each	60
3	15W - Ground Floor Corridor Cost-Rs.600each	10
4	1 st Floor to 5 th Floor - 10 LED Lights per each floor Cost-Rs.120 each	50
5	LED Tube Lights of 24W are placed at Admission Office, Exam Cell, Principal Office, Diploma Office, SeminarHall2, Music Room, Library and Chairman Office with Cost-Rs.300each	45
6	Seminar Hall lighting - 40W Flood Lights 4000each	2
7	100W Lights costing Rs.5500 each	2