TERMS OF REFERENCE THE PANEL OF NON-GRID SERVICE PROVIDERS FOR THE SUPPLY, INSTALLATION, AND MAINTENANCE OF SOLAR HOME SYSTEMS FOR THE PERIOD OF THIRTY-SIX (36) MONTHS IN THE DEPARTMENT OF MINERAL RESOURCES AND ENERGY

1. BACKGROUND

- 1.1. The Integrated National Electrification Programme is a national programme intended at ensuring electrification access to South African citizens. The electrification is carried out through the grid and non-grid electrification programmes, which aims to address an estimated electrification backlog of 2 million households.
- 1.2. The non-grid electrification programme was established to complement the rollout of the electrification programme on households in areas where grid extension is not possible within the period of three (3) or more years. Through the non-grid electrification program, more than 200,000 Solar Home Systems (SHS) have been installed and the majority of these installations are in the Eastern Cape, Kwazulu-Natal ,and Limpopo provinces.
- 1.3. The New Electrification Household Strategy which is in line with the National Development Plan was approved by Cabinet in June 2013, it seeks to address 10% of the electrification backlogs with a high-quality Solar Home System or any other technologies which are cost-effective by 2025. The households will be identified across all provinces based on the need of the SHS by municipalities as well as the Integrated Electrification Plan.
- 1.4. To achieve the set target date, more than 20 000 SHS must be connected annually. It is against this background that the Department needs to conduct the procurement of services of the non-grid service providers to expedite delivery of services to many households that are still not having access to electricity.

2. CONTRACT PERIOD

2.1. The appointed panel of non-grid service providers will be part of the panel for period of thirty-six (36) months and the implementation contracts will be entered into with the non-grid service providers on an annual basis based on the need and the available budget.

3. OBJECTIVE

The objective of the Non-Grid Electrification program is to complement grid electrification with an additional Solar Home System to achieve universal access to energy.

4. SCOPE OF WORK

- 4.1. The service provider is expected to produce the following outputs as indicated below. Also, sample of systems to be inspected on site must meet the specification requirements:
 - Supply and install SHS in compliance with the NRS 052-1:2012/SAN959 to areas which will be identified by the Department.
 - b) Commissioning, testing and reporting to the Department on each SHS installed.
 - c) Programme to maintain the SHS in line with the requirements of Annexure G of the NRS 052.
 - d) Submit a proposal for the systems in line with the Quality of Supply attached as Annexure
 A. Proposals should be confined to the Bill of Quantities attached as Annexure B for uniformity.

5. DELIVERABLES OR PROJECT OUTPUT AND OR OUTCOME

The successful service providers should deliver and commence with the installation eight (8) weeks after an official order has been issued. Failure to adhere to this time frame will be regarded as non-performance.

6. COMPANY EXPERIENCE

Service providers should have at least five (5) years' experience in the design and installation of Solar Home Systems of similar capacity or higher and should provide proof accompanied by correspondence from three (3) referees indicating that such project was executed as well as their contactable references.

7. QUALIFICATION AND EXPERIENCE OF TEAM LEADER AND TEAM MEMBER

- 7.1. The team leader must have Degree in a field of Electrical or Electronics and/ certification in Energy Management would be advantageous..
- 7.2. Team members must be qualified electricians with trade test certificate/ single phase tester certificate.

 Possession of a Wireman's license and/ Master Electrician certificates would be advantageous.
- 7.3. Team Leader must have at least three (3) years in the installation, testing and commissioning of electrical installations.
- 7.4. Team members must have at least two (2) years in the installation, testing and commissioning of electrical installations

7.5. CV's and certified qualifications of the Team leader and Team members must be attached to the technical proposal as proof

8. REPORTING REQUIREMENTS

- 8.1. The appointed service providers will provide the progress report to the Department of Mineral Resources and Energy on a monthly basis from the commencement of the contract.
- 8.2. The Department of Mineral Resources and Energy will conduct technical audits to verify the quality and performance of installed SHS before payment is done.

9. WORK PLAN AND A METHODOLOGY

9.1 Technical Requirements

- a) The bidder needs to provide sufficient detail about the proposed system design, performance, warranties applicable, compatible appliances/services, etc.
- b) Overall system design and performance of 100Wp DC system; indicate components, integration, energy management, energy availability, etc.
- c) Battery Management strategy: how battery charge is regulated, and battery life protected
- d) Theft prevention reduction; any available technical interventions to reduce likelihood of theft (social sanctions and community centred solutions should also be considered)
- e) System User-friendly documentation; adequate user manuals supported by the appropriate end-user training need to be indicated within the bid document
- f) Local Content of Supply in Serviced Areas; indicate the extent to which the local value chain that emerges around the supply, installation and on-going technical support incorporates local content (components and/or services). All components and service will be locally procured except for the panel.
- g) Innovative technical approaches (mobile payments, etc.); Bidders should indicate the extent to which recent technical innovations and opportunities are integrated into the system and its operating environment. The purpose is to promote efficiency and performance. The bidder must demonstrate knowledge on the current non-grid programme in order to make sense of new innovations.

9.2 Operational Requirements

- 9.2.1 The bidder's operational plan should ensure that the systems are correctly installed, that sufficient enduser training ensures optimal system usage, that systems are effectively maintained over the determined period and that there is sufficient communication between customers and service providers. Key features of the operational plan should include:
- a) Customer management systems/technologies/approaches (meters, manual systems, etc.)
- b) Character and frequency of engagements with customers (community forums, household visits, SMS contact, etc.)
- User training on system operation; [as above] bidders should indicate their approach to end-user training as well as legacy documents such as user manuals, etc.
- d) System maintenance approach; bidders should indicate who will be responsible for on-going maintenance of the installed systems. The bidders may provide such services themselves and/or partner with other entities which will undertake the maintenance duties. The operational plan should include the number of scheduled maintenance visits to each system, the extent to which customers are used for first line maintenance, etc.
- e) Sustainability model; bidders should detail their overall 'business model'. How are the systems going to be maintained, the sources of revenue required (service fees, FBE, others?), how revenue will be collected, etc.
- f) Local job creation; the number of local jobs created both in the installation phase as well as the maintenance phase. Bidders should indicate the kind of training employees are likely to receive.
- g) Bidders should indicate how component warranties will be exercised.
- h) Data management; bidders must detail what measures/system are they going to use to ensure accurate information of beneficiaries is supplied to the municipalities, the service providers and subsequently to the Department.

10 ROLES AND RESPONSIBILITIES

10.1 DMRE

- **10.1.1** The DMRE shall, in writing, confirm the appointment of the Non-Grid Service Provider and introduce it to the relevant Local Municipalities.
- **10.1.2** The DMRE shall provide customer lists to the Non-Grid Service Provider.
- **10.1.3** The DMRE in terms of its Integrated National Electrification Programme mandate shall subsidise the supply and installation of every Solar Home System installed by Non-Grid Service Provider in terms of this Agreement provided that:
- **10.1.3.1** Such Capital Subsidy shall be paid within thirty (30) days to the Non-Grid Service Provider after the Solar Home System has been satisfactorily installed, provided that the Completion Certificate has been issued to the Department as proof of work done.
- **10.1.3.2** No Capital Subsidy is payable if the Non-Grid Service Provider operates outside the Mutually Agreed Areas, unless the Parties otherwise agree.

10.2 SERVICE PROVIDER

- 10.2.1 Undertakes to carry out the supply of Solar Home Systems in such a way as to best serve the interests and needs of Customers and to the benefit of the Republic of South Africa's economic and social development.
- **10.2.2** shall comply with all relevant laws and regulations and the terms and conditions of the signed Agreement.
- **10.2.3** shall subject to the other Party adhering to the provisions of this Agreement, supply and install Solar Home Systems in the Mutually Agreed Areas; and
- **10.2.4** shall ensure to attain standards in accordance with the Quality-of-Service Standard.
- **10.2.5** shall during the planning of the project verify customer information list and assist in capturing customers as per the requirements of designated municipality.
- **10.2.6** must supply the DMRE with GPS co-ordinates and identification details of the Solar Home System including all its components.

CONFIDENTIALITY OF INFORMATION

- 11.1 Any patents or copyright developed from this project will belong to the Department.
- 11.2 The service provider will sign a confidentiality agreement regarding the protection of DMRE information that is not in the public domain.

11 PAYMENT

11.1 The Department will not make an upfront payment to a successful service provider.

Payments will only be made in accordance to the delivery of service that will be agreed upon by both parties and receipt of an original invoice.

12 TAX CLEARANCE CERTIFICATE

- 13.1. The potential service provider/s must ensure compliance with their tax obligations.
- 13.2. The potential service provider/s is/are required to submit their unique personal identification number (pin) issued by SARS to enable the organ of state to view the taxpayer's profile and tax status.
- 13.3 Application for tax compliance status (TCS) or pin may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website www.sars.gov.za.
- 13.4. The potential service provider may also submit a printed TCS together with the proposal.
- 13.5 In proposals where consortia / joint ventures / sub-contractors are involved; each party must submit a separate proof of TCS / pin / CSD number
- 13.6 Where no TCS is available, but the potential service provider/s is registered on the central supplier database (CSD), a CSD number must be provided

13 EVALUATION METHODOLOGY

14.1 Phase 1: Compliance and Technical Review:

14.1.1. Each submission is checked for compliance. The following documents are compulsory:

A valid Tax Clearance Certificate	
A valid B-BBEE Certificate	

Signed SBD forms	
Proof of CSD Registration	
Copy of ID's Company Directors	
Copy of ID's Project Team	
CIPC Company Registration certificate	
Disqualification criteria (if available, e.g.	
registration with professional body)	

14.1.2 Service providers will be evaluated based on functionality. The minimum threshold for functionality is 70 out of 100 points. Service providers who fail to meet the minimum threshold will be disqualified and will not be evaluated further for price and preference points for B-BBEE.

NB: Table below serves as an illustration of how the evaluation criteria is supposed to be crafted and the allocation of scores.

No.	Criteria		Weights
1.	Company Experience		20
	Service providers should have at least five (5) years'	10 years and more = 5	15
	experience in the design and installation of Solar	points	
	Home Systems of similar capacity or higher	7 -10 years = 4 points	
		5 years-7years = 3	
		points	
		2-4 years = 2 points	
		0-1 years = 1 point	
	Proof accompanied by correspondence letters from	6 letters or more = 5	5
	at least three (3) contactable referees (previous	points	
	and/or current clients) indicating that similar service	4 -5 letters = 4 points	
	or technology was executed or supplied and	3 letters = 3 points	
	installed.	2 letters = 2 points	

		1 letter or less = 1 point	
2.	Team Leader experience		25
	Team Leader must have at least three (3) years	7 years or more = 5	10
	in the installation, testing and commissioning of	points	
	electrical installations	4-6 years = 4 points	
		3 years = 3 points	
		2 years = 2 points	
		1 year or less = 1 point	
	Team members must have at least two (2) years in	6 years or more = 5	8
	the installation, testing and commissioning of	points	
	electrical installations	3-5 years = 4 points	
		2 years = 3 points	
		1 years = 2 points	
		Less than one = 1	
		point	
	 CV's of the Team leader and Team members must 	Signed CV of both	7
	be attached to the technical proposal as proof.	Team leader and	
		members = 5 points	
		3-5 years = 4 points	
		2 years = 3 points	
		1 years = 2 points	
		Less than one = 1	
		point	
3.	Proposal/Methodology		40
	A detailed business proposal must be submitted as		
	outlined in paragraph 9.1		
	Technical Aspects (25):	Detail System design	
	(i) System design and performance as per	and performance as	(4)
	specification	per specification	
		and more=	
		5points	
		Detail System design	
		and performance as	

	including	all	
	elements	=4	
	points Sy	stem	
	design	and	
	performa	nce as	
	per speci	fication	
	=3 points	3	
	Some	System	
	design	and	
	performa	nce as	
	per speci	fication	
	missing	= 2	
	points		
	No System de	sign and	
	performance	as per	
	specification		
	included :	= 1	
(ii) Battery Management strategy	Detailed	Battery	(3)
	Management	strategy	
	and	more=	
	5points		
	Detail	Battery	
	Management		
	including	all	
	elements	=4	
	points		
	Battery		
	Managem	nent	
	strategy		
	=3 points		
	Some	Battery	
	Managem	nent	
	strategy	0 1 -	
1	missing =	2 points	
	9	- po	

	T		1
		No Battery	
		Management	
		strategy	
		included = 1	
(iii)) Theft prevention strategy	A detailed Theft	(3)
		prevention	
		strategy	
		on 9.1 and more	
		=5 points	
		Detailed Theft	
		prevention	
		strategy	
		all elements =4	
		points	
		Theft prevention	
		strategy	
		=3 points	
		Inconclusive Theft	
		prevention	
		strategy = 2	
		points	
		No Theft	
		prevention	
		strategy=1 point	
		onatogy i point	
(iv)	System User friendly documentation (design)	A System User	(3)
(10)	y System Oser menaly documentation (design)	friendly	(3)
		documentation	
		including all	
		elements on 9.1	
		and more =5	
		points	
		System User	
		friendly	
		documentation	

	including all	
	elements =3	
	points	
	No or partially	
	completed System	
	User friendly	
	documentation =1	
	points	
(v) Local content of supply	Local content detailing	(2)
	value chain as shown	
	on 9.1 including proof	
	of local supply and	
	more= 5points	
	Local content detailing	
	value chain as shown	
	on 9.1 = 3points	
	No local content =1	
(vi) Innovative technical approaches	Understanding the	(2)
	current	
	programme	
	deficiencies and	
	proposing	
	Innovative	
	technical	
	approaches =	
	5points	
	Innovation	
	technical	
	approaches =3	
	points	
	No Innovative	
	technical	
	approaches	
	included=1	

(i) Quality of		customer	A detailed Quality	
management	system		of proposed	
			customer	
			management	
			system on 9.2 and	
			more =5 points	
			Detail Quality of	
			proposed	
			customer	
			management	
			system =4 points	
			Quality of	
			proposed	
			customer	
			management	
			system included	
			=3 points	
			Some Quality of	
			proposed	
			customer	
			management	
			system	
			missing = 2 points	
			No Quality of	
			proposed	
			customer	
			management	
			system y	
			included = 1	

(ii)	Customer engagement strategy	Detailed Customer	(3)
		engagement strategy	. ,
		include flow diagram to	
		demonstrate	
		understanding =	
		5points	
		opoo	
		Customer engagement	
		strategy = 3points	
		outlegy openie	
		No understanding of	
		customer	
		engagement= 2points	
		No Customer	
		engagement strategy =	
		1	
		'	
(iii)	User training on system operation	Detailed User training	(3)
()	(training)	on system operation	(0)
	(1.29)	(training and user	
		manuals) included = 5	
		points	
		User training on	
		system operation	
		(training) included = 3	
		points	
		No User training on	
		system operation (training)	
		included/discussed= 1	
		moluueu/uiscusseu- 1	
(iv)	System maintenance approach	Detailed System	(3)
(14)	оузісті тапіснанов арргодон	maintenance approach	(9)
		highlighting methods	
		preventative methods	
		= 5points	

		Cuotom maintanana	
		System maintenance	
		approach included=3	
		points	
		No System	
		maintenance approach	
		included=1	
(v)	Business model outline	Detailed Business	(3)
		model outline including	
		all aspects as in 9.2	
		above and more =5	
		points	
		Business model outline	
		including all aspects in	
		9.2 = 3 points	
(vi)	Local job creation/training	No Business model	(2)
	, ,	outline = 1	()
		Local job	
		creation/training = 5	
		points	
		No Local job	
		creation/training = 1	
		oreation/training 1	
(vii)	Exercising warranties	Detailing warranties	(3)
(VII)	Exclosing warrantes	plan and provide proof	(3)
		of warranty from	
		supplier = 5 points	
		Exercise warranties	
		plan = 3points	
		Not Exercising	
		warranties = 1	
			(2)
(viii)	Data Capturing and Management	Demonstrate systems	(3)
		and processes of Data	
		management and	
		capturing = 5 points	

		Data Capturing and Management = 3 points No Data Capturing and Management=1	
4.	Qualifications The team leader must have Degree in a field of Electrical or Electronics or and certification in Energy Management would be advantageous.	Master's degree = 5 points Honors Degree = 4 points Degree = 3 points Diploma = 2 points Certificate = 1 point	15 10
	❖ Team members must be qualified electricians with trade test certificate/ single phase tester certificate. Possession of a Wireman's license and/ Master Electrician certificates would be advantageous	Masters Electrician Certificate = 5 points Installation Electrician Certificate = 4 points Trade Test Certificate/Single Phase Tester = 3 points N2 certificate=2 points No certificate = 1	5
	Total		100

For purpose of evaluating functionality, the following values will be applicable:

1=	Very poor	Does not understand the requirements
2=	Poor	Will not be able to fulfil the requirements
3=	Average	Will partially fulfil the requirements
4=	Good	Will be able to fulfil the requirements
5=	Excellent	Will fully fulfil the requirements

15. PHASE 2: PRICING AND SPECIFIC GOALS

15.1. Bids will be evaluated on the 80/20 or 90/10 preference point system as outlined in the Procurement Preferential Regulation of 2022. Bidder that scores the highest points in this phase will be awarded the tender.

CRITERIA	WEIGHT		
Price	80	90	
Specific goals	20	10	

15.2. COST / PRICING

- 15.2.1. The service provider will be requested to provide a quoted proposal regarding the work to be undertaken.
- 15.2.2. The total cost must be VAT inclusive and should be quoted in South African Rands (i.e. ZAR).

15.3. BROAD-BASED BLACK ECONOMIC EMPOWERMENT

- 15.3.1. Provisions of the Preferential Procurement Policy Framework Act (PPPFA) of 2000 and its regulation of 2022 will apply in terms of awarding points.
- 15.3.2. Bidders are required to submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof together with their bids, to substantiate their B-BBEE rating claims.
- 15.3.3.Bidders who do not submit their B-BBEE status level verification certificates or are non-compliant contributors to B-BBEE will not qualify for preference points for specific goals.
- 15.3.4. Accounting Officers must ensure that the B-BBEE Status level Verification Certificates submitted are issued by the following agency:
 - Verification agencies accredited by SANAS.
- 15.3.5. Bidders who qualify as EMEs and QSEs must submit:
 - Sworn affidavit signed by the EME or QSE representative and attested by a commissioner of oath.
- 15.4. The table below depicts the specific goals to be claimed by the bidder:

SPECIFIC GOALS	NUMBER OF POINTS	NUMBER OF POINTS	
	FOR	(90/10 PREFERENCE	
	(80/20 PREFERENCE	SYSTEM)	
	SYSTEM)		
1.Enterprise owned by Black people	4	2	
2.Enterprise owned by Women	4	2	
3. Enterprise owned by Youth	4	2	
4.Enterprise owned by Disabled persons	4	2	
5. Enterprise owned by SMME`S – QSE and EME	4	2	

16. CONDITIONS OF THE CONTRACT

- 16.1. The General Conditions of Contract must be accepted as these are issued by National Treasury and are non-negotiable.
- 16.2. The appointment of the successful service provider will be subject to annual performance review.

16.3. The appointment of the successful bidder is subject to positive security screening and vetting results by

the State Security Agency.

16.4. The successful service provider will be subject to enter into signing of the Service Level Agreement (SLA)

with the department.

16.5. The service provider must comply with the provision of Occupational Health and Safety Act (OHSA) and

Compensation of Injury and Disease Act (COIDA).

16.6. The successful service provider shall provide acceptable protective clothing/uniform and name tags for

staff members.

16.7. The successful service provider must provide valid Unemployment Insurance Fund (UIF) certificate,

Workman compensation certificate and provident fund registration.

16.8. The successful service provider shall comply with the provision of the Department of Labour Sectorial

Determination 1, of the contract cleaning sector and minimum salary is obligatory.

17. FORMAT OF SUBMISSION OF PROPOSAL

17.1. All the official forms (SBD) that are included in the bid document must be completed in all respects by

bidders. Failure to comply will invalidate a bid.

17.2. Bidders are requested to submit two (2) copies: 1 original plus copy of the proposal and bid documents.

Proposal and price should be submitted in a separate envelope.

18. PRE-BID MEETING / BRIEFING SESSION DETAILS-

18.1. A non-compulsory briefing session will be held on 23rd May 2023 at 10:00, through Microsoft teams (link

attached on the Departmental website).

19. CLOSING DATE

19.1 Proposals must be submitted on or before 5th June 2023,11:00 at Department of Minerals Resource and

Energy, at 192 Matimba Building, Corner Visagie and Paul Kruger Streets, Pretoria in the bid box marked

marked Department of Minerals Resource and Energy. No late bids will be accepted.

20. ENQUIRIES

20.1 All general enquiries relating to bid documents should be directed to:

Mr Samuel Msiza

Tel No: (012) 406 7910

E-mail: Samuel.msiza@dmre.gov.za

20.2 Technical enquiries can be directed to:

Mr Bongani Nhlabathi/Mr Serame Moeketsi

Tel No: (012) 406 7682/(012) 406 7683

E-mail: Bongani.Nhlabathi@dmre.gov.za/Serame.Moeketsi@dmre.gov.za

ANNEXURE A

QUALITY OF SERVICE

- 1. The Rural Energy Service Provider shall, to the extent not provided for in this Schedule, comply with the Quality of Service Standard (NRS070:2004) and or its amendments.
- 2. Compliance with SATS 1286 for locally manufactured goods is critical.
- 3. Components of PV systems offered, must have a minimum total local content threshold value of 70% by price.
- 4. All components must be accompanied by test reports conducted by independent test houses. e.g. light output and power consumption.
- 5. Solar panels are subject to independent, output flash testing.
- 6. Charge controllers are subject to testing in accordance with NRS 052.
- 7. Aesthetics are important. As an example, bare lamps hanging on a wire suspended from the roof, should be covered by a lamp shade.
- 8. Exposed wire fixed to a wall must be straight both vertically and horizontally.
- 9. Wall mounted switches indicating on/off positions are preferred. Pull switches are not common in modern housing, thus not acceptable as an alternate in our non- electrified traditional housing.
- 10. SHS size offering:
 - ➤ Indoor lighting comprising of 6 x lights for 4 hrs/day
 - Outdoor lighting of 2 x external lights for 12 hrs/day
 - > Energy for 1 x DC colour TV for 5hrs/day
 - > 2 x DC socket outlets providing energy for cell-phone charging (4hrs/day), audio-visual appliances and TV, or other small appliances (radio for 4hrs/day)
- 11. Cable for aerial extension of energy to one external building. The external building will be supplied with at most 2 x Solar Lantern lights and 1 x outdoor light (and these lights are taken from the indoor and outdoor light quantities already mentioned above
- 12. Solar photo-voltaic system to supply the above service will include the following at a minimum:
 - ➤ Solar photovoltaic array of 150Wp minimum power
 - Electrical storage battery of minimum capacity 12V 50Ah
 - Charge controller compatible with the array and battery

- ➤ 6 x DC LED internal ambient lamps , 3W maximum, minimum light output of 80 lumen/watt, minimum life of 15,000hrs
- > 2 x DC LED external bulkhead lamps, 3W maximum, minimum light output of 80 lumen/watt, minimum life of 15,000hrs
- Shatterproof Solar Lanterns- solar run time of 4hrs/day at (29-60 Lumen) light global lighting/SABS approved
- > 2 x 7A DC socket adaptors (12V cigarette lighter type, suitable for DC TV and DC cell-phone chargers, (or possibly for small dedicated inverter for DSTV, although DC powered DSTV units are now available)
- > 1 x DC cell-phone charging adaptors kit for all general cell-phones (cigarette lighter type)
- > 1 x 9v outlet for radio
- ➤ A wiring kit of appropriate size for all DC wiring.
- ➤ Balance of system materials including: array mounting structure, battery box, battery fuse, control cubicle, light switches, and User Manual.

ANNEX	URE B					
Item	Description	Unit	Quantity	Amount	Total	Local Content (y/n)
1	150 Wp Solar Panel	Each	1			
2	50Ah Lethium battery	Each	1			
3	SHS Meter complete	Each	1			
	with enclosure					
4	Bulkheads exterior with	Each	2			
	switches					
6	LED light bulbs	Each	8			
6	Surfix White flat AX	m	10			
	4mm2 2C+ E (Sheathed)					
7	Surfix White flat AX	m	35			
	2.5mm2 2C+ E (Sheathed)					
8	Surfix White flat AX 1.5mm2	m	40			
	2C+ E (Sheathed)					
9	Surfix Black flat AX	m	25			
	1.5mm2 2C+ E (Sheathed)					
10	Illumunination cable 2.5mm2 2	m	10			
	core (Black) external					
11	DC Plugs	Each	1			
12	Cellphone charger adaptor	Each	1			
13	Shatterproof Solar Lanterns	Each	1			

14	Storage	Each	1		
15	Labour	Each			
16	Transportation and insurance	Each	1		
17	Audit	Lot	1		
Item 2	TOTAL INSTALLED COSTS				
	Profit Margin 10% allowed				
Item 3	GRANT TOTAL				