



Meeting Minutes

Template Identifier	240-54076329	Rev	7
Effective Date	November 2019		
Next review date	October 2022		
Group Capital Division			

Meeting Name: Clarification Meeting for Provision for the Design, Engineering, Procurement, Construction, Construction Management, Start-Up, Commissioning, Performance Testing, Operator and Maintenance Training of Solar PV and Agrivoltaics including Non-Lethal Energized Perimeter Detection System, CCTV and Security Lighting Systems for Komati Power Station.

Date:	Time:	Venue:	Meeting No.:
17 November 2021	10:00 AM to 13:00 PM	MS TEAMS	02/2021

Attendance Register

Name	Responsibility	Initials	Mark attendance or non-attendance using Present (P), Apologies (A), Absent (X)													
			J	F	M	A	M	J	J	A	S	O	N	D		
Hellen Lebjane	Eskom Commercial Representative	HL				P										
Gabriel Mkhonza	Eskom SDL&I Representative	GM				P										
Niranjan Sentoo	Eskom Technical Representative	NS				P										
Kuda Mareya	Eskom Engineering Representative	KM				P										
Freeman Chiranga	Eskom Engineering Representative	FC				P										
Yvon Gombele	Eskom Engineering Representative	YG				P										
Reginald Ngomana	Eskom Safety Representative	RN				P										
Mokgadi Mvambo	Eskom Environmental Representative	MM				P										
Charles Dhlamini	Eskom Quality Representative	CD				P										
Lerato Madisha	Eskom Finance Representative	LM				P										
Elisha Maharaj	Eskom Technical Representative	EM				P										
Luke Walker	Eskom Technical Representative (Supplier)	LW				P										
Busi Green	Eskom Engineering	BG				P										

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Viren Heera	Eskom Engineering	VH				P													
Funeka Grootboom	Eskom Engineering	FG				A													
Lerato Tsekela	Eskom Finance Seconded to Procurement	LT				P													
Morore Mashao	Metahuma Holdings 9Pty) Ltd (Supplier)	MM				P													
Tony Takabvakure	Esquare Holdings (Supplier)	TT				P													
Patrick Nkidi	Supplier	PN				P													
Deon Du Rand	Momentous Energy (Supplier)	DdR				P													
Muzikayise Sangweni	Proconics (Supplier)	MS				P													
Johanie Botha	Proconics (Supplier)	JB				P													
Sylvester Madurai	Art Solar (Supplier)	SM				P													
Bongi Tshangana	Honeywell (Supplier)	BT				P													
JJ Van Tonder	Botin and Fundi (Supplier)	JvT				P													
Gerbrand Steyn	Supplier	GS				P													
Lentano Basdeo	Masston Construction (Supplier)	LB				P													
Murendeni Matshinyatsimbi	Supplier	MM				P													
Didier Irandukunda	Lamo Solar (Supplier)	DI				P													
Nthabiseng	Tarcron Projects (Pty) Ltd (Supplier)	N				P													
David Oberholster	Proconics (Supplier)	DO				P													
Sikhona Lambede	Solar Lease (Pty) Ltd (Supplier)	SL				P													
Vuyi Dludlu	Moribula Investment Solutions (Supplier)	VD				P													
Tshibvumo Sikhwivhilu	Lamosolar (Supplier)	TS				P													
Lwando Limba	Eskom Technical	LL				P													
Moses Mashishi	Moribula Investment Solutions (Supplier)	MM				P													
Preggie Pillay		PP				P													
Merriam Ngake	Supplier	MN				P													

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Tready Masango	Supplier	TM				P													
Pierre Walters	Supplier	PW				P													
Makwena Matlala	Supplier	MM				P													
Hugh Dean	Supplier	HD				P													
Shailan Nundkumar	Supplier	SN				P													
Fidelis Chipeperengo	Supplier	FC				P													
Ignitius Ramphele	Supplier	IR				P													
Sekhar Subramoney	Supplier	SB				P													
Aubrey Mackenzie	Supplier	AM				P													
Tafadzwa Magejo	Supplier	TM				P													
Don Govender	Supplier	DG				P													

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Item	Subject & salient points	Decisions & Action items	Responsibility	Target date
1.	Opening: 1.1 Opening, welcome and attendance register	<ul style="list-style-type: none"> ➤ HL welcomed everyone present, participants were allowed an opportunity to introduce themselves. ➤ HL urged tenderers to stipulate their name and Company they are representing. 	HL and all present	
2.	Safety and Emergency Evacuation Procedure	<ul style="list-style-type: none"> ➤ HL asked if the team were working safe in their various working environment and all confirmed to be working safe. ➤ HL further urged the team to observe all COVID-19 regulations and encourage the team to stay safe and to protect their loved ones during this time of the pandemic. 	All	
3.	Declaration of interest	<ul style="list-style-type: none"> ➤ All members had nothing to declare 	All	
4.	Clarification Background	<ul style="list-style-type: none"> ➤ HL stated the purpose of the meeting, which was to clarify any questions that will arise during the non-compulsory tender briefing for the Provision for the Design, Engineering, Procurement, Construction, Construction Management, Start-Up, Commissioning, Performance Testing, Operator and Maintenance Training of Solar PV and Agrivoltaics including Non-Lethal Energized Perimeter Detection 	HL	

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		System, CCTV and Security Lighting Systems for Komati Power Station.		
5.	Commercial Presentation	<ul style="list-style-type: none"> ➤ HL urged tenderers to take note of the tender closing date of 10 December 2021 at 10H00 AM. ➤ HL indicated that the cut-off date for tenderers to ask question is 07 December 2021 close of business. ➤ All tender documents should be clearly marked: CONFIDENTIAL, TENDER NO. PSCED0406 and for attention Hellen Lebjane. ➤ Tenderers to note that there will be no reading of prices nor opening of tenders due to COVID-19 pandemic. ➤ Tender is to be divided into 3 documents namely: 1 original hard document 1 copy of the original hard document 1 additional complete soft copy of the original tender is required in electronic format (On Flash Drive/ USB). ➤ Tenderers are also urged to submit the full tender document in a memory stick/USB. NO CD's are allowed. ➤ Submit a complete tender with commercial, technical and SHEQ information. 	HL and Tenderers	30/08/2021 02/09/2021

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		<p>NOTE: Failure to comply with the above your tender will be declared non-responsive and it will be disqualified.</p> <ul style="list-style-type: none"> ➤ HL further indicated that tenderers must pay attention on the tender returnable when compiling their tender submission. ➤ HL also urged suppliers to forward their queries in writing VIA email to, LebjanH@eskom.co.za as the Employer's representative. ➤ A completed tender must be submitted to: <p style="text-align: center;">THE TENDER OFFICE NEXT TO ESKOM RETAIL OFFICES ESKOM MEGAWATT PARK, 01 MAXWELL DRIVE, SUNNINGHILL EXT 3 SANDTON</p> <p>LATE TENDERS WILL NOT BE ACCEPTED</p>		
6.	Supplier Development Localisation and Industrialisation (SDL&I)	<ul style="list-style-type: none"> ➤ Tenderers are required to submit their BBBEE Certificate from SANAS Accredited Agency or Sworn Affidavit from National Treasury or DTI certified by Commissioner of Oath will be used to determine the points at tender closing date. Failure to submit will result in them 	GM	

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		<p>scoring a ZERO on B-BBEE preference point system</p> <ul style="list-style-type: none"> ➤ Suppliers are also required to comply to the Designated Sector for Solar PV components for local content and failure to achieve the stipulated components, suppliers are advised to apply for exemption to the Department of Trade, Industry and Competition. ➤ Tenderer to comply with the local content requirements as stipulated in the Supplier Development Localisation and Industrialisation strategy. ➤ Tenderes to complete the SBD 6.2 – Declaration Certificate for Local Production and Local Content as it is a mandatory requirement. <p>Tenderers who do not meet these mandatory requirement will be disqualified.</p>		
7.	Project Overview/Execution	<ul style="list-style-type: none"> ➤ NS gave background about the project. ➤ NS stated that Komati Power Station is approximately 50km from Emalahleni (Witbank). The surroundings towns make up Komati Village and Middelburg within a 50km radius. ➤ No Geotechnical studies are available for this site. 	NS	

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		<ul style="list-style-type: none"> ➤ Survey and setting out works information will form part of the construction drawings from the successful tenderers. ➤ Bedding, Borrow Materials and spoil sites to be sort from licenced service providers in the neighbouring towns. ➤ NS indicated that the use of Water and Power for construction Works is available from the Power Station point of coupling/supply. It is the responsibility of the appointed tenderer to liaise with the station for the use thereof. The Employer will not be held responsible for Water and Power interruptions during construction. ➤ NS further indicated that the appointed tender must coordinate their construction activities with other contractors who carry out construction work near the Power Station. ➤ There are existing services particularly in and around the site identified like Electric cables, and drains, etc. ➤ Extra precaution should be taken when working in these servitudes ➤ The appointed tender must provide his own security for the duration of the construction period. 		
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		<ul style="list-style-type: none"> ➤ The appointed tender shall comply with all Environmental conditions and specifications. ➤ Tenders are to provide a site layout for the Works. ➤ The successful tenderer will provide his own security for the duration of the construction period. 		
8.	Technical Requirements	<ul style="list-style-type: none"> ➤ FC described the detailed scope of work as Provision for the Design, Engineering, Procurement, Construction, Construction Management, Start-Up, Commissioning, Performance Testing, Operator and Maintenance Training of Solar PV and Agrivoltaics including Non-Lethal Energized Perimeter Detection System, CCTV and Security Lighting Systems for Komati Power Station. ➤ Comparing energy yield (kWh) of the two systems. ➤ Assessing impact of environmental conditions (ambient conditions, irradiance, soiling, etc.) on performance and energy yield. ➤ PV plant to be installed on identified land at Komati Power Station. Refer to Drawing 	FC	

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		<p>0.33/19495 - Pre-Feasibility Study SSB Layout.</p> <ul style="list-style-type: none"> ➤ Total area available is approx. 11 000m² (Area 1: 8000m² allocated for ground mounted PV and Area 2: 3000m² allocated for Agrivoltaic) and plant should utilise a maximum of 1 ha ➤ Tenderer is required to submit proposal complete with the simulation model used to estimate plant capacity & annual energy yield. ➤ Plant should be equipped with a control & monitoring system, meteorological station & fire detection system ➤ Fixed tilt system and string panel-inverter layout is preferred. ➤ Plant to interface with 400V reticulation system of the station. ➤ Point of connection is the 400V compartment of a 630kVA, 6.6/0.4kVA mini substation. ➤ Mini substation 400V system requires some modification to allow for connection ➤ To secure the PV plant assets, a 3-tier fence comprising of an outer barrier high security mesh fence, electrified fence/non-lethal 		
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		<p>energized perimeter detection system (NLEPDS) and inner barrier high security mesh fence is required.</p> <ul style="list-style-type: none"> ➤ The existing high security mesh fence is to be refurbished and shall serve as the outer barrier high security mesh fence of the 3-tier configuration fence ➤ NLEPDS shall comprise of the following as a minimum: energizers, control units, human machine interfaces, posts, conductors, cabling, lightning protection, earthing, communication and alarming systems ➤ Security lighting bordering the PV plant is also required. ➤ Security lighting shall comprise as a minimum: luminaires, control gear, power cables, control cables, mounting structures, lightning protection and earthing ➤ Minimum illumination level required is 4 lux and a uniformity ratio of 5:1 ➤ During execution of the project, offered luminaires shall be subjected to photometric testing by Eskom before acceptance. ➤ A CCTV system is required to provide a means to transmit and store visual incidents 		
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		<p>on site which can be reviewed and analyzed later.</p> <ul style="list-style-type: none"> ➤ Key points for visual surveillance include vehicle gate, pedestal gate and perimeter fence bordering the PV plant ➤ CCTV system shall comprise as a minimum camera, camera mounting structures, power supplies, communication system, servers, human machine interface ➤ The NLEPDS, CCTV and security lighting shall be interfaced to form a total integrated security system ➤ Technical evaluation criteria comprise of one mandatory and 4 qualitative criteria ➤ A minimum aggregate score of 70% is required for a bid to be functionally acceptable ➤ Mandatory criteria is for written confirmation that the offered solar panels are manufactured by a tier 1 manufacturer ➤ The other four qualitative criteria consider the energy yield and capacity (kWac) of the PV plant, guaranteed performance ratios, tenderer's experience is designing and installing PV projects of such scale and finally bidder's experience and in designing 		
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		and installing NLEPDS, security lighting and CCTV systems.		
9.	Safety Health Environmental and Quality Requirements	<ul style="list-style-type: none"> ➤ RN stated that Eskom would strive to ensure that zero harm befalls its employees, contractors, the public and the natural environment. <ul style="list-style-type: none"> - Zero fatalities - Zero injuries - Zero environmental incidents. ➤ He further said this can be achieved through an effective: <ul style="list-style-type: none"> - OHS Management System, - Leadership Commitment and - Sound Health and Safety Culture ➤ GM emphasized that tenderer must provide a breakdown for SHE in their safety file. ➤ MM indicated that the appointed service provider shall comply with all Environmental conditions and specifications - <u>Dust management.</u> ➤ Dust makes the air quality worse, and it can quickly make any worksite unbearable if it is not managed correctly. In the Safety file, include how dust will be managed at the construction the site i.e. the procedure on dust management. 	RN/CD/MM	

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		<ul style="list-style-type: none"> ➤ The station is ISO14001:2015 certified meaning one of the requirements is to keep the station as clean as possible, therefore waste management through waste separation and practicing cradle to grave should be adhered to. End of life i.e. safe disposal certificate should be sent to Generation Environmental department. ➤ Waste should be disposed at a registered landfill site- agreement of such landfill site will be required. In addition, procedure for waste handling should be available. ➤ Heritage Resources: procedure/ process of handling any heritage resources on site should be included in the Safety file. ➤ Procedure on handling chemical/oil spillage must be included in the SHE file. ➤ All Environmental related incident should be reported to the Generation Environmental department within 24 hours. ➤ The clean-up and rehabilitation of any affected area should be cleaned and left as close to the current Environmental state as possible. <p>Tenderers were encouraged to comply with the SHEQ Requirements as per the tender returnables.</p>		
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10.	Question and Answer Session	<p>Q – The tenderer indicated that there is no indication for transformers in the scope of work and wanted to know if the system is interconnected at 11kV or 6.6kV.</p> <p>A – Point of connection of the PV plant is through a 630kVA, 6.6/0.4kV mini-substation on the 400V system. Thus, transformers do not form part of the scope of work for the PV Solar.</p> <p>A – The team responded that transformers are not part of the scope of work for the PV Solar.</p> <p>Q – What is the approximate size of area1 and 2 and the invasion size of the PV</p> <p>A – The gross total area available is approximately 11000 m² comprising area 1 making up 8000 m² and allocated for ground mounted PV and area 2 making up 3000 m². The net maximum usable area for the plant should be 1ha.</p> <p>Q – The tenderer wanted to know under Hybrid PV if Eskom is referring to a standard solar inverter or Hybrid inverter.</p> <p>A – The team’s response was that hybrid in the context of 2 systems i.e. agrivoltaic and ground mounted system being installed and interconnected. The inverters are standard solar grid tied.</p>		
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		<p>Q- Points of connection is suggested 400volts but on technical specification the voltage is 690-800V.</p> <p>A – The breaker will be connected to the 400V system but should be rated for an operating voltage of 690Vac. The rated insulation voltage shall be 800V.</p> <p>Q – South Africa has two local Solar Manufacturers of Solar Panels and Eskom is looking tier 1 Manufacturer, in favour of local content rules, why can't tier 1 Manufacturers enter into an OEM to protect jobs.</p> <p>A – Tenderers are encouraged to enter into a Joint Venture Agreement with Tier 1 Manufactures if need be and a JV Agreement must be submitted stipulating all JV requirement at tender closing. The tenderer who brought this question was requested to send his question VIA email to the buyer. This is dependent on the Tenderers' own entrepreneurship initiatives on who they partner with.</p> <p>Q –The tenderer wanted to know if the threshold module was clarified as the drive to maximise capacity and energy yield.</p> <p>A – Simulation models need to be submitted at tender closing date.</p>		
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		<p>Q – Does tenderers have the liberty of choosing between the two different kind of modules?</p> <p>A – Standardisation of components for both agrivoltaic and ground mounted PV solar system is required for purposes of spares management.</p> <p>Q – Since local content did not talk about inverter modules, tenderers are good to go with non-local product without an exemption?</p> <p>A – The presenter was not aware that Inverter modules are designated, so tenderers have to comply with the regulation otherwise they can apply for exemption to the Department of Trade Industry and Competition. Subsequently the presenter indicated that the Solar PV components were designated and therefore all Tenderers should comply or obtain the exemption from the DTIC.</p> <p>Q – Is this a turkey tender?</p> <p>A – Yes, tenderers must tender as per the scope of work.</p> <p>Q – Is there any Geotech study report available to assist the tenderers with the foundation.</p> <p>A – There is no Geotech done on this tender, provision should be met for such before final designs for structures.</p>		
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		<p>Q – How will you link the 70% solar PV and Tier 1 technology as they do have the link?</p> <p>A – It has been confirmed that it is NOT 70% as indicated in the clarification meeting. Confirmation with the DTIC is that the following components are designated with stipulated minimum Local Content threshold:</p> <ul style="list-style-type: none"> • Laminated PV Modules -15% • Module Frame – 65% • DC Combiner Boxes – 65% • Mounting Structure – 90% • Inverter – 40% <p>Bidders must comply with both sector specific designations for local manufacture as specified by the DTIC, as well as the requirement for panels from Tier 1 Suppliers. Suppliers can obtain an exemption from the DTIC for the local content should they not be able to meet those requirements. It is up to the supplier to arrange such exemption prior to the bid closing date. Suppliers will be accepted if they comply with both requirement or if they provide the said exemption from the DTIC. Bidder will also be required to provide evidence of subcontracting arrangements where applicable so that they don't change suppliers after bid award.</p>		
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		Q – Can battery storage be considered, as it increased the energy reliability of the PV at peak times? A – Battery storage is not part of this tender as this is just a pilot plant assessing performance influence of environmental aspects to it and it is a very small plant.		
8.	General and Closure	➤ HL officially adjourned the meeting and thanked everyone present.	HL	

This is a true reflection of the Non-Compulsory Clarification Meeting held on 17 November 2021 for the Provision of Design, Engineering, Procurement, Construction, Construction Management, Start-Up, Commissioning, Performance Testing, Operator and Maintenance Training of Solar PV and Agrivoltaics including Non-Lethal Energized Perimeter Detection System, CCTV and Security Lighting Systems for Komati Power Station.

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Minutes Compiler

Name: Hellen Lebjane

Designation: Senior Advisor Procurement

Signature: 

Minutes Supported by the PM:

Name: Niranjan Sentoo

Designation: Manager Complex Projects

Signature: 

Date:

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