Attachment G – Technical Evaluation Criteria for Air Heaters Cluster 1 to 3 and Fans Cluster 4 to 6 Phase 1 to 3

TENDER TECHNICAL EVALUATION STRATEGY

TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 80% for each of the Desktop (Phase 1) and Local Site Assessment (Phase 2).

Note: If the Eskom technical evaluation team has scored the service provider ≥80% for Phase 1 (Desktop assessment), Eskom will proceed with Phase 2 (Local Site assessment). If the technical evaluation team has scored Phase 1 < 80% for any service provider, the Eskom technical evaluation team will not proceed with Phase 2 (Local Site assessment) and the service provider will be classified as technically unacceptable.

If the Eskom technical evaluation team has scored the service provider ≥80% in Phase 2 (Local Site Assessment) the service provider will be deemed as technically acceptable. Eskom will then proceed with Phase 3 (Local Site Capability Assessment) which will only be an on-site assessment of the contractor's capacity and capability.

Phase 3 will not be scored but will be used to gauge the risk of the contractor's resource capabilities.

Final cluster allocation and contract placement will be as stipulated in the overall procurement and contracting strategy.

Phase 1 - Mandatory Tender Returnables

All Phase 1 Qualitative Desktop Criteria for fans and air heaters listed below forms part of the mandatory tender returnables and must be submitted with the tender

Cluster 123 AH Technical Qualitative Evaluation Criteria Phase 1 Desktop								
Qualitative Technical Criteria Description			**Compliant**	**Compliant with Associated Qualifications**	**Non-Complaint**	**Totally Deficient or Non-responsive**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
			5	**4**	**2**	**0**		
1		**General**					**5**	
	1.1	List of deviations from the Works Information, if any.	No deviations from the Works Information	Up to 5 Technical Or Risk acceptable Deviations	More than 5 deviations	No documentation required		100

2		**Experience**					**10**	
	2.1	The tendering entity submits a list which includes at least proof of 5 traceable individual power station references that adequately proves that the tenderer has supplied onsite maintenance crews, engineering support and outage crews maintaining Rotating Matrix and/or Rotating Hood Air pre-heaters for Fossil power stations with at least 200MW capacity per unit on long term maintenance contracts (Of at least 3 years duration) either locally or internationally in the past 5 years. The following information must be supplied as a minimum: 1. Client/Utility Name 2. Total Station Size in MW 3. Type of Air Pre-Heaters 4. Size and Diameter of Air Pre-Heater/s 5. Contract Numbers 6. Start Date of Contract 6. High level scope of work 7.Contract Org Chart with all resources Upon request from Eskom the supplier may be required to supply the contact's name and number for a specific reference listed	Vallid list of 5 references submitted	Vallid list of 4 references submitted	Vallid list of less than 4 references submitted	No Vallid References supplied		100

3		**Quality**					**20**	
	3.1	The Tendering entity submits detailed QCP (Quality Control Plans) (or also referred to as ITP - inspection and test plans) for a **Rotating Matrix** air preheater. The QCP must demonstrate the incorporation of procedure requirements, details to present inspection interventions for its own and client verifications and must include the demonstration of use of inspection specification references and inspection check-sheets to drive fault-free execution. The detailed QCP must cover the Attachment TES1 “General Overhaul Scope for Power Station A” as attached for all the activities from the initial inspection through to the commissioning and re-start of the air preheater.	90% of required ITP intervention points covered	70% to 90% ITP intervention points covered	Less than 70% ITP intervention points covered	No ITP's submitted		50
	3.2	The tendering entity submits detailed QCP (Quality Control Plan) (or also referred to as ITP - inspection and test plans) for a **Rotating Hood** air preheater. The QCP must demonstrate the incorporation of procedure requirements, details to present inspection interventions for its own and client verifications and must include the demonstration of use of inspection specification references and inspection check-sheets to drive fault-free execution. The detailed QCP must cover the Attachment TES2 “General Overhaul Scope for Power Station B” as attached for all activities from the initial inspection through to the commissioning and re-start of the air preheater.	Tenderer submits a valid copy of his certification	Not an option	Not an option	No certification submitted		50

4		**Procedures**					**20**	
	4.1	The tendering entity to submit a detailed **Rotating Hood** Air Pre-Heater inspection plan listing the top 10 inspection points to establish the condition of the sealing system at the start of a major outage.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.2	The tendering entity to submit a detailed **Twin Flow Rotating Hood** Air Pre-Heater seal replacement procedure covering all critical checks and reports for a Twin Flow Rotating Hood Air Preheater sealing system.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.3	The tendering entity to submit a detailed **Twin Flow Rotating Hood** Air Pre-Heater seal setting procedure covering all critical checks and reports for a Twin Flow Rotating Hood Air Preheater sealing system.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.4	The tendering entity to submit a detailed **Rotating Matrix** Air Pre-Heater inspection plan listing the top 10 inspection points to establish the condition of the sealing system at the start of a major outage.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.5	The tendering entity to submit a detailed **Rotating Matrix** Air Pre-Heater seal replacement procedure covering all critical checks and reports for a Rotating Matrix Air Preheater sealing system.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.6	The tendering entity to submit a detailed **Rotating Matrix** Air Pre-Heater seal setting procedure covering all critical checks and reports for a Rotating Matrix Air Preheater sealing system.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.7	The tendering entity submits his own detailed company approved cold re-commissioning procedure for a **Rotating Hood** Air Pre-Heater with soot blowing system, drive system guide, and thrust bearings with a lubrication system. The bearings are fitted with one thermocouple each with remote temperature alarming and tripping in the control room.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10

	4.8	The tendering entity submits his own detailed company approved cold re-commissioning procedure for a **Rotating Matrix** Air Pre-Heater with soot blowing system, drive system guide, and thrust bearings with a lubrication system. The bearings are fitted with one thermocouple each with remote temperature alarming and tripping in the control room.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.9	The tendering entity submits a detailed list of the top 10 important recommended daily and monthly/3 monthly online maintenance activities required for a **Rotating Hood** Air Pre-Heater during plant in operation	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
	4.10	The Tendering entity submits a detailed list of the top 10 important recommended daily and monthly/3 monthly online maintenance activities required on a **Rotating Matrix** Air Pre-Heater during plant in operation	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		10
5		**Planning**					**15**	
	5.1	The tendering entity submits a detailed Level 4 project plan in Primavera/Microsoft Project (fully expanded hard copy and electronic copy) for a **Rotating Matrix** Air Preheater scope of work based on the scope of work in "Attachment TES1 General Overhaul Scope for Power Station A". The program must include details of all interfaces e.g. Electrical, Scaffolding, Cladding, C&I and Cooling Water including main spares components required. General Overhaul outages are typically 70 days long, but the tenderers outage program must fit into a maximum time frame of 30 days from permit issue with only the commissioning work to take place at the end of the outage. Activity durations and manpower must reflect those in the tendering entities tender.	The program fits within the time frame and all the items in the GO scope is covered together with the interfaces required and the program logic is acceptable	One of the following items is not met. Time Frame, Scope covered, Interfaces and program logic.	More than one of the following items is not met. Time Frame, Scope covered, Interfaces and program logic.	No plan submitted		30

	5.2	The tendering entity submits a detailed Level 4 project plan in Primavera/Microsoft Project (fully expanded hard copy and electronic copy) for a **Rotating Hood** Air Preheater scope of work based on the scope of work in "Attachment TES2 General Overhaul Scope for Power Station B". The program must include details of all interfaces e.g. Electrical, Scaffolding, Cladding, C&I and Cooling Water including main spares components required. General Overhaul outages are typically 70 days long, but the tenderers outage program must fit into a maximum time frame of 30 days from permit issue with only the commissioning work to take place at the end of the outage. Activity durations and manpower must reflect those in the tendering entities tender.	The program fits within the time frame and all the items in the GO scope is covered together with the interfaces required and the program logic is acceptable	One of the following items is not met. Time Frame, Scope covered, Interfaces and program logic.	More than one of the following items is not met. Time Frame, Scope covered, Interfaces and program logic.	No plan submitted		30
	5.3	The tendering entity submits a skills histogram for the scope of work "Attachment TES1 General Overhaul Scope for Power Station A" as detailed in 5.1 and resource levelling applied.	All site labour resources covered	1 site labour resource not covered	2 or more site labour resources not covered	No Histogram submitted		20
	5.4	The tendering entity submits a skills histogram for the scope of work "Attachment TES2 General Overhaul Scope for Power Station B" as detailed in 5.2 and resource levelling applied.	All site labour resources covered	1 site labour resource not covered	2 or more site labour resources not covered	No Histogram submitted		20
6		**Training**					**10**	
	6.1	The tendering entity submits a detailed list of product specific training modules for both **Rotating Hood** and **Rotating Matrix** for an artisan including an index for each module showing the aspects covered in the module. Minimum plant to be covered is air preheater sealing system, drive unit, air preheater performance, soot blowing system, bearings and alignment, and element profile defects/monitoring and lubrication system.	List submitted covering all plant and the index covers the main aspects required for each module	One module not submitted on the list together with it's index	Two modules not submitted on the list together with it's index	No list submitted		100
7		**Engineering**					**20**	

	7.1	The Tendering entity to submit 3 detailed plant failure analyses and root cause analysis investigation reports with recommendations of corrective actions with respect to the Air Pre-Heater.	3 detailed analyses and root cuases submitted	2 detailed analyses and root cuases submitted	1 detailed analyses and root cuases submitted	Nothing supplied		25
	7.2	The Tendering entity to submit 2 detailed reports of design reviews of components illustrating design concept changes and final design implementation on Air Preheaters.	2 detailed design reviews submitted	1 detailed design reviews submitted	Insufficiently detailed reviews submitted	Nothing supplied		25
	7.3	The tendering entity to submit a detailed report of an Air Preheater's Element-Pack thermal performance simulation for a 15 meter diameter air heater with a 2.5 meter deep stator/rotor. The report to include the input parameters, pack profiles selected and output parameters as a minimum.	Detailed report submitted	Insufficiently detailed report submitted	Not an option	Nothing supplied		25
	7.4	The tendering entity to submit an air pre-heater capping calculation report for a 15 meter diameter rotating matrix air heater with a 2.5 meter rotor depth with an air inlet temp of 40 °C, air outlet temperature of 280°C, gas inlet temperature of 350°C and a gas outlet temperature of 125°C. Capping results to be included at 1.5, 4 and 7.5 meter radius as a minimum.	Correct Calculation Submitted	1 x Setting incorrect calculated	2 settings incorrectly calculated	Nothing supplied		25
		TOTAL					**100**	

Cluster 456 Fans Technical Qualitative Evaluation Criteria Phase 1 Desktop								
Qualitative Technical Criteria Description Phase 1			**Compliant**	**Compliant with Associated Qualifications**	**Non-Complaint**	**Totally Deficient or Non-responsive**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
			5	**4**	**2**	**0**		
1		**General**					**5**	
	1.2	List of deviations from the Works Information	No deviations from the Works Information	Up to 5 Technical Or Risk acceptable Deviations	More than 5 deviations	No documentation submitted		100

2		**Experience**					**15**	
	2.1	The tendering entity provides proof that they have maintained Axial Flow Fans with hydraulic auto-variable blade pitching in the range larger than 3000kW for a period of at least 3 years in the last 10 years and provides a detailed reference list containing at least the below information. The list can be applicable for local or international clients in the power generation, mining or industrial sectors and must contain at least 5 different contracts over the last 10 years for the applicable fan size. 1. Client/Utility Name 2. Boiler Size in MW 3. Fan Type 4. Fan Size 5. Fan Kilowatt rating 6. Contract Numbers 7. Start Date of Contract 8. Completion Date of Contract/Certificate of Completion Upon request from Eskom the supplier may be required to supply the contact's name and number for a specific reference listed	90% of required ITP intervention points covered	70% to 90% ITP intervention points covered	Less than 70% ITP intervention points covered	No ITP's submitted		50

	2.2	The tendering entity provides proof that it has maintained Centrifugal Fans in the range greater than 2000kW for a period of at least 3 years in the last 10 years and provides a detailed reference list containing at least the below information. The list can contain local clients in the Power Generation, Mining or Industrial Sectors and must contain at least 5 different contracts in the over the last 10 years for the applicable fan size. 1. Client/Utility Name 2. Boiler Size in MW 3. Fan Type 4. Fan Size 5. Fan Kilowatt rating 6. Contract Numbers 7. Start Date of Contract 8. Completion Date of Contract/(Certificate of Completion Upon request from Eskom the supplier may be required to supply the contact's name and number for a specific reference listed	Tenderer submits a valid copy of his certification	Not an option	Not an option	No certification submitted		50

3		**Quality**					**20**	
	3.1	The tendering entity submits a detailed QCP (Quality Control Plan) (or also referred to as ITP - inspection and test plans) for an Axial Flow Fan Rotating Assembly swap on site. The QCP must demonstrate the incorporation of procedure requirements, details to present inspection interventions for its own and client verifications and must include the demonstration of use of inspection specification references and inspection check-sheets to drive fault-free execution. The detailed QCP must cover all activities from the initial inspection through to the commissioning and re-start of the fan after swap.	90% of required ITP intervention points covered	70% to 90% ITP intervention points covered	Less than 70% ITP intervention points covered	No ITP's submitted		70
	3.2	The tendering entity submits a detailed QCP (Quality Control Plan) (or also referred to as ITP - inspection and test plans) for a Double Inlet Centrifugal Fan complete rotating assembly removal and replacement on site. The QCP must demonstrate the incorporation of procedure requirements, details to present Inspection interventions for its own and client verifications and must include the demonstration of use of Inspection specification references and Inspection check-sheets to drive fault-free execution. The detailed QCP must cover all activities from the initial inspection through to the Commissioning and re-start of the fan after swap.	Tenderer submits a valid copy of his certification	Not an option	Not an option	No certification submitted		30

4		**Procedures**					**20**	
	4.1	The tendering entity submits its own detailed company approved procedure (Method Statement) covering all the critical elements involved in the stripping, inspection, measurement, re-assembly and commissioning of a force lubricated white metal bearing on the DE or NDE side of the fan with thrust collars and labyrinth seals.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		25
	4.2	The tendering entity submits its own detailed company approved cold re-commissioning procedure (Method Statement) for a single inlet PA Fan with a Radial Vane Control System, white metal bearings with a forced lubrication system fitted with a shaft driven main oil pump and an electrical standby pump with one main pressure control valve and needle flow control valve flow adjusters to each bearing and a direct drive coupling. The fan is not equipped with online vibration equipment. The bearings are fitted with one thermocouple each with remote temperature alarming and tripping in the control room.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		25
	4.3	The tendering entity submits a detailed list of the top 10 recommended daily and monthly/3 monthly online maintenance activities required on the above (4.2) fan during plant in operation.	90% off items covered	From 70% to 90% items covered	From 50% to 70% items covered	No procedure submitted or less than 50% items covered		25
	4.4	The tendering entity submits its own detailed company approved procedure (Method Statement) covering all elements involved in the removal and replacement of an Auto Variable Pitch Two Stage Axial Flow ID Fan Rotor Assembly in situ.	Method Statement Submitted covering all items	Method Statement Submitted but one items not covered	Method Statement Submitted but 2 items not covered	No Method Statement Submitted		25

5		**Planning**					**15**	
	5.1	The Tendering entity submits a detailed level 4 project plan in Primavera/Microsoft Project (Fully expanded hard copy and electronic copy) for the ID Fan, FD Fan and PA Fan General Overhaul Scope of Work based on the scope of work in “Attachment TES3 General Overhaul Scope for Power Station C”. The program must include details of all interfaces e.g. Electrical, Scaffolding, Cladding, C&I and Cooling Water including main spares components required. General Overhaul outages are typically 70 days, but the tenderers outage Program must fit into a maximum time frame of 30 days from permit issue with only the commissioning work to take place at the end of the outage. Activity durations and manpower must reflect those in the tendering entities tender.	The program fits within the time frame and all the items in the GO scope is covered together with the interfaces required and the program logic is acceptable	One of the following items is not met. Time Frame, Scope covered, Interfaces and program logic.	More than one of the following items is not met. Time Frame, Scope covered, Interfaces and program logic.	No plan submitted		30
	5.2	The tendering entity submits a skills histogram for the “Attachment TES3 General Overhaul Scope for Power Station C” Fan GO based scope of work as detailed in 5.1 and resource levelling applied.	Histogram submitted and resource levelling done and resources quantities are acceptable.	Histogram submitted and resource not quantities adequate	Histogram submitted but no levelling was done and quantities are not acceptable	No histogram submitted		20

	5.3	The tendering entity submits a detailed Level 4 project plan in Primavera/Microsoft Project (fully expanded hard copy and electronic copy) for the ID Fan, FD Fan and PA Fan General Overhaul Scope of Work based on the scope of work in “Attachment TES4 General Overhaul Scope for Power Station D”. The program must include details of all interfaces e.g. Electrical, Scaffolding, Cladding, C&I and Cooling Water, including main spares components required. General Overhaul outages are typically 70 days, but the tenderers outage program must fit into a maximum time frame of 30 days from permit issue with only the commissioning work to take place at the end of the outage. Activity durations and manpower must reflect those in the tendering entities tender.	Level 4 program submitted	80% of the requirments covered in the level 4 program submitted	60% of the requirments covered in the level 4 program submitted	No Level 4 Program submitted.		30
	5.4	The tendering entity submits a skills histogram for the “Attachment TES4 General Overhaul Scope for Power Station D” Fan GO based on scope of work as detailed in 5.3 and resource levelling applied.	Histogram submitted and resource levelling done and resources quantities are acceptable.	Histogram submitted and resource quantities not adequate	Histogram submitted but no levelling was done and quantities are not acceptable	No histogram submitted		20
6		**Training**					**20**	
	6.1	The tendering entity submits a detailed list of product specific training modules for an artisan including an index for each module showing the aspects covered in the module. Minimum plant to be covered is Axial Flow Fan routine monitoring, Axial Flow Fan rotor swopping, white metal bearing servicing, radial vane control inspection & servicing, coupling inspection & servicing, casing and shaft seals.	List submitted covering all plant and the index covers the main aspects required for each module	One module not submitted on the list together with it’s index	Two modules not submitted on the list together with it’s index	No list submitted		100

7		**Engineering**					**20**	
	7.1	The tendering entity submits a performance curve and general specification using their fan selection system for a double inlet centrifugal fan using the following basic specifications. • Static Pressure Rise : 3 kPa (MCR Duty Point) • Volume : 500 m3/sec Flue Gas with maximum 50 mg/Sm3 ash content. (MCR) • Control : Radial Vane Control • Height Above Sea Level : 1300m • Flue Gas Temp : 125 °C • Volume Margin to design point : 10% • Pressure margin to design point : 15%	Performance curve and general specification sheet submitted	General Specification sheet not submitted	Performance curve not submitted	No documents submitted		20
	7.2	The tendering entity submits a performance curve and general specification using their fan selection system for an auto variable pitch axial flow fan using the following basic specifications. • Static Pressure Rise : 8.0 kPa (MCR Duty Point) • Volume : 600 m3/sec Flue Gas with maximum 50 mg/Sm3 ash content. (MCR) • Control : Auto Variable Pitch • Height Above Sea Level : 1300m • Flue Gas Temp : 125 °C • Volume Margin to design point : 10% • Pressure Margin to design point : 15%	Performance curve and general specification sheet submitted	General Specification sheet not submitted	Performance curve not submitted	No documents submitted		20

	7.3	The tendering entity must submit a detailed Root Cause Failure Analysis investigation report for a centrifugal impeller that has cracked during operation. The report must contain the following as a minimum: • Executive Summary • Failure Analysis Testing Methodologies and operating data analysis • Results • Conclusion • Recommendations	Comprehensive Failure analysis submitted covering all elements required	Comprehensive Failure analysis submitted with one element not covered	Comprehensive Failure analysis submitted with two elements not covered	No Root Cause Failure Analysis submitted		20
	7.4	The tendering entity must submit a detailed Root Cause Failure Analysis investigation report for a 10” White Metal Bearing that has failed during operation. The report must contain the following as a minimum: • Executive Summary • Failure Analysis Testing Methodologies and operating data analysis • Results • Conclusion • Recommendation	Comprehensive Failure analysis submitted covering all elements required	Comprehensive Failure analysis submitted with one element not covered	Comprehensive Failure analysis submitted with two elements not covered	No Root Cause Failure Analysis submitted		20

	7.5	The tendering entity must submit a detailed design review report for replacing obsolete lubrication oil pumps on a 1 x mechanical shaft driven gear pump at 750rpm and 1 x electrical driven standby gear pump at 1500rpm lubrication oil system. Pressure and flow settings for a typical lubrication system for two off 10' white metal forced lubricated bearings can be used as design criteria. For all other parameters required the tendering entity must list all assumptions made. The report must contain the following as a minimum: • Executive Summary • Current design and operating parameters • Proposed new design and operating parameters • Discussion • Proposed alternatives • Any Modifications required • Conclusion • Recommendations	Design review submitted with all the elements covered	Design review submitted with one element not covered	Design review submitted with two elements not covered	No Design Review document submitted		10
	7.6	The tendering entity must submit a detailed engineering in situ weld repair procedure on a ID Fan for a crack 50mm long and 3mm deep on a blade made from RoqTuf AM700 8mm thick on the edge of the heat affected zone 300mm from the blade nose on the high-pressure side of the blade. The tendering entity must also submit the correct company approved WPS and WPQR.	Complete Repair Procedure submitted with WPS and WPQR	Procedure not complete or WPS or WPQR not submitted	Two of the following items met. Procedure not complete or WPS or WPQR not submitted	No repair procedure submitted		10
							100	

Phase 2 – Local Site Assessment

Phase 2 will be a local on site assessment and will only be conducted and scored when phase 1 is completed as per the evaluation strategy and qualification requirements above have been met.

Cluster 123 AH Technical Qualitative Evaluation Criteria Phase 2 Local Site Assessment								
Qualitative Technical Criteria Description Phase 2			**Compliant**	**Compliant with Associated Qualifications**	**Non-Complaint**	**Totally Deficient or Non-responsive**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
			5	**4**	**2**	**0**		
1		**Quality**					**25**	
	1.1	Review of Tendering entities QCP compilation process and approval process. The Tendering entity presents proof of established control for the compilation, review and approval of Quality Control Plans.	Manual in place	Not an option	Not an option	No Manual in place		40
	1.2	Review of Tendering entities NCR process.The Tendering entity presents proof, procedures or plans to report control, analyse and execute internal and external issued NCR's	NCR Process in place and being followed	80% in place	40% in place	No system in place		20
	1.3	Welding Capability: Welding procedure qualification records PQR that covers Air pre heater materials and thickness ranges for three different types of steel.	Procedures in place	80% in place	40% in place	No procedures in place		40

2		**Planning**					**25**	
	2.1	Demonstration of actual vs baseline of a typical outage plan including risk and mitigation plan for deviation. The Tendering entity presents examples of tools, reports and action taken.	100%	80%	40%	No plan available		100
3		**Training**					**20**	
	3.1	Inspection and review of the Tendering entities training material and facilities for product specific training. The evaluation will cover other material over and above the submissions for the desktop evaluation. The evaluation covers the variety of procedure/risk areas, completeness, and review/approval and update control.	80%	60%	40%	Less than 40%		100
4		**Engineering**					**30**	
	4.1	The Tendering entity provides objective evidence of his in-house engineering packages available to carry out Air pre heater modelling and design as well as reverse engineering such as: 1. In house Thermal modelling program 2. Inventor 3. CFD Modelling	All programs required to carry out design, selection and FEA	80% requirements covered	40% requirements covered	No software available		50

	4.2	Physical review of engineering design capabilities and documented example: 1. CV's Qualifications and experience review of key personnel 2. Detailed design Drawing CAD Drawings 3. Sectional Assembly and General Arrangement Drawing Review 4. Code Compliant design calculations 5. Typical erection/repair methodology procedure review.	Sufficient experience and qualifications	80% meeting requirements	40% meeting requirements	Not meeting requirements		50
							100	

Cluster 456 Fans Technical Qualitative Evaluation Criteria Phase 2 Local Site Assessment								
Qualitative Technical Criteria Description Phase 2			**Compliant**	**Compliant with Associated Qualifications**	**Non-Complaint**	**Totally Deficient or Non-responsive**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
			5	**4**	**2**	**0**		
1		**Quality**					**20**	
	1.1	Review of tendering entities QCP compilation process and approval process. The tendering entity presents proof of established control for the compilation, review and approval of Quality Control Plans.	Manual in place	Not an option	Not an option	No Manual in place		40
	1.2	Review of tendering entity's NCR process. The tendering entity presents proof, procedures or plans to report, control, analyse, and execute internal and external issued NCR's.	NCR Process in place and being followed	80% in place	40% in place	No system in place		20
	1.3	Welding Capability: Welding procedure qualification records WPQR that covers fan materials and thickness ranges for three different types of fan material including at least one QT steel.	Procedures in place	80% in place	40% in place	No procedures in place		40
2		**Resources**					**30**	
	2.1	Review of qualifications, experience, and resources available locally to carry out the site service work. The tendering entity either presents available structure or presents a proposed structure if the tender is awarded. An assessment of the gap and risk to bridge the gap to be done.	80% Resources available for cluster	60% Resources available	40% Resources available	Less than 40% resources available		100

3		**Planning**					**20**	
	3.1	Demonstration of actual vs baseline of a typical outage plan including risk and mitigation plan for deviation. The tendering entity presents examples of planning tools, reports and action taken.	100%	80%	40%	No plan available		100
4		**Training**					**10**	
	4.1	Inspection and review of tendering entity's training material and facilities for product specific training. The evaluation will cover other material over and above the submissions for the desktop evaluation. The evaluation covers the variety of procedure/risk areas, completeness, review/approval and update control.	80%	60%	40%	Less than 40%		100
5		**Engineering**					**20**	
	5.1	The tendering entity provides objective evidence of his in-house engineering packages available to carry out fan selection and design as well as reverse engineering such as: 1. In house fan selection program 2. Inventor 3. FEA Analysis	All programs required to carry out design, selection and FEA	80% requirements covered	40% requirements covered	No software available		50
	5.2	Physical review of design capabilities and experience: 1. CV's Qualifications and experience review of key personnel 2. Detailed design Drawing CAD Drawings 3. Sectional Assembly and General Arrangement Drawing Review 4. Code Compliant design calculations 5. Typical erection/repair methodology procedure review 6. Fan FEA analysis	Sufficient experience and qualifications	80% meeting requirements	40% meeting requirements	Not meeting requirements		50
							100	

Phase 3 – Local Site Assessment Air Heaters Cluster 123 and Fans Cluster 456

Phase 3 will be a local on site assessment and will only be conducted when phase 2 is completed as per the evaluation strategy and qualification requirements above have been met.

Capability and Capacity Assessment Phase 3			Comments
Review of qualifications, experience, and resources available locally to carry out the site service work and provide engineering support. The tendering entity either presents available structure or presents a proposed structure if the tender is awarded. An assessment of the gap and risk to bridge gap to be done by the tendering entity. The tendering entity will be required to provide objective proof. The below resource list will be reviewed.			Presentation of required details and demonstrating the gap analysis with proposed change.
1		**Local Management Resources**	
	1.1	Review of actual org chart and resources available locally both permanent and contracted.	
2		**Local Quality Resources**	
	2.1	Review of permanent staff and contract staff	
3		**Local Planning Resources**	
	3.1	Review of permanent staff and contract staff	
4		**Local Training Resources**	
	4.1	Review of permanent staff and contract staff	
5		**Local Engineering Resources**	
	5.1	Review of permanent staff and contract staff	
6		**Local Site Management Resource**	
	6.1	Review of permanent staff and contract staff	
7		**Local Site Supervision Resources**	
	7.1	Review of permanent staff and contract staff	

8		**Local Site Health and Safety Resources**	
	8.1	Review of permanent staff and contract staff	
9		**Local Site Artisan Resources**	
	9.1	Review of permanent staff and contract staff	
10		**Local Site Semi-Skilled Resources**	
	10.1	Review of permanent staff and contract staff	
11		**Local Site Labour Resources**	
	11.1	Review of permanent staff and contract staff	

Table 1: Acceptable Technical Risks Fans

Risk	Description
1.	
2.	
3.	
4.	

Table 2: Unacceptable Technical Risks Fans

Risk	Description
1.	The tenderer has no experience with Large Centrifugal Fans and hydraulic auto-variable blade pitch Axial flow fans in the 3000kW to 9000kw range
2.	No ISO 9001 Accreditation
3.	No ISO 3834 Accreditation
4.	

Exceptions / Conditions

Table 3: Acceptable Technical Exceptions / Conditions Fans

Risk	Description
1.	
2.	
3.	
4.	

Table 4: Unacceptable Technical Exceptions / Conditions Fans

Risk	Description
1.	The tender has no welding accreditation or control system
2.	The tenderer does not have a local design and engineering support structure
3.	The tenderer has no local footprint and resources
4.	The tenderer does not submit complete copies of required procedures and drawings based on the protection of proprietary declaration.
5.	No ISO 9001 Accreditation

Table 5: Acceptable Technical Risks Air Heaters

Risk	Description
5.	**None**
6.	
7.	
8.	
9.	

Table 6: Unacceptable Technical Risks Air Heaters

Risk	Description
5.	**The tendering companies does not have the required experience, local capacity and capability for long term national maintenance contracts.**
6.	**No ISO 9001 Accreditation**
7.	**No ISO 3834 Accreditation**
8.	
9.	

Exceptions / Conditions

Table 7 Acceptable Technical Exceptions / Conditions Air Heaters

Risk	Description
1.	**None**
2.	
5.	
6.	
7.	
8.	
9.	

Table 8: Unacceptable Technical Exceptions / Conditions Air Heaters

Risk	Description
6.	**The Tendering Companies has no required welding accreditation or control system.**
7.	**The Tendering Companies does not submit complete copies of required documents and procedures.**
8.	**The Tendering Companies has no required accreditation for their Quality Control System.**
9.	
10.	