

 Eskom	Report	Technology
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CRITERIA FOR STANDBY
BATTERIES**

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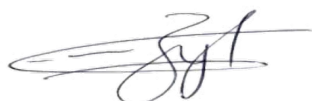
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1. Introduction

This document provides an overview of Eskom's Distribution technical evaluation criteria to be used when evaluating the tender submissions for the supply of standby batteries in Eskom Distribution. It has Annexes developed to address various aspects required to perform technical evaluations.

2. Supporting Clauses

2.1 Scope

This document contains the technical evaluation criteria and associated documents relating to a commercial enquiry for the technical evaluation, testing and acceptance of:

- 1) Lithium-ion Phosphate standby batteries
- 2) Flooded Vented Lead Acid standby batteries
- 3) Valve Regulated Lead Acid standby batteries
- 4) Nickel Cadmium standby batteries
- 5) Accessories and ancillary equipment for these standby batteries offered.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and the technical evaluation team (TET) members responsibilities for tender technical evaluation. The technical evaluation criteria serve as basis for the tender technical evaluation process.

2.1.2 Applicability

This document shall apply throughout Eskom Distribution.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] 32-1034, Eskom Procurement and Supply Chain Management Procedure, Rev 4.
- [2] 240-48929482, Tender Technical Evaluation Procedure
- [3] ISO 9001 Quality Management Systems.
- [4] ISO 14001 Environmental Management Systems.
- [5] 240-56360034, Stationary Vented Lead Acid Batteries Standard.
- [6] 240-56360086, Specification for Vented, Nickel Cadmium Cells and Batteries
- [7] 240-51999453, Standard Specification for Valve-regulated Lead-acid Cells
- [8] 240-170000103, Lithium-ion Phosphate (LFP) Batteries Standard

2.2.2 Informative

- [1] 240-61182045, Maintenance Engineering Standard for batteries and chargers
- [2] 240-137465740, Standby battery storage and commissioning in Eskom

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- [3] 240-89797258, The safe handling, transportation and disposal of cells, batteries and electrolyte
- [4] 240-56177186, Battery Room Standard
- [5] 240-56176852, Essential Power Supplies for Power Stations Standard
- [6] 240-118870219, Standby power systems topology and autonomy for Eskom
- [7] 240-56362221, Standard for safety signs used in DC applications

2.3 Definitions

Definition	Description
Enquiry	A competitive or non-competitive request for information, interest, quotations or proposals made to a supplier, a group of suppliers or the market at large.
Tender	A tender refers to an open or closed competitive request for quotations / prices against a clearly defined scope / specification.

2.3.1 Disclosure classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 Abbreviations

Abbreviation	Description
FAT	Factory Acceptance Test
LAP	List of Accepted Products
n/a	not applicable
OEM	Original Equipment Manufacturer
OU	Operating Unit
PDE	Power Delivery Engineering
SME	Subject Matter Expert
TET	Technical Evaluation Team

2.5 Roles and Responsibilities

As per 240-48929482, Tender Technical Evaluation Procedure

2.6 Process for monitoring

Not applicable.

2.7 Related/Supporting Documents

Not applicable.

3. Tender Technical Evaluation Criteria

This section details the methodology to be employed by Eskom in scoring the “Technical” category of the tender evaluation. This evaluation exercise is performed by the appointed Eskom TET.

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Tenderers are required to do the following in support of a more efficient evaluation process:

- Submit the MS Excel spreadsheets of the Technical Schedules A&B in the native (electronic) format.
- Submit all supporting documents (including drawings), stated in the relevant Reference column on the Technical Schedules, in electronic (e.g. pdf file) format.

3.1 Technical Evaluation Threshold

The minimum weighted final score (threshold) required for a tender to be acceptable from a technical perspective is 70%.

3.2 Technical Evaluation process

The technical evaluation procedure is generic to all battery technologies. The evaluation process has two main parts; Level 1 and Level 2, which are related. Refer to Figure 1.

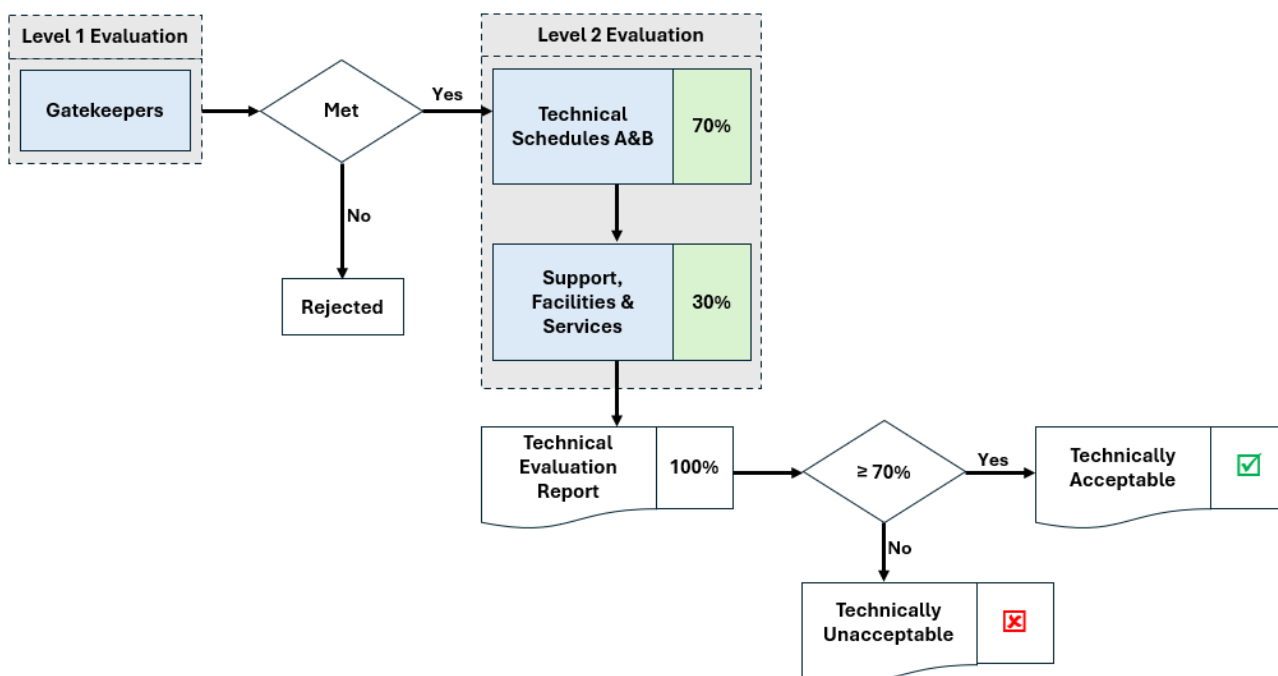


Figure 1: Technical evaluation process

3.2.1 Level 1 evaluation

This part of the evaluation starts when submissions are opened for the first time. It begins with the evaluation of the Technical Evaluation Gatekeepers (see Table 1). Tenders not meeting all of the Technical Gatekeepers shall be immediately excluded from further evaluation and shall be assigned a Technical score of 0%.

3.2.1.1 Technical Evaluation gatekeepers

Table 1: Mandatory Technical Requirements

#	Mandatory Technical Criteria Description ¹⁾	Tender Returnable
1	The tenderer shall offer the FULL Scope of the Project (Equipment and Services) ²⁾ : a) Cells, Cabinets, Stands, Accessories and Ancillary Equipment b) Supply, Factory Acceptance Testing (FAT), Transportation, Loading and Offloading, Installation and Commissioning, Decommissioning and Disposal	Yes
2	The tenderer shall submit Type Test Certificates and Type Test Reports for ALL the offered equipment.	Yes
3	Tenderer has submitted an OEM letter meeting the requirements as listed in Section 3.2.1.2.	Yes
4	The tenderer has a local (South African) office and workshop.	Yes
Notes: 1) Should the tenderer fail to meet ANY ONE of the above requirements they will be automatically disqualified. 2) Some scope of the project may be outsourced (via sub-contracting), however it is incumbent of the tenderer to demonstrate that access to that scope is available at tender close.		

3.2.1.2 OEM Agent Agreement Clarification/Requirements

Eskom requires the detail pertaining to the OEM and agent agreement, indicating the OEM required training, and commitment to support. The OEM shall have a local agent in South Africa.

The OEM shall confirm on a duly signed letterhead by an authorised company representative that:

- The local agent is authorized or accredited to perform the following activities: integrate, test, commission, operate and maintain, modify, and conduct operating and maintenance training to the end user.
- The offered warranties and guarantees to the end user shall be honoured by the OEM.

3.2.2 Level 2 evaluation

Tenders which pass the Technical Evaluation Gatekeepers shall be adjudicated a score out of 100%, made up of scoring in three sub-categories as indicated in Table 2:

Table 2: Level 2 Technical sub-categories

Technical sub-category	Criteria	Weight [%]
1	Product A&B Schedules	70
2	Supplier's support, facilities & services	30

3.2.2.1 Sub-category 1: Technical Schedules A&B

- This section shall comprise scoring of the technical schedules of the offered products. Not all items will be scored so as to maintain the focus of the evaluation on critical functionality.

- b) Each item will be assigned a score, in line with Table 3, by the Eskom evaluation team based upon the tendered response and cross-checked with the supporting documents provided.

Table 3: Scoring of items in Technical Schedules A&B

Criteria	Definition	Score
Comply	COMPLIANT <ul style="list-style-type: none"> Meet technical requirement(s) AND; No foreseen technical risk(s) in meeting technical requirements. 	5
Partially Comply	COMPLIANT WITH ASSOCIATED QUALIFICATIONS <ul style="list-style-type: none"> Meet technical requirement(s) with; Acceptable technical risk(s) AND/OR; Acceptable exceptions AND/OR; Acceptable conditions. 	4
Do Not Comply	NON-COMPLIANT <ul style="list-style-type: none"> Does not meet technical requirement(s) AND/OR; Unacceptable technical risk(s) AND/OR; Unacceptable exceptions AND/OR; Unacceptable conditions. 	2
Non-responsive	TOTALLY DEFICIENT OR NON-RESPONSIVE	0

- c) The score for each item will be multiplied by its weight to obtain the total score per item.
- d) All scores for the A&B Schedule will be tallied and a percentage shall be calculated based on the maximum possible score. This will be recorded as the percentage score per product type.

3.2.2.2 Sub-category 2: Suppliers support, facilities & services

- a) This assessment is performed by assessing the supplier's capability to enter into a contract with Eskom with respect to a specific product and associated services.
- b) The product will be the actual batteries and accessories offered and this assessment will be done at the Original Equipment Manufacturer (OEM) factory, unless decided otherwise. The project TET shall have right to decide if the OEM shall be visited or if the local agent facilities shall be sufficient, based on tender submissions and other business factors.
- c) The services will include the supply, loading and off-loading, transportation, de-commissioning, disposal, formation, installation and commissioning at site, of the batteries supplied. The capability of the tenderer to provide all the required services shall be demonstrated.
- d) This services portion will be assessed at the local agent or tenderer facilities. If any portion of the services are sub contracted this must be evaluated at the subcontractor's facilities.
- e) This section shall be scored by the technical evaluation team following a one day visit to each Tenderer's local offices.
- f) Supplier visits shall be conducted during the tender technical evaluation phase.
- g) Only those suppliers that have met the Technical Gatekeeper criteria shall be visited.
- h) Suppliers (OEMs/local agents) shall be advised of their qualification for the visit.
- i) Scoring of sub-sections in this sub-category shall be assigned by the TET as indicated in Annex A.

3.3 Technical Evaluation report

This report and any actions that are listed or recommended as a result of this assessment, is by no means a confirmation or guarantee that any contract will be entered into by Eskom Distribution and the supplier or that battery supply contract performance has been achieved.

Any actions undertaken by the supplier as a consequence of this report is for the supplier's account. Any liability for the said actions undertaken by the supplier is not transferrable to Eskom Distribution in any way.

The TET has no authority or responsibility in the decision taken by Eskom Distribution with respect to contracting for a product or service.

Any statements, intentions and/or actions expressed by the TET during and after the assessment has no effect and does not constitute any liability to Eskom Distribution with regards to contract placement or battery supply contract performance guarantees.

3.4 TET members

The technical evaluation team shall consist of at least one active DC technology representative from each Distribution Cluster which shall be selected by the Project Leader of the enquiry.

3.5 Qualitative Technical Evaluation Criteria

Table 4: Qualitative Technical Evaluation Criteria

#	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1	General requirements	As per applicable clause/s in Technical standard	10%	---
2	Electrical performance requirements		25%	---
3	Mechanical requirements		15%	---
4	Operational requirements		25%	---
5	Ancillary equipment		10%	---
6	Tests ¹⁾		5%	---
7	Packaging, labelling, marking and transport		10%	---
Note:				
1) Type tests are already covered as part of Mandatory requirements				

3.6 TET Member Responsibilities

Table 5: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	... TET n
All Items	X	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3	... TET n
All Items	X	X	X	X

3.7 Foreseen Acceptable / Unacceptable Qualifications

3.7.1 Risks

Table 6: Acceptable Technical Risks

Risk #	Description
1	No local Eskom track record available for batteries offered.
2	Not full range of cell capacities on offer

Table 7: Unacceptable Technical Risks

Risk #	Description
1	No local regional (South African) track record available for batteries offered.
2	Non-compliance to type test requirements
3	OEM support and agent agreement letter not in place
4	Type test certificates and type test reports from independent, accredited test laboratories not available.

3.7.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk #	Description
1	None

Table 9: Unacceptable Technical Conditions

Risk #	Description
1	Fully equipped local workshop facilities for FAT of batteries with multiple charging/discharging bays not available.
2	Details of all test equipment and calibration certificates not provided.
3	Qualifications / Accreditations of technical personnel or experience in the standby power systems field not provided.
4	Access to fully equipped vehicles that can safely transport consignments to site with loading and off-loading facilities not available.
5	Hazmat agreement (Transporting Hazardous substances) not available.
6	Electronic logging of measurements during tests.

4. Tender submission guidelines

- These guidelines have been developed to aid in the tender compilation and evaluation process for both tenderer and TET. It is strongly encouraged for tenderers to comply with the following set of guidelines.
- Answers shall be concise and sufficiently detailed to give the TET a clear understanding. Unclear and insufficiently detailed answers could result in items being ambiguous and misinterpreted and could result in an unfavourable outcome.
- The issued enquiry documents shall include a zip file ("Folder Structure_XXX.zip") with embedded technical schedule/s where "XXX" is a placeholder for the battery type.

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- d) The "Folder Structure_XXX.zip" file will generate a folder structure (see Figure 2 for an example) by right-click and selecting "Extract All" to unzip it.

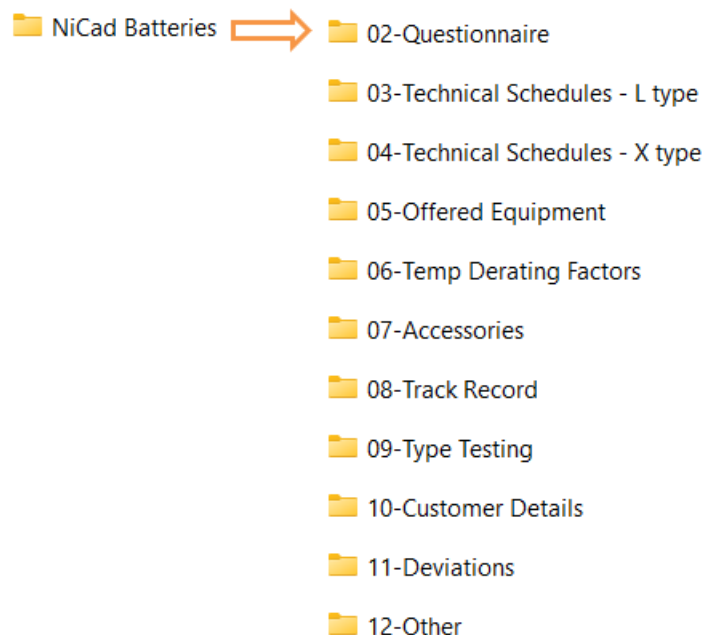


Figure 2: Expanded folder structure (example for the Nickel Cadmium batteries)

- e) The Technical Schedule/s constitutes the bulk of the electronic technical tender submission and **MUST** be completed. As a minimum the Technical Schedule/s shall be returned at tender closing.
- f) Where supporting documentation is requested e.g. "Comply with Reference", the Tenderer shall provide a hyperlink to the supporting documents containing the evidence in the "Reference / Statement (Supporting Evidence)" column of Technical Schedules. Internet links are not acceptable.
- g) Where supporting documentation is NOT requested the Tenderer shall state the level of compliance which shall serve as a confirmation of intended compliance at a later stage (post contract award) of the project.
- h) The supporting documents may be Datasheets, Technical Drawings, Brochures, Technical Manuals, Type Test Certificates, Test reports, videos, etc.
- i) Name the files that constitute the electronic returnables appropriately based on the content of the document or file. The filenames shall have a descriptive title that is as short as possible.
- j) Have returnable digital PDF documents searchable as far as possible. This is preferred to scanned documents that cannot be searched.
- k) It is important to note that only type test certificates and test reports from accredited, independent test laboratories shall be accepted. Eskom reserves the right to consider/reject any other documents submitted for the evaluation in line with the application evaluation process.
- l) The Technical Schedules excel documents must be provided in duplicate with the name of the duplicate being, the filename with the words, "- Copy" appended. (In Windows a copy and paste into the same directory will automatically create this duplicate file with the correct name).
- m) Further instruction regarding the Technical Schedules excel document is provided in the worksheet named "00-Instructions".

5. Authorisation

This document has been seen and accepted by:

Name and surname	Designation
Deon van Rooi	Metering, DC & Security Technologies Manager
Eugene Labuschagne	Senior Advisor: Procurement
Thomas Jacobs	Chief Engineer: DC & Auxiliary Supplies

6. Revisions

Date	Rev	Compiler	Remarks
Feb 2025	6	C van Zyl	Section 3.1 – updated overall pass score to 70% Section 3.2.1 – Updated Mandatory criteria and removed Mandatory Criteria (Table 3) of the previous version. Section 3.2.2.1.2 – Removed Risk Assessment criteria. Table 9 – Minor changes Aligned with 240-48929482, Tender Technical Evaluation Procedure
Aug 2024	5	C van Zyl	Section 2: Changed Scope to include “Lithium-ion Phosphate standby batteries and valve regulated lead acid batteries” Changed “This document shall apply throughout Eskom Distribution” making the criteria applicable to Distribution only. Added “240-170000103, Lithium-ion Phosphate (LFP) Batteries Standard” to section 2.2.1 Added list of DC standards to section 2.2.2 Section 3: Changed heading to “Tender Technical Evaluation Criteria” Changed section 3.4 “The technical evaluation team shall consist of at least one active DC technology representative from each Distribution Cluster”

Date	Rev	Compiler	Remarks
Aug 2019	4	C van Zyl	<p>Section 3:</p> <p>Added "Tenderers are encouraged to do the following in support of a more efficient evaluation process:</p> <p>Submit the MS Excel spreadsheets of the Technical Schedules A&B in the native (electronic) format.</p> <p>Submit all supporting documents (including drawings), stated in the relevant Reference column on the Technical Schedules, in electronic (e.g. acrobat file) format."</p> <p>Table 1:</p> <p>Scoring changed to 5, 2 and 0.</p> <p>Table 2:</p> <p>Removed the mandatory requirements that supporting documents shall be in electronic format, in line with the requirements (14.7.9.2 clause 12. c)) of 32-1034, Eskom Procurement and Supply Chain Management Procedure, Rev 4.</p>
July 2019	3	C van Zyl	<p>Changed the contents to only apply to Flooded Lead Acid and Nickel Cadmium cells.</p> <p>Removed reference to Desktop evaluation.</p> <p>Updated requirements of Sub-category 2: Suppliers support, facilities & services.</p> <p>3.4 TET members:</p> <p>Updated clause to "The technical evaluation team shall consist of at least three active members of the Batteries Care Group which shall be selected by the Project Leader of the enquiry."</p> <p>Added Figure 1.</p> <p>Added Annex A.</p>
Aug 2017	2	C van Zyl	<p>Revision of original document.</p> <p>3.4 TET members:</p> <p>Added "During each evaluation, the technical lead shall ensure that at least 50% of the TET members (stated in Table 2) shall be available."</p> <p>Table 3:</p> <p>Added more detail to the Mandatory Technical Criteria Description.</p> <p>Removed item 5, Offered warrantees.</p> <p>Removed the 3 year minimum track record in item 6.</p> <p>Table 4:</p> <p>Changed the Reference to Technical Specification to "As per applicable clause/s in Technical Standard" to make it applicable to all technical standards.</p>
May 2015	1	C van Zyl	New document.

7. Development team

The following people were involved in the development of this document:

- Christo van Zyl
- Thomas Jacobs

8. Acknowledgements

Not applicable.

Annex A – Support, facilities and services checklist

The **Support, facilities and services Checklist** defined in this document is intended to assist with ensuring the required levels of support, quality and service can be achieved by the Battery Supplier through the proper facilities, resources and processes implemented in the routine operations of the supplier.

Familiarity with the technical requirements of the referenced documents is assumed – detailed technical requirements are not interrogated here. However, it is incumbent of the tenderer to demonstrate ALL required capabilities in support of successful execution of the contract obligations.

Where any activities are contracted out and not handled in-house the contractors are to be evaluated and approved as well by the TET. These contractors will then also be linked to the contract if successful with the tender and as such cannot be changed on an ad hoc basis without prior consultation with and approval by Eskom.

Suggested agenda for visit:

- a) Presentation of supplier's overall process, staff, team (inclusive of subcontractors) who will be fulfilling orders. Unpack offered guarantees and warranties (indicate if guarantees/warranties or both are included in the offered price).

Important: Indicate which of the offered cells are single cells and which are blocks – only single cells will be accepted for the vented lead acid battery and nickel cadmium battery contracts.

- a) Walkabout at the facilities to inspect:
 - 1) Battery charging and capacity testing facilities,
 - 2) Test and safety equipment.
 - 3) Introduction of the personnel.
 - 4) Works processes such as goods receiving; testing, storing, crating and despatching will be shown. This shall include the documentation management process.

Supplier details

Enquiry ID and name		
Scope	The design, manufacture at works, testing, quality assurance, delivery to site or stores, off-loading, erection, commissioning, de-commissioning and disposal of valve regulated lead acid cells, battery stands and battery cabinets, and all accessories.	
Supplier Name		
Supplier Contact Person – Name and contact details		
Description of products offered		
Checklist results	Score	
Issues Identified		
Evaluator Name, signature, & date		

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No	Standard	Compliant ✓ Part Compliant ½ Non-compliant ✗	Details if not fully compliant
1	Documentation. Works orders for work in progress are available.		
2	Approved working drawings and/or instructions for the work in progress are at hand.		
3	Traceability. Works orders can be traced to customer orders.		
4	Traceability. Stock in hand can be traced customer orders.		
5	Traceability. Delivered items can be traced back to process records and test certificates.		
6	In-coming goods inspection. Incoming goods inspection is documented for all incoming goods.		
	Specifications for items and materials are to be at hand for use by inspectors as required.		
7	Non-conforming goods received. Non-conforming goods are clearly marked and segregated so that it cannot be used.		
	Corrective action processes are in place to deal with non-conforming goods.		
8	In-house charging and testing. Charge and test procedures are documented, with required inspection and test results.		
9	Non-conforming battery tests. Processes are in place to deal with non-conforming battery tests by rework or disposal.		
	Non-conforming battery cells are clearly segregated.		
	Records showing the process are available.		

No	Standard	Compliant ✓ Part Compliant ½ Non-compliant ✗	Details if not fully compliant
10	Test certificates. Test certificates for stock in hand can be produced when required.		
11	Battery crating for delivery Crating of all batteries must comply with Eskom standards		
12	Crates labelling Must be labelled with cell information, quantity, order number, site name and safety notices.		
13	Storage facilities acceptable. Storage facilities for incoming goods and material, work in progress and completed stock are acceptable.		
14	Charge / discharge facilities acceptable. Appropriate facilities, charge/discharge instruments, test instruments are available and in use.		
15	Installation, commissioning and maintenance procedures. These are at hand and in use.		
16	Competent installation, commissioning and maintenance staff available. Staff is suitably qualified, declared competent and able to perform the requisite processes.		Per presentation...
17	Competent investigation staff Staff must be available to conduct any battery investigations as required per Eskom NCR process		
18	Installation, commissioning and maintenance record keeping. Records are available and complete.		

No	Standard	Compliant ✓ Part Compliant ½ Non-compliant ✗	Details if not fully compliant
19	Designated Transport company Must be registered as dangerous goods operators. Appropriate certificates available for inspection.		
20	Disposal processes. Recycling processes of spent batteries and electrolytes are acceptable.		
	Disposal of non-conforming batteries, electrolyte or components thereof meets health, safety and environmental regulations.		

Any unacceptable issues identified? List any critical issues.	
Any minor issues identified?	