PT SKS LISTRIK KALIMANTAN

IPP 3: PLTU Kalteng 1 (2X100 MW)

General and Technical Requirements

Package Name:
Electrical & Instrument inspection, Repair, and Calibration Unit-1

PT SKS Listrik Kalimantan
Desa Tumbang Kajuei, Kecamatan Rungan, Kabupaten Gunung Mas
Kalimantan Tengah 74561, Indonesia

31 January 2025
Revision: 0

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Paraf	
	Created By
	Reviewer

1. Definition

All capitalized terms used in this document shall have the meaning as specified in this section.

"Contractor" shall mean a party with whom Owner has entered into a contract or contracts for carrying out the work under this package.

"Good Utility Practice" shall mean, at a particular time, those practices, methods and acts conforming to legal requirements and which are in accordance with standards of prudence applicable to the coal-fired electric utility industry which would have been expected to accomplish the desired result at the lowest reasonable cost consistent with reliability, safety and expedition.

"International Standard Engineering and Maintenance Practice" shall mean, at a particular time, those standards, practices, methods and procedures conforming to legal requirements and that degree of skill, diligence, prudence and foresight which would reasonably be expected from a skilled and experienced maintenance contractor, and/or engineer participating in electrical power generation industry and engaged in the same type of undertaking under the same or similar circumstances which would have been expected to accomplish the desired result at the lowest reasonable cost consistent with reliability, safety and expedition and in accordance with the standards and instructions referred to in the Scope of Work.

"Owner" shall mean PT SKS Lisrik Kalimantan

"Plant" shall mean Kalteng-1 coal fired steam power plant namely PLTU Kalteng-1 (2x100 MW) which consist of Unit 1, Unit2, and common facilities and having gross output 2x115 MW.

"PPA" shall mean Power Purchase Agreement between PT PLN (Persero) and Owner

"Project Document" shall mean any drawing, specification, datasheet, calculation sheet, design description, P&ID, process flow diagram, and any other documents issued by Owner as a reference for contractor in relation with the works to be performed under this document.

"Transmission Lines" shall mean 150 kV transmission line to connect the plant and 150 KV Kuala Kurun - Kasongan transmission line

"**Unit**" shall mean unit 1 or unit 2 of Kalteng-1 2x100 MW coal fired steam power plant

2. Introduction

PT SKS Listrik Kalimantan owns and operates a coal fired steam power plant with gross capacity 2x115 MW and sells electricity to PT PLN (Persero) under Power Purchase Agreement (PPA). The Plant is located in Tumbang Kajuei, Kecamatan Rungan, Gunung Mas Regency, and Central Kalimantan Province at coordinated 1 22' 27,6" S and 113 33' 59,1" S. The location is approximately 3.5 hours transportation by car from Centra Kalimantan capital, Palangkaraya.

The plant consists of Circulating Fluidized Bed (CFB) boiler, steam turbine-generator, generator transformer, and complete auxiliaries package, amenities, electrical equipment, control equipment and site facilities. Electrical and Instrument-Control consists several equipment such as Motor MV/LV, Main Control Centre Panel (MCC), DC System, ESP, DCS (Distributed Control System), Panel Local Control, Juction Box, Motorized Valve and pneumatic valve, Transmitter, Analyzer, Switchs, and local indicator (pressure gauge, level, and temperature gauge).

The power plant started its first commercial operation since November 2020. According to the company's and power system industry specifications and combined with the company's unit operating conditions, it is planned to perform a comphrehensive inspection, measurement and defect rectification of electrical and instrument-control Unit 1.

3. Bidder Requirements

The bidder must posses proven experience in maintenance, services, commissioning, testing and inspection with the following qualifications:

a. The bidder must posses no less than 5 years of experiences for service, maintenance, calibration and inspection of electrical and instrument control in coal fired power plant.

b. The bidder must have safety management system and preferably to hold relevance national and/or international certification related to health, safety and environmental.

c. The bidder's project manager, engineer, supervisor, quality control and other similar positions must posses no less than 5 years' experience in operation, construction and/or maintenance of power generation with minimum 5 years' experience in coal fired power plant with no less than 100 MW capacity.

d. Bidder shall, by submitting a tender, acknowledge that they have adequate knowledge of the site constraints and proposed installation details, consulted with all relevant authorities having jurisdiction over the project, and have assessed their full liabilities for all such works and costs required in carrying out the works specified and shown. No

recognition will be granted of any claims for additional costs resulting from the Contractor's failure to comply with the above.

e. The bidder shall provide all information, documents and fill in all forms as required in, Instruction to Bidder as Appendix-1.

4. Objective of the Works

The objective of the works under this package is to measure, inspect, rectify, test, calibrate and observe all physical, Electrical/instrument and parameter of equipment and compare those parameters with design stated in Project Document and relevance international standard approved by the Owner as well as to take necessary actions to repair any non conformity or finding so that upon completion of maintenance activities under this package the equipment (electrical and instrument-control) can operate within normal operation parameter.

5. Scope of Works

The Contractor shall carry out preparation of maintenance, perform inspections, measurements, cleaning, testing, dismantle and reassembly of electrical and instrument-control, and support commissioning of Unit 1 until the unit 1 start up.

The Contractor shall do, and shall provide all things necessary things for the successful achievement of the objective stated in the Objective of the Works above and its obligation are not limited to the matters expressly stipulated in this document. The Services shall include all items of supply and services required to, or that can reasonably be inferred from this document even though not expressly mentioned herein, to be necessary to complete the works in accordance with the requirements of the Owner.

Without limiting the generality of the paragraphs above, the Contractor shall provide services for maintenance, inspection, measurement, testing and commissioning, quality control and quality assurance, project management and reporting of the project including but not limited to the following:

i. The Contractor must supply man power which consist of Engineer, Supervisor, Health, Safety, and Environment (HSE) administration officer, technician, general worker (helper), and other relevance man power to perform the works under this package.

ii. The Contractor must provide all required tools, measurement tools, special tools, and consumable for inspection of electrical and instrument-control.

iii. The Contractor shall be responsible for mobilization and demobilization of equipment and tools from its origin point to the Plant, including for loading and unloading its own tools and equipment.

iv. The Contractor must prepare consumables such as wiping cloth ("kain majun"), sealant, seal tape, isolation tape , cleaning agent, and other similar consumables.

v. The Contractor must be responsible for project management such as preparation of detailed schedule of works, inspection and testing plan, daily reports, inspection report, testing report and work completion report, and other reports as may be requested by the Owner.

vi. In order to give a better understanding for detailed scope of work, the Owner has prepared a Job List of Electrical & Instrument Inspection Unit #1 2025 attached to this document in Appendix-2. However, this document may not specify all detailed of works to be performed by the Contractor. Therefore, all other works which may not be specifically described in such document but such works are required to be carried out in order to achieve the objective of the work and scope of work described under this document then such works shall be deemed to have included into contractor scope of works, provided that if any finding in any parts which required to be replaced then spare parts to rectify such defect must be supplied by the Owner.

6. General Warranty

The Contractor shall warrant and guarantee that the Works shall be: (i) free from any defect; (ii) in accordance with Intenational Standard Engineering and Maintenance Practice and Good Utility Practice, and (iii) conform to General Technical and Requirement and its Appendices. The duration of warranty shall be 12 months calculated from the date of the works acceptance by the Owner.

7. General Requirement of the Works

i. Work location and no interference with operation unit

The Plant consist of 2 units i.e. Unit 1 and Unit 2. During maintenance of Unit 1 under this package, Unit 2 is scheduled to be under normal operation. The Contractor and all its personnel or its subcontractor or its supplier shall only perform the works at the location designated by the Owner. It shall not in anyway interrupt or causes interruption to normal operation of Unit 2. The Contractor personnel, its subcontractor or supplier personnel shall not enter into Unit 2 operation or shall not cross any barricade installed by the Owner or on behalf of the Owner. In case any Contractor personnel is necessary to enter any operating unit or other area other than the area designated for the Contractor for purpose of completion of work under this document, then it shall prior apply a written permit to the Owner. If such permit granted, any such access or activity shall be accompanied by Owner personnel.

ii. Health, Safety, and Environment

The Contractor shall perform the works in accordance with applicable government rules and regulations including rules and regulation related with health, safety, and environment. The Contractor must ensure that the Works be performed safely and without any harm to environmental. The Contractor must ensure that the execution of the Work by the Contractor shall not caused harm to any other personnel, including but not limited to Owner's personnel, other contractor's personnel, or any third party personnel. The Contractor shall at all times comply with Heath, Safety, and Environmental regulation as attached to this document, HSE Requirement as Appendix-3. The Contractor shall ensure a respectful of safety and mitigate the potential distractions by limiting mobile phone utilization in Works area. The use of mobile phone in work area is prohibited unless specifically authorized for reporting conducted by supervisor (with written permission by Owner authorized representative). The Owner may impose penalty to any Contractor's personnel who failed to comply with the Owner's HSE regulations. The Owner may also expel the Contractor's personnel who in the opinion of the Owner does not comply with the Owner HSE requirements. Such as using handphone/playing game at workplace/workhours, smoking at workplace, etc.

iii. Quality of Work

The Contractor shall perform the Works with the highest quality standard and in accordance with Project Document, Good Utility Practice, International Standard Engineering and Maintenance Practice. The Contractor must provide adequate and competence quality control personnel to ensure that the quality of the Works meets with the requirements under this document. The Contractor must submit an Inspection and Testing Plan (ITP) for Owner review and approval. The Owner may reject any works if in the opinion of the Owner that such works does not meet the quality requirement under this document, Project Document or Good Utility Practice, International Standard Engineering and Maintenance Practice. If any works rejected by the Owner, the Contractor shall promptly take necessary action to rectify the works so that such works meet with quality requirements. Upon completion of rectification works, the Contractor must submit notification to the Owner for further inspection. Any and all cost incurred for reworks shall be borne by the Contractor. In the case any rejected Works can not be rectified timely by the Contractor, the Owner at its own discretion may rectify by themselves or assign another contractor to perform such work and the cost incurred due to such step in by the Owner shall be borne by the contractor and may be deducted from any contractor's invoice.

Upon completion of the Works and Unit commissioning, the Owner will evaluate the result and quality of the Work. The acceptance criteria for acceptance of the works shall be based on the following documents:

- OEM equipment standards.
- International standards or power industry standards.
- If there is no relevant quality standard for the above two items, both parties shall negotiate to solve the problem and be approved by the Owner.
- Main technical indexes of parameters after maintenance shall reach or close to the design level.
- If the maintenance quality acceptance standard concedes or exempts the maintenance item, the Contractor shall submit a special report to the Owner for approval.
- In the maintenance process, the Contractor shall fill in the concession release application form in case of any deviation, and then proceed to the next maintenance operation after signing the approval. After the end of the project, the whole acceptance can be carried out after the completion of the partial trial operation and the professional acceptance.

iv. Schedule of Works

The outage is scheduled to be 20 days calculated from the Unit 1 de-synchronized with the grid until Unit 1 succesfully re-start up and synchronizes with the grid. The Contractor shall comply with general schedule as provided in Schedule of Work Appendix-4. If the Contractor is unable to complete the Work in accordance with the schedule in Appendix-4, the Contractor shall pay liquidated damage (LD) to the Owner. The liquidated damage shall be 2% (two percent) per day of work delay provided that maximum Liquidated Damage (LD) shall be 10% of contract price.

The Contractor shall propose a detailed schedule of work according to its own assessment based on the scope of work described in this document and job list provided in Appendix 2. The contractor's resources mobilization and demobilization may be adjusted based on the agreed schedule.

In no less than 21 days prior to execution of the Work, the Contractor must submit detailed schedule for Owner review and approval. The schedule shall indicate in detailed each step of works and duration of work for such step.

v. Owner's access for supervision of works

The Owner must at all times have full access to the Contractor work. The Owner's personnel must have full access to witness any and all of the Contractor's work.

The witness, approval or signing any inspection report by any of the Owner representative shall be not interpretated as the Owner acceptance of the works. The Contractor shall take full responsibility

anliability for the quality of work, including for any judgement, assessment setting up or adjustment any component of electrical and instrument equipment.

vi. Contractor's personnel

Contractor must provide qualified and experienced personnel for execution of the Work. The Contractor must provide the manpower consist of project management, safety officer, quality control, project control and administration, general labor, and other personnel required to complete the Works. The Project Manager, quality control, Electrical engineer, and Instrument engineer (hereafter referred to as "Key Personnel") must have at least 5 years' experience in construction, maintenance and commissioning of power generation, provided that such key personel shall have minimum 5 years experiences in steam turbine with capacity no less than 100 MW.

In no less than 21 days prior to execution of the Work, the Contractor must submit curriculum vitae of any Key Personnel and Safety Officer for Owner review. The Owner may, at its own discretion, reject any Key Personnel if in the opinion of the Owner that such personnel is considered not competent or not having enough experience to carry out the Work. In such case, the Contractor must resubmit replacement personnel CV to the Owner within 3 days of the Owner rejection notice. The Contractor must submit its organization chart for Owner review and comment.

vii. Procedure of work

In no less than 21 days prior to outage schedule, the Contractor shall submit all works procedure for Owner review and comments. If the Owner make comments to any procedure of works, the Contractor must arrange revisions of such procedure to address the Owner's comment and must resubmit it to the Owner within 3 days of Owner comment.

The Works procedures shall indicate detailed step of work, tools and equipment, and method of work. It shall also indicate all tools & equipment and specification of such tools & equipment used during execution of works.

viii. Contractor Tools and equipment

The Contractor must ensure that all tools and equipment used for execution of the Works must be in good conditions. Measurement tools must meet accuracy in accordance with relevant international standard. All measurement tools must be completed with valid inspection and calibration certificate. The inspection and calibration certificate must be submitted for Owner review prior to mobilization of such tool to site. If any tools and/or equipment is found to be not meeting the above requirement, such tools

must be removed from Site. The Contractor must immediately provide replacement without causing any delay to the Work schedule.

ix. Inspection Notice and Report

The Contractor must submit daily report, inspection report, and completion report in accordance with format acceptable to the Owner. The Owner has the right to review and make comment to the report submitted by the Contractor. If the Owner make comment to any report, the Contractor must revise such report and resubmit it to the Owner with 2 days of the Owner's comment.

The Contractor must submit inspection request in the form of Request for Inspection (RFI) in accordance with Inspection and Testing Plan approved by the Owner. Any RFI must be submitted by the Contractor to the Owner in no less than 24 hours prior to inspection schedule.

x. Compliance with statute and regulations

The Contractor shall at all times comply with any statute and regulation issued by government of Indonesia. The Owner may at any time request the Contractor to submit copy of any documents required to evidence that the Contractor have complied statutes and regulations. If any works shall be postponed due to inspection by government authority as a result of non compliance by the Contractor, then the schedule impact shall be under responsibility of the Contractor.

xi. Subcontracting

In principle, the Contractor must not subcontract the whole or part of the Works. If for very specific purpose the Contractor intend to subcontract parts of a specific Works, the Contractor must prior obtain Owner's return approval

xii. Work acceptance by Owner

Upon completion of the Works, the Contractor may propose completion certificate to certify that the Works have been completed by the Contractor in accordance with General and Technical Requirement and Project Documents. The Owner may review or comments the completion certificate or sign off on such completion certificate if in the opinion of the Owner that all Works have been completed by the Contractor in accordance with General and Technical Requirement and Project Documents.

8. Detailed Objective

i. Schedule objective

The Contractor shall complete the works within time frame described in Section 7, point iv and Appendix 4 of this document.

ii. Health, Safety, and Environment Objective

The Contractor shall all times comply with health, safety and environmental regulation and HSE requirement with the objective as follows:

- No minor personal injury,
- No major personal injury and fatality,
- No equipment damage accidents,
- No fire accident at maintenance site,
- No traffic accidents,
- No environmental events will occur;
- No serious violation of regulations,
- The site shall not be ordered to stop work due to HSE violation by Contractor.

iii. Maintenance quality objectives

The Contractor shall perform the Works in accordance with the requirement and Project Document. The Contractor shall achieve the quality objective as follows:

- The completion rate of maintenance projects reaches 100%;
- The completion rate of maintenance test plan reaches 100%;
- The completion rate of unit defect elimination plan reaches 100%;
- Maintenance test partial trial operation success rate reached 100%;
- After repair, the unit reaches **"Four None"** :, That is, (i) There is no equipment defect affecting the normal operation mode and normal operation parameters of the unit in the main and auxiliary equipment and others system, (ii) No hidden danger of safety in the main and auxiliary equipment and others system, (iii) No general defect that cannot be eliminated within 24 hours, and the whole unit reaches the standard and , (iv) No leakage either dust, oil, water or steam..
- Upon the completion of the Works, the Contractor shall clean the site and restore all tools and equipment and used spareparts to the location designated by the Owner. The Contractor shall maintain the good housekeeping.

iv. Environmental technology objectives

During execution of the Works, the Constractor shall fully comply to the applicable environmental regulations. The Contractor shall ensure the implementation of compliance but not limited to:

- Pollutant discharge in accordance with Indonesian national environmental standards or local government environmental standards;
- No environmental pollution event occurs during maintenance.

9. Detailed Technical Specifications and Standards

The Contractor shall perform the Works in accordance with requirement and Project Document, including but without limitation to the following documents:

- Scope of work for electrical and instrument-control inspection
- Installation and operation manual of electrical
- Installation and operation manual of instrument & control
- Manual book of electrical and instrument-control
- Piping and diagram drawing
- Electrical diagram/drawing
- Drawing of instrument and control
- Electrical safety work regulations
- Preventive maintenance for electrical equipment
- Preventive maintenance for instrument and control equipment
- Electrical equipment installation engineering quality inspection and assessment regulations
- Manufacturer's original materials, drawings, specifications
- Ragulation standard of installation and operation instrument and control such as API, ASME, IEC standard, etc.

10. Owner's responsibilities

Unless explicitly specified in this document or contract, the Owner shall have no any other responsibility with regard to execution of the Work. The Owner's responsibility shall be limited for the following items:

i. Providing all technical drawings, manufacturers and equipment specifications of the unit, and providing relevant operation records of the unit at the request of the Contractor.

ii. Coordinating the technical support of equipment manufacturers for clarification any manufacturer standard.

iii. Providing all spare parts and main consumables required for maintenance (scaffolding, insulation material, paint, lubricating grease, spare parts for replacement due to operational defects).

iv. Providing dormitory for Contractor's personnel but excluding food and drink water.

v. Providing electricity for maintenance activities.

vi. Providing instrument air source for maintenance.

vii. Providing water supply for maintenance and cleaning activities, excluding drinking water.

11. Annexes

Appendix (1): Instruction to Bidders

Appendix (2): Job List

Appendix (3): HSE Requirements

Appendix (4): Schedule of Work

Appendix (5): List of Special Tools – Not Applicable for this package

Appendix (6): Drawing and Technical Documents – if applicable

PT SKS LISTRIK KALIMANTAN

Appendix-1 - Instruction to Bidders

Package Name:

Electrical & Instrument inspection, Repair, and Calibration Unit-1

PT SKS Listrik Kalimantan
Desa Tumbang Kajuei, Kecamatan Rungan, Kabupaten Gunung Mas
Kalimantan Tengah 74561, Indonesia

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Paraf	
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	Reviewer

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1. BIDDER DOCUMENT REQUIREMENT

The Bidders shall arrange its proposal in full compliance with General and Technical Requirements and its Appendix. The Bidders shall arrange its proposal in two separate package documents i.e. (i) Technical proposal which consists of form 1 - 14 and (ii) Commercial proposal form 15. The Bidders proposal documents shall be confirmed with a letter signed by Bidder's company Director.

During bidding process, the Owner will give opportunity for Bidder for Site visit to give opportunity for bidders to familiarize with actual condition of equipment. The Bidder shall asses and make themselves well informed regarding special tool to be provided by the Owner. In case any bidder opts for not doing Site visit, the Owner will assume that such bidder has fully understand as if that such bidder has participated in Site visit and all responsibilities for any inaccurate assumption shall be under such bidder responsibilities.

Unless explicitely stated in the List of Deviation, the Bidders confirm that its respective proposal is in full compliance with General and Technical Requirements and its Appendices. Except for Deviation List, in case any discrepancy between General and Technical Requirements and its appendices and Bidder's proposal, the General and Technical Requirements shall take precedence order.

2. TECHNICAL PROPOSAL

a) Bidder shall submit a Technical Proposal which clearly describes all non-commercial matters that form of Bidder's proposal.

b) The Technical Proposal shall be prepared with table of contents and consist of following sections:

Form 1 - Company General Administration

Form 2 - Company License and Certificate

Form 3 - Company director and commissioner

Form 4 - Statement letter of complying with General and Technical Requirement and its appendix

Form 5 - General Time Schedule

Form 6 - Work Method Statement

Form 7 - Quality plan

Form 8 - Health, Safety, and Environment plan

Form 9 - List of Manpower and key personel CV

Form 10 - List of Proposed Tools and Equipment

Form 11 - List of Consumables

Form 12 - List of Company Experience

Form 13 - Copy of client acceptance certificate for similar Works.

Form 14 - List of Deviation

Form 15 - Price and Commercial Proposal

3 COMMERCIAL PROPOSAL

The Bidders shall prepare commercial proposal in a separate package to Technical Proposal. The Commercial proposal shall consist of price, term of payment, and any other information as bidder consider necessary. The proposal shall be valid for Owner acceptance for period of not less than 60 (sixty) days from the date of submission.

Form 1:

COMPANY GENERAL ADMINISTRATION

A. COMPANY GENERAL INFORMATION

1. Company Name	: .....
2. Domicile Certificate Company's address Telephone (mandatory) Facsimile (mandatory) E-mail Representative Contact	: ..... : ..... : ..... : ..... : ..... : .....
3. Company Status	: ☐ Main Office ☐ Branch
4. Name of Association No. Member Validity Date	: ..... : ..... : .....
5. Tax Identification Number / NPWP 6. VAT enterprise number / PKP	: ..... : .....
7 . Bank Information No. account (Currency) Account Owner Name company) Name of the Bank Complete Bank Address	 : ..... : ..... : ..... : .....

B. LEGAL BASIS OF COMPANY ESTABLISHMENT

1. Deed of Incorporation a. Notary Public b. Address c. Deed Number d. Date/month/year of founding of the company	 : ..... : ..... : ..... : .....
2. Latest Amendment Deed a. Notary Public b. Address c. Number d. Date	 : ..... : ..... : ..... : .....
3. Deed Registration in District Court a. Name b. Number/date	 : ..... : .....
4. Validation by the Minister of Justice Number/date	 : .....
5. Foreign Investment Company (PMA) / Domestic Investment Company (PMDN) Company (copy attached) a. Permit Number b. Date	: ..... : .....

C. CONTRACT SIGNING INFORMATON

6. Official for Contract Signing In accordance with what is written in the last NOTARIAL DEED a. Name _ b. Position c. Signature specimen d. Company Stamp Specimen	 : ..... : ..... : ..... : .....

....., ... 2025

(.....)
Signature and Stamp

Form 2:

COMPANY LOGO

COMPANY LICENSE AND CERTIFICATE

Attachment Number	Certificate Name	Certified by	Certification Year	Active / Expired
1				
2				
....				
....				
....				

....., ... 2025

(.....)
Signature and Stamp

Form 3 :

COMPANY LOGO

COMPANY DIRECTOR AND COMMISSIONER

1. Commissioner/Director/Person in Charge of the Company

No	Name	ID Card /Identity No	Position in the Company

2. Company Owner

No	Name	ID Card /Identity No	Position in the Company

Note: Submit and comply with the Deed and Amendments.

....., ... 2025

(.....)
Signature and Seal

Form 4:

STATEMENT LETTER OF COMPLYING WITH GENERAL AND TECHNICAL REQUIREMENTS AND ITS APPENDIX

COMPANY LETTERHEAD

STATEMENT LETTER OF FULFILLING THE SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

We, the undersigned

Name of Company Responsible Person : .....
Company name : .....
Company's address : .....
Telephone / Fax : .....
Position in the Company : .....

In this case, representing and acting on behalf of our Company above, we hereby declare that our bid has fulfilled all the General and Technical Requirements along with its Appendix and attachments contained in Bidding Document No..... which has been determined by PT. SKS Listrik Kalimantan for package work
' ..... '.

If in the future it is found that the above statement is not true, then I am willing to be subject to unilateral termination of the agreement and be removed from list of selected goods/services providers of PT. SKS Listrik Kalimantan, and is willing to compensate for any losses resulting from it.

Thus, we have made this Statement Letter truly without any pressure from any party and so that it can be used properly.

....., ... 2025

PT/CV .....
President Director / Person in Charge

duty stamp
Rp. 10,000 ,-
Company Mark

(Clear name)

Form 5 :

COMPANY LOGO

GENERAL TIME SCHEDULE

Package NUMBER : .....
Package NAME : .....
Package LOCATION : .....
NAME OF BIDDER : .....

Sections No.	Description	WORKS in %)	DAYS						
			1	2	3	4	5	6	>>
1									
2									
3									
4									
5									
6									
7									
8									
9									
10	Reports and Documentation								
	TOTAL WORKS	100%							
	CURRENT PROGRESS	(in %)							
	CUMULATIVE PROGRESS	(in %)							

Note: 1. S- Curve and Bar – Chart should be plotted
2. Microsoft Project or Primavera is preferable

....., ... 2025

(.....)
Signature and Stamp

Form 6 :

COMPANY LOGO

WORK METHOD STATEMENT

The Work Method Statement shall be created and filled in by the Contractor and signed by the company director. The contents of the Work Method Statement are as follows:

1. **Title and Project Information:** Clearly state the title of the method statement and provide details about the project, including location, date, and project reference numbers.
2. **Objective:** Define the specific objectives of the works and what is expected to be achieved.
3. **Scope of Work:** Detail the scope of the activities, specifying the tasks, phases, and areas covered by the method statement.
4. **Project Organization:** Outline the organizational structure for the project, including roles and responsibilities of key personnel.
5. **Work Procedures:** Provide step-by-step procedures for each task, highlighting the sequence of activities, necessary equipment, materials, and resources.
6. **Work Schedule and Milestone:** Provide working schedule in accordance with step-by-step of works and create a mutually agreed milestone schedule
7. **Health, Safety and Environment Measures:** Emphasize health, safety and environment considerations, including risk assessments, protective measures, and compliance with safety regulations.
8. **Quality Control and Assurance:** Describe the quality control and assurance measures to be implemented, ensuring that the work meets specified standards and requirements.
9. **Environmental Considerations:** Address any environmental impact concerns and detail measures to mitigate and manage environmental risks.
10. **Monitoring and Inspection:** Define the monitoring and inspection protocols, specifying how the work will be supervised and evaluated for compliance.

11. **Emergency Procedures:** Clearly outline emergency procedures and contingency plans in case of unexpected events or incidents.

12. **Testing and Commissioning:** Detail the procedures for testing and commissioning, ensuring that the completed work meets the required standards and specifications.

13. **Documentation:** Specify the documentation requirements, including record-keeping, reports, and any other relevant paperwork.

14. **Approval and Sign-Off:** Include a section for approvals and sign-offs, indicating the responsible parties and the process for obtaining authorization to proceed with the work.

Form 7:

COMPANY LOGO

QUALITY PLAN

The Quality Plan shall be created and filled in by the Contractor and signed by the company director. The contents of the Quality Plan are as follows:

1. **Quality standard**
   Document any industry or product quality standards that apply to the project.
   For example, ASME (American Society of Mechanical Engineering), Etc.

2. **Quality Objective**
   Provide the quality targets for the overall project. Be as specific and include how to measure.

3. **Quality Roles and Responsibilities**
   Provide the roles and responsibilities that are needed to manage quality on the project.

4. **Deliverables and Processes Subject to Quality Review**
   List the project deliverables and processes that will be quality reviewed.

5. **Quality Control Approach**
   Describe when and how quality will be checked.

6. **Inspection Test Plan**
   Provide table of Inspection Test Plan regarding the Joblist and Scope of Work

Form 8:

COMPANY LOGO

HEALTH, SAFETY, AND ENVIRONMENT PLAN

The Health, Safety and Environment (HSE) Plan shall be created and filled in by the Contractor and signed by the company director. The contents of the HSE Plan are as follows:

1. PROJECT HEALTH AND SAFETY PLAN
    1.1. Organization and Responsibilities
    1.2. Development and Implementation of HSE Management System
    1.3. HSE Policy, Objectives, and Commitment
2. PROJECT HEALTH AND SAFETY RULES
3. ENVIRONMENT MANAGEMENT PLAN
4. EMERGENCY RESPONSE PLAN

Form 9:

COMPANY LOGO

LIST OF PROPOSED CONTRACTOR'S MANPOWER
(Completed by Bidder)

PACKAGE NUMBER : .....
PACKAGE NAME : .....
PACKAGE LOCATION : .....
NAME OF BIDDER : .....

No.	Post to be held	Name	Nationality	Age	Education *)	Year of Service in Company	Year of Experience in .....Work	Other Years Experience in .....Work
1. 2. 3. 4. 5. 6.	Etc.							

*) Insert University / Academy, High School or Secondary and year of completion

....., ... 2025

(.....)
Signature and Stamp

Form 10:

COMPANY LOGO

LIST OF PROPOSED TOOLS & EQUIPMENT
(To be completed by Bidder)

PACKAGE NUMBER : .....
PACKAGE NAME : .....
PACKAGE LOCATION : .....
NAME OF BIDDER : .....

Quantity	Description	Size Capacity	Owned or to be Purchased or Leased	Manufacture and Model	Year of Manufacture	Condition	Present Location

....., ... 2025

(.....)
Signature and Stamp

Form 11:

COMPANY LOGO

LIST OF CONSUMABLES
(To be completed by Bidder)

PACKAGE NUMBER : .....
PACKAGE NAME : .....
PACKAGE LOCATION : .....
NAME OF BIDDER : .....

No	Description of Consumables	Brand / Manufacture	Quantity		Plan to Delivery	Remarks
			QTY	Unit		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

....., ... 2025

(.....)
Signature and Stamp

Form 12 :

COMPANY LOGO

LIST OF COMPANY EXPERIENCE

No	Name & Type of Job	Clint	Job Value IDR	Project / Employment Period	
				Start	Finished

....., ... 2025

(.....)
Signature and Stamp

Form 13:

COMPANY LOGO

COPY OF CLIENT ACCEPTANCE CERTIFICATE FOR SIMILAR WORKS.

This page related into *Form 12. LIST OF COMPANY EXPERIENCE*. All of Bidder shall attach Acceptance Certificate from Project Client and summarize as per table follow:

No	Name of Project	Client	Certification Year
1			
2			
....			
....			
....			

....., ... 2025

(.....)
Signature and Stamp

Form 14:

COMPANY LOGO

LIST OF DEVIATIONS

No	Document No. / Clause No.	Specification / Requirement	Deviation	Reason for Deviation

....., ... 2025

(.....)
Signature and Stamp

Form 15 :

COMPANY LOGO

PRICE AND COMMERCIAL PROPOSAL

(Package Title)

(BIDDERS NAME)

No	Description	Qty	Unit	Total Days	Overtime (hour)	Unit Price /day	Total Price (a)	Unit Price Over Time	Total Price over time (b)	Total Price (a + b)	Remarks
1	Mobilization										
	Manpower		person								
	Equipment & Tools		lot								
2	Demobilization										
	Manpower		person								
	Equipment & Tools		lot								
3	Manpower										
	Please fill the manpower position and quantity include price		person								
	.....		person								
	.....		person								
4	Equipment & Tools										
	Please fill the Equipment & tools include price										
	.....										
	.....										
5	Consumables										
	Please fill the Consumables include price										
	.....										
	.....										
6	Others										
	Please fill if needed include price										
	TOTAL									-	
	Tax 11%									-	
	GRAND TOTAL									-	

....., ... 2025

(.....)
Signature and Stamp

PT SKS LISTRIK KALIMANTAN

Appendix-2 - Job List

Package Name:

Electrical & Instrument inspection, Repair, and Calibration Unit-1

PT SKS Listrik Kalimantan
Desa Tumbang Kajuei, Kecamatan Rungan, Kabupaten Gunung Mas
Kalimantan Tengah 74561, Indonesia

31 Jan 2025
Revision : 0

Management System ISO 9001:2015 ISO 14001:2015 www.tuv.com ID 01 100 2135359 ID 824 104 22002

0	31 Jan 2025	First Issued	MTC	AWS	SHH	IKM
Rev.	Date	Information	Writer	Checked by	Review by	Approved by

Paraf	
	Created By
	Reviewer

ELECTRICAL INSPECTION & REPAIR WORK OUTAGE UNIT-1 2025

NO	Location	WORK DESCRIPTION
1	COMMON	Switchgear 6KV PT Normal Power Source Incoming Circuit for Section 1A
		Check the connection of terminal (retight, cleaning and repair if any damaged)
		Insulation Resistance (IR) & Contact Resistance test of VCB
		Cleaning & Resistance Test MV fuses
		Check the seal and hole of panel.
		Clean all parts of switchgear panel and VCB.
		Check and test mechanical system of grounding system panel (Repair grounding mechanism if any abnormal during check)
		Cleaning switchgear body surface & the switchgear 6kV room (wall & floor)
		Replace lighting at switchgear room if any damaged.
		Replace small part of VCB if any finding during inspection
		Retighten rear cover of switchgear / Earthing switch
		Check functional of cabinet heater
2	COMMON	Switchgear 6KV Normal Power Source Incoming Circuit for Section 1A
3	COMMON	Switchgear 6KV Standby Power Source Incoming Circuit for Section 1A
4	COMMON	Switchgear 6KV PT Standby Power Source Incoming Circuit for Section 1A
5	COMMON	Switchgear 6KV BFP 1A
6	COMMON	Switchgear 6KV BFP 1B
7	COMMON	Switchgear 6KV BFP 1C
8	COMMON	Switchgear 6kV Primary Air Fan 1A
9	COMMON	Switchgear 6kV Secondary Air Fan 1A
10	COMMON	Switchgear 6kV Induced Draft Fan 1A
11	COMMON	Switchgear 6kV #1 Auxiliary Tr. A
12	COMMON	Switchgear 6kV Coal Handling Tr. A
13	COMMON	Switchgear 6kV ESP & Ash Handling Tr. A
14	COMMON	Switchgear 6kV Dormitory Tr.
15	COMMON	Switchgear 6kV Condensate Pump 1A
16	COMMON	Switchgear 6kV #1 Spare Section 1A
17	COMMON	Switchgear 6kV #2 Spare Section 1A
18	COMMON	Switchgear 6kV PT Normal Power Source Incoming Circuit for Section 1B
19	COMMON	Switchgear 6kV Normal Power Source Incoming Circuit for Section 1B
20	COMMON	Switchgear 6kV standby Power Source Incoming Circuit for Section 1B
21	COMMON	Switchgear 6KV PT Standby Power Source Incoming Circuit for Section 1B
22	COMMON	Switchgear 6kV Motor-driven Boiler Feed Water Pump 1C
23	COMMON	Switchgear 6kV Circulating Water Pump 1B
24	COMMON	Switchgear 6kV Primary Air Fan 1B
25	COMMON	Switchgear 6kV Secondary Air Fan 1B
26	COMMON	Switchgear Induced Draft Fan 1B
27	COMMON	Switchgear 6kV #1 Auxiliary Tr. B
28	COMMON	Switchgear 6kV Circulating Water Tr. A
29	COMMON	Switchgear 6kV Water Treatment Tr. A
30	COMMON	Switchgear 6kV Water Intake Tr. A
31	COMMON	Switchgear 6kV Condensate Pump 1B
32	COMMON	Switchgear 6kV Oil Injected Screw Air Compressor A
33	COMMON	Switchgear 6kV Oil Injected Screw Air Compressor B
34	COMMON	Switchgear 6kV #1 Spare Section 1B
35	COMMON	Switchgear 6kV #2 Spare Section 1B
36	COMMON	Terminal Box 6 kV Bus A & Bus B
		Check the connection of terminal (retight, cleaning and repair if any damaged)
		Check the seal and hole of panel.
		Clean all parts of inside cabinet
		Cleaning switchgear body surface & the switchgear 6kV room (wall & floor)
		Retighten front & rear cover of box
		Check functional of cabinet heater
37	COMMON	Dry Transformer PC Aux 1A
		Cleaning dry transformer.
		Check connection terminal and retightening cable and bus bar connection
		Insulation resistance (IR) test of dry transformer
		Check cooling dry transformer function and replace cooler fan if broken
38	COMMON	Dry Transformer PC Aux 1B
39	COMMON	Dry Transformer PC Circulating Water A
40	COMMON	Dry Transformer PC ESP & Ash Handling A
41	COMMON	Dry Transformer PC Dormitory
42	COMMON	Dry Transformer PC Water Intake A
43	COMMON	Dry Transformer PC Water Treatment A
44	COMMON	Dry Transformer PC Coal Handling A
45	COMMON	MCC 400V Inspection for PC Auxillary MCC Unit #1A
		Check the connection of terminal (retight, cleaning and repair if any damaged)
		Check mechanical function of drawer (Breaker) and repair if any abnormal during check
		Check the seal and hole of panel, and leaking point of panel.

		Check the seal and hole of panel.
		Clean all parts of drawer and panel
		Cleaing surface of MCC & the MCC room (wall and floor).
		Replace drawer switch if found any damaged.
		Replace small parts: lamp indicator, push button of drawer if found any damaged.
		Replace lighting at MCC room if any damaged
		ACB Inspection
46	COMMON	MCC 400V Inspection for PC Auxiliary MCC Unit #1B
47	COMMON	MCC 400V Inspection for Emergency MCC Unit #1
48	COMMON	MCC 400V Inspection for Turbine MCC Unit #1
49	COMMON	MCC 400V Inspection for Boiler MCC Unit #1
50	COMMON	MCC 400V Inspection for Common MCC
51	COMMON	MCC 400V Inspection for ESP & Ash Handling MCC
52	COMMON	MCC 400V Inspection for Circulating Water MCC
53	COMMON	MCC 400V Inspection for Dormitory MCC
54	COMMON	MCC 400V Inspection for HVAC MCC
55	COMMON	MCC 400V Inspection for BTG Lighting MCC
56	COMMON	MCC 400V Inspection for Water Intake MCC
57	COMMON	MCC 400V Inspection for Water Treatment MCC
58	COMMON	MCC 400V Inspection for Assay Building MCC
59	COMMON	MCC 400V Inspection for Comprehensive MCC
60	COMMON	MCC 400V Inspection for Dehydrator MCC
61	COMMON	UPS & DC System Inspection for DC Panel Room Unit #1
		Inspection DC panel (cleaning panel and part, check connection terminal and check the sealing hole)
		Grounding test on DC panel.
		Cleaning DC panel room
		Replace lighting at DC room if any broken.
		Inspection UPS System (Cleaning UPS Cabinet, replaced Modul (if needed) & Cleaning UPS Distribution Cabinet)
		Inspection Battery System (Cleaning battery, check terminal connection)
		Check voltage and resistance battery using "Battery Tester Tools".
		Cleaning battery room.
		Replace lighting at Battery room if any broken.
		Insulation resistance cable outgoing (DEH, MFT, ETS)
62	COMMON	UPS 80 kVA & UPS Distribution Cabinet Unit (CHS)
63	COMMON	Battery & DC System Inspection Unit #1
64	COMMON	Excitation Panel & Excitation Transformer
65	COMMON	Inspection Suspencion Insolator GSUT Bay #1
		Cleaning Suspensiol Isolator GSUT Bay #1
		Touch Up Paint Gantry structure and turnbuckle bolt/nut if any rusty condition
		Replace if any isolator crack finding during inspection
66	COMMON	Inspection GSUT & Arrester
		Cleaning & retighten of cable conenction, flexible busbar, main tank, pipe flange etc
		Replace silica gel if required
		Cleaning body and accessories of transformer and touch up paint
		Cleaning surface of bushing, lightning arrester and all accesories
		Cleaning and tightening lcoal panel
		Replace Transmitter Widning or oil thermometer and perfomed function test
		Buscholz Relay Test
		Replace lighting GSUT Area
		Resistance Test of GSUT
		Inspection, cleaning and put sealant fire stopper all junction box, cable hole on panel
		Repainting water spray hydrant pipe arround GSUT
67	COMMON	Inspection Terminal Generator & Auxiliary (CT, PTLA, NGR & GCB)
		Insulation Resistance Test of winding stator & rotor of generator
		Insulation Resistance & resistance test of generator heater
		Insulation Resistance Test of PTLA, GCB & CT
		Cleaning and replace carbon brush holder if required
		Cleaning or replace air filter of generator
		Cleaning Generator CT Room, below cooler area
		Cleaning and tightening of Micropressure IPB Panel
		Cleaning, tightening and insulation resistance test of NGR generator
		Cleaning and tightening of GCB and its local panel
		Cleaning Grounding shaft rotor of generator TT & TE side
		Tightening of Generator busbar and CT connection at CT Room
		Tightening PTLA busbar, flexible busbar conenction
		Tightening all busbar, flexibe busbar of NGR, PTLA & CT
		Tightening all grounding connection
		Resistance Test of All MV Fuses at PTLA
		Replace cabon brush of generator if out ou standard
		Replace small part of GCB local panel, PTLA, if required
		Inspection, cleaning and put sealant fire stopper all junction box, cable hole on panel
		Replace lighting inside GCB, IPB, PTLA Room
68	COMMON	Inspection of Excitation Cabinet
		Cleaning & retighten of cable conenction, flexible busbar, main tank, pipe flange etc
		Replace silica gel if required
		Cleaning body of transformer
		Cleaning surface of bushing, lightning arrester and all accesories
		Cleaning and tightening lcoal panel
69	COMMON	Inspection UAT & NGT UAT
		Cleaning & retighten of cable conenction, flexible busbar, main tank, pipe flange etc
		Replace silica gel if required
		Cleaning body and accessories of transformer and touch up paint
		Cleaning surface of bushing, lightning arrester and all accesories

		Cleaning and tightening Icoal panel
		Replace Transmitter Widning or oil thermometer and perfomed function test
		Buscholz Relay Test
		Replace lighting UAT Area
		Resistance Test of UAT
		Resistance test of NGT UAT
		Celaning Cabinet NGT UAT
		Inspection, cleaning and put sealant fire stopper all junction box, cable hole on panel
		Repainting water spray hydrant pipe arround UAT
70	COMMON	Inspection and General Cleaning of Cable Tray, cable shaft & cable trench & cable tunnel
		Cleaning cable tunnel MPH Unit #1
		Celaning cable trench all MCC room MPH Unit #1
		Cleaning cable tray, cable shaft at Boiler Unit #1
		Fabrication new top cover and repair broken cover of cable shaft top/window
71	BTG	MV Motor Inspection BFP 1A
		Check motor terminals, scun & cable condition and retighting connection
		Check leaking point in the motor terminal box and put sealant or fire stopper
		Check power cables and the other control cables include the gland cables
		Check and resistance test of heater motor
		Clean the motor body included inspectionof motor cooler
		Cleaning local control panel and repainting if any rusty condition
		Do Electrical Test: IR, DAR, PI, & Winding Resistance
		Cleaning, Inspection and IR and resistance test motor auxiliary oil pump BFP 1A
		Rectify If any finding on pre-outage or during outage
		Inspect & Cleaning Water Cooler Motor
		Inspection and put sealant of motor bearing cover DE-NDE
72	BTG	MV Motor Inspection BFP 1B
73	BTG	MV Motor Inspection BFP 1C
74	BTG	MV Motor Inspection PAF - 1A
75	BTG	MV Motor Inspection PAF - 1B
76	BTG	MV Motor Inspection SAF - 1A
77	BTG	MV Motor Inspection SAF - 1B
78	BTG	MV Motor Inspection IDF - 1A
79	BTG	MV Motor Inspection IDF - 1B
80	BTG	MV Motor Inspection Oil Inject screw Comp-A
81	BTG	MV Motor Inspection Oil Inject screw Comp-B
82	BTG	MV Motor Inspection CWP 1/A
83	BTG	MV Motor Inspection CWP 2/B
84	BTG	MV Motor Inspection Condensate Pump - 1A
85	BTG	MV Motor Inspection Condensate Pump - 1B
86	BTG	LV Motor Inspection Fluidizing air blower 1A
		Check motor terminals, scun & cable condition and retighting connection
		Check leaking point in the motor terminal box and sealing
		Check power cables and the other control cables include the gland cables
		Check heater motor, resistance & functional
		Replace motor bearing (if any finding)
		Do Electrical Test: IR, DAR, PI, & Winding Resistance
		Cleaning motor bearing (using inner motor cleaner) and replace grease of motor bearing (if necessary)
		Open bearing covers (DE & NDE) and make sure bearing condition and clean up the excess grease
		Sampling oil bearing of MV Motor (if necessary)
		Clean the motor body included blade cooling fan motor
		Clean the motor body included blade cooling fan motor
		Rectify If any finding on pre-outage or during outage
		Cleaning local control panel and repainting if any rusty condition
87	BTG	LV Motor Inspection Fluidizing air blower 1B
88	BTG	LV Motor Inspection Fluidizing air blower 1C
89	BTG	LV Motor Inspection Coal Feeder & Sweeping Motor 1A
90	BTG	LV Motor Inspection Coal Feeder & Sweeping Motor 1B
91	BTG	LV Motor Inspection Coal Feeder & Sweeping Motor 1C
92	BTG	LV Motor Inspection Coal Feeder & Sweeping Motor 1D
93	BTG	LV Motor Inspection Coal Feeder & Sweeping Motor 1E
94	BTG	LV Motor Inspection Coal Feeder & Sweeping Motor 1F
95	BTG	LV Motor Inspection Cooling CWP 1A
96	BTG	LV Motor Inspection Cooling CWP 1B
97	BTG	LV Motor Inspection Cooling CWP 2A
98	BTG	LV Motor Inspection Cooling CWP 2B
99	BTG	LV Motor Inspection Make Up Condensate Pump
100	BTG	LV Motor Inspection Vacuum pump 1A
101	BTG	LV Motor Inspection Vacuum pump 1B
102	BTG	LV Motor Inspection EH Oil Supply 1A
103	BTG	LV Motor Inspection EH Oil Supply 1B
104	BTG	LV Motor Inspection EH Oil Circulating 1A
105	BTG	LV Motor Inspection EH Oil Circulating 1B
106	BTG	LV Motor Inspection Oil Bypass Station (At HVAC Room)
107	BTG	LV Motor Inspection Slag Cooler Water Pump 1A
108	BTG	LV Motor Inspection Slag Cooler Water Pump 1B
109	BTG	LV Motor Inspection Gland Air Fan 1A
110	BTG	LV Motor Inspection Gland Air Fan 1B
111	BTG	LV Motor Inspection #1 Turbine AC Lub oil pump
112	BTG	LV Motor Inspection #1 Turbine DC Lub oil pump
113	BTG	LV Motor Inspection Lubricating Oil tank gas exhaust fan 1A (Replace bearing)
114	BTG	LV Motor Inspection Lubricating Oil tank gas exhaust fan 1B
115	BTG	Inspection Heater MOT

		Cleaning All Heater MOT Tank
		Resistance Test Heaeter MOT Tank
116	BTG	LV Motor Inspection Turbine Jacking oil pump 1A
117	BTG	LV Motor Inspection Turbine Jacking oil pump 1B
118	BTG	LV Motor InspectionTurbine Jacking oil booster pump
119	BTG	LV Motor Inspection Turning gear
120	BTG	LV Motor Inspection OCW Strainer #1 & #2
121	BTG	LV Motor Inspection CCCW pump 1A
122	BTG	LV Motor Inspection CCCW pump 1B
123	BTG	LV Motor Inspection Cooling Tower 1
124	BTG	LV Motor Inspection Cooling Tower 2
125	BTG	LV Motor Inspection Cooling Tower 3
126	BTG	LV Motor Inspection Cooling Tower 4
127	BTG	LV Motor Inspection Cooling Tower 5
128	BTG	LV Motor Inspection Oil Free Compressor 1
129	BTG	LV Motor Inspection Oil Free Compressor 2
130	BTG	LV Motor Mixer Coarse Silo
131	BTG	LV Motor Vent Filter Coarse Silo
132	BTG	LV Motor Coarse Silo Bulk Feeder
133	BTG	LV Motor Coarse Silo Dual Shaft Mixing
134	BTG	LV Motor Blowdown Reuse Pump 1A & 1B
135	BTG	LV Motor Root Blower ESP & Heater
136	BTG	LV Motor Slag Cooler A,B,C,D
137	BTG	LV Motor Bucket Elevator Sand Feeding
138	BTG	Refrigerated Dryer 1 & 2
		Check motor terminals, scun & cable condition and retighting connection
		Check leaking point in the motor terminal box and sealing
		Open bearing covers (DE & NDE) and make sure bearing condition and clean up the excess grease
139	BTG	Tepefaction Regeneration Dryer 1 & 2
		Check motor terminals, scun & cable condition and retighting connection
		Check leaking point in the motor terminal box and sealing
		Open bearing covers (DE & NDE) and make sure bearing condition and clean up the excess grease
140	BTG	ESP Inspection Unit #1
		Alignment CE plate and DE wire keep distance in standard
		Inspection of HV rectifier transformer of ESP (Cleaning transformer, check terminal connection, check leakage of oil & test HV r
		Inspection of ESP rapper and replace if any damaged (resistance check, terminal connection check, Rapping diode and coil tes
		Inspection of cable tray, cable at roof top ESP (cleaning and repair cable, repair if any damaged)
		Inspection and check heater insulator (resistance test, cleaning heater, and repair if any abnormal finding)
		Inspection of shaft ceramic insulator at Top Room ESP (Check condition of insulator, cleaning of insulator heater body inner & c
		Inspection grounding shaft insulator and other equipment, repair any damaged grounding connection
		Inspection CE & DE wire inside of ESP (repair if any damaged)
		Inspection hopper heater and replace if any abnormal finding (resistance check)
		Inspection & resetting ESP Controller MVC-196 & MVC-196B and replace if any finding
		Replace indicator lamp, push button of MCC ESP if any finding
		Lamp test of SCR function
		Install additional grounding cable of ESP MCC Cabinet if required
		Cleaning Local Panel Heater ESP #1
		Inspection Heater Root Blower ESP #1 (Test Resistance & Cleaning)
		Replace lighting at MCC ESP room if any broken
		Perform no load test of commisioning of ESP and rectify any finding
141	COMMON	Start up preparation
		Assist commissioning and start up each equipment and troubleshoot if any abnormal finding
		Final IR Test Generator & Excitation Unit #1
		Final IR Test GSUT-UAT-IPB-GCB Unit #1
		Energize GSUT-UAT Unit #1

APPENDIX-2B - Detail Joblist Instrument & Control Inspection

1	Fan system
1.1	HPF A
1.1.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.1.2	- Check and make sure tightening termination of RTD cable
1.1.3	- Inspection, cleaning MOV Venting & Outlet HPPF A
1.1.4	- Check and make sure tightening termination of MOV cable
1.1.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.1.6	- check flexible conduit MOV, RTD, or JB and replace if found it broken.
1.1.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.2	HPF B
1.2.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.2.2	- Check and make sure tightening termination of RTD cable
1.2.3	- Inspection, cleaning MOV Venting & Outlet HPPF A
1.2.4	- Check and make sure tightening termination of MOV cable
1.2.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.2.6	- check flexible conduit MOV, RTD, or JB and replace if found it broken.
1.2.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.3	HPF C
1.3.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.3.2	- Check and make sure tightening termination of RTD cable
1.3.3	- Inspection, cleaning MOV Venting & Outlet HPPF A
1.3.4	- Check and make sure tightening termination of MOV cable
1.3.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.3.6	- check flexible conduit MOV, RTD, or JB and replace if found it broken.
1.3.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.4	PAF A
1.4.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.4.2	- Check and make sure tightening termination of RTD cable
1.4.3	- Inspection, cleaning MOV Inlet & Outlet PAF Dumper
1.4.4	- Check and make sure tightening termination of MOV cable
1.4.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.4.6	- check flexible conduit MOV, RTD, Vibration, and JB and replace if found it broken.
1.4.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.4.8	- Inspection and cleaning Vibration Fan either DE & NDE side. Make sure tightening the cable
1.4.9	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
1.4.10	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
1.4.11	- Pulling cable RTD from Local to DCS
1.5	PAF B
1.5.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.5.2	- Check and make sure tightening termination of RTD cable
1.5.3	- Inspection, cleaning MOV Inlet & Outlet PAF Dumper
1.5.4	- Check and make sure tightening termination of MOV cable
1.5.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.5.6	- check flexible conduit MOV, RTD, Vibration, and JB and replace if found it broken.
1.5.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.5.8	- Inspection and cleaning Vibration Fan either DE & NDE side. Make sure tightening the cable
1.5.9	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
1.5.10	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
1.6	SAF A
1.6.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.6.2	- Check and make sure tightening termination of RTD cable
1.6.3	- Inspection, cleaning MOV Inlet & Outlet SAF Dumper
1.6.4	- Check and make sure tightening termination of MOV cable
1.6.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.6.6	- check flexible conduit MOV, RTD, Vibration, and JB and replace if found it broken.

1.6.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.6.8	- Inspection and cleaning Vibration Fan either DE & NDE side. Make sure tightening the cable
1.6.9	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
1.6.10	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
1.7	SAF B
1.7.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.7.2	- Check and make sure tightening termination of RTD cable
1.7.3	- Inspection, cleaning MOV Inlet & Outlet SAF Dumper
1.7.4	- Check and make sure tightening termination of MOV cable
1.7.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.7.6	- check flexible conduit MOV, RTD, Vibration, and JB and replace if found it broken.
1.7.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.7.8	- Inspection and cleaning Vibration Fan either DE & NDE side. Make sure tightening the cable
1.7.9	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
1.7.10	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
1.8	IDF A
1.8.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.8.2	- Check and make sure tightening termination of RTD cable
1.8.3	- Inspection, cleaning MOV Inlet & Outlet ID F Dumper. Top up or replace if necessary
1.8.4	- Check and make sure tightening termination of MOV cable
1.8.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.8.6	- check flexible conduit MOV, RTD, Vibration, and JB and replace if found it broken.
1.8.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.8.8	- Inspection and cleaning Vibration Fan either DE & NDE side. Make sure tightening the cable
1.8.9	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
1.8.10	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
1.9	IDF B
1.9.1	- Inspection and cleaning RTD Motor & Fan either DE & NDE side
1.9.2	- Check and make sure tightening termination of RTD cable
1.9.3	- Inspection, cleaning MOV Inlet & Outlet ID F Dumper
1.9.4	- Check and make sure tightening termination of MOV cable
1.9.5	- Check leak & tightening bolt MOV which it is potential for water to enter
1.9.6	- check flexible conduit MOV, RTD, Vibration, and JB and replace if found it broken.
1.9.7	- Inspection & Cleaning Junction Box. Make sure no hole that have potential for animal or water to enter it. Make sealing if found hole.
1.9.8	- Inspection and cleaning Vibration Fan either DE & NDE side. Make sure tightening the cable
1.9.9	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
1.9.10	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
1.10	Motorized Valve Dumper system
1.10.1	- Inspection, cleaning MOV Dumper
1.10.2	- Check oil level MOV
1.10.3	- Check and make sure tightening termination of MOV cable
1.10.4	- Check leak & tightening bolt MOV which it is potential for water to enter
2	**Fuel oil & Ignition system**
2.1	- Flame Detector inspection and testing
2.2	- Igniter Inspection & test
2.3	- Cleaning ignition gun
2.4	- Fuel Oil Pump discharge Pressure inspection
2.6	- Windbox, Furnance, cyclone Pressure Transmitter & Switch inspection
2.7	- Windbox, Furnance,cyclone temperature sensor inspection
2.8	- Furnace draft Pressure sensor inspection
2.9	- Temperature & thermowell Inspection.
2.11	- Inspection and cleaning MOV/Pneumatic Valve Burner
2.12	- Inspection and Cleaning Panel Buner
2.13	- Inspection and check that have potential hole either in MOV, JB, Transmitter, & Panel. Seal it if found the hole.
3	**ESP**
3.1	-Cleanning, backup, Inspection & Check backup battery PLC for ESP IPC PLC
3.2	- Cleaning and Inspection (Check, replacement ifa any finding damage/error) Local Indicator
3.3	- Cleaning and Inspection (Check, replacement ifa any finding damage/error) Panel/JB Local
3.4	- Cleaning and Inspection (Check, replacement ifa any finding damage/error) Transmitter

3.5	- Cleaning and Inspection (Check, replacement ifa any finding damage/error) Pneuamtic Valve and accessories
3.6	- Check hose tubing healthy, Replace it if find the crack/brittler/broken
3.7	- Check & cleaning Level Switch of ESP Hopper
3.8	- Inspection and cleaning JB ESP, check tightening termination. Then seal if found hole at JB
4	**Fly Ash & Bottom Ash System air regulator inspection & cleanning**
4.1	- Fly ash handling hose, air regulator , and swith sensor inspection and cleaning
4.2	- Bottom ash handling hose, air regulator , and swith sensor inspection and cleaning
4.3	- inspection Panel/JB Local
4.4	- Cleaning and Inspection (Check, replacement ifa any finding damage/error) Transmitter
4.5	- Checking pulse jet solenoid valve at fine ash silo
4.6	- Check and cleaning pneumatic Valve
5	**Coal feeder system**
5.1	Coal Feeder A
5.1.1	- Inspection and Cleaning the cabinet
5.1.2	- Power supply Inspection
5.1.3	- Check tightening Cable either in Panel or JB. Make sure no hole at them.
5.1.4	- Coal Flow meter Inspection
5.1.5	- MOV Transmitter Inspection & cleaning
5.1.6	- Temperature Transmitter Inspection
5.1.7	- Pressure and Transmitter Inspection
5.1.8	- Coal feeder scale calibration
5.1.9	- install Fan & filter Panel CF A
5.2	Coal Feeder B
5.2.1	- Inspection & Cleaning the cabinet
5.2.2	- Power supply Inspection
5.2.3	- Check tightening Cable either in Panel or JB. Make sure no hole at them.
5.2.4	- Coal Flow meter Inspection
5.2.5	- MOV Transmitter Inspection & cleaning
5.2.6	- Temperature Transmitter Inspection
5.2.7	- Pressure and Transmitter Inspection
5.2.8	- Coal feeder scale calibration
5.2.9	- install Fan & filter Panel CF B
5.3	Coal Feeder C
5.3.1	- Inspection and Cleaning the cabinet
5.3.2	- Power supply Inspection
5.3.3	- Check tightening Cable either in Panel or JB. Make sure no hole at them.
5.3.4	- Coal Flow meter Inspection
5.3.5	- MOV Transmitter Inspection & cleaning
5.3.6	- Temperature Transmitter Inspection
5.3.7	- Pressure and Transmitter Inspection
5.3.8	- Coal feeder scale calibration
5.3.9	- install Fan & filter Panel CF C
5.4	Coal Feeder D
5.4.1	- Inspection and Cleaning the cabinet
5.4.2	- Power supply Inspection
5.4.3	- Check tightening Cable either in Panel or JB. Make sure no hole at them.
5.4.4	- Coal Flow meter Inspection
5.4.5	- MOV Transmitter Inspection & cleaning
5.4.6	- Temperature Transmitter Inspection
5.4.7	- Pressure and Transmitter Inspection
5.4.8	- Coal feeder scale calibration
5.4.9	- install Fan & filter Panel CF D
5.5	Coal Feeder E
5.5.1	- Inspection and Cleaning the cabinet
5.5.2	- Power supply Inspection
5.5.3	- Check tightening Cable either in Panel or JB. Make sure no hole at them.
5.5.4	- Coal Flow meter Inspection
5.5.5	- MOV Transmitter Inspection & cleaning
5.5.6	- Temperature Transmitter Inspection
5.5.7	- Pressure and Transmitter Inspection
5.5.8	- Coal feeder scale calibration
5.5.9	- install Fan & filter Panel CF E
5.6	Coal Feeder F

5.6.1	- Inspection and Cleaning the cabinet
5.6.2	- Power supply Inspection
5.6.3	- Check tightening Cable either in Panel or JB. Make sure no hole at them.
5.6.4	- Coal Flow meter Inspection
5.6.5	- MOV Transmitter Inspection & cleaning
5.6.6	- Temperature Transmitter Inspection
5.6.7	- Pressure and Transmitter Inspection
5.6.8	- Coal feeder scale calibration
5.6.9	- install Fan & filter Panel CF F
6	**Steam Drum**
6.1	-cleaning CCTV Panel
6.2	-checking condition probe
6.3	-check any leakage drum level contact
6.4	- Cleaning & Inspection Valve (battere checking, Air Supply Check, Local Remote Function Check)
6.5	- cleaning level glass steam drum
6.6	- check and cleaning level switch
6.8	- Steam leakage at level Bicolour Steam Drum Left side (2100027889)
7	**Coal Bunker**
7.1	Coal Bunker A
7.1.1	- Temperature Transmitter Inspection
7.1.2	- Gas Transmitter Inspection
7.1.3	- Level Transmitter Inspection
7.1.4	- CO analyzer Inspection
7.2	Coal Bunker B
7.2.1	- Temperature Transmitter Inspection
7.2.2	- Gas Transmitter Inspection
7.2.3	- Level Transmitter Inspection
7.2.4	- CO analyzer Inspection
7.3	Coal Bunker C
7.3.1	- Temperature Transmitter Inspection
7.3.2	- Gas Transmitter Inspection
7.3.3	- Level Transmitter Inspection
7.3.4	- CO analyzer Inspection
7.4	Coal Bunker Gas Analysis
7.4.1	- Cleanning, backup
7.4.2	- Inspection & Check backup battery PLC for Coal Bunker gas analysis (CO)
7.4.3	- Cleaning & Inspection Panel
8	**CEMS System**
8.1	- inspection Dust
8.2	- Inspection Opacity sensor
8.3	- Analyzer module Inspection & cleanning
8.4	- Cleaning PLC & Computer
8.5	- Replace Filter of Sampling Probe
8.6	- Check and cleaning Sensor CEMS (Flow Transmitter & Temperature)
8.7	- Install sampling line CEMS (100 meter)
9	**Feed water, Spray, Main Steam and Sootblower**
9.1	- Check & Cleaning Temperature Transmitter
9.2	- Check & Cleaning Pressure Transmitter
9.3	- Check & Cleaning Flow Transmitter
9.4	- Cleaning all related sensor and purging Pressure Transmitter Tapping Point
9.5	- Pressure Switch Inspection
9.6	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
9.7	- Replacement if any finding damage/error for Transmitter/Valve/Gauge
10	**Vacuum Pump**
10.1	Vacuum Pump A
10.1.1	-Pressure switch and transmitter inspection and cleaning
10.1.2	-Level switch and transmitter inspection and cleaning
10.1.3	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
10.1.4	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
10.1.5	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
10,2	Vacuum Pump B
10.2.1	-Pressure switch and transmitter inspection and cleaning
10.2.2	-Level switch and transmitter inspection and cleaning

10.2.3	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
10.2.4	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge, leakage check and tigntening them.
10.2.5	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
11	**Bypass System (HP & LP Bypass Valve)**
11,1	- Control module Inspection & Cleaning (marshalling DCS)
11,2	- cleaning block valve
11,3	- check lvdt
11,4	- Replacement if any finding damage/error for Transmitter/Valve/Gauge
11,5	- Check and Cleaning Junction Box. Tightening termination
11,6	- Inspection & check all local indicator such as Pressure Gauge and Temperature gauge at Pump, leakage check and
11,7	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
11,8	- Function test and Re-calibrate by SLK
11,9	-Cleanning, backup, Inspection & Check backup battery PLC for BPS Supply Cabinet (Bypass Turbine)
12	**Digital Electro Hidraulic System (DEH) & EH Oil**
12.1	- Power Supply Inspection
12.2	- inspection and cleaning Panel DEH. Check tightening Termination
12.3	- Inspection and cleaning Solenoid Valve. Check Resistance coil
12.4	- inspection and cleaning LVDT. Check Resistance coil
12.5	- Inspection and cleaning Pressure Switch
12.6	- Redundancy power supply test by SLK
12.7	- HPT Test Valve (6YV - 9YV) by SLK
12.8	- Function test and Recalibrate Governor Valve by SLK
12.9	- Inspection and cleaning Transmitter at EH system
12.10	- Inspection and cleaning Local indicator at EH system
13	**Condensate pump**
13.1	Condensate Pump A
13.1.1	- temperature, Pressure Gauge condition Inspection
13.1.2	- temperature, Pressure Transmitter Inspection
13.1.3	- Vibration sensor condition Inspection and testing
13.1.4	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
13.1.5	- Inspection and cleaning JB RTD. Make sure tightening cable termintation include check hole/leak
13.1.6	- Inspection and cleaning Local indicator (Pressure gauge, Level Gauge, and Temperature Gauge)
13.1.7	- Inspection and cleaning Level Transmitter Condenser
13.2	Condensate Pump B
13.2.1	- temperature, Pressure Gauge condition Inspection
13.2.2	- temperature, Pressure Transmitter Inspection
13.2.3	- Vibration sensor condition Inspection and testing
13.2.4	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
13.2.5	- Inspection and cleaning JB RTD. Make sure tightening cable termintation include check hole/leak
13.2.6	- Inspection and cleaning Local indicator (Pressure gauge, Level Gauge, and Temperature Gauge)
14	**Boiler feed pump**
14.1	BFP A
14.1.1	- Temperature, Pressure Gauge condition Inspection & Cleaning
14.1.2	- temperature, Pressure Transmitter inspection & Cleaning
14.1.3	- Vibration sensor condition Inspection & Cleaning
14.1.4	- Vibration Sensor Module Inspection & Cleaning
14.1.5	- Speed sensor condition Inspection & Cleaning
14.1.6	- Speed sensor Module Inspection & Cleaning
14.1.7	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
14.1.8	- Inspection and cleaning JB . Make sure tightening cable termintation include check hole/leak
14.2	BFP B
14.2.1	- Temperature, Pressure Gauge condition Inspection & Cleaning
14.2.2	- temperature, Pressure Transmitter inspection & Cleaning
14.2.3	- Vibration sensor condition Inspection, testing & Cleaning
14.2.4	- Vibration Module Inspection & Cleaning
14.2.5	- Speed sensor condition Inspection & Cleaning
14.2.6	- Speed sensor Module Inspection & Cleaning
14.2.7	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
14.2.8	- Inspection and cleaning JB . Make sure tightening cable termintation include check hole/leak
14.3	BFP C
14.3.1	- Temperature, Pressure Gauge condition Inspection & Cleaning
14.3.2	- temperature, Pressure Transmitter inspection & Cleaning
14.3.3	- Vibration sensor condition Inspection, testing & Cleaning

14.3.4	- Vibration Module Inspection & Cleaning
14.3.5	- Speed sensor condition Inspection & Cleaning
14.3.6	- Speed sensor Module Inspection & Cleaning
14.3.7	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
14.3.8	- Inspection and cleaning JB . Make sure tightening cable termintation include check hole/leak
15	**Circulating Water System**
15.1	Circulating Water Pump A
15.1.1	-Discharge Pressure Inspection
15.1.2	- Sump level condition Inspection
15.1.3	- PLC local module cleaning & inspection. Check termination
15.1.4	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
15.1.5	- Check and Cleaning Local Indicator (Pressureg Gauge, Temperature Gauge, and Flow meter)
15.1.6	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
15.1.7	- Check if any leakage at Pressure Gauge or Temperature Gauge connection
15.2	Circulating Water Pump B
15.2.1	-Discharge Pressure Inspection
15.2.2	- Sump level condition Inspection
15.2.3	- PLC local module cleaning & inspection. Check termination
15.2.4	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
15.2.5	- Check and Cleaning Local Indicator (Pressureg Gauge, Temperature Gauge, and Flow meter)
15.2.6	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
15.2.7	- Check if any leakage at Pressure Gauge or Temperature Gauge connection
15.3	Cooling Tower System
15.3.1	- Temperature and Level Transmitter Inspectioning and cleaning
15.3.2	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
15.3.3	- Check and Cleaning Local Indicator (Pressureg Gauge, Temperature Gauge, and Flow meter)
15.3.4	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
15.3.5	- Replacement JB at Cooling Tower
15.4	OCW & CCW System
15.4.1	- Temperature and Pressure Transmitter Inspectioning and cleaning
15.4.2	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
15.4.3	- Check and Cleaning Local Indicator (Pressureg Gauge, Temperature Gauge, and Flow meter)
15.4.4	- If find abnormal reading at Local Indicator (PG/TG) inform I&C team to verify and Calibrate
16	**HP & LP Heater drain**
16.1	- Temperature and Pressure Transmitter Inspectioning and cleaning
16.2	- Pressure Transmitter condition Inspectioning and cleaning
16.3	- Level Transmitter condition Inspection and cleaning
16.4	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
16.5	- Inspection and cleaning local indicator (Pressure Gauge, Level Gauge, & Temperature Gauge)
17	**Main Steam, Aux Steam and Extraction System**
17.1	- Temperature Transmitter Inspection and cleaning
17.2	- Pressure Transmitter condition Inspection and cleaning
17.3	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
17.4	- Check Solenoid and cleaning for Extraction Valve and Drain
17.5	- Check Limit Switch and setting if any abnormal indication for Extraction & drain
17.6	- Check and cleaning MOV and Pneumatic valve
17.7	- Check and replace conduit cable at pneumatic valve
17.8	- repaire manual valve PT mainsteam at turbine
18	**Flue Gas System**
18.1	- Inspection & cleaning Pressure Transmitter at Flue Gas. Tightening termination (including purge line tubing)
18.2	- Inspection & cleaning Temperature sensor (thermocouple). Tightening termination
18.3	- Inspection & cleaning O2 analyzer
18.4	- Valve Inspection (battere checking, Air Supply Check, Local Remote Function Check & cleaning)
18.5	- Inspection & cleaning SO2 Analyzer and Room. Cleaning the filter and make sure the hose tubing in good condition
18.6	- Inspection, cleaning, & check flow sensor at Cyclone & Fluidized Fan
19	**Distributed Control System (DCS)**
19.1	- Inspection and Cleaning Marshalling Cabinet
19.2	- Check Termination and tightening termination at Marshalling
19.3	- Check Lamp and Fan of Cabinet. Replace it if found abnormal or broken
19.4	- Inspection and cleaning Engineering Room
19.5	- Cleaning PC and Display Operator
19.6	- Check Power supply, Module. Report to SLK if found abnormal indication
19.7	- Test Redundancy Power supply for each CPU by SLK

19.8	- Back up data DCS by SLK
19.9	- Redundancy test CPU module DCS
19.10	- Redundancy test communication system DSC
20	**Furnace Boiler**
20.1	- Inspection & cleaning Pressure Transmitter at Furnace. Tightening termination (including purge line tubing)
20.2	- Inspection & cleaning Temperature sensor (thermocouple). Tightening termination
20.3	- Inspection & cleaning tapping point of Furnace Pressure. Do Purging in line
20.4	- Dismantle all Bed Temperature Furnace and check insertion length thermocouple
20.5	- Verify All Bed temperature Furnace and check insertion length thermocouple
20.6	- Verify Bed Pressure Furnace and cleaning line transmitter
20.7	- Verify & Calibration Pressure Furnace
21	**Temprature Calibration**
21,1	Furnace FR Bed Temp 1
21,2	Furnace FR Bed Temp 2
21,3	Furnace FR Bed Temp 3
21,4	Furnace FR Bed Temp 4
21,5	Furnace FR Bed Temp 5
21,6	Furnace FR Bed Temp 6
21,7	Furnace RR Bed Temp 1
21,8	Furnace RR Bed Temp 2
21,9	Furnace RR Bed Temp 3
21.10	Furnace RR Bed Temp 4
21.11	Tube Temp Of Panel RH Outlet 8
21.12	#2 Cyclone Temp 5
21.13	Tube Temp Of Panel RH Outlet 4
21.14	Tube Temp Of Panel RH Outlet 16
21.15	Tube Temp Of Panel SH Outlet 16
21.16	#1 BFP Body Upper Temp
21.17	#1 BFP Body Lower Temp
21.18	#2 BFP Body Upper Temp
21.19	#2 BFP Body Lower Temp
21.20	HP Exhausting STM Temp (R)
21.21	HP Exhausting STM Temp (L)
21.22	HP Top Inner STM Temp (R)
21.23	HP Top Inner STM Temp (L)
21.24	HP Cylinder Exhausting Top Temp
21.25	Steam Temp Front Of HP Bypass PR_Desh
22	**Transmitter Calibration**
22,1	Boiler Drum Level Indicator Transmitter 1
22,2	Boiler Drum Level Indicator Transmitter 2
22,3	Boiler Drum Level Indicator Transmitter 3
22,4	Steam PIT 1 front MS valve (L)
22,5	Steam PIT 1 front MS valve (R)
22,6	BFP outlet header feedwater Pressure Indicator Transmitter
22,7	Economizer inlet header front feedwater Pressure Indicator Transmitter
22,8	Economizer inlet header front feedwater Flow Indicator Transmitter 1
22,9	Economizer inlet header front feedwater Flow Indicator Transmitter 2
22.10	Boiler Drum Pressure Indicator Transmiter1
22.11	Boiler Drum Pressure Indicator Transmiter2
22.12	#1 Air Preheater Outlet Hot Primiary Air Diff Flow Indicator Transmitter
22.13	#1 Air Preheater Outlet Hot Primiary Air Diff Flow Indicator Transmitter
22.14	#1 Air Preheater Outlet Hot Secondary Air Diff Flow Indicator Transmitter
22.15	#1 Air Preheater Outlet Hot Secondary Air Flow
22.16	Lube oil Pressure Transmitter
22.17	High-pressure Fluidizing Fan outlet header Pipe Pressure Indicator Transmitter
22.18	#1 Air Preheater Outlet Primiary Air Pressure Indicator Transmitter 1
22.19	#1 Air Preheater Outlet Primiary Air Pressure Indicator Transmitter 2
22.20	#1 Air Preheater Outlet Secondary Air Pressure Indicator Transmitter 1
22.21	#1 Air Preheater Outlet Secondary Air Pressure Indicator Transmitter 2
22.22	Pressure EH Oil
22.23	Pressure HPT
22.24	Furnace Upper Pressure Transmitter 1
22.25	Furnace Upper Pressure Transmitter 3

23	Pressure Switch / DP Switch Calibration
23.1	Furnance Upper Pressure high high high
23.2	Furnance Upper Pressure high high high
23.3	Furnance Upper Pressure high high high
23.4	Furnance Upper pressure low low low
23.5	Furnance Upper pressure low low low
23.6	Furnance Upper pressure low low low
23.7	EH oil pressure low low
23.8	EH oil pressure low low
23.9	EH oil pressure low low
23.10	lube oil pressure low low
23.11	lube oil pressure low low
23.12	lube oil pressure low low
23.13	condenser vacuum low low
23.14	condenser vacuum low low
23.15	condenser vacuum low low

PT SKS LISTRIK KALIMANTAN

Appendix-4 - Schedule of Works

Package Name:

Electrical & Instrument inspection, Repair, and Calibration Unit-1

PT SKS Listrik Kalimantan
Desa Tumbang Kajuei, Kecamatan Rungan, Kabupaten Gunung Mas
Kalimantan Tengah 74561, Indonesia

31 Jan 2025
Revision : 0

Management System ISO 9001:2015 ISO 14001:2015 www.tuv.com ID 91 100 2135350 ID 924 104 22002

0	31 Jan 2025	First Issued	MTC	AWS	SHH	IKM
Rev.	Date	Information	Writer	Checked by	Review by	Approved by

Paraf

Created By

Reviewer

PT SKS LISTRIK KALIMANTAN

APPENDIX-4
Schedule of Work
Supply Manpower for Electrical, Instrument, and calibration work Outage Unit-1 2025

No.	Detail Job List	Working Duration	DAY H-4	DAY H-3	DAY H-2	DAY H-1	DAY 0	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	DAY 15	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20
1	Preparation	-																									
2	Mobilization man power and tools	-																									
3	Safety Induction	1 day																									
4	Unit desynchronize with grid	0																									
5	Started work for Electrical, Instrument and control, and Calibration	18 Days																									
6	Pre-commissioning and commissioning	4 days																									
7	Unit readiness for start up and synchronization**)	1 day																									
8	Unit start up and synchronization	2 days																									
9	Unit readiness for normal operation	1 day																									

Note: Unit #1 OFF for 20 Days, 02 May - 21 May 2025

*) The duration schedule can be changed based on the Contractor manpower strategy, however the works shall be completed no later by day 17th from the Unit desynchronize from the grid. The Contractor shall prepare a detailed schedule and submit it for Owner review.

**) This activity is subject to Liquidated Damage in accordance with General and Technical Requirements and Contract.