

雨水沉淀池抓斗机及配套设施采购询比文件

Dokumen Permintaan Penawaran dan Perbandingan Harga Pengadaan Grab Crane Kolam Pengendapan Air Hujan beserta Fasilitas Pendukungnya.

一、基本情况

I. Informasi Umum

1. 采购人：印尼华瑞电力有限公司

1. Pengguna Jasa: PT PEMBANGKITAN LISTRIK PINTAR ENERGI

2. 联系人：（技术：曾勇）（商务：于再军）

2. Kontak: (Teknis: Zeng Yong) (Komersial: Yu ZaiJun)

3. 报价专用邮箱：731465071@qq.com。最终报价文件只能发送该邮箱，否则不予认可，且邮件标题名称必须为“玻雅项目 XXX 采购标段报价文件（**公司）”。请勿重复发送，采购人只认可最后一次报价。

3. Email Khusus Penawaran: 731465071@qq.com. Dokumen penawaran akhir hanya dapat dikirim ke alamat email tersebut. Apabila dikirim ke alamat lain maka tidak akan diakui. Judul email wajib mencantumkan: ** “Dokumen Penawaran Paket Pengadaan Proyek Boya XXX (Nama Perusahaan)”. Mohon tidak mengirim berulang kali, pihak pembeli hanya mengakui penawaran terakhir.

澄清专用邮箱：731465071@qq.com。采购过程中若有疑问可发送至该邮箱，否则不予回复，且邮件标题名称必须为“玻雅项目 XXX 采购标段投标疑问（**公司）”。

Email Klarifikasi: 731465071@qq.com. Apabila terdapat pertanyaan selama proses pengadaan, dapat dikirim ke alamat email tersebut. Pertanyaan yang dikirim ke alamat lain tidak akan ditanggapi. Judul email wajib mencantumkan: ** “Pertanyaan Tender Paket Pengadaan Proyek Boya XXX (Nama Perusahaan)”.

4. 采购内容：详见报价表。

4. Ruang Lingkup Pengadaan: Silakan lihat lembar penawaran untuk detailnya..

5. 采购方式：公开询比。

5. Metode Pengadaan: Permintaan Penawaran Terbuka.

6. 评审方法：经评审的最低价法，按照满足采购需求且报价最低原则按顺序推荐候选成交供应商。

6. Metode Evaluasi: Metode harga terendah setelah evaluasi, yaitu merekomendasikan calon pemasok pemenang secara berurutan berdasarkan pemenuhan kebutuhan pengadaan dan harga penawaran terendah.

7. 报价截止时间：2026 年 5 月 5 日 17: 00 点前（雅加达时间）。

7. Batas Waktu Penawaran: Sebelum tanggal 5 Mei 2026 pukul 17.00 (Waktu Jakarta).

8. 送货地址：PLTU SUMSEL 8 Desa Tanjung Lalang, Tanjung Agung, Kabupaten Muara Enim, Sumatera Selatan.

8. Alamat Pengiriman: PLTU Sumsel 8, Desa Tanjung Lalang, Kecamatan Tanjung Agung, Kabupaten Muara Enim, Sumatera Selatan.

9. 采购监督投诉受理邮箱：chdptplpe@gmail.com。

9. Alamat Email Pengaduan dan Pengawasan Pengadaan: chdptplpe@gmail.com.

二、报价说明

II. Ketentuan Penawaran

1. 报价人的报价包括人工费、材料费、运杂费、管理费、利润、PPN 税费、保险费以及标的物运抵到采购人指定交货地点有关的一切费用，固定价格保持不变。
1. Harga penawaran peserta harus mencakup biaya tenaga kerja, biaya material, biaya transportasi dan penanganan, biaya manajemen, keuntungan, pajak PPN, biaya asuransi, serta seluruh biaya lainnya sampai barang tiba di lokasi penyerahan yang ditentukan pihak pembeli. Harga bersifat tetap dan tidak berubah.
2. 特别注意：所报货物参数规格务必符合要求，所报产品差异应注明。
2. Perhatian Khusus: Parameter dan spesifikasi barang yang ditawarkan wajib sesuai persyaratan. Apabila terdapat perbedaan pada produk yang ditawarkan, wajib dijelaskan secara tertulis.
3. 供货周期：以技术规范书要求为准。
3. Jangka Waktu Pengiriman: Mengacu pada persyaratan dalam Spesifikasi Teknis.
4. 资格审查资料：提供营业执照、税务登记证、法人身份证明文件，提供近 5 年（2021 年 1 月 1 日至今）机电或土建钢结构安装业绩至少 1 个，含合同影印件（首页、能反映服务范围、签字盖章页等）。
4. Dokumen Kualifikasi: Menyediakan izin usaha, surat pendaftaran pajak, dan dokumen identitas perwakilan sah perusahaan; memiliki sekurang-kurangnya 1 pengalaman kerja pemasangan mekanikal-elektrikal atau konstruksi sipil/struktur baja dalam 5 tahun terakhir (sejak 1 Januari 2021 hingga saat ini), dengan melampirkan salinan kontrak (halaman depan, halaman yang mencerminkan ruang lingkup pekerjaan, halaman tanda tangan dan cap, serta dokumen pendukung lainnya).
5. 付款方式：货到验收合格后通过银行转账付款，报价人应具有银行对公账户。
5. Metode Pembayaran: Pembayaran dilakukan melalui transfer bank setelah barang diterima dan dinyatakan lulus pemeriksaan. Peserta wajib memiliki rekening bank atas nama perusahaan.
6. 质保金：☐不适用。☒适用：合同总额的 3%，期限 12 个月。
6. Uang Jaminan Pemeliharaan: ☐ Tidak berlaku. ☐ Berlaku: Sebesar 3% dari total nilai kontrak, dengan masa berlaku 12 bulan .
7. 采购人不保证价格最低的供应商中标，也不对未中标的供应商作任何解释。对使用不符合质量要求的产品报价不予评审。
7. Pihak pembeli tidak menjamin bahwa pemasok dengan harga terendah akan ditetapkan sebagai pemenang, serta tidak berkewajiban memberikan penjelasan apa pun kepada peserta yang tidak terpilih. Penawaran yang menggunakan produk yang tidak memenuhi persyaratan mutu tidak akan dievaluasi.

三、报价表

III. Formulir Penawaran

序号 No. Seri	物资名称 Nama Barang	规格/型号 Spesifikasi/Model	单位 Satuan	数量 Jumlah	单价 (RP) Harga Satuan (IDR)	合价 (RP) Harga Total (IDR)	到货日期 Tanggal kedatangan	备注 Catatan
1	电动双梁桥式抓斗起重机 Crane Pengangkat Tipe Jembatan Dua Girder dengan Grab Bucket Listrik.	电动双梁桥式抓斗起重机室外型 Electric double girder bridge grab crane (outdoor type) 额定起重量：1.5T Rated lifting capacity: 1.5T 抓斗容积≥0.75 m³ Grab bucket volume ≥ 0.75 m³ 跨度:8.5m Span: 8.5m 轨道长度：25m Track length: 25m	台 Unit	1			详见技术规范书 Rincian mengacu pada Spesifikasi Teknis.	含安装(详见技术规范书)Termasuk pemasangan (rincian mengacu pada Spesifikasi Teknis).

小计 Subtotal								
PPN11%								
总计 Total								
交货期 Pengiriman tepat waktu					供应商名称 Nama Pemasok			
联系地址 Alamat Kontak								
报价人： (签字) 联系方式： Penyedia Penawaran: (Tanda Tangan) Rincian Kontak: 报价单位： (盖章) Organisasi Penawaran: (Stempel) 备注：1. 报价人应签字盖章扫描后上传到报价专用邮箱。 2. 报价人应附上营业执照、税务登记证、法人身份证明文件扫描件。 Catatan: 1. Penyedia penawaran wajib menandatangani dan menempelkan stempel, kemudian memindai dan mengunggah dokumen ke alamat email penawaran yang ditentukan. 2. Penyedia/Penawar wajib melampirkan hasil pemindaian (scan) Izin Usaha, Surat Pendaftaran Pajak, serta dokumen identitas Direktur/Penanggung Jawab Perusahaan.								

印尼华瑞电力有限公司

PT PEMBANGKITAN LISTRIK PINTAR ENERGI

雨水沉淀池抓斗机及配套设施采购
技术规范书

**Purchase of Rainwater Sedimentation Pool Grabber and Supporting
Facilities Technical specification**

批准 :

Disetujui Oleh

审核 :

Ditinjau Oleh

编制

Disiapkan :

Oleh

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一. General Provisions 总则

1.1 This technical specification applies to the purchase project of grab machine and supporting facilities for the rainwater sedimentation tank of PT. Huadian Bukit Asam Power Indonesia. It puts forward technical requirements on project quality, content, construction period and acceptance standards.

1.1 本技术规范书适用于华电（印尼）玻雅发电公司雨水沉淀池抓斗机及配套设施采购项目，它提出了有关工程质量、内容、工期及验收标准等方面的技术要求。

1.2 The requirements mentioned in this technical specification are the minimum requirements. It does not specify all technical details, nor does it fully elaborate on the provisions of relevant standards and specifications. The bidder shall ensure to provide fully functional high-quality products and corresponding services that meet the requirements of this technical specification and industrial standards.

1.2 本技术规范书所提及的要求都是最低限度的要求，并未对一切技术细节作出规定，也未充分地详述有关标准和规范的条文，投标方应保证提供符合本技术规范书文件和工业标准的功能齐全的优质产品及其相应服务。

1.3 During the period from the signing of the contract to the start of the bidder's work, the purchaser has the right to put forward supplementary and modified requirements arising from changes in regulations, specifications and standards, and the bidder shall comply with these requirements.

1.3 从签订合同之后至投标方开始工作之日的这段时期内，采购方有权提出因规程、规范和标准发生变化而产生的一些补充修改要求，投标方应遵守这些要求。

1.4 The bidder shall implement the standards listed in this specification. In case

Purchase of Rainwater Sedimentation Pool Grabber and Supporting Facilities Technical specification of contradictions, the higher standard shall prevail. All contents not mentioned in this technical specification shall meet or be superior to the national standards, power industry standards and relevant international standards listed in this specification.

1.4 投标方须执行本规范所列标准。有矛盾时，按较高标准执行。本技术规范书中未提及的内容均应满足或优于本规范所列的国家标准、电力行业标准和有关国际标准。

1.5 The bidder shall provide the certificate of origin, customs declaration and quality certificate of the relevant products for this project, as well as the authorization document of the manufacturer.

1.5 投标方需提供本项目相关产品的原产地证明、报关单和质量证明，同时提供生产厂商授权文件。

1.6 After the signing of the contract, the bidder may have some supplementary requirements arising from changes in specifications, standards and procedures. The specific items shall be jointly determined by both parties. However, the contract price shall not be increased due to these supplementary requirements.

1.6 在签订合同之后，投标方因规范标准和规程发生变化而产生的一些补充要求，具体项目由甲乙双方共同商定。但合同价格不会因这些补充要求而有任何增加。

1.7 This technical specification is an annex to the contract and has the same effect as the main body of the contract.

1.7 本技术规范为合同的附件，与合同正文具有同等效力。

二. Power Plant Overview 电厂概况

2.1 Plant Site

Purchase of Rainwater Sedimentation Pool Grabber and Supporting Facilities Technical specification

The plant site is located about 3.5km southeast of Darmo Town, south of MUARA ENIM Regency.

2.1 厂址

厂址位于 MUARA ENIM 县以南 Darmo 镇东南约 3.5km 处。

2.2 Seismic Intensity

The basic seismic intensity of the area is 8 degrees according to the Chinese seismic intensity scale.

2.2 地震烈度

所在区域基本地震烈度为中国地震烈度的 8 度。

2.3 Meteorological Conditions

The area belongs to a tropical climate zone with distinct dry and wet seasons. The dry season starts in May or June and lasts for about 6 months until October or November, and the rest is the wet season.

2.3 气象条件

所在区域属干湿季明显的热带气候区。干季始于 5 或 6 月，持续约 6 个月到 10 或 11 月结束，其余为湿季。

三. Project Scope and Work Content 工程范围及工作内容

3.1 Project Scope and Main Work Content

3.1 工程范围及主要工作内容

3.1.1 Purchase and Installation of Overhead Grab Crane

(1) Mechanical Engineering: Supply and installation of electric double-beam

Purchase of Rainwater Sedimentation Pool Grabber and Supporting Facilities Technical specification overhead type, with a span of 20m, lifting capacity of 1.5t, and supporting grab volume $\geq 0.75\text{m}^3$ for mechanical engineering.

(2) Electrical Engineering: Supply and installation of power cables, maintenance power boxes and other electrical professional equipment for the electric double-beam overhead grab. The distance between the power cabinet and the installation position of the overhead grab is 400m.

3.1.1 桥式抓斗起重机采购及安装

(1) 机务专业：电动双梁桥式，跨度 20m，起重量 1.5t，配套抓斗容积 $\geq 0.75\text{m}^3$ 机务专业供货及安装。

(2) 电气专业：电动双梁桥式抓斗动力电缆、检修电源箱等电气专业供货及安装，电源柜距离桥式抓斗安装位置距离为 400m。

3.1.2 Supporting Steel Structure Engineering: Including crane beams, columns, foundation anchor bolts, and ceiling structures, with a total weight of about 15 tons.

(1) The grab room is 25m in length and 8.5m in width; the seepage cofferdam is 3m in length, 8.5m in width, and the cofferdam wall height is 0.5m.

(2) The ceiling of the grab room is closed with color steel tiles, and three sides of the side walls are closed (the sludge outlet side is not closed). The space is from the ceiling to 1m below the grab track beam, and the space from the ground to 1m below the grab track beam is not closed.

(3) Construction of Sludge Solidification Yard: Area of 130 m^2 , including foundation treatment and concrete hardening.

(4) Supply and installation of flushing water pipeline (DN20). Industrial water is used as flushing water. The distance from the water intake point to the grab room is 200m, and the part crossing the road needs to be buried underground.

3.1.2 配套钢结构工程：含行车梁、立柱、基础地脚螺栓、顶棚结构，总重约 15 吨。

(1) 抓斗房长度 25m，宽度 8.5m；渗水围堰长 3m、宽 8.5m、围堰墙高 0.5m

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(2) 抓斗房顶棚采用彩钢瓦封闭，侧墙三面封闭（出泥侧不封闭）空间为顶棚至抓斗轨道梁下 1m 位置，地面至抓斗轨道梁下 1m 位置不封闭。

(3) 淤泥固化场建设：面积 130 m²，含地基处理、混凝土硬化。

(4) 冲洗水管道（DN20）供货及安装，冲洗水采用工业水，取水点至抓斗房距离为 200m，跨路部分需要埋地。

3.1.4 Supply of Spare Parts: Provide 1 set of daily maintenance spare parts for the grab crane.

3.1.4 备品备件供应：提供抓斗起重机日常维护备件 1 套。

3.1.5 Commissioning and Training Services: Equipment installation, commissioning, trial operation and operator training.

3.1.5 调试及培训服务：设备安装、调试、试运行及操作人员培训。

四. Technical Specification Requirements 技术规格要求

4.1 Main Parameters of Electric Double-Beam Overhead Grab Crane

4.1 电动双梁抓斗起重机主要参数

Parameter Name / 参数名称	Technical Requirements / 技术要求	Remarks / 备注
Type / 型式	Electric Double-Beam Overhead Grab Crane / 电动双梁桥式抓斗起重机	Outdoor Type / 室外型
Rated Lifting Capacity / 额定起重量	1.5 Tons / 1.5 吨	Including Grab Weight / 含抓斗自重
Span / 跨度	8.5 Meters / 8.5 米	

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Track Length / 轨道长度	25m	
Lifting Height / 起升高度	≥ 12 Meters / ≥ 12 米	Meet Pool Depth + Safety Distance / 满足池深+安全距离
Working Class / 工作级别	A5 (Intermediate Level) / A5 (中级)	Comply with GB/T 3811 / 符合 GB/T 3811
Lifting Speed / 起升速度	8~12 m/min	Frequency Conversion Speed Regulation / 变频调速
Trolley Travel Speed / 小车运行速度	20~30 m/min	Frequency Conversion Speed Regulation / 变频调速
Bridge Travel Speed / 大车运行速度	30~40 m/min	Frequency Conversion Speed Regulation / 变频调速
Grab Volume / 抓斗容积	$\geq 0.75 \text{ m}^3$	Double-Petal Electric Hydraulic Grab / 双瓣电动液压抓斗
Grab Closing Diameter / 抓斗闭合直径	$\leq 800\text{mm}$	Adapt to Space in Pool / 适应池内空间
Motor Protection Level / 电机防护等级	IP55	Waterproof and Dustproof / 防水防尘
Insulation Level / 绝缘等级	Class F / F 级	High Temperature Resistant / 耐高温

4.2 Technical Parameters of Supporting Steel Structure

4.2 配套钢结构技术参数

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Item / 项目	Specification Requirements / 规格要求
Crane Beam / 行车梁	H-beam or Welded Box Beam, Q355B Material / H 型钢或焊接箱型梁, Q355B 材质
Column / 立柱	Steel Pipe Column or H-beam Column, Q355B Material / 钢管柱或 H 型钢柱, Q355B 材质
Foundation / 基础	Reinforced Concrete Isolated Foundation, C30 Concrete / 钢筋混凝土独立基础, C30 混凝土
Anchor Bolt / 地脚螺栓	Q355B, M36~M42, Performance Grade 8.8 / Q355B, M36~M42, 性能等级 8.8 级
Ceiling / 顶棚	Light Steel Structure, Color Steel Tile Roof, Semi-Closed / 轻钢结构, 彩钢瓦屋面, 半封闭
Anti-Corrosion Requirements / 防腐要求	2 Coats of Epoxy Zinc-Rich Primer, 2 Coats of Chlorinated Rubber Topcoat, Total Dry Film Thickness $\geq 150\mu\text{m}$ / 底漆环氧富锌底漆 2 道, 面漆氯化橡胶面漆 2 道, 总干膜厚度 $\geq 150\mu\text{m}$

五. Requirements for Sludge Solidification Yard Construction 淤泥固化场建设要求

5.1 Site Planning

5.1 场地规划

5.1.1 Area: 130 m²

5.1.1 面积: 130 m²

5.1.2 Location: Near the sedimentation tank, convenient for sludge transfer

5.1.2 位置: 沉淀池附近, 便于淤泥转运

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5.1.3 Functional Zones: Sedimentation Zone, Solidification Zone, Temporary Storage Zone

5.1.3 功能分区：沉淀区、固化区、临时堆放区

5.2 Structural Design

5.2 结构设计

Item / 项目	Technical Requirements / 技术要求
Foundation Treatment / 地基处理	Original Soil Compaction + 300mm Thick Graded Sand-Gravel Cushion / 原土夯实+300mm 厚级配砂石垫层
Hardened Surface Layer / 硬化面层	200mm Thick C25 Concrete, with $\phi 8@200$ Bidirectional Steel Mesh Inside / 200mm 厚 C25 混凝土，内配 $\phi 8@200$ 双向钢筋网
Drainage Slope / 排水坡度	2% Slope Towards Sump / 2%坡向集水坑
Cofferdam / Retaining Wall / 围堰/挡墙	Brick Retaining Walls on Three Sides, Height 500mm / 三面砖砌挡墙，高度 500mm

六. Acceptance Standards 验收标准

6.1 Factory Acceptance

6.1 出厂验收

6.1.1 Conduct main function test and no-load test for the crane before leaving the factory.

6.1.1 起重机出厂前进行主要功能试验及空载试验

6.1.2 Provide complete factory inspection report, certificate of conformity and material certificate.

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6.1.2 提供完整的出厂检验报告、合格证、材质证明

6.1.3 The insulation resistance test of the electrical system shall be $\geq 1M\Omega$.

6.1.3 电气系统绝缘电阻测试 $\geq 1M\Omega$

6.1.4 All mechanisms operate stably without abnormal noise.

6.1.4 各机构运转平稳，无异常声响

6.2 On-Site Acceptance

6.2 现场验收

Test Item / 试验项目	Test Requirements / 试验要求	Standard Basis / 标准依据
No-Load Test / 空载试验	Each mechanism runs back and forth for 3 times in the whole process / 各机构全程往返运行 3 次	GB/T 5905
Static Load Test / 静载试验	125% Rated Load, Lasting 10min / 125%额定载荷，持续 10min; No Permanent Deformation or Crack / 无永久变形、裂纹	GB/T 5905
Dynamic Load Test / 动载试验	110% Rated Load, Full-Course Operation / 110% 额定载荷，全程运行; All Mechanisms Normal, Reliable Braking / 各机构正常、制动可靠	GB/T 5905
Grab Opening and Closing Test / 抓斗开闭试验	Full-Course Opening and Closing for 10 Times / 全程开闭 10 次; Sensitive Action, No Jamming / 动作灵敏、无卡阻	GB/T 5905
Limit Protection Test / 限位保护试验	Lifting and Traveling Limit Test / 起升、运行限位测试; Sensitive and Reliable / 灵敏可靠	GB/T 5905

Purchase of Rainwater Sedimentation Pool Grabber and Supporting Facilities Technical specification

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6.3 Civil Engineering Acceptance shall be carried out in accordance with the relevant provisions of the "Unified Standard for Construction Quality Acceptance of Construction Engineering GB50300-2013".

6.3 土建验收依据《建筑工程施工质量验收统一标准 GB50300-2013》相关条款执行。

七. Contract and Construction Period Requirements 合同及工期要求

7.1 The total contract price is a fixed total price. During the service period, due to changes in policies, laws, regulations, standards, etc., and extension of the service period not caused by the purchaser, the service fee will not be adjusted. All expenses such as travel expenses, office expenses, accommodation expenses, communication expenses, transportation expenses, medical care, safety, labor protection, taxes and risk fees of the service provider's personnel are included in the total quotation.

7.1 本合同总价为固定总价，在履行服务期限内由于政策、法规、规范标准等发生变动、非因采购方造成的服务期延长等，服务费不再调整。服务方人员的差旅费、办公费、食宿费、通讯费、交通费、医疗、安全、劳保、税金及风险费等所有费用均含在总报价内。

7.2 Construction Period: It is planned to be completed within six months from the date of signing the contract in principle, and the latest completion date shall not exceed November 30, 2026.

7.2 工期：计划自合同签订之日起，原则为六个月内完工，完工日期最迟不能超过 2026 年 11 月 30 日。

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7.3 Quality Assurance Period: 12 months (from the date of final acceptance).

7.3 质保期：12 个月（自最终验收合格之日起）。

7.4 Free maintenance and replacement of non-artificially damaged parts during the quality assurance period.

7.4 质保期内免费维修、更换非人为损坏部件。

八. Qualification and Performance Requirements 资质与业绩要求

8.1 The service provider is a legally registered independent enterprise legal person or other organization in Indonesia, with the ability to independently bear civil liability and the right to independently conclude contracts.

8.1 服务方是印度尼西亚境内合法注册的独立企业法人或其他组织，具有独立承担民事责任能力，具有独立订立合同的权利。

8.2 The service provider shall provide at least 1 performance of electromechanical or civil steel structure installation in the past 5 years (from January 1, 2021 to now), including a copy of the contract (first page, page reflecting the service scope, signature and seal page, etc.).

8.2 服务方提供近 5 年(2021 年 1 月 1 日至今)机电或土建钢结构安装业绩至少 1 个，含合同影印件(首页、能反映服务范围、签字盖章页等)。

8.3 Service Personnel Requirements

8.3 服务人员要求

8.3.1 It is required to equip personnel to meet the various work needs within the

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service scope, and on-site personnel and auxiliary workers with skills in installing and commissioning overhead grabs and constructing stockyards.

8.3.1 要求配备人员满足服务范围内的各项工作需求，且现场具备安装、调试桥式抓斗及堆料场建设技能的人员、辅助工。

8.3.2 The number and skill level of personnel provided by the service provider shall meet the on-site work needs. If they do not meet the on-site work progress needs, the service provider shall increase personnel unconditionally.

8.3.2 服务方提供的人员数量及技能水平需满足现场工作需求，不满足现场工作进度需求的，服务方需无条件增加人员。

8.3.3 Service personnel must be males aged 18 to 50 years old. They shall have good physical fitness and no physical defects. No criminal record, strong organization and discipline, can wholeheartedly serve the work needs of the purchaser, consciously abide by the service provider's rules and regulations, and can only take up the job after passing the physical examination.

8.3.3 服务人员年龄必须是 18 周岁以上，50 周岁以下的男性。身体素质良好，无身体缺陷。无违法犯罪记录，组织性、纪律性强，能全心全意服务于采购方的工作需求，自觉遵守服务方规章制度，体检合格方可上岗。

8.3.4 The service personnel provided by the service provider can only take up the job after receiving the three-level safety education and training from the purchaser. The safety management personnel of the service provider are responsible for the daily safety supervision of the service personnel and regularly participate in the safety training of the purchaser during the contract period.

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8.3.4 服务方提供的服务人员入场后经采购方安全教育培训后方可上岗，服务方安全管理人员负责服务人员的日常安全监督，并在合同期内定期参加采购方的安全培训。

8.3.5 Special types of work (such as electricians, hoisting commanders, hoisting drivers, high-altitude operation workers, etc.) must hold certificates to take up the job, and need to provide a physical examination report issued by a county-level or above hospital (or a medical institution recognized by Indonesia) within the past 6 months.

8.3.5 特殊工种（如电工、起重指挥、起重司机、登高作业工种等）需持证上岗，且需要提供近6个月内县级及以上医院（或印尼认可医疗机构）出具的体检报告。

九. Responsibilities and Obligations 责任与义务

9.1 Service Provider's Responsibilities

9.1 服务方责任

9.1.1 Responsible for providing electric double-beam overhead grab crane equipment, consumables, tools, safety protection equipment and equipment and material transfer vehicles.

9.1.1 负责提供电动双梁桥式抓斗起重机设备、耗材、工器具、安全防护用品及设备材料转运车辆。

9.1.2 Responsible for erecting scaffolding for construction, which can be put into use only after being accepted by the purchaser.

9.1.2 负责搭设施工所用脚手架，经采购方验收合格后方可投入使用。

9.1.3 Responsible for handling work permits.

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9.1.3 负责办理工作票。

9.1.4 Receive on-site three-level safety training and pass the examination before starting work.

9.1.4 接受入场三级安全培训，并考试合格方可进行工作。

9.1.5 Responsible for safety management and environmental protection compliance disposal throughout the construction process, and bear the responsibility for safety accidents during the construction period.

9.1.5 负责施工全过程的安全管理及环保合规处置，承担施工期间的安全事故责任。

9.1.6 Strictly abide by the purchaser's on-site management system and obey on-site coordination and arrangement.

9.1.6 严格遵守采购方现场管理制度，服从现场协调安排。

9.2 Purchaser's Responsibilities

9.2 采购方责任

9.2.1 Responsible for the three-level safety education and training of the service provider's on-site personnel and passing the examination.

9.2.1 负责服务方入场三级安全培训，并经考试合格。

9.2.2 Designate on-site construction site and provide mechanical, electrical and thermal control professional interfaces.

9.2.2 指定现场施工场地、提供机务、电气、热控专业接口。

9.2.3 Assist the service provider in handling work permits.

9.2.3 辅助服务方办理工作票。

十. Management and Assessment 管理及考核

10.1 The bidder shall obey the tenderer's on-site management (safe and civilized construction, construction process quality, construction period control, personnel supply). The bidder shall bear all compensation liabilities arising from personal and equipment damage caused by the bidder's liability.

10.1 投标方应服从招标方现场（安全文明施工、施工工艺质量、工期控制、人员供应）管理，因投标方责任造成的人身及设备损坏由投标方承担由此引发的一切赔偿责任。

10.2 If the bidder does not obey the tenderer's management and work arrangement during the work, which affects the maintenance period progress, the bidder shall be assessed Rp1,000,000-Rp10,000,000 each time according to the severity of the circumstances.

10.2 投标方在工作中不服从招标方的管理和工作安排，由此而影响检修工期进度，视情节轻重每次考核 Rp1,000,000-Rp10,000,000。

10.3 After the completion of installation and commissioning, if any abnormal situation occurs during the warranty period, each item shall be assessed Rp3,000,000.

10.3 安装、调试结束后，保质期内发生异常情况，每处考核 Rp3,000,000。

10.4 If quality problems occur during the work and are handled and covered up by the bidder itself, the bidder shall be assessed Rp2,000,000 each time.

10.4 工作中发生质量问题，自行处理并掩盖的，每次考核 Rp2,000,000。

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10.5 If the bidder damages equipment, components, instruments, meters, cables, wires, etc. during the work, each item shall be assessed Rp4,000,000.

10.5 投标方在工作中如损坏设备、元件、仪表、仪器、电缆、电线等,每项考核 Rp4,000,000。