GRIDCo
Backbone to Power Delivery

Ghana Grid Company LTD.
P. O. Box CS 7979, Tema, Ghana
Digital Address: GK-0208-2247

Our Ref: 110/000/5377

Your Ref:

October 28, 2026

TO: All Tenderers

Dear Sir,

SUPPLY OF DRONES, CAMERA/SENSORS AND APPLICATION SOFTWARE FOR TRANSMISSION LINE INSPECTION

ADDENDUM No. 1

In accordance with Section 1: Instructions to Tenderers, Clause 8.1 of the Tendering Document, the following amendments are being made to the Tendering Document for the Supply of Drones, Camera/Sensors and Application Software for Transmission Line Inspection to constitute Addendum 1:

1. **INVITATION TO TENDER**

   a. The phrase in **Item 8**: **"**Tenders shall be completed and submitted electronically through the e-GP Portal (https://www.ghaneps.gov.gh) on/or before 11.00GMT on October 29, 2026." has been amended to read ***"Tenders shall be completed and submitted electronically through the e-GP Portal (https://www.ghaneps.gov.gh) on/or before 11.00GMT on November 10, 2026".***

   b. The phrase in **Item 9**: "Tenders will be opened on October 29, 2026, at 13:30am on GHANEPS, has been amended to read "***Tenders will be opened on November 10, 2026, at 11:30am on GHANEPS".***

2. **SECTION II- INSTRUCTION TO TENDERERS**

   a. ITT 20.1: The phrase "DEADLINE FOR TENDER SUBMISSION

   Date: October 29, 2026

   Time: 11:00 HRS GMT

   Place: Online-GHANEPS"

   has been amended to read

   "***DEADLINE FOR TENDER SUBMISSION***

   Date: November 10, 2026

   Time: 11:00 HRS GMT

   Place: Online-GHANEPS"

ITT 23.1: The phrase "TENDER OPENING

Date: October 29, 2026

Time: 11:30 HRS GMT

Place: Online-GHANEPS"

has been amended to

"TENDER OPENING

Date: November 10, 2026

Time: 11:30 HRS GMT

Place: Online-GHANEPS"

3. SECTION VI- SPECIFICATION FOR TRANSMISSION TOWER AND HARDWARE INSPECTION DRONES

a. The Technical Specification of the Transmission Tower and Hardware Inspection Drones has been amended and attached and Appendix 1.

b. The required Spare Parts Schedule has been amended and attached as Appendix 2.

All other parameters not affected by this Addendum remain valid.

Kindly acknowledge receipt of this Addendum on the attached form by signing and returning it to GRIDCo.

Yours faithfully,

Ing. Frank Otchere
CHIEF EXECUTIVE

Encl.

GRIDCo

SUPPLY OF DRONES, CAMERA/SENSORS AND APPLICATION SOFTWARE FOR TRANSMISSION LINE INSPECTION

TENDER No.: GR/GGCL/GD/2026/0109

ADDENDUM 1

ACKNOWLEDGEMENT FORM

TO: THE DIRECTOR
PROCUREMENT DEPARTMENT
GHANA GRID COMPANY LTD.
P.O.BOX. CS 7979
TEMA-GHANA

EMAIL: gridcoprocurement@gridcogh.com

We hereby acknowledge receipt of Addendum 1 in connection with the above Tender.

1. Name of Tenderer ----------

2. Company Registered Address ----------

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3. Signature ----------

4. Name (Print) ----------

5. Title ----------

6. Date ----------

Technical Specification Sheet (8 No.)

Aircraft — General

Specification	Value
Dimensions (unfolded, incl. landing gear & gimbal)	980 × 760 × 480 mm (L×W×H)
Dimensions (folded)	490 × 490 × 480 mm (L×W×H)
Diagonal Wheelbase	1,070 mm
Takeoff Weight (incl. propellers, excl. batteries)	Approx. 5,020 g
Takeoff Weight (incl. two TB100 batteries)	Approx. 9,740 g
Max Takeoff Weight	15.8 kg
Max Payload	6 kg (at sea level; decreases with altitude)
Ingress Protection Rating	IP55 (may decrease with wear)
Operating Temperature	-20°C to 50°C (-4°F to 122°F), without direct solar radiation
Max Takeoff Altitude	7,000 m
Carrying Case Dimensions	779 × 363 × 528 mm

Flight Performance

Specification	Value
Max Ascent Speed	10 m/s
Max Descent Speed	8 m/s
Max Horizontal Speed	25 m/s (sea level, windless)
Max Angular Velocity (Yaw)	100°/s
Max Pitch Angle	35°
Max Wind Resistance (takeoff & landing)	12 m/s
Max Flight Time	59 min (approx. 53 min with AP100 Parachute fitted)
Max Hover Time	53 min
Max Flight Distance	49 km
Motor Model	7510
Propeller Model	2510F (25-inch)

Positioning Accuracy

Specification	Value
GNSS	GPS + Galileo + BeiDou + GLONASS (GLONASS requires RTK module enabled)
Hovering — Vertical	±0.1 m (Vision System) / ±0.5 m (GNSS) / ±0.1 m (RTK)
Hovering — Horizontal	±0.3 m (Vision System) / ±0.5 m (GNSS) / ±0.1 m (RTK)
RTK Positioning Accuracy (fixed)	1 cm + 1 ppm (horizontal); 1.5 cm + 1 ppm (vertical)
RTK Heading Accuracy	Better than 2°
ADS-B In Receiver	Standard, dual antennas; reception range up to 20 km

Radio / Video Transmission (O4 Enterprise Enhanced)

Specification	Value
Video Transmission System	DJI O4 Enterprise Enhanced
Live View Quality	3-channel 1080p/30fps on the remote controller
Operating Frequency	902–928 MHz; 1.430–1.444 GHz; 2.4000–2.4835 GHz; 5.150–5.250 GHz; 5.725–5.850 GHz (availability varies by country/region)
Max Transmission Distance (unobstructed)	40 km (FCC); 20 km (CE/SRRC/MIC)
Max Transmission Distance (strong interference)	1.5–6 km
Max Transmission Distance (medium interference)	6–15 km
Max Transmission Distance (weak interference)	15–40 km
Max Download Speed	80 Mbps downlink (standard mode); single-channel bitrate up to 12 Mbps
Antennas	8 × WLAN, 2 × sub-2G, 4 × cellular; 2T4R operating mode
Other Features	Dual-control mode; DJI Cellular Dongle 2 support (2 channels)

Gimbal & Payload (Zenmuse H30T)

Specification	Value
Payload Supplied	DJI Zenmuse H30T (zoom + wide + thermal + laser rangefinder + NIR auxiliary light)
Payload Weight	920 ± 5 g
Payload Dimensions	170 × 145 × 165 mm (L×W×H)
Payload Ingress Protection	IP54
Angular Vibration Range	Hover: ±0.002°; Flight: ±0.004°
Controllable Range	Pan: ±320°; Tilt: -120° to +60°
Mechanical Range	Pan: ±328°; Tilt: -132.5° to +73°; Roll: ±60°
Aircraft Gimbal Connector Capacity	Single connector: 1,400 g; Dual connector: 950 g per mount; Third connector: 3 kg (quick-release) / 6 kg (screw-lock)

Zoom Camera (Zenmuse H30T)

Specification	Value
Sensor	1/1.8" CMOS, Effective Pixels: 40 MP
Lens Focal Length	7.1–172 mm (equivalent: 33.4–809.3 mm)
Aperture	f/1.6–f/5.2
Focus Modes	MF / AFC / AFS
ISO Range	100–25600 (single shot); 100–819200 (night scene)
Max Video Resolution	3840 × 2160 @ 30fps
Max Photo Size	7328 × 5496

Wide Camera (Zenmuse H30T)

Specification	Value
Sensor	1/1.3" CMOS, Effective Pixels: 48 MP
Lens	Focal Length: 6.72 mm (equivalent: 24 mm); Aperture: f/1.7
Focus Modes	MF / AFC / AFS
ISO Range	100–25600 (single shot); 100–409600 (night scene)
Max Video Resolution	3840 × 2160 @ 30fps
Photo Size	8064 × 6048

Thermal Camera (Zenmuse H30T)

Specification	Value
Thermal Imager	Uncooled VOx Microbolometer
Lens	DFOV: 45.2°; Focal Length: 24 mm (equivalent: 52 mm); Aperture: f/0.95
Spectral Band	8–14 μm
NETD	≤50 mK@F1.0
Infrared Temperature Measurement Accuracy	±2°C or ±2% (whichever is greater)
Video / Photo Resolution	1280 × 1024
Pixel Pitch	12 μm
Temperature Measurement Method	Spot Meter, Area Measurement
Temperature Measurement Range	High Gain: -20°C to 150°C (-20°C to 450°C with IR density filter); Low Gain: 0°C to 600°C (0°C to 1,600°C with IR density filter)
Palette Options	White Hot / Black Hot / Tint / Iron Red / Hot Iron / Arctic / Medical / Fulgurite / Rainbow 1 / Rainbow 2

FPV Camera

Specification	Value
Resolution	1920 × 1080
DFOV	150° (H: 139.6°; V: 95.3°)
Frame Rate	30 fps
Night Vision	Starlight-grade

Laser Rangefinder & NIR Light (Zenmuse H30T)

Specification	Value
Wavelength	905 nm
Max Pulse Power (within 5 ns)	52 W
Measuring Range	3–3,000 m
Measurement Accuracy	≤500 m: ±(0.2 m + D×0.15%); >500 m: ±1.0 m
Safety Regulation Level	Class 1 (AEL 260 nJ)
NIR Auxiliary Light	850 nm; FOV 4.6° ± 0.6°; approx. 8 m diameter illumination at 100 m; Class 1

Sensing System (Vision, LiDAR & mmWave Radar)

Specification	Value
Sensing Type	Omnidirectional binocular vision with fisheye sensors; horizontal rotating LiDAR; upper LiDAR (3D ToF); downward 3D infrared range sensor; six-direction mmWave radar
Vision — Forward / Backward	Measurement: 0.4–21 m; Detection: 0.4–200 m; FOV 90° (H) × 90° (V)
Vision — Lateral	Measurement: 0.6–21 m; Detection: 0.5–200 m; FOV 90° (H) × 90° (V)
Vision — Downward	Measurement: 0.5–19 m; FOV 160° (front/rear), 105° (left/right)
Rotating LiDAR	0.5–100 m (35 m for power lines); FOV 360° (H) × 58° (V); 520,000 pts/s; 905 nm, Class 1 eye-safe
Upper LiDAR (3D ToF)	0.5–25 m (night, reflectivity >10%); FOV 60° × 60°
Downward 3D Infrared Sensor	0.3–8 m; FOV 60° × 60°
mmWave Radar — Power Line Detection	36 m (12 mm conductor); 50 m (21.6 mm conductor); FOV ±45° (availability subject to local regulations)
Operating Environment	Performance depends on surface texture, lighting and reflectivity

TB100 Intelligent Flight Battery

Specification	Value
Capacity	20,254 mAh
Voltage	48.23 V (standard); 54.6 V (max charging)
Battery Type	Li-ion 13S
Energy	977 Wh
Net Weight	Approx. 4,720 ± 20 g
Discharge / Charge Rate	4C discharge; 2C max charge
Operating (Discharging) Temperature	-20°C to 75°C
Charging Temperature	5°C to 45°C (low-temperature self-heating supported)
Battery Heating	Supported (single-battery, onboard and in-station heating)
Cycle Count	400

BS100 Intelligent Battery Station

Specification	Value
Dimensions	605 × 410 × 250 mm
Net Weight	11.8 kg
Compatible Batteries	TB100 / TB100C Intelligent Flight Battery; WB37 Intelligent Battery
Charging Channels	3 × TB100; 2 × WB37
Input	100–240 VAC, 50/60 Hz, 10 A
TB100 Port Output Power	Approx. 1,185 W (100–110 V); 1,474 W (110–180 V); 2,184 W (180–240 V)
WB37 Port Output Power	Approx. 52 W
USB-C Port Max Output	5–20 V, up to 3.25 A
Charging Modes	Ready-to-Fly (90%); Standard (100%); Fast; Silent

Specification	Value
Charging Time (TB100, 0%→100%)	220 V: approx. 45 min (fast) / 110 min (silent); 110 V: approx. 70 min (fast) / 110 min (silent)
Operating Temperature	-20°C to 40°C

Remote Controller (DJI RC Plus 2 Enterprise Enhanced)

Specification	Value
Screen	7.02" touchscreen, 1920×1200, 60fps, 1,400 nits, 10-point multi-touch
Video Transmission	DJI O4 Enterprise Enhanced; 2.4/5.8 GHz 2T4R + sub-2G 2T2R antennas
Internal Battery	6,500 mAh, 46.8 Wh
External Battery (WB37, optional)	37 Wh
Operating Time	Approx. 3.8 hr (internal); approx. 3.2 hr (WB37 external)
Charge Type / Time	USB-C PD, up to 65 W (20 V / 3.25 A); approx. 2 hours
Storage	8 GB RAM + 128 GB UFS; microSD expansion
Ports	HDMI 1.4; SD 3.0; USB-C (OTG, 65 W PD); USB-A 2.0
Wi-Fi / Bluetooth	Wi-Fi 6 (802.11 a/b/g/n/ac/ax, 2×2 MIMO); Bluetooth 5.2
Operating System	Android 11
Weight	Approx. 1.15 kg (without external battery)
GNSS	GPS + Galileo + BeiDou
Operating Temperature	-20°C to 50°C (charging: 5°C to 40°C)

Interfaces, Ports & Safety

Specification	Value
Payload Ports	4 × E-Port V2 (120 W per port)
Other Ports	1 × USB-C debug port (USB 2.0); 2 × DJI Cellular Dongle 2 interfaces
Beacon	Built-in
Internal Storage	N/A (media stored on payload microSD card)
Optional Safety Accessories	AP100 Parachute; Zenmuse S1 Spotlight; Zenmuse V1 Speaker

Compatible Payloads & Accessories

Specification	Value
Gimbal Cameras	Zenmuse H30T (specified) / H30 / L3 / L2 / P1
Edge Computing	DJI Manifold 3
RTK Base Stations	D-RTK 3; D-RTK 2 High-Precision GNSS Mobile Station
Developer Ecosystem	DJI X-Port; E-Port V2 Development Kit; SKYPORT V3 Adapter Set

UAV Fleet Spare Parts Plan (Various)

Recommended Spare Parts Inventory by Drone Category — GRIDCo UAV Inspection Program

1. Matrice 400 Series (DJI M400) Spare Parts

Spare Part	Recommended Quantity / Notes
TB100 Intelligent Flight Battery	34 units
BS100 Intelligent Battery Station	2 additional units
Propellers — Standard (2510F), pair sets	32
Remote Controller Shoulder Strap	5 units
MicroSD Card (U3/V30 or above) 256GB minimum	16 units
DJI Cellular Dongle 2 (if 4G operations used)	15 units

2. Matrice 4 Series (DJI Matrice 4E / 4T) Spare Parts

Spare Part	Recommended Quantity / Notes
Matrice 4E/4T Intelligent Flight Battery	32 units
Charging Hub	2 additional units
Propellers — Standard (1157F), pair sets	16 sets
Shoulder Strap	4 units
High-Speed MicroSD Card (U3/V30 minimum) 256 GB	12 units
DJI Cellular Dongle 2 (if 4G operations used)	4 units