TENDER DOCUMENT

FOR

BID # 2026-2613

BEL Drone Training Program

Prepared by:
Belize Electricity Limited
Distribution Planning & Engineering
2 ½ Miles Philip Goldson Highway
Belize City, Belize
April 2026

Bidders are required to submit their Proposals **by email only** to bidsubmittal@bel.com.bz by **Friday, May 8, 2026, no later than 3:00 p.m. local time** with subject line:

BID 2026-2613 BEL Drone Training Program - [Vendor Name]

IMPORTANT DATES:

- Bid Submission Due Date: **Friday, May 8, 2026, by 3:00 p.m. local time.**
- Due Date for Inquiries: **Friday, April 24, 2026, at 3:00 p.m. local time.**
- Responses to Questions: **Monday, May 4, 2026, at 3:00 p.m. local time.**
- Opening Bid Meeting: **Tuesday, May 12, 2026, at 3:00 p.m. local time.**

1. Introduction

Belize Electricity Limited (BEL) is seeking proposals from qualified and experienced Unmanned Aircraft Systems (UAS) training providers to design and deliver a **Customized Drone Program**. The goal is to equip BEL's Technical Operations team with the skills necessary for aerial inspections of power lines, substations, and vegetation management, ensuring compliance with the Civil Aviation Authority of Belize (BCARs).

1.1 This RFP covers six key areas:

The program will provide BEL with a complete drone inspection capability to support operations such as:

- Transmission and distribution line inspection
- Substation inspection
- Vegetation monitoring (LiDAR)
- Storm damage assessment
- Asset management
- Thermal inspection of electrical infrastructure

The successful vendor will provide:

- A customized training program combining theory, practical exercises, certification, and safety standards
- Drone equipment suitable for electric utility inspections
- Base station and operational software
- A Drone Operation Manual to ensure BEL complies with Belize Civil Aviation regulations, laws, and international drone operational standards.
- A financial document with the breakdown of line items and timeline.

2. Project Objectives

The primary objectives of this project are to:

1. Equip BEL with drones capable of performing **safe and efficient electrical infrastructure inspections**.
2. Train BEL personnel in **professional drone operations specific to the electric industry**.
3. Ensure compliance with **aviation laws, environmental standards, and occupational safety requirements**.
4. Establish best practices for **drone maintenance, data management, and operational safety**.
5. Certify BEL personnel as **competent drone operators**.

3. Scope of Work

Proposals should provide a comprehensive **training curriculum** divided into five primary phases, along with drone equipment following best practices and standards and Drone Operations Manual in compliance with aviation laws and industry's best practices:

3.1 Phase I: Regulatory & Foundational Knowledge

- Introduction to Unmanned Aircraft Systems (UAS)
- Drone components and functionality
- Types of drones used in utility inspection
- Preparation for Belize Civil Aviation Authority (BCAA) licensing.
- Flight restriction and Airspace classifications and safety protocols.
- Drone registration and licensing
- International aviation best practice

3.2 Phase II: Specialized Utility Flight Operations

- Occupational safety procedures and Sustainable Operations
- Methods, techniques and protocols for conducting inspection and monitoring for transmission, distribution, substation, thermal scan, and vegetation management.
- Precision maneuvering near energized high-voltage (HV), low-voltage (LV), and transmission lines.
- Payload Training: Operating thermal/LiDAR/infrared (IR) sensors and high-zoom optical cameras.
- Base Station: setup, maintenance, configuration, and drone connection for drone flights and data collection.
- Emergency procedures and "lost link" protocols in EMI (Electromagnetic Interference) environments.
- Environmental and Wildlife protection protocols and Meteorology and its impact on UAS flights in tropical climates.
- Risk assessment and hazard identification

3.3 Phase III: Safety, Health and Environmental Best Practices and Standards

Safety Standards

- Occupational Safety and Health practices
- High-voltage operational safety
- Emergency procedures

Aviation Best Practices

- Flight planning protocols

- Airspace management
- Drone incident reporting

Environmental Standards

- Environmental impact mitigation
- Wildlife protection during operations

Drone Maintenance

- Routine maintenance procedures
- Battery safety and management
- Inspection schedules

3.4 Phase IV: Data Analysis, Management & Reporting

- Software for post-processing of inspection imagery.
- Identifying hardware defects (hotspots, cracked insulators, encroaching vegetation).
- Introduction to 2D Mapping and 3D Modeling for asset management.
- Data storage, Access and Archiving

3.5 Phase V: Practical Drone Simulation and Field Application

The practical component should include hands-on training in:

- Drone assembly and setup
- Flight planning and mission execution
- Inspection of distribution and transmission lines
- Substation inspection techniques
- Optical/Thermal/LiDAR camera operation
- Emergency flight procedures
- Data collection, data management and reporting

Practical exercises must be conducted in simulated and real inspection environments.

3.6 Drone Equipment Supply

The vendor shall provide:

- Operational drones suitable for electric infrastructure inspection
- Training drones for instructional use
- Base station equipment for survey and mapping
- Inspection cameras and sensors (including optical/thermal/LiDAR)
- Drone controller, software and data processing tools

All equipment must be industrial-grade and suitable for utility inspection work as listed below. The Drone Equipment and software will be logged as inventory of Belize Electricity Limited Drone Operations; therefore, cost of equipment supply must be listed.

Drone Equipment Supply List for Belize Electricity Limited Drone Fleet:

Training Drone Equipment	Quantity
DJI Mini 5 Pro Fly More Combo Plus (DJI RC 2)	2
DJI Mini 5 Pro Intelligent Flight Battery Plus	6
DJI Mini 5 Pro Two-Way Charging Hub	2
Operations Drone Equipment	**Quantity**
DJI Matrice 4 Thermal	1
DJI Matrice 4 Series Battery	4
DJI Matrice 4 Series Battery Charging Hub (200W)	1
DJI RC Plus 2 Sensor (Camera Operator) - Controller	1
DJI RC Plus 2 Strap and Waist Support Kit	2
DJI Matrice 4TD (DJI RC Plus 2 Enterprise)	1
DJI Matrice 4TD (DJI RC Plus 2 Enterprise)	5
Base Station Equipment	**Quantity**
DJI D-RTK 3 Multifunctional Station	1
DJI D-RTK 3 Survey Pole and Tripod Kit	1

Recommendation of the sensor must be listed and compatible with DJI Drone and Base Station should be functional without need for subscription.

3.7 BEL Drone Operation Manual

Vendors must submit a comprehensive Drone Operations Manual as part of their proposal. The manual should describe the procedures, policies, and standards that will govern drone operations conducted by BEL personnel.

The purpose of the Drone Operations Manual is to ensure that drone operations are conducted **safely, efficiently, and in compliance with aviation laws and industry best practices**, particularly when inspecting **electrical infrastructure such as transmission lines, distribution networks, and substations**.

The vendor's proposed manual should include, at a minimum, the following sections:

- Introduction and Program Overview
- Organizational Roles and Responsibilities
- Aviation Regulations and Compliance
- Safety Procedures
- Environmental Protection Procedures

- Drone Flight Operations
- Electric Utility Inspection Procedures
- Data Management and Reporting
- Drone Maintenance Procedures
- Training and Certification Requirements

4. Vendor Qualifications and Experience

Respondents should provide detailed information demonstrating their qualifications and experience, including completing attached document – 'Technical Capability Questionnaire' and the following:

- Experience: Minimum of 5 years in industrial UAS training, specifically within the energy or utility sector.
- Instructor Certification: Trainers must hold valid commercial pilot licenses (UAS) and have documented experience in utility inspections.
- Equipment: The provider should be able to train on BEL's specific fleet (DJI Matrice and DJI Mini series) as listing in Drone Equipment Supply List.

5. Proposal Requirements

Interested vendors are required to submit **a comprehensive technical proposal** and **a financial document**.

The technical proposal should include the following sections:

- Drone equipment and accessories with specification of operational drones, training drones, base station equipment and sensors.
- Custom Training Manual: A BEL-specific SOP (Standard Operating Procedure) for drone operations with detailed Training curriculum and implementation schedule
- Operational safety procedures and Drone maintenance guidelines
- Certification documentation: Certificates of completion for all trainees.
- Train-the-Trainer: recommended documentation and guidelines on Go-Forward Approach to ensure 2 or 3 BEL Personnel continues to gain further skillsets to become Trainers for BEL Drone Training Program.
- Field Assessment Report: A competency evaluation for each pilot.
- Software Toolkit: Recommended workflows for data processing using ArcGIS Drone 2 Maps and Pix4D.
- Drone Operations Manual for BEL in compliance with Belize Civil Aviation regulations, laws and international drone operational standards.
- Post-training operational support: including but not limited to data storage, data (image) processing and data access, SaaS.
- Timeline – For the initiation of the Drone Training Program Curriculum, Process of exam and certification, Deliverable for Drone Operations Manual.

- References from previous projects

The financial document should include the following sections:

- Cost breakdown – Line items with description details, which includes but not limited to services, training materials, drone equipment, software, post-processing software as a service (SaaS), exam and certification.
- Timeline – For the initiation of the Drone Training Program Curriculum, Process of exam and certification, Deliverable for Drone Operations Manual.
- All pricing must remain valid for a minimum of sixty (60) days from the tender closing date.

6. Evaluation Criteria

Proposals will be graded based on the following weightage:

Technical Criteria:

- Experience in Drone Programs: This evaluates the vendor's overall expertise in drone operations and training.
- Experience in the Electric Utility Sector: This is one of the most important criteria because BEL needs training specific to power infrastructure inspections.
- Quality of Training Program: Evaluates how comprehensive and tailored the training curriculum is.
- Equipment Specifications: Evaluates the technical quality of the drones and equipment proposed.

Technical evaluations require a minimum "quality threshold" of 70%. The Committee will review the technical criteria, and if vendor does not meet the minimum quality threshold, then their financial proposal is not compiled nor presented to the committee.

Financial Criteria:

- Clarity and consistency in pricing documentation.

BEL reserves the right to negotiate pricing or clarify submissions with shortlisted bidders before the final award.

All eligible bids submitted for the BEL Drone Training Program will be evaluated based on the following weighted criteria. Each submission will be scored out of 100%.

Evaluation Category	Weight	Description
Technical Criteria	**75%**	
Experience in Drone Programs	30	Years operating drones, pilots trained, instructor certifications, references
Experience in Electric Utility Sector	30	Transmission line and substation inspections, vegetation monitoring, utility clients

Quality of Training Program	25	Curriculum quality, theory vs practical balance, certification, materials
Equipment Specifications	15	Drone performance, sensors/thermal cameras, inspection capability, durability
Financial Criteria	**25%**	
Cost Proposal	25	Training cost, equipment cost, transparency, value for money
Total	**100%**	

7. Submission Instructions

- The Technical Proposal, Financial Document and Tender Form must be submitted as separate files electronically in PDF format and email to bidsubmittal@bel.com.bz.
- The subject line of the email should be: "BID 2026-2613 BEL Drone Training Program" - [Vendor Name]".
- The closing date and time for submissions is May 8, 2026, at 3:00 p.m. local time. Late submissions will not be considered.
- All vendors that submit a bid will receive a link to attend the opening bid meeting on May 12, 2026.
- Vendors are responsible for ensuring that their proposals are received by the specified deadline.

8. Questions and Clarifications

- All questions regarding this RFP should be submitted via email to BidBoxRequest@bel.com.bz on or before April 24, 2026, at 3:00 p.m. local time.
- BEL will compile all questions and provide written responses to all participating vendors after one week of submission.
- The winning consultant will be informed of selection decisions. DSIS Unit will then enter contract negotiations with the winning consultant to finalize scope of work, deliverables, timeline and pricing.

9. Important Dates

- **Deadline for Questions**: April 24, 2026, at 3:00 p.m. local time
- **Responses to Questions**: May 4, 2026, at 3:00 p.m. local time
- **Technical Proposal and Financial Submission Deadline**: May 8, 2026, at 3:00 p.m. local time
- **Opening Bid Meeting:** Tuesday, May 12, 2026, at 3:00 p.m. local time.
- **Vendor Selection Notification (Tentative)**: May 22, 2026
- **Project Timeframe (Tentative)**: June 1, 2026 – June 29, 2026

Note: BEL reserves the right to adjust the above timeline if necessary. All changes will be communicated to bidders in a timely manner.

10. BEL's Rights

BEL reserves the right to:

- Accept or reject any or all proposals.
- Negotiate with any of the respondents.
- Waive any irregularities in the proposals.
- Request additional information from any respondent.
- Cancel this RFP at any time without prior notice.
- Award the project to the vendor that BEL deems to be in its best interest.

We look forward to receiving your proposal and working towards the modernization of our GIS infrastructure.