



Request for Information (RFI) – GP601399

TO ESTABLISH LONG TERM AGREEMENTS (LTAs)

FOR GAS TURBINES

FOR UNDP UKRAINE Projects

BACKGROUND

The United Nations Development Programme (UNDP) is a subsidiary organ of the United Nations, an intergovernmental organization established by its Member States with its headquarters in New York, USA.

UNDP is funded entirely by voluntary contributions with an annual budget in excess of US\$5 billion. The organization has country offices in 177 countries, where it works with programme governments and other partners to meet development challenges and develop local capacity. Additionally, the UNDP works internationally to help countries achieve the Sustainable Development Goals (SDGs) (<https://www.undp.org/sustainable-development-goals>).

In delivering its mandate, UNDP receives contributions from various partners including Governments, Multilateral Organizations, International Financial Institutions, Public and Private Sector Organizations and Foundations, as well as Individuals.

The intention of the Request for Information (RFI) is to obtain required information from the manufacturer and/or from their dealers/suppliers for potential establishment of multiple framework contacts for UNDP Ukraine projects.

SCOPE OF THE LONGTERM AGREEMENTS.

Among the other UN Agencies, UNDP is one of largest buyer of goods and services (approximately USD 2.5 billion/year) that includes purchasing of various goods and services, including energy supply. As a result of the RFI exercise UNDP is intending to issue an open tendering and concluding multiple (based on the range of the products) Long Term Agreements (LTAs) with the successful Bidders globally for the duration of three years with possible extension for another one year.

United Nations Development Programme

While UNDP intends to establish multiple LTAs, there will not be a fixed committed contract amount and UNDP reserves the right to utilize other sources at its discretion to assure value for money.

It is expected that the scope of the LTAs will cover variety of gas turbines available in the global market, and installation services with ancillary equipment. The need for the gas turbines will depend based on specific project needs, and local supporting infrastructure in Ukraine.

Purpose of the RFI

This RFI is intended to gather information (supply of gas turbines and associated services/works with ancillary equipment) to assist in the upcoming procurement process. It is not a solicitation for offers and, accordingly, no contract will be awarded based on this announcement. No reimbursement will be made for any cost associated with providing information in response to this announcement or any follow-up information requests.

The indicative lists of the goods and services sought (this list is not exhaustive) are as follow:

- Category 1: Power Generation Unit with Gas Turbine Drive
- Category 2: Natural Gas-Fired Engine Generation Unit
- Option: Booster Compressor Unit (BCU)
- Auxiliary Product: Transformer, Gearbox, Control Panel etc.
- Transportation and Delivery
- On-site supervision
- Operator's staff training

The general requirements of the Goods and Services are as follows:

Category 1: Industrial Generation Unit with Gas Turbine Drive (GTU)

1.1 Design

The gas turbine will be designed, manufactured and tested with API 616 or ISO 3977-8 or equivalent. The gas turbine design should also minimise space and weight for easy transportation and installation at the facility. A prototype gas turbine model shall not be proposed for this RFI.

1.2 Power Requirements and Margins

The power output ranges required from the gas turbine as follows:

Item No	Description of equipment (simple cycle and combined cycle)	Unit Rated Power ranges (MW)
Cat 1a.	Generation unit with Gas Turbine Drive	5-16
Cat 1b.	Generation unit with Gas Turbine Drive	17-60

The gas turbine should be capable of producing the required power output needed to meet the requirement. Power output shall be based upon the following minimum requirements:

United Nations Development Programme

- Ambient temperature (minimum/maximum): -35°C to 40°C
- Elevation: 152 m above sea level
- Degradation during Turbine Life: 3%

Power Augmentation through air cooling or water injection will not be permitted to achieve the power requirements. Also, physical changes or adjustments that are not part of the automatic control system will not be accepted to achieve the required power output. The gas turbine must be capable of delivering the required power throughout the ambient temperature range and under the conditions specified. To ensure the appropriate match, power shall be optimized for Ukraine climate.

1.3 Fuel and Emission Requirements

Natural Gas will be used for fuel. However, should be convertible to use alternative energy resources such as biogas and hydrogen.

1.6 Enclosure

The turbine enclosure shall be constructed of light-weight steel and painted or galvanized and sufficiently designed to withstand light impacts, wind loads, platform motion and other loads as per installation environment. A marine grade of aluminum or stainless steel may also be considered. The interior shall be lined with a noise-attenuating material. If the attenuating material is subject to damage, it shall be protected through the use of perforated sheet metal or equivalent. The enclosure shall be equipped with maintenance doors so that access to equipment is easy and safe. The design shall consider removal of equipment and the attachment of removal rails and hoist in order to change the gas turbine. Small bridge beams and jibs shall be incorporated inside of the enclosure where any serviceable component above 20kg must be removed (i.e. lube oil pumps). Removable panels are permissible for areas where infrequent access is needed. The enclosure shall accommodate a fire detection and suppression system.

1.7 Fire and Gas Detection/Fire Suppression

The system shall utilize suitable gas, infrared and thermal detectors. Fire suppression shall be accomplished using a fine water mist system.

1.8 Noise level

For noise-generating equipment, compliance to ISO 11204 and ISO 10494 or DIN45635.

United Nations Development Programme

2. Category 2: Natural Gas-Fired Engine Power Generation Unit

2.1 Design

The gas-fired engine-powered generation unit will be designed, manufactured and tested in compliance with the Machinery Directive 2006/42/EC, Pressure Equipment Directive 2014-68-EU and Quality system ISO 9001.2.2 Power Requirements and Efficiency

The power output ranges required from the natural gas power generator as follows:

Item No	Description of equipment (simple cycle and combined cycle)	Unit Rated Power ranges (MW)
Cat 2a.	Gas Fired Engine Generation Unit	1-4 MW
Cat 2b.	Gas Fired Engine Generation Unit	5-10 MW

The natural gas power generator should be capable of producing the required power output needed to meet the requirement. Power output shall be based upon the following minimum efficiency and climate requirements:

For climate zones with a moderate climate, for indoor/outdoor installation:

- Ambient temperature (minimum/maximum): -35°C to 38°C
- Average maximum: + 7.5°C
- Elevation: 152 m above sea level

The efficiency for Cat 2a and Cat 2b Gas Fired Generation Units is as follows:

Unit Rated Power	Electrical Efficiency (%)	Heat Efficiency
Cat 2a. 1-4 MW	≥44.0	≥50.0
Cat 2b. 5-10 MW		

2.3 Fuel and Emission Requirements

Natural Gas only will be used for fuel. The Gas Turbines shall limit NOx, Sox, VOC, CO, and CO2 emissions following Directive (EU) 2015/2193 and following the Emission Regulations Decree of the Ministry of Ecology of Ukraine No.309 dd 26.06.2006

2.4 Engine starting

Electric from 12V DC AGM batteries will be used to drive the power generation engine

2.5 Fire and Gas Detection

Sensors compliant to EN54.

2.6 Noise Level

United Nations Development Programme

Complying with EN ISO 12001:2017 requirements.

2.7 Ancillary system

The Gas Fired Engine Operating unit offer shall include the following equipment:

- Heat Recovery unit (optional)
- Heat Exchanger
- Gas Supply System
- Motor Control Centre
- Exhaust System

United Nations Development Programme

REQUEST FOR INFORMATION REQUIREMENTS

UNDP invites potential manufacturers, resellers/agents, and installers to submit as much as possible relevant information/documentation as indicated below. Please use FORM A if you are interested in providing product information on Category 1: Power Generation Unit with Gas Turbine Drive, and FORM B for Category 2: Natural Gas-Fired Engine Generation Unit. If interested in the Installation of the GTU and/or Natural Gas Fired Engine Power Unit, please fill in the installation part of the form only.

FORM A: Category 1: Power Generation Unit with Gas Turbine Drive (GTU)				
Manufacturer of the GTU				
Manufacturing Location				
Turbine Engine Model Available (Please submit the GTU data sheet and brochure available)	Rated Output (MW)	Model No.	Production Lead Time in months	Indicative operating Weight in Metric Tonnes & dimension
	5-			
	8			
	10			
	12			
	14			
	15			
	16			
	20			
	25			
	30			
	40			
	50			
60				
No. of years of GTU Being Sold in the Market				
Which industry has GTU proven to be used (i.e., power sector, oil & gas, etc.)?				
Natural Gas as Fuel Application Experience (list down 2 major customers, projects, and country locations)				
Duel Fuel (Gas+ Diesel) as Fuel Application Experience (list down 2 major customers, projects and country locations)				

United Nations Development Programme

<p>Does the GTU unit model come with the Air Cleaner with the required Instrumentation</p> <ul style="list-style-type: none"> • Air Inlet Silencer • Exhaust Silencer • Exhaust Duct • Expansion Joints • Enclosure Ventilation <p>System with Silencers</p>	
<p>Pricing structure</p>	
<p>While this RFI is not a request for pricing, please provide an overview of how your pricing is structured (e.g., based on power output, customization options, and service packages)</p>	
<p>Type of payment Terms (i.e milestones, monthly progress or others)</p>	
<p>Delivery of GTU</p>	
<p>Can your company provide delivery of the GTU to Ukraine? If yes, please provide the shipping INCOTERMS to be used.</p>	
<p>Does your company supply the GTU on a modular basis and hook up each component on-site before installation?</p>	
<p>Please specify (if any) customized export packaging/preservation suitable for dual-modality transport shipment (sea/inland road transport)</p>	
<p>Please specify the special transportation arrangements for the GTU to Ukraine (i.e. special large cranes, trailers, etc.).</p>	
<p>Installation and Commissioning</p>	
<p>Is an authorised installer required for the installation and commissioning of the GTU?</p>	
<p>Is there an authorised installer in Ukraine currently for the GTU? If yes, please provide the company name and address. If</p>	

United Nations Development Programme

not, please indicate the nearest authorised installer to Ukraine.	
Do you allow UNDP to appoint its installer and your company supervises them during the installation and commissioning phase.	
Warranty Period, After Sales Support and Training	
<p>Does your company provide a lump sum price LTAs on an annual basis for the after-sales support that includes:</p> <ul style="list-style-type: none"> • Scheduled maintenance • Unscheduled maintenance • Spare Parts for scheduled and unscheduled maintenance • Data monitoring and remote support • Project management and reporting • Training • 96% reliability guarantee • 95% availability guarantee 	
Please provide the nearest location for the after-sales support if not available in Ukraine	
Please provide the warranty period (in months)	
THIS SECTION OF THE FORM IS TO BE FILLED IN BY THE GTU INSTALLER THAT IS INTERESTED IN OFFERING GTU INSTALLATION AND COMMISSIONING SERVICES ONLY.	
GTU INSTALLATION AND COMMISSIONING	
Please state your company base location as an installer.	
Please list down the GTU Manufacturer(s) and the model that your company has been authorised and has proven experience in installation and commissioning.	
No. of Installations of GTU in Europe region (List down the	

United Nations Development Programme

GTU model, rated power and countries).	
No of. Installations of the GTU in Ukraine (List Down the GTU Model, rated power, and cities)	
Do you have a local partner in Ukraine to perform the Installation and Commissioning of the GTU?	
Who will conduct the installation supervision on site?	
THIS SECTION OF THE FORM IS TO BE FILLED IN BY EVERYONE	
Auxiliaries	
Does your company supply the auxiliaries (such as Transformer, Gearbox, Control Panel etc.) Please confirm and provide a list of the main related auxiliaries that your company could supply.	
Others	
UNDP General Terms for will apply. Please confirm your capability of compliance with UNDP GTCs or any potential conflict that would prevent your company from doing so. Link to UNDP GTC	
Any other type of support or information that would be relevant to this RFI (e.g., recommendations, previous projects, statistics, limitations & risks to equipment supply, installation, aftersales service, risks mitigation, lessons learned etc.).	

United Nations Development Programme

FORM B: Category 2: Natural Gas-Fired Engine Power Generation Unit (GPE)				
Manufacturer of the GPE				
Manufacturing Location				
GPE Model Available (Please submit the GPE data sheet and brochures.)	Rated Output (MW)	Model No.	Production Lead Time in months	Noise level (in dB)@ 1 mtr from enclosure
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
No. of years of GPE Being Sold in the Market				
Which industry has GPE proven to be used (i.e., power sector, oil & gas, etc.)?				
Natural Gas as Fuel Application Experience (list down 2 major customers, projects, and country locations)				
Does the GPE unit model come with; <ul style="list-style-type: none"> • Heat Exchanger • Gas Supply System • Motor Control Centre • Exhaust System 				
Can the proposed GPE be attached or supplied with a Heat Exchanger as an option?				
Pricing structure				
While this RFI is not a request for pricing, please provide an overview of how your pricing is structured (e.g., based on power output, customization options, and service packages)				
Type of payment Terms (i.e milestones, monthly progress or others)				

United Nations Development Programme

Delivery of GPE	
Can your company provide delivery of the GPE to Ukraine? If yes, please provide the shipping INCOTERMS to be used.	
Does your company supply the GPE on a modular basis and hook up each component on-site before installation?	
Please specify (if any) customized export packaging/preservation suitable for dual-modality transport shipment (sea/inland road transport)	
Installation and Commissioning	
Is an authorised installer required for the installation and commissioning of the GPE?	
Is there an authorised installer in Ukraine currently for the GPE? If yes, please provide the company name and address. If not, please indicate the nearest authorised installer to Ukraine.	
Do you allow UNDP to appoint its installer and your company supervises them during the GPE installation and commissioning phase.	
Warranty Period, After Sales Support and Training	
Does your company provide a lump sum price LTAs on an annual basis for the after-sales support that includes: <ul style="list-style-type: none"> • Scheduled maintenance • Unscheduled maintenance • Spare Parts for scheduled and unscheduled maintenance • Data monitoring and remote support • Project management and reporting • Training • 96% reliability guarantee • 95% availability guarantee 	

United Nations Development Programme

Please provide the warranty period (in months)	
Please provide the nearest location for the after-sales support if not available in Ukraine	
Please provide your company plan to provide training in Ukraine for the GPE.	
THIS SECTION OF THE FORM IS TO BE FILLED IN BY THE GTU INSTALLER THAT IS INTERESTED IN OFFERING GTU INSTALLATION AND COMMISSIONING SERVICES ONLY.	
GTU INSTALLATION AND COMMISSIONING	
Please state your company base location as an installer.	
Please list down the GPE Manufacturer(s) and the model that your company has been authorised and has proven experience in installation and commissioning.	
No. of Installations of GPE in Europe region (List down the GTU model, rated power and countries).	
No of. Installations of the GPE in Ukraine (List Down the GPE Model, rated power, and cities)	
Do you have a local partner in Ukraine to perform the Installation and Commissioning of the GPE?	
Who will conduct the installation supervision on site?	
THIS SECTION OF THE FORM IS TO BE FILLED IN BY EVERYONE	
Auxiliaries	
Does your company supply the auxiliaries (such as Transformer, Gearbox, Control Panel etc.) Please confirm and provide a list of the main related auxiliaries that your company could supply.	
Others	
UNDP General Terms for will apply. Please confirm your	

United Nations Development Programme

capability of compliance with UNDP GTCs or any potential conflict that would prevent your company from doing so. Link to UNDP GTC	
Any other type of support or information that would be relevant to this RFI (e.g., recommendations, previous projects, statistics, limitations & risks to equipment supply, installation, aftersales service, risks mitigation, lessons learned etc.).	

RFI Clarification

Should you require further clarifications on the RFI, send them via email to gpucee@undp.org, indicating the case reference **GP601399** in the email subject. UNDP will provide written clarifications to the questions from the companies pertaining to this RFI.

Submission Details

This **RFI** does not entail any commitment on the part of UNDP, either financial or otherwise. Companies are requested to submit filled-in A and/or B forms of the RFI, products brochures, company profiles and other relevant information via email gpucee@undp.org latest on **Monday 23 September 2024**, indicating the case reference **GP601399** in the email subject.