



**Environmental
Protection
Agency**

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Environmental Permit (Renewed)

Issued under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

Reference No.:	20211122-SEPGA
Fee:	Small (C1) - US \$100
Fees Paid:	US\$100 (1 year – June, 2024 to May, 2025)

Addressee: Dr Mahender Sharma
Guyana Energy Agency
295 Quamina Street,
South Cummingsburg
Georgetown. Guyana

Activity: Installation of 0.6 MW Solar Photovoltaic Grid-Connected System

Guyana Energy Agency, herein referred to as the “Permit Holder”, is hereby authorised in accordance with the Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, to undertake the construction/installation of Photovoltaic systems at Leguan Island, Region 3, hereinafter referred to as “the Project”, in the manner indicated in the Application submitted on March 22nd, 2024, subject to the terms and conditions set forth herein under the Environmental Protection Act, existing or forthcoming regulations made under the said Act and/or any other applicable laws, best practices, guidelines, approvals, directives, and standards relevant to this project.

This is a Renewal of Environmental Permit, Reference No. 20211122-SEPGA issued on October 19, 2022 and expired on September 30, 2023. This Environmental Permit (Renewed) is issued pursuant to the Environmental Protection (Authorisations) Regulations, 2000

Terms and Conditions for Operation to be adhered to by the Permit Holder, his servants, agents and sub-contractors:

1.0 GENERAL

- 1.1 The Permit Holder shall make an application to vary this Environmental Permit in instances where it becomes necessary to:
- a. change the construction, operation, structure, or layout of the facility and all associated buildings;
 - b. change equipment, machine, apparatus, mechanism, system or technology serving the facility;
 - c. change the position and design of any outlet at the point or points of discharge of effluents; or
 - d. any other change outlined in 20(3) of the Environmental Protection (Authorisations) Regulations.
- 1.2 The Permit Holder shall employ or designate an employee to the role of an Occupational Health and Safety (OHS)/Environmental Officer to be responsible for the implementation and coordination of all safety requirements, the terms and conditions stipulated in this Permit, as well as compliance monitoring with the preparation of all required reports.
- 1.3 The Permit Holder shall make all employees, and third parties under their direction, aware of the conditions of the Environmental Authorisation and provide training on good environmental practices.
- 1.4 The Permit Holder shall ensure that employees are equipped with appropriate protective gear at all times during construction and operation activities. These include protective headgear, respirators, safety vests, safety boots, etc.
- 1.5 Guyana Fire Service Approval shall be obtained and maintained annually and shall be submitted as a component of the Environmental Annual Report. The Permit holder shall maintain fire prevention and control equipment in accordance with the Guyana Fire Service Approval.
- 1.6 The Permit Holder shall ensure that all plans, specifications of location, pathways, reserve, and boundary lines are adhered to unless otherwise authorised; evidence of which must be provided to the Agency upon request.
- 1.7 The Permit Holder shall ensure that all excavated materials are managed safely to avoid negative impacts to habitats or any risk to human health and the environment.
- 1.1 The Permit Holder shall minimise any road traffic hazards or unnecessary inconveniences to the general public through appropriate planning and management of the construction site.



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Issued under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

- 1.8 The Permit Holder shall remove all construction tools, equipment, machinery, and waste materials from the site, upon the completion of construction works.
- 1.9 The Permit Holder shall ensure appropriate barriers, equipment/material staging areas, and all supporting infrastructure, facilities and equipment associated with the Project are provided, maintained and removed upon completion of works. Once works are completed, rehabilitation measures must be implemented to restore any disturbances to the environment.
- 1.10 The Permit Holder shall undertake construction, including clearing of vegetation, at a pace slow enough to ensure that terrestrial animals and aquatic fauna can move to other locations.
- 1.11 The Permit Holder shall ensure that access is provided to all properties adjacent to the site for the duration of the project construction. Place warning signs at strategic locations and create walk paths to avoid accidents with individuals in the nearby communities.
- 1.12 The Permit Holder shall ensure photovoltaic system panels are installed in accordance with the manufacturer's installation instructions.
- 1.13 The Permit Holder shall clearly identify on the site plan the point of interconnection with the utility supplied wiring system and provide details on main breaker and photovoltaic (PV) breaker.

2.0 WATER AND SOIL QUALITY MANAGEMENT

- 2.1 The Permit Holder shall strictly comply with the provisions of the **Environmental Protection (Water Quality) Regulations 2000**.
- 2.2 The Permit Holder shall maintain the integrity of the existing waterways at all times. Discharges into the environment shall be in accordance with the **Guyana National Bureau of Standards' (GNBS) Interim Guidelines for Industrial Effluent Discharge into the Environment**. The following are the allowable limits for this type of project and shall not exceed:
 - i. pH 5.0-9.0;
 - ii. Temperature < 40 oC;
 - iii. Biological Oxygen Demand (BOD) < 50 mg/L;
 - iv. Chemical Oxygen Demand (COD) < 250 mg/L;
 - v. Total Suspended Solid (TSS) < 50 mg/L;
 - vi. Oil and Grease < 10 mg/L; and

- 2.3 The Permit Holder shall avoid erosion, siltation, and sedimentation of existing water bodies within the vicinity of the project site.
- 2.4 The Permit Holder shall install sediment controls along the site perimeter to receive sediments from surface runoff.
- 2.5 The Permit Holder shall construct and maintain drainage systems capable of handling the probable maximum precipitation event.
- 2.6 The Permit holder shall as far as practicable, conduct refueling, oil changes and maintenance of vehicles, machinery and other equipment on an impervious base. Spills should be cleaned-up immediately utilising the best practicable means.
- 2.7 The Permit holder shall adequately store and/or cover temporary stockpiles of construction materials and excavated waste in a secured designated area to prevent release into the surrounding environment, especially in rainy conditions. The designated area should not be placed within 10 meters of any water body.
- 2.8 The Permit Holder shall store fuel, oils, paints, and chemicals in a secured designated area to prevent accidental release into the surrounding environment, especially in rainy conditions. The designated area shall not be within 100 m of surrounding water bodies.
- 2.9 The Permit Holder shall as far as practicable, conduct refueling, oil changes, and maintenance of vehicles machinery, and other equipment on an impervious base. Oil spills shall be cleaned up by the best practicable means.
- 2.10 The Permit Holder shall avoid excessive or inappropriate use of cleaning chemicals. The use of biodegradable/water-based cleaning products is encouraged.

3.0 AIR QUALITY MANAGEMENT AND NOISE ABATEMENT

- 3.1 The Permit Holder shall strictly comply with **the Environmental Protection (Air Quality) Regulations, 2000 and the Environmental Protection (Noise Management) Regulations 2000.**
- 3.2 The Permit Holder shall monitor noise emissions in accordance with the **Guyana National Bureau of Standards (GNBS) Guidelines for Noise Emissions** into the Environment. Sound levels from noise-making devices shall not exceed the limits below, at a distance of 15 metres (50 ft) from the source or property boundary, whichever is closer.



During Construction

- **Construction Limits:** 90 dB during the daytime (06:00 h - 18:00 h)
75 dB during the night-time (18:00 h - 06:00 h)

During Operation

- **Residential Limits:** 75 dB during the daytime (06:00 h - 18:00 h)
60 dB during the night-time (18:00 h - 06:00 h)

- 3.3 The Permit Holder shall ensure that all activities are done in such a manner as to prevent, minimize, control, and or avoid adverse noise nuisance to the surrounding environment.
- 3.4 The Permit Holder shall monitor ambient air quality to determine compliance with the World Health Organisation's (WHO) Air Quality Guidelines for Particulate Matter in the Environment, not exceeding the limits below:
- PM_{2.5}:** 25 µg/m³ 24-hour mean
PM₁₀: 50 µg/m³ 24-hour mean
- 3.5 The Permit Holder shall ensure all equipment capable of causing, or preventing, emissions shall be maintained in accordance with the manufacturer's instructions. An annual maintenance schedule shall be submitted as a component of the Annual Report.
- 3.6 The Permit Holder shall employ dust suppression methods, such as, watering or erecting dust screens/fences to control dust emissions from material stockpiles and other dust-generating components of the project.
- 3.7 The Permit Holder shall Keep engine idling during on-loading and off-loading activities to a minimum during construction.

4.0 FUEL AND HAZARDOUS/ WASTE MANAGEMENT

- 4.1 The Permit Holder shall strictly adhere to the provisions of the **Environmental Protection (Litter Enforcement) Regulations 2013** and the **Environmental Protection (Hazardous Waste Management) Regulations, 2000.**
- 4.2 The Permit Holder shall maintain good housekeeping, sanitary and hygienic practices, and upkeep the aesthetic quality of the surroundings at all times.
- 4.3 The Permit Holder shall promote proper solid waste management and disposal practices at the project site, place covered garbage receptacles at strategic

locations around the project site, and ensure that waste disposal is done by a competent disposal company/authority.

- 4.1 The Permit Holder shall promote proper solid waste management and disposal practices at the project site. In particular, dispose or contract an authorised waste disposal service to dispose waste at the nearest designated waste management site. Place covered garbage receptacles at strategic locations around the project site.
- 4.4 The Permit Holder shall reuse waste materials where practical during and after construction activities, where practicable.
- 4.5 The Permit Holder shall provide and maintain adequate sanitary facilities, such as portable toilets or construct a septic tank system, for employees. The septic tank shall not be located within 1.5 m of a building or property boundary and shall be accessible for cleaning and de-sludging. Any modification to the Septic tanks must be in accordance with the **Guyana National Bureau of Standards (GNBS) Code of Practice for the Design and Construction of Septic Tanks and Associated Secondary Treatment and Disposal Systems.**
- 4.6 The Permit Holder shall ensure that spill equipment is available and utilized for containing and mitigating spills from fuel, waste oils, lubricants, paints, etc.
- 4.7 The Permit Holder shall designate an area for the storage of First Aid Kit(s); Washing detergents; and Sanitizers (J's Fluid, Pine Sol, etc.) for the project.
- 4.8 The Permit Holder shall store all fuel in during the operation phase in a designated area, away from ignition sources and post 'No Smoking' signs at all points on the project site where fuel is handled or stored.
- 4.9 The Permit Holder shall Install an impervious secondary containment bund around fuel tanks; the bund shall have at capacity to contain at least 110% the volume of the largest fuel storage tank.

5.0 EMERGENCY MANAGEMENT

- 5.1 The Permit Holder shall adhere to the requirements of the **Occupational Health and Safety Act, Cap 99:10, Laws of Guyana.**
- 5.2 The Permit Holder shall ensure the Fire Safety Certificate is renewed annually and all firefighting equipment is maintained and serviced regularly. A fire Safety Certificate shall be submitted in the Annual Report and presented to officers



upon request during a compliance inspection.

- 5.3 The Permit Holder shall ensure all employees understand firefighting protocols and are trained in the use of firefighting equipment, such as, fire extinguishers.
- 5.4 The Permit Holder shall ensure an updated Evacuation Plan is maintained and posted at strategic locations.
- 5.5 The Permit Holder shall ensure at all times the working environment is monitored for occupational hazards relevant to the project's specific construction and operational activities.
- 5.6 The Permit Holder shall ensure at all times the working environment is monitored for occupational hazards.

6.0 COMPLIANCE MONITORING AND REPORTING

- 6.1 The Permit Holder shall strictly comply with any lawful directions given by the Agency from time to time in furtherance of the implementation of any international or other obligation for the environmental protection of Guyana.
- 6.2 Any Approval granted in accordance with this Permit shall be subject to such terms and conditions as may be required by the Agency, and shall be considered as forming part of the present Permit so that any breach or contravention thereof, shall be considered a breach or contravention of the Permit.
- 6.3 The Permit Holder shall monitor the implementation of the conditions of this Environmental Permit, insofar as they involve adherence by employees and all third parties under their direction.
- 6.4 The Permit Holder shall report to the Agency any non-compliance(s) with this Environmental Permit:
 - a. Within **twenty-four (24) hours** of the time the Holder of this Environmental Permit becomes aware of the non-compliance, with the anticipated manner in which it may endanger human health or the environment may be impacted.
 - b. Within **seventy-two (72) hours** of the time the Holder of the Environmental Permit becomes aware of the non-compliance, submit to the Agency a written report containing a description of the non-compliance, its cause, the period of non-compliance including exact

dates and time and the anticipated time it is expected to continue if the non-compliance(s) has not been corrected.

- 6.5 The Permit Holder shall submit an **Environmental Annual Report** to the EPA on your compliance with this Environmental Permit on or before **March 31, each year**.
- 6.6 The Permit Holder shall notify the EPA within **twenty-four (24) hours** of the occurrence of any environmental emergencies (e.g., oil spills, hazardous materials/wastes spill, sudden onset disaster, natural, technological or human-induced factors that cause or threaten to cause severe environmental damage as well as harm to human health or livelihood).
- 6.7 The Permit Holder shall notify the Agency in writing of any change of name or ownership of the Permit Holder's facility within **thirty (30) days** after the change occurs.
- 6.8 The Permit Holder shall notify the Agency within **twenty-one (21) days** in the event of death, bankruptcy, liquidation, or receivership of the Permit Holder or if the Company becomes a party to an amalgamation.
- 6.9 It is the responsibility of the Permit Holder to ensure the permitted activity and premises are secured and that all practicable steps necessary to prevent fires, explosions, leaks, or suspected leaks and spills at the permitted premises are taken.
- 7.0 INSTITUTIONAL AUTHORITY/LIABILITIES**
- 7.1 The Permit Holder shall be liable for any material environmental harm caused by polluting the environment, pursuant to **s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana**.
- 7.2 The Permit Holder shall be liable for any serious environmental harm caused by polluting the environment, pursuant to **s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana**.
- 7.3 The Permit Holder shall be liable for any activity that causes or is likely to cause pollution of the environment unless all reasonable and practicable measures are taken to prevent or minimize any resulting adverse effect, pursuant to **s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana**.



- 7.4 The Permit Holder shall be liable for discharging, causing or permitting the entry into the environment, of any contaminant in any amount, concentration or level excess of that prescribed by the regulations or stipulated by this Environmental Permit (Renewed), pursuant to **s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.**
- 7.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 6.3 and 6.4 of this Environmental Permit (Renewed), pursuant to **s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.**
- 7.6 The Permit Holder shall not be indemnified by the Agency for any activity that causes or is likely to cause pollution to the environment, resulting from adverse effects through the discharge, any contaminant in any amount, concentration, ultra-hazardous substances, chemicals or otherwise, and shall be rendered liable to prosecution and penalties prescribed under the Environmental Protection Act and Regulations.
- 7.7 The Permit Holder shall be liable for any negligence or wilful misconduct caused by the Permit Holder, his Servants and/or Agents, to the environment, biodiversity, protected species, and natural habitat.
- 7.8 Should the Permit Holder contravene or be likely to contravene any condition of this Permit, the Agency (EPA) may serve on him an Enforcement Notice in accordance with **Section 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.**
- 7.9 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose a serious threat to natural resources or the environment or a risk of serious pollution of the environment or any damage to public health, the EPA may issue to the Permit Holder a Prohibition Notice, which may order him to immediately cease the offending activity, in accordance with **Section 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.**
- 7.10 The EPA reserves the right to conduct regular inspections of the Permit Holder's activities as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap 20:05, the **Environmental Protection (Amendment) Act, 2005, and Environmental Protection (Authorisations) Regulations, 2000.**
- 7.11 The Permit Holder, His Servants, and/or Agents shall at all times, allow entry to the permitted facility to any Officer designated by the EPA for the purposes of

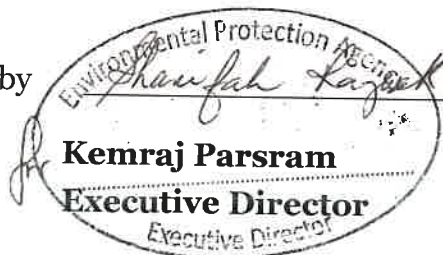
conducting inspections or any other legitimate business of the Agency. Pursuant to **Section 38** of the **Environmental Protection Act, Cap. 20:05, Laws of Guyana**, it is an offense to assault, obstruct or hinder an authorised person in the execution of his/her duty under the said Act or its Regulations and the Permit Holder shall be liable to penalties prescribed under paragraph (c) of the Fifth Schedule for doing so.

- 7.12 The EPA has the right to modify, cancel, or suspend this Permit for breach of any of the terms and conditions contained herein.
- 7.13 **This Environmental Permit is not the final consent; all relevant Permissions shall be obtained from other regulatory bodies before commencing construction activities.**
- 7.14 This Environmental Permit is effective for the period stipulated herein, **June, 2024 to May, 2025.**
- 7.15 This Environmental Permit shall remain valid until **May 31, 2025**, unless otherwise suspended, cancelled, modified or varied, in accordance with the **Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.**
- 7.16 This Environmental Permit shall be renewed by submitting “an Application for Renewal of Environmental Authorisation to the Agency at least six (6) months before this Permit expires, that is, no later than **November 30, 2024**
- 7.17 Any late submission of renewal application(s) after the specified date as stated above, may require the Permit Holder to pay, in addition to renewal fees, a late penalty fee (accruing at the time such obligation was first owed for renewal) at a rate of ~~two thousand dollars (GY\$2000.00) per day for every business day late~~, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.
- 7.18 Failure to comply with the requirements of this Permit or with applicable laws and regulations, whether existing or forthcoming, shall render the Permit Holder liable to prosecution and to penalties, inclusive of civil penalties, injunctive relief and imprisonment, as prescribed under the **Environmental Protection Act, Cap. 20:05, Laws of Guyana**, the Environmental Protection Regulations and other applicable Laws of Guyana.

Environmental Permit - Ref. No.: 2021122-SEPGA

Issued under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

Signed by
Agency.




on behalf of the Environmental Protection

Date

2024.06.21

I hereby accept the above Terms and Conditions upon which this Environmental Permit (Renewed) is granted and agree to abide by the Environmental Protection Act, Cap.20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, the Environmental Protection (Authorisations) Regulations, 2000, and any forthcoming regulations, best practices, guidelines and standards made under this Act.

NAME:	MAHENDER SHARMA
SIGNATURE:	
DESIGNATION:	CHIEF EXECUTIVE OFFICER
DATE:	June 21.2024



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