Clean Energy

Salkhit Wind Farm
Community Health and Safety Plan

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Community Health and Safety Plan

Client	**Clean Energy LLC**		
Contact	**Amar A.**	**Email:** amar@cleanenergy.mn	
	Name	**Title**	**Signature**
Prepared By	Vicky Smith	Environmental Consultant	
Reviewed By	Greg McAlister	Environment Team Leader	
Authorised By	Chris Parcell	Director of Feasibility & Development	
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Contents

INTRODUCTION

Newcom LLC proposed to construct and operate a wind farm in the vicinity of Salkhit Uul. Clean Energy is part of Newcom and is responsible for the development and delivery of this project.

This document forms a Community Health and Safety Plan (CHSP) developed by Sgurr Energy on behalf of Clean Energy, describing the potential hazards of the project during operation to local communities and how these will be controlled. The document also outlines emergency preparedness and response along with a grievance mechanism to ensure that feedback is acknowledged and addressed appropriately.

Project activities can increase the potential for community exposure to risks and impacts arising from temporary changes in population, transport of materials, operations, decommissioning, accidents, structural failures, and releases of hazardous chemicals. Potential hazards to local communities are identified in this CHSP and measures to control hazards documented.

Within the vicinity of the project site there are a number of communities including:

1. Local herders who live in the vicinity of the wind farm and will fully or seasonally be dependent on pastures occupied by the facility (approximately 5-10 families);
2. Local citizens who work at the railroad and are employed by the State railway company; and
3. Other citizens, who live within the territory of the soum, but tend to use other pastures.

All identified groups could be directly affected by the project during the project operation.

The group most vulnerable to the potential hazards of wind farm operation is considered to be the local herders who seasonally live and migrate with their livestock in the vicinity of, and within, the Project site.

The group is presented by approximately three to five families. They are the group with the most limited access to information. Traditional practice will lead them to leave an area if an inconvenience becomes too great. Joint efforts by Clean Energy and the local administration to keep them informed about the project's progress and associated risks with operation, quick conflict management, and if necessary, improvement of pastures or making available alternative pastures may be able to overcome any disruption.

This document covers the following:

Chapter 2 – Project Description.

Chapter 3 – Potential Health and Safety Hazards.

Chapter 4 – Control of Site Health and Safety Hazards.

Chapter 5 – Emergency Preparedness and Response; and

Chapter 6 – Workers' Grievance Mechanism.

Other plans of relevance to this CHSP include:

- Contractor's Health and Safety Plan.
- Environmental and Social Management Plan.
- Environmental and Social Impact Assessment.

- Public Disclosure Consultation Plan.

The information provided within this CHSP will be communicated to all workers on-site who will be made aware of the potential risks and mitigation measures. This will be carried out through a toolbox talk with additional information displayed on noticeboards to raise awareness of potential issues.

1 PROJECT DESCRIPTION

Newcom Group LLC has leased 30,000 hectares in Sergelen soum in the vicinity of Salkhit Uul ("windy mountain") and proposes to construct and operate a wind farm to generate up to 50 MW of electricity for the national grid.

The proposal is for the construction, operation, and decommissioning of the wind farm comprising the following components:

1. 31 wind turbine generators (WTG)
2. Control centre compound and electrical substation.
3. Access road from highway A0101 to the control centre.
4. Transmission line from the substation at the control centre to the town of Nalaikh, where the power will enter the national grid.
5. On-site access roads from the control centre to the turbines, and underground transmission lines to carry electricity from the turbines to the control centre substation.

The environment in which the wind farm will be placed is open steppe, characterized by low mountain ridges that rise to 1,780 meters above sea level, with relief of 200 to 250 meters between relatively flat valley floors and rounded ridges. Grasslands open to grazing by the livestock of nomadic herders dominate the landscape, while some north-facing slopes support patches of birch shrub.

Newcom Group originally proposed a total of 25 WTGs. The proposed project would place the WTGs on hilltops that are part of a ridgeline referred to here as the East Ridge. However, the capacity of the site has been upgraded to include 31 WTGs and an additional ESIA is being prepared by Sgurr Energy to ensure that the level of assessment undertaken addresses the realistic worst-case scenario.

The Salkhit project is anticipated to produce electricity for about 20 years.

2 POTENTIAL PUBLIC HEALTH AND SAFETY HAZARDS

2.1 INTRODUCTION

Whenever there is business operation in or nearby residential communities, the likelihood for local people being impacted increases. These potential risks and impacts must be properly managed to the maximum achievable level of control. Clean Energy will effectively manage the risks by providing training to raise public safety awareness, and to maintain regular communication with community residents in order to understand their needs and concerns.

Vulnerable groups are most at risk from the hazards on and around the Project site. Local herders who seasonally live and migrate in the vicinity of the Project site are considered to be the most vulnerable. A key health and safety concern is that herders and their livestock access the entire site including their camp within the site and use of roads and therefore it is of great importance that health and safety issues are communicated comprehensively and effectively.

It is particularly important that they are kept informed of operation activities and any complaints are handled quickly to avoid any conflict.

Environmental, Health and Safety (EHS) guidelines produced by the IFC detail elements to consider with regards to community health and safety. Those elements applicable to the project are set out below.

2.2 STRUCTURAL SAFETY OF PROJECT INFRASTRUCTURE

Hazards posed to inhabitants of the Salkhit Uul area who access the project facilities include:

- Physical trauma associated with failure of structures, plant, or other equipment.
- Traffic accidents.
- Injuries as a result of electrocution.
- Exposure to hazardous materials.

2.3 LIFE AND FIRE SAFETY

The risk of fire is one of the greatest hazards to property and the health and safety of its occupants. The risk of fire on-site is considered as a potential hazard to the local community including local herders around the site.

2.4 WATER QUALITY AND AVAILABILITY

Any drinking water sources will be protected at all times so that they meet national and international guidelines. The "Law of Mongolia on Water" 1995 provides details on protection against resource depletion, water monitoring and safeguards against water pollution. The World Health Organisation (WHO) "Guidelines for Drinking Water Quality (4th Edition)" includes values for individual chemicals to manage the risks from chemicals in drinking water.

There is the potential that certain Project activities could increase the risk of surface and groundwater contamination for example, through chemical spills or fuel leaks.

2.5 TRAFFIC SAFETY

Traffic accidents are one of the most significant causes of injuries and fatalities amongst members of the public worldwide.

Nomadic herders and their livestock present on the site often use the site roads. Movement or operation of passenger and vehicles on these roads could cause injury or death to humans (drivers, passengers, pedestrians) or animals (livestock or wildlife).

2.6 NUISANCE AND OTHER ISSUES

2.6.1 NOISE, LIGHTING AND DUST

Noise and vibration stemming from plant and equipment used for operation activities could distress local people and their livestock.

Artificial lighting may be required to illuminate work areas in order to provide safe working conditions. This could cause a nuisance to local people in the vicinity of the site.

As a result of the windy environment, there is the potential for windblown dust particularly during dry conditions, which may cause nuisance to local people. It is also anticipated that dust may be generated through vehicles travelling to, from and around the site.

3 CONTROL OF SITE HEALTH AND SAFETY HAZARDS

3.1 OVERALL SITE SAFETY

3.1.1 COMPLIANCE

Clean Energy and its contractors will comply with international Occupational Health & Safety regulations and standards in addition to Mongolian safety standards regarding wind farm operation, electrical works, and other hazards. In general, wind farm operations will be planned and implemented in accordance with these standards and with IFC safety guidelines.

There will be a workforce manager in charge of all activities, and in charge of compliance with health and safety requirements. This individual will report directly to the Clean Energy project manager and will have independent lines of reporting to Clean Energy senior management. Prior to beginning work on the site, the workforce manager will develop a safety program to cover operation of the site. The program will describe in detail the potential hazards and the ways in which they will be prevented or avoided. Clean Energy will report on risks, potential impacts and benefits of the Project and implementation of any action plans on a regular basis.

Workplace inspections will be undertaken on a regular basis to monitor Health and Safety aspects on site.

3.1.2 PUBLIC CONSULTATION ON SITE SAFETY

A full and comprehensive public consultation will be undertaken with the local community to ensure that local people, particularly the nomadic herders, are aware of the operation programme and timescales. Due to the presence of herders and their livestock on the site and on roads it is especially important to highlight when specific activities are expected to occur in order to minimise the potential for accidents involving people and / or livestock.

3.2 STRUCTURAL SAFETY OF PROJECT INFRASTRUCTURE

Structural elements of the Project were designed and constructed by qualified and experienced professionals in accordance with good international industry practice. They paid particular consideration to the potential exposure to natural hazards, especially where the structural elements are accessible to members of the affected community or where their failure could result in direct or indirect injury to the community.

The safety program will include detailed requirements for inspecting, testing, and calibrating safety equipment, for monitoring the working environment for hazards, and for monitoring worker health. In addition, all incidents and accidents will be recorded if they resulted, or nearly resulted, in damage to equipment or injury or to humans or animals, will be recorded. On an annual basis, Clean Energy will report to the lenders and shareholders on the status of the overall safety program, including information on training and on incidents.

Training programs, talks and proper precautions for workers on-site (hard hats, boots, fall protection) should reduce any risks of accidents occurring.

Signs will be erected around the site to inform of the location of specific operational activities.

Fencing and signposts will also be placed around all dangerous areas to prevent unauthorized access and potential injury including the straying of livestock into these areas.

3.3 LIFE AND FIRE SAFETY

The design of plant and equipment will comply with all relevant fire safety regulations. The Law of Mongolia on Fire Safety 1999 states, "*Design and structure of buildings and construction objects to ensure safety of the population in the case of possible fire and possibilities to extinguish fire with minimal damage*".

Where required, suitable sprinkler systems, dry risers and fire hydrants will be in place and tested on an annual basis and maintained regularly. Suitable fire extinguishers will be located in buildings in easily accessible locations.

All fire extinguishers located within the property should be tested on an annual basis, be subject to on-going maintenance and be visually inspected on a monthly basis. Records should be maintained for all inspections and tests and a copy kept on site.

Flammable chemicals will be safely managed in accordance with local regulations.

Annual fire risk assessments will be undertaken on-site. Any corrective actions identified will be completed by the responsible party as a priority.

Fire wardens will conduct regular inspections of their areas of responsibility to ensure the storage and use of flammable and combustible materials; electric appliances, hot work, smoking, etc. are being managed in accordance with the relevant procedures. Any corrective actions identified should be completed by the responsible party as a priority.

Smoking will be restricted to designated areas which will be at least five metres from any flammable materials. Signage will be clearly displayed in areas of flammable materials

An emergency evacuation plan is required detailing the action to be taken in the event of an emergency situation. This will be displayed throughout buildings, and in particular located adjacent to each manual fire alarm call-point. The notice will have a floor plan indicating the egress routes and location of emergency/firefighting equipment. The plan also provides contact details of the fire wardens and the location of the designated assembly point. The emergency evacuation plan should cater for the potential for local people to be in the vicinity of the Project site and measures for their evacuation. The local community will be made aware of evacuation procedures in place in the event of a fire.

3.4 WATER QUALITY AND AVAILABILITY

To minimise potential risk to water quality, the following measures will be undertaken:

- Installation of a hard-standing or secondary containment at the fuel storage tank and refuelling point to collect any leaks or releases of fuel.
- Installation of drip trays and spill kits for the mobile fuelling tanker.
- Refuelling of vehicles to take place in designated areas with the use of drips trays; and
- Spill kits to be located around the site, including at fuel storage and refuelling points for a rapid response in the event of a spillage event.

Water quality monitoring will be undertaken to determine if groundwater levels and quality are being affected by the Project and if so, if there could be an adverse impact on other users of groundwater resources.

3.5 TRAFFIC SAFETY

Traffic safety will be promoted by all project personnel during displacement to and from the workplace and during the project operation. . Prevention and control of traffic-related injuries and fatalities is focused on the adoption of safety measures to protect workers and other road users, including those most vulnerable to road traffic accidents.

When on site, all drivers will be advised of site rules in relation to speed limits, traffic flow, restricted entry areas, parking areas and road hazards through a site-specific induction. All drivers will also be required to adhere to the site safety plan and follow any instructions from the management team.

The local community will be notified about the operation schedule and its progress to ensure that there is an understanding of existing site activities and those activities to be undertaken in the future. This will be carried out in the form of signs and personal notices to local people.

There will be public training for traffic safety to avoid accidents occurring and signs erected on the roads to clearly indicate the route of traffic. In the event of an accident occurring, appropriate first aid will be readily available.

Vehicles will have an enforced speed limit and there will also be a register of incidents. Vehicles will also be regularly maintained, and manufacturer-approved parts will be utilised to minimise potentially serious accidents caused by equipment malfunction or failure.

3.6 NUISANCE AND OTHER ISSUES

To minimise disturbance to the surrounding environment, a number of training talks will be undertaken with operation staff and other personnel on-site. In addition, signage will be erected around the site to instruct workers.

3.6.1 DUST

The primary method of monitoring for dust will be by visual observation. All site personnel will be instructed to monitor for dust generation and action will be taken to reduce dust levels as required.

Roads on the site will be dampened down to minimise dust levels and road dampening records will be maintained. Dusty loads on vehicles should be covered before they leave the site.

Windblown dust will be minimised through soil seeding or covering. Any debris and/or stockpile of dusty material shall be covered entirely by impervious sheeting or stored in a sheltered area.

Supplementary equipment such as water facilities and dust absorbers will be used in activities (e.g. grinding, drilling etc.) which generate dust.

3.6.2 NOISE AND VIBRATIONS

Noise monitoring will be carried out to ensure that noise from the project operation fall within established limits and do not negatively impact on the surrounding environment.

Noise levels should not exceed One Hour LA_{eq} (dBA) of 55 dB (A) during the day or 45 dB(A) at night or result in a maximum increase in background levels of 3 dB at the nearest off-site receptor location.

Should noise levels be breached or a complaint received then a number of measures can be undertaken:

- Record and respond to complaints.
- Reduce traffic through areas occupied by local people.
- Decrease road speeds.
- Phase work which involves the use of noise-generating equipment.
- Installing suitable mufflers on engine exhausts and compressor components.
- Installing acoustic enclosures for equipment casing radiating noise.
- Improving the acoustic performance of constructed buildings, apply sound insulation.
- Installing acoustic barriers to minimize the transmission of sound. Installing vibration isolation for mechanical equipment.

3.6.3 LIGHTING

Procedures will be reviewed should a complaint be received. Actions which may be undertaken to remove or reduce the nuisance include repositioning of the lights, re-sequencing of works or installation of buffers or screens.

3.6.4 SITE SECURITY

Controls will be established for site security, and include but not be limited to:

- Unauthorised access to site locations and offices.
- Protection of animals and livestock in the vicinity of work.
- Protection and safe operation of temporary traffic routes.
- Theft prevention and vandalism.
- Safety of Staff and Employees; and
- Fire Prevention.

Working areas will be clearly marked and secured, with WTG areas fenced off.

4 EMERGENCY PREPAREDNESS AND RESPONSE

An emergency is an unplanned event when a project operation loses control, or could lose control, of a situation that may result in a risk to human health, property, or the environment, either for the Project or in the local community.

Emergency preparedness is defined as an on-going process of assessment, prevention, responsiveness, and compliance.

4.1 EMERGENCY PREPAREDNESS AND RESPONSE PLAN

Clean Energy will take all measures necessary to prevent major accidents and to limit their consequences for humans and the environment in a consistent and effective manner. These measures will be identified in an emergency preparedness plan.

4.2 COMMUNITY NOTIFICATION

There is the potential for the local community to be at risk from an emergency arising at the Project site. In order to mitigate this risk, measures to alert the community will be implemented. These will include:

- Audible alarms.
- Face to face communication.
- Vehicle mounted speakers.
- Communicating details of the nature of the emergency; and
- Communicating protection options (evacuation, restricted access).

Clean Energy will inform local communities of potentially significant hazards and summarise response plans in a culturally appropriate manner. Should plans be altered or tested, then the local communities will be informed of this.

4.3 RESOURCES

First aid attendants will be provided as well as medical equipment suitable for the Project type.

Appropriate measures for managing the availability of resources in the case of an emergency include:

- A list of external equipment, personnel, facilities, expert knowledge, and materials that may be required to respond to emergencies.
- Identifying personnel who can readily call up resources, as required.
- List of qualified first aiders and equipment posted.

4.4 EVACUATION PROCEDURE

An emergency evacuation and response plan shall be developed and displayed on Safety Notice Boards and other prominent locations around site. These plans are to be reviewed during Safety Committee Meetings as required.

Emergency drills shall be carried out on a regular basis to verify the suitability and effectiveness of the emergency evacuation and response plan, Post-event Business Recovery Plan and the

efficiency and competency of the emergency team. The Emergency Evacuation Procedures will form part of the site induction process for all persons attending site.

4.5 TRAINING AND UPDATING

All workers will undergo safety training which will be recorded in a training programme. Training exercises will be undertaken to allow personnel the opportunity to test emergency preparedness with debriefing following the exercise.

The emergency evacuation and response plan shall be maintained, reviewed, and updated regularly to account for any changes in equipment, personnel and facilities.