

SCHEDULE-VI

Decision on EIA

- 1. Name, address of proponent:** Mr. Sangwoo Kim,
CEO Lower Spatgah, Hydropower Project,
Office No. 27, 28, 29, Executive Complex,
G-8, Markaz, Islamabad.

2. Description of project.

The LSG Hydro Power Limited, or LSG Special Purpose Company (LSG SPC) is planning to develop the Lower Spat Gah Hydropower Project ("Project") in Upper Kohistan District, in Khyber Pakhtunkhwa Province of Pakistan. The Spat Gah valley is located on the left bank of the Indus River about 4 km downstream of Dasu town. The Installed Capacity of the Project will be 470 MW. The proposed Project is a hydroelectric power project to produce electricity from the flow of water in Spat Gah and Gabarband Rivers. The Project, once complete, will have the following major components (1). The Lower Spat Gah Headworks on the Spat Gah River with a clay core rockfill dam with a height of 34 m, (2). The Lower Gabarband Intake consisting of a 20.9 m high concrete weir, (3). The Power Waterway consisting of a pressurised system between the Lower Spat Gah Headworks and the Power Cavern, the Lower Gabarband Intake Tunnel, a Surge Shaft and a free-flow Tailrace Tunnel, (4). The Powerhouse will be located 800 m below the natural ground and will generate 470 MW of electricity, (5). Two reservoirs will be constructed: one at the Lower Spat Gah Headworks with a surface area of 44,000 m² and other at the Lower Gabarband Intake with a surface area of 1,700 m².

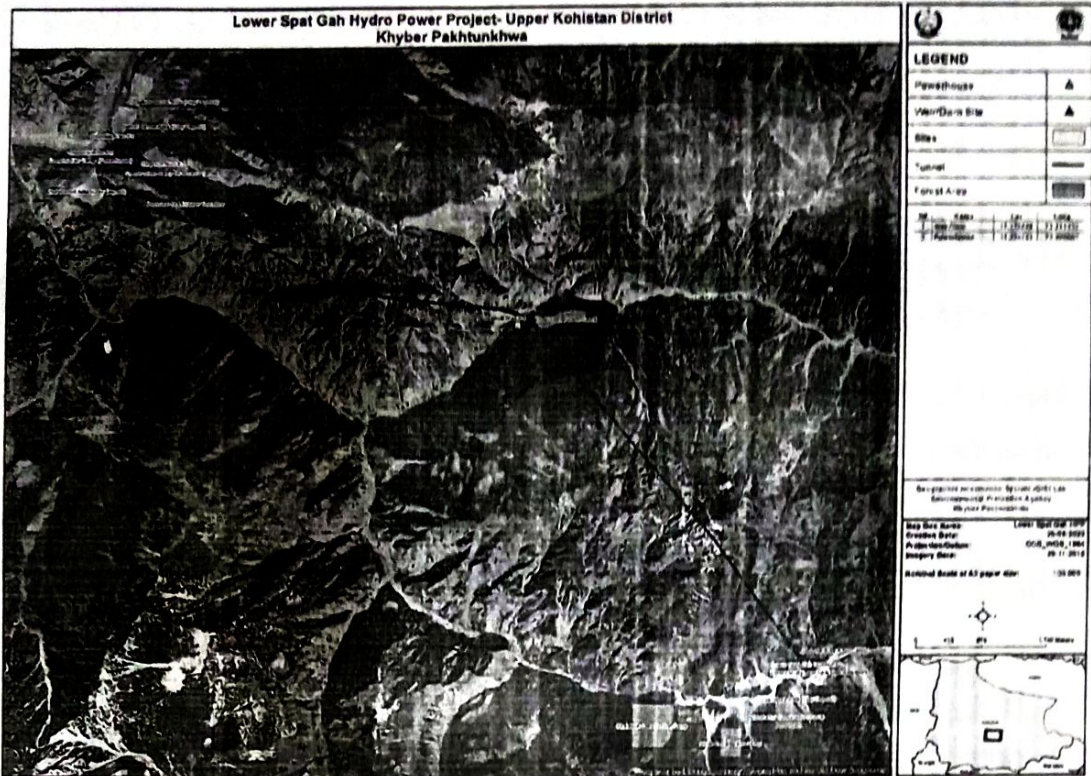
3. Location of project.

District Kohistan.

GIS Map & Coordinates

Name	Lat	Long
Power House	35.176348°	73.311432°
Dam/Weir Site	35.2361510°	73.220607°

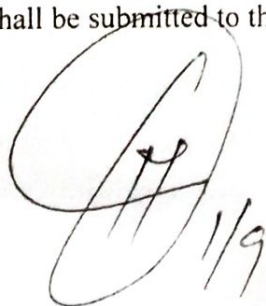




1. **Date of filing of EIA.** 07/04/2022 (Ref: EPA Diary No.360)
2. After careful review, the Environmental Protection Agency, Govt. of Khyber Pakhtunkhwa has decided to accord Construction Environmental Approval of the Environmental Impact Assessment (EIA) Report of **“470 MW Lower Spatgah Hydropower Project, District Kohistan”** in line with the Khyber Pakhtunkhwa Environmental Protection Act, 2014 and the Khyber Pakhtunkhwa Environmental Assessment Rules,2021, subject to the following Terms & Conditions;
 - a) The proponent shall adopt all precautionary and mitigation measures recommended in the EIA Report as well as replies of the proponent submitted to this Agency and any un-anticipated impacts arising during the Construction and Operation phase of the project.
 - b) Arrangement for compensation to the affectees in case of loss of agriculture land. Crops and property, Schools, Masjids, Graveyards etc. will be finalized before the start of construction. Any money involved in compensation will be deposited with District Govt. /Revenue Department for disbursement among the affectees. All conflicting issues regarding compensation, etc. should be settled before executing/commencing of the project activities and a report in this regard should be submitted to this Agency.


 1/19

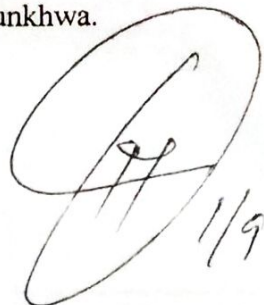
- c) In addition to other compensation measures, at least one male from every affected household shall be given employment based on their willingness.
- d) The existing irrigation channels, natural water springs, the water supply scheme/spring affected from the Project shall be properly compensated and alternate water supply for the affectees shall be ensured, Detail of the same shall be shared with the Agency before commencement of the construction activity;
- e) The spring channels disturbed during tunnel excavation shall be connected to pipes and shall be used as source of drinking water or other purposes for the locals of the area. Details of the same shall be submitted to this Agency.
- f) Detail of steps/mitigation measures shall be taken to mitigate impacts of the project on Spat Nallah, Gabarband Nallah or natural water streams;
- g) The Right of Way (RoW) of the water flows shall be protected. Moreover, the River shall be also protected from all type of pollution from project related activities;
- h) The natural rainwater water sheds RoW shall not be disturbed;
- i) The contaminated waste water of the tunnels shall be retained in confined pits of proper size ensuring proper treatment, complying NEQS parameters before final disposal.
- j) The existing routes going to the nearby villages shall not be affected or alternate routes shall be provided to the villagers as committed in the replies submitted to this Agency.
- k) The affected existing structures shall be relocated & compensated to other appropriate area before start of construction work;
- l) A Committee shall be constituted under the supervision of District Administration comprising representatives of the affected villages. The Committee will look into issues arising from the Project;
- m) In order to avoid the traffic congestion issues. For this reason, traffic management plan shall be submitted to this Agency.

A handwritten signature in black ink, consisting of a large, stylized 'A' shape with a horizontal line through it, followed by the date '1/9' written below it.

- n) Proper mitigation plan shall be formulated and implemented to avoid soil erosion / land sliding and sedimentation to the nearby river/water channel before commencement of Construction activity.
- o) Minimum environmental flow of 2.5 Cumecs with 10% extra flow shall be maintained in the downstream in case of emergency or as recommended by EPA KP. In light of the submitted EIA Report, the project management shall operate the HPP on option of base load / high protection operation run of river mode. The amount of E-Flow may be revised on the basis of findings of the Cumulative Impacts Assessment study of Hydropower Projects if conducted in near future. Moreover, E-flow meters shall be installed on site and online access of the same shall be provided to EPA KP as and when required.
- p) The muck/debris generated from the project shall be properly quantified. Dumping sites for the same shall be properly rehabilitated as committed in replies submitted to this Agency.
- q) The proponent shall ensure to avoid dumping of debris into down slope or in the water flow Right of Way (RoW) or other water bodies. The same shall be stabilized by proper plantation, bio engineering and engineering techniques. Retention walls of proper size shall be erected along the muck disposal material/site. Moreover, disposal sites-1 & 5, as per submitted EIA report, shall not be utilized for disposal of muck material. Alternatives sites shall be selected for this reasons in consultation with EPA Regional office Abbottabad. Details of the same shall be submitted to this Agency before start of construction work.
- r) Biodiversity Action Plan (BAP) shall be formulated in future if recommended by EPA KP at any stage on the basis of findings during monitoring of the instant project. The plan shall be prepared and implemented in consolation with Fisheries, Wildlife, Forest Department and EPA to mitigate the impact of the project on aquatic life, fauna, flora and Environment.
- s) Condition of the No Objection Certificate (NOC) issued vide letter No. SO(Tech)/FE&WD/V-427/2022/PC/Towers/7045-47, dated 19/07/2023 shall be implemented in letter and spirit. Compliance report of the same shall be submitted to EPA KP.



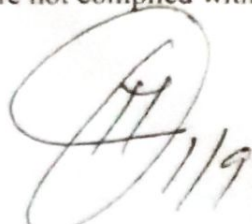
- t) Safety zone/adequate engineering measures should be provided to overcome fears of the residents regarding project activities to their houses;
- u) The construction/installations shall be carried out keeping in view seismicity of the project area & ensuring implementation of updated building by-laws/codes;
- v) Proper Flood Management Plan shall be prepared for the project site & site specific mitigation measures shall be implemented during floods;
- w) Primary baseline data comprising analysis reports of surface water, Soil, ambient air, noise, ground water etc. of the project area shall be carried out on quarter basis from KP-EPA certified Lab and shall be submitted to EPA.
- x) A sedimentation load study shall be carried out biannually along with mitigation measures for the control of sedimentation from upstream of the reservoir.
- y) Road/Highway Submerged/damaged due to project activity should be reconstructed/repared/rehabilitated to another suitable place in consultation with concerned Govt. Department;
- z) The proponent shall ensure the strict and efficient health and safety measures for the protection of workers and passersby backed by a comprehensive emergency response plan;
- aa) A comprehensive CSR policy shall be formulated keeping in view, the demands/needs of the locals including construction of school, dispensary, water supply scheme etc. and quantum of the project activity. The detail of the same shall be shared with this Agency before commencement of the construction activity. A committee with representation from locals and EPA may be finalized for this reason before commencement of physical activities.
- bb) Non-technical jobs shall be provided to local community/villages. Priority should also be given to locals in technical jobs. Employment record for all positions shall be provided to EPA-Khyber Pakhtunkhwa. Internship opportunities shall be provided to the locals regarding acquiring knowledge of technical jobs.
- cc) Labor rates shall be fixed as per market rates and policy of the Govt. of Khyber Pakhtunkhwa.

A handwritten signature in black ink, consisting of a large, stylized 'A' shape with a horizontal line through it, and the date '1/9' written below it.

- dd) The camp site, asphalt plants, crush plants & batching plants shall be located at a safe distance as recommended by the Agency.
- ee) Separate approval shall be obtained for establishment of Crush Plants, permanent Colony, Asphalt plant, transmission line and access road etc. under Khyber Pakhtunkhwa Environmental Assessment Rules, 2021. For temporary colony and camps, proper treatment plant shall be constructed for municipal effluents treatment to bring it within the NEQS parameters before final discharge;
- ff) A comprehensive plantation plan, in consultation with Forest Department, shall be submitted to this Agency along with GPS Coordinates of the plantation sites.
- gg) Controlled blasting techniques with prior warning system shall be implemented, if any blasting is involved, and details of the same shall be shared with this Agency before commencement of construction activities.
- hh) Proper plan shall be submitted for safe disposal of hazardous waste, if any, before commencement of physical activities. Record of the disposed of hazardous waste material shall be maintained and submitted to this Agency.
- ii) The proponent shall allocate funds and shall pay the due share as and when decided for a cumulative impacts assessment study for all the Hydropower projects located on the connected river. Moreover, the proponent will facilitate the Agency in research activities / studies through allocation of scholarship for proper assessment of the HPPs on different rivers and its mitigation.
- jj) Boulders trap shall be installed at upstream and sand trap shall installed for control of sedimentation.
- kk) The cultural values & social norms of the area shall be followed strictly;
- ll) No extension would be permitted in future in the existing hydropower project without prior approval of the EPA Govt. of Khyber Pakhtunkhwa.
- mm) The proponent shall adopt all the possible mitigation measures to prevent ground water contamination at any cost.
- nn) River bed mining shall not be conducted without prior approval from this Agency.



- oo) A proper flood protection and management plan duly approved from Provincial Disaster Management Authority (PDMA) shall be submitted to this Agency before commencement of physical activities.
- pp) The proponent shall provide the copy of this approval and EIA Report to the contractor for information and compliance. Applicable conditions of this approval shall be made part of the contract agreement. However, compliance of this approval shall be the sole responsibility of the proponent of this project.
- qq) Proper funds shall be allocated for environmental improvement, monitoring facilitation and protection of natural resources of the area in the EMP. Activities shall be carried out in this regard in coordination with EPA KP.
- rr) The proponent shall submit quarterly compliance report of the above-mentioned conditions to this Agency.
- ss) This Agency may suggest any additional mitigation measures/updated technology for the control of Environmental Pollution/degradation at any stage (construction & operational phase) of the project;
3. The Proponent shall be liable for correctness and validity of the information supplied by the environmental consultant.
4. There shall be no legal case pending in any court against the project.
5. The proponent shall be liable for compliance of rules 14, 15, 18, 19, 20 & 21 of the Khyber Pakhtunkhwa Environmental Assessment Rules, 2021 regarding approval, confirmation of compliance, entry, inspections and monitoring.
6. This approval accorded by the Agency under section 13 of the Khyber Pakhtunkhwa Environmental Protection Act, 2014, and shall be valid, for commencement of construction for a period of two years from the date of issuance.
7. This approval is accorded only for the construction phase of the project. The Proponent will obtain approval for operation of the hydro power project in accordance with the rule-15 and 18 of the Khyber Pakhtunkhwa Environmental Assessment Rules, 2021.
8. Any change in the approved project shall be communicated to EPA, Khyber Pakhtunkhwa and shall be commenced after obtaining the approval.
9. This approval shall be treated as null and void if all or any of the conditions mentioned above is/are not complied with.

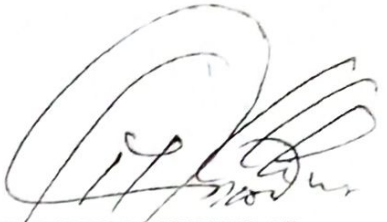


10. This approval does not absolve the proponent of the duty to obtain any other approval or clearance that may be required under any law in force.
11. The quarterly progress/compliance report of the above conditions shall be submitted to EPA.
12. In exercise of the power under Section-13 of the Khyber Pakhtunkhwa Environmental Protection Act, 2014, the undersigned is pleased to approve the EIA Report of "470 MW Lower Spatgah Hydropower Project, District Kohistan" for construction phase of the project with above mentioned terms and conditions.



Dated: Peshawar 01 / 09 / 2023

Tracking/File.No. EPA/EIA/HPP/470MW/23/ 107-109


DIRECTOR GENERAL,
EPA, Khyber Pakhtunkhwa,
3rd Floor, SDU Building,
Khyber Road, Peshawar Cantt.