

# NALSING GAD STORAGE HYDROELECTRIC PROJECT

## SALIENT FEATURES

| SN                      | FEATURES            | CHARACTERISTICS                                                                                                                                                                                                                   |
|-------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GENERAL</b>          |                     |                                                                                                                                                                                                                                   |
| 1                       | Name of the Project | Nalsing Gad Storage Hydroelectric Project                                                                                                                                                                                         |
| 2                       | Sector              | Hydropower                                                                                                                                                                                                                        |
| 3                       | Type                | Storage Type (installed capacity of 410 MW as per study of Nalsing Gad Hydropower Limited).                                                                                                                                       |
| <b>PROJECT LOCATION</b> |                     |                                                                                                                                                                                                                                   |
| 1                       | Province            | Province 6 (Karnali)                                                                                                                                                                                                              |
| 2                       | Project Location    | Jajarkot ( <a href="#">Location Map</a> )                                                                                                                                                                                         |
| 3                       | Project Area        | The proposed project is located in Nal gad river of Province 6 of Nepal. Nal gad is one of the tributary of the Bheri river, proposed project is located in the Jajarkot district. The nearest airport to the site is at Surkhet. |

| SN | FEATURES | CHARACTERISTICS |
|----|----------|-----------------|
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### PROJECT FEATURES (NALSING GAD HYDROPOWER LIMITED'S STUDY 2012)

|   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Project Layout | Concrete Dam is arranged at the riverbed; Gated Spillway, Headrace-type underground hydropower station is arranged at the left bank of the river; Four hydro generating units are installed in the station, with the unit capacity being 102.5MW                                                                                                                                                                                                                                                                                                                  |
| 2 | Geology        | Nalsing Gad Hydroelectric Project belongs to Surkhet Group and Mid Land Group of Lesser Himalayan Zone in Mid-Western Nepal. In the project area the Lesser Himalayan Mid Land Group is represented by dolomite, quartzite, shale and slate. The project area crosses three Formations of Mid land Group which is Galyang Formation, Syanjha Formation and Lakharpata Formation whereas Swat Formation and Melpani Formation belong to Surkhet Group of Mid-Western Nepal (from Geological Map of Mid-Western Nepal prepared by Department of mines and Geology). |
| 3 | Hydrology      | Catchment Area: 571.5 km <sup>2</sup><br>Design flow: 75 m <sup>3</sup> /s<br>(Note: There is a Hydrological station of Department of Hydrology and Meteorology (DHM) namely: Station Number 265: Thulo Bheri at Rimna)                                                                                                                                                                                                                                                                                                                                           |

### TECHNICAL COMPONENTS

|   |           |                                                                                                                                                                                                                    |
|---|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Diversion | A circular concrete lined tunnel of 8m in diameter and 1.145km in length.                                                                                                                                          |
| 2 | Dam       | A 200 m high concrete storage dam. The crest elevation of the dam is 1580.30 masl, a gate controlled chute type Spillway at elevation of 1555.30 masl.                                                             |
|   |           | Proposed Dam location: The proposed dam site is located just downstream of the confluence of the Udheri Khola which is approximately 9.25 km upstream from the confluence of the Nalsyau Gad and the Bheri –River. |
| 3 | Reservoir | Full supply Level: 1570 masl<br>Minimum Water Level: 1498 masl<br>Gross Storage Volume: 419.6 Million m <sup>3</sup><br>Live Storage Capacity: 296.3 Million m <sup>3</sup>                                        |
| 4 | Intake    | Sloping intake with invert level at 1481.0 masl                                                                                                                                                                    |

| SN | FEATURES          | CHARACTERISTICS                                                                                                                                                                                                                                                                                                                                                                                                              |
|----|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5  | Waterway          | <ul style="list-style-type: none"> <li>■ Headrace Tunnel: 5.7 m diameter, around 8.215km long concrete lined modified horse shoe shaped headrace tunnel at the intake.</li> <li>■ Inclined Shaft: around 900m long an inclined shaft of 4.2m diameter at inclination of 600.</li> <li>■ Penstock Pipe: 90 m long pressure tunnel dividing into four steel lined pressure conduits, one for each generating units.</li> </ul> |
| 6  | Powerhouse        | An underground power station, with turbine, transformers and switching stations.                                                                                                                                                                                                                                                                                                                                             |
| 7  | Turbine           | Four 102.5 MW rated Vertical Axis Francis turbine with, <ul style="list-style-type: none"> <li>■ Maximum Net Head = 684.36m</li> <li>■ Minimum net head = 612.11m</li> <li>■ Tail water Level : 863.3 masl</li> </ul>                                                                                                                                                                                                        |
| 8  | Energy Generation | <p>Dry Season Energy : 643.29 GWh</p> <p>Wet Season Energy : 150.88 GWh</p> <p>Spill Energy: 611.89 GWh</p> <p>Total Energy: 1406.06 GWh</p>                                                                                                                                                                                                                                                                                 |
| 10 | Power Evacuation  | As proposed from the study, the power evacuation to be carried by 400 KV double circuit transmission line to Kohalpur substation in Banke district which is around 112 km Km long                                                                                                                                                                                                                                            |

### DEVELOPMENT MODALITY

|   |                                 |                                                                                                                                                                                                                                                                                            |
|---|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Development modality            | Public Private Partnership                                                                                                                                                                                                                                                                 |
| 2 | Role of the Government of Nepal | <ul style="list-style-type: none"> <li>■ Provision of government land, land acquisition, facilitation and project security</li> <li>■ Facilitating legal approvals/permits</li> <li>■ Review &amp; monitoring</li> </ul>                                                                   |
| 3 | Role of the Private Sector      | <ul style="list-style-type: none"> <li>■ Plan, design, build, finance and operate the facilities during the Concession Period</li> <li>■ Collection of revenues from the project during the Concession Period</li> <li>■ Handover to the Government after the Concession Period</li> </ul> |

### INDICATIVE FINANCIALS AS PER 2012 STUDY

|   |                                                                                                                  |                    |
|---|------------------------------------------------------------------------------------------------------------------|--------------------|
| 1 | Total Project Cost (including interest during construction, finance cost and 400 kV double circuit transmission) | USD 739.39 million |
|---|------------------------------------------------------------------------------------------------------------------|--------------------|

# APPLICATION PROCEDURE

## PRE-QUALIFYING CRITERIA FOR THIS PROJECT

1. Minimum of 10 years of experience in field of energy project development, investment and management.
2. Evidence of Hydropower Projects Owned/Constructed/Operated Around the World. At Least Two Reference Projects Of At Least 500 MW (Out Of Which One Should Be Of Storage Operation), With Verifiable Evidence.  
or,  
Evidence Of Development And Operation Of Energy Projects With Aggregate Capacity Of Minimum 4000 Mw.
3. The combined Net worth of the applicant shall not be less than USD 1.5 Billion (United State Dollar One Billion Five Hundred Million) at the time of submission of bid.

## APPLICATION PROCEDURE

1. The developer/ investor who meet the above pre-qualifying criteria can make the application for this project.
2. Application may be made by a single entity or a group of entities (Consortium or JV) comprising up to three different companies/ parties, including a Lead member, coming together to implement the project.
3. A consortium/JV may fulfil the pre-qualifying criteria in a joint/cumulative manner, except for the number of years of work experience.
4. A fee of NRs 10,000 shall be payable for each application made (with application to one project counting as a single application).
5. The fee must be paid to OIBN (to the OIBN office or a dedicated desk at the Nepal Investment Summit), or by electronic transfer to the following bank account of OIBN:

**Office Code: 301003502**

**Office Name: Office of the Investment Board**

**Revenue Heading: 14229**

**Bank Name: Everest Bank Ltd.**

**Swift Code: EVBLNPKA**

Please use 'Company name\_Project name' as the reference code for the payment made in the case of an online payment.

6. After payment of the fee is made, the OIBN shall assign an engagement manager and may provide additional documents or information relevant to the project (if available).

7. Applicants should submit the detailed proposal with all required documents by 20th April 2019. Applications shall be submitted in physical copies to the OIBN or emailed to projects@ibn.gov.np.
8. The Government of Nepal (OIBN or relevant government agency at the relevant level of government) shall review the proposal and ask additional information if required.
9. The Government of Nepal shall decide on your application by 31st May 2019.

## DETAILED PROPOSAL CHECKLIST

1. Detailed profile of the developers/ investors, including profile of senior management team, annual report and audited financial statements for at least past three years (2015, 2016 & 2017), and consortium agreement or JV agreement or Memorandum of Understanding in the case of consortiums or JV.
2. Project concept, plan, and information on financial, economic, technical and environmental feasibility.
3. Method of project implementation, project development modality and work schedule
4. Business plan with basic financial statements
5. Financial arrangement and source of investment
6. Socio-economic contribution to Nepal
7. Expected support from GoN
8. Other relevant information, if any

**APPLY NOW**



## CONTACT DETAILS



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