Construction Of Rockfall Barrier Works For Nupche Likhu Hydropower Project

Ramechhap, Nepal



TYPE OF PROJECT	YEAR OF CONSTRUCTION	CLIENT	CONTRACTOR	DESIGNER
Dynamic Rockfall Barriers	**2025**	**Vision Energy & Power Ltd**	**Sunam Infrastructure Nirman**	**El Maven (P) Ltd.**

PROD. RELATED

Rockfall Barriers (60 Rm (6,000 KJ))

Challenge

The proposed Nupche Likhu Hydropower Project, located in the rugged mountainous terrain of Gumdel VDC, Ramechhap District, Nepal, has experienced frequent rockfall incidents during the construction phase due to its steep slopes and complex geological conditions. The switchyard area has been particularly vulnerable to rockfall activity, posing significant safety risks to construction personnel, damaging equipment, and disrupting ongoing construction works. To address these challenges and ensure the safe and uninterrupted execution of the project, a detailed rockfall hazard assessment was conducted. Based on the assessment, suitable rockfall mitigation measures were identified and proposed to effectively reduce rockfall risk.



Initial Site Condition



Initial Site Condition

Solution

As per the site observations and previous history of rockfall events in this area, rockfall barrier was proposed in the identified location. Dynamic rockfall barrier of the 3000KJ and 4m high, 60m long, have installed in identified locations, to mitigate the effect of rock detachment from the hillside locations, from affecting existing switchyard.
The dynamic rockfall barriers installed are EAD certified, with specifications conforming to national and international standards and comprise of a primary interception mesh of MacRing (Ring Net) and a secondary interception mesh of DT mesh. These rockfall barriers have a breaking system, which maintains performance throughout the entire design life of the structure and are easy to visually inspect by maintenance engineers as it progressively deforms once the barriers are impacted.



Installation of Post , Ringnet with DT Mesh



After installation of Rockfall Barrier

OPEN GOOGLE MAPS

OPEN GOOGLE EARTH

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