

COMPLETE HYDRO SOLUTIONS

Water to Wire E&M Supply | Engineering & Design |
Consultancy Support during construction | O&M Solution
for Operational Hydro Projects | After sales support - Supply of Spares |
Overhauling, Renovation | Modernisation & Upgradation.



WHO WE ARE

- Terra Green is team of Professional with a rich experience of more than 20 years having its core competency in field of Hydro Power Projects.
- Terra Green Offers Customised, Innovative and Economical solution for supply of Hydropower projects.
- Terra Green has passion to work for customer satisfaction by providing effective & efficient solution to peculiar problems for long lasting value to customer.
- There is no limit to expansion of resources, infrastructure, & enhancement of skill, capability to meet market need and continual improvement
- Dedicated Support of our Strategic Partners strengthen Terra Green mission to serve wide range of Customers



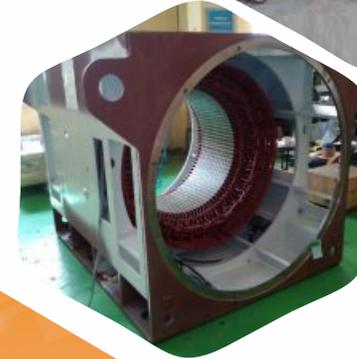
VISION & MISSION

Our Vision is to be a technology leader, and to be amongst the top Hydropower Equipment Supplier globally, by leveraging technological and Commercial acumen to exceed customer expectation and to be the Most respected brand.



OUR SERVICES

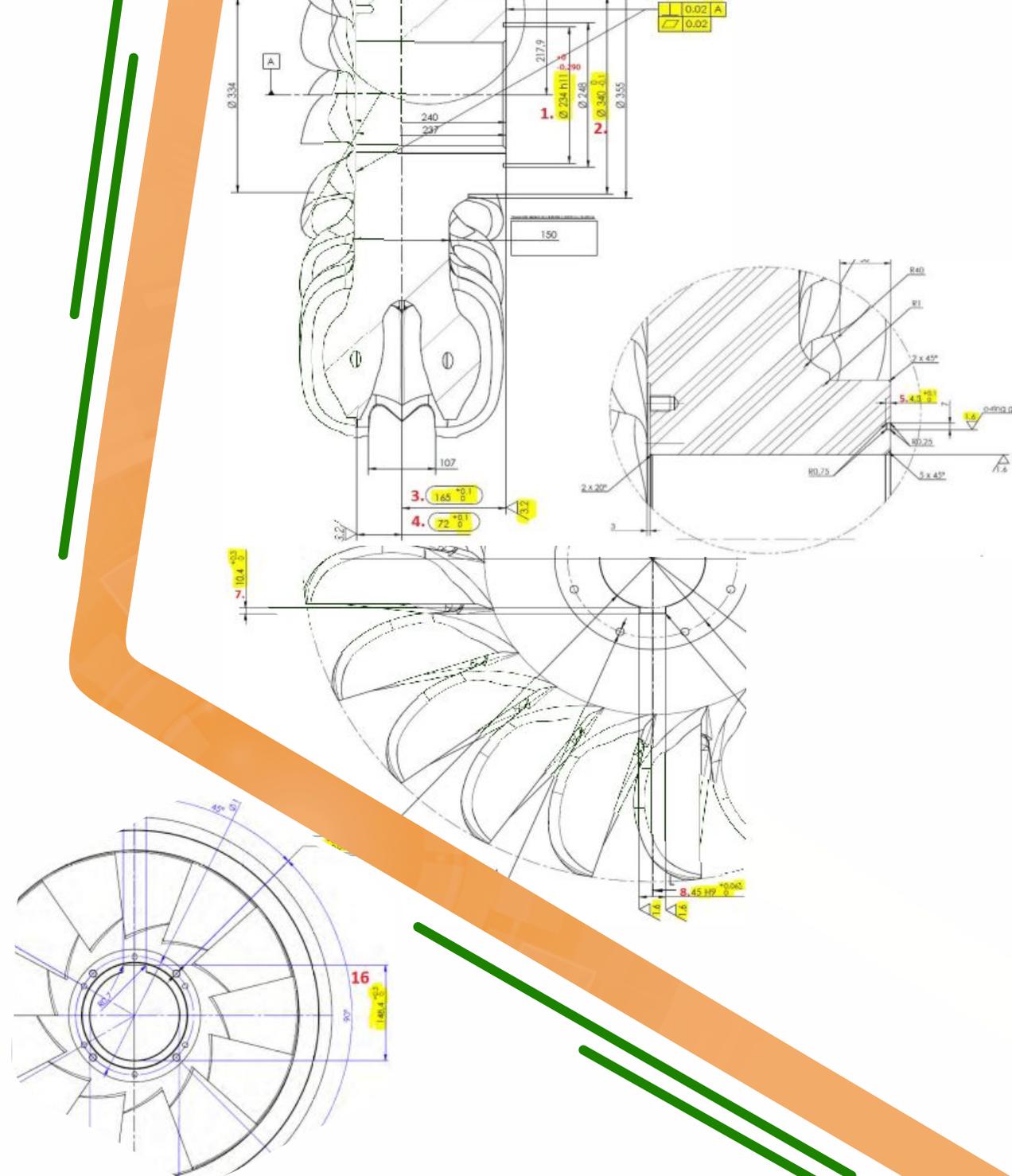
- Water to Wire Electro-Mechanical Equipment Supply (E&M Supply)
- Electrical Balance of Plant & Mechanical Balance of Plant supply for Hydropower Projects.
- Engineering Design & Consultancy Services for 11/33 kV, 132/33 kV Switchyard & New Hydro Power Projects.
- Annual Maintenance Contract & Capital Overhauling of Hydro projects in Operations.
- Operational & Maintenance Services for Hydro power Projects.
- After sales Service Support – Spares Supply, Technical support to resolve issues in Operational Projects.
- Renovation Modernisation & Upgradation of Hydropower plants.



Feasibility support

Terra Green is side by side with the Client since the very beginning of the project providing support not only in the electromechanical equipment choice, but also in the general power plant layout in terms of hydraulics and energy production optimization.

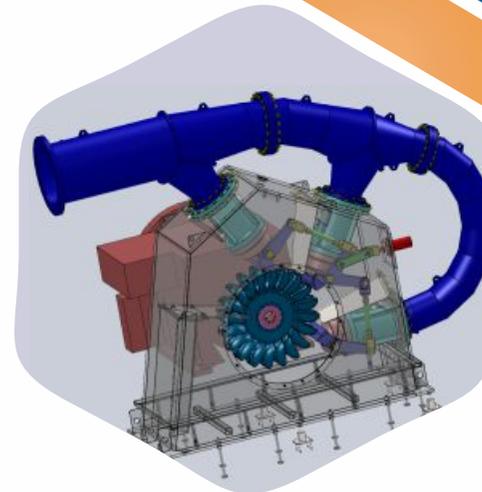
Terra Green performs on site visit to survey the project site and to provide turbines layout alternatives tailored to site characteristics and Client requirements. Turbines layouts are completed with energy production reports and overall power plant optimization analysis.



Design

Terra Green keeps its know-how in the Technical and R&D Department, where every design feature regarding hydropower technology is developed: starting from the hydraulic calculations, to the mechanical design, the turbine automation system, and the connection system to the electrical grid.

Tera Green adopts all the most up-to-date technologies to guarantee the best reliability and efficiency of its products, such as CAD-CAM and CFD software.



Manufacturing

With almost 5.000 m² of in-house production workshop, side by side with the technical department, Terra Green internally handles the production of the most important components with the most up-to-date machine tools. The manufacturing of non-core components is usually entrusted to local suppliers.

Fundamental importance is given to internal acceptance testing and to pre-commissioning, before shipping the equipment.



On-site operations

Terra Green technical teams directly follow every on site operation: starting from the mechanical installation, to the electrical installation and commissioning phase.

Every single activity is carried out according to a strict quality control plan.

Full On Site Assebly



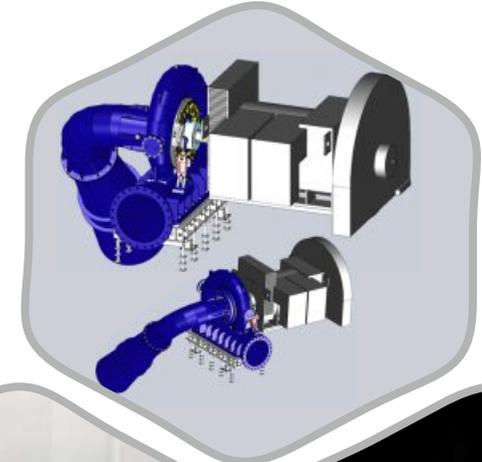
Assebly Supervision



After Sales

Terra Green provides complete and customized service solutions, ranging from ordinary to extraordinary maintenance according to the customer necessity.

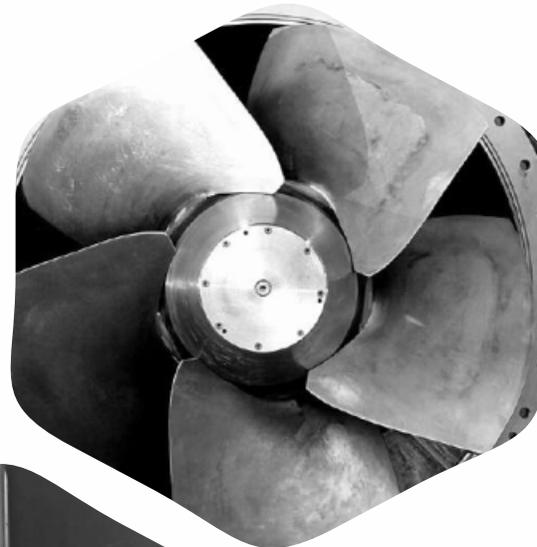
Terra Green wide range of after sales support services such as remote control, predictive analysis, direct on site interventions, revamping and training of local personnel can significantly help to improve the HPP lifespan



Pelton



Kaplan



Francis



**Submerged
Kaplan**

Product Portfolio

Pelton

Impulse turbine for high hydraulic head and low flow rates; It provides high efficiency even with considerable flow rate annual variations thanks to the nozzle valve regulation.

Supplied in compact solution due to the high rotational speed. The turbine is wired on a single frame in Terra Green workshop, and delivered ready to be quickly installed and started up.



Francis

A reliable turbine for medium hydraulic heads and flow rates. It guarantees high efficiency values thanks to the possibility of regulating the wicket gate according to the available flow rate.

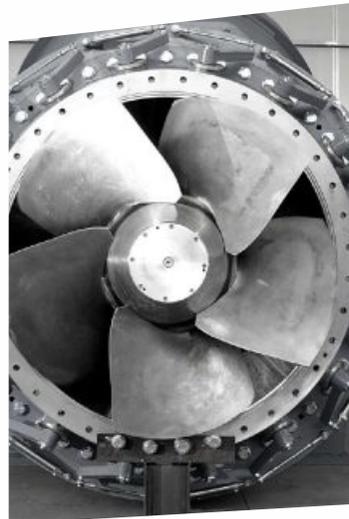
It is supplied with runner directly hanged over to the generator shaft for a compact solution, wired on a single frame, ready to be installed downstream of the penstock and started up.



Kaplan

Typical solution for the exploitation of high water volumes and low heads, Kaplan Turbines benefit of a high efficiency over a wide range of flow rates, thanks to the runner regulation system.

Terra Green supplies Kaplan turbines both in vertical and horizontal solution, directly connected to the generator shaft or by adopting belts or gearbox coupling.

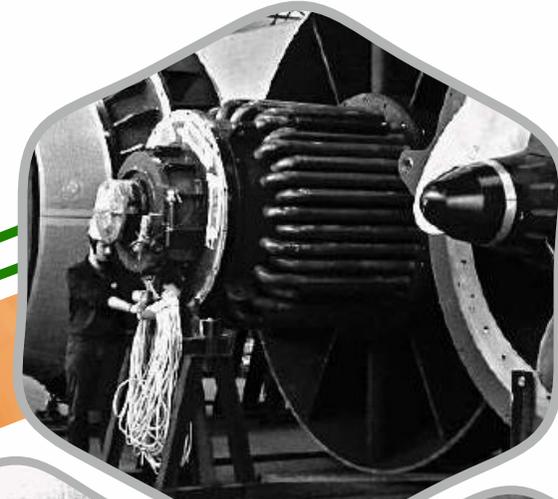
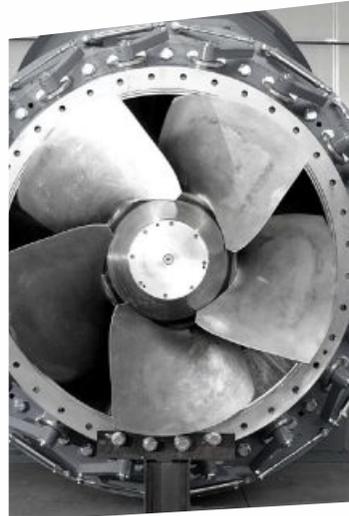


Submerged Kaplan

Bulb Turbines represent the evolution of Kaplan turbines. The generator is directly coupled to the turbine shaft resulting in a very compact solution, suitable to be installed under the water level.

This solution not only improves the hydraulic behavior of the bulb unit but also results in a lesser need for excavation. This translates to a reduced size of the whole equipment and thus lower investment costs and civil works requirements.

Bulb Turbines can be provided in vertical or horizontal solution, according to the hydraulic data and the site characteristic.

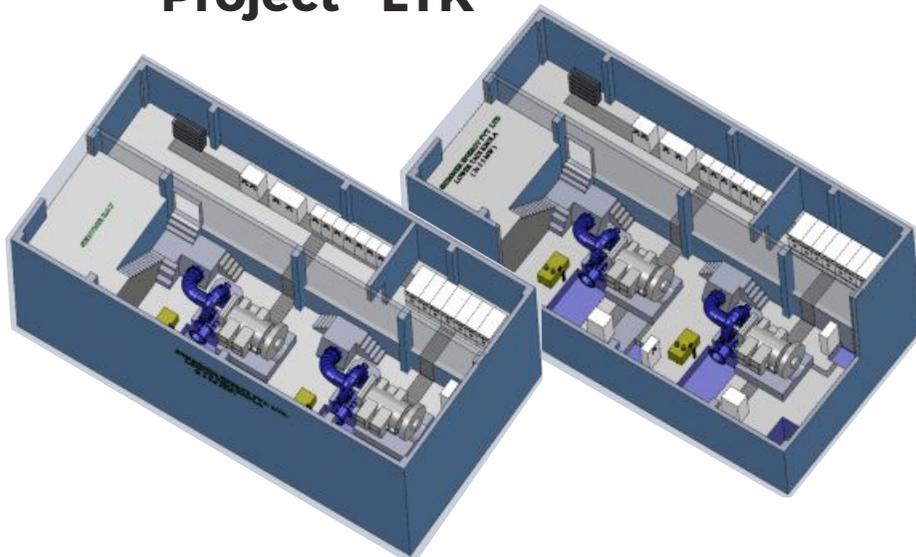


O&M Projects in Nepal: -

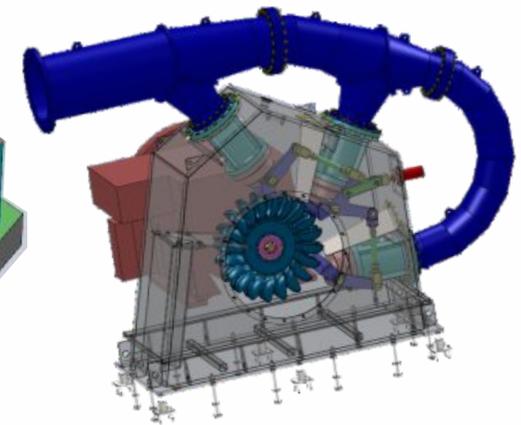
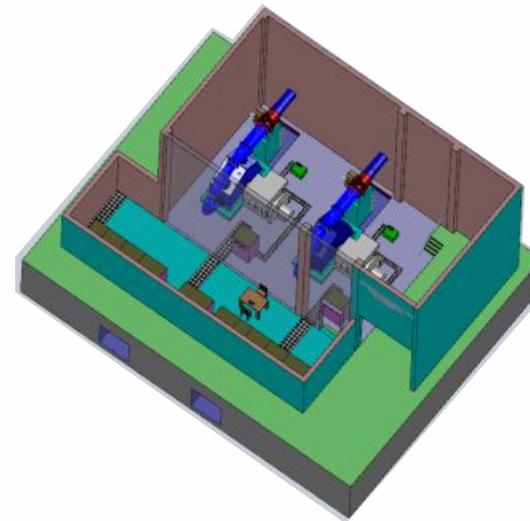
1. Lower Tadi Khola HEP (2 x 2.5 Mw) - Horizontal Francis Turbine. - photo will be Shared.
2. Puwa Khola HEP (2 x 2.5 Mw) - Horizontal Pelton Turbine. - Photo will be shared.

Our Projects

Project - LTK



Project - URK



TURBINE ASSLY

Our Footprints in Nepal & India: - Make footsteps symbol

- Jeuligadh HEP.
- Upper Rawa Khola HEP.
- Richet Khola HEP.
- Molung Khola HEP.
- Gelung Khola HEP.
- Pati Khola HEP.
- Ghar Khola HEP.
- Puwa Khola-II HEP.
- Lower Tadi Khola HEP.
- Phawa khola HEP.
- Thapa Khola HEP.

Provide customised, innovative & Economical solution for supply of Water to Wire Electromechanical Solution & after sales support for trouble free operation of hydro power projects to achieve a higher satisfaction level to the client.





Office Address: -

 **India Office Address: -**

Terra Green Engineering Services Pvt. Ltd.
C-203, Shivjot Enclave, Kharar
Mohali, Punjab, 140301, India.

 Email id: -info@terragreenengineering.com
Savikar.patial@terragreenengineering.com

 Contact No./WhatsApp: - +91-9816301836.

Marketing representative (India): - Sanjay Rana.

 Email id: - Sanjay.rana@terragreenengineering.com

 Contact No./WhatsApp: - +91-7678340927.

 **Nepal Office Address: -**

Terra Green Engineering Services Pvt. Ltd
45/85 Ikuhiti Marg, Dhobighat-3, Lalitpur Nepal
Email Id: - info@terragreenengineering.com

Marketing Representative (Nepal): - Anu Sharma

 Email id: - Anu.sharma@terragreenengineering.com;

 Contact No./WhatsApp: - +977-9801231711.

