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**12**  
*Years of  
Excellence*

**A Complete  
ENGINEERING SOLUTION  
for Hydropower Project**



**NEES ENGINEERS PVT. LTD.**

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## ABOUT US

NEES Engineers Private Limited is an innovative engineering firm with over 10 years of experience in the hydro-electric power sector. Specializing in E-M Equip. & Spare Parts Sales and Services, we prioritize sustainable energy solution, cutting edge technology and exceptional client service. Our expertise spans from complete hydropower plant solutions of all sizes to plant diagnosis, refurbishment, modernization and upgrades. With a skilled team deeply knowledgeable in hydroelectric system, we ensure top quality products and services to meet diverse client needs. Our collaborations in the hydro sector extend to teams in India & China, including manufacturers, suppliers and engineering service provider, enabling us to leverage their expertise and resources for our mutual success in the hydroelectric industry.

At Nees Engineers, we understand the critical role of reliable spare parts in maintaining the operational efficiency of hydroelectric power systems. Our focus on sales extends beyond equipment to encompass a comprehensive supply of hydro-related spare parts. We provide genuine spare parts sourced from trusted manufacturers, ensuring compatibility, durability, and performance excellence.

## HOW WE WORK?

We drive the success of our customers through innovative and quality engineering and services, and we form strong and sustainable relationships with a positive impact for key industries and for the planet. The world keeps changing, our passion stays the same.

Our firm primary is to fulfill the every single need of our clients which is done by us in a specific & timely manner. We have maintained a spacious & large infrastructural facility that have all the modern facilities available in it and therefore our experts engineers can easily process and maintain were the problem is occur without any hassles. Similarly, to maintain quality in our services we provide the entire range with best quality equipment which we source from the reputed vendors.

## PERSPECTIVES

NEES is constantly creating new perspectives for the company, for the employees, and for the customers. Based on an intrinsic power of innovation and entrepreneurial spirit, we develop initiatives in order to find new paths and promising technologies and solutions for the future.

## VERSATILITY

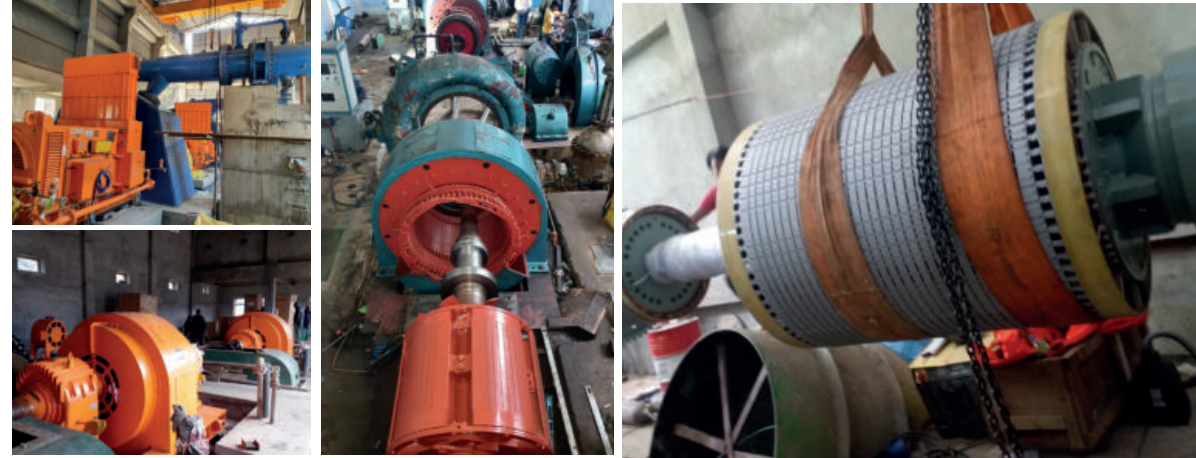
We are willing and able to take on new and often spontaneous challenges and to deal with them flexibly and creatively. This versatility helps us to learn and to develop our various talents in order to make an impact. Discover our on the job and vocational training opportunities as well as our various talent.



# OUR SERVICES

## ELECTRO - MECHANICAL SECTOR

- ✓ Inspection & Installation.
- ✓ Erection & Commissioning.
- ✓ Operation and Maintenance.
- ✓ Repairing of Electro-Mechanical Equipment.
- ✓ Trouble Shooting and Servicing.
- ✓ Technical Manpower Supporting.
- ✓ Solar Electrification.
- ✓ Three phase (3 $\phi$ ) Control Panel Supply on Hydro sector /Industries.



## TRANSMISSION LINE AND SUB-STATION /SWITCHYARD

- ➔ High Tension and Low Tension Transmission Line Design.
- ➔ High voltage (HV) Transmission Line Job.
- ➔ Low Voltage (LV) Transmission Line Job.
- ➔ Sub-station/Switchyard Work.
- ➔ Three phase (3 $\phi$ ) Control Panel Supply on Hydro sector / Industries.
- ➔ Supply of accessories for all types of Transmission Line and Sub-station.



# TESTING

- ✓ High Voltage Testing
- ✓ Transformer Oil Insulation Test
- ✓ Insulation Test
- ✓ Earth Resistance Test
- ✓ Generator Test
- ✓ Transformer Routine Test
- ✓ CT's & PT's Ratio Test
- ✓ Control Panel Functional Test



## TECHNICAL MANPOWER SUPPORTING

Technical Support Specialist within an organization is to provide assistance and maintenance to all hydropower systems. Our work may include installing, configuring, and updating hardware and software, as well as fixing any issue related to the equipment that may come up on a daily basis.

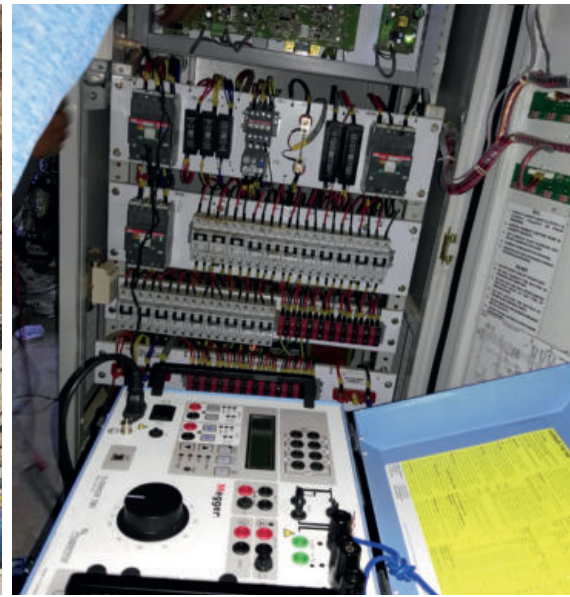
## OPERATOR TRAINING

The workshop is intended to provide knowledge on standard practice of plant operation and maintenance, upgrading with latest technology, and case studies of operational power plants in Nepal. We will train the client's appointed person in how to operate the hydro system and will visit the site regularly over the first few months of operation to make adjustments as and where required, then will provide the on-going support and maintenance services required by the client.



## REPAIRS, TROUBLESHOOTING

Performed preventative Electro-mechanical maintenance activities when needed. Performed assembly/testing/inspection on electro-mechanical systems Implemented quality assurance on products through maintenance and troubleshooting, position involved construction, trouble shooting and repair of various electronic devices. From small repair to full revamping, NEES can improve your plant capacity and efficiency via equipment repair or replacement.

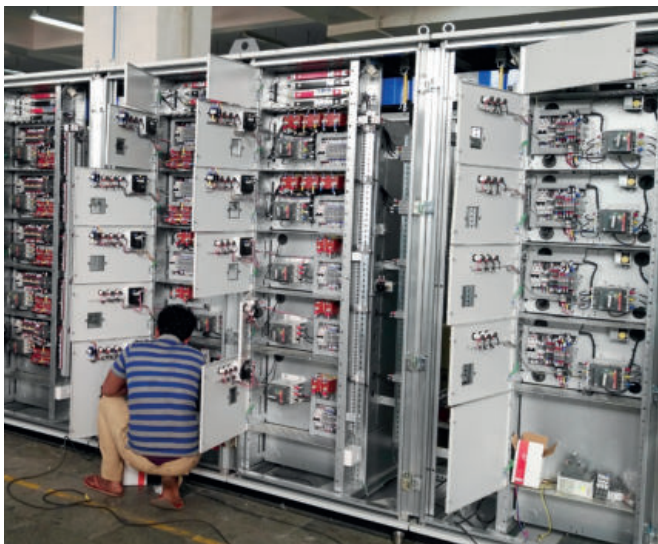


## ERECTION, TESTING & COMMISSIONING

Supervision of Erection, Testing & Commissioning of complete Electro-Mechanical Equipment which includes Hydro Turbine, Generator, MIV, Oil Pressure Unit, Transformers, all Electrical items and Substation or Switchyard.

## INSPECTION & INSTALLATION

Hydro Inspection and installation is another area where we use our own experienced staff to ensure that everything is installed meticulously to ensure a long and trouble free life.



## THREE PHASE (3Φ) CONTROL PANEL SUPPLY ON INDUSTRIES / HYDRO SECTOR

NEES Supply Hydro Pneumatic Control Panel from single stage to multi stage as per the machine requirement.

# TRANSMISSION LINE AND SUBSTATION WORK

NEES provides integrated engineering, procurement, and construction or program management services for transmission lines, substations, and distribution facilities. These services extend to independent transmission lines and substations as well as those associated with new power generation facilities.

- ✓ All Kinds of Electro-Mechanical Equipment, Testing kits, Transformer Oil Filter Machine, Transmission Line & Substation Accessories, Spare Parts and many more tools used in Electro-Mechanical work for Hydropower Projects.

We are Also Authorized Distributer of;

- ✓ TC (Zhangjiajie Tiancheng Electromechanical Equipment Manufacturing Co. Ltd.), China
- ✓ Gulf Oil for Hydropower Sector.



We supply, Electro Mechanical Equipment or Spare Parts with the same specification of different manufacture Company, Some of the reputed manufacture company are;



# ROUTINE HYDROPOWER OPERATION & MAINTENANCE CONTRACTS

Hydropower Private Company are growing day by day, In the Foreign countries they invest 5% of their revenue in the Operation and Maintenance services for long life of the Machines as well as to generate good revenue without any trouble in the generation. Operation and Maintenance is the backbone services which is provided by NEES Engineers Pvt. Ltd.. Most of the private companies are getting in losses due to the lack of operation and maintenance services. At the beginning for one year to two years they generated good revenue after that the company start to generate less revenue due to lack of Operation and Maintenance services. Operation and Maintenance services is the key of being success in hydropower as well as to generated fantastic revenue in any hydropower project.

Hydropower systems are capital intensive assets that can produce a significant income for many decades provided they are operated efficiently

and maintained to a high standard. Conversely a hydropower system that is operated sub-optimally can suffer a significant reduction in energy production, and therefore income, even though the operating costs remain constant. Just consider what a difference 10% more income would make if your operating costs stayed the same. Depending on the size of the system and how involved you want to be in the day-to-day management of the system, NEES offers different levels of hydropower maintenance and operational support to suit your requirements.

- ✓ Monthly Routine
- ✓ Quarterly Routine
- ✓ Yearly Routine

**NEES Hydropower service contracts provide regular preventative maintenance and inspections to ensure reliable day-to-day operation of your plant. The frequency of visits varies depending on the size, type and complexity of the system. Our routine services normally take ten days hydropower service technicians to complete and covers:**

- ➔ Turbine Functional Checks & Inspection.
- ➔ Turbine Bearing Lubrication & Inspection..
- ➔ Governor Oil Condition Analysis & Oil Changes.
- ➔ Bearing Inspection & Lubrication.
- ➔ Coupling Inspection.
- ➔ Generator Inspection.
- ➔ Generator Bearing Inspection & Lubrication.
- ➔ Hydraulic System Inspection.
- ➔ Hydraulic System Oil Condition Analysis & Oil Changes.
- ➔ Check All Sensors Operate Correctly.
- ➔ Check Controller Functions Correctly.
- ➔ Inspection of Intake Area, Impounding Structures, Pipeline, Sluice



# WHAT WE SUPPLY ?

## TURBINE & GENERATOR

- ➔ Axial flow Turbine
- ➔ Francis Turbine
- ➔ Tubular Turbine
- ➔ Pelton Turbine
- ➔ Turgo Turbine

With more than 30 series and more than 220 Specifications. Generator has 2 categories, i.e Vertical and Horizontal



## ELECTRICAL EQUIPMENT

- ✓ Generator
- ✓ Governor
- ✓ Controlling/Protection Modules
- ✓ Power Transformer
- ✓ Potential Transformer
- ✓ Current Transformer
- ✓ Protection Relay
- ✓ VCB (Vacuum Circuit Breaker)
- ✓ Battery Panels
- ✓ High Voltage Switch Gears
- ✓ AVR
- ✓ Control Panels etc.

And many other electrical accessories.





## TESTING EQUIPMENTS

- ➔ High Voltage Testing Kit.
- ➔ Transformer Oil BDV Testing Kit.
- ➔ Insulation Testing Devices.
- ➔ Relay Testing Kit.
- ➔ CT & PT Analyser.
- ➔ Megger Devices.
- ➔ Multimeter.

and many other Testing Equipment.



## FILTERING EQUIPMENT

- ➔ Transformer Oil Filter.
- ➔ Hydraulic Oil Filter Machine.

and many other Filtering Equipment.



## ALL SIZE OF HYDRO ELECTRO-MECHANICAL SPARE PARTS

- ✓ Runner
- ✓ Butterfly Valve
- ✓ Shear Pin & Links
- ✓ Spiral Casing
- ✓ Pressure level Gauge
- ✓ Temperature Gauge
- ✓ Sensor
- ✓ Bearing
- ✓ Solenoid Valve
- ✓ Hydraulic Brake

And Many More Hydropower Accessories.



# SUBSTATION & TRANSMISSION LINE ACCESSORIES

- ➔ Disc insulator
- ➔ Pin Insulator
- ➔ Bracing/ cross Arm
- ➔ Transmission Line Conductor
- ➔ Stay wire
- ➔ Poles
- ➔ Lighting Arrester
- ➔ Isolator
- ➔ Clamps
- ➔ DO Fuse
- ➔ Cables
- ➔ CT's & PT's

and many more Sub-Station & Transmission Line Accessories.





## LONG-TERM OPTIMIZATIONS OF ASSETS

- ✓ Maintenance of the electro-mechanical equipment is key to the long operational lifespan of a hydropower asset.
- ✓ The profitability and long-term value of a hydropower plant is significantly impacted by the quality of the rendered services.

To fulfill value requirements and return on investment, remote assistance, emergency troubleshooting and preventive, corrective and predictive maintenance are necessary. NEES services can range from continuous monitoring of relevant key performance indicators to adaptive operational optimization of multiple units and power plants.

## HOW TO ORDER SERVICE ?

- ✓ Routine and non-routine hydropower maintenance servicing can be ordered at any time by informing us of your requirements, then we will respond with a completed proposal document which will need signing, scanning and emailing (or posting) back to us.
- ✓ For new clients we invoice some percent of the fixed fee part in advance and this will require payment before the site visit. The Service Contract is ordered and administered using an NEES Engineers Pvt. Ltd. Term Service Short Contract which we can prepare for all parties to sign.
- ✓ If you would like to carry out any of your Operation and Maintenance works please get in touch to discuss your requirements in more detail.

## FIRE & SAFETY EQUIPMENTS



# OUR CLIENTS

Client	Projects
Himal Dolakha Hydropower Company Ltd.	Mai Khola Small Hydropower Project (4.5 MW), Ilam Mai Cascade Small Hydropower Project (8 MW under construction), Ilam
Joshi Hydropower Development Company Ltd.	Puwa Khola Small Hydropower Project (3 MW) , Ilam
Task Hydropower Co. Ltd.	Seti II Small Hydropower Project (979 KW), Kaski.
Center for Power Development & Services Pvt. Ltd.	Upper Handi Khola Small Hydropower Project (991 KW), Sindhupalchowk.
Baneshwor Hydropower Pvt. Ltd.	Piluwa Khola Small Hydropower Project (1 MW), Sankhuwasabha.
Thoppal Khola Hydropower Co. Ltd.	Thoppal Khola Small Hydropower Project (1650 KW), Dhading.
Bhairabkunda Hydropower Pvt. Ltd	3MW Small Hydropower Project, Sindhupalchowk.
Moonlight Hydropower Co. Pvt. Ltd.	Balefi Hydropower project (22 MW)
Sapsup Kalika Hydropower Co. Pvt. Ltd	Sapsup hydropower project (1MW)
Idi company Pvt. Ltd.	Idi khola hydropower project (1 MW)
Electrocom and Research Center Pvt. Ltd.	Jhyadi khola hydropowerproject (2.2MW)
Pashupati Environmental Engineering Company Pvt. Ltd.	Chhote Khola (0.993 MW)
Garjyang Upateyaka Hydropower Co. Pvt. Ltd.	Chake khola hydropower project (2.8MW)
Rising Hydropower Company Pvt. Ltd.	Selang hydropower project (1MW)

## QUICK CUSTOMER SERVICE

Requirements for support are created and triggered by our clients and their equipment. Our support concept offers rapid solution-oriented services to solve any problems which occur as soon as possible. Additionally, we provide diagnosis or testing equipment for repairs on-site.



Contact Us:

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