



## **PENTAFLO HYDRO PVT. LTD.**

**(Design, Manufacture, Trading, Supply, Erection  
and Commissioning of Hydro Power Project Machinery)**

### **COMPANY PROFILE**



**M/s PENTAFLO HYDRO PVT. LTD.**

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## Company Profile

**Pentaflo Hydro Private Limited**, an EPC Company engaged in Design, Engineering, Manufacture, Supply, Erection, Testing and Commissioning of Small Hydro Electric Projects. Pentaflo Hydro Private Limited manufacturing operations commenced in 2003 and the company had expanded to cater to the needs of the national and international markets. At the core of Pentaflo lies its capability in adapting technology. Pentaflo core capabilities are Design, Research and Development, Manufacturing, Quality Management and Project Management. In the process of development, the Pentaflo had put in place, a sound engineering base. Customer satisfaction and our commitment to deliver best have contributed to brand nomination of Pentaflo products for intensive capital projects. For better control on quality and delivery, the manufacturing facility has always been emphasized. One manufacturing facility in Faridabad is equipped with extensive manufacturing and material handling capabilities, to create a high end and complimentary infrastructure.

We are a team of qualified and experienced engineers in the field of “Small Hydroelectric Power Plant” equipments. We are Delhi based EPC Company, pioneer in detailed designing, engineering, material selection, manufacture, assembly, testing, erection and commissioning of electro-mechanical equipments for Small Hydro Power Projects. We have a manufacturing unit at Faridabad, Haryana.

We manufacture turbines of capacity ranging from 10 kW to 5 MW. We have a manufacturing facility located at Faridabad, Haryana well equipped with Man, Machine and Materials. We manufacture following types Turbines:

**Francis Turbine:**

- a. Horizontal and Vertical Shaft Turbines.
- b. Head range from 12 mts to 250 mts.
- c. Unit manufacturing capacity ranges from 100 kW to 5000 kW.
- d. For special cases up to 200 kW low head Francis turbine, we can offer flat belt pulley system as speed increaser also.



### **Kaplan Turbine:**

- a. Horizontal and vertical shaft configuration.
- b. Head range from 1.8 mts to 20 mts.
- c. For Ultra low head range from 1.8 mts to 4 mts, the turbine intake is by Siphon arrangement.
- d. Fixed Runner blade and adjustable guide vanes.
- e. Runner Blade adjustable and fixed guide vanes. (Semi Kaplan)
- f. Both runner blades and guide vanes adjustable. (Full Kaplan)
- g. Unit manufacturing capacity ranges from 200 kW to 5000 kW



## Pelton Turbine

- a. Horizontal shaft Pelton Turbines with 1, 2 or 3 jets.
- b. Vertical Shaft Pelton Turbines with 4 to 6 jets.
- c. Head ranges from 50 mts to 400 mts.
- d. Runner in Stainless steel is integrally cast.
- e. Micro range Pelton, buckets are bolted to hub.
- f. Deflectors are of ON/OFF type or regulating type.



## Cross – Flow Turbine

- a. Cross flow Turbine from 5KW to 200KW.
- b. Head ranges from 6m to 100m.
- c. Runners are either of stainless steel or mild steel.
- d. Provide self closing type inlet butterfly valve to avoid runaway speed.



### **Micro Inverted Siphon Turbine**

- a. Head ranges from 1.5m to 6m.
- b. Flow ranges from 0.1 cubic m to 4.0 cubic m.
- c. Best suited to sites where head and flow remains constant or with little variation in head.
- d. Required very little civil work.



## **Butterfly Valve**

- a. Turbine inlet valve (Butterfly type)
- b. Turbine Inlet Valve (Spherical type)
- c. Penstock Protection Valve.
- d. Range of Manufacturing: 150 mm to 3000 mm.
- e. Operation (Hydraulically / Manually)
- f. Valves are fabricated or made of cast steel.







### **Spares, Modernization and Upgrading**

- a. New materials and surface treatment for increased component life.
- b. Self lubricating bearings.
- c. Modified shaft seals.
- d. Modern Control Equipment.
- e. New digital governor.
- f. Oil pumping units.
- g. New Runner.
- h. Modified or new guide vanes.
- i. Modified or new nozzle assemblies.
- j. Services for Design and Engineering.

We have in house design facility and are capable to provide you our specialized services for electro-mechanical equipments for setting up of Micro, Mini & Small Hydro Projects.

### **Promoters:**

1 **Mr. K.C. Arora:** He himself is ME in Rotodynamics Machine and BE in Mechanical Engineering. He has worked for companies like Flovel Private Limited, Triveni Engineering Industries. He is involved in the Design and Engineering of Hydro Turbines for past 30 years.

2 **Mr. K.M. Babu:** An engineer by profession and has worked for companies like Triveni Engineering Industries, Flovel Private Limited. He is also indulged in design and Engineering of Hydro Turbines for past 25 years.

They together laid the foundation of Pentaflo Hydro Private Limited. With growth, motivation and dedication they started expanding their arms and added new members to family.

**DETAILS OF MINI HYDEL PROJECTS BEING EXECUTED BY  
PENTAFLO HYDRO PRIVATE LIMITED**

<b>S. No.</b>	<b>Name of Project</b>	<b>Client</b>	<b>Project Capacity</b>	<b>Type of Turbine</b>	<b>Present Status</b>
1	<b>Deopani HEP Arunachal</b>	Jalshakti Engineering Pvt Ltd.	2 x 250 KW + 10% COL	Hor. Francis turbines	<b>Commissioned in Dec. 2008</b>
2	<b>Mrujaara MHP, Shimoga</b>	Mrujaara Power	1 x 750 KW + 10% COL	Vertical Semi Kaplan Turbine	<b>Commissioned in Sept. 2009</b>
3	<b>Lower Baijnath Kuhl MHP, H.P.</b>	M/s Changar Vidyut Kranti Pvt Ltd	2 x 500KW + 10% COL	Hor. Francis turbines	<b>Commissioned in Aug. 2009</b>
4	<b>Dehar - II MHP, Himachal Pradesh</b>	M/s Saini Techno Constructs Pvt Ltd.	2 x 900 KW	Hor. Francis turbines	<b>Commissioned in March, 2011</b>
5	<b>Kachopani MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 100 KW + 10% COL	Hor. Francis turbines	<b>Commissioned in October 2013</b>
6	<b>Billing MHP, Himachal Pradesh</b>	HIMURJA	2 x 200 KW + 10% COL	Hor. Francis turbines	<b>Commissioned in October 2012</b>
7	<b>Longpani MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 200 KW + 10% COL	Hor. Francis turbines	<b>Commissioned in April 2013</b>
8	<b>Gossang MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 250 KW + 10% COL	Hor. Francis turbines	<b>Commissioned in July 2012</b>
9	<b>Nuranang MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 500 KW + 10% COL	Horizontal Single Jet Pelton Turbines	<b>Supply completed</b>
10	<b>Zhongdongrong MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 500 KW + 10% COL	Hor. Francis turbines	<b>Supply completed</b>

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11	<b>Siri Korang MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 250 KW + 10% COL	Hor. Francis turbines	<b>Commissioned</b>
12	<b>Payu MHP, Arunachal Pradesh</b>	M/S Beicco Lawrie Ltd., Kolkata,	2 x 500 KW + 10% COL	Horizontal 2 Jet Pelton	<b>Under Execution</b>
13	<b>Dooteriah MHP, Darjelling</b>	M/s Dooteriah & Kalej Valley Tea Estates Pvt. Ltd., Darjelling	1 x 100 KW + 20% COL	Crossflow Turbine	<b>Commissioned</b>
14	<b>Bairas MHP, Kargil</b>	KREDA	2 x 750 KW + 10% COL	Hor . Francis Turbines	<b>Supply completed</b>
15	<b>Khandi MHP, Kargil</b>	KREDA	2 x 750 KW + 10% COL	Hor . Francis Turbines	<b>Supply completed</b>
16	<b>Sangrah MHP Kargil</b>	KREDA	2 x 750 KW + 10% COL	Hor . Francis Turbines	<b>Supply completed</b>
17	<b>Bibiwala, bhatinda Punjab</b>	SKR Hydro Power Generation Pvt Ltd	1 x 350 KW + 15% COL	Vertical Semi Kaplan Turbine	<b>Under Execution</b>
18	<b>Shyok MHP, Leh</b>	LREDA	2 x 300 KW + 10% COL	Hor. S type Tubular turbine	<b>Under Execution</b>
19	<b>Chilong MHP, Kargil</b>	KREDA	2 x 500 KW + 10% COL	Hor . Francis Turbines	<b>Under Execution</b>
20	<b>Raru MHP, Kargil</b>	KREDA	2 x 750 KW + 10% COL	Hor . Francis Turbines	<b>Under Execution</b>

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<b>S. No.</b>	<b>Name of Project</b>	<b>Client</b>	<b>Project Capacity</b>	<b>Type of Turbine</b>	<b>Present Status</b>
21	<b>Matayeen MHP, Kargil</b>	KREDA	2 x 500 KW + 10% COL	Hor . Francis Turbines	<b>Under Execution</b>
22	<b>Suspa Bukhari MHP, Nepal</b>	HPP Hydro energy	2 x 500 KW + 10% COL	Horizontal 2 Jet Pelton	<b>Supply completed</b>
23	<b>Chandikola MHP in Nepal</b>	HPP Hydro energy	2 x 1000 KW + 20% COL	Horizontal 2 Jet Pelton	<b>Supply completed</b>
23	<b>Meenvollam MHP, Kerla</b>	Steel Industries Kerla Ltd.	2 x 1500 kW + 10% COL	Horizontal 2 Jet Pelton Turbines	<b>Commissioned in July 2014</b>
24	<b>Hamal MHP, Choppal Nerwa (H.P.)</b>	M/s Hamal Hydrel Limited	2 x 1000 KW + 20% COL	Horizontal 2 Jet Pelton	<b>Commissioned in February 2014</b>
25	<b>Tunga LBC MHPP, Karnatka</b>	M/S Vasgi Power Pvt. Ltd. Bangalore	1 x 550 kW + 10% COL	Vertical Full Kaplan	<b>Commissioned in March, 2014</b>
26	<b>Suvarnamukhi MHS, Karnatka</b>	M/s Trimech Power, Bangalore	2 x 1250 KW + 10% COL	Vertical Full Kaplan	<b>Commissioned in October 2014</b>
27	<b>Bagroor, Chamba Himachal</b>	HP Irrigation and PH deptt.	2 x 120 KW + 20% COL	Crossflow Turbine	<b>At commissioning stage</b>
28	<b>Ubharah MHP, Himachal Pradesh</b>	Shakti Hydroelectric Co. Pvt. Ltd., New Delhi	2 x 1200 KW + 20% COL	Horizontal 2 Jet Pelton Turbines	<b>Commissioned in November 2014</b>
29	<b>Tallewal MHP, Punjab</b>	M/s Himalyan Renewable Energy Pvt. Ltd.	1 x 900 KW + 10% COL	Vertical Full Kaplan	<b>Under Execution</b>

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<b>S. No.</b>	<b>Name of Project</b>	<b>Client</b>	<b>Project Capacity</b>	<b>Type of Turbine</b>	<b>Present Status</b>
30	<b>JAIL MHP, Himachal</b>	M/s Jail	1 x 1000 KW + 20% COL	Horizontal 2 Jet Pelton	<b>Under Execution</b>
31	<b>Gujjran MHP , Punjab</b>	M/s L & S Hydro Engineers Pvt. Ltd.	1 x 750 KW + 10% COL	Vertical Full Kaplan	<b>Under Execution</b>

**DETAILS OF MICRO HYDEL PROJECTS EXECUTED BY PENTAFLO HYDRO PRIVATE LIMITED**

Sl. No.	Name of Project	Client	Project Capacity	Details	Present Status
1	Lift Irrigation Project, Himachal Pradesh	Boom Systems Pvt. Ltd., Faridabad	2 x 50 KW	Design, manufacturing & supply of 2 nos Cross-flow Turbine of 52 KW each, to be coupled to a centrifugal pump through belt pulley arrangement.	Commissioned
2	Sidhartha Medium Irrigation Project	Universal Electric Engineers	2 x 123 KW	Design, manufacturing & supply of 2 nos Cross-flow Turbine of 123 KW each, to be coupled to a centrifugal pump through belt pulley arrangement.	Material supplied, Installation is pending due to delay in Civil work
3	Liti-2 Micro Hydro Project	Bagnath Enterprises	2 x 25 KW	Design, Manufacture & Supply of Cross-flow Turbine	Commissioned
4	Karmi-3 Micro Hydro Project	Bagnath Enterprises	2 x 25 KW	Design, Manufacture & Supply of Cross-flow Turbine	Commissioned
5	Kunwari Micro Hydro Project	Bagnath Enterprises	2 x 25 KW	Design, Manufacture & Supply of Cross-flow Turbine	Commissioned
6	Sarma Kanol Micro Hydro Project	Bagnath Enterprises	2 x 50 KW	Design, Manufacture & Supply of Cross-flow Turbine	Commissioned
7	J & K village Panchait	Boom Systems Pvt. Ltd., Faridabad	1 x 10 KW	Design, Manufacture & Supply of 10 kW S type Turbine	Commissioned
8	Baregaon MHP Uttranchal	M/s Bagnath Enterprises	1 x 25 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Commissioned
9	Ashapani MHP, Arunachal Pradesh	M/S Beicco Lawrie Ltd., Kolkata,	2 x 30 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Supply completed
10	Karwati Nallah MHP, Arunachal Pradesh	M/S Beicco Lawrie Ltd., Kolkata,	2 x 50 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Commissioned
11	Thimbogre Micro Hydrel, Meghalaya	M/S WGHRMS, Tura	1 x 5 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Commissioned
12	Gangotri MHP, Uttrakhand	M/S Sam Enterprises	2 x 50 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Commissioned
13	Ambala MHP, Punjab	M/s Mars Edpal Instruments Pvt. Ltd.	1 x 10 KW	Design, Manufacturing & Supply of Pelton Turbine, Generator, and accessories	Commissioned

**DETAILS OF MICRO HYDEL PROJECTS EXECUTED BY PENTAFLO HYDRO PRIVATE LIMITED**

Sl. No.	Name of Project	Client	Project Capacity	Details	Present Status
14	Swastik MHP	Sawstik Enterprises	1 x 1 KW	Design, Manufacturing & Supply of PeltonTurbine, Generator, and accessories	Commissioned
15	CESE	CESE LTD	3 X 16 kw	Design, Manufacturing & Supply of Invertor Syphon Turbine, Generator, and accessories	Commissioned
16	HNB	HNB Engineers Pvt. Ltd.	1 x 5 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Commissioned
17	HNB	HNB Engineers Pvt. Ltd.	1 x 16 KW	Design, Manufacturing & Supply of KaplanTurbine, Generator, and accessories	Commissioned
18	Anderson MHP	Anderson Tea Estate	2 x 25 KW	Design, Manufacturing & Supply of PeltonTurbine, Generator, and accessories	Commissioned
19	TAKSING	Nav Bharat Enterprise	2 x 50 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Supply completed
20	Ayong	Naga green Energy	1 x 10 KW	Design, Manufacturing & Supply of Cross-flow Turbines.	Supply completed

**DETAILS OF PROJECTS EXECUTED (HYDRO-MECHANICAL EQUIPMENT) BY  
PENTAFLO HYDRO PRIVATE LIMITED**

S. No.	Name of Project	Client	No. of Hoists	Hoist Capacity	Present Status / Year of Commissioning
1	BABANPUR - MAIN CANAL RAGULATING GATES, PUNJAB	KOTLA HYDRO	4 sets	4 Tonnes	Nov-04
2	SAHOKE - MAIN CANAL RAGULATING GATES, PUNJAB	KOTLA HYDRO	2 Sets	7 Tonnes	December 2006
3	SIDHANA - MAIN CANAL RAGULATING GATES, PUNJAB	AQUA POWER	3 Sets	8 Tonnes	March 2007
4	BAREWAL - MAIN CANAL REGULATING GATES, PUNJAB	WINSOME YARNS LTD., CHANDIGARH	4 sets	6.50 Tonnes	March 2009
5	CHANNOWAL - MAIN CANAL REGULATING GATES, PUNJAB	ABOHAR HYDRO POWER	3 sets	7.20 Tonnes	June 2009
6	GHOLIAN - MAIN CANAL REGULATING GATES, PUNJAB	ABOHAR HYDRO POWER	3 sets	8.40 Tonnes	May 2009
7	SUDHAR - MAIN CANAL REGULATING GATES, PUNJAB	ABOHAR HYDRO POWER	3 sets	9.60 Tonnes	May 2010
8	GOGRIPUR - MAIN CANAL REGULATING GATES, KARNAL, HARYANA	P&R INFRA PROJECTS LTD.	3 sets	10.00 Tonnes	Jul-10
9	TERKIANA - CANAL REGULATING GATES, PUNJAB	ATLANTIC POWER PVT. LTD.	1 set	8.00 Tonnes	July 2010
10	MANSIAN - MAIN CANAL REGULATING GATES, PUNJAB	WINSOME YARNS LTD., CHANDIGARH	3 Sets	6.50 Tonnes	September 2010



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S. No.	Name of Project	Client	No. of Hoists	Hoist Capacity	Present Status / Year of Commissioning
11	ISEWAL - MAIN CANAL REGULATING GATES, PUNJAB	WINSOME YARNS LTD., CHANDIGARH	3 Sets	6.50 Tonnes	June 2011
12	RAOWAL - MAIN CANAL REGULATING GATES, PUNJAB	WINSOME YARNS LTD., CHANDIGARH	3 Sets	6.50 Tonnes	August 2011
13	MBL STAGE-II 6MW HEP - MAIN CANAL REGULATING GATES, PUNJAB	Gill Acqua Hydro Power Gen. Co. Pvt. Ltd.	5 sets	13.00 Tonnes	Under Execution
14	MBL STAGE-III 3MW HEP - MAIN CANAL REGULATING GATES, PUNJAB	Gill Acqua Hydro Power Gen. Co. Pvt. Ltd.	5 sets	13.00 Tonnes	Under Execution
15	BHAROWAL - MAIN CANAL REGULATING GATES, PUNJAB	WINSOME YARNS LTD., CHANDIGARH	3 Sets	6.50 Tonnes	Jan-13
16	SIDHWAN - 700 KW MAIN CANAL REGULATING GATES - LUDHIANA	HPP MECAMIDI	5 sets	4.5 Tonnes	Jan-14
17	POOHLA - 600KW- ON BATHINDA BR. CANAL	ATLANTIC POWER PVT. LTD.	2 Sets		Jun-14

**DETAILS OF RENOVATION & MAINTENANCE WORK CARRIED OUT BY  
PENTAFLO HYDRO PRIVATE LIMITED**

S. No.	Name of Project	Client	Project Capacity	Details
1	NARANGWAL M.H.P. PUNJAB	PUNJAB GENCO LTD.	2 x 750 KW	Dismantling of complete unit and replacing Runner internal components, Turbine Guide Bearing & re-commissioning of unit
2	TUGAL M.H.P. PUNJAB	PUNJAB GENCO LTD.	2 x 750 KW	Dismantling of complete unit and replacing Runner internal components, Turbine Guide Bearing & re-commissioning of unit
3	DALLA MHP PUNJAB	PUNJAB GENCO LTD.	2 x 500 Kw	Supply of critical spares like Runner internal components, Guide Bearing, Servomotor components, etc.
4	Chettipetta MHP	APGENCO	2 x 500 KW	Supply of critical spares like Rotary Union, Guide Bearing, Servomotor components, etc.
5	Solang Hydro Electric Project	A Power Himalayas Limited (Himachal Pradesh)	3 x 500 KW	Modification/refurbishment/repair of various parts of Turbine (Unit-II) viz. OPU, BFV, Turbine Cover, Guide Vanes
6	Majalgaon Hydro Electric Project	Executive Engineer, Vidarbha Hydro electric project Division AKOLA	3 x 750 kW	Design, manufacture, supply, erection, testing & commissioning of digital governors along with work of overhauling and servicing of Hydraulic Power Pack.
7	Solang Hydro Electric Project	A Power Himalayas Limited (Himachal Pradesh)	3 x 500 KW	Modification/refurbishment/repair of various parts of Turbine (Unit-I) viz. OPU, BFV, Turbine Cover, Guide Vanes
8	Hanumanganga Hydro Electric Project	A Power Himalayas Limited (Uttaranchal)	3 x 1500 KW	Manufacturing & supply of 1 no. spare Francis Runner
9	Hanumanganga Hydro Electric Project	A Power Himalayas Limited (Uttaranchal)	3 x 1500 KW	Manufacturing & supply of Turbine Cover & Guide Vane Bush
10	Meenvalloom Hydro Electric Project	Steel Industries of Kerala Ltd.	2 x 1500 kW	Design, manufacture, supply, erection, testing & commissioning of Electronic Governing System with Hydraulic Power Pack & spares for 2 jet Pelton Turbine
11	Mantsonyane MHP, LESOTHO	Chadha Power, c/o Lesotho Electric Company	2000 KW	Design, manufacture, supply, erection, testing & commissioning of Electronic Governing System with Hydraulic Power Pack & spares for Francis Turbine

**DETAILS OF RENOVATION & MAINTENANCE WORK CARRIED OUT BY  
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<b>S. No.</b>	<b>Name of Project</b>	<b>Client</b>	<b>Project Capacity</b>	<b>Details</b>
12	Taraila HEP, Chamba, HP	Ginni Global Limited, New Delhi	2x2500KW	Re-design, manufacture, supply, erection & testing of Shaft Seal Assembly, Modification of OPU, repair & refurbishment of Runner, Turbine Cover, Guide Vanes, etc
13	5 Nos. MHPs on Sidhwan Canal, Punjab	Winsome Yarns Ltd., Chandigarh	5 x 700KW	Re-designing and replacing Kaplan Runner internal components in all the 5 projects
14	Gunsola MHP, Utrakhand	Supertech Enterprises, Meerut	2x1500 KW	Welding, grinding, machining & dynamic balancing of Francis Runner and realignment of TG Set at site
15	Panwai HEP, Himachal Pradesh	Kirloskar Brothers Ltd, Pune	2x2000 KW	Design, manufacture and supply of Needle & Deflector Servo Motors for Double Jet Pelton Turbines

**DETAILS OF CONSULTANCY WORK BY PENTAFLO HYDRO PRIVATE LIMITED**

S. No.	Name of Project	Client	Project Capacity	Type / Make of Turbine
1	2 x 1500 KW BABEHALLI MHP,	Gill Power Generation Co. (P) Ltd., Batala, PUNJAB	Evaluation / review of drawings, QAP and specification of Electro-Mechanical equipment. Inspection and testing of equipment at manufacturer's workshop. Co-ordination with Hydro mechanical consultant for design and detailed engineering, Checking the alignment of Turbine at site and to witness testing & commissioning.	Vertical Full Kaplan Turbine Manufactured by VA Tech, Faridabad.
2	1 x 50 KW Turbine Model	M/S Beicco Lawrie Ltd.,(a Govt. of India Undertaking) Kolkata,	Market survey, selection of suitable Turbine, Design, Vendor development and testing the Turbine at a Govt. approved lab to check efficiency / performance of the Turbine. A Cross-flow type prototype Turbine of 50KW rating has been designed, manufactured and tested in a very sophisticated hydro laboratory at Maulana Azad College of Technology, Bhopal. The results are very satisfactory.	Cross-Flow Turbine.
3	2 x 3500 KW ULLANKAL MHP	M/S Energy Development Company Ltd., (EDCL) Faridabad	Reverse engineering and completion of design & engineering of remaining parts of Turbine. Inspection & Testing of Turbine components. The Turbine was originally designed and supplied by CKD Blansko, Czech Republic in 1996.	S' Type Tubular Full Kaplan Turbine. Manufactured by DLF, Faridabad
4	3 x 6000 KW SHAMILI MHP	Boom Systems Pvt. Ltd., Faridabad	Re-designing of Turbine static components like Stay Ring, Runner Casing, Dismantling Joint, Intermediate Piece & Draft Tube to suit site condition. Inspection & Testing of Turbine components to be manufactured in India.	S' Type Tubular Full Kaplan Turbine. Manufactured by Gugler Hydroenergy Austria .

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<b>S. No.</b>	<b>Name of Project</b>	<b>Client</b>	<b>Project Capacity</b>	<b>Type / Make of Turbine</b>
5	3 x 10 MW BLILANGANA MHP	M/S BHILANGANA HYDRO POWER LTD.	Review Engineering - Mechanical Consultancy	Horizontal Francis Turbine - Manufactured by M/s Voith Seimens
6	1 x 1500 kW Iggalur Barrage MHS	M/s HPP Energy Private Limited	Design and Engineering of Vertical Full Kaplan Turbine	Vertical Full Kaplan Turbine
7	1 x 4500 kW Ganderwal MHP	M/s Gogoal Hydro Pvt Ltd	Market survey, selection of suitable Turbine, Design, Vendor development and testing the Turbine at a Govt. approved lab to check efficiency / performance	Horizontal Francis Turbine