

flow02

FLOVEL Company
Magazine
July 2020



AVERAGE
AGE 32



FOCUS ON EMPLOYEES

The average age of the FLOVEL staff is 32 years **04**

Vietnam, country with big potential **08**

Where is the journey heading, Mr. Kar? **14**

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FLOVEL

Serving our customers in a difficult time.

I am delighted to present the second edition of our company magazine Flow 02.

Since our inception in 1971 we have strived to provide high quality, high technology products to our customers. This has resulted in some long standing relationships we enjoy with many customers worldwide. Since the last edition of this magazine in June, 2019, FLOVEL has moved from strength to strength, overcoming challenges in its way. One of the strengths of FLOVEL is its young team of employees.

FLOVEL has big aspirations so does our young team of employees. We complement each other with our big dreams and lots of energy to go after challenging goals. Our young set of people have been groomed with an objective to be future leaders. It's heartening to see our young leaders working tirelessly to achieve challenging goals.

Our push to be present in more and more markets globally and to work for higher market share in RenServ business has yielded good results. The FLOVEL brand is now visible in more and more destinations like never before.

The push for higher share in the RenServ business has yielded good results for the Company. Last two years have seen FLOVEL establishing itself as an important player in the Indian aftermarket hydro-power business. Some important references have also been secured successfully creating great opportunities to build upon. Since the last issue of this magazine FLOVEL has commissioned some 14 projects with about 190 MW of power.

The beginning of year 2020 has seen the spread of the COVID-19 pandemic. This Global pandemic has tragically claimed many lives, halted business and disrupted our way of living. During these difficult times we will do our best to remain at your service, sometimes working from home, providing remote support through internet connectivity or through video conferencing. Serving our clients all over the world and in a few instances commissioning projects with remote support.



Maharaj Kar
Chairman



Illaga HEP (2 x 380 kW) Papua, Indonesia

We are pleased to announce the commissioning of this project, which was commissioned and synchronized to the grid on 25.09.2019.



This is FLOVEL's first commissioned project in this province of Indonesia. The altitude of the powerplant is approximately 3,000 meters above sea level. All equipment had to be airlifted to site.

Project Parameters

- » Location: Papua Province, Indonesia
- » Installed Capacity: 2 x 380 kW
- » Type of water turbines: Horizontal Francis
- » Rated Head: 56 m



Hua Chang 2 HPP (2 x 3.5 MW + 10% COL), Vietnam

This project is located in Tan Uyen District, Lai Chau Province and is our sixth project in this province.

Lai Chau Province is a province in the Northwest region of Vietnam, covering an area of 9,068 square kilometers and sharing border with China to the North.

Project Parameters

- » Location: Tan Uyen District, Lai Chau Province, Vietnam
- » Installed Capacity: 2 x 3,500 kW + 10% COL
- » Type of turbines: Horizontal Francis
- » Rated Head: 148.28 m

new HYDROS

Right at the beginning of this issue, we would like to give you a short overview of new projects, events and interesting facts about the hydropower market and FLOVEL. We hope that these newflashes are an interesting and entertaining start to our new customer magazine.

Switchyard equipment and SCADA system for 5 numbers Solar projects

It gives us immense pleasure to announce the signing of the Contract for Switchyard equipment and SCADA Automation system for 5 no. Solar projects in Vietnam. This project is located in EA Sup district, Dak Lak province, Vietnam.

Background

Customer is Xuan Thien Group, our esteemed Client for whom we have already executed E&M Contracts for 6 Hydro Projects (Hang Dong B and Suoi Sap 2 HPPs are under execution). Customer informed us that based on our long relationship with them, they had faith on the capabilities of FLOVEL to execute Switchyard and Automation systems for Solar Projects, and therefore they have given us this opportunity for their 5 Solar Projects.

Project Parameters

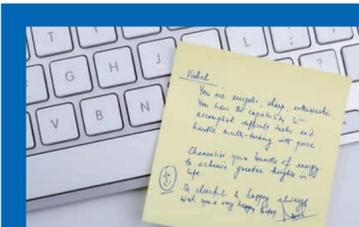
- » EA SUP 1 (1 x 110 MVA)
- » EA SUP 2 (1 x 110 MVA)
- » EA SUP 3 (1 x 110 MVA)
- » EA SUP 4 (2 x 80 MVA)
- » EA SUP 5 (2 x 80 MVA)

The detailed scope of all the 5 Solar projects includes

110 KV Switchyard equipment, 24 KV Indoor Switchgear Panel, SCADA system for whole plant control, AC and DC Auxiliary system, Transformer and Line Protection, Cables, Weather monitoring station etc.

The common scope for all the 5 Projects includes

» SCADA for common control at 500 KV Station.
» Data Communication on phone for all 5 Solar Plants.



Human Resource Management

An important internal activity is the continuous communication with our employees. That ranges from short personal messages to teaching programs and much more.

Thank you cards

Our organization provides thank you cards on Employee's Birthday. This is a great way to reinforce the company's vision and values, while acknowledging exemplary behavior and achievement of the employee.

Employee-led teaching programs

Encourage employees to learn from each other. Our organization's learning and development program is taught by employees by taking relevant workshops / trainings within the organization.

Exit Interviews

An exit interview provides an opportunity to our organisation to seek feedback about an employee's experience helping us to identify areas for improvement and reduce future attrition.



The average age of the FLOVEL staff is 32 years. What is behind this number? We talked to five of the 330+ employees.

32

The world workforce is getting older in USA and Europe and younger in countries like India. But what is better: young employees or older employees? The answer is simple: both. Companies with more diverse workforces are more innovative. Mixed teams perform best. This is the result of a study ("Age Diversity and Innovation: Do mixed teams of 'old and experienced' and 'young and restless' employees foster companies' innovativeness?") by the German Economic Institute.

In the US the average age of employees in engines, turbines, and power transmission equipment manufacturing is 43,6 years. The median age of IBM staff is 38. FLOVEL staff is more than six years younger. But the average age of Facebook employees is only 28.

Hannes Michael Kneissler talked to FLOVEL employees from different age groups.

Story by HANNES MICHAEL KNEISSLER, 64, from Germany, studied psychology and communication science before becoming a journalist. Today he is a science author, editorial director and corporate publisher. He writes for magazines in Germany, Austria and Switzerland and for companies such as Porsche, Mercedes, Andritz, Audi. He is also a book and TV author. Kneissler is married, has five children and lives in Portugal and Munich.

The promoter

Maharaj Kar, 69, Chairman, was a promoter of the company 47 years ago.



What did you do when you were 32 years old?

Maharaj Kar: I was 32 years old in 1982. The big dreams then were to introduce low head turbines into the Indian market for which we started exploring technology partners in Europe. Further, we started participating in the higher output small hydro projects to broaden our range. Our efforts with the Government of India agencies to push for the concept of small hydro projects were also stepped up which eventually succeeded about a decade later.

What was the biggest FLOVEL crisis you had to deal with?

Maharaj Kar: I would say that the restart of business after separation from JV Partner VA Tech in 2007 has been the most interesting experience to have.

How has FLOVEL evolved over the last 32 years?

Maharaj Kar: It has evolved as a well recognized and respected Company Globally as a Small & Medium hydro power turnkey supplier.

Where will FLOVEL be in 32 years?

Maharaj Kar: I do believe that it will do well as the fundamentals are good and strong.

Why is the average age at FLOVEL so young?

Maharaj Kar: Being an old Company the older co-workers have superannuated. Further FLOVEL has also been a source of building up the careers of good well trained personnel on a regular basis who have been headhunted by our global competitors and have been replaced by younger personnel at middle & lower cadres.

The visionary

Gautam Kar, 42, Managing Director, will lead FLOVEL into the future.



What did you do when you were 32 years old?

Gautam Kar: When I was 32 my main focus areas was technology development and market expansion mainly to Southeast Asian region.

How has FLOVEL evolved over the last 32 years?

Gautam Kar: FLOVEL has transformed from a regional player to an aspiring international player.

Where will FLOVEL be in 32 years?

Gautam Kar: FLOVEL will be the largest Small Hydro Company in the world. FLOVEL's vision is to be a technology leader and to be amongst the top hydropower equipment manufacturers globally and to be the most respected brand.

Why is the average age at FLOVEL so young?

Gautam Kar: FLOVEL has consciously invested in young people trained them and provided a challenging platform to perform and prove their abilities.

The passionate

Sanjeev Talwar, 58, Executive Director, has been with FLOVEL for 29 years.



What did you do when you were 32 years old?

Sanjeev Talwar: I was working with FLOVEL. Was married and had two Sons.

How did you come to FLOVEL?

Sanjeev Talwar: I met Mr. Maharaj Kar in Jabalpur, Madhya Pradesh where we both had gone for a meeting for a tender from our respective companies. We travelled back to Delhi in the same train after the meeting and started talking. Mr. Kar, who was Joint Managing Director of FLOVEL at that time, was looking for a person for FLOVEL with similar qualifications and job requirements and asked me if I was interested. I agreed. He sent me an offer letter couple of days after we reached back which I accepted and joined FLOVEL on 21st April 1991.

How was your day yesterday?

Sanjeev Talwar: Yesterday was quite different. FLOVEL HR team had organized a musical evening where many of FLOVEL staff sang some old Hindi Movie songs along with musical instruments and we had great fun.

How has FLOVEL evolved over the last 32 years?

Sanjeev Talwar: FLOVEL has changed from a family run to a professionally run company. Heads of various departments are given free hand to operate with minimum interference from the Management. FLOVEL has become a known name not only in India but in many countries like Vietnam, Indonesia, Turkey, Nepal, Laos, etc. ... FLOVEL has gained a reputation and is respected in all countries it operates for its timely execution, quality products and excellent after sales service at correct price. FLOVEL employees work like a family and work with passion.

Why should young people apply to FLOVEL?

Sanjeev Talwar: FLOVEL has great pool of Knowledge and gives ample opportunities to young people to grow and make career. If you want to learn and do challenging jobs and also grow FLOVEL is a good platform.

The world in numbers

In addition to the Interviews with our management team and our employees, we try to give a rough overview of data from the world population on this page.

Average age of the population in selected countries around the world

** oldest population worldwide
** youngest population worldwide



Average age of the world population in 1950

23,5 years

Average age of the world population in 2020

30,9 years

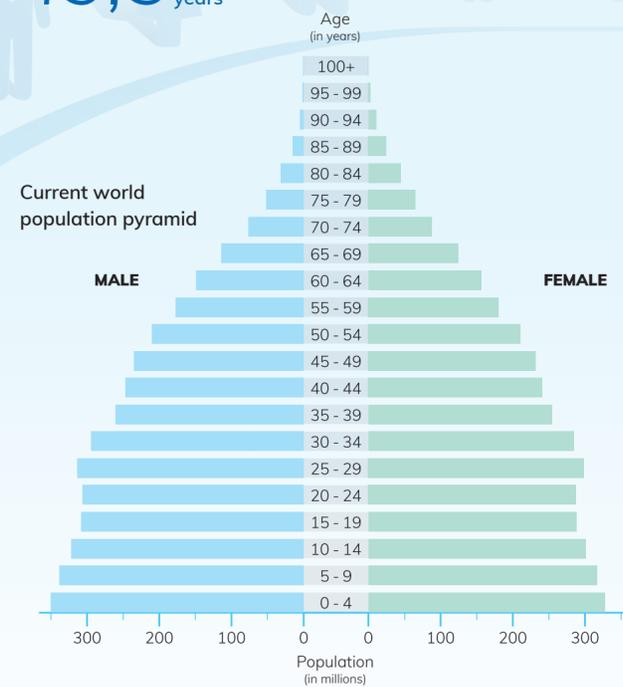
Forecast of the average age of the world population 2100

49,5 years

Average age of the employees in selected companies



Current world population pyramid



Sources: World Population Review, Business Insider, FLOVEL, statista.com, United Nations – Department of Economic and Social Affairs



The Kaplan lady

Shruti Goyal, 26, senior engineer, joined FLOVEL three years ago.

What exactly is your job?

Shruti Goyal: I am responsible for the Basic Design of Francis, Pelton & Kaplan Turbine.

What was your most interesting experience at FLOVEL?

Shruti Goyal: I always wanted to work in Kaplan Turbine which is supposed to be the most typical Turbine Design. I was assigned with a Kaplan Turbine project; I think that was the most interesting experience for me.

Why should young people apply to FLOVEL?

Shruti Goyal: They can learn things from basic level to higher. As in FLOVEL we are made responsible for the work which is assigned to us.

The average

Sabyasachi Roy, 32, Deputy Manager Sales & Marketing, is exactly as old as the average of all FLOVEL employees.

How was your first working day at FLOVEL?

Sabyasachi Roy: I joined FLOVEL on 12.10.15. I was quite excited that day since I shifted myself permanently from my hometown to the capital of India. My father also came with me to assist me in shifting and settling down in a new city. My first day actually marked my first step towards a completely different corporate world where job responsibilities are streamlined with individual growth and development through intense learning.

What was your most interesting experience at FLOVEL?

Sabyasachi Roy: Around the middle of 2018, I suddenly encountered with the entire responsibility of finalizing a tender from bid submission stage to query clarification, followed by technical and contract discussions and finally signing the order. This project was of immense importance for the company to add another mark to its milestone. Undeniably it was indeed a challenge for me as it was the first time, I had to deal with a client all alone through all the stages. Honestly speaking, I was initially nervous to deal with one of the biggest responsibilities, but as the stages went on, my confidence improved while refining my technical and commercial competency.



Why should young people apply to FLOVEL?

Sabyasachi Roy: The aura that prevails in FLOVEL is highly energetic with healthy challenges and competitions to test the professional and personal skills of budding professionals. The company provides a perfect platform with limitless opportunities and diverse experiences to sketch the path from basic learning to highly advanced managerial expertise while making positive contribution towards the amelioration of the organization.



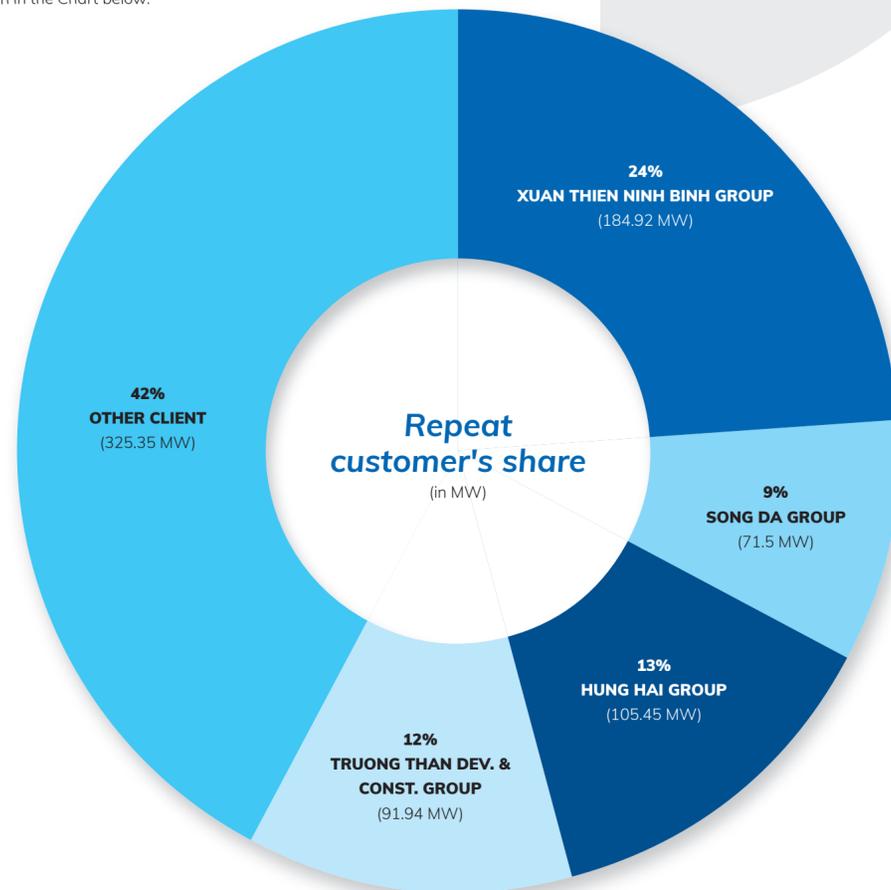
A successful journey to VIETNAM

FLOVEL Group has ventured into Vietnam Hydro Market way back during years 1995-96. Since then FLOVEL have catered to Vietnam Market by supplying Top Quality Electro-mechanical Equipment and providing high class Professional services.

Consequent to FLOVEL's proven track record of supplying quality equipment, providing professional services during every stage of Project execution, good relationship and hand holding with which FLOVEL supported their Clients post commissioning of Projects, FLOVEL is able to earn faith and confidence of many Hydro Project Owners in Vietnam.

As a result of this, FLOVEL has maintained its Market share among the top two Market share holding companies in Vietnam Hydro Market, during last 7 to 8 years. Following are the notable milestones which FLOVEL India have achieved during its successful journey in Vietnam Hydro Market.

Because of the excellent performance of running Projects with Equipment supplied by FLOVEL in Vietnam, FLOVEL's Customers have developed great amount of faith and belief in FLOVEL's Equipment and services. As a result of this Confidence of our Customers on FLOVEL, they have chosen Flovel for their subsequent Hydro Projects and thus, winning "Repeat Customers" have become one of the key 'Feather in the Cap' for FLOVEL in our Vietnam success story. A share of Clients giving repetitive business to FLOVEL is shown in the Chart below:



FLOVEL WAS CHOSEN AGAINST OTHER EQUIPMENT BRANDS BECAUSE OF ITS BETTER PRICE AND THEIR HIGH COMMITMENT LEVELS FOR SMALL-HYDRO PROJECTS. HEARD ABOUT FLOVEL FROM MY FRIENDS IN THE BUSINESS. FEELS FLOVEL ACT AS A SOLUTION PROVIDER FOR YOUR REQUIREMENTS AND ARE MORE FLEXIBLE IN COMMERCIAL TERMS.

Mr. Le Thanh Nghi, Hung Hai Construction & Trading Joint Stock Company, Vietnam



Highest Capacity Contract till 2007 in Vietnam for FLOVEL

Project:	Nam Chien 2 HPP (2 x 16,000 kW, Vertical Francis, 82.30 m)
Customer:	North West Electric Investment & Development JSC
Project Location:	Chieng San Commune, Muong La District, Son La Province
Date of Award:	November – 2007
Date of Completion:	November – 2009
» Commissioned within 16 months, 2 months before the Contractual deadline (January – 2010)	



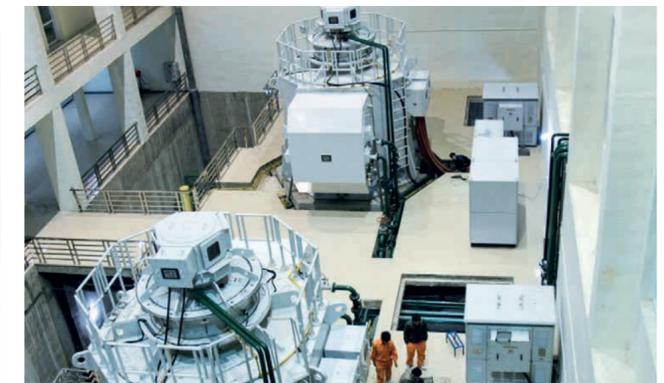
Large Capacity Horizontal Francis Turbine of 10.5 MW

Project:	Suoi Sap 1 HEP (2 x 10,500 kW, Horizontal Francis, 100.38 m)
Customer:	Xuan Thien Ninh Binh Company Limited
Project Location:	Bac Yen District, Son La Province
Date of Award:	November – 2009
Date of Completion:	January – 2012
» Large Capacity Horizontal Machine of 10.5 MW	



Ultra High Head Pelton Turbines

Project:	Yan Tann Sien HEP (2 x 9,750 kW, 2J – Horizontal Pelton, 633.21 m)
Customer:	Cao Nguyen Song Da Hydropower JSC
Project Location:	Lam Dong Province
Date of Award:	January – 2009 (On hold by Client for 3 years)
Date of Completion:	May – 2014
» Ultra High Head Turbines with 685 m Head	
» 9.75 MW Horizontal Pelton Units	



Highest Capacity Contract till 2012 Globally for FLOVEL

Project:	Ngoi Hut 2 HPP (2 x 24,000 kW, 6-J Vertical Pelton, 322.5 m)
Customer:	Truong Thanh Development & Construction JSC
Project Location:	Mu Cang Chai District, Yen Bai Province
Date of Award:	March – 2011
Date of Completion:	December – 2014
» Highest rating Commissioned as of year 2015	
» Model tested in Europe	

One of the Large Capacity Project awarded in year 2017

Project:	Nam Cum 4 HEP (2 x 27,000 kW, Vertical Francis, 147.6 m)
Customer:	Nam Cum Hydropower JSC (Hung Hai Group)
Project Location:	Muong Te District, Lai Chau Province
Date of Award:	December – 2017
Date of Completion:	October – 2020
» One of the Highest Unit Capacity as well as Highest Capacity (54 MW) Project for FLOVEL	

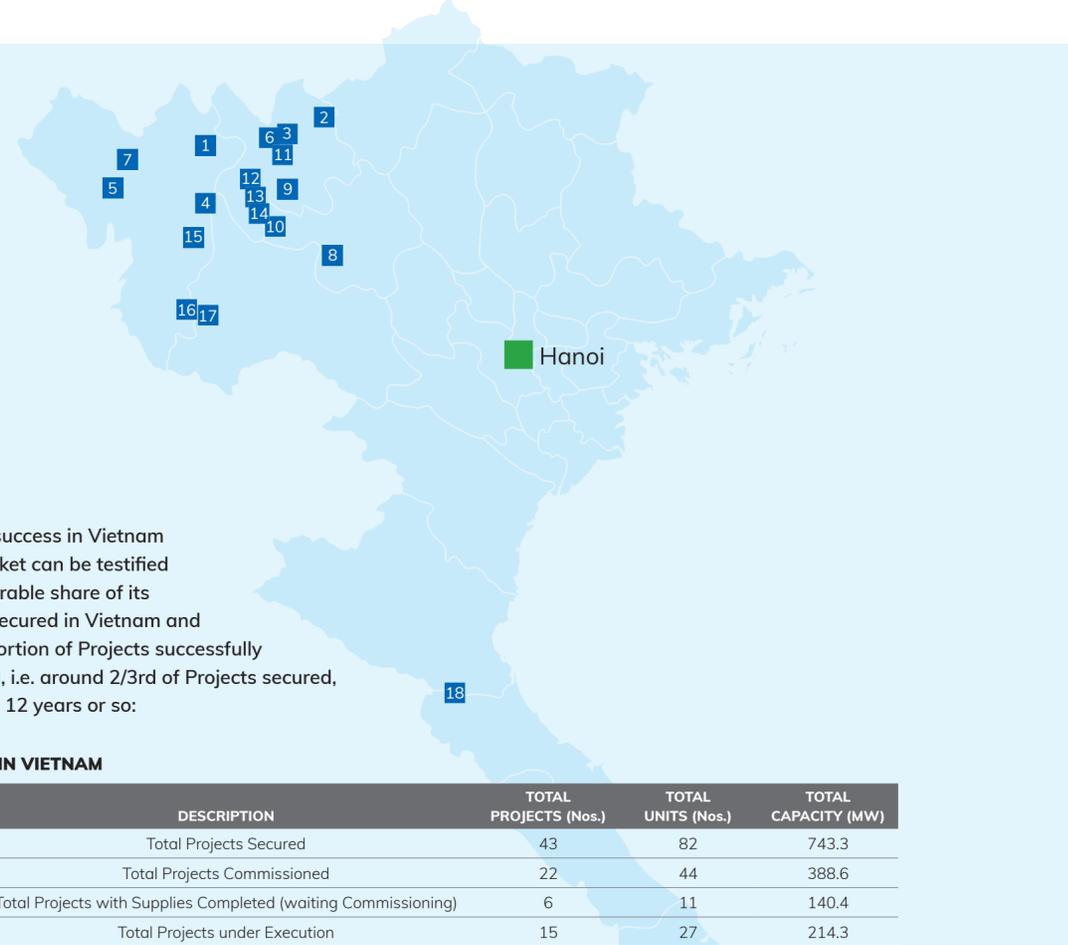
Highest Capacity Project awarded in the year 2018

Project:	Suoi Sap 2A HEP (2 x 33,000 kW, Vertical Francis, 290.0 m)
Customer:	Xuan Thien Son La Company Limited
Project Location:	Phu Yen District, Son La Province
Date of Award:	December – 2017
Date of Completion:	October – 2020
» One of the Highest Unit Capacity as well as Highest Capacity (66 MW) Project for FLOVEL	

First ever Substation Equipment and Automation for Solar Plants

Further, more than 85% Projects which FLOVEL supplied and commissioned in Vietnam, High Tension Switchyard / Switchgear Equipment and SCADA systems are mandatory part of supplies. This enabled FLOVEL to gain expertise in designing, sourcing, executing and commissioning of HT Switchyard equipment to full satisfaction of our Customers in Vietnam. Owing to its expertise in executing Substation Equipment and SCADA Automation in Hydro Projects, our esteemed Client, Xuan Thien Group has reposed faith on FLOVEL by awarding us Contracts for 5 Solar Plants for supplying and commissioning of 110 KV Outdoor Switchyard Equipment, 24 KV Indoor switchgear and SCADA Automation for 5 Solar Projects and for 1 Common Control Automation Station. This prestigious Contract marks the foray of Flovel into the new field of Solar Plants.

Project:	EA SUP 1: 1 x 110 MVA; EA SUP 2: 1 x 110 MVA; EA SUP 3: 1 x 110 MVA; EA SUP 4: 2 x 80 MVA ; EA SUP 5: 2 x 80 MVA
Customer:	Xuan Thien Group
Project Location:	Dak Lak Province
Date of Award:	March – 2020
Date of Completion:	November – 2020
» First ever Project for supplying and installation of 110 KV Outdoor Switchyard Equipment, 24 KV Indoor switchgear and SCADA Automation for 5 Solar Projects and for 1 Common Control Station	



FLOVEL's success in Vietnam Hydro Market can be testified by considerable share of its Business secured in Vietnam and large proportion of Projects successfully Completed, i.e. around 2/3rd of Projects secured, during last 12 years or so:

PROJECTS IN VIETNAM

S.NO.	DESCRIPTION	TOTAL PROJECTS (Nos.)	TOTAL UNITS (Nos.)	TOTAL CAPACITY (MW)
A	Total Projects Secured	43	82	743.3
B	Total Projects Commissioned	22	44	388.6
C	Total Projects with Supplies Completed (waiting Commissioning)	6	11	140.4
D	Total Projects under Execution	15	27	214.3

Projects Commissioned

- 1 – Ngoi Phat Expansion (1 x 12 MW + 10% COL)
- 2 – Nam Yen (2 x 5.0 MW + 10% COL)
- 3 – Bac Na (2 x 8.5 MW)
- 4 – Ngoi Hut 2A (2 x 4.2 MW + 10% COL)
- 5 – Nam Chau Hu (2 x 1.5 MW + 15% COL)
- 6 – Nam Thi 2 (2 x 4.0 MW)
- 7 – Hua Chang (2 x 5.1 MW + 6.5% COL)
- 8 – Noong Phai (2 x 10.6 MW + 10% COL)
- 9 – Khao Mang (2 x 15.0 MW)
- 10 – Khao Mang Thuong (2 x 12.25 MW)
- 11 – Nam Khanh (3 x 4.0 MW)
- 12 – Hong Dong A1 (2 x 4.2 MW)
- 13 – Suoi Sap 1 (2 x 10.5 MW)
- 14 – Ngoi Hut 2 (2 x 24.0 MW)
- 15 – Xoong Con (2 x 8.5 MW + 15% COL)
- 16 – Nam Chien 2 (2 x 16.0 MW)
- 17 – Krong Pa 2 (2 x 7.5 MW + 20% COL)
- 18 – Alin B2 (2 x 10.0 MW + 15% COL)
- 19 – Nam Khot (2 x 5.5 MW)
- 20 – Nuoc Xang (2 x 6.25 MW + 15% COL)
- 21 – Yan Tann Sien (2 x 9.75 MW)

In the success of FLOVEL in Vietnam, contribution of its Local Vietnamese Team based at Hanoi is commendable which helped FLOVEL to grow in its business with the passage of time and emerge as one of the Leaders in Hydro E&M Sector in Vietnam. In our intentions of working close with our Clients and ensuring a faster response during Business Development as well as Project execution, FLOVEL deputed two of its Engineer Professionals during 2016-2017 as permanent placement in Hanoi.



FLOVEL Vietnam Team Members

Entering into 2020, with its rich heritage of contributing around 45 Projects and Installed Capacity of 780 MW of Hydro Projects in Vietnam, Flovel is looking forward to further strengthen its presence in Vietnam Hydro Market and continue to supply high quality Hydro Equipment with latest Technology and providing professional services as Partners to Hydro Project Owners.

I WAS IMPRESSED AFTER VISITING THEIR PLANT. ALSO VISITED HYDRO PROJECTS OF FLOVEL'S CUSTOMERS. ONE CAN GET GOOD IDEA OF THEIR PRODUCT BY SEEING THE PRODUCT, TALKING TO OPERATORS. SOME OF THEM WERE WORKING FOR MORE THAN 10 YEARS. PLANT OPERATORS SAID GOOD THINGS ABOUT THE PRODUCT AND ITS RELIABILITY. FLOVEL HAS GOOD MANAGEMENT AND HARD WORKING ENGINEERS.

Mr. Nguyen Duy Hung,
Truong Thanh Deconin Joint Stock Company

Contract Signing of Nam Cum 4 HPP in Hanoi, Vietnam



Contract Signing of Noong Phai HPP in Hanoi, Vietnam



Contract Signing of Ngoi Phat Expansion HPP in Hanoi, Vietnam



Contract Signing of Pa Hu HPP in Hanoi, Vietnam





Where is the JOURNEY HEADING, MR. KAR?

From Delhi to Vienna, from Vienna to Stockholm, from Stockholm to South America, from there to Vietnam and back home. Gautam Kar, Managing Director of FLOVEL Energy Private Limited travels a lot. But what is behind the scenes of countless flights and customer visits? A conversation during a business-trip to Europe with his father Maharaj Kar, Chairman, with station in Vienna.

Gautam Kar is representing the third generation in the Hydropower business of FLOVEL, which was set-up by his grandfather over five decades ago. It has been over 20 years in the sector and he has been personally involved in more than 200 projects. "The segment continues to be challenging and we stay passionate about delivering customer-delight", that was the answer to my opening question, 'what is the driving force working in this business?'.
to play a global role, despite technological innovations, nothing can substitute the impact of one-to-one meetings, specially in markets with different language & culture. While phone & web-calls (Skype, VC etc.) are useful for operational purposes, personal meetings are helpful in trust-building & developing a personal- rapport with the customer.

Mr. Gautam Kar, you travel a lot. What percentage of your business do you invest in business travel?

Gautam Kar: Majority of FLOVEL's business is outside India, necessitating significant business travel. On an average 50% of time is invested in business travel. You have to do that if you want

Mr. Maharaj Kar, Southeast Asia is considered a growth market, also in the medium and small hydropower sector. How is FLOVEL's business there?

Maharaj Kar: FLOVEL has the lead position in the SE Asian market, on account of its product-quality & customer-friendly attitude. But the market is also very competitive and requires one to constantly innovate and stay price-competitive.

THE HYDROPOWER MARKET IS VERY COMPETITIVE AND REQUIRES ONE TO CONSTANTLY INNOVATE AND STAY PRICE-COMPETITIVE.

Maharaj Kar, Chairman,
FLOVEL Energy Private Limited

What developments and opportunities do you see in medium and small hydropower?

Maharaj Kar: Hydropower is the cleanest source of energy and it still untapped in majority of developing world. Tapping unmet potential and creating more opportunities through technological innovations are two key opportunity areas.

What is FLOVEL currently working on, how should the company develop further?

Gautam Kar: Technological changes, communication & speed are the three big changes happening around the world & we are working to keep FLOVEL ahead on all three counts. Customer should not only be delivered the best quality, his/her experience of working with FLOVEL should also be smooth.

Which countries or continents do you know very well and why?

Gautam Kar: Vietnam, Indonesia, Nepal feel like second home as we have strong presence in these markets. Apart from these Turkey and Europe are also very familiar territory. Latin America is our new focus area and I am already beginning to pick Spanish due to frequent travel.

What about Japan? You recently concluded an agreement there, didn't you?

Gautam Kar: Japan has been using hydroelectric power for over 100 years. Hydro Power plants in Japan are operated on a large scale by big corporations. Nuclear Power Plants make up for a large share of electricity production in Japan. Recent government policies have brought focus on renewable sources of energy including small hydro. Japanese markets are special with special specifications/requirements. FLOVEL is collaborating with SEABELL in the Japanese market. Under this cooperation FLOVEL shall design and build high quality, high performance equipment tailor made for Japanese markets while SEABELL will continue to actively develop sales and support activities in Japan.

Which connections do you have to Vienna, where this series of photos were created?

Gautam Kar: Since 1995 our Company FLOVEL had a Joint Venture with erstwhile Sulzer Hydro GmbH (predecessor to VA Tech Hydro). In 2001 after completing my graduation from Melbourne, Australia, I got the opportunity to work as a Management Trainee for six months at two VA Tech Hydro location i.e. Ravensburg, Germany and Vienna, Austria.

After completing three months of training at Ravensburg it was time to go to Vienna. My first visit to Vienna was in June, 2001 for an assignment for three months as Management Trainee at various departments at the erstwhile VA Tech Hydro, Vienna Headquarters. Vienna was a much larger city compared to Ravensburg. Working style at the two location was very different but what impressed me was the rich cultural heritage and lifestyle of Vienna. In the year 2006 due to takeover of VA Tech Hydro by Andritz Hydro, Flovel was now operating in its new form when the entire world was available for business. At this time Flovel had to scout for technology, connection to markets and more importantly understand the beat of small hydro business. At this time my father and myself undertook another visit to Europe including Vienna to meet old colleagues to revive old contacts in small hydro business. Thereafter, I have been visiting Vienna almost every year. More recently in the last few years to Faschingbauer & Schaar for the rebranding initiative.

Austria being the headquarters for small hydro to the world will always remain an important centre for exchange of various aspects of this business."

For which country does your heart beat especially?

Gautam Kar: This is interesting question, my heart beats for Turkey and Vietnam, while Turkey introduced FLOVEL to global competition Vietnam entrusted us with very important projects.

50% of time is invested in business travel.

How does your family deal with traveling so much?

Gautam Kar: Sometimes it is really tough on the family being away from home so much specially on the children. I try to keep up with all family commitments, school commitments. Success is the reward ...

What do you take with you on every trip?

Gautam Kar: My laptop, iPad and Phone are the essentials for any trip.
Maharaj Kar: I usually prepare very well for my trips. I like to be briefed in detail about the meetings and have all documentation pertaining to the meetings handy with me. A fresh suite and tie for each day is something I cannot do without.

What do you dislike in traveling?

Gautam Kar: I really dislike long flights, nights in the plane, long waiting times at the airports, long security queues.
Maharaj Kar: I do not have these problems. I can sleep very well on long flights. That's probably because of my routine.

You can not always travel. How do you communicate with your customers, who are located worldwide?

Gautam Kar: Videocall is the most preferred medium but WhatsApp is becoming increasingly common due to the immediate connect it provides.

Finally let me ask where do you see FLOVEL in 10 years?

Gautam Kar: Technological & financial goals aside, I want to make FLOVEL synonymous with customer-delight. Currently it is the first choice in its markets, I want it to become the only choice for the customers.

Interview by
DIETER FASCHINGBAUER
Faschingbauer & Schaar GmbH, Austria



Gautam Kar in conversation with Maharaj Kar in Vienna. An often chosen travel destination to expand networks in the hydropower sector.

PERSONAL MEETINGS ARE HELPFUL IN TRUST-BUILDING AND DEVELOPING A PERSONAL-RAPPORT WITH THE CUSTOMER. TO SIT AT THE SAME TABLE WITH THE CUSTOMER IS VERY IMPORTANT FOR ME.

Gautam Kar, Managing Director,
FLOVEL Energy Private Limited

KERALA – BACKWATERS

In addition to the popular beaches on the tropical Malabar coast the Indian state of Kerala is known for its cultivation of tea and spices in the mountains of the Western Ghats and for the unique backwaters waterway network in the hinterland of the coast. The waterway network extends over 1,900 Square kilometers from Kochi to Kollam and includes 29 larger ones Lakes and lagoons, 44 rivers and a total of around 1,500 Kilometers of canals and natural waterways.

Coconut palms, mangroves and rubber plantations form the Backdrop. The backwaters have served as for centuries trade and traffic routes. Typical form of transportation are boats in many designs, from simple canoes to barges to houseboats.

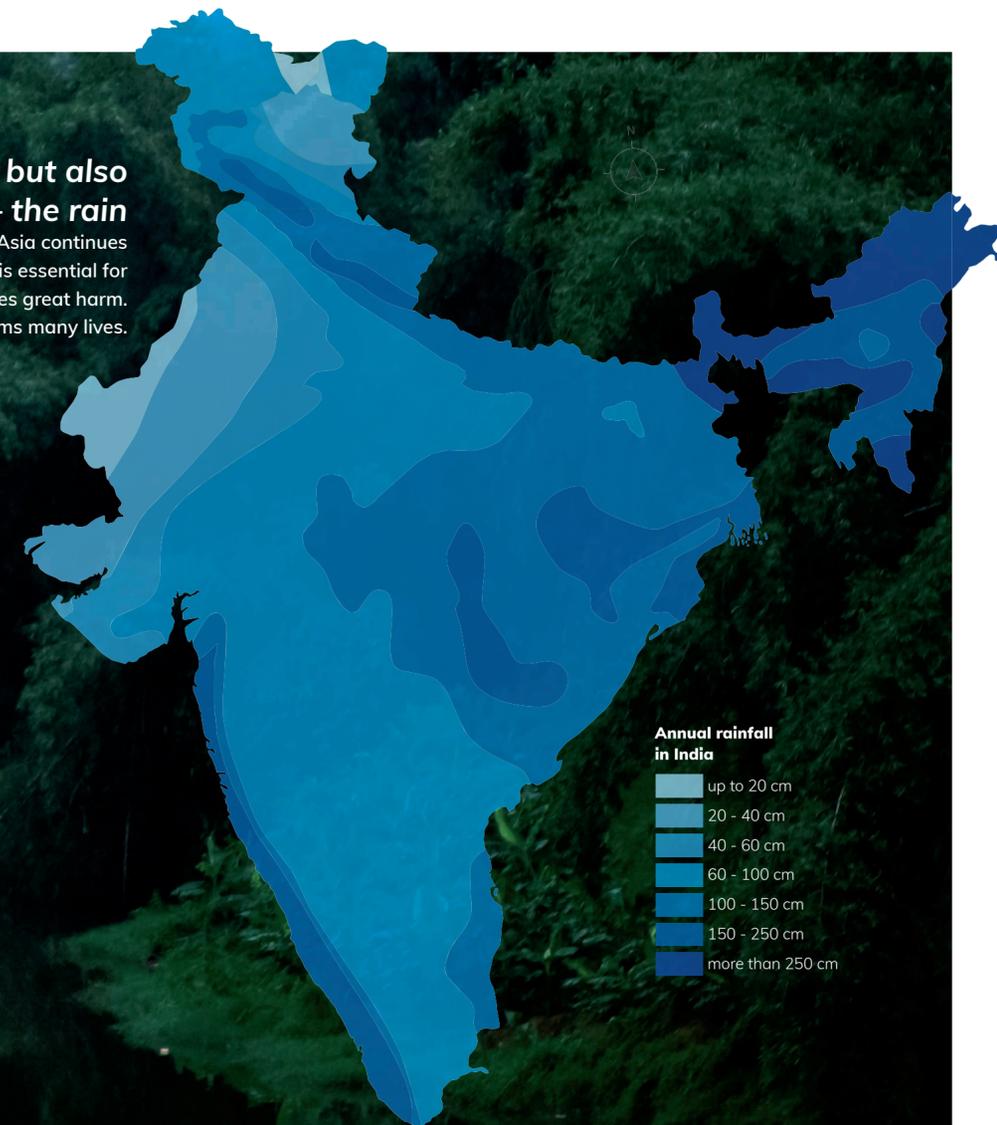
The climate in Kerala is tropical with little temperature fluctuations throughout the year and is heavily influenced by the monsoon. The southwest monsoon usually sets in in Kerala at the beginning of June and brings heavy rainfall until October. The rain is true vital for the country – but it also judges again and again great damage, triggers violent landslides – buildings fall, people are harmed and even die.

75%
of the electricity in Kerala is generated from hydropower. But Kerala is still not able to meet its electricity needs to cover from own production – a circumstance, the FLOVEL wants to counteract.



Life-giving but also dangerous – the rain

The monsoon season in South Asia continues usually until September. The rain is essential for agriculture – but he always does great harm. It even claims many lives.



Annual rainfall in India

- up to 20 cm
- 20 - 40 cm
- 40 - 60 cm
- 60 - 100 cm
- 100 - 150 cm
- 150 - 250 cm
- more than 250 cm

A project in the middle of unprecedented catastrophe in Kerala

The entire project was destroyed during the unprecedented floods in Kerala, followed by huge landslides on August 14, 2018. "The first look at the Power House after the damage was really worrying as all electromechanical devices were under water and under huge piles of dirt and mud," says the project manager by FLOVEL Mr. Rajesh Ananthaneni. After the first cleaning of dirt FLOVEL was asked by customers to give an immediate assessment of damage and an assessment of the possibility for a quick recovery to power generation. After all, the customer wanted maintain the economic profitability of the project. The FLOVEL team of experts visited the site – or rather the disaster site - and assessed the condition of all equipment in the plant and submitted a detailed report to restore the project.

AFTER THE DISASTER THE FLOVEL TEAM WAS THE FIRST, THAT ARRIVED AT THE POWER STATION AND EVALUATED THE DAMAGE AND MADE A THOUGHTFUL CONCEPT FOR RESTORATION. WE THANK FLOVEL FOR THIS VALUABLE WORK AND SUPPORT.

P Damodaran Nair (MD) & S Syamala Nair (Chairperson),
Viyat Power Pvt. Ltd.



BASED ON OUR COMMITMENT WE RECEIVED ANOTHER ORDER FROM OUR CUSTOMER FOR DELIVERY, INSTALLATION AND COMMISSIONING THE SCADA SYSTEMS FOR THIS PROJECT.



Gautam Kar,
Managing Director,
FLOVEL Energy Private Limited

"The biggest challenge for us was disassembling the entire turbine, to transport it to the factory, to restore the original condition, and the delivery of all M-BOP and E-BOP items complete as well to install the project within 6 months and to put it into operation," says Gautam Kar, Managing Director of FLOVEL. FLOVEL accepted the challenge and completed the project to the full satisfaction of the customer.

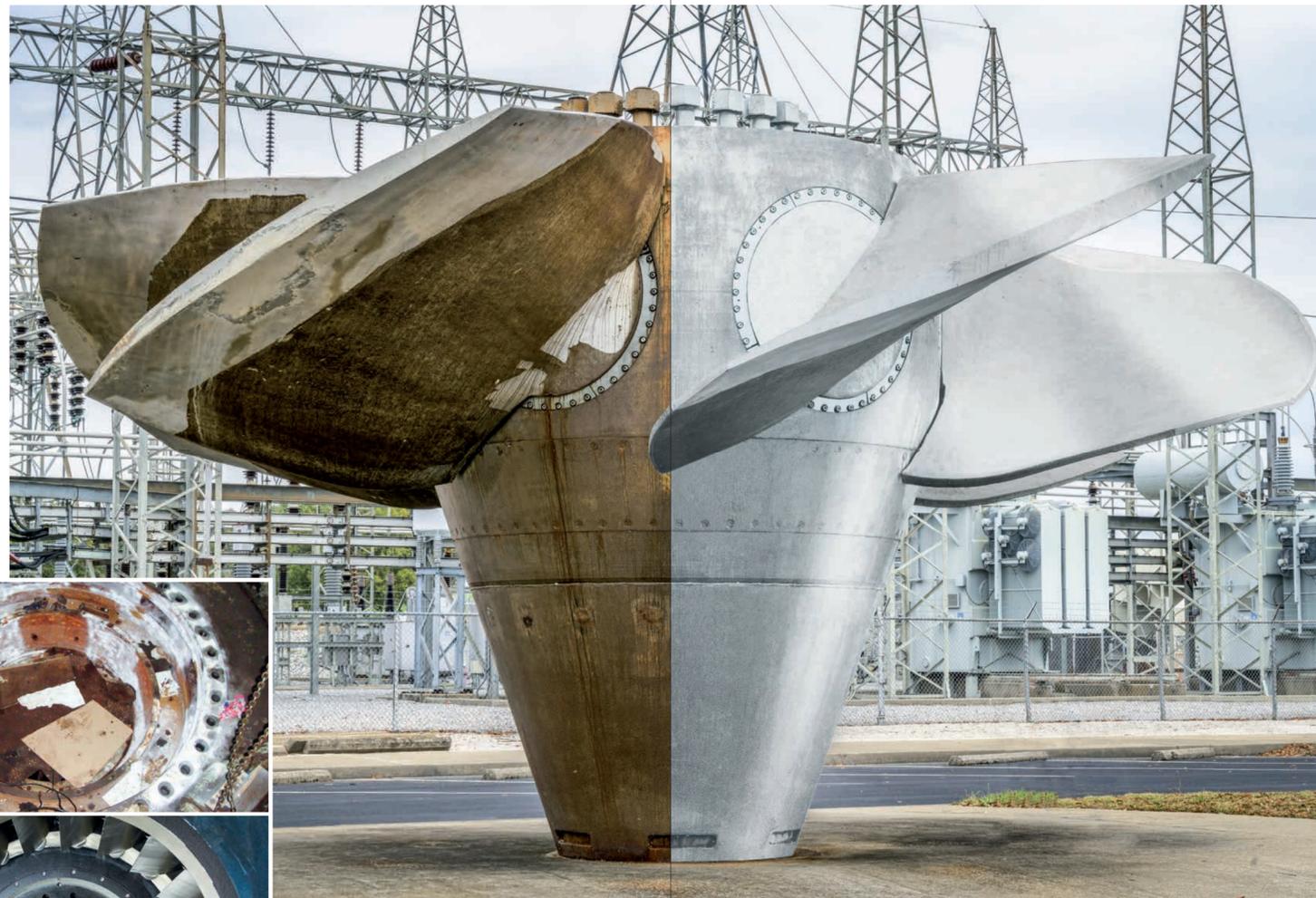
IT IS TIME TO CHANGE

Making old plants new reduces risks and gives a new lease of life to our valuable investments.

Performance, efficiency and reliability of generating sets in a Hydropower plant deteriorate over a period of time. Output, efficiency and reliability of generating units can be increased by replacing old or damaged components, by redesigning water passages and improving mechanical design.

Following activities will reduce costs and risks of standstills:

- » Activities covering main equipment i.e. turbine, generator, C&I equipment and other plant equipment essential for efficient and sustained performance of the units.
- » Prioritisation of activities which have direct impact on improvement of generation, efficiency, machine availability etc.
- » Analysis with respect to design aspects which will yield uprating of units like rewinding of generator with change of insulation.
- » Supplying new runners with improved profile.
- » Replacing old governors with modernised fast acting digital governing systems.
- » Replacing and supplying state-of-the-art equipments such as Digital Static Excitation System, numerical relays with self diagnostic features, on line monitoring devices, water level and discharge measuring devices etc.



RenServ

FLOVEL is advantageously positioned to deliver more MW per MW.

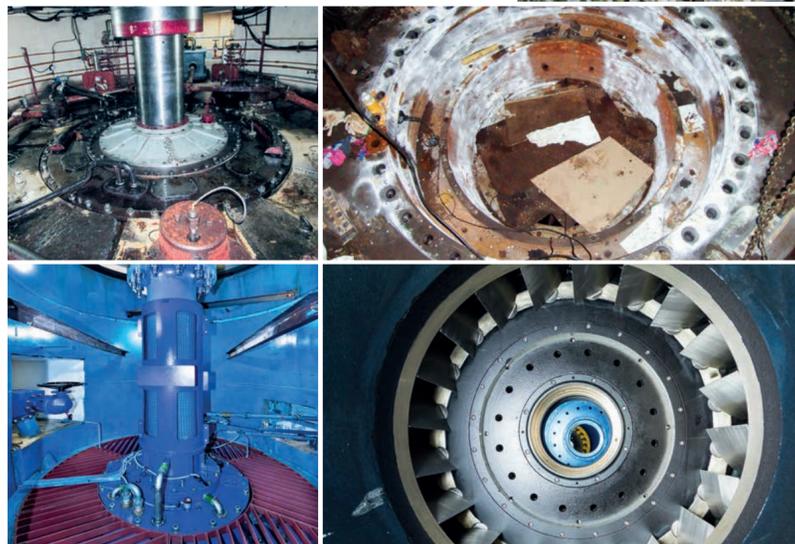
FLOVEL undertakes Renovation, Modernisation, Upgradation / Uprating and Servicing of existing Hydropower plants of all types and sizes over its entire life cycle including own fleet and for equipment supplied by other manufacturers.

Scope of work and services offered

- » Plant Assessment
- » Reverse Engineering
- » Residual Life Analysis
- » Feasibility studies
- » Risk Assessment
- » General overhaul / Rehabilitation of complete plant including turbine, generator and related BoPs
- » HVOF coating and custom designed solutions for high silt content water
- » Upgrading / Modernisation of automation equipment
- » Model testing / CFD Analysis / FEM Analysis / Vibration Analysis
- » Site Performance Testing
- » Operations and Maintenance contracts
- » Spare parts management
- » Fault Analysis and Troubleshooting
- » Training services
- » Service technicians

Advantage on your side

- » Customised & innovative solutions
- » Close to customer
- » High level Technical competency
- » Process oriented project management
- » Existing Civil structures are least affected
- » **3,100+ MW and still counting**



Making an old turbine new
Hydropower equipment can be upgraded with the latest technologies.

STEPS INVOLVED

Planning



Action





Hydropower is the **biggest**
and cheapest renewable
energy source of the world.

We **FLOVEL** that.