

TURBINE DE TRÈS BASSES CHUTES, VERY LOW HEAD TURBINE: NEWS LETTER N° 12

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*Hydroenergia 2012
Wroclaw 24th & 25th of May
Come and visit us at our
booth n°28 that we will
share with our agent in
Poland ITE*



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MJ2'S INTERNATIONAL GROWTH CONTINUES INTO CANADA POLAND & ITALY MORE THAN 24 VLHS DELIVERED BY THE END OF MAY 2012

Dear Friends and Partners,

The Hydroenergia 2012 Congress is the occasion for us to share with you the last news regarding our VLH development and projects.



VLH DN 5000 of Yenne

On page 2, you will find a report on the installation and the commissioning of our first DN 5000 VLH.

Besides, the project of installing 16 cascading VLH on the Mayenne River is now starting to be implemented. The first two units have been delivered and commissioned. (Also see page 4).



Craning of the 1st VLH of the Mayenne Project

Our international deployment continues with the signature of a first contract for the supply of 3 DN 4000 VLH in Canada (see page 3) as well as a third contract in Italy for the supply of 2 DN 5000 VLH.

On the subject of new orders, we further have to mention two contracts with high-profile hydroelectric producers:

- SHEM (Société Hydroélectrique du Midi, subsidiary of the Suez Group), with the project of increasing the output of the St Gery power plant on the Lot River,
- EDF, with the project of installing turbines for the harnessing of the ecological flow at the La Prètière power plant on the Doubs River.

In terms of organization, we have contin-



The MJ2 Technologies team

ued our hiring policy, and now have over twenty employees.

We are finishing installing our 30 T test rig that will enable spinning up the bulbs in our assembly shop. (See page 4)

Finally, we have increased the area of our assembly shop up to 1,800 m² and our offices are being expanded, to reach some than 400 m².

There are now 24 VLH in operation, 4 of which are abroad.

Enjoy reading this letter

Marc Leclerc
Manager

COMMISSIONING OF THE SEUIL DE YENNE POWER PLANT

MJ2 has delivered its first DN 5000 VLH to the CNR (Compagnie Nationale du Rhône, Suez Group) for the harnessing of the Seuil de

heads.

Creating this new power plant on a non-harnessed weir and in a highly protected area has resulted in a long and complicated ad-



Site assembly of the VLH DN 5000

Yenne SHP located on the Rhône River, close to Belley.

As mentioned in our NL N°11, it is the largest VLH produced to date. Its rated output is 500-kW operating under a 2.7-m gross head.



End of craning of the turbine into its concrete position

ministrative procedures.

The CNR has achieved a compromise between the landscape integration, the recreational



Craning of the turbine set: 48T



Upstream of the VLH in lifted position

It is installed on the natural branch of the Rhône and utilises the ecological flow which is not tapped by the by-pass channel of the Belley main power plant.

This installation will have a constant flow rate greater than its capacity, thus providing a very high use rate.

However, the presence of frequent high flows in this branch of the Rhône causes regular and long duration high tailwater levels. This situation has allowed MJ2 to monitor the VLH operation under partial head in normal steady state.

The expected performance has been confirmed, including operation under partial

use of the works by kayakers, and the various implied administrations.



Upstream view of the VLH in working position

*« 1st VLH DN
5000 delivered
and
commissioned »*

NEW 2012 PROJECTS

Let us start this section with the presentation of a site that has started being constructed in 2011, and that was ended in 2012. Indeed, the Fraisans SHP on the Doubs River upstream



Fraisans HPP upstream view

of Besançon has several interesting features. To begin with, it is the first installation with two DN 4000 VLHs of 200 kW each. Then, the civil works have been constructed of precast concrete elements. Finally, the owner has given particular care to the successful site



Fraisans HPP downstream view with the new bridge

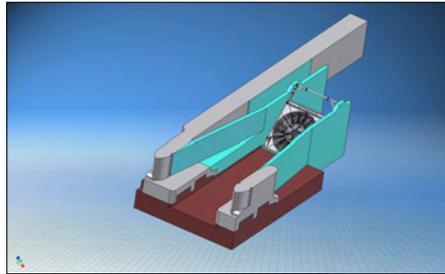
integration and to the use of a carefully renovated historical building.



Installation of the VLH at the Communes HPP on the Mayenne River

The Mayenne River project which considers the staged installation of 16 VLH entered its

execution phase with the installation of the first 2 machines in March.



3 D view of the VLH at PCH de La Prètière

In 2012, MJ2 has signed its first contract with EDF for the harnessing of the La Prètière HPP ecological flow on the Doubs River.



Downstream view of the old side wall along which the VLH DN 3550 will be installed at La Prètière

Another first was the order of the SHEM (Société Hydroélectrique du Midi) for the upsizing of the St Géry power plant on the Lot River.



Installation site for the VLH at St Gery

To complete this new projects section, we still have to mention the La Glacière Project in Millau, the Isola Dovarese Project in Italy, and the first contract in Canada for the Wasdell Fall Project in Ontario.

« 1st project with EDF directly »

« New contract in Italy for the supply of 2 VLH DN 5000 »

« Enlarged assembly shop from 800 to 1.800 m²»

« A new test rig with a capacity of 30 T will enable shop rotation of VLH hubs and generators »

ENLARGED ASSEMBLY SHOP WITH A NEW TEST RIG

Just over one year after establishing the new La Cavalerie premises, MJ2 is already falling



New Test Rig

short of space. In expectation of the end of 2012 production requirements, the assembly

shop has been enlarged with the expansion into the bay adjacent to originally rented premises. Initially this bay will be used to receive and stock parts and sub-assemblies. Room has thus been made in the first bay for the assembly of the VLH and the installation of the new test rig, of 30-T capacity, which will enable rotational testing, of the entire range of VLH bulbs, including the DN 5000.

This new Test Rig enables both static and dynamic testing the VLH bulbs. The basic parameters of the generator can be shop verified before placing the VLH in operating conditions.

The commissioning of the Test Rig is planned for June.

MJ2 SETTLES ABROAD WITH THE CREATION OF A SUBSIDIARY IN CANADA AND ONE IN ITALY

MJ2 is expanding abroad and is about to create two marketing and workflow subsidiaries.

The first subsidiary, in Padua, Italy, will take care of our workflow in this country and support MJ2's Italian marketing activities.

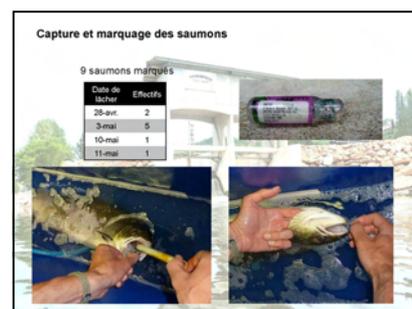
A new order has been filed for the supply of 2 DN 5000 VLH and a framework agreement with ENEL has entered the final negotiation phase which should result in the launching of several projects within a short time.

In parallel, MJ2 has signed a contract in Canada for the supply of 3 DN 4000 VLH for the Wasdell Falls Project. Other projects are well advanced. The creation of a marketing and outsourcing subsidiary has thus become necessary to support this growth. It will occur during the 2nd half of 2012.

This new entity will be in charge of the Canadian and US market.

It will be located close to Toronto.

FISH-FRIENDLINESS: NEW STUDY OF THE BEHAVIOR OF UPSTREAM-MIGRATING SALMONS AROUND A VLH



Radio tracking of Salmon on the Vézère River

A new study focused on the fish-friendliness of VLH has been launched in 2011 and is continuing in 2012 on the Vézère River.

It consists of radio tracking upstream-migrating adult salmon. The goal is to study the behavior of migrating salmon when they approach a plant equipped with VLH.

This ambitious scientific project is being implemented by EPIDOR (Etablissement Public territorial Dordogne) with the scientific support of ONEMA (Office National de l'Eau et des Milieux Aquatiques) and EDF's financial support. The study is under way and should continue this summer.

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