

Hangzhou Yatai, Marketing for Future

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Hangzhou Yatai Hydro Equipment Completing Co., Ltd., briefed as Hangzhou Yatai, is a sub-company of Hangzhou Regional Center (Asia-Pacific) for Small Hydro Power (domestically called National Research Institute for Rural Electrification (NRIRE) of the Ministry of Water Resources). Hangzhou Yatai started the business for R&D, fabrication and trading of automatic control systems for

hydropower plants, and in 2005 engaged itself into procurement & supply of the electromechanical equipment for hydropower projects abroad. The first deal was only USD12,000 exporting a set of 220kW Turgo turbine to a never-met tea plantation owner in Sri Lanka, and after that some micro turbine-generator sets were supplied to Japan, Philippines and Fiji etc.

Thanks to the policy of hydropower

development privatization, Hangzhou Yatai until now, has furnished over 50 hydropower plants with the supply of electromechanical equipment and services of equipment installation, installation supervision, testing, commissioning and training etc. in more than 10 countries including Peru, Indonesia, Pakistan, Vietnam, Turkey, Macedonia, Kenya and Angola, and among which 30 hydropower plants are accomplished in Turkey.



Kale HEPP in Turkey (3×13MW)



Osmancik HEPP in Turkey (2×4.83MW)



Sandia HEPP in Peru (1×1.2MW)



Gikira HEPP in Kenya (2×250kW)



Halmat HEPP in Pakistan (2×320kW)



Gikira HEPP in Kenya (2×250kW)

Hangzhou Yatai has been managing its business on a steady way for these years, with a total turnover of more than USD70 million achieved and the installed capacity of accepted hydropower plants amounts to 800MW more. The business of Hangzhou Yatai also expands to solar energy field as solar pumping systems are supplied to Peru now.

However, constraints still exist to prevent Hangzhou Yatai from going further and farer. The appreciation of Chinese yuan imposes desperate negative impact on export business of Chinese companies and Hangzhou Yatai is also not exceptional, but mainly the constraint of Hangzhou Yatai arises from its market downturn since the Turkish market is nearly finished. The Turkish currency Lira is also devaluated against American dollar day after day, and dramatically the exchange rate is increased from

1.2 in 2007 to 2.2 in 2013 for each US dollar, thus Turkish clients paying more for equipment procurement. So Turkish market becomes weaker and weaker, and both the amount and the installed capacity of planned hydropower projects decrease. Project owners just wait for the recovery of economy or a lower interest rate for credit, or alternatively transfer the license before deadline.

Therefore, there is no way other than exploring new market and other business lines for the future of Hangzhou Yatai, and here are some ideas or suggestion as follows:

1. To stronghold the Turkish market for new projects of old customers

Totally 30 hydropower plants have been completed and accepted in Turkey, and all are in stable and reliable operation

now. With these references Hangzhou Yatai sets up trustable and wide links with dozens of customers who always come to us for any new project. Five projects are ever awarded from one customer and some projects are still proposed with this company. Mutual trust and easy understanding helps contract negotiation and facilitates the project management as well. Turkish market must be taken as a stronghold for new projects of old customers and the potential projects of new customers.

2. To extend after-sale services for plant installation, inspection and maintenance

The after-sale service is key important for hydropower plant and some customers always question about how to ensure a continuous technical service for future operation of power plant, including supply of spare parts, routine inspection and



Sena HEPP (3x10.8MW) in Turkey



Runner installation for four-jet Pelton turbine



Runner checking for Kaplan turbine



Ozluce HEPP in Turkey (2x18.9MW)



Site assembly of rotor windings for generator



Site Training for Operation and Maintenance



Moa HEPP in Cuba (2×1MW)

even overhaul etc.. Luckily a group of 20 experienced engineers and technicians is available specifically for site services such as on-site training, testing, installation, maintenance and overhaul etc., and most of them stay in Turkey and check the equipment that Hangzhou Yatai or others supply. It is specified in the Chinese national standard, that a hydropower plant needs an overhaul after 3-5 years' operation, thus improving its operating efficiency and service life, and for daily operation & maintenance, Turkish technicians need training for Chinese proven expertise.

3. To shift the market orientation from Turkey to other emerging areas

Beside Turkish market, Hangzhou Yatai enters other emerging countries such as Macedonia, Cuba, Kenya, Angola and Peru etc., and we are also continuously looking for opportunities in Serbia, Albania, Bulgaria, Gorgia, Nepal and Indonesia, and we expect to award more projects from these countries and experience breakthrough in the near future. In general, Hangzhou Yatai needs to balance its marketing shares in different promising countries or regions and gradually shift from Turkish market to more and more emerging countries in Arica, East Europe, South Asia and Southeast Asia,



Gangelas HEPP (1×800kW+1×400kW)

thus the market of Hangzhou Yatai will be more steady and reliable if more regional markets involved.

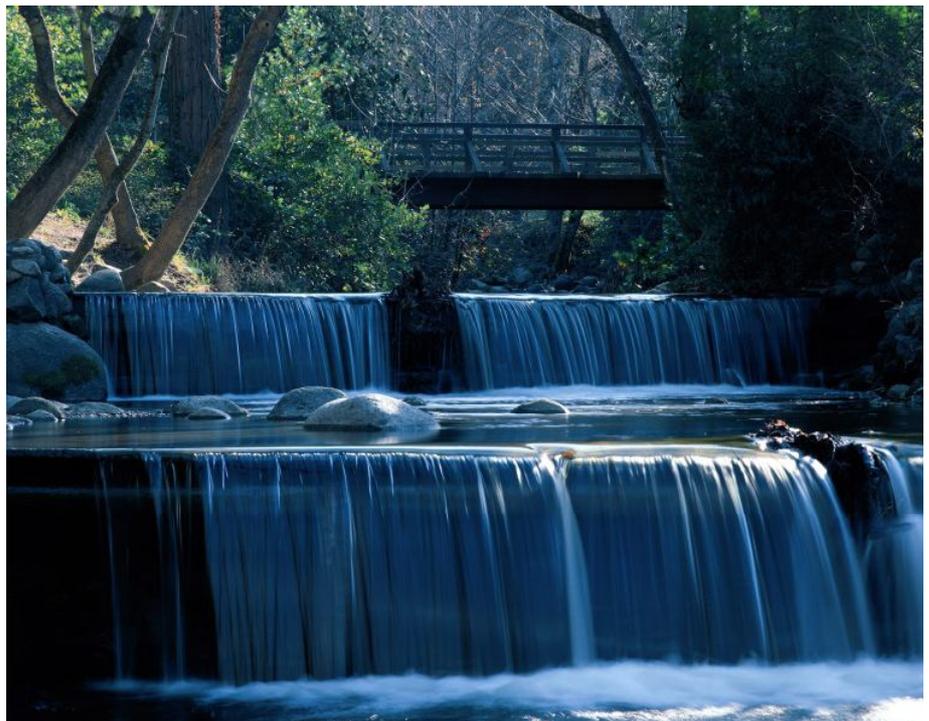
4. To widen the business scope for other renewable energies

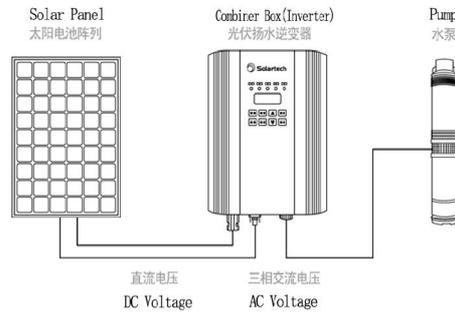
Obviously, engineering consultancy, project design, equipment supply & installation etc. for hydropower plants are the main business line of Hangzhou Yatai, while we also engage ourselves into the technical development and equipment procurement of other renewable energies including wind power and solar energy. We set up strategic partnerships with top

Chinese enterprises for providing solution and system to solar power and wind power projects. We just supplied 8 sets of solar-pumping systems and auxiliary equipment to Peru and right now, we are developing the market in Kenya, Macedonia etc. for the off-grid solar power-generating systems. In Turkey spend unremitting efforts for developing wind power projects in cooperation with German-based technologies.

5. To undertake inter-governmental cooperation for preparing market penetration

Hangzhou Yatai is approved to undertake the long-term cooperative project between the Ministries of Science & Technology of China and Vietnam called "Emergency-supporting Technology for Rural Hydropower against Disasters Caused by Climate Change" and to set up "China-Pakistan Joint Research Center for Small Hydropower Technology". Training courses or seminars are sponsored by Perez Guerrero Trust Fund or financed





from Chinese government and ASEAN Secretariat etc. With bilateral government's support, more wider and higher platforms will be applied, so that extensive and intensive cooperations can be initiated for technical training, trial fabrication, technical R&D and application of proven technologies etc., and after that the emerging market will follow.

Solar pumping systems and equipment for Peru (under construction)



Bilateral science & technology cooperation with Venezuela and Pakistan respectively

Conclusions: It's surely not easy to find a potential & stable market like Turkey, but there is no way if Hangzhou Yatai wants to keep its growth for another 10 years or even longer. Everybody needs to do his best and tries to be the best, for marketing the future of Hangzhou Yatai.

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HRC's Training Opportunities for 2014

No.	Project Name	Time	Venue	Working Language
1	2014 Séminaire sur l'Électrification rurale pour les Pays francophones d'Afrique	16 mai-12 juin, 2014	Hangzhou, China	français
2	2014 Seminar on Rural Electrification for Asian Countries	22 August-18 September, 2014	Hangzhou, China	English
3	2014 Training Workshop on Small Hydropower Technology for English-speaking African Countries	15 October-25 November, 2014	Hangzhou, China	English
4	Technical Seminar on Small Hydropower for ASEAN Countries	To be confirmed	Djakarta, Indonesia	English
5	China-ASEAN Training on Micro hydropower and Photovoltaic System for Rural Electrification	To be confirmed	Hangzhou, China	English