

## **Largest Bifacial solar PV plant in Europe has started construction in the Netherlands**

**Lyon, France and Vaassen, the Netherlands**– March 16 , 2017 – Tempres Systems B.V. , part of the Amtech Group started the construction of Europe’s largest bifacial PV solar plant of close to 400 kilowatt-peak (kWp) capacity in the Netherlands, using n-type PANDA Bifacial modules manufactured by China-based Yingli Solar and YC1000 native 3-phase microinverters from APsystems. The plant is located next to the headquarters of Tempres in Vaassen in the Netherlands and is due for completion in Q2 this year.

In contrast to standard monofacial modules, PANDA Bifacial modules generate electricity from both sides. As the rear side makes use of the reflected light from the surroundings and of diffuse light, the modules can yield up to 30% more energy, depending on the circumstances. It is expected that the annual energy production of the bifacial PV plant will exceed 400 MWh.

The facility will contain 1428 PANDA Bifacial n-type silicon modules with a nominal peak power ranging from 275 to 280Wp each and 472 YC1000 microinverters. Modules contain solar cells based on the n-PERT technology jointly developed by Yingli Solar, Tempres Systems and ECN.

The bifacial modules will have a glass front side and a glass rear side with a 30-year-linear warranty exceeding the lifetime of standard modules while the microinverters offer a 20-year warranty. The PANDA Bifacial modules have been independently tested for harsh environmental conditions such as exposure to salt mist, ammonia and known potential-induced degradation (PID) risk factors. The modules are equipped with n-type crystalline silicon solar cells which perform better under low light conditions than regular p-type cells.

The innovative PV plant has been developed in cooperation with Sparkling Projects and has been engineered by Schulz Systemtechnik BV who will also do the installation. The modules will be mounted on a fixed rack, which was specially designed for bifacial modules to optimize the rear side performance and are produced by Benz Alusysteme GmbH. Each YC1000 microinverter addresses 3 modules to optimize installation time and cost while ensuring optimal energy generation and monitoring capabilities in real time at the module level. “We are proud to be the first in Europe to install a bifacial PV plant of such a large size”, said Dr. Albert Hasper, General Manager of Tempres. “Besides electricity generation, this plant will also be used as a show case to prove the benefits of using bifacial module technology.”

“We are glad to receive substantial orders for our PANDA Bifacial module, which was recently introduced during the SNEC exhibition in Shanghai, May 2016 and has been improved through our continuous technology innovation,” said Dr. Dengyuan Song, Chief Technology Officer of Yingli. “Tempres and ECN are our strategic partners for many years and this innovative product is a result of this long-term collaboration.”

“Collaborating in such an innovative project with strong and visionary leaders such as Yingli, Tempres and Schulz fits perfectly with the DNA of APsystems. We are therefore delighted to showcase through this project, how our native 3-phase microinverters technology can now address self-consumption needs across large commercial solar arrays”, said Olivier Jacques, Sr, Vice President and Managing Director, APsystems EMEA.

This project was granted with a SDE+ subsidy from the Dutch ministry of Economic Affairs to encourage the production of renewable energy in the Netherlands. Sebastiaan Masselink, independent advisor to the renewable energy industry, arranged the debt financing for this bifacial PV-solar project, which will be provided by sustainable lender ASN Bank.

### **About APsystems**

APsystems was founded in Silicon Valley in 2009, and is now a global leader in the development, manufacturing and marketing of microinverter systems based on their own proprietary, leading-edge solar technology. Headquartered in Jiaxing, China, the company has manufacturing facilities both in China and in the United States and sales & marketing offices in APAC with offices in Sydney, Australia and Shanghai, China as well as in the United states, in Seattle and in Mexico. In 2016, a new regional organisation has been set up in EMEA with offices based in Rotterdam, in The Netherlands and Lyon, in France.

### **Contact APsystems**

Maxime Boiron  
m.boiron@apsystems.com  
+33 6 30 59 85 30