Siemens solar inverter used in major project in Florida

Atlanta, USA – Nuremberg, Germany. What is currently the biggest photovoltaic facility in the United States – the DeSoto Next Generation Solar energy Center – was opened at the end of October by US President Barack Obama. The Sinvert photovoltaic inverters and components used in the plant were supplied by Siemens Industry Inc. The solar power plant provides a peak output of 25 megawatts, and under optimum solar conditions is able to produce over 25 million kilowatt hours (kWh) of electricity.

Over 90,000 photovoltaic modules convert solar radiation into electrical energy in the DeSoto Next Generation Solar Energy Center, providing sufficient power to serve more than 3,000 homes. Siemens Industry Inc. was commissioned to supply photovoltaic inverters and system components produced in Fürth to be used in the solar plant. The Sinvert grid infeed system supplied by the Siemens Division Industry Automation was delivered in complete containers. It is used to convert highly efficient direct current into alternating current, which is then fed into the grid by medium voltage components – which are also supplied by Siemens. “Sinvert inverters are part of the Siemens green portfolio”, explains Richard Thomas, Head of Sinvert Product Sales at Siemens Industry Inc. USA. “They are designed to help reduce greenhouse gases. In the DeSoto Next Generation Solar Energy Center in Florida, technology from Siemens is helping save 575,000 tons of greenhouse gas emissions.”.

Sinvert
www.siemens.com/sinvert

Siemens Energy&Automation
www.usa.siemens.com/solartechnology
Award for new converter technology

Nuremberg, Germany. Siemens Drive Technologies Division engineers Dr. Rainer Sommer and Dr. Marc Hiller will be distinguished with the Inventor of the Year award in recognition of their work on the Modular Multilevel Converter (M2C). The internal Siemens award has been conferred on the two innovators from the Drive Technologies Division at the end of November 2009.

The two electrical engineers have been involved in working on the converter project since 2003. Based on a modular power converter concept, unlike other conventional devices capable of operating with just one output voltage, the M2C is able to work as a power converter for any optional output voltages in the medium voltage range. As an added benefit, the converter carries on working reliably even following the failure of an individual module.

The M2C is all about versatility: While conventional designs call for dedicated units to convert different voltages, the modules of the M2C are switched in sequence and can be used to convert anything from low to high outputs in the medium voltage range as required. This capability permits the converter to be used in mains applications such as high voltage DC transmission cables or drives for turbo machines such as compressors or pumps. The converter is also suitable for the power supply connection of wind farms. Because the Multi Level Converter operates with minimal losses, it is able to effectively feed energy from renewable sources into existing power grids.

The Multi Level Converter also offers the benefit of requiring no additional filters to feed electrical energy into the grid, while its compact dimensions mean a substantially lower space requirement.

The new converter is currently being piloted. For later series production, plans exist for hardware and software integration of the new converters into the existing Sinamics inverter series.

Medium voltage converters

Dr. Marc Hiller (front) and Dr. Rainer Sommer (back)
Pre-processing read/write units and compact antenna for RFID system

Nuremberg, Germany. The Siemens Industry Automation Division adds a new read/write unit to its Simatic RF600 RFID (Radio Frequency Identification) system, featuring a compact design, integrated processing logic and an industrial antenna.

The Simatic RF600 RFID system has been extended to include the Simatic RF670R read/write unit. An integrated processing logic enables RFID data filtering within the device itself, minimizing data traffic. Moreover, digital inputs and outputs can be allocated to specific events, a feature which enhances data throughput and supports a leaner IT infrastructure. Thanks to its compact design, the new stationary reader can be mounted in restricted spaces, and its high IP65 rating makes it the ideal candidate for use in rough industrial environments. The device comes with a three-color diagnostic LED and supports Ethernet communications via TCP/IP protocol.

Up to four external Simatic RF660A or RF620A UHF antennas can be connected to Simatic RF670R, allowing up to a maximum of four separate reading points to be implemented.

The new very compact industrial-duty antenna allows the Simatic RF600 RFID system to be ideally deployed in restricted spaces within a production environment. The IP67 rated Simatic RF620A antenna is available in either 868 megahertz frequency for Europe or 915 megahertz for USA. It can be used in the following read/write units: RF630R, RF660R and RF670R.

Typical applications of the new offering include track-guided conveyors or gate applications which require simultaneous reading of several tags in a block.
New white paper on energy efficiency

Nuremberg, Germany.
The current strategy report of the analyst ARC Advisory Group explores a wide range of topics on energy management and energy efficiency in the manufacturing industry and includes recommendations for the reduction of energy consumption.

Based on extensive energy assessments, the white paper identifies strategies for tracking and improving energy usage in motors, drives, power monitoring systems, lighting control through to Scada applications and smart motor control centers.

Energy consumption is a dominant component of manufacturers’ sustainability cost structures. Despite the recent drop in energy prices, costs are trending upward over the long term, and the days of relatively cheap energy are long gone. To meet these challenges, manufacturers are realigning their energy management practices to accommodate a future of volatile energy prices.

Whitepapers

Industrial Analyst Relations
Siemens Industry Automation and Drive Technologies at the China Industrial Industry Fair (CIIF) 2009

Shanghai, China – Nuremberg, Germany.
The Industry Sector of Siemens Ltd. China exhibited at the international Chinese industry fair CIIF 2009 in November with all of its six Divisions: Industry Automation, Drive Technologies, Industry Solutions, Building Technologies, Mobility and Osram.

In keeping with its ethos of “Creating Sustainable Value through Technological Leadership” based on the three pillars of “Productivity”, “Efficiency” and “Flexibility”, Siemens showcased its latest products, systems and solutions in the fields of automation, building technologies, transportation, and lighting on a 300 square meter booth.

As leading global suppliers, Industry Automation and Drive Technologies launched three new products at the fair. As a new modular PLC with powerful integrated technologies, Simatic S7-1200 was specially designed for simple and high-precision automation tasks in all types of applications. Scalance XR-300 is the latest member of the high-performance Siemens industrial Ethernet switch series. Sinamics G130, a new generation of the Sinamics drives platform, is particularly suited for high-power drive applications. The company provided ample evidence of its commitment to energy saving and environmental protection at the CIIF 2009 with a wide portfolio of products ranging from drives and motion control products to power management technologies, for example WinCC/B-bata software. Integrated safety solutions and products were also on show.

Siemens in China: Siemens is currently active in China with all its business units. Core focal areas of Siemens include Energy & Environmental Care, Industrial and Public Infrastructures as well as Healthcare. Siemens currently maintains more than 90 operating companies and 60 regional offices in China. These offices form the backbone of the Siemens regional strategy and ensure that the company is close to its customers to be able to respond quickly and efficiently to their needs. With 40,000 highly qualified local staff, Siemens is one of the largest employers among non-Chinese financed enterprises in China. The company has become fully integrated into the Chinese economy and is committed to continue its investment to develop and extend local manufacturing, engineering, R&D, software development as well as procurement to ensure the sustainable and profitable growth of its business in China.

Industry Automation
www.siemens.com/Industryautomation

Drive Technologies
www.siemens.com/drivetechologies

Sektor Industry
www.siemens.com/industry
Virtual training under real conditions

Nuremberg, Germany. The Siemens-Drive Technologies Division is celebrating something of a milestone: Dispatch of the twenty thousandth full version of SinuTrain, its training software for users of Sinumerik controls.

Since the first version was launched in 1995, the SinuTrain training software has evolved from a basic control system simulation to a fully functional programming and simulation workstation. It can also now be upgraded with a choice of different optional packages such as the “virtual machine for training”. These permit users to simulate operations on virtual milling machines or lathes under realistic conditions simply while sitting at the PC. SinuTrain allows different machine configurations (lathes or milling machines) and user interfaces to be installed:

Possible controls range from the 802D to the 840D sl, used in conjunction with either the ShopMill or ShopTurn user interfaces, or alternatively a DIN user interface.

A virtual machine control panel simulates the control console on a real machine, allowing practically every operation to be executed as it would occur in a real Sinumerik control: Starting with workpiece and tool setup through programming to simulation and execution of the finished program.

This important milestone was marked by a prize draw, which saw three lucky winners from Germany and Holland each presented with a full version of SinuTrain. 

SinuTrain
www.siemens.com/SinuTrain

Sinumerik CNC4you
www.siemens.com/cnc4you
Siemens supplies automation solution for Baxter’s new recombinant facility in Singapore

Nuremberg, Germany – Singapore.
Siemens Pte Ltd has been awarded a lump-sum multi-million dollar contract by Baxter Bioscience Manufacturing in Singapore. The contract involves the supply of the automation system, process instruments and motor control centers, as well as basic and detail engineering services. Siemens will also be responsible for installing and commissioning the systems. The Siemens concept, based on Totally Integrated Automation, will allow tight integration of all devices and components, based on Profibus and Industrial Ethernet communication.

About Baxter
Baxter International Inc. and its subsidiaries develop, produce and market products designed to save and sustain the life of patients suffering from haemophilia, immune deficiency syndromes, infectious diseases, renal diseases, traumas and other chronic and acute conditions. Baxter’s BioScience Division has a long-established tradition and extensive experience in the supply of drugs based on plasma, recombinant drugs and vaccines. Recombinant substances are produced by artificially rearranging DNA using genetic engineering – the genetic material is then recombined.

About Siemens Pte Ltd
Siemens Pte Ltd is the representative company of Siemens AG in Singapore whose business activities cover the fields of communications, automation and drives, building technologies, industrial solutions and services, power generation, power transmission and distribution, medical solutions and transportation systems.

About Siemens Singapore
With seven companies employing some 2,000 people, the Siemens Group of Companies in Singapore is one of the largest German companies in Singapore. Siemens delivers state-of-the-art solutions and technologies in the fields of information and communications, automation and control, power, healthcare, transportation, lighting and home appliances.

Pharmaindustrie
www.siemens.com/pharma

Siemens Singapore
www.siemens.com.sg
Siemens boasts Germany’s top trainee

Nuremberg – Chemnitz – Berlin, Germany.
The beginning of December marked a special day for Oliver Schlag when he received an award from German President Köhler in Berlin as the country’s top trainee foundry mechanic, specializing in hand mould casting.

An employee of the Siemens Drive Technologies Division, Oliver Schlag completed his training in the summer of 2009 with 97 out of a possible 100 points, making him the top scorer among foundry mechanics trainee candidates in the whole of Germany. His excellent performance meant that Schlag, who started his training with Flender Guss GmbH in Wittgensdorf, was able to complete his apprenticeship ahead of time.

The vocational training center Esta-Flender GmbH in Wittgensdorf currently provides training and support for around 180 apprenticeship candidates studying under what is known as the dual vocational training system. The center serves primarily the Flender companies Flender Guss GmbH Wittgensdorf and Flender Industriegestriebe GmbH Penig, Ausbildungsring Südwestsachsen Chemnitz-Plauen-Zwickau GmbH, Arimes and Sachsen Job Dresden, as well as other Training Network partners throughout the region. Since 2002, several of the Esta-Flender trainees have completed their trainee programs as national or regional top achievers.

Gear-units
Siemens receives award from NEC Electronics Europe

Nuremberg, Germany.
At the SPS/IPC/Drives Fair at the end of November, NEC Electronics Europe conferred its “Innovation Partnership Award” on the Siemens Industry Automation Division. NEC worked in support of Siemens on development of the sensor adapter Simatic PX130C. The IO-link chip from NEC forms a key constituent of the new adapter.

The Simatic PX130C adapter provides a simple way of integrating standard sensors into the IO-Link, the communication standard for the sensor/actuator level.

This development allows the majority of sensor types available on the market to utilize the benefits of the IO-Link without any modification – for instance by integration into central troubleshooting and error detection systems. The Simatic PX130C adapter features a number of signal conditioning functions and extensive diagnostics capability. It is especially suitable for drive solutions such as speed control and monitoring, as well as rotational direction recognition and for fast counters. The one-chip IO-Link solution from NEC integrates both the microcontroller and the analog transceiver circuit required for IO-link communication.

About NEC Electronics (Europe) GmbH
NEC Electronics (Europe) GmbH based in Düsseldorf is one of Europe’s leading suppliers of semi-conductor solutions. Offering a complete portfolio of standard products, system-on-a-chip (SoC) solutions and customer-specific developments, NEC Electronics meets with stringent customer expectations in terms of price, performance and time-to-market. The state-of-the-art production facilities of the parent company NEC Electronics Corporation comply with growing customer demand for high piece numbers. NEC Electronics (Europe) GmbH is also the sole sales and marketing channel for the LCD modules produced by NEC LCD Technologies Ltd.

Siemens IO-Link
www.siemens.de/io-link

NEC Electronics
www.eu.necel.com
Nuremberg, Germany. The Siemens Industrial Automation Division celebrated the sale of its ten millionth Sitop power supply at the SPS/IPC/Drives Fair 2009. As the buyer of the ten millionth Sitop, Kiener Maschinenbau GmbH was presented with a special jubilee edition of the Sitop unit as a token of appreciation by Gunther Klima, Head of the Siemens Power Supply Products business unit. Josef Edhard, Head of Electrics at Kiener, was on hand to represent his company and receive the 3-phase 24-volt Sitop power supply PSU300M 20A in gold.

Kiener Maschinenbau produces assembly lines and coating plants for a wide variety of different sectors. The demands made on the power supply are equally diverse. The wide Sitop portfolio provides not only just the right power supply unit for every application, but also expansion modules to upgrade the functional capability – for instance for selective monitoring of 24V feeder circuits. When using the Simatic S7-300 PLC, Kiener Maschinenbau uses the matching Simatic design PS307 power supply. For other applications such as the distributed periphery ET200S or CNC Sinumeric 840D, it uses primarily Sitop modular technology power supply units.

“Sale of the ten millionth power supply unit is impressive testimony to just how much our customers appreciate the quality and innovative technology of our Sitop series. As well as a steady stream of innovations, it is the outstanding reliability of our primary pulsed industrial switched mode power supply units which forms the basis of our success: Success which has seen us remain the leader in this market sector for over fifteen years”, sums up Gunther Klima.

For Josef Erhard, the criteria behind the decision to opt for Sitop include its extreme output voltage stability under different load conditions, the voltage output safety, the wide-range input for international application and the extreme reliability of the voltage supply units. The ability to source a perfectly coordinated and comprehensive portfolio from a single provider is another important aspect to the Lauchheim-based firm when it comes to making that all-important supplier decision. According to Josef Erhard, firm plans are already in place to also deploy the uninterruptible power supply (UPS) units for use with Simatic PC.
Extensive product spectrum – through to the power supply solution with all-round protection.

Today, Siemens has a complete portfolio to offer for reliable direct voltage supply in industrial and building automation applications with its Sitop modular, Sitop smart, Logo!Power and Simatic-Design product lines, alongside a range of non-standard variants. The fan-free power supply units take up only minimal space on a top hat rail, and provide protection against voltage fluctuations, power failure, overload and other adverse conditions. Sitop switched-mode power supply units can be combined with the wide spectrum of available expansion modules such as UPS, redundancy and the selectivity module for monitoring overloading in load feeder circuits to create complete, all-round protection.

Siemens was present at this year’s SPS/IPC/Drives with its new power supplies PS307 (2 A, 5 A and 10 A) for the PLC Simatic S7-300, PM1207 (2.5 A) for the S7-1200, PSU100M (20 A) of the Sitop modular product line, its innovative new capacitor-based DC-UPS solution and the Sitop PSE200U selectivity module.

Stromversorgung Sitop
www.siemens.de/sitop

Power Supply Sitop
www.siemens.com/sitop

The wide Sitop portfolio for industry and building technology includes 24 V power supplies, expansion modules for buffering, redundancy and selectivity as well as uninterruptible power supplies (UPS).
Feature on SPS/IPC/Drives

Nuremberg, Germany.
All the papers and presentations delivered at the International Siemens Trade Press Conference at the SPS/IPC/Drives are included in the feature on our press website. After registering, you can also download videos which are available for use free of charge in the online version of your magazine.

For an overview of available videos, click onto the “Videos” index tab. The following videos are available for downloading:

- **Statement about Energy Efficiency in Automation**
  Thomas Schott, Head of Factory Automation, Siemens.

- **Interview about Innovations in Industrial Control**
  Eckard Eberle, Head of Control Components at Siemens.

- **Interview about the new Micro-Controller Simatic S7-1200**
  Guido Feind, Head of Sales and Marketing of Industrial Automation Systems, Siemens.

- **Interview about Productivity in Cranes Business**
  Joachim Zoll, Head of Cranes Business, Siemens Nuremberg/Erlangen, Germany.

- **Siemens Presse Industry Automation and Drive Technologies**
  www.siemens.com/presse/iadt
Siemens press conference in advance of the Hannover Messe
15/16 of March 2010 in Nuremberg

The Siemens Industry Sector (Erlangen, Germany) is the worldwide leading supplier of environmentally friendly production, transportation, building and lighting technologies. With integrated automation technologies and comprehensive industry-specific solutions, Siemens increases the productivity, efficiency and flexibility of its customers in the fields of industry and infrastructure. The Sector consists of six divisions: Building Technologies, Drive Technologies, Industry Automation, Industry Solutions, Mobility und Osram. With around 257,000 employees worldwide (September 30), Siemens Industry achieved in fiscal year 2009 total sales of approximately €35 billion. http://w1.siemens.com/press/en/materials/industry/ia_dt/press_newsletter.php

Industry Automation
The Siemens Industry Automation Division (Nuremberg, Germany) is a worldwide leader in the fields of automation systems, industrial controls and industrial software. Its portfolio ranges from standard products for the manufacturing and process industries to solutions for whole industrial sectors that encompass the automation of entire automobile production facilities and chemical plants. As a leading software supplier, Industry Automation optimizes the entire value added chain of manufacturers – from product design and development to production, sales and a wide range of maintenance services. With around 39,000 employees worldwide Siemens Industry Automation achieved in fiscal year 2009 total sales of EUR7.0 billion. www.siemens.de/industryautomation

Drive Technologies
The Siemens Drive Technologies Division (Nuremberg, Germany) is the world’s leading supplier of products and services for production machinery and machine tools. This includes standard products but also encompasses industry-specific control and drive solutions. Integrated technologies along the entire drive train with electrical and mechanical components offer highest potential to reduce energy consumption in industrial plants. The services provided by the Division include mechatronics support in addition to online services for web-based fault management and preventive maintenance. With around 36,000 employees worldwide (September 30), Siemens Drive Technologies achieved total sales of €7.5 billion in fiscal year 2009. www.siemens.com/drivetechnologies