Another year of hard work and success throughout the world and particularly the U.K comes to an end, a year which has allowed us to lay the foundations for our 2015-2020 strategic plan. A promising horizon not only excites us but it creates the most important challenge in the history of Power Electronics. Without losing the values which have led us here today, we will continue supporting the sectors of renewable energy, medium voltage equipment and industrial applications with low harmonic content. This growth would not have been possible without the consolidation of more than 30 offices worldwide in key geographic locations such as North America, Latin America and Middle East.

We have great hope and are strongly committed to the large-scale photovoltaic and industrial sectors in the USA. In the coming years, we will launch a complete range of low and medium voltage drives and starters focusing on sectors such as Water, Oil & Gas, Mining and Power Generation. In the PV solar sector all indicators are positive and we are in a favourable position with our HEC-UL inverter technology. In USA it has been installed +16.1GW prior to Q3 2014 and +1.3GW is added every quarter; the expiration of the Tax Credits is accelerating the investments, it is mandatory to comply with the “EPA Standards for Coal Emissions” by the states. All these indicators combined with a market that appreciates quality, established an interesting framework for business in the country for Power Electronics.

We expect a lot of activity as well in Mexico, Central and South America. Already in 2014 we have experienced tremendous growth in the renewable energy division in countries such as Mexico, Chile, Panama, Costa Rica and Puerto Rico, with a +70MW portfolio. Our customers observed a stable regulatory environment, high solar availability and high energy prices that make return of investments very attractive and throughout all we ensure to always be present for our clients.

It has undoubtedly been a busy year in the photovoltaic solar sector and likewise our Industrial division has experienced a phenomenal year, breaking records in countries such as Mexico, Spain, New Zealand, Australia, Korea, and China. Thanks to the intensive work and an optimal product range Power Electronics is proud to now be one of the leading brands of low and medium voltage drives and starters in the Oil & Gas and Power Generation sectors.

We congratulate all those who made this possible and welcome the new challenges that 2015-2020 pose, where new products and markets will allow us to be a leading international company by the end of 2020.

Merry Christmas and a Happy 2015

David Salvo
CEO
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Power Electronics has enjoyed fantastic success in the USA, beginning in 2010, the company has spread itself across the country to areas such as Boston, San Francisco and Austin, allowing the business to remain close to their clients to provide assistance and support. Thanks to the rapid growth in such a large market a new HQ was necessary to provide a base of operations in the country.

The company is proud to announce their new HQ in Phoenix, Arizona. This location will be the central hub for the ongoing expansion into the North American market thanks to its ideal central placement and excellent distribution networks. The facility has ample office space for the Sales and Projects Departments, who ensure that every client gets technical support and assistance throughout the completion of their project. The 20,000 sq. ft. Phoenix facility allows for the storage and distribution of the entire product range while allowing dedicated engineers to perform quality control measures and ensure the product is ready to be received by the customer. This location is perfect for showcasing the products and growing the business further by hosting customers, prospects and partners in a first class setting. The new HQ will ensure the delivery and commissioning of over 1GW of UL certified and compliant inverters across North America.

Power Electronics believes in providing exceptional customer service and a world-class product. The Freesun HEC-UL central inverter boasts a 2mm thick stainless steel enclosure which gives it NEMA 3R protection and enables it to last for 25 years in some of the world’s harshest and most extreme climates. The Automatic Redundant Modular Master Slave System allows for the competitiveness of central inverters and the availability of string inverters. The exclusive iCOOL system allows the inverters to work at 50°C with no power de-rating by completely enclosing the electronics. Freesun HEC-UL inverters are equipped with the latest industrial developments which offer the maximum yield and proven reliability for any utility scale projects. The HEK Skid Solution is a turnkey solution, complete with factory integrated AC & DC disconnects and protection, two HEC-UL inverters, a step up pad-mount transformer and auxiliary equipment, powering up to 3MW per skid.

Power Electronics strongly believes in a customer orientated strategy, since the beginning, customer service has always been a cornerstone of the business and the company is proud to say that even after expanding into more than 30 countries we still maintain this value. After analysing the North American solar market, it was clear there was a need for a company who could provide more than just a world leading product, someone who could provide an equally impressive service to go alongside it.

Our family business values on an international scale have enabled us to get closer to the customer and ensure every client gets a fully customised product for their project. Power Electronics does not have customer categories or preferred areas, we offer an onsite service 24h/365 given by Power Electronics trained personnel. With over 100MW of projects set to be completed in the coming months and over 600MW scheduled before the end of 2015, Power Electronics North American venture is proving to be a major success story.

NEW HEADQUARTERS IN PHOENIX, ARIZONA

4777 North 44th Avenue
Phoenix Arizona, 85031
Tel. (415) 602-354-4890
SPI 2014 LAS VEGAS, ENERGY LOADED FAIR

Power Electronics completes SPI Las Vegas show with results above expectations. SPI 2014 brought together more than 1,500 professionals, hundreds of exhibitors and 60 sectoral conferences that reinforce the leadership of this event in the photovoltaic solar industry in North America.

Many clients, investors and technical consultants highlighted the great benefits of our investment HEC-UL 1.7MW and our platforms (skid) of up to 3MW. The HEC-UL inverter is positioned a unique outdoor inverter, redundant, with stainless steel construction and mineral insulation, offering the best rates of availability and durability in the market for large scale PV plants. While our stations on platform (skid) are the most powerful solution on the market by reducing the cost per watt significantly.

See you next year in Anaheim, California!

POWER ELECTRONICS SPONSORS 7TH ANNUAL UTILITY SCALE SOLAR SUMMIT

Power Electronics was proud to sponsor the Utility Scale Solar Summit, which ran from 10-11 September and brought industry leaders from across the globe to San Diego to share insight into moving the utility scale solar market forward.

For the past 7 years the Summit has provided an opportunity for businesses, developers and investors to join together and provide insight into the market as well as giving ideas on how the sector will advance in the coming years.

Globas Sales & Marketing Director, Anthony Carroll attended the Summit and had the opportunity to welcome all of the attendees to the conference and provide further information about the expansion of Power Electronics across North America to match the rapid growth of the utility scale solar market.
As one of the top solar inverter manufacturers we have enjoyed an outstanding year of success in arguably Europe’s most important solar market, the United Kingdom.

Power Electronics has over 700MW in service in UK. The company also has contracts to raise this to 1.2GW before 31st March 2015 when the cutoff occurs for the 1.4 ROC rates.

The solar market has grown rapidly over the past two years, maintaining a steady growth of photovoltaic energy generation over this period. This year the industry is expected to follow this trend as companies with solar projects rush to ensure they are completed before the 1.4 ROC deadline. This year the cutoff in March is expected to surpass the demand generated by last year’s deadline, a notable time in Power Electronics history were the company installed and commissioned over 350MW in just two weeks, with 175MW being completed in a 48 hour period.

The solar market in the UK is now one of the largest in Europe and has attracted the top investors and companies from around the world. The market is expected to account for 13% of the energy demand by next June and Power Electronics is proud to play a role in this growth.

The success of the company has come about not just from a world leading product range but also due to the unmatched customer service which all clients receive. With the ‘Power On Support’ clients can access a team of skilled engineers who are on hand 24/7 to ensure the products are running smoothly. In the event of an unlikely breakdown Power Electronics can have a team of professionals on site to rectify the problem and allow the system to be up and running and therefore earning the clients money. As a token of appreciation, all of their clients are given free commissioning as Power Electronics believes that this is part of their philosophy.

The Power Electronics Freesun HEC has proved to be the key component in solar fields across the country. When EPC’s choose the HEC inverter they know they are saving money in transportation, installation and plant performance due to the unique features offered in the product. The Modular Master Slave System ensures that even if one module fails the power is redirected to another operative module, while other inverters would cease to operate; the Freesun HEC continues to work at close to full capacity. Using the latest modulation techniques Power Electronics offers the widest MPPT full power window in the solar market to help the clients boost their PV plant performance. The HEC is only one of a number of different options for the clients, with a large product range offering inverter solutions from 20kW – 2MW, it is clear to see why Power Electronics is the market leader in the U.K and why it will continue to be.

**CHILEAN INTERNATIONAL RENEWABLE ENERGY CONGRESS**

Power Electronics participated as a Silver Sponsor in the Chilean International Renewable Energy Congress (CIREC) held on 9th and 10th September in Santiago, Chile. The congress was attended by key players in solar and wind industry, in the country with the highest activity in the photovoltaic sector throughout Latin America.

In this 3rd edition of the congress, Power Electronics set up a stand where you could learn about our latest news. Solar PV Sales Director, Miguel Angel Escribano talked on the subject “PV Power Converters at High Altitude”. Thanks to over 17 years of experience accumulated by our Chilean delegation, the constraints of installing inverters at high altitudes and extreme weather conditions were explained. Power Electronics has references in the deserts of Antofagasta and the highest facilities of the Andes, all of them offering the highest performance and the most efficient technical assistance.
POWER ELECTRONICS EXPANDS TO WESTERN AUSTRALIA

Power Electronics Australia Delegation continues to grow, with a new office in Perth, Western Australia, the largest state in the country and largely considered an excellent mining state.

Power Electronics Australia was established in 2009. “At this time we have established an extensive sales and technical network covering part of the mainland. This new office will help us reach all corners of the country.” Nelson Pine Industries, Oceana Gold Macraes and Rio Tinto Alcan Group are examples of companies that rely on Power Electronics drives. The largest gold producers in New Zealand and Australia’s largest timber industry both rely on the SD700 series for ensuring operational success.

SEMINAR BY LALO SALVO (CTO) EXTREMELY POPULAR ONCE AGAIN

Lalo Salvo, Power Electronics Chief Technical Officer presented a technical seminar to full houses in Perth, Gladstone and Brisbane. The seminar covered “VSD’s - the hidden Trade Offs” Fundamental thinking behind the main Design Features Critical for VSD’s in Australia’s harsh environment.

The seminar also explored the technology and topology behind new LV and MV drive designs and the main factors giving reliable operation of a VSD controlled system.

Customer questions kept Lalo busy for several hours after each seminar.
POWER ELECTRONICS NATIONAL CHAMPION IN EUROPEAN BUSINESS AWARDS 2014/15

Power Electronics has been chosen as a National Champion in the European Business Awards; a prestigious competition which attracts the focus of business leaders media and political representatives from across Europe.

For the past 8 years The European Business Awards have recognised excellence, best practices and innovation in companies from across Europe. This year over 24,000 companies engaged in the entry of the awards with hopes of going on to win an award in one of ten categories.

Anthony Carroll, Global Sales & Marketing Director of Power Electronics said: “We are proud to be selected to represent Spain as a National Champion. It is a credit to our business that we have reached this position and we now look forward to the next round where we get to give a detailed explanation as to how we have achieved our fantastic growth over the past twelve months.”

Adrian Tripp, CEO of the European Business Awards said: “Congratulations to Power Electronics, it is a great achievement to be named National Champion and we wish them luck in the next stage.”

Power Electronics has been selected thanks to its substantial growth over the past year; some notable achievements include the commissioning of over 350MW across the UK in just two weeks.

A panel of judges made up of European business leaders, academics and entrepreneurs will view the National Champions’ videos, and award the best of this group the coveted ‘Ruban d’Honneur’ status. Ruban d’Honneur recipients will then go on to the grand final in 2015. All of the National Champions will also take part in a public vote to decide ‘Public Champions’ for each country. Last year over 93,000 votes were cast, and over 400,000 people visited the EBA website during the competition.

POWER ELECTRONICS TAKES PART IN THE VALENCIAN YOUNG RESEARCHERS AWARDS 2014

The Salón de Cristal was the setting for the 8th Annual Research IDEA Awards. These awards aim to encourage and promote the talent and excellence of young Valencian researchers.

Mr. Abelardo Salvo, the President and Founder of the company represented Power Electronics, one of the events sponsors. Mr. Salvo congratulated the young winners and emphasized the importance of encouraging and supporting young people to follow in the path of research in both public and private companies, “the development of the R&D is crucial for fostering business growth, Power Electronics started with a team of 4 people and the department is now comprised of more than 100.” Mr. Salvo also encouraged the young people to continue in the line of research “with motivation and hard work.”

The event saw 41 projects being presented awards from the categories of Biotechnology and Biomedicine, Energy and Environment, Communications Technology, and Agricultural Technology. Sports Councilman Cristóbal Grau, presided over the awards ceremony, accompanied by the Councillor for Employment, Entrepreneurship and Innovative Projects, Beatriz Simon and CEGAS Natural Gas CEO, Robert House.
FROM JANUARY 6th to FEBRUARY 24th
VOTE FOR US
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HE HIGH EFFICIENCY
GENERATION II
SOLAR INVERTER

POWER ELECTRONICS HE solar inverter is the best choice in quality and reliability. It is available in three output voltages 360Vac, 560Vac and 400Vac, covering a power range from 400kVA to 1700kVA. The fully modular and redundant inverter, all systems are repeated in each module, control board, power stage, cooling system and protections.
POWER ELECTRONICS INTRODUCES FREESUN HE GEN II
THE MOST POWERFUL AND THE WIDEST MPPT WINDOW EVER

Power Electronics introduces this Q4 2014 Freesun HE Gen II, the most powerful air cooled indoor utility-scale inverter with the widest MPPT window in the market ever. Now just 5.2m can power 1.7MW solar power stations with its built-in modularity and redundancy that enhance its fault tolerance and availability rates.

After releasing Freesun HEC and HEC+ in Q1 2014 with unprecedented success, now Freesun HE Gen II is available, the unique indoor modular and redundant utility scale inverter in the market ranging from 450kW to 1700kW. Engineered for unmatched serviceability and ease of maintenance, Freesun HE offers up to ten withdrawable conversion modules with an easy front access and a rear direct cooling. It can be integrated in concrete stations HESr or 40’ ISO container HET, allowing worldwide integrators and EPCs to play with different solutions but all with the same heart.

Power Electronics continues transferring its valuable experience and know-how gained throughout the previous decades in the industrial sector to its solar products: The Freesun HE Gen II integrates substantial advances in control and construction: three output voltage levels 360Vac, 380Vac and 400Vac with the widest MPPT windows in the market by using the cutting edge motor control techniques, hyper range of power factor, reactive control during the night, added utility interactive functionalities, zonal VSD fan control without dust filters and automatic derating above 50°C or 820Vcc.

Over the last few years, Power Electronics’ philosophy of customer oriented POWER ON SUPPORT, its highly technological product offering and favorable sales conditions have made the company successful worldwide. Recently, the firm has become a leader in the UK with 1.2GW set to be installed by April 2015, eight service locations and over thirty field technicians. “The Freesun HE Gen II is based on an intense and close work with the engineering and O&M teams of the most well known firms in the PV solar sector. Our product has been tested under the harshest environments in Mauritania and United Kingdom, and now we are boosting its capacity to provide more cost competitive solutions to a price oriented PV market. This, when combined with our commitment to 24h technical service, are undoubtedly the best guarantees available for EPCs, developers and investment firms that have, in the past, relied and will continue rely on Power Electronics” says Lalo Salvo, CTO.

Power Electronics through its’ POWER ON SUPPORT program provides the complete package for the sector which includes a 5 year warranty for all solar orders, possible warranty extension for up to 25 years, free and fast commissioning, 24h service, local spare parts stock, free technical training, commitment to 99% availability without extra cost, and a team of experts and engineers to help our clients with the design and construction of their plant.
The Potential Induced Degradation (PID) effect on PV modules is generating substantial power losses on multimillion dollar projects. This effect is caused by a relative negative voltage between the cell and the chassis and is pushing the main European EPCs to change the layout of their new plants from floating array configurations to negative grounded array configurations compromising in some cases the safety of their PV facilities.

Power Electronics has released the FREESUN PV ARRAY TRANSFER KIT, a cost-competitive solution that enables a safe operation and maintenance of the negative grounded PV plants, and ensures full compliance of NEC2014 690.5(A)(1) and 690.35(C)(1) by checking PV isolation before startup. By mounting this kit the inverter and the PV plant will be able to shift its running conditions from negative grounded array to floating array and vice versa. Under regular conditions the inverter will be running with a negative pole grounded and therefore, a GDFI will be protecting from the unlikely ground fault defects and the solar cells will not suffer at any time a negative voltage relative to their surroundings. This running mode can be transferred manually or automatically without stopping the inverter to a floating array configuration enabling an isolation monitoring device that O&M can use for: regular PV plant isolation control, identification of the array affected by a ground fault defect, and what is more important increase the operator safety under O&M service activities.

Don’t miss the opportunity to mount this kit on your new projects by contacting your sales representative.

FREESUN POWER PLANT CONTROLLERS BREAKING GROUND IN UNITED KINGDOM

Power Electronics has successfully commissioned five of their latest Freesun Power Plant Controller 2.0 in ground mounted PV plants located in the United Kingdom. A total of 65MW of Freesun HE and HEC PV inverters are running day and night under the P and Q commands that the Freesun PPC sends by Modbus TCP. The inverters curtail active and reactive power according to the VRS and PF control algorithms, the PPC monitors the Point of Interconnection, at any time securing a pre-set performance of the plant.

Kingsland, Abots, Migai, Little Morton, Tillhouse and Spittleborough PV plants are the first from a pipeline of about 200MW that will be installed by April 2015. Additional functionalities are running in Beta version complying with the latest utility requirements defined by UKPN.
Power Electronics announces the introduction of FSDK recombiners and PV Array transfer kit that allows HEC-UL central inverters and HEK Skid PV Stations to achieve compliance with NEC2014’s fuse servicing requirements and ground fault protection requirements.

FSDK recombiners will be featured with up to 40 inputs, isolating contactors, zone monitoring, and fuse sizes from 70A to 400A. The contactors of the DC cabinet and the the built-in ones in each conversion module can easily lockout and tagout individually or in groups multiplying the field operations and allowing compliance with NEC2014’S 690.15(C) section. Forget about losing the production of one fifth of your PV power, by just isolating the contactor of the faulty string you will be able run routine maintenance inspections without compromising the up-time rate of the plant.

Power Electronics’ HEC-UL now is available with PV ARRAY TRANSFER KIT, a cost-competitive solution that enables a safe operation and maintenance of the negative grounded PV plants, and a fully compliance of NEC2014 690.5(A)(1) and 690.35(C)(1) by checking PV isolation before startup. By mounting this kit the inverter and the PV plant will be able to shift its running conditions from negative grounded array to floating array and vice versa. Under regular conditions the inverter will be running with a negative pole grounded and therefore, a GDFI will be protecting from the unlikely ground fault defects and at the same time the solar cells will not suffer at any time a negative voltage relative to their surroundings. This running mode can be sifted manually or automatically without stopping the inverter to a floating array configuration enabling an isolation monitoring device that O&M can use for: regular PV plant isolation control, identification of the array affected by a ground fault defect, and what is more important increase the operator safety under O&M service activities.

“We are doing big efforts on R&D to provide the ultimate designs and cost-competitive solutions that can reduce the CAPEX & OPEX of the utility scale PV-plants. In that direction we have just released the 1.5MW HEC-UL inverter and 3MW Skid Block that gives Power Electronics strong competitive advantages” said Anthony Carroll, Global Sales & Marketing Director.
Power Electronics has released PowerCOMMS 1.3, introducing a new user-friendly interface and full compatibility with the company portfolio.

PowerCOMMS tool offers the possibility to plot and store real performance information about motor and drive status. This tool executed from a PC, and communicated with the drives through Ethernet or RS485/RS232, registers, plots and exports all the drive visualization parameters: motor speed, energy consumption, regenerated energy, motor current and voltage, IO status, PTC signal, IGBT temperature, faults and warnings info, among others.

Not only can you monitor both drive and motor, you can also remotely control and commission multiple drives. Updated to be more user-friendly and flexible to control, copy and save visualization parameters remotely to either monitor PV plants or speed up the commissioning, saving time and money.

“PowerCOMMS continues the rapid pace of innovation that is helping Power Electronics reinvent the technical service, delivering the best customer experience available all around the world” said Lalo Salvo, Power Electronics’ Technical Vice president.
**VS65 IN THE WORLD’S LARGEST UNDERGROUND COPPER MINES**

The Codelco Teniente mine in Chile is the world’s largest underground copper mine with the capability to deliver 430,000t/yr. The mine is located in some of the harshest conditions for operation on the planet, in the Andes and at 2,500m above sea level. The client required a medium voltage electronic soft starter for the 13.8kV main fan motor of the plant to help improve efficiency and safety.

Power Electronics VS65 soft starter proved to be perfect for the 1050kW motor. By combining the protection cell with the starter, Power Electronics have allowed the 13.8kV motor to be serviced in a safe environment. The VS65 was equipped with line and bypass protection vacuum circuit breakers and both input and output earthing switches that make it easier and safer to service than ever for the Codelco Teniente Mine technicians.

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**SD700 UNIQUE APPLICATIONS FOR PUMPJACKS**

Power Electronics SD700 is a unique benchmark for outdoor pumpjack applications in the Oil & Gas sector. The new integrated SD700 series is available from 18.5kW to 75kW and its unique features include: stainless steel cabinet, input circuit breaker, surge protection, dynamic brake B150 controlled by the drive, heating resistors and higrostatic control, ultra fast fuses, weatherproof connectors for input cable, motor cable and two auxiliary power supplies, dual voltage transformer for control and auxiliaries, and weatherproof braking resistors above the same plinth to allow for easy installation in any location.

The SD700 drive is supplied with an IP65 outdoor display with UV protection, outdoor control buttons (start/stop, local/remote potentiometer), and all managed with a special macro to control pumpjack’s pressure fuel.

Power Electronics is positioned as the only manufacture with dedicated offerings for this application and fully tested at the factory with a 3 year warranty as standard.

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**VS65 AND XMV660 COMBINED MEANS TIZAPA MINE NEVER STOPS**

Power Electronics has provided a redundant system using the VS65 medium voltage soft starter and the XMV660 medium voltage variable speed drive to the Tizapa Mining Plant (Mexico) adding safety, reliability and efficiency to the mine ventilation system.

Jointly owned by Peñoles and Sumitomo, the mine is located in Zacazonapan and is the largest employer of workers south of the state. The ventilation of the mine has a 460kW motor coupled to the 4.16kV drive, which requires maximum efficiency for the fans which must run uninterrupted. Power Electronics worked with the clients to design a redundant solution, fully aware that the lives of hundreds of workers would be at risk if the system stopped unexpectedly. In order for the drive to be serviced, Power Electronics designed the XMV660 drive and the VS65 starter to be connected in parallel, allowing the starter to act as a failsafe to the drive. The changeable system is designed with line and motor contactors and grounding switch to allow for the operation and maintenance of both units and ensuring 100% safety.

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**SD700FR SOLUTION REDUCES THE CAPEX OF 50MW BOKPOORT CSP PLANT**

The 50MW Central Termosolar Bokpoort Plant located in the Northern Cape province in South Africa relies on the SD700FR drive series, the most advanced low harmonic and regenerative drive from Power Electronics. The thermal plant is equipped with parabolic through collectors and a molten salt energy storage system with the ability to provide for up to 9 hours. Spread across an area of 100 hectares, the plant can generate an output of 224,000MWh/year.

The facility has 6 SD700FR drives installed totalling 2,400kW. A joint effort between Abengoa and Power Electronics has developed the switching cell which has the ability to control both the hot and cold pumps safely. The switching control can be operated both locally and remotely, upon receiving the signal the output can be switched automatically and the new pump parameters are loaded.

Integrating both hardware and software in to the system and being factory-tested together will substantially reduce the CAPEX of the plant and allow for more valuable space in the technical room.
With tight harmonic current distortion limits being widely imposed by some power authorities it has become necessary to fit low harmonic filtering solutions for standard 6 pulse VSDs. Typically a passive filter option has been provided by most suppliers with varying degrees of success. Most passive filters are either third party devices or have been badge labelled from third party suppliers so don’t always provide the optimum solution – especially on bigger VSDs.

Power Electronics once again leads the market with the SD700FR series active front end fully regenerative low harmonic VSD. Based on the proven SD700 architecture of robust IP54 design, 50°C rating, low output dV/dt and unscreened motor cables, the SD700FR now offers a compact low harmonics VSD in one package. The ‘one drive fits all’ philosophy means it can be applied to any application from pumping, to cranes, to refrigeration compressors, to downhill overhauling conveyors.

Power Electronics doesn’t sell product that cannot be serviced locally by in-house technicians and the SD700FR series is no exception. Every spare part is held as part of Power Electronics’ Yatala service warehouse stock.

The first company in Australasia to adopt the SD700FR series was mid Canterbury’s leading electrical contracting company ElectraServe. “We’ve used the standard SD700 from the day it was released for all the irrigation pumping work we do. In recent years we’ve used Power Electronics’ Freemaq notch filter in order to meet the low harmonic limits imposed by the local power authority. The Freemaq filter has been flawless in its operation, having never failed a harmonics test, so when Power Electronics advised us that they had the SD700FR available we jumped at the opportunity to use it” says Blair Watson, General Manager. “We’re using it on all our pumps greater than 120kW because it’s simple to install being only one unit, and it’s more cost effective. Our harmonic requirements are taken care of and we still get the great SD700 pump control features.”

On a recent job ElectraServe installed a SD700FR on a 240kW submersible pump. This pump was located in an area where the underground aquifers are very deep (200m) so there are many large pumps controlled by 6 pulse VSDs in the area contributing to an extremely high network voltage distortion figure of 16-20% THDv. Despite this high figure and poor voltage waveform the SD700FR has been able to perform as required and has successfully passed the power authorities harmonic tests. An added bonus the SD700FR provides is automatic voltage compensation in the DC bus should the network supply voltage drop. Network voltage sag can be common in rural networks with high loadings such as summer irrigation. The SD700FR will hold up the DC bus voltage thus ensuring the motor receives full voltage even at low supply voltage levels.

Blair concludes “Since installing the 240kW SD700FR we have also installed a further two 132kW units and are about to install eight 170kW units too. The boys like working with them and combined with the Freemaq notch filters on the smaller VSDs, we believe Power Electronics has the best low harmonic package available.”
URGENT DELIVERY TO RIO TINTO YARWUN, AUSTRALIA

The call came on Sunday to Power Electronics Engineering Manager Paul Faulkner – what can Power Electronics do to help? Two 450kW 690V opposition drives have failed – how quickly could we get replacements to site?

A phone call to the factory in Spain and follow-up email – The factory could build, test and ship the two SD7045062 drives by Friday - airfreight, clearance and delivery to site by the following Wednesday – a fantastic response. As David Salvo (CEO) says “we will not let a customer down – when they are in trouble we will be there!”

In addition we had just received a 450kW 690V Kompakt service drive back to our Yatala warehouse from another customer – a full test was completed and the drive shipped Monday - this was only an interim solution as the service drive was IP00 and the application was best suited to an IP54 SD700 – but Rio Tinto Yarwun could keep the process going.
With the objective of improving one of the best corporative communication channels, Power Electronics has completely renewed its corporate website.

With our new website we widen the communicative structure, compiling detailed information about the organization, its products and services and the corporate values that act as the foundations of Power Electronics.

It is not only an image restyling, it also eases the process of searching for product information and helps create a link between the clients and the company to support the expansion process in new markets in which Power Electronics is present.

www.power-electronics.com
You can find us on social networks which are constantly being updated with upcoming courses, projects, exhibitions...

www.linkedin.com/company/power-electronics
https://twitter.com/PE_EasyToDrive
https://plus.google.com/+PowerelectronicsEasytodrive
https://vimeo.com/powerelectronics
INSIDE THE POWER ELECTRONICS KITCHEN
Gastronomy is key in converting clients into friends.

Not so far from the Power Electronics Research and Development Centre is another centre with the same goals of innovation and producing the best product for our client but this centre has swapped the computers for ovens and the circuit boards for chopping boards. Inside the company’s exclusive restaurant, the ambition is to create the best taste sensations for our clients from across the globe.

The relaxed atmosphere and comfort is typical of a Mediterranean restaurant and the impressive menu combines the local cuisine with other exotic tastes. The ingredients are fresh from the renowned Valencia Central Market, one of the top places in the world to buy Iberian ham, Denia prawns, Rioja wine and many more.

The visitor book joins together the testimonials of the great number of people who have visited us during the years. Our kitchen team adapts the menus to the tastes, allergies and/or religious beliefs of the visitors. Everything is prepared to create the perfect climate to transform a business meeting into a friends reunion. The international character of the place invites visitors to share amazing stories and food preferences from their own country.

The kitchen team is behind the exquisite food that Power Electronics brings to exhibitions and events. The variety and standard of the breakfasts and lunches often get singled out for individual praise from visitors at these exhibitions.
POWER NEWS

XMV660 AND VS65 IN EL REALITO AQUEDUCT

The Realito Aqueduct is located in Mexico, between the states of Guanajuato where the dam is located and San Luis Potosi where the receiving tanks are.

After captation there are three pumping stations where Power Electronics have just finished commissioning 4 medium voltage XMV660 1.4MW drives and 8 VS65 1.5MW soft starters. An installation made jointly between the technical teams of Mexico and Spain.

After pumping, the water is conducted to the water treatment plant. After being treated, the water is directed by gravity, to the city of San Luis Potosi covering a total of 134km and supplying more than 850,000 people.

GREAT RESPONSE OF SD700K IN HOIST CARRIAGE APPLICATIONS

Hanking Grupo Industrial Co., Ltd is heavily involved in the mining, metallurgy, electronics and precision manufacturing industries. The majority of work is carried out at the Fushun Huanwang plant, where the SD700K drive was installed to ensure the production of over 2 million iron tonnes each year. The iron is produced by direct reduction using blast furnace gas. The bucket hoist conveyor used to raise the loads to the furnaces is controlled by the SD700K, allowing the 220kW motor to move two buckets simultaneously. The SD700K has the most advanced open-loop control and an initial torque of 110%, both ensuring a smooth response speed is achieved. This level of control is unique in the market and avoids the use of motor encoders in critical industrial applications with high levels of pollution.

4MW IN CZENIKOWO, POLAND

The 4,4MWp solar park in the Czernikowo district in north-central Poland will rely on two HET inverters to be at the heart of the installation and inject power in to the grid.

The HET inverters were chosen for their ability to handle even the most demanding conditions, with the low temperatures and frequent snow fall in winter. Combined with medium voltage switchgear and transformer all inside an isolated maritime shipping container made the HET the obvious choice. The project is set to be completed in Q2 2015, further confirming Power Electronics rising position in the polish solar inverter market.

HEC INVERTERS FOR 10MW PLANT IN PANAMA

Power Electronics will supply 10MW of Freesun HEC Series to PV plant Chiriqui, Panama. This new facility will be located in the Chiriqui province and will be launched during the first quarter of 2015.

The Chiriqui plant is one of the largest in the country and thanks to the Panamanian government driving the market in the last year has allowed Power Electronics to strengthen its position in the country. “This project is a milestone in a key market with great potential. It will act as a catalyst for other important projects in the area in the coming years” said Director of the Solar Division, Miguel Angel Escribano.

POWER ELECTRONICS POWERS UK’S LARGEST PV PLANT

Power Electronics will install their inverters on the UK’s largest PV plant.

The 50MWp, 225-acre West Raynham Solar Park will provide enough power for over 11,000 homes and will rely on 26 HEC Gen II 400Vac inverters to achieve this. The developer has chosen Power Electronics to work alongside the constructor for this colossal project thanks to their impressive record in the UK and experience with utility scale projects.

Power Electronics has been providing inverters for the UK market since 2011 and since then have become the market leader, set to be at the heart of over 1,200MW by April 2015. Power Electronics will reinforce their position as the UK’s first choice for solar inverters.

23MW SOLAR INVERTERS TO LOS ANDES PV PLANT IN CHILE LOCATED 2800M HIGH

Power Electronics will supply 23MW of Freesun HEC solar inverters to the Los Andes PV Plant, Chilean lands second project after commissioned PV Park Puquios 3MW last January. The plant will be located to the north of the country, in Antofagasta 2,800m above sea level and will inject energy into the SING during the third quarter of 2015.

The outdoor inverters Freesun GenII Series HEC will be responsible for supplying power to the electrical system of the country. The benefits of this unique modular inverter, redundant elements, stainless steel construction with mineral insulation and also offer the best rates of availability and durability of the market for large scale PV plants.
Merry Christmas & Happy New Year!
Merry Christmas
Happy New Year