

## FLEXIBILITY WHEN YOU NEED IT

Global Sustainable Energy Solutions (GSES) offers its services to suit the needs of solar engineer/procure/construct (EPC) companies and solar PV installers.

The solar PV industry is mainly project orientated and, as such, many companies go through a business cycle where at times work is light and, at other times, work is overwhelming. It is in the interest then of these companies to have a flexible business plan so they are able to cope with large amounts of work while not having to carry costly overheads into down times. GSES Professional Services allows businesses to have this flexibility. GSES can provide a range of services from pre-project engineering such as tendering and the creation of proposals to full system designs for large and complex systems – and everything in between. GSES is able to do both grid-connected

and stand-alone system design using its team of engineers and Clean Energy Council (CEC) accredited designers. GSES can also provide 2D system plans, 3D concept drawings, all design calculations including isolator sizing, array-inverter matching, and voltage rise/drop calculations. The design can include a fully-costed Bill of Materials (BOM) using the installer's preferred system equipment. GSES is also able to perform a full financial analysis from the most detailed information available using its interval analysis tools. Take advantage of GSES's engineering expertise whenever your company requires it. 



## A VIABLE ANSWER TO SUSTAINABILITY IN THE ENERGY SECTOR

Distributed generation is the production of energy at its point of use. It's cleaner and cheaper than coal-based energy, which may be transmitted across thousands of kilometres. Cogeneration or trigeneration are key distributed generation technologies and offer a total efficiency of around 85 per cent, compared to around 30 per cent for coal-fired electricity.

Cogeneration is the simultaneous production of two forms of energy—electricity and heat, from a single fuel source. The most common fuel is natural gas, which burns cleanly without

harmful particulates and pollutants, and only half the CO<sub>2</sub> of coal. Biomass and biofuel waste can also be used to fuel a cogeneration system. Trigeneration goes one step further to

produce cooling as part of the process. The waste heat produced in cogeneration can be used for space heating, domestic water and pool heating, and process hot water and steam. Trigeneration converts

heat into chilled water for air-conditioning and other cooling processes.

Benefits of cogeneration and trigeneration include lower cost of energy; useful heating and cooling provided for free by utilising waste heat; improved energy supply reliability and security; reduced carbon emissions and environmental impact; reduced load on the electricity network reduces the need for expensive infrastructure upgrades; and reduced transmission and distribution losses increasing overall energy efficiency. Simons Green Energy is a leading provider of sustainable energy solutions and is backed by 80 years of experience through its sister company Simons Boilers. Simons Boiler's range includes gas, electric and condensing steam and hot water boilers.

Simons Green Energy designs tailored solutions to meet clients' requirements, offering full cogeneration and trigeneration solutions from micro-cogeneration systems of 5kW up to 2MW. This approach ensures the highest levels of system performance, the greatest return on investment and complete customer satisfaction.

For more information, contact Simons Green Energy. 

