

聚恆科技股份有限公司

股票代號：4582

HENGST TECHNOLOGY CO.,LTD



WE GET THE
SUN FOR YOU

太陽光電發電保障者

Solar Photovoltaic Power Generation Guarantor



Trading name of SH Registrars (Holdings) Ltd

8327

關於我們

ABOUT US

25年

經驗

25 YEARS EXPERIENCE

180位

專業員工
PROFESSIONAL
EMPLOYEES

6.66億

新台幣資本額
CAPITAL \$666 M. TWD

- 充沛的技術資源，提供客戶最佳化系統工程服務。
- 完整的代理產品線，提供良好的品質與合理的價格。
- 快速提供客戶有效的解決方案。
- 提供建造後之效能與營運保證。
- 累積超過25年的海內外施工經驗與數百件實績工程案。
- 台灣最大專業團隊，專業人員超過170位以上為客戶提供服務。
- 2023年公司資本額為新臺幣6.66億元。

- With plenty of technical resources, we provide customer-oriented services of system engineering.
- We offer a complete product line of solar energy system with good quality and reasonable prices.
- Instantly provide the effective solutions to clients.
- We provide the guarantee of efficiency and operation performance after construction.
- Construction over 25 years, hundreds of solar system projects and extensive experiences of construction over a decade.
- We are the largest team in Taiwan with over 170 professionals in offering total solutions to any problems on panel, inverters, and system installation.
- By 2023, our company's capital has increased to \$666 M. TWD.

公司發展歷史沿革

COMPANY PROFILE

聚恆科技股份有限公司成立於1998年，為一家監測系統工程整合專業廠，自2002年成立自然能源部門，專業於自然能源系統整合工程與相關產品銷售業務，為國內相關產業之先驅。長期以來，我們秉持「恆久才環保」的經營理念，於太陽光電系統整合技術領域不斷改良精進，已締造相當的口碑與知名度，工程安裝實績遍佈國內外。在迅速發展的同時，本公司期待能將其相關產品推廣到世界各地，不論您在何處，都能感受到我們全面性的服務。聚恆於2013年7月份正式啟用新廠，總部坐落於台南市永康科學園區，占地2881坪(9525m²)，室內面積達2700坪(8950m²)，全廠區採綠建築設計，並配備完整的開發、測試與組裝線，將為全球客戶提供優良的太陽能源相關產品。2019年成立節能事業部，希望在「節約能源，有效用電」上為客戶籌謀。

2021年，聚恆新廠建置完成，占地2871坪(9491m²)，建築面積940坪(3108m²)，擴建之後聚恆台南總部的占地面積合計達5752坪(19016m²)。新廠屋頂太陽能系統於2021年12月30日併聯營運，為本年劃下一個完美的句點。新廠的太陽能系統設置是採填充式自重式基礎(水箱)加上平面太陽能模組兩項發明專利組合建置而成，不同於傳統的基礎結構，兼俱了100%可回收、快速施工、排汗成效卓越及小規模系統靈活運用等多項優勢。在聚恆台南總部，客戶可以一次性地看到三種屋頂建置樣態，分別是門面BIPV(建築整合太陽能)、倉庫單斜式浪板屋頂、組裝棟RC屋頂結合水箱式基礎設計。

聚恆自2020年開始發展儲能業務，於2021年取得台電「儲能自動頻率控制(AFC)調頻服務資源採購案」，在台南總部建置2MW/1.2MWh儲能系統，於2021年5月通過台電審核並正式啟用，成為穩定台灣電網頻率的生力軍。





1998 , Hengs Technology Co., Ltd. was founded, started as a professional industrial monitoring system integrator. 2002 , Natural Energy department was established to focus in renewable energy system integration and products reselling market.As of today, Hengs has become the leading company in Taiwan for solar system installation and energy applications. The name “HENGs” in mandarin represents “SOLIDARITY AND PERSISTENCE” . Our mission is to keep ourself with advanced technology of solar power system integration and application. Our solar project constructions in Asia Pacific region have won good reputation from our customers. Customer satisfaction is our goal no matter where the customer are.

2013 Our new headquarters was officially opened in July. Located in Yung-Kang Technology Industrial Park, the headquarter applied with the concept of green energy building covers an area of 9525m², which contains 8950m² of indoor area. We are convinced that well equipped assembly line will bring our clients more excellent solar energy products.

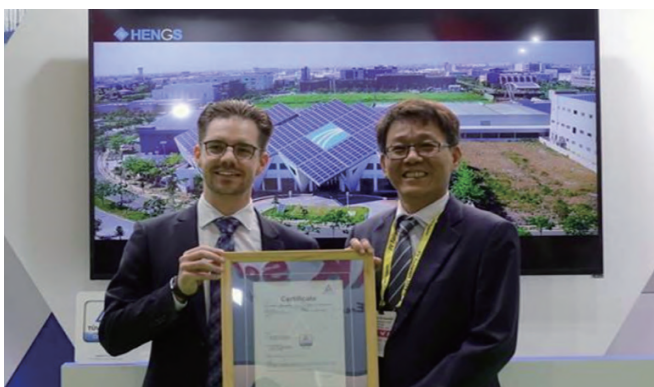
2019, HENGs set up the Energy Services Department to help customers use and save energy efficiently and effectively. 2020 , HENGs established the development of energy storage system. We won the bid of “Automatic Frequency Control (AFC) Frequency Modulation Service” from Tai-power to build a set of 2MW/1.2MWh energy storage system in HENGs’ headquarter site. Playing a vital role in grid stabilization and the system was put in operation on May, 2021.

O&M德國萊德因TÜV認證

TÜV RHEINLAND

聚恆是台灣第一家取得德國萊因 O&M (運轉維護) 認證的 EPC 廠商。太陽能電站營運看似相關簡單，但從事先地點、氣候評估、零組件供應鏈、系統檢核、營運維護、電站故障排除等環節都有專業，也因此不少原本從事太陽能電站業者在營運不到10年就被迫退出市場，造成龐大電站孤兒，都凸顯電站營運以及O&M服務的重要性。

HENGS is the first EPC manufacturer in Taiwan to obtain the German Rhein O&M (Operation and Maintenance certification). The operation of solar power plants seems to be relatively simple, but there are professional know-hows from pre-location, climate assessment, component supply chain, system inspection, operation and maintenance, and power plant troubleshooting. Therefore, many of them are originally engaged in solar power plants. The operation was forced to withdraw from the market in less than 10 years, resulting in a large power station orphan, highlighting the importance of power station operations and O&M services.



工程實績介紹

SOLAR PROJECTS

聚恆科技秉持專業的設計與工程管理，執行各項工程專案，並適時適當地提供最佳解決方案，以創新和多年經驗開發各項工程技術，並為全球投資者提供完善有效率的永續經營計劃。2010年台灣政府通過「再生能源發展條例」，穩定的收益鼓勵許多個人及企業投資太陽能電廠。聚恆成立至今，憑藉專業團隊的努力，國內外累積超過400MW的專案訂單，其優勢在於：

- (1) 20年發電效能與保固之雙重保證。
- (2) 充足庫存提供短期完修服務。
- (3) 使用耐用20年之設備、材料與施工工法。
- (4) 專業維運團隊，提供20年穩定的營運機制與模式。

Hengs devotes to specializing in engineering management and strict construction quality control. To fulfill various requirements from customers, we set up professional teams in design, construction and supervision. Till now, our excellent accomplishments are more than 500 cases of solar power systems for over 400MW. We have become the most experienced solar system integrator in Taiwan. The solar projects in Taiwan we took full charge are implemented by professional team. Besides design and installation, we also provide regular and irregular maintenance services. By detecting from the remote monitoring system, when unusual value shows, we will inform our customer and dispatch the technician to repair. Taiwan government passed a Renewable Energy Development Act in 2010. The stable income has encouraged many individuals and enterprises to invest in solar power plants. Owing to our efforts of professional teams, in recent years, we get 20% project orders on Taiwan market every year. Here are our advantages:

- (1) Provide dual guarantee of power generation and efficiency.
- (2) Have sufficient storage to provide quick maintenance services.
- (3) Use durable equipment, material, and construction method to ensure solar power plants operating for 20 years.
- (4) Offer 20 years of operation mechanism by real-time remote monitoring services and dedicated personnel for maintenance.



志光七股電廠一期 JHIH-GUANG POWER PLANT PROJECT 1

系統類型：併聯型

完工年度：2022

太陽能系統容量：85712.4 kWp

地點：台灣台南

Type：Grid-Tie

Completed：2022

Capacity：85712.4 kWp

Location：Tainan, Taiwan

七股志光一期案場占地面積約114公頃，總裝置容量為85MW，作為台灣第一座標誌性漁電共生案，成功地實現一地多用的雙贏局面。聚恆不只著重在再生能源的工程開發、興建與維運，同時也在養殖領域付諸努力，提升原有養殖戶的養殖環境/設備與技術，攜手達成漁電共生的綠能目標。

Jhih-Guang phase 1 project located in Qigu District, Tainan, which is an 85MW fishery-electricity symbiosis project with an approximate land area of 114 hectares. As Taiwan's first landmark fishery-electricity symbiosis project, HENGs successfully achieved a win-win situation with multiple land uses. We're not only focused on the engineering development, construction, and operation of renewable energy, but also make efforts in the aquaculture field to improve the aquaculture environment, equipment, and technology for existing aquaculture farmers, working hand in hand to achieve the green energy goals of fishery-electricity symbiosis.

心忠電業學甲電廠

XINZHONG XUEJIA POWER PLANT

系統類型：併聯型

完工年度：2020

太陽能系統容量：75969.6 kWp

地點：台灣台南

Type : Grid-Tie

Completed : 2020

Capacity : 75969.6 kWp

Location : Tainan,Taiwan

心忠學甲電廠地點位於台南市學甲區嚴重地層下陷區，本案歷經3年的土地整合、申請籌設、經內政部核發開發許可，為台灣首件整合民間私人土地，經地方及中央政府審查核准，變更地目為特定目的事業用地之地面型太陽能電廠，估計20年能帶來至少18億度的發電量。

Xinzhong Xuejia power plant, located in severe subsidence potential area in Xuejia district, pull off land integration, gained establishment permit and development permit within 3 years. Xinzhong Xuejia power plant accomplished the achievement of the first solar farm that executed private land integration, and land conversion for specific purpose under the approval by the authorities. At least 1.8 billion kWh of power generation within 20 years is estimated to generated from Xinzhong Xuejia power plant.





嘉南北幹線等六線圳路 6 LINES OF THE NORTH TRUNK LINE IRRIGATION CHANNEL

系統類型：併聯型

完工年度：2021

太陽能系統容量：6657.69 kWp

地點：台灣台南

Type：Grid-Tie

Completed：2021

Capacity：6657.69 kWp

Location：Tainan,Taiwan

由行政院農業委員會農田水利署嘉南管理處招商之「北幹線等六線圳路(地面型)太陽光電發電系統計畫」，在不影響原灌溉溝渠功能的前提下，申請農業容許，充分利用北幹線等六線圳路兩側堤岸，建置跨越型及堤岸型(地面型)太陽能發電系統。

The Chianan Management Office of the Irrigation Agency planned and established the solar farm above and on both sides of 6 lines of the North trunk line irrigation channel without the interference of its irrigation function. The agricultural land usage allowance was gained in the process of establishment. With the establishment of solar farm, the idle land on both sides of the channel banks is fully utilized.

雲林濁幹線

YUNLIN TRUNK LINE IRRIGATION CHANNEL

系統類型：併聯型

完工年度：2019

太陽能系統容量：12.0126 MWp

地點：台灣雲林

Type : Grid-Tie

Completed : 2019

Capacity : 12.0126 MWp

Location : Yunlin,Taiwan

雲林縣配合政府發展綠能政策，利用雲林縣濁幹線灌溉渠的兩側堤岸，在不影響原灌溉溝渠功能的前提下，建置地面型太陽能發電系統，總建置範圍距離約有9公里。

In response to green energy policy, the government of Yunlin County planned and established the solar farm on both sides of Zuo trunk line irrigation channel without the interference of its irrigation function. The entire construction area is approximated 9 km along the channel.





大聚電業 TAYA GROUP

系統類型：併聯型

完工年度：2016

太陽能系統容量：2392.25 kWp

地點：台灣台南

Type：Grid-Tie

Completed：2016

Capacity：2392.25 kWp

Location：Tainan,Taiwan

從事生產電線電纜起家的大亞集團經營一甲子以來，本著友善環境與善盡社會責任的企業精神，逐步跨足再生能源業。集團旗下大聚電業順利於105年2月23日掛錶營運，5月26日啟用，取得臺南第一家第一型太陽能電業執照。大亞集團近年來從多方面切入再生能源領域，觸角包括研發太陽能電池直流電纜、離岸風機用光纖複合中壓海纜以及太陽能電廠的規劃、興建，成為擁有臺南第一家第一型太陽能電業執照的大聚電業，場址設於大亞電線電纜公司關廟總廠，裝置太陽光電發電系統容量高達2.39百萬瓦(MW)，年發電量高達3百萬度，年減碳量相當於3.5座大安森林公園的吸碳量。

TA YA have 60 years' experience in manufacturing electric wire and cable, in the fulfilling environmental protection and fulfill corporate social responsibility, across of the renewable energy industry. The subsidiary companies of Touch Solar Power company was successfully linked to the system of the Taipower company on February 23 2016. On May 26 2016, started to operate the system and get the first solar power industry license in Tainan.

In recent years, Taya Group focus on the renewable energy from all sides, including the research and development of solar cell direct electric cable, medium voltage submarine cable for offshore wind power system, planning and construction of solar power station. The Touch Solar Power company got the first type of solar electric industry license in Tainan. The first solar power station is located in Taya group Kuan Miao headquarters. The capacity of this power station is up to 2.39MW, annual generating capacity is up to three million degrees. It means the carbon reduction is equivalent to that of 3.5times area of Daan Forest Park. (Taipei Metropolitan Park)

大成巴域經濟特區太陽光電系統 TAI SENG BAVET SEZ PV SYSTEM

系統類型：併聯型

Type : Grid-Tie

完工年度：2017

Completed : 2017

太陽能系統容量：5203.2 kWp

Capacity : 5203.2 kWp

地點：柬埔寨巴域

Location : Bavet, Cambodia

由於柬埔寨國家供電不穩定，加上一些品牌商被歐盟或美國要求落實節能減碳，大成集團在柬埔寨興建太陽能電廠，不僅可以提供穩定的電力並協助這些品牌商落實節能減碳而拿到更多訂單，最重要的是還能賣電給當地業者。另外，柬埔寨平均日照5小時，比其他東南亞國家多20%，在各種有利條件配合下，投資者、統包商與業主可以很輕鬆的共創三贏。

Owing to unstable power supply in Cambodia and the fact that some brands are required by the EU or the United States to implement energy conservation and carbon reduction, Tai Seng Group built a solar power plant which provides not only stable power, but also helps these brands to acquire more orders and Tai Seng can sell electricity to local vendors. Meanwhile, the ESH of Cambodia is 5 hours and it is more 20% than other South-east Asian countries. Under the advantageous conditions, the three-way win easily creates for investors, EPC and owners





友達森勁太陽能電廠 AU OPTRONICS CORP PV SYSTEM

系統類型：併聯型

Type : Grid-Tie

完工年度：2012

Completed : 2012

太陽能系統容量：9230 kWp

Capacity : 9230 kWp

地點：台灣台中

Location : Taichung, Taiwan

友達光電旗下的BenQ太陽能於2010年開始籌備森勁太陽能電廠，於2012年興建完成，該廠座落於台中科學園區的廠房屋頂空地，占地約11公頃，克服了高空作業及震動等困難，成為台灣目前最大的平面屋頂型電站。於屋頂建置系統，既不須另占土地，亦提升既有建築面積的使用率，省下的額外土地成本，更能促使電廠創造更大的經濟效益。

AU OPTRONICS CORP PV SYSTEM, planned on 2010 and established on 2012, is built on the rooftop of BenQ Solar, a subsidiary of AUO and located in Central Taiwan Science Park. This PV system, 11 hectares in size, overcoming the difficulties of aerial construction and vibration during installation, is the biggest rooftop power plant in Taiwan. Furthermore, to install the solar power system on the rooftop not only increases the usage rate of the building but avoids occupying the land. Thus, the cost saving from land leasing makes the power plant more economical and beneficial.

臺灣歷史博物館BIPV系統

NATIONAL MUSEUM OF TAIWAN HISTORY BIPV SYSTEM

Type : BIPV

Completed : 2009

Capacity : 195 kWp

Location : Tainan, Taiwan

系統類型：BIPV型

完工年度：2009

太陽能系統容量：195 kWp

地點：台灣台南

光電雲牆發電系統已經成為附近居民注目的焦點。深藍色的太陽能玻璃面板構成牆面，反射出天空浮動的雲朵。此系統由1700多片太陽能板組合而成，其中包括400多片網印玻璃構成「臺灣歷史博物館」的英文LOGO，為該館的主要入口門面。除了供發電之用，也保留了一條廊道與展示館相連，做為小型戶外展示空間，讓臺灣歷史博物館的古早文物與現代科技融為一體。此發電系統每年約可供應28萬度電力，同時俱備環保示範教育的功能。

National Museum of Taiwan History BIPV System is a combination of the beauty of architecture, art, humanity, and solar power technology. With a tilt angle of 60 degree, the BIPV system consists of 1,700 pcs of 145W Double-Glass modules. The steep angle makes the construction and installation difficult. HENGSG overcame all the problems and made this project a landmark in Taiwan. The system can generate about 280,000 KWH per year.



更多太陽能工程案例

MORE SOLAR PROJECTS

聚恆實績系統依類別可分為：獨立發電系統、併聯發電系統、混合防災型、景觀照明，案例分佈全球，並分別於2005、2008、2009年榮獲經濟部能源局頒發之「金羿獎」殊榮。

We have completed plenty of energy projects including off-grid solar systems, grid-tie solar systems, grid connect with backup systems, landscape lighting systems, etc., throughout the whole world. Awarded “Golden Wing Award” in 2005, 2008 and 2009 by Energy Bureau of the Ministry of Economic Affairs.



台灣昭和電工二期 / Showa Denko Semiconductor Materials (Taiwan) Co., Ltd

併聯型/Grid-Tie
完工年度/Completed : 2022
系統容量/Capacity : 257.4 kWp
地點/Location : 台灣台南/Tainan, Taiwan



漢寶第一型 / Hanbo Livestock & Farming Products Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2022
系統容量/Capacity : 1552.32 kWp
地點/Location : 台灣彰化/Changhua, Taiwan



建新國際物流園區 / Chien Shing Harbour Service Co., Ltd Corporation

併聯型/Grid-Tie
完工年度/Completed : 2021
系統容量/Capacity : 1959.43 kWp
地點/Location : 台灣台中/Taichung, Taiwan



富田電機 / Fukuta Electric & Machinery Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2021
系統容量/Capacity : 1965.6 kWp
地點/Location : 台灣苗栗/Miaoli, Taiwan



台日古河 / Furukawa Circuit Foil Taiwan Corporation

併聯型/Grid-Tie
完工年度/Completed : 2021
系統容量/Capacity : 1044.86 kWp
地點/Location : 台灣雲林/Yunlin, Taiwan



華美光學 / Hwa Meei Optical Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2021
系統容量/Capacity : 254.43 kWp
地點/Location : 台灣台南/Tainan, Taiwan



聚恆科技D棟 / Hengs Technology Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2021
系統容量/Capacity : 314.82 kWp
地點/Location : 台灣台南/Tainan, Taiwan



建新國際10號倉 / Chien Shing Harbour Service Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2021
系統容量/Capacity : 1994.2 kWp
地點/Location : 台灣台中/ Taichung, Taiwan



金居開發 / Co-tech Development Corp.

併聯型/Grid-Tie
完工年度/Completed : 2020
系統容量/Capacity : 999.18 kWp
地點/Location : 台灣雲林/ Yunlin, Taiwan



台糖東海豐養殖場 / Taiwan Sugar

併聯型/Grid-Tie
完工年度/Completed : 2020
系統容量/Capacity : 1997.75 kWp
地點/Location : 台灣屏東/ Pintung, Taiwan



金盛世紙業 / Golden Century Paper Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2020
系統容量/Capacity : 1964.78 kWp
地點/Location : 台灣桃園/ Taoyuan, Taiwan



來來物流 / LaiLai Logistics Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2019
系統容量/Capacity : 758.4 kWp
地點/Location : 台灣桃園/ Taoyuan, Taiwan



上鮮牧場 / Shang Sian

併聯型/Grid-Tie
完工年度/Completed : 2019
系統容量/Capacity : 1228.8 kWp
地點/Location : 台灣台南/ Tainan, Taiwan



安瀚視特 / Avanstrate Taiwan Inc.

併聯型/Grid-Tie
完工年度/Completed : 2019
系統容量/Capacity : 1999.8 kWp
地點/Location : 台灣台南/ Tainan, Taiwan



群創光電 / InnoLux Corporation

併聯型/Grid-Tie
完工年度/Completed : 2018
系統容量/Capacity : 5546.1 kWp
地點/Location : 台灣台南/ Tainan, Taiwan



台元紡織 / Tai Yuen Textile Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2018
系統容量/Capacity : 1982.4 kWp
地點/Location : 台灣新竹/ Hsinchu, Taiwan



口湖地層下陷區 / Yunlin Subsidence Areas

併聯型/Grid-Tie
完工年度/Completed : 2018
系統容量/Capacity : 1151.16 kWp
地點/Location : 台灣雲林/ Yunlin, Taiwan



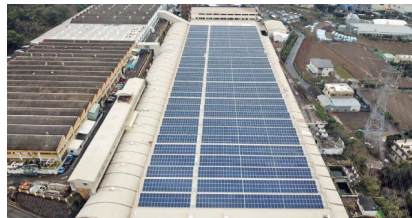
寶雅岡山 / Poya International Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2018
系統容量/Capacity : 1954.14 kWp
地點/Location : 台灣高雄/ Kaohsiung, Taiwan



台南紡織 / Tainan Spinning Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed : 2018
系統容量/Capacity : 1499.19 kWp
地點/Location : 台灣台南/ Tainan, Taiwan



台塑汽車 / Formosa Automobile Corporation

併聯型/Grid-Tie
完工年度/Completed : 2018
系統容量/Capacity : 1716 kWp
地點/Location : 台灣台中/ Taichung, Taiwan



城西掩埋場 / Tainan Refuse Incineration Plant

併聯型/Grid-Tie
完工年度/Completed : 2017
系統容量/Capacity : 1487.16 kWp
地點/Location : 台灣台南/ Tainan, Taiwan



台糖-沙崙畜舍 / Taiwan Sugar Shalun Barn

併聯型/Grid-Tie
完工年度/Completed : 2017
系統容量/Capacity : 2284.91 kWp
地點/Location : 台灣台南/Tainan, Taiwan



永康科技園區公2池水面型 / Young-kang Technology Park Detention Basin

併聯型/Grid-Tie
完工年度/Completed : 2017
系統容量/Capacity : 101.48 kWp
地點/Location : 台灣台南/Tainan, Taiwan



高雄港太陽能系統 / The Port of Kaohsiung

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 2369.97 kWp
地點/Location : 台灣高雄/Kaohsiung, Taiwan



力鵬電廠 / Lealea Group Power Plant

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 1657.31 kWp
地點/Location : 台灣彰化/Changhua, Taiwan



中鋼機械 / China Steel Machinery Corporation

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 1000 kWp
地點/Location : 台灣高雄/Kaohsiung, Taiwan



宏佳騰 / Aeon Motor Co., Ltd

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 874.38 kWp
地點/Location : 台灣台南/Tainan, Taiwan



寶一科技 / Aero Win Technology Corporation

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 499.88 kWp
地點/Location : 台灣台南/Tainan, Taiwan



城西固化廠 / Tainan Refuse Incineration Plant

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 491.4 kWp
地點/Location : 台灣台南/Tainan, Taiwan



丞曜實業有限公司 / Swons R&D Co., Ltd

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 400.4 kWp
地點/Location : 台灣高雄/Kaohsiung, Taiwan



森霸三期 / Taiwan Cogeneration Corporation

併聯型/Grid-Tie
完工年度/Completed : 2016
系統容量/Capacity : 238 kWp
地點/Location : 台灣台南/Tainan, Taiwan



日本靜岡農業大棚(多個案場) / Shizuoka Agriculture-greenhouse (A number of projects)

農業型支架/Agricultural Scaffolding
完工年度/Completed : 2015
系統容量/Capacity : >1000 kWp
地點/Location : 日本靜岡縣/Shizuoka, Japan



台積電電廠 / TSMC Solar Power Plant

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 914.16 kWp
地點/Location : 台灣台南/Tainan, Taiwan



三星科技 / San Shing Hardware Works Co., Ltd

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 914 kWp
地點/Location : 台灣台南/Tainan, Taiwan



甲賀發電站 / Koka PV system

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 7000 kWp
地點/Location : 日本甲賀市/KokaShi, Japan



大原野發電站 / Oharano Power Station

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 624 kWp
地點/Location : 日本京都縣/Kyoto, Japan



崑洲實業QMIG廠 / QMIG Power Station

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 594 kWp
地點/Location : 柬埔寨金邊/Phnom Penh, Cambodia



力麗彰化一廠 / Lealea Enterprise

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 499.75 kWp
地點/Location : 台灣彰化/Changhua, Taiwan



大亞一期 / Taya Group

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 499.25 kWp
地點/Location : 台灣台南/Tainan, Taiwan



大埤鄉公所酸菜專業區 / Dapi Pickle Factory

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 478.5 kWp
地點/Location : 台灣雲林/Yunlin, Taiwan



清豐集團 / Cheng Feng Group

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 456.75 kWp
地點/Location : 台灣台南/Tainan, Taiwan



新營姑爺段菇類栽培場 / Mushroom Farm in Xinying District

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 441.75 kWp
地點/Location : 台灣台南/Tainan, Taiwan



艾德光能(開曼)控股股份有限公司 Aide Energy (CAYMAN) Holding Co., Ltd

混合型/Hybrid
完工年度/Completed : 2015
系統容量/Capacity : 396.75 kWp
地點/Location : 柬埔寨金邊/Phnom Penh, Cambodia



大展電線電纜股份有限公司 Cuprime Material Co., Ltd

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 391.82 kWp
地點/Location : 台灣桃園/Taoyuan, Taiwan



寮國太陽能停車棚/Loas Solar Parking Shed

併聯型/Grid-Tie
完工年度/Completed : 2015
系統容量/Capacity : 10 kWp
地點/Location : 寮國永珍/Vientiane, Laos



**君帆工業股份有限公司
Jufan Industrial Co., Ltd**

併聯型/Grid-Tie
完工年度/Completed：2014
系統容量/Capacity：226.32 kWp
地點/Location：台灣台南/Tainan,
Taiwan



**日本伊勢市太陽能發電站
se-shi Power Station**

併聯型/Grid-Tie
完工日期/Completed：2014
系統容量/Capacity：1200 kWp
地點/Location：日本伊勢/Ise, Japan



**日本宇治田原太陽能發電站 / Ujitawara
Power Station**

併聯型/Grid-Tie
完工年度/Completed：2014
系統容量/Capacity：1000 kWp
地點/Location：日本宇治田原
Ujitawara, Japan



**高捷北機電業/Kaohsiung Rapid Transit
Corp.**

併聯型/Grid-Tie
完工年度/Completed：2014
系統容量/Capacity：828.24 kWp
地點/Location：台灣高雄/
Kaohsiung, Taiwan



**高雄航空站 / Kaohsiung International-
at Airpor**

併聯型/Grid-Tie
完工年度/Completed：2014
系統容量/Capacity：450.75 kWp
地點/Location：台灣高雄/Kaohsiung,
Taiwan



**南非豪登省示範系統
RSK Model System**

併聯型/Grid-Tie
完工年度/Completed：2014
系統容量/Capacity：2.88 kWp
地點/Location：南非豪登省/
Glauteng, South Africa



**高鐵燕巢站 / Taiwan High Speed
Rail. Yanchao Repair Station**

併聯型/Grid-Tie
完工年度/Completed：2013
系統容量/Capacity：499.85 kWp
地點/Location：台灣高雄/Kaohsiung,
Taiwan



**高冠企業股份有限公司
KK Enterprise Co., Ltd**

併聯型/Grid-Tie
完工年度/Completed：2013
系統容量/Capacity：499.61 kWp
地點/Location：台灣南投/Nantou,
Taiwan



**誌懋股份有限公司/Ua Wood Floors
Inc.**

併聯型/Grid-Tie
完工年度/Completed：2013
系統容量/Capacity：499.1 kWp
地點/Location：台灣雲林/Yunlin,
Taiwan



**高鐵台中站烏日基地 / Taiwan High
Speed Rail. Taichung Station**

併聯型/Grid-Tie
完工年度/Completed：2013
系統容量/Capacity：498.2 kWp
地點/Location：台灣台中/Taichung,
Taiwan



**好好國際物流股份有限公司
YES Logistics Corp.**

併聯型/Grid-Tie
完工年度/Completed：2013
系統容量/Capacity：451.67 kWp
地點/Location：台灣高雄/Kaohsiung,
Taiwan



**高鐵左營站 / Taiwan High Speed
Rail. Zuoping Station**

併聯型/Grid-Tie
完工年度/Completed：2013
系統容量/Capacity：395.74 kWp
地點/Location：台灣高雄/Kaohsiung,
Taiwan



榮剛新營/Gloria Material Technology Corp (Sinying)

併聯型/Grid-Tie
完工年度/Completed：2012
系統容量/Capacity：499.1 kWp
地點/Location：台灣台南/Tainan, Taiwan



二崙豬舍/Piggery in Yunlin

併聯型/Grid-Tie
完工年度/Completed：2012
系統容量/Capacity：499 kWp
地點/Location：台灣雲林/Yunlin, Taiwan



高雄捷運南機廠/Kaohsiung Rapid Transit Corp.

併聯型/Grid-Tie
完工年度/Completed：2012
系統容量/Capacity：486.22 kWp
地點/Location：台灣高雄/Kaohsiung, Taiwan



高雄捷運北機廠/Kaohsiung Rapid Transit Corp.

併聯型/Grid-Tie
完工年度/Completed：2012
系統容量/Capacity：479.78 kWp
地點/Location：台灣高雄/Kaohsiung, Taiwan



綠晷屏東廠/Ablytek Co.,Ltd.

併聯型系統/Grid-Tie
完工年度/Completed：2012
系統容量/Capacity：466.9 kWp
地點/Location：台灣屏東/Pintung, Taiwan



宏恩塑膠股份有限公司 Horng En Co.,Ltd.

併聯型系統/Grid-Tie
完工年度/Completed：2012
系統容量/Capacity：350 kWp
地點/Location：台灣彰化/Changhua, Taiwan



住華科技股份有限公司 Sumika Technology Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed：2011
系統容量/Capacity：499.56 kWp
地點/Location：台灣台南/Tainan, Taiwan



啟耀光電/GIO Optoelectronics Corp.

併聯型/Grid-Tie
完工日期/Completed：2011
系統容量/Capacity：498.62 kWp
地點/Location：台灣台南/Tainan, Taiwan



台灣先進/Honda Logistics Taiwan Co., Ltd.

併聯型/Grid-Tie
完工年度/Completed：2011
系統容量/Capacity：330.72 kWp
地點/Location：台灣屏東/Pintung, Taiwan



中國錦州太陽能發電站 / China Jinzhou City PV system

併聯型/Grid-Tie
完工年度/Completed：2009
系統容量/Capacity：300 kWp
地點/Location：中國錦州 Jinzhou City, China



聖克里斯多福通訊中心/ Federation of Saint Kitts and Nevis Communication Center

併聯型/Grid-Tie
完工年度/Completed：2008
系統容量/Capacity：10.4 kWp
地點/Location：聖克里斯多福與尼維斯聯邦 Saint Christopher and Nevis



諾魯共合國家庭照明 / Republic of Nauru – Solar Home lightings

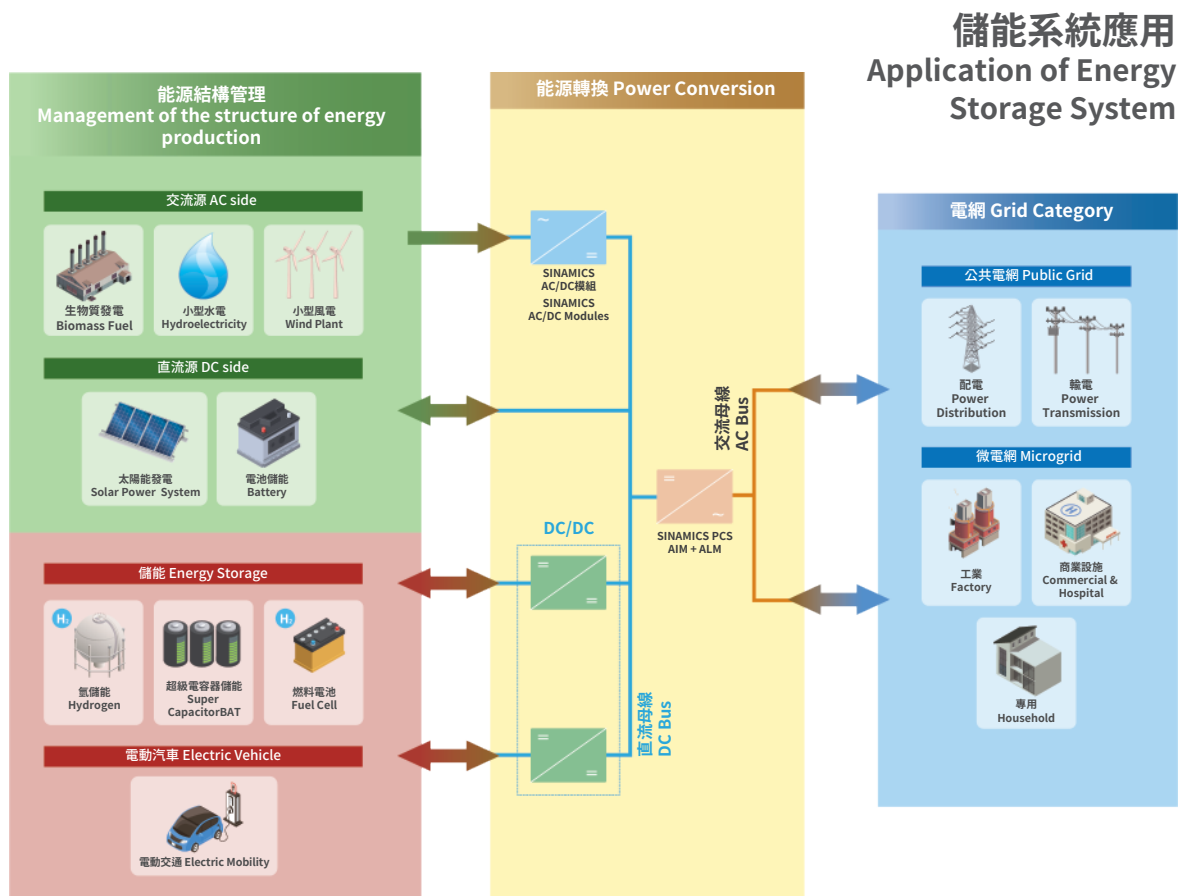
獨立型/Off-Grid
完工年度/Completed：2008
系統容量/Capacity：7.8 kWp
地點/Location：諾魯共和國 Republic of Nauru

儲能與節能

ENERGY STORAGE AND ENERGY SAVING

為履行企業責任、並為地球的未來盡一份心力，聚恆科技除了在太陽能領域上取得卓越成績，更期許成為全方位之能源服務專家，提供客戶多元選擇，故節能事業部兩大核心業務：「儲能與節能」應運而生！

In order to fulfill corporate responsibility and make a contribution to the future of earth, HENGST Technology not only makes outstanding achievements in the field of solar energy, but also expects itself to become a full-scale energy services expert for customers. As a consequence, the two core businesses of the Energy Services Department: "Energy Storage and Energy Saving" come into being!



(1) 台電側儲能(併外網) Grid-side ESS

隨著台灣綠能發電占比持續上升，穩定電網頻率的挑戰也隨之加劇。台電「電力交易平台」已於110年7月1日正式上線，其中「調頻服務」允許民間廠商建置儲能系統並經台電驗證後，可於交易試行平台進行日前競價，並在得標後次日接受台電調度。台電將依調度時段及得標金額，每月結算獎金支付廠商。值此市場趨勢，聚恆提出「AFC儲能投資方案」，期許為客戶創造最安全、無風險的投資標的。

As the proportion of green energy keeps increasing, the challenge of frequency stability become much severer for Taiwan. To solve the issue, the "Energy Trade Platform" of Taipower has started the service since July 1st 2021, which allows private manufacturers to install Energy Storage Systems (ESS) and provide "frequency modulation service". At this trend, HENGST proposes an "AFC ESS Investment Plan" to create the safest and risk free investment targets for customers.

一. 土地租賃模式：地主出租工業地給聚恆承租10~15年。

1. Land Lease Model: the landlords lease industrial lands to HENGs for 10~15 years.

二. AFC儲能投資方案：客戶投資建置儲能系統，由聚恆設計建造及維運保固，並承諾客戶無槓桿前提下之IRR收益。

2. AFC ESS Investment Plan: the customers own the ESS. HENGs is in charge of design, EPC, O&M and guarantee the unleveraged IRR to the customers.



實績：聚恆科技為2020年台電「儲能自動頻率控制(AFC)調頻服務資源採購案」五家得標廠商之一，後於台南市永康區總部建置了2MW/1.2MWh儲能系統，並於2021年7月通過台電審核並正式啟用，成為穩定台灣電網頻率的生力軍！

HENGs is one of the five winning bidders of Taipower's "Automatic Frequency Control Energy Storage System Resource Procurement Tender". The 2MW/1.2MWh system is located in HENGs Tainan headquarter and starts the service in July, 2021.

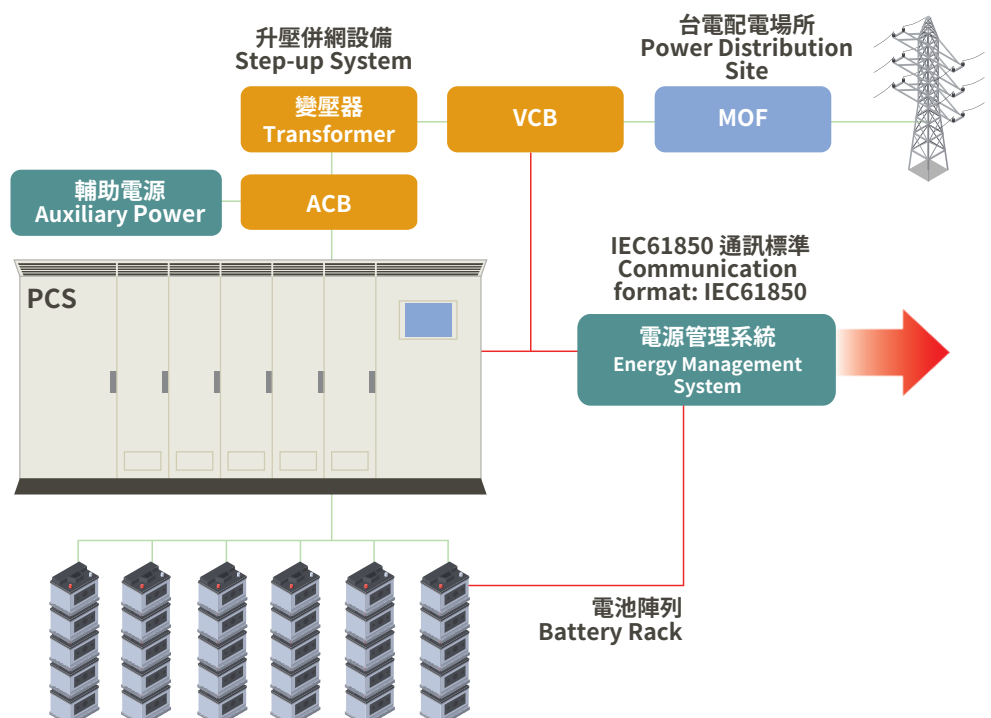


- 設置場域：聚恆科技股份有限公司
Location: HENGs Technology Co., Ltd.
- 地址：台南市永康區永科環路168號
Add: No. 168, Yongkehuan Rd., Yongkang Dist., Tainan City, Taiwan
- 設置類型：併網型儲能
Type: Grid-connected ESS
- 容量：2MW
Capacity: 2MW
- 電量：1.2MWh
Battery: 1.2MWh
- 電壓等級：三相三線22.8kV
Voltage: 22.8kV Three-phase power
- 饋線：4L62 (王行變電所#6)
Feeder: 4L62 (Wanghang Substation#6)

儲能系統架構 BESS Architecture

— 通訊系統 Communication System
— 電力設備 Electricity System

- BAT電池櫃
Battery Container
- BMS電池管理系統
BMS(Battery Management System)
- PCS功率轉換控制系統
PCS(Power Conversion System)
- EMS能源管理系統
EMS(Energy Management System)
- 其他:安全規範、國際標準、圖控/消防系統
Other specs: Safety criteria, international inspection standard, Fire code etc.



(2) 用戶側儲能(併內網) Plant-side ESS

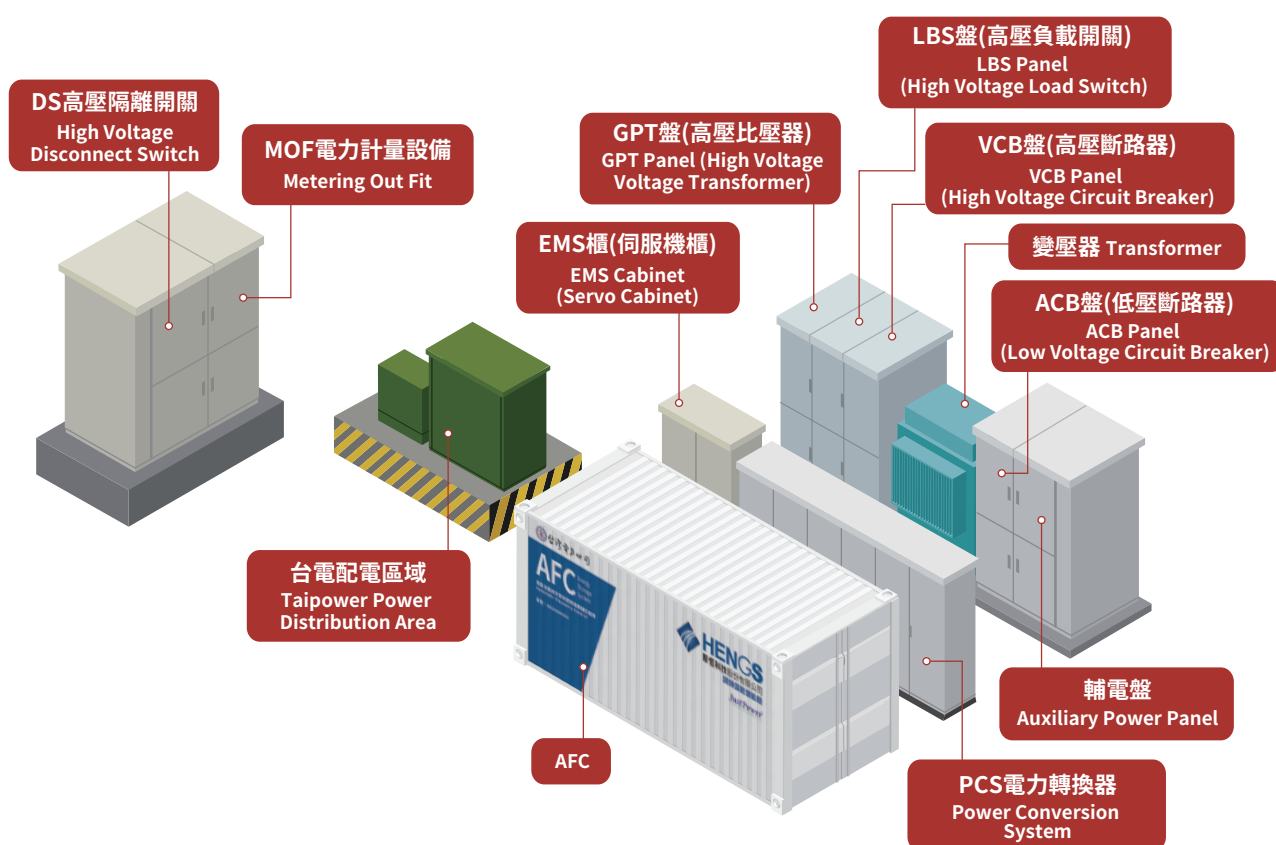
儲能系統亦可作為廠內節能、節費手段之一，相關功能及效益如下表。

ESS can also help to reduce the excessive electricity consumption in factories with benefits listed below:

基本資料 Type	功效 Function	效益 Benefit
降低契約容量 Reduce contract capacity	減少基本電費 Reduce demand charge	賺月費 Reduce monthly payment
消峰填谷 Peak load shaving	減少流動電費 Reduce energy charge	賺價差 Reduce the price gap
尖離峰移轉 Increase off-peak hours	減少流動電費 Reduce energy charge	減少流動電費 Reduce the price gap
超約罰則 Penalty for excess	減少流動電費加計 Reduce exceeding energy charge	減少流動電費加計 Avoid penalty charge
虛功補償 Compensate reactive power	功因調整與改善電力品質 Improve power factor	功因調整與改善電力品質 Avoid power factor charge and loss
緊急備源 Emergency backup power	預防斷電 Prevent power outages	

此外，依據能源局《再生能源發展條例》第 12 條，契約容量5000kW以上用電大戶應增設契約容量x10%之自發自用再生能源、儲能系統或其他替代方案。建置期程自2021年元旦正式上路，應於5年內建置完義務容量。若提前於第3、4年完成，義務容量可降到8、9%。

According to the "Renewable Energy Development Regulations" of Bureau of Energy, big electricity consumers with contract capacity more than 5000kW shall install self-consumption solar systems, plant-side ESS or other alternatives with capacity equivalent to 10% of the contract capacity. The obligation shall be fulfilled before 2025 and the proportion can be decreased to 8 or 9% if it is fulfilled in advance. Except solar system, ESS becomes one of the main cost-effective solutions to big electricity consumers due to its advantages of small scale and combinability with energy management system of plants.



節能設備

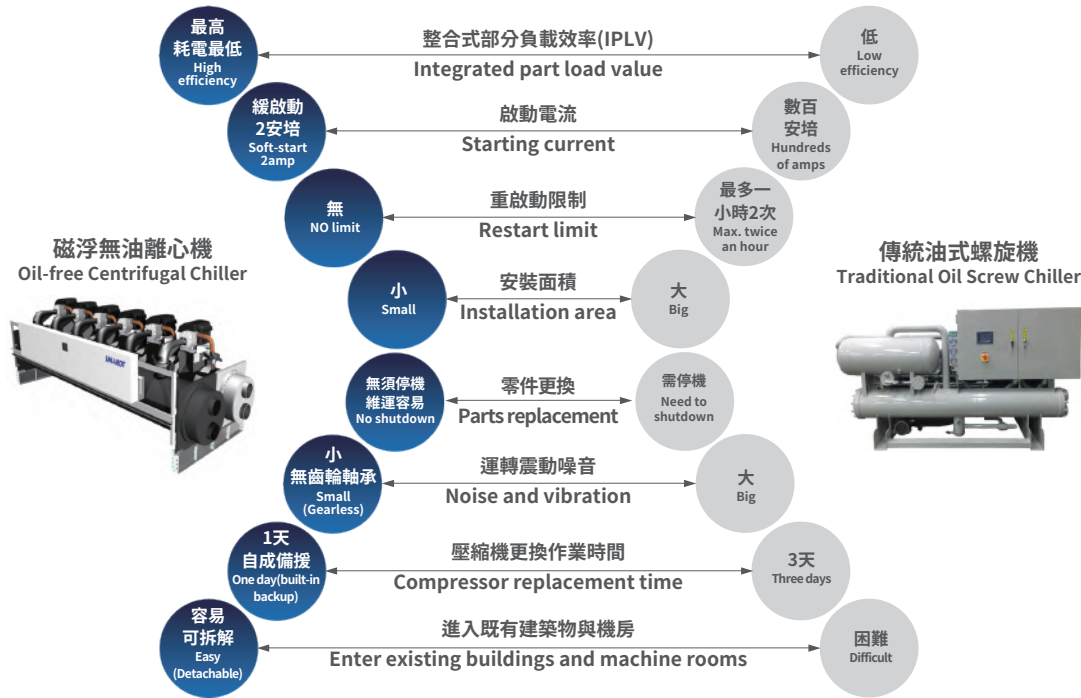
ENERGY SAVING EQUIPMENT

節能兩大核心指標為空調及照明，聚恆代理節能效果優良之設備，並提供「設備買斷」及「以租代買」方案供客戶選擇!

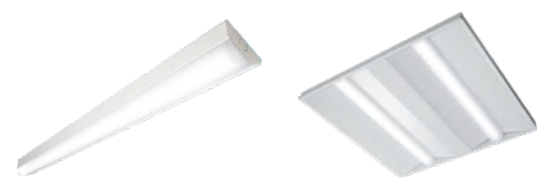
As air conditioning and lighting are two core subjects of energy saving, HENGs has acted as agent of efficient power-saving equipments and provide buyout and rental plan to customers.



無油磁懸浮離心冰主機 Oil-free Centrifugal Chiller



超光效LED光板燈 High Luminous Efficacy LED Panel Light



超光效160 lm/w (High Luminous Efficacy)
(T8/T5:90~100lm/W)
用電密度<4W/m², 遠超過綠建築標準
Lighting Power Density <4W/m² much lower than green buildings.



無頻閃 (Flicker Free)
二級迴路 LED 驅動器，解決LED照明的頻閃問題
Two-stage design of LED driver to eliminate flicker issue.

兩極架構 Two-stage LED driver

```

    graph LR
    A[AC Input] --> B[AC -> DC]
    B --> C[DC/DC CONVERTER]
    C --> D[LED]
    
```

高透光 (High Transmittance)
光板燈是藉由 LED 晶粒將點光源透過橢圓型等焦距光學設計燈罩，將光源以高透光的方式達到高發光效果。
Effectively distribute the point-source light of LED chips through an elliptical diffusers to save energy while reaching high transmittance.

燈具發光角度122°

高壽命 (Long Life Span)
產品設計年限達 50,000小時。LED晶粒和驅動電源分開放置，散熱佳。
Long Life Span: Design life 50,000 hours. Good heat dissipation by separating LED chips and driver.

LED晶粒
金屬板散熱佳

高省電 (High Energy Saving)

- 比 LED 燈管燈具省電 50%
- 比 LED 平板燈具省電 50%
- 比 T5 輕鋼架燈具省電 68%
- 比 T9 輕鋼架燈具省電 75%

太陽能光電專用組件及應用產品

SOLAR PRODUCTS AND APPLICATIONS

目前聚恆科技股份有限公司所經銷販售的太陽能產品包括：太陽能光電板 / 充電控制器 / 獨立型 & 併聯型直交流轉換器 / 蓄電池 / 避雷器 / 其他太陽能相關組件。此外，經由豐富的施工經驗，我們除了研發出多樣 高效能產品，還提供完善的保固與售後服務。自製產品包括：SUNUP太陽能支架 / 太陽能直流側機電貨櫃 / ST太陽能發電機 / 太陽能自重式水箱支架。

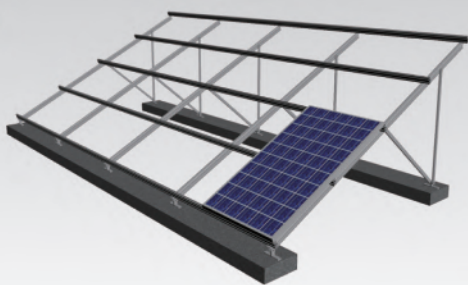
WHAT PRODUCTS WE HAVE ?

PV Module / Solar Charge Controller / Grid-Tie Inverter / Off-Grid Inverter / Battery / Lightning Arrestor / Solar Accessories. Moreover, we develop various solar products with plentiful construction experiences and completed testing. We provide not only high-efficiency products, but full warranty and after service. Hengs developed products including : SUNUP Solar Mounting Racks / Solar DC-side Container /ST Solar Generator / Solar Body-weighted water-tank-bracket.

聚恆自製產品

OWN DEVELOPED PRODUCT

1



SUNUP太陽能支架

SUNUP SOLAR MOUNTING RACKS

2



太陽能直流側機電貨櫃

SOLAR DC-SIDE CONTAINER

3



ST太陽能發電機

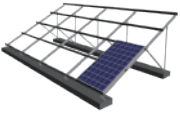
ST SOLAR GENERATORS

4



太陽能-自重式水箱支架

SOLAR BODY-WEIGHTED
WATER-TANK-BRACKET



SUNUP太陽能支架 SUNUP SOLAR MOUNTING RACKS

SUNUP-G與SUNUP-R太陽能板支架，具備堅固耐用、安裝便利、美觀安全之特色，並提供完善售後服務與保固。此系列產品國內外使用超過100MW的太陽能電廠，能大量降低客戶的投資成本(太陽能板陣列與太陽能板傾斜角度隨緯度及客戶需求而改變/長、寬、高會隨著太陽能模組數量而改變)。



SUNUP-G & SUNUP-R have the features of high compatibility with any module, extremely durable application, quick and convenient assembly, as well as complete service and warranty. Professional design and mass production bring price advantage, and further, cut down investment cost for customers. SUNUP is actually used in over 100MW solar power plants (Tilt angle will vary depending on latitude and customers' requirements. Length, width and height will change depending on the quantity of PV modules.)



太陽能直流側機電貨櫃 SOLAR DC-SIDE CONTAINER

對於中大型光電系統，直流組合設備必不可少，可用於簡化光電板與逆變器之間的電纜連接，以提高光電系統的可靠性，使系統維護更加方便。聚恆直流側機電貨櫃按照CNS國家標準，為客戶提供標準工業設計的安全、簡潔、經濟的光伏系統產品。用戶可以在逆變器允許的直流電壓範圍內，將相同型號的光伏電池板串聯在一起作為光伏陣列，然後將多個陣列連接到匯流箱進行直流匯流。在將直流輸入逆變器之前，匯流箱中的突波(浪湧)保護器和斷路器確保光伏系統的安全。

For medium and large PV systems, DC combination equipment is essential and can be used to simplify the cable connection between PV panels and inverters in order to raise the reliability of the PV system and make the maintenance of system more convenient. Hengs Solar DC-side Container provides customers with a safe, concise and also economic PV system product in standard industrial design according CNS national standard & regulations. Users may put the PV panels with the same type together in series as PV arrays within the allowable DC voltage range for the inverter and then connect several arrays to the combiner box for DC convergence. Before inputting DC to the inverter, the surge protector and breaker in the combiner box ensures the safety of PV system.



ST太陽能發電機 ST SOLAR GENERATORS

擁有多年系統設計與應用經驗的聚恆科技，針對電力不易取得、供電不穩、開挖電線/電纜成本過高地區，例如：高山、離島、基地台、偏遠鄉村、限電地區...等，根據客戶的電力需求，開發出多款太陽能發電機。這些發電機包含所有必要組件，如：太陽能板、太陽能鋁支架、充電控制器、直交流轉換器、配电箱、電池箱、太陽能蓄電池以及相關配組。我們會依照客戶所提供的當地氣候條件與電力使用等資訊，推薦最合適的機型。此產品的開發不僅供給客戶更穩定的電力，亦展現了環保、節能、耐用等設計理念。

Hengs offers customized solar generators (ST series) to fit different applications. ST series is suitable for the areas with electricity hard to access, unstable power supply and high excavation costs, such as mountains, isolated islands, power stations, remote areas, power rationing areas, etc. The system consists of PV module, solar mounting rack, solar charge controller, inverter, distributor box, battery box, battery, cable set, and related facility. We will suggest the most suitable model according to your local weather condition and power consumption. The product development not only provides customers more stable power supply, but also achieves the design concept of environment friendly, energy saving and sustainable usage.



太陽能-自重式水箱支架 SOLAR BODY-WEIGHTED WATER-TANK-BRACKET

針對屋頂型設置太陽能系統，取代傳統錨栓RC工法，費時較長，自重式箱體為戶外型耐候性塑材製成中空容器，內部可注入增重物質；運用造型設計PV鋪設仰角，大幅減少支架用量與結合處，提升組裝速度。非破壞性工法，空箱質量輕，單人搬運定位後，再注入自重物質使用，結合多組箱體串接成陣列式結構基礎，置放於平面樓地板。

Aiming the roof-top solar system installation, replacing the traditional anchor bolt RC construction method, which takes a long work-days. The body-weighted water-tank-bracket is made by outdoor weather-resistant plastic material as a hollow container, and weight-increasing substances can be injected into the interior space. Significantly reduce the amount of brackets and joints so to improve the assembly speed. Non-destructive construction method, the weight of the empty tank is light, after being transported to site being positioned by a single person, self-weighted material then be injected for instant use, combined with multiple groups of water-tank-bracket connected in series to form an multiple array-structure foundation, which is placed on the flat floor.

代理經銷產品

RE-SELLING PRODUCTS

1



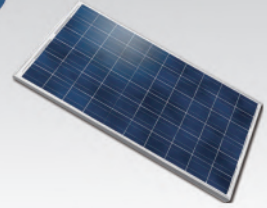
SMA系列產品
SMA PRODUCTS

2



充電控制器
CHARGE CONTROLLER

3



太陽能光電模組
PV MODULE

4



避雷器
LIGHTNING ARRESTOR

5



蓄電池
BATTERY

6



直交流轉換器
DC-AC INVERTER



SMA系列產品 SMA PRODUCTS

SMA為全球直交流轉換器最大供應商，所有產品均在德國生產，其使命為提升太陽能光電之可利用性與使用普及性。透過持續的進步與創新，SMA讓光電系統的安裝與運作變得容易也更具有經濟效益。SMA所開發的高效能直交流轉換器，能夠符合各種規模的光電系統，以及不同類型的光電模組。因而造就了現今SMA全球領先的卓越地位。

SMA Solar Technology AG's mission is to increase the availability and use of photovoltaics. By continually delivering advancements and innovations in systems technology, we make installation and operation of PV plants even simpler, more reliable and, above all, more cost-effective. SMA develops and manufactures highly efficient PV inverters for all installation sizes and power classes and for any grid specifications worldwide, regardless of the type of PV modules used. In turnover, SMA is the worldwide leader in this sector.



充電控制器 CHARGE CONTROLLER

在太陽能獨立型系統均需要充電控制器，其功能為避免過度充電及過度放電，以延長電池壽命；進階功能包含點燈控制、PLC控制及遠端遙測…等。本公司代理之Morningstar為全球充電控制器領導品牌。

Charge controller is the essential component in off-grid solar power system. It is functioned to prevent over charge and over discharge from battery side and extend the battery life efficiently. Moreover, some charge controllers have advanced functions like lighting control, PLC control, remote monitoring and etc. Morningstar we distribute is the world's leading brand.



太陽能光電模組 PV MODULES

本公司經銷代理國內外各知名品牌產品，諸如安集，茂迪，友達，元晶，聯再能與隆基，考慮到經濟與效率，因此以矽晶模組為主要供應產品。

We sell multiple brands of PV modules with high quality, such as Anji, Motech, AUO, TESC, URE and Longi. Considering of the efficiency and economic, we supply silicon-based PV modules mainly.



避雷器 LIGHTNING ARRESTOR

在落雷區及電力不穩的區域，易產生突波，可能造成太陽能光電系統或高壓電塔後端設備之損壞，安裝避雷器可提供設備必要之突波衝擊保護，本公司經銷之Delta為全球太陽能電廠最廣泛使用之品牌。

The lightning strikes most occur in mountains and remote areas. Lightning arrestors can block PV, electrical components, and equipment from voltage surge and lightning damages. Delta arrestors are widely used in solar power plants around the world.



蓄電池 BATTERY

太陽能蓄電池具有密閉式構造、免保養及多循環深度放電等優點。

Solar batteries are with the advantages of sealed construction, maintenance free and more cycles at deep discharge.



直流轉換器 DC-AC INVERTER

直流轉換器為將直流電轉換為交流電的設備。太陽能發電系統所用之直流轉換器分為獨立型及併聯型二種。獨立型直流轉換器是將太陽能光電系統內蓄電池中的直流電，轉換成交流電給負載用。一般獨立型直流轉換器額定功率較小且無最大功率追蹤及孤島效應保護。併聯型直流轉換器為將太陽能光電板之直流電直接轉換成交流電，以便直接提供交流電給負載使用。一般併聯型直流轉換器的額定容量較大，且具有最大功率追蹤及孤島效應保護功能。直流轉換器為太陽能光電系統之核心組件，故選用高品質及高效率的直流轉換器可減少日後故障的維修費用及電力轉換的損失。

DC-AC inverter is a kind of facility for direct current converting into alternating current. There are two types of inverters, grid-tie and off-grid. Off-grid inverter is to convert DC in the battery bank into AC for load use. In general, off-grid inverter comes with smaller power capacity but no MPPT function and protection of anti-islanding protection. Grid-tie inverter is to convert DC from PV array into AC for load use. This type of inverter has bigger power capacity, MPPT function, and anti-islanding protection. DC-AC inverter is a core component of the solar power system. Therefore, to collect the inverter with high quality and high efficiency could decrease the expense of maintenance and power loss.

太陽光電O&M維運服務

HENG S SOLAR O&M SERVICE



ACP盤檢查 - 電壓電流量測
Inspection ACP - IV Measurement



檢查JB箱-量測電流電壓
Inspection of JB - IV Measurement



檢查SMP盤
Inspection of SMP



清理INV通風口
Clean for Air Vent of Inverter



檢查發電 - RA量測
Inspection of Power Generation - RA



檢查模組
Inspection of Solar Module

維運管理的重要性 Importance of O&M Management

電廠經營是一場25年的長跑，維持系統安全及高效運營是維運管理的首要目標，保障電廠永續經營。

Power plant management is a 25-year long distance running. The main purpose of which is to remain the system security and effective operation for ensuring its sustainable management.

1. 提升系統安全性。(Upgrade system security)
2. 增加業主收益。(Have the customer benefit from it greatly.)
3. 維持電廠高效運營。(Keep high efficiency operation over the power plant.)

維護項目 Maintenance project

1. 發電設備：太陽能光電模組、基礎結構體、輸配管線、配電盤、配電箱、換流器(交直流轉換器)等太陽能發電之必需主要設備。
 2. 量測及顯示設備：電力計量器、電力訊號傳送器、氣象觀測器、訊號傳輸器、電力資料記錄器及顯示器等。
1. Power generation equipment : PV Modules, Mounting Structures, Transmission and Distribution Pipelines, Distribution Panel, Junction boxes, and Inverters.
 2. Measurement and Display equipment: Power meters, power signal transmitters, weather observers, signal transmitters, power data recorders and displays.

維護方式 Maintenance method

1. 定期巡檢：維護期間每年四次定期巡檢，系統上線即排定保養周期。
1. Make the regular inspection over the sites. During process of maintenance service, make inspection over the sites 4 times a year and fix the maintenance service schedule on-line regularly.

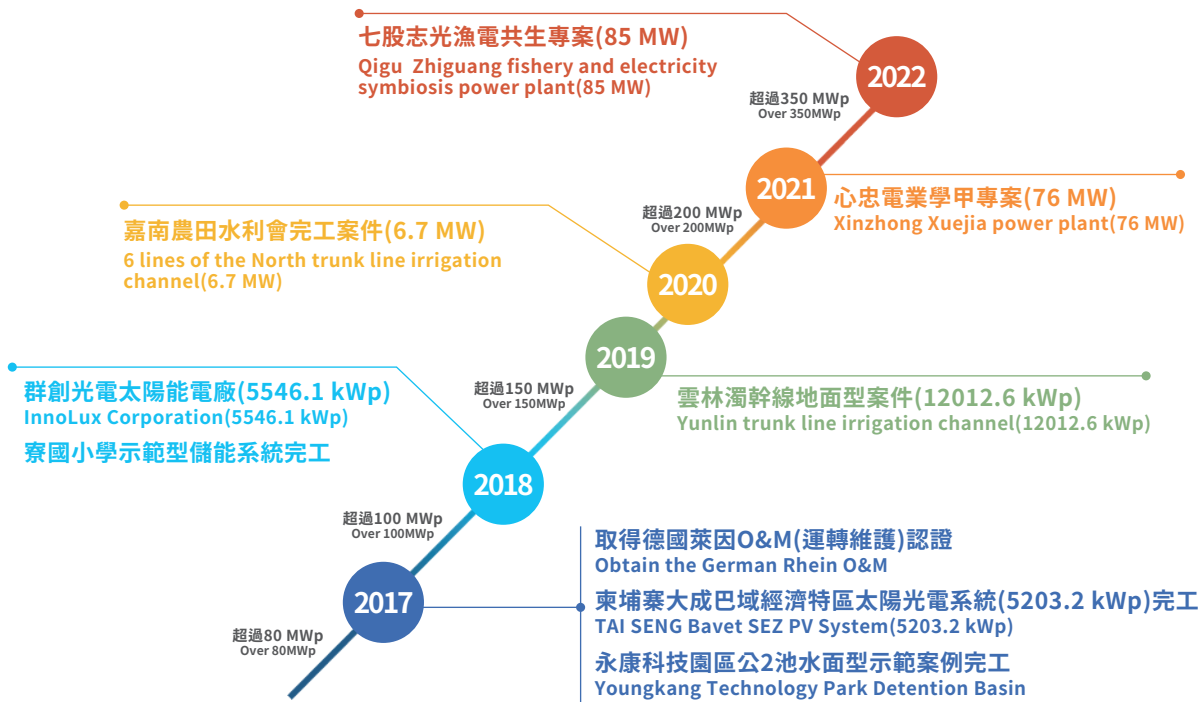
光電模組 PV Modules	變流器 Inverter	直連接線箱 DC Junction box	交流配電盤 AC Switchboard	高壓設備 High Voltage Equipment	安全設施 Safety Facilities
監控系統 Hengs Solar SCADA	氣象站 Weather Observers	線槽管道 Cable Duct	結構支架 Mounting Structures	接地系統 Grounding System	清洗設備 Cleaning Equipment

2. 主動告警查修：經HENG S監測自動品管發出告警訊息，由聚恆科技主動確認問題並進行修復，使系統恢復正常運作。
 2. Proactive warning monitoring : Monitoring system installed by Hengs able to detect the failure and report the warning message proactively. Upon the error message, Hengs is capable to find out the solution as well as have the issue to be recovered actively in order to make the plants back to work normally.
- 聚恆地端監控系統 - 每分鐘更新數據。
 - Hengs underground monitoring system- data updating/per minute
 - 聚恆雲端監控系統 - 每小時更新數據。
 - Hengs cloud monitoring system- data updating per hour
 - 故障告警透過自動品管發出告警。
 - Proactive warning monitoring

目前維運狀況 Current status of maintenance

聚恆電廠建置及維運經驗的累積，造就專業並可信賴的服務，累計至2023年，維運服務超過200座電廠總容量350MW+。

Cultivation and accumulation between the power plant construction and a greater deal of experience on EPC have created the professional and reliable impression on the customers. By 2023, there are more than total of 200 service-based plants and whole capacity amounts to over 350MW.



聚恆售後服務保證 Hengs Solar After-sales service guarantee

**保證客戶發電收益
Guarantee customer's power generation income**

- 承諾保證發電量
Guarantee the power generation
- 承諾不足聚恆賠償
Hengs in charge of the compensation over the insufficiency
- 發電收益穩定進帳
Stable income gaining from power generation
- 聚恆監控穩定收益
Hengs Solar SCADA stable income
- 堅持使用國內外大廠設備品質保障
Work with well-known brands domestically and overseas to ensure the equipments' quality

**保固保修保證
Warranty service guarantee**

- 專業的維運團隊
Professional EPC
- 1MW戰備庫存
1MW combat inventory
- 五年保固免費保修
5-year warranty service
- SMA服務中心
SMA service center
- 快速維修服務
Rapid repair service



**國內首家TUV認證
TUV certificate**

- 維運具備國際認證
International-certified EPC
- 電廠健檢專家
Inspection expert on the power plant
- 電廠安全0容忍
Zero tolerance over the security of power plant
- 電廠孤兒維運承攬
EPC service over the disrepair power plant
- 電廠修繕優化服務
Optimization service over the power plant

**穩賺不賠的投資
Low-risk investment**



GOOD QUALITY



REASONABLE
PRICES



EFFECTIVE
SOLUTIONS



COMPLETE
PRODUCT LINE



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