BIG SUN GROUP.

COMPANY PROFILE

太陽光電集團

v2018.07

BIG SUN GROUP.

Integrity · Professionalism
Innovation · Sustainability

誠實·專業·創新·永續

We uphold high professional morale and Customer first ideals. Integrity represents our corporate value. At Big sun, strong corporate governance and legitimate execution best demonstrate our commitment. We devote to walk the talk with mutual respect.

We focus on green energy R&D and manufacturing, while insisting quality centered on reliability. We believe expertise is the key to success. Hence, all staffs in BIG SUN shall dedicate ourselves to excel in professionalism and aim ourselves as the vanguard of the PV industry.

堅持高度職業道德及客戶至上的理念。誠實經營是太陽光電的企業價值。穩健的公司管理與工作執行，最能展現我們對目標的承諾。我們努力實踐諾言並相互尊重。

專工於綠色能源的研發及製造，並堅持以可靠度為中心的品質政策。我們深信專業是開啟成功大門之鑰。因此，太陽光電的同仁都秉持一貫的專業精神，執行研發、行銷及售後服務等各項工作，並期許自己走在太陽能產業的前端。

CONTENT
目錄

About BIG SUN

太陽光電集團架構

- Date of Est. : 2006/5/19
  成立時間：2006 年 5 月 19 日
- Chairman : Mr. Summer Luo
  董 事 長：羅家慶先生
- General Manager : Mr. Fritz Cheng
  總 經 理：陳進輝先生
- Capital : USD$ 62.23 million
  資 本 額：新台幣 18.18 億元
- Product : Solar PV Products、PV Systems、Solar EPC、Solutions
  經營產品：太陽光電產品、系統，太陽能電站建置、營運、解決方案
- Major Stockholder : SAS (Sino-American Silicon Products Inc.)、GIGASTORAGE CORPORATION
  大 股 東：中美晶集團、國碩集團

iPV Tracker

Taiwan 2013 Industrial Innovation Awards

Taiwan 2015 Outstanding Photonics Product Awards

SNEC 2015
SNEC 2016
SNEC 2017
SNEC 2018
TOP10 Highlight Awards

iPVita

24

Future product
未來產品

24-hour solar power system
24 小時太陽能供電系統

2015

太陽資岛電業(股)公司

Power Plant Investment
電廠投資

2012

TaiNong

Agro-Solar Goods
有機產品

2011

SGP 太陽全球投資公司 SOLAR GLOBAL POWER

Power Project Investment
電廠投資

2009

TAIWAN 2013 EXCELLENT PV

topper Sun

2006

TAIWAN 2014 EXCELLENT PV

BIG SUN
Your Best Energy

Solar Cells / Modules

高效太陽能電池、模組

TAIWAN 2014 EXCELLENT PV

TAIWAN 2013 EXCELLENT PV

Fraunhofer ISE

- 2013 Taiwan Excellent PV (Module)
  2013 年獲得 經濟部光電 — 金能獎（模組）
- 2014 Taiwan Excellent PV (Cell)
  2014 年獲得 經濟部光電 — 金能獎（電池）
- In 2018, solar cell production line turn-key transfer to TURKEY, facilitating the establishment of local PV supply chain aiming at manufacturing Bifacial PERC Cells.
  2018 年，因應國際大趨勢，將片產線移轉至最佳獲利國 – 土耳其，延續並拓展當地太陽能電池市場，主力生產雙面電池片。
- Global synergy of iPV Tracker (dual axis tracker) with worldwide renowned High-efficiency & Bifacial Module Partners .
  全球解決方案，整合並推廣國際各大廠高效、雙面發電透光模組。
- Partners : SAS、GCL、LONGi、JOLYWOOD、NSP
  合作廠商 — 中美晶、協鑫、隆基、中來、新日光等模組大廠。

EPC / O&M

Leading EPC and O&M in Taiwan

台灣 EPC、運維第一品牌

提案 Idea ▸ 規劃與評估 Evaluation ▸ 政府文件申請 Project Development ▸ 備料與施工 Regulatory ▸ 工程品管 Construction & QA ▸ 上線與維護 Operation & Maintenance

Global PV installation:
More than 550 worldwide installations (440 in Taiwan)

全球電廠建置實績：
全球超過 550 場電廠建置經驗（台灣 440 場）

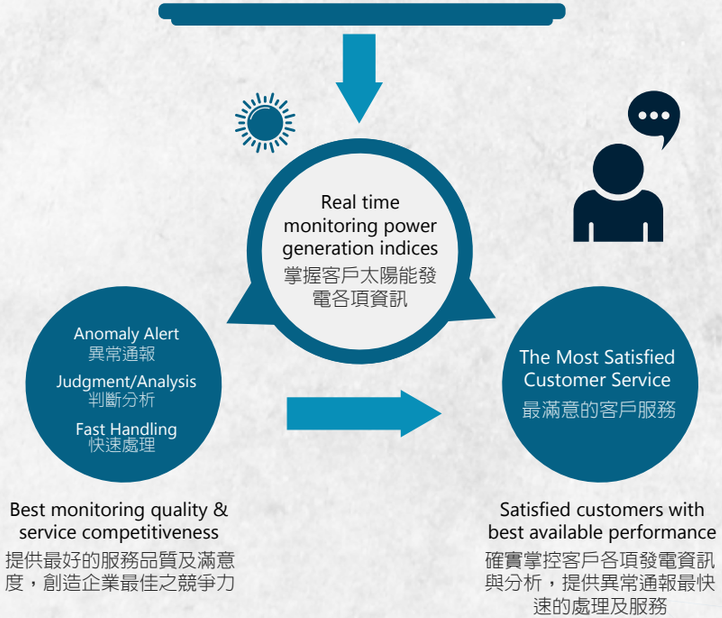
① Taichung City Government ② Roof Top(Arc-shape) ③ World's Largest Dual-Axis Tracker Roof Top ④ Roof Top
① 台中市政府 ② 林口捷運加油站（弧形） ③ 全球最大雙軸追日屏東案場 ④ 桃園案場

iPVita™
SMART PV Monitoring System
智慧管理系統

TOP2
台灣市占
前二名

Self-developed, cloud-based smart PV monitoring system
Managing > 2,000 PV sites (300MW) and 450MW by year end
全產品自主研發，透過智慧 IoT 雲端系統，有效電廠管理，降低維運人力與成本。管理超過 2000 座 (300MW) 電廠，預計年底達 450MW

Offer most professional and comprehensive service
專業團隊提供最完善的監控管理及服務



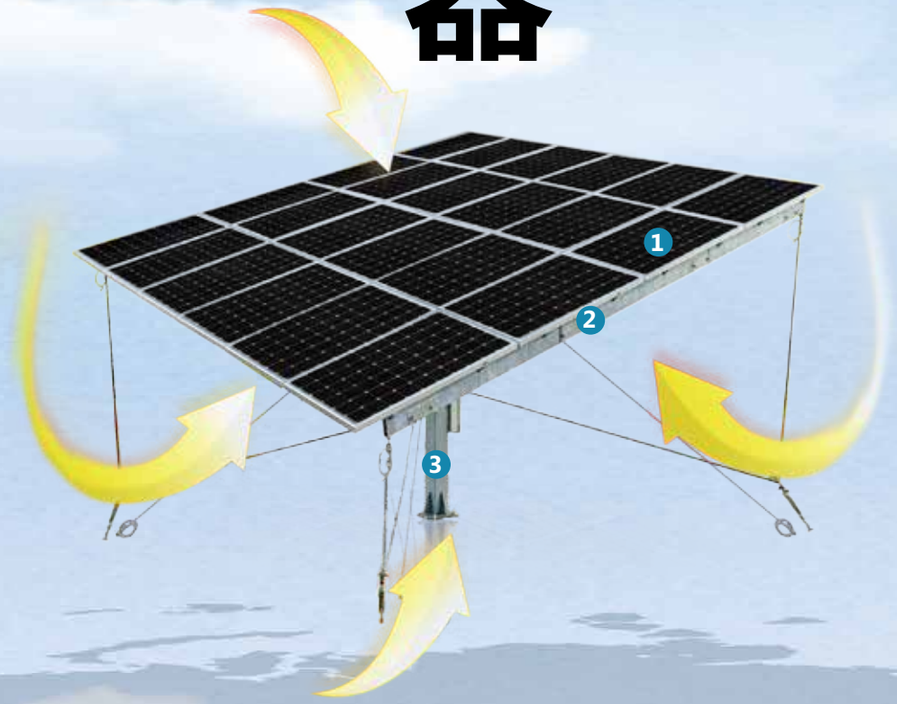
Best monitoring quality & service competitiveness
提供最好的服務品質及滿意度，創造企業最佳之競爭力

Satisfied customers with best available performance
確實掌控客戶各項發電資訊與分析，提供異常通報最快速的處理及服務

iPV Tracker combined with the iPVita PV monitoring system leads the solar sector into the Green Industry 4.0 era.
結合自主研發的 iPVita 智慧電廠管理系統，帶領綠能跨入工業 4.0。

Plug and play real-time monitoring of power plant performance.
可在隨插即用之環境，即時監控電廠相關數據，了解發電狀況。

神器



1. Can accomodate all major brand modules
一體適用全球各大品牌模組
2. Flexible base combination is not limited by terrain
靈活基座結合不受地形限制
3. Patented DAT system with highest climate change resistance
專利高抗氣候變遷雙軸系統

iPV Tracker™

PRODUCTS

iPV Tracker™

DAT – Dual Axis Tracker
雙軸追日系統

全自主研發設計：最強環境應變利器

Simple & Affordable
Easy installation, operation, and low maintenance costs.
精簡經濟
精簡又穩定的鋼索與滑輪傳動結構 = 低建置、維運成本

Accurate
Preprogrammed tracking algorithm. 360° horizontal axis. 0°-40° tilt angle.
精準追日
智慧型日晷追蹤、獨家多方位十字軸設計。全球第一座 360 度方位角旋轉

High-efficiency Output
30% ~50%* more annual power generation against the fixed-tilt system*.
高效發電
最大廣角接收日照量，對比固定式可增加 30%~50% 發電量
同步增加 30% 電網利用率；15%~50% 的土地利用率

Durable & Reliable
Wind Resistant・Dust Removal・Snow Removal・Corrosion Resistant・Back-tracking・Flood Avoidance・Light Pollution Avoidance
穩定可靠
高抗風・避沙塵・避積雪・避鹽害・避遮蔭・避淹水・避光害

Base Flexibility
Various foundations transcending landform limitation, back-tracking avoiding extensive land grading, concrete paving and curing time.
極限越野
多樣化地樁工法結合、鋼索力學平衡，超越地形限制，降低整地費用及時間

Intelligent
iPVita Anytime/Anywhere/Accurate
智慧控管
iPVita 隨時隨地、精準監控管理電廠資訊

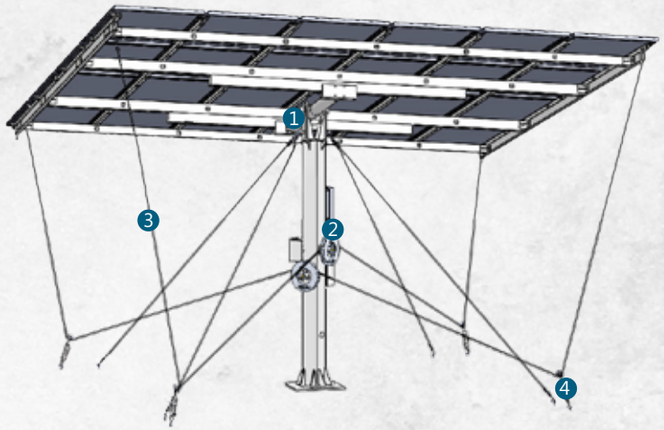
*PV Site and solar irradiance dependent

PRODUCTS

iPV Tracker™

Patented Driving Mechanism
獨家專利結構

Patented cable drawn driving structure can accommodate all types of modules, foundations and applications
獨家專利結構，並可搭載各型模組，並多樣化基礎的應用與結合。



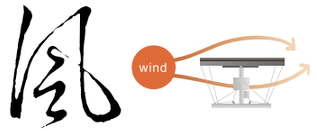
The Universal Joint 十字雙軸
The universal joint is designed to rotate the module frame in two perpendicular directions.
設置於支柱上，使平台能夠二維旋轉。

The Reels 線盤
The reels accurate tracing within ± 0.5 ˚ deviation
微幅傳動達 ± 0.5 ˚ 精準追日

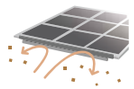
The Steel Cables 鋼索
The steel cables steer the module frame and also function as four anchor points.
由四角帶動平台，並能協助動態平衡。

The Springs 彈簧
The springs act as cushions for wind gusts.
避震功能可幫助提升抗風性。

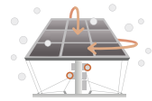
Combat Climate Changes and Hazards
高抗氣候變遷



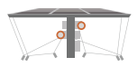
Wind Resistant 高抗風
High wind loads automatically stow the plat from to horizontal position (safety mode)
當風速達到一定強度時，可將太陽能板躺平為安全模式，減少受風面積



Dust Removal 避沙塵
iPV Tracker can be activated to rotate at a tilted angle to remove excessive dust
日落後可順應不同季節風向，調整跟蹤傾斜方位使之與風向平行，
減少沙塵累積於跟蹤支架平台



Snow Removal 避積雪
Rotation at a tilted angle removes snow accumulation on the PV modules
設定太陽能板角度至最傾斜並旋轉幫助在太陽能板上的積雪滑落



Corrosion Resistant 避鹽害
Main bracket, Cable material : alloy, Hot-dip galvanized 80μm ;
Parts : stainless steel,magnesium aluminum zinc,aluminum alloy
主支架、鋼索材質：熱浸鍍鋅 80μm 高標準處理
零配件：不鏽鋼、鍍鎂鋁鋅、鋁合金

Backtracking 避遮蔭
iPV Tracker is programmed automatically to adjust to an optimal angle according to location, season and time of day, to prevent mutual shading
將太陽能板傾斜至相互不遮蔭的最大角度以吸收最多日照量，
並提高土地使用率

Flood Avoidance 避淹水
The motors, controllers and other control elements was set 1.5M higher than the foundation to reduce the damage by flood
將馬達、控制器等主要電機控制元件，設置不低於 1.5M 的立柱高度，
降低極端氣候下洪水的衝擊及水淹故障的機率

Light Pollution Avoidance 避光害
Using the iPV Tracker tracking feature,the solar panel is always perpendicular to the sun's rays and will not induce Light polluton
利用追日會旋轉的特性，太陽能板永遠與太陽光線垂直，就不會反射
造成光害

PRODUCTS

iPV Tracker™

Global Patent Presence
全球專利

Unique & Irreplaceable
不可取代的能力

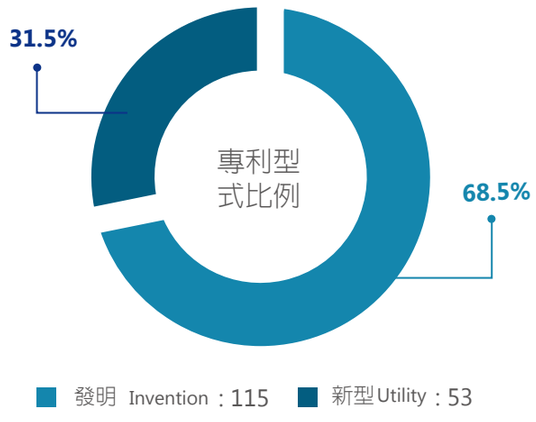
Competitive Patent Edge
專利競爭的優勢

太陽能電池 Solar Cell

已核准 Approved	46
申請中 Pending	0
小　計 Subtotal	46

iPV Tracker™

已核准 Approved	99
申請中 Pending	23
小　計 Subtotal	122
總　計 Total	**168**



Third Party Certification
第三方認證機構 — 系統安全認定

UL 3703　CE　UL / CE 電控認證

Being in the list of UL3703 certification is becoming the standard for whether a solar tracking system can be put into the market.

成為 UL3703 許可表單上的一員已經成為檢驗一款太陽能追日系統是否能夠投入市場使用的標準。

1st DAT System
全球第一家
取得雙軸追日系統審查報告
Technical Due Diligence : 2015/01

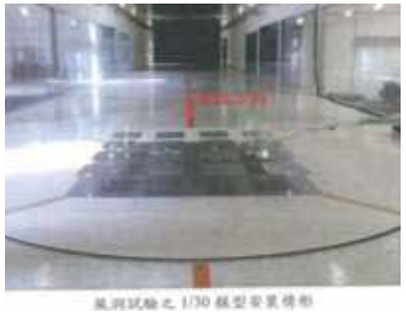
BLACK & VEATCH
Building a world of difference.

Due Diligence & Bankability Report
The largest independent third party Engineering Company in the United States
美國最大第三方獨立實驗室

Architecture and Building Research Institute, Ministry of the Intention
建築研究所抗風設計

The Wind Tunnel Lab verified wind pressure up to 47.5 m/s wind speed to facilitate wind resistance design of the stent.

委託內政部建築研究所風雨風洞實驗室驗證設計每秒 47.5 公尺風壓，以強化追日支架抗風能力及符合該計畫設計規範。



FOUNDATIONS

靈活基樁工法

Diverse foundation/piling combination relieving the terrain constraints.

多樣基樁結合工法

不受地形限制

The Amphibious Power Generation

水陸兩棲，不受地形限制的基樁工法

Floating-mount 水面浮具型

Cement-Piling 水泥打樁

H-Beam Base H 型鋼基樁

Concrete -Foundation 水泥基墩

Square 方形

Cross 十字

Driven Piling 驅動打樁

H-Steel Pile H 型鋼樁

Screw Pile 螺旋樁

SYNERGY iPV Bi-Dual System

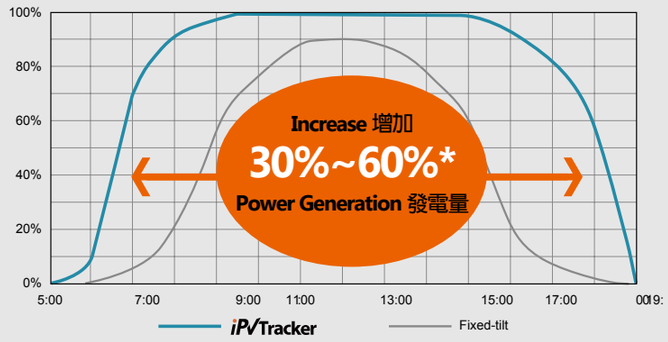
Overall power gain by more than 50%
總體可增加 50% 以上的發電量

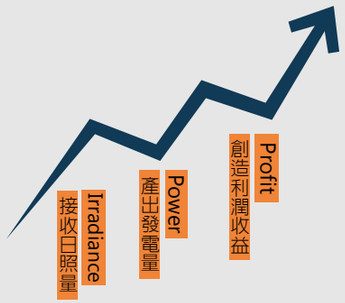
iPV Tracker
+30%* up

Bifacial Modules
雙面發電透光模組
+5%~30%*

iPV Tracker Over 30% more power generation
增加 30% up 發電量

- iPV Tracker's 360 degrees horizontal tracking effectively capture more solar irradiance, enhance more power generation and moreover, shorten the return period.
  iPV Tracker 雙軸追日系統 360° 全方位追日可有效增加日照量的接收、增加產出的發電量，更可縮短回收年限。
- 30% to 60%* more annual power generation than the fixed tilt system.
  比固定型系統年平均發電量增加 30%~60%* 發電量。



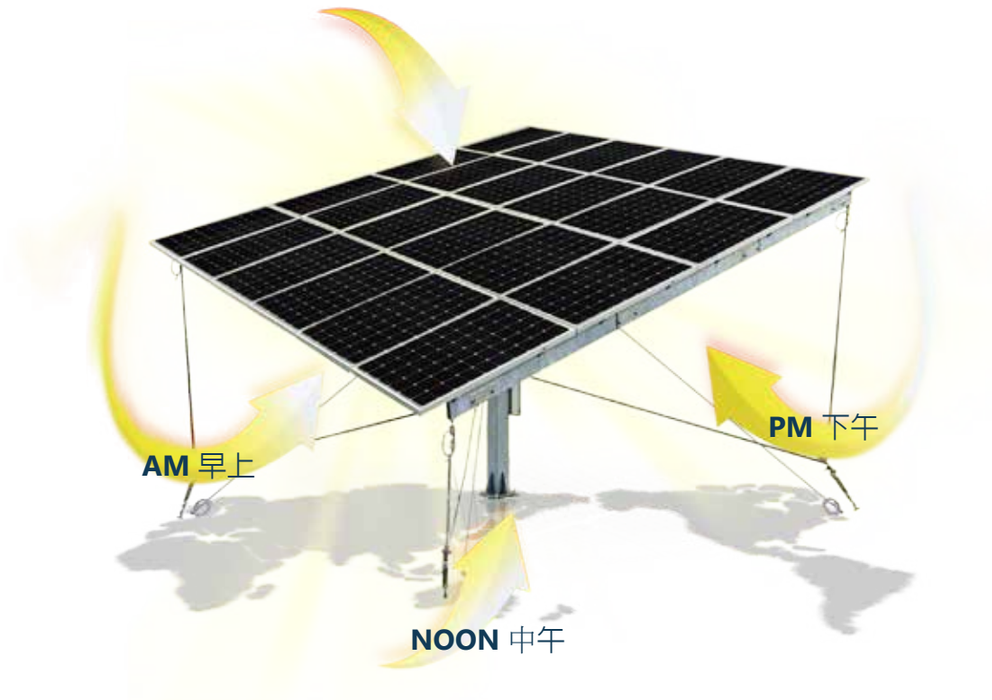


*Base on local condition 依案場位置、緯度、區域不同

Bifacial Modules Gain 5% to 30% more power generation
雙面發電透光模組 更增 5%~30% 發電量

Synergy between iPV Tracker with bifacial modules can effectively capture more reflection, scattering & diffuse irradiance throughput the day on the rear side of module.

加乘雙面發電透光模組，接收背面折射、散射、漫射光。多方實據證明，可增加 5%~30%* 以上的發電量。



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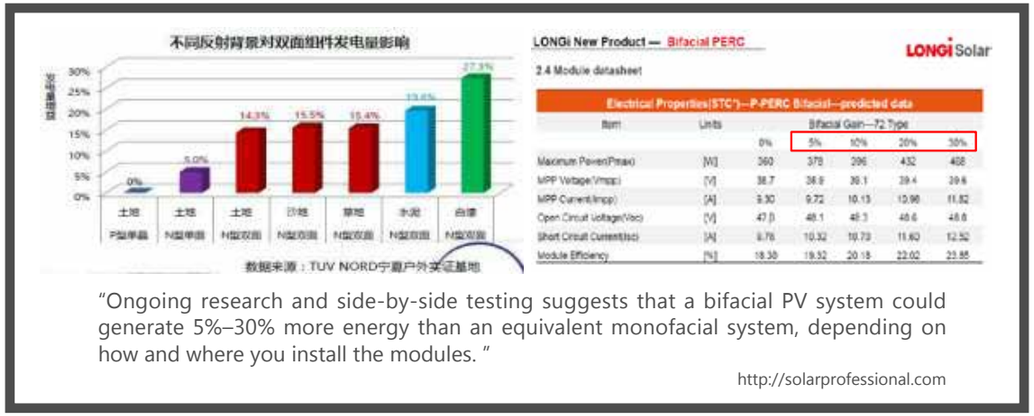
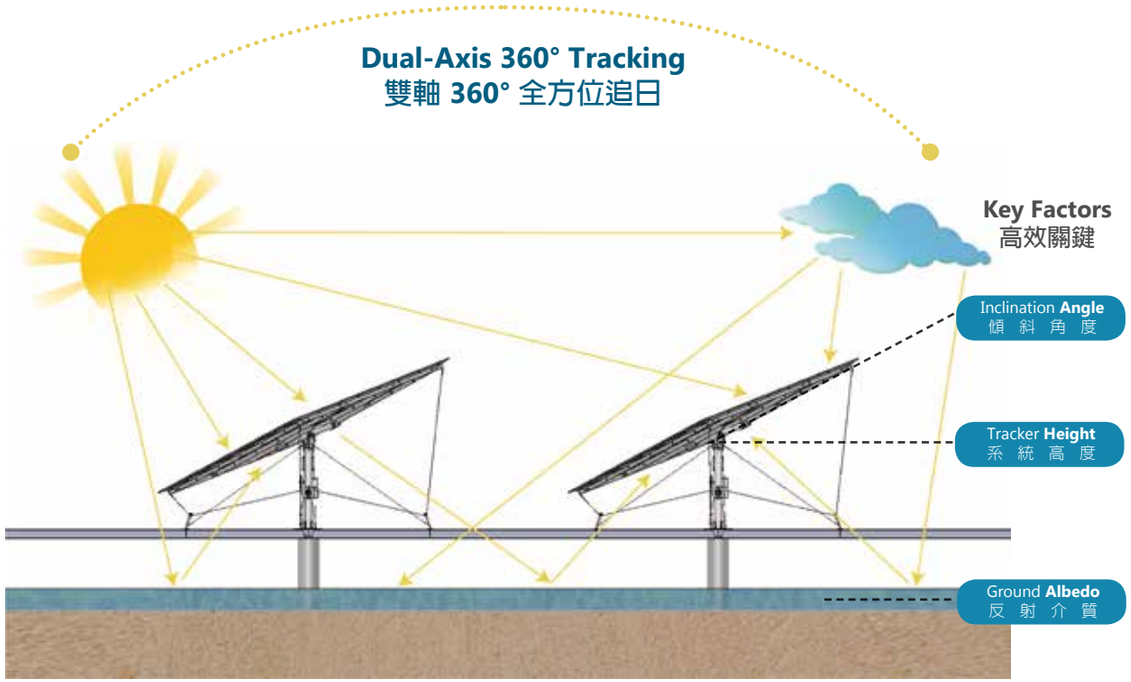


"Ongoing research and side-by-side testing suggests that a bifacial PV system could generate 5%–30% more energy than an equivalent monofacial system, depending on how and where you install the modules. "

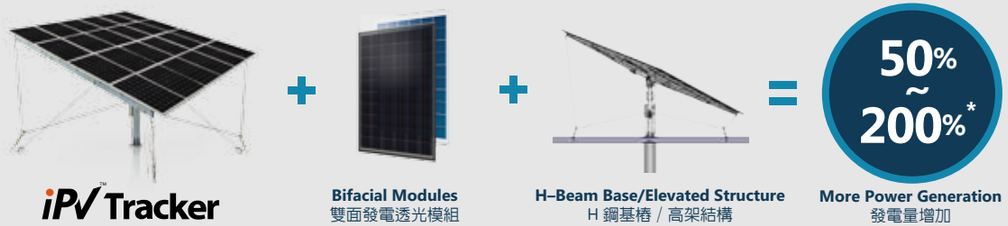
http://solarprofessional.com

iPV Bi-Dual System

iPV Dual Axis Tracker + Bifacial Module



Albedo 反照率 / Ground 折射介質	10~20% Mud Grass 泥草地	20~35% Dry Gravel 乾砂礫土	20~50% Light Cement 淺水泥地	45~80% White & Snow 白底 & 雪地	>85% Water Sur./Ref. Material 水面 & 反射物質
Bifacial Module Add Energy 增加發電	+5%	+10%	+15%	+20%	+25%



*Base on local condition 依案場位置、緯度、區域不同

SOLUTIONS

One Terrain With Multiple Yield
一地多用解決方案

"Elevated Structure" Design Adds More Value and Function
太陽能助漁、助畜、助農 以高架設計，一地多用，增值下方功能

AQUA-SOLAR

BIG SUN Aqua Solution
太陽光電 水面多元方案

Aqua-Solar can integrate with floating or pile system on freshwater and inshore.
A good solution can enhance aquaculture harvest and earn dual incomes.

太陽光電可適當結合不同水面型系統，適用於淡水域甚至近洋海水域。
而好的系統解決方案更能提升漁業養殖，創造漁光共生的大前（錢）景。

Traditional Aqua-Solar Systems
傳統水面型太陽能系統

Image: EnergyTrend

Floating System
水上漂浮型

Apply for 適用：

Non-fishery ponds, reservoirs and deep waters.
無漁產養殖之水塘、水庫、深水域

Pros 優點：

Shading the water surface reduces the evaporation of water, avoid eutrophication.
遮蔽水面可減少水分蒸發，避免優養化

Cons 缺點：

Module adjacent to water runs risk of vapor infiltration and corrosion. System may squeeze and crash during storms. Undesirable environment for aquaculture. Unable to leverage the benefit from bifacial modules.

模組板近水面，水氣滲入、鏽蝕風險。風浪時的系統碰撞、擠壓。覆蓋環境，水面下生物不利棲息。無法結合雙面發電模組，於高反射的水面上，憑白浪費背面接收機會。

Fixed Piling System
固定打樁型

Apply for 適用：

Within 3M deep ponds, shoals, shallow waters.
深 3M 內的水塘、淺灘、淺水域

Pros 優點：

Elevated system with shading and ventilation below.
架高固定、下方陰涼通風

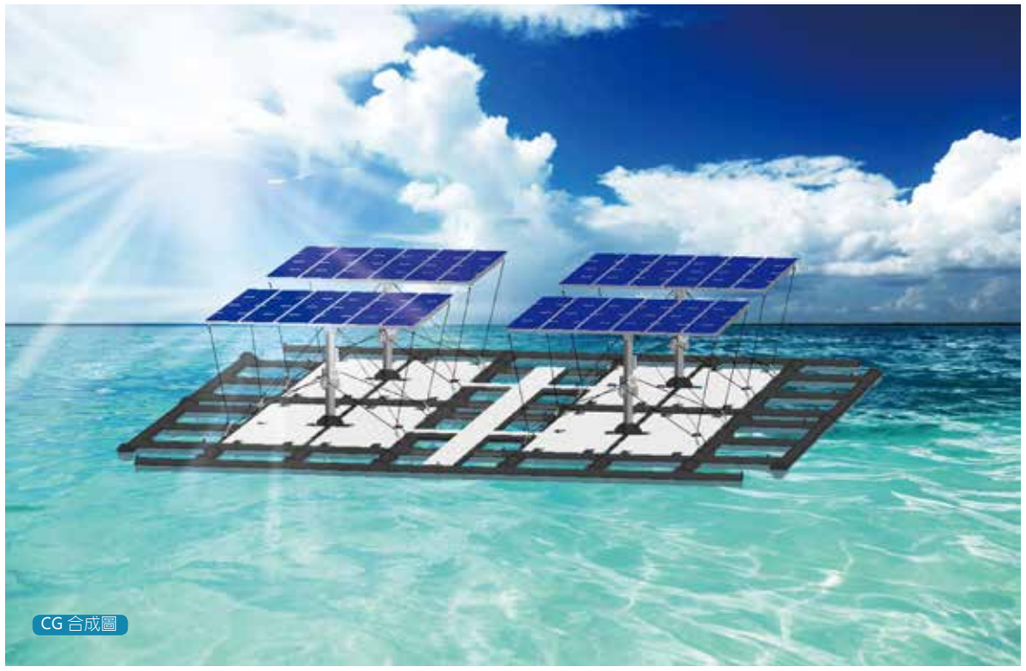
Cons 缺點：

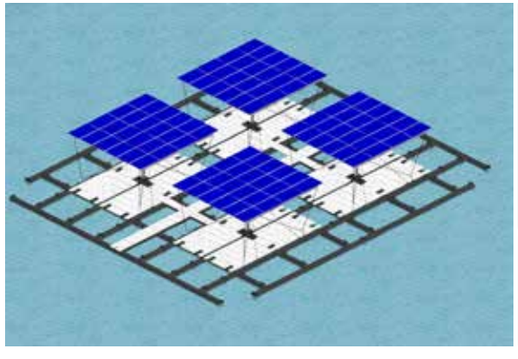
Limited light transmission to water underneath the Fixed tilt systems. The constrained space between cement piles is not encouraging for fishery. Can integrate with bifacial modules, but the benefit is limited by less reflection & diffused lights resulted from shorter height from water.

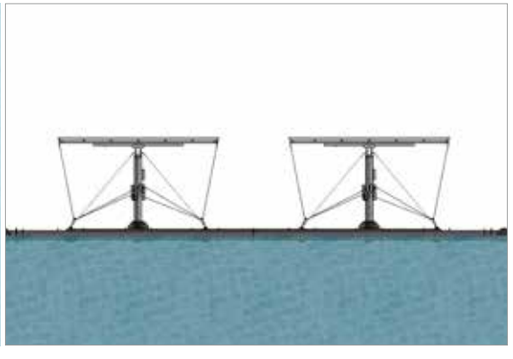
固定的模組角度，於接收日照及下方遮陰的效果受限。整體的水泥基樁跨距不足，無適當空間的讓漁民妥善養殖。可結合雙面發電模組，但固定角度讓水面反射效果有限。

FLOATING-MOUNT
水面浮具型

Merit of iPV Tracker + Bifacial Module on Water







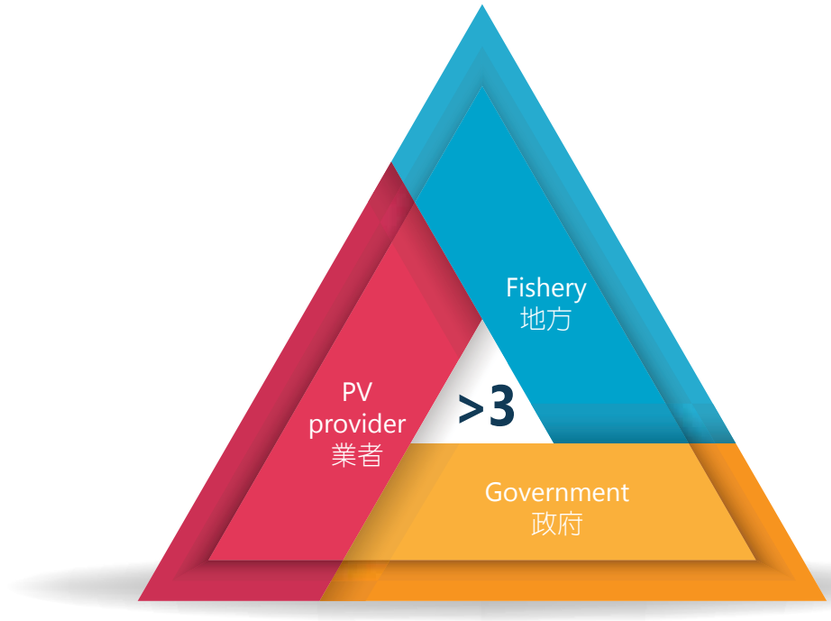
Fit for the ocean, lakes, lagoons, reservoirs, irrigation pools, wastewater treatment plants, dams, canals and other water bodies.

在海洋，湖泊，水庫，灌溉池等深水體區域適用

iPV SMART Fishery
智慧漁光共生

Parties: Local government,PV provider and Fishery
Entities: iPV Tracker , bi-facial module, aqua environment

共創共創地方、政府、業者，1+1+1>3 三贏獲利



- IoT Nurture
- Mutually Beneficial & Environment Friendly
- High-efficiency Green Power

- **符合 政府智慧養殖的政策**
  科技化養殖應用，結合 IoT，確保 100% 產出，
  超過 70% 漁獲量標準。

- **達到 與民互利、友善環境**
  70% 高透光、6.5M 架高，妥善多元空間，自動化規劃、
  減少勞動危險，萬物生生不息。

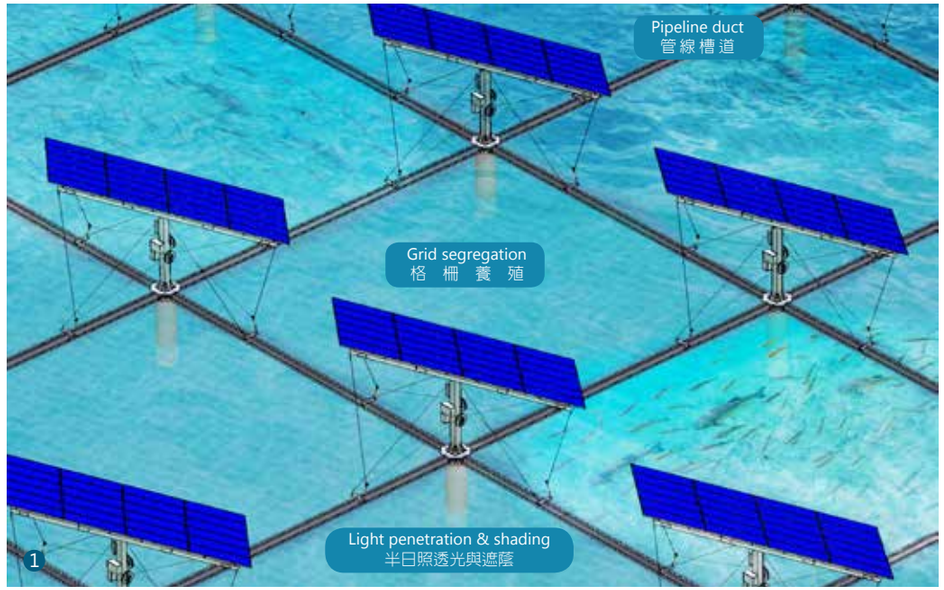
- **確保 高效綠能發電的投資**
  最佳 Bi-Dual（雙軸追日+雙面發電）系統+獨家基樁整合，
  100% 發電增益。

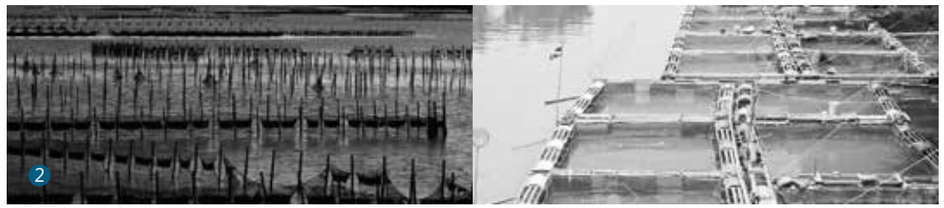
AQUA-SOLAR iPV SMART Fishery

Productive

漁光共生 與民互利 提高養殖存活率

- **Light penetration & shading**
  Shading reduces water evaporation and sun exposure while increasing water oxygen content.
  半日照透光與遮蔭
  70%* 高透光、降低水蒸發，遮蔭處可減低曝曬、增加水氧量。
- **Grid segregation**
  Compartmentalized management will ensures the fishery production.
  格柵式區間
  方便漁產集中養殖管理。確保養殖生產量。
- **H-beam base frame**
  Pipeline duct combined in H-beam steel Grid lines prevent circuit leakage risk with upgrade option as Tourist passage.
  H 型鋼基架
  最佳管線槽道結合。減少線路泡在水中的漏電危險。亦可規劃維運養殖步道。





① CG 合成圖 ② The status of other aquaculture fisheries 其他養殖漁業的現況

AQUA-SOLAR iPV SMART Fishery

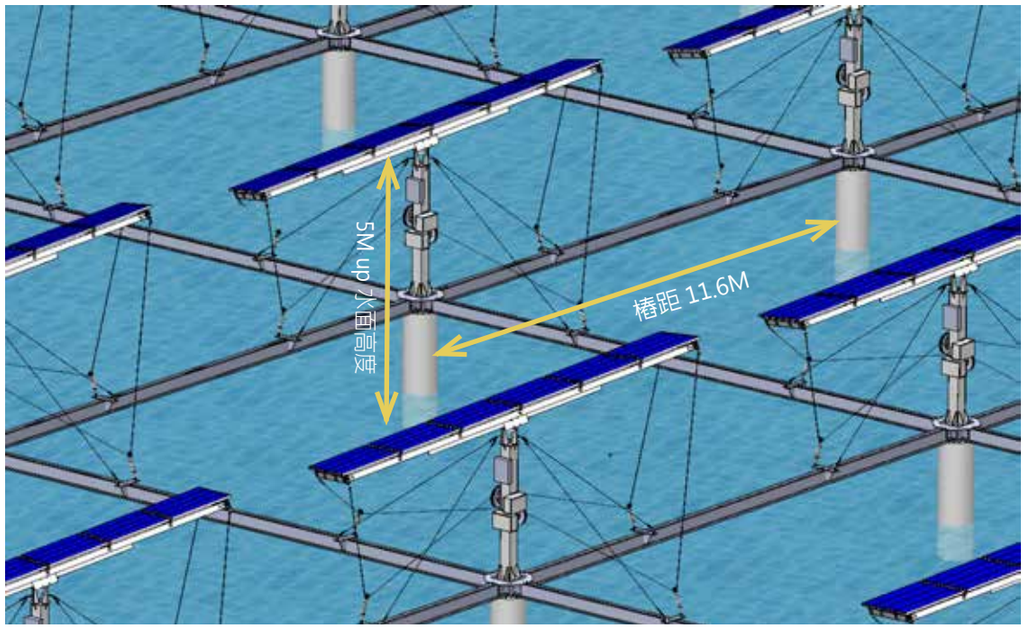
Friendly

漁光共生 友善環境 高環保、重生態、增效益

- **Eco Friendly**
  Only 1/5 amount of cement piling used compared to fixed tilt PV systems can cut down cost.
  高環保
  較固定式系統，僅 1/5 的水泥樁量，降低初始建置成本。除役後鋼架材仍保價值
- **Fishery Friendly**
  Extended pile spacing of 11.6M provides plentiful space for aquaculture and ecological activities below.
  重生態
  超大樁距 11.6M（邊樁 5M ），游刃有餘的空間，便利下方養殖、與生態生息。

other fixed piling system 其他水面固定型太陽能系統

- **Synergy Benefit**
  Module platform installed > 5M above water can absorb more reflective and diffuse lights to gain more power generation.
  增效益
  水面 5M 以上的架設高度，增加背面散射光接收，加乘提升發電量。



AQUA-SOLAR iPV SMART Fishery

Automation

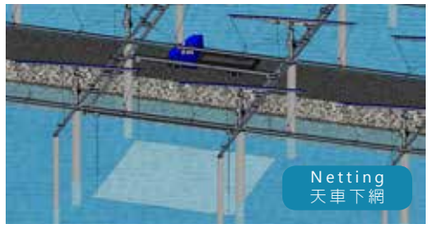
漁光共生 智慧養殖 基樁多元、自動化應用

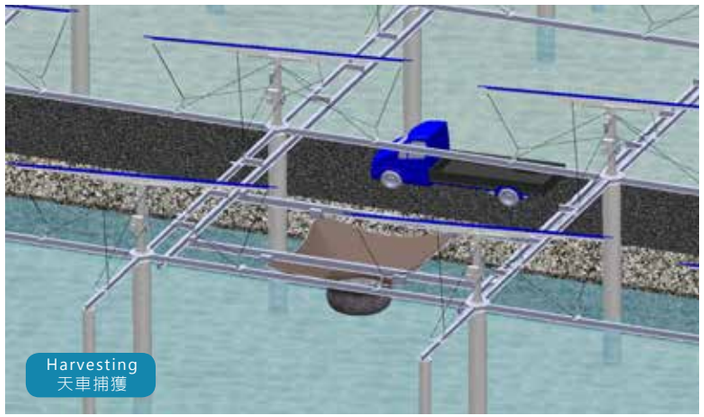
- **Overhead Crane Fishing**

  Advanced "overhead crane fishing" device can reduce the labor and danger.

  結合「天車捕魚」的先進設備

  降低人員勞力與危險，提供友善漁業養殖環境。





- **Smart Environment**

  Integrate "oxygenation system" & "heating system" to prevent frequent heat waves and chilling injury induced from climate change.

  整合「增氧」+「加溫」

  氣候變遷頻繁，防範熱浪與寒害。

- **Automatic Feeding**

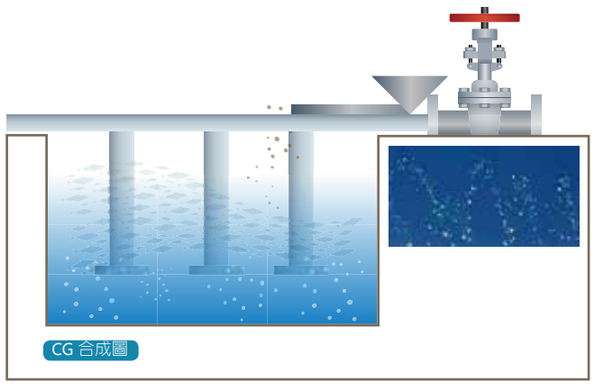
  Can plug with "automatic feeding" set up to feed with regular quantity at scheduled time.

  可外掛「自動投料」設備

  可以定時定量飼料投放。

"oxygenation and heating system"+"automatic feeding" design sketch

「增氧、加溫」+「自動投餌」設計示意圖



Built along with Pipeline duct combined in H-beam steel Grid lines

沿 H 型鋼基樁跨距架設及管線槽應用

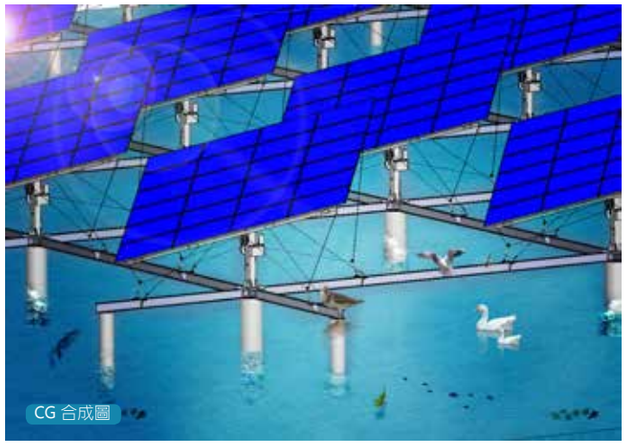
AQUA-SOLAR iPV SMART Fishery

High Tech

漁光共生 智慧養殖 科技化水產養殖

Extending iPVita monitoring over water quality, fishery weight plus smart automatic heating,feeding devices and etc., to achieve high aquaculture yield and advance towards smart IoT era.

iPVita 以原先能源環境監控，增以水質感測系統 + 智能電控，可遠端控制各項設備，達到科技水產養殖的效益，朝向 IoT 物聯網的智慧整合。



Water Quality
水 質 感 測

DO 含氧感測

PH 酸鹼感測

ORP 氧化還原感測

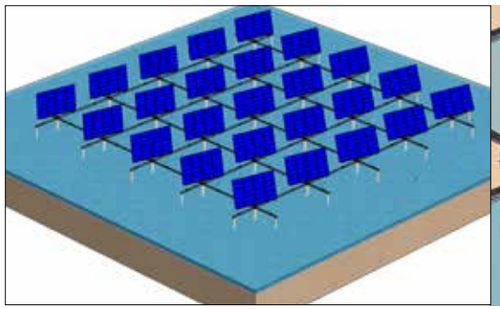
More for Ammonia, nitrous acid, phosphoric acid, suspended solids, salinity(salt water)... 另外水質監測：氨氮、亞硝酸、 磷酸、懸浮固體、鹽度（鹹水）. . . 等

iPVita™ Intelligent Elecy 智 能 電 控

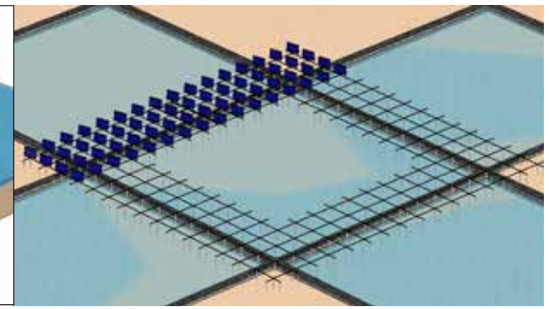
- **Feeder 投料機**
- **Oxygen-Heating 增氧加溫設備**
- **Overhead Crane 捕魚時機警示（天車）**

Wind、Temperature meters
風速、溫度感應

Array 矩陣排佈示圖



Block Array 塊狀式排佈



Along Embankment Array 沿土堤陣列

AGRO-SOLAR

BIG SUN Agriculture Solution

太陽光電 農光互補方案

Perfect Integration of Solar Power and Modern Agriculture

太陽光電與現代農業的完美結合

AGRO-SOLAR iPV SMART Farm

農光互補 iPV Bi-Dual System + H 型鋼 + 架高農棚

Highly elevated system structure preserves ample underlying space for agriculture activities.
40% coverage / 30° tilt operation / 3.5M height / 60% light penetration

架高的系統結構，增加下方農作經濟空間

40% 覆蓋率 / 30° 傾斜運轉 / 3.5M 高度 60% 透光率

Three-dimensional economy = effective output value

極致的三度空間經濟，有效擴增的農光產值

SOLAR-FARM

BIG SUN
Animal Husbandry Solution
太陽光電 畜光牧場方案

Nuclear free, guaranteed safety for human being and products
潔淨能源無核災危機，保障人及產物

SOLAR Farm iPV Solar Husbandry Farm

畜光牧場 iPV Bi-Dual System + H 型鋼 + 架高系統

Highly elevated system structure provides ample underlying space and shading for livestock farming and cooling, while accelerating half shade plant growth.
架高的系統結構讓動物在下方有充足的活動空間，陰影達到乘涼效果、加速植物成長。

① CG 合成圖 ② Traditional livestock breeding status 傳統畜牧養殖現況

Materials and metal structure can be recycled
再生材料及鋼骨架構，可回收再利用

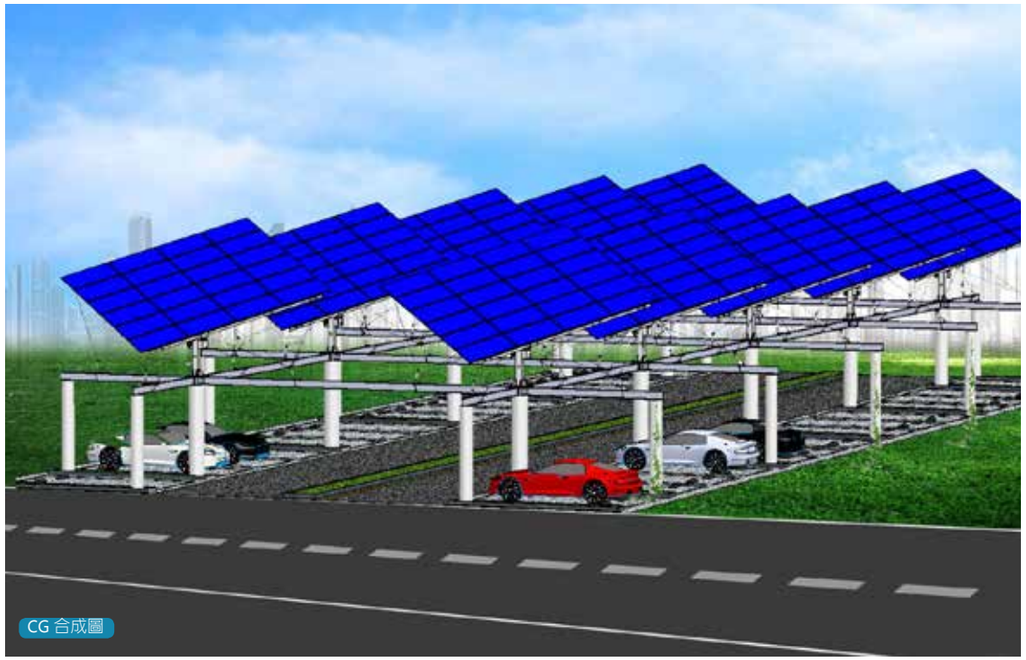
SOLAR CARPORT

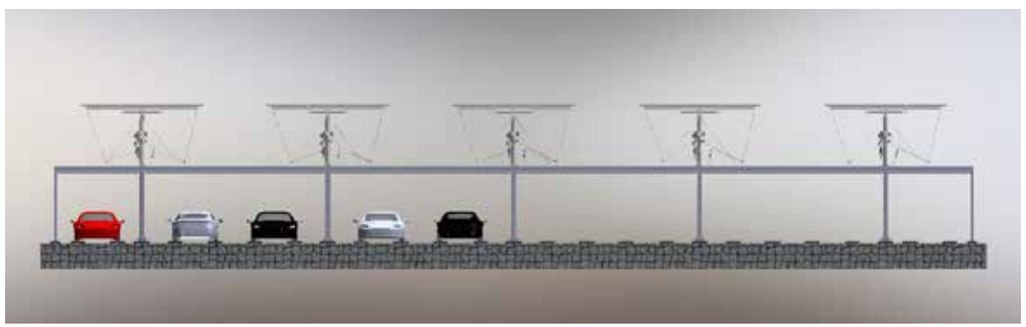
SOLAR Carport iPV Solar parking

光電車棚 iPV Bi-Dual System + H 型鋼 + 架高車棚

PV integrated with storage system can recharge electric vehicles.
Partial shading, resulted from 360° rotation tracker, can cool down the vehicles and passengers underneath.

發電更可結合儲能系統，提供下方電動車輛充電需求！
半日照運轉，更可讓下方車輛、人員有遮涼效果！





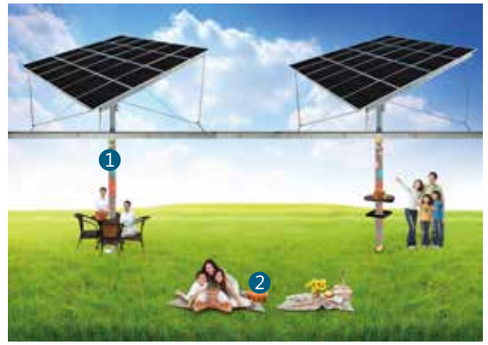
LANDSCAPE

BIG SUN
Value Added LANDSCAPE
太陽光電 景觀增值

Value Added LANDSCAPE
Leisure Space
景觀增值

SOLAR TREE
Provide the pole for graffiti and an underlying space for rest, recreation and sightseeing

太陽光電大樹
下方可柱體彩繪，並提供休憩、乘涼的空間運用



① Graffiti Pole 柱體彩繪 ② Recreation 休憩乘涼 ③ Parking space 停車空間遮陽 ④ Bicycle parking 腳踏車可規劃停放

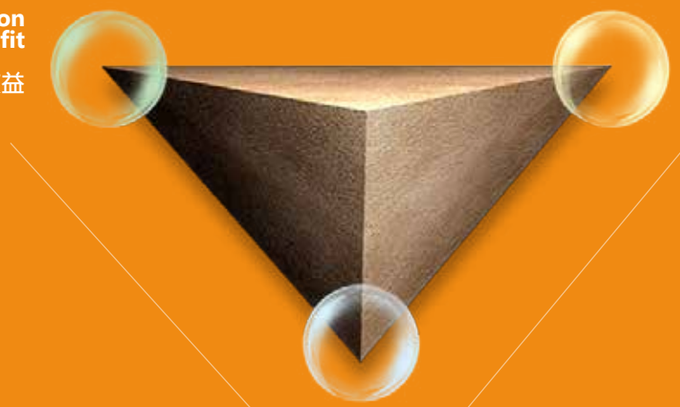
One Terrain With Multiple Yield
一 地 多 用

iPV Bi-Dual System

Fit for Agriculture, Fishery, Animal Husbandry,
Transportation and Landscape.

適用於漁、農、畜、交通結合

Automation
High Profit
自動化、高收益



Low Pollution
High Recycling
低汙染、高回收

Low Risk
High Yield
低危險、高產量

- Meet smart manufacturing policy
- Win with residents and eco friendly
- Ensure return of high efficiency Green energy investment
- 符合 政府智慧製造的政策
- 達到 與民互利、友善環境
- 確保 高效綠能發電的投資

MARKET & FUTURE
市場與未來

Global PV Market Scenarios 2017~2021 would have 4%~15% annual Growth – SolarPower Europe
全球太陽能市場預估 2017 年 ~ 2021 年年均增長率為 4% ~ 15% – SolarPower Europe

Global PV Tracker Capacity in 2021 would grow to 37.7GW, 21% annually from 2017 to 2021 – PV Magazine
全球太陽能追日系統 2017 年起以年增長 21%的成長，2021 年市場規模將達 37.7GW – PV Magazine

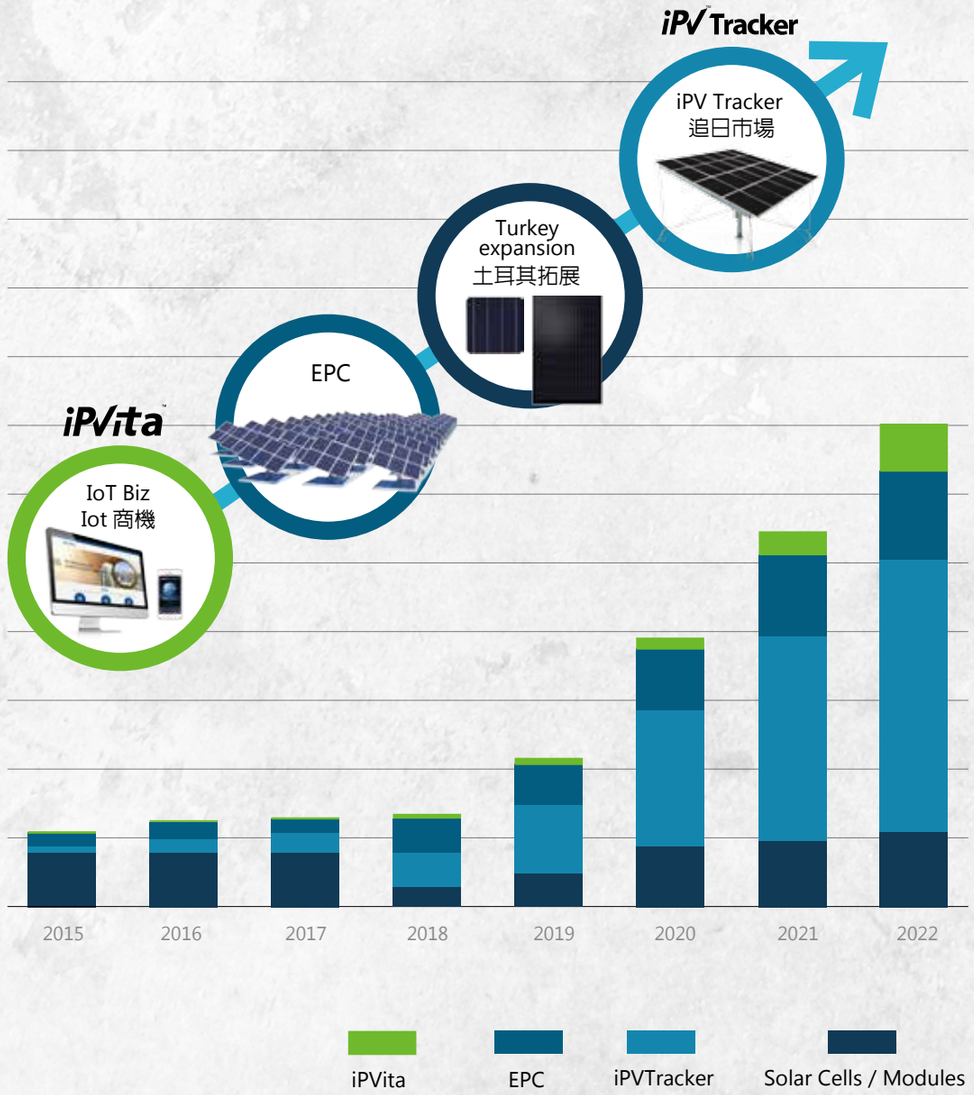
Tracker Market is adapting to bifacial module technology – PV Magazine
全球追日系統正積極結合雙面發電模組技術 – PV Magazine

Global Aqua-Solar Market is expected to reach US$ 842M by 2023 – Research and Markets
全球水面型太陽能市場預計 2023 年將達到 8.42 億美元
– Research and Markets

Solar installation growth in TURKEY was a significant 213% increase year-on-year - SolarPower Europe
土耳其市場的太陽能裝機量， 2017 年較前一年增長 213%
- SolarPower Europe

FUTURE OF BIG SUN

太陽光電的未來



FUTURE SOLAR POWER PLANT

24HR Solar Power System

24 小時供電系統

The mainstream of future Solar Power Plant

未來太陽能電廠主流

24

- Taiwan utility patent has been granted
  台灣新型專利已取得 **M504944**
- Taiwan invention patent has been granted
  台灣發明專利已取得 **I519268**
- Japan invention patent has been granted
  日本發明專利已取得 **JP6085049B**
- Global patents pending
  各國發明專利申請中

25%

Supplementary energy

補充能源

150%

Primary energy

主能源

Replace all energy, unlimited market potential

取代所有能源

市 場 無 限

GLOBAL PROJECTS
全球實績

Global accumulated more than **20MW** global installation,
follow the Tracking trend, **250MW** in design pipeline

全球已累積超過 **20MW** 建置實績經驗
追日趨勢，目前 **250MW** 設計規劃中

TOP 1 in Solar Tracker Market share in TAIWAN
台灣太陽能追日系統市佔**第一名**

TOP 1 in Solar Tracker Market share in JAPAN (one site has 4.4MW)
日本太陽能追日系統市佔**第一名**（單一案場 4.4MW）

The World's Largest DAT Roof-top Project (840kW - Dec.105)
世界第一大屋頂型雙軸追日電廠（840kW - 105 年屏東完工）

Japan Akagi yama Power Plant
日本赤城山電站

Capacity 系統容量 : 5 MW
Completed 完工年份 : 2017
Product 產品型號 : iPV Tracker T6024

Japan Hyogo Power Plant
日本小野電站

Capacity 系統容量 : 524 kW
Completed 完工年份 : 2014
Product 產品型號 : iPV Tracker T6024

Japan Shiga-ken Power Plant
日本滋賀大津電站

Capacity 系統容量 : 795kW
Completed 完工年份 : 2016
Product 產品型號 : iPV Tracker T6024

China Xinjiang TBEA Power Plant
中國新疆柳樹泉特變電站

系統容量 Capacity: 132 kW
完工年份 Completed: 2015
產品型號 Product: iPV Tracker T6024

Taiwan Tainan Power Plant I
台灣台南電站一期

系統容量 Capacity: 274.5 kW
完工年份 Completed: 2016
產品型號 Product: iPV Tracker T6006

Taiwan Pingtung Power Plant
台灣屏東電站

系統容量 Capacity: 840 kW
完工年份 Completed: 2015
產品型號 Product: iPV Tracker T6024

World's Largest Rooftop Dual-Axis Solar Power Station
全球最大屋頂型雙軸追日電廠

Taiwan Yulin Solar Farm A
台灣雲林農棚 A

系統容量 Capacity: 300 kW
完工年份 Completed: 2015
產品型號 Product: iPV Tracker T6024

Taiwan Yulin Solar Farm B
台灣雲林農棚 B

系統容量 Capacity: 374.4 kW
完工年份 Completed: 2014
產品型號 Product: iPV Tracker T6024

COLLABORATIONS
合作契機

Capital Investment
資 金 投 資

Project Cooperation
項 目 合 作

Appoint EPC
委 託 建 置

Co-License
授 權 經 銷

Product Trading
產 品 買 賣

Cross-boundary Integration / Solution
漁光、畜光、農光跨界合作

iPV™ Tracker

ONE Terrain for INFINITY Profit

一地多用、無限創能

多元發展、精驗全球

BIG SUN GROUP.

www.bigsun-energy.com

www.ipvtracker.com

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