SAM WO ENGINEERING HK LTD.

三和聯貿工程有限公司

項目編號
PROJECT NO.
CK-PV-SW-00

PV SYSTEM POWER GENERATION PROPOSAL
太陽能系統發電方案

Village House/Detached House Reference
村屋 / 獨立屋 參考方案

mail: samwo@swl-hk.com
u Village. Lantau Island, N.T.
Tel / Whatsapp : 6354 0681 / 5281 5326
Office Address: RM18, Block A, 11/F Winfield Industrial Building, Tuen Mun, N.T.

PROJECT PROCESS OVERVIEW (1)
項目流程概要(一)

YOU SHOULD LEARN MORE
您應該了解更多

THE FIRST STAGE 第一階段

01

Site Inspection
1.1 – Site Measurement
1.2 - System Design

現場視察
1.1 - 現場量度及記錄
1.2 - 規劃位置

02

Preliminary Work & Application
2.1 - PV Panels Arrangement & Frame Design
2.2 - System Generation & Estimation
2.3 - System Layout Drawing
2.4 – Landlord HKID/ BR & CLP Bill
2.5 - FiT Application to CLP/HKE
2.6 - Approval Acknowledgement Letter (About 20 Days)

前期工作及申請
2.1 - 太陽能排板及支架設計
2.2 - 估計太陽能發電量
2.3 - 繪製系統圖則
2.4 - 客戶提供電費單及身份證/商業登記
2.5 - 向電力公司提交申請上網計劃
2.6 - 等待太陽能批核通知書(約二十天)

The first stage:
Our company will come for site measurement, design drawing, and submit relevant document for FiT application. Our company will not charge any cost if the application is not successful.
(Landloard may consider the "Self-Sufficiency Plan")

第一階段: 本公司將會免費上門度尺、繪圖、提交相關文件申請。若不成功批核，本公司亦不會收取任何費用。(客人可改考慮「自給自足計劃」)

PROJECT PROCESS OVERVIEW (2)
項目流程概要(二)

YOU SHOULD LEARN MORE
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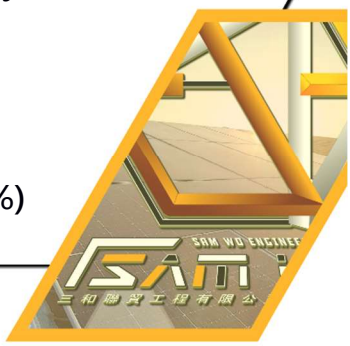
THE SECOND STAGE 第二階段

Signed Agreement
3.1 - PV System Proposals & Quotation
3.2 - Customer Confirmation & Signed Quotation
3.3 – Deposit Payment
(About 30% Deposit of the Project Amount)

簽約
3.1 - 提供計劃書及初步估計報價
3.2 - 客戶確認圖則並同意簽署
3.3 - 客戶支付首期費用(約工程總額 30%)



Construction & Installation
4.1 - System Equipment Ordering (about 1 month)
4.2 - Installation Programme & Schedule
4.3 - Removal of illegal Roof Structure
(In separated Quotation)
4.4 - Install the PV Frame & Install the Solar Panels
(about 1 week)
4.5 - Install the Solar Electrical System with T&C
(about 1 week)
4.6 - Customer to Pay the 2nd Payment & 3rd Payment
(about 60% of the total amount)

施工及安裝
4.1 - 訂購系統設備(約 1 個月)
4.2 - 雙方協議施工日期
4.3 - 拆除舊有天台支架(如有)
4.4 - 建造支架及安裝太陽能板(工期約 1 週內)
4.5 - 安裝太陽能電力系統及電力測試(工期約 1 週內)
4.6 - 客戶支付第二期及第三期費用(約總額 60%)

The second stage: The final installation plan will be based on the system capacity approved by the CLP/HKE and site environment.
第二階段: 最終施工方案會跟據電力公司所批出的系統量/現場環境而作出調整。

PROJECT PROCESS OVERVIEW (3)
項目流程概要(三)

YOU SHOULD LEARN MORE
您應該了解更多

THE THIRD STAGE 第三階段

Completion & Maintenance

5.1 - Submit Completion Report & WR1 to CLP/HKE (about 1 week)
5.2 - CLP/HKE to Install the Smart FiT Meters (about 3-6 months)
5.3 - CLP/HKE to Issue the System Completion Letter (about 2 weeks)
5.4 - System Handover to Landlord and Pay for Final Payment
5.5 - System Monitoring and Maintain Optimal Performance through the Online Platform

05

完工及維護

5.1 - 向電力公司提交完工報告 WR1 (約 1 星期)
5.2 - 等待電力公司安裝太陽能智能電錶 (約 3-6 月)
5.3 - 等待電力公司發出系統完成通知書 (約 2 星期)
5.4 - 客戶最終驗收及支付尾期費用 (餘額)
5.5 - 透過網上平台監察系統及維護最佳效能

06

Addition Work & Optimization (Optional Items)

Customers Could Further Decide to Optimize the Roof-top Installation as follows:

6.1 - Lighting & Weatherproof Socket Installation
6.2 - Glass/Aluminum enclosure
6.3 - Sunscreen, Anti-rusting and Color-changing Film for Solar System Electric Box
6.4 - Relocation and Optimization of Antenna
6.5 - Typhoon Season Fixing Inspection, System Checking and Solar Panel Cleaning Services

增添與優化(自選項目)

客戶可按照新規劃天台頂而自選進行如下:

6.1 - 增加照明燈/插座
6.2 - 玻璃/鋁質 圍封
6.3 - 太陽電箱防曬防鏽改色貼膜
6.4 - 天線架改位及優化
6.5 - 風雨季檢查, 系統檢查及清洗太陽能板服務

The third stage: After the customer's acceptance, the final balanced payment will be adjusted according to the final agreement between the two parties (if applicable).
第三階段: 客戶驗收後, 餘款根據雙方最終協議調整(如適用)

ESTIMATED INCOME & FINANCIAL ANALYSIS (1)
發電收益 及 財務分析(一)

YOUR SOLAR PANELS INCOME
您的太陽能板收益

ESTIMATED CAPACITY
估計發電量
9.28 kW

Power Supply Type 供電類型 : Three Phase 三相

PV Panel Model 太陽能板型號 : Hi-MO LR5-72HPH-580M
(↑ Detailed follow-up page 詳細後續頁)

Power Generation 太陽能板數發電量 : 580W x 16 pcs = 9.28kW
(↑ Subject to CLP/HKE Approval and Village House Size 根據 CLP/HKE 批核及呎吋作準)

Calculate Solar System Refund Profit 計算太陽能系統收益

1- The electricity power generated from the solar system from village house will be sold back to CLP at a price $4HKD per kWh.
在本年度(2023), 中電以港幣$4 每度電的價錢向村屋太陽能系統回購每天生產的電力。

2- According to CLP approval, If there is sufficient sunshine, your solar system can produce 9.28 kWh of electricity.
根據中電批核, 如果日照充足, 您的太陽能系統每小時可以生產...9.28 度電

3- According to King's Park Data, Hong Kong's annual sunshine time (including cloudy and rainy days) is about 3.91 hours per day on average.
根據京士柏數據顯示, 香港全年日照時間(已計算陰雨天), 全年平均 3.91 小時 /每日。

4- DC generated from the solar panel, the inverter converts it into AC and transfers electricity back to the electric CLP meter. In addition, the solar system will be affected by polluted air/dust/loss, etc., so the system efficiency is estimated at 90%.
太陽能板所生產的直流電經過隔離逆變器轉換成交流電, 供電回中電電錶, 再加上環境會有污濁空氣/塵埃/損耗等 情況影響, 系統的效能會有所折減, 所以每年效能以九成計算。

5- Your PV system will generate a daily production of...即是您的太陽能系統將擁有大約每天生產...

9.28kW X 3.91(Daylight 日照時間) X 90%(Efficacy 效能) = 32.656 kWh/度電

ESTIMATED INCOME & FINANCIAL ANALYSIS (2)
發電收益 及 財務分析(二)

PV System Payback Scheme 太陽能回本計劃

The Feed in Tariff Scheme is an agreement between the power company and you. Once the acknowledgement letter issued, the FiT Rate will be fixed until End of 2033. The PV frame is legal and practical to be installed on the rooftop area with solar system FiT scheme. It is definitely an investment that serves multiple purposes and win-win for all parties. The future you must thank to the present one who making wise choice and get this early benefit.

中電可再生能源回購計劃, 是政府和電力公司與您簽定的合約。一經簽訂, 回購電價將維持不變直到 2033 年底止。既有合法而實用的天台使用空間, 亦穩定回報又低風險, 絕對是一舉多得,多方共贏的投資。將來, 您必定會感謝今天的自己, 作出明智的選擇, 早做早得益。

The following data are preliminary estimation and are for reference only. The actual situation shall be subject to the actual signing date, actual sunshine and environmental factors.

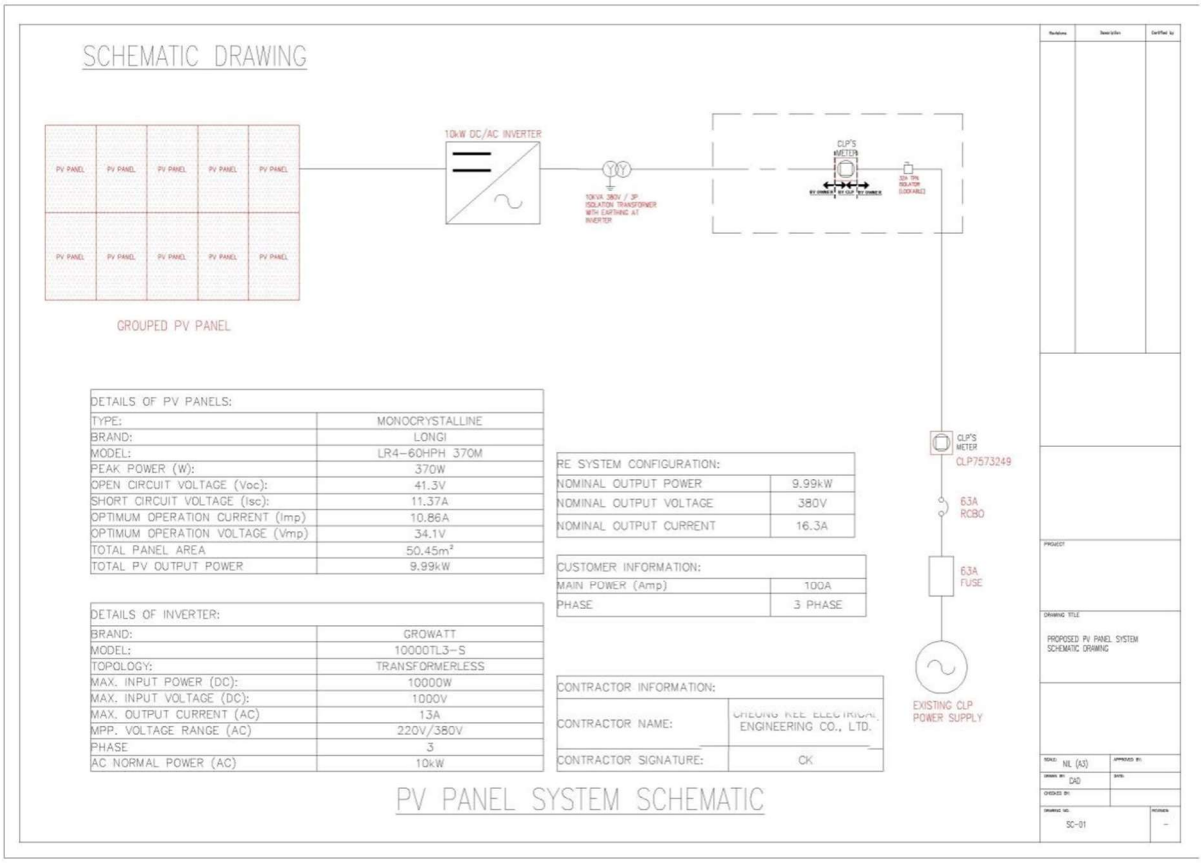
以下收益數據為初步估算,僅供參考。實際情況需按確實簽約日 、確實日照及環境因素而作準。

Power Generation 發電量	Daylight 日照時間	DAYS 全年日	Efficiency 效能	Refund Value 回購價
9.28 kWh / 度	3.91 HR / 時	365	90%	HK$4

Average Annual Income 每年平均回報收益		
HK$47,678		
Months Left for FiT Scheme 電價回購剩月		
Estimated Signing Date 估計簽約日期	End Date 回購結束日期	
2023-09-30	2033-12-31	123 M/月
Total Payback Value 總回報收益		
HK$488,702		
Average Monthly Income	每月平均收益	HK$3,973
PV System Cost	工程投資額	HK$160,000
Payback Period	回本年期	3.356 YR/年
Annual Rate Return	年回報率	29.80%
Net Profit Return 淨利潤回報額		
HK$328,702		

PROJECT INFOMATION & DESIGN(1)
項目資料 及 設計圖(一)

SCHEMATIC DRAWING



DETAILS OF PV PANELS:	
TYPE:	MONOCRYSTALLINE
BRAND:	LONGI
MODEL:	LR4-60HPH 370M
PEAK POWER (W):	370W
OPEN CIRCUIT VOLTAGE (Voc):	41.3V
SHORT CIRCUIT VOLTAGE (Isc):	11.37A
OPTIMUM OPERATION CURRENT (Imp)	10.86A
OPTIMUM OPERATION VOLTAGE (Vmp)	34.1V
TOTAL PANEL AREA	50.45m²
TOTAL PV OUTPUT POWER	9.99kW

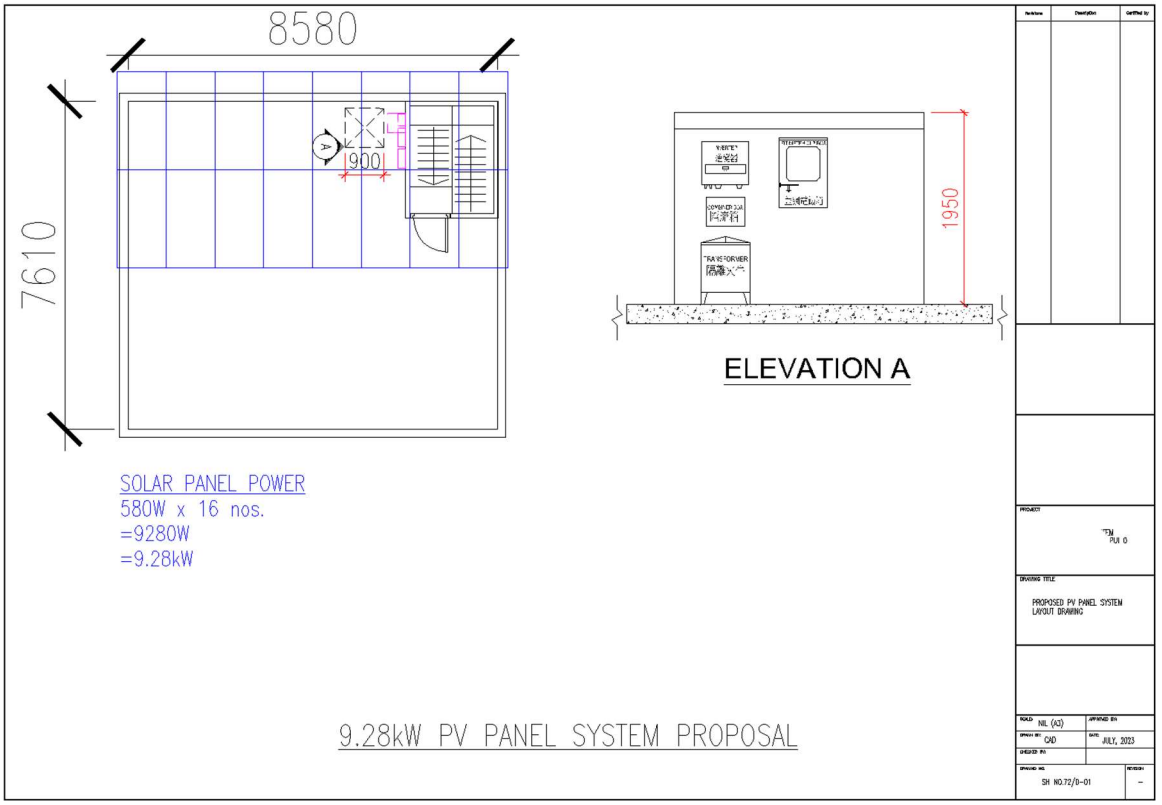
DETAILS OF INVERTER:	
BRAND:	GROWATT
MODEL:	10000TL3-S
TOPOLOGY:	TRANSFORMERLESS
MAX. INPUT POWER (DC):	10000W
MAX. INPUT VOLTAGE (DC):	1000V
MAX. OUTPUT CURRENT (AC)	13A
MPP. VOLTAGE RANGE (AC)	220V/380V
PHASE	3
AC NORMAL POWER (AC)	10kW

RE SYSTEM CONFIGURATION:	
NOMINAL OUTPUT POWER	9.99kW
NOMINAL OUTPUT VOLTAGE	380V
NOMINAL OUTPUT CURRENT	16.3A

CUSTOMER INFORMATION:	
MAIN POWER (Amp)	100A
PHASE	3 PHASE

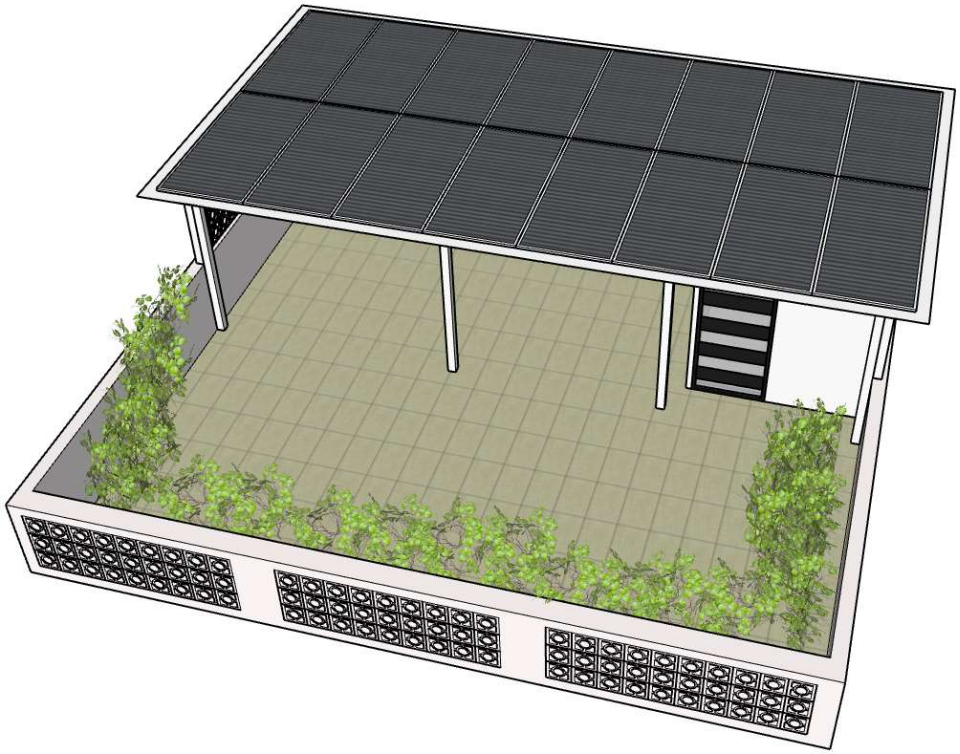
CONTRACTOR INFORMATION:	
CONTRACTOR NAME:	CHEUNG KEE ELECTRICAL ENGINEERING CO., LTD.
CONTRACTOR SIGNATURE:	CK

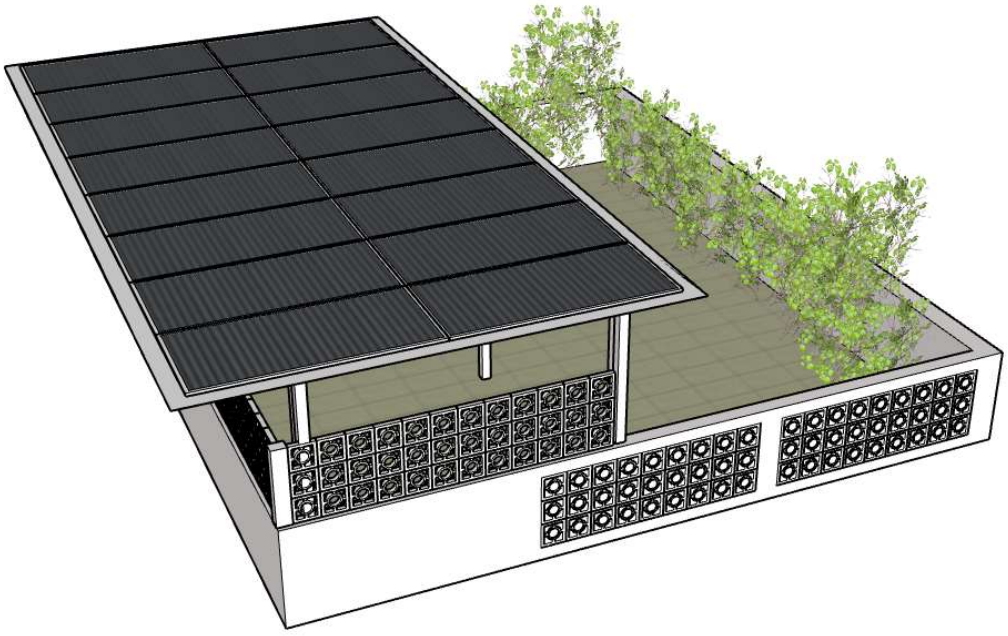
LAYOUT DRAWING



PROJECT INFOMATION & DESIGN(2)
項目資料 及 設計圖(二)

3D MODELLING





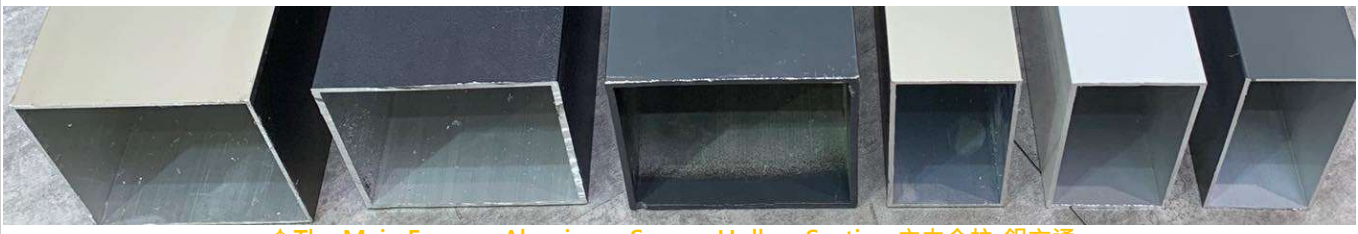
PROJECT INFO & MATERIALS & EQUIPMENT
項目資料 及 物料與設備

THE QUALITY YOU DESERVE
您值得擁有的質量

Roof Frame Structure 天台支架頂結構

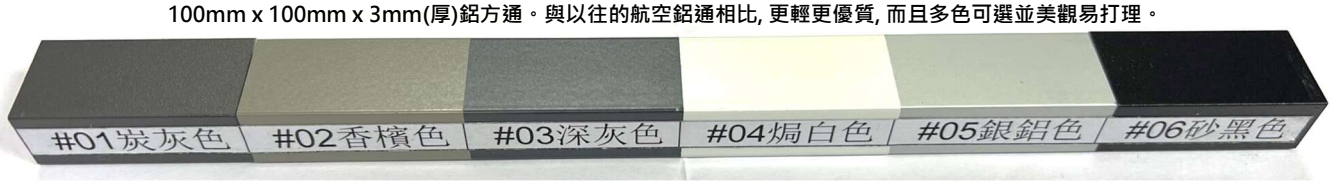
The total load-bearing capacity, height, width, resistance, sunlight range, drainage gradient, and material quality of all structures have been professionally calculated, assembled by qualified aluminum engineer, and the frame will be endorsed by Authorized Person (AP) and submit to LD.
所有結構的總承重力, 高度, 闊度,受阻力,日照幅度,排水角度,用料質量,
均經過專業計算, 經合資格鋁質工程技術員組裝, 並由合資格人任簽批(AP)

The following frame works materials are well chosen for you, and are well received by customers.
我們為您精心挑選以下建築材料, 並深受各大小客戶一至好評。



↑ The Main Frame - Aluminum Square Hollow Section 主力企柱-鋁方通

100mm x 100mm x 3mm (thick) aluminum square hollow section for frame work.
Compare with the previous aerometal aluminum system, Aluminum SHS is lighter with better quality in multi-color options, aesthetics and easier to be handled.
100mm x 100mm x 3mm(厚)鋁方通。與以往的航空鋁通相比, 更輕更優質, 而且多色可選並美觀易打理。



↑ Heat Insulation Aluminum Sandwich Board 隔熱鋁夾芯板

Installed with 50mm (thick) heat-insulating aluminum sandwich boards, the roof top could be more thermal insulating, waterproof, flexible, stable, and beautiful.
配合 50mm(厚)隔熱鋁夾芯板, 令天台頂更具隔熱隔音和防水功效, 提供靈活的可塑性,且穩固又美觀 。

↑ Aluminum Water Baffles And Gutters/Pipes 鋁擋水板及排水槽/喉

Installed 100mm x 100mm aluminum water baffle with drainage gutter pipe could increase the drainage efficiency on the roof.
配合 100mm x 100mm 鋁擋水板及排水槽/喉, 增加天台頂集中而有效的排水效率。

↑ Dedicated Aluminum Alloy Pressure Bars 專用鋁合金壓條

Fixed with dedicated aluminum alloy pressure bars and multi-point M6 stainless steel self-tapping screws, the framework will be more effective in wind resistance and leakage resistance.
採用專用鋁合金壓條與多點 M8 不鏽鋼六角頭自攻螺絲 , 兼備有效的抗風阻,排水流設計, 將太陽能板穩固而平整佈置。

PROJECT INFO & MATERIALS & EQUIPMENT
項目資料 及 物料與設備

THE QUALITY YOU DESERVE
您值得擁有的質量

Solar Photovoltaic System 太陽能光伏發電系統

The electrical systems including wiring, electrical equipment and installation are fully complied with EMSD standard.
The system design, installation and test would be endorsed by the qualified electrical contractor. (REC)

所有電力系統, 包括線路,電箱,電制, 電氣材料及佈置, 均符合機電工程署標準,經合資格電力技術員組裝, 並由合資格電業承辦商設計,測試及簽批完工報告(WR1)

↑ LONGi's Ultra-High-Value PV Panel 隆基太陽能板

LONGi's ultra-high-value PV panel could generate great benefit to customer with its advantages of higher power, lower degradation and higher reliability. (Details please refer to the catalogue)
隆基超高價值的太陽能模組產品以其更大功率、更低衰減、更具可靠性等優勢,不斷惠及客戶利益及及地方經濟。(官方詳細附頁)

DC Photovoltaic Box 直流電 光伏箱

A stainless steel case, equipped with DC 2P MCB of corresponding voltage, DC surge protector, DC diode could provide the system with stable current and insulation protection.
設有不鏽鋼箱作保護, 配備對應電壓的直流兩位微型斷路器, 直流浪涌防雷保護器, 直流二極管, 有效穩定電流及絕緣保護 。

GROWATT Inverter 古瑞瓦特 光伏逆變器

GROWATT photovoltaic inverter, built-in DC side secondary lightning protection, maximum conversion efficiency 98.4%. (Details please refer to the catalogue)
古瑞瓦特 光伏逆變器, 內置直流側二級防雷, 最大轉換效率 98.4%。(官方詳細附頁)

AC Meter Box 交流電 電錶箱

A stainless-steel case, the Fit CLP/HKE dual meter also installed inside the AC meter box. Equipped with a waterproof three-phase isolator, leakage and overcurrent integrated protector, providing separation protection between solar power and grid power.
設有不鏽鋼箱保護, 電力公司的雙供電電錶亦安裝於此。配備對應電壓的防水三相四位刀制, 三相四位漏電和過電流一體式保護器, 提供太陽能電與市電的分隔保護作用。

380V Photovoltaic Isolation Transformer 380V 光伏隔離變壓器(PV 火牛)

A weatherproof type of stainless-steel case and fulfill the EMSD requirements, it isolates the solar DC system and the in-house power system and more protection for equipment and systems.
採用不鏽鋼箱作保護,防水防潮,符合機電處要求,可以阻止太陽能直流分量和漏電流進入市電電網，更具保護設備和系統作用。

You could choose to adhesive a color film to the stainless-steel box to match the color of the wall, making it easier to clean and handle, or you could also choose to install an aluminum protective enclosure. (Optional item)
可自選將不鏽鋼箱貼改色膜, 配合牆身顏色, 更易清潔打理,或亦可增建鋁質保護圍封。(非必要項目)

ABOUT US & COMPANY PROFILE
關於我們 與 公司簡介

LANTAU SOUTH (RESTRICTED AREA) CONTRACTOR
大嶼山南(禁區) 專區承辦商

關於我們 - 三和聯貿工程有限公司

本公司成立於 2015 年，由公司創辦人 Alan Chan 先生，結集志同道合的工程團隊，為各大小公私機構提供專業的工程顧問、申請、批核、圖則及監測等相關業務。

隨著可再生新能源時代的來臨，太陽能系統的技術逐漸成熟和普及化，為滿足各界客戶對新能源日漸增長的服務需求，我們亦響應業界致力推廣的潔淨而環保的新能源系統。
本公司的工程團隊經多年來對可再生能源的技術發展，現已達到具可靠、合法、高效益的建設技術，亦深得各界客戶的信賴與支持。

我們繼續與時並進，希望將新動力、新思維、新技術，帶進及優化本區新系統新氣象。期望我們能為您們服務，共同打造環保、潔淨、新能源都市，一起邁向可再生新能源時代。

NICE TO MEET YOU
幸會認識您

About Us - Sam wo Engineering HK., Ltd

Our company was established in 2015 by our founder, Mr. Alan Chan. He brought together a like-minded engineering team to provide professional engineering consulting, application, approval, drawing and monitoring services for various public and private organizations.

With the advent of the renewable energy era, solar energy system technology is gradually maturing and popularizing. To meet the growing service needs of customers for new energy, we also respond to the industry's commitment to promote clean and environmentally friendly new energy systems. Our engineering team has been developing renewable energy technology for many years, and has now achieved reliable, legal, and high-efficiency construction technology, which has won the trust and support of customers from all walks of life.

We continue to keep up with the times, hoping to bring new power, new thinking, and new technology into our area to optimize the new system. We hope that we can serve you and work together to build an environmentally friendly, clean, new energy city, and step into the renewable energy era together.

ABOUT US & SERVICE SCOP
關於我們 與 服務範疇

Contact us : Mr. Alan Chan 6354 0681

LANTAU SOUTH (RESTRICTED AREA) CONTRACTOR
大嶼山南(禁區) 專區承辦商

Electrical System Installation / Upgrade 3 Phase Power / Maintenance&Inspection
電力系統安裝 / 單相轉三相電錶 / 維修保養檢查

- Apply for single-phase upgrade to 3-phase power meter from CLP
- Act as an agent for power system design drawings and layout drawings
- Qualified registered electrical contractor approval (WR1)
- Addition & improvement, inspection & maintenance of electrical equipment
- Consulting on power system application and various maintenance

- 代辦出圖向中電申請單相轉三相電錶
- 代辦出電力系統設計圖 、檢視圖
- 合資格註冊電業承辦商簽批(WR1)
- 增加與改善 、檢查及維修電力設備
- 咨詢電力系統申請及各類維護

NICE TO MEET YOU
幸會認識您

Solar Panel System Installation / Maintenance & Inspection
太陽能系統安裝 / 維修保養檢查

- Apply for the Renewable Energy Repurchase Program to CLP
- Qualified registered structural engineer signature (AP)
- Qualified registered electrical contractor approval (WR1)
- Acting on behalf of demolition and reporting of lifting of UBW
- Existing PV system upgrade, maintenance, inspection & cleaning
- Optimizing the Ex. roof supports such as enclosure, adding equipment
- Grid-connected buyback or off-grid power storage of PV system
- Consultation on PV system application & sustainability

- 代辦出圖向中電申請再生能源回購計劃
- 合資格註冊結構工程師簽批(AP)
- 合資格註冊電業承辦商簽批(WR1)
- 代辦拆卸及申報解除僭建令
- 現有 PV 系統升級 、維修 、檢查及清洗
- 優化現有天台支架如圍封,增加設備
- 並網回購或離網儲電 PV 系統
- 咨詢 PV 系統申請及可持續發展性

EV Charging Facilities Installation / Additional CLP Meter
電動車充電設備安裝 / 額加中電分錶

- Apply for additional electricity sub-meters from CLP
- Qualified registered electrical contractor approval (WR1)
- Research & plan the efficiency optimization of EV charging equipment
- Installation or upgrade of various EV charging equipment
- Single-phase Power or 3-phase Power or PV system configuration EV charger power supply
- Consulting on application for EV charging system and sustainability

- 代辦出圖向中電申請額外電力分錶
- 合資格註冊電業承辦商簽批(WR1)
- 研究規劃車充設備效能最優化
- 各類車充設備安裝或升級
- 單相電/三相電/PV 系統配置車充供電
- 咨詢車充系統申請及可持續發展性

ABOUT US & JOB REFERENCES
關於我們 與 工程記錄

FOR YOUR REFERENCE
供您參閱

LANTAU SOUTH (RESTRICTED AREA) CONTRACTOR
大嶼山南(禁區) 專區承辦商

Project Case Reference 項目案例參考

According to your project, we provide the following related cases: 跟據您的項目, 我們提供以下相關案例:

Project Location: Yuen Long

In this case, the customer originally found a private solar company for a renewable energy buyback program system. It is a pity that the former engineering company not only failed to get approval from CLP, but also reduced the installed solar panels/electric boxes to "decorations", and he also spent a lot of money in vain. In the end, misfortunes never come singly, and I received an unauthorized building order, which really made me want to cry.

Thankfully, he finally found our company. We not only relieved him of the troubles of unauthorized building orders, but also improved and newly established a series of services including:
1. Demolition of unauthorized structures and removal of unauthorized building orders/ 2. New roof insulation and installation of solar grid-connected system/ 3. After successful installation of solar energy meters, new aluminum glass enclosures for roof houses/ 4. Addition and improvement of roofs Electric power equipment/ 5. Apply for additional configuration of three-phase medium electricity sub-meter and three-phase electric fast car charger/ 6. Revive the solar panel system of the former engineering company and change it to a power storage PV system.

The client can finally enjoy the cool and practical roof space with peace of mind, and also has the income from the repurchase of CLP Renewable Energy. The fast charging of electric vehicles can also calculate the electricity bill independently from the meter, so there is no need to worry about the problem of superimposing the electricity bill with the household electric meter. In the future, he fully felt the multiple advantages brought by the one-stop new source system, and his troubles in the past were easily solved, and he had the last laugh. Now, we hope to do the same for you, to see your smile, forever...

項目地點: 元朗

在本案例中, 客人原先找了坊間太陽能公司進行再生能源回購計劃系統。可惜的是, 前工程公司不但沒有成功得到中電批核, 更令已安裝的太陽能板/電箱淪為「裝飾品」,他亦花費了一大筆冤枉錢。最後更禍不單行地收到僭建令,真讓人欲哭無淚。

非常慶幸, 他最後找到了我們的公司。我們不但為他解除僭建令的煩惱, 更一條龍完善及新設一系列服務包括:
1.清拆僭建物 及 解除僭建令 / 2.新建天台隔熱頂 及 安裝太陽能並網系統 / 3.成功掛太陽能電錶後, 天台屋新置鋁質玻璃圍封 / 4.增加和改良天台電力設備 / 5.申請額外配置三相中電分錶 及 三相電快速汽車充電機 / 6.復活前工程公司的太陽能板系統, 改為儲電式 PV 系統。

該客戶終於能安心地享用涼快而實用的天台空間, 又有中電再生能源回購收入。電動車快速充電更可以獨立分錶計算電費, 不用擔心與家居電錶疊加電費的問題。日後, 他充份感受到一站式新源系統帶來的多方優勢, 以往的煩惱迎刃而解, 笑到最後。

現在,我們希望亦能為您做到, 同樣可以看到您的笑容,直至永遠...

ABOUT US & JOB REFERENCES
關於我們 與 工程記錄

FOR YOUR REFERENCE
供您參閱

LANTAU SOUTH (RESTRICTED AREA) CONTRACTOR
大嶼山南(禁區) 專區承辦商

Project Case Reference 項目案例參考












ABOUT US & JOB REFERENCES
關於我們 與 工程記錄

SPECIAL THANKS
特別鳴謝

LANTAU SOUTH (RESTRICTED AREA) CONTRACTOR
大嶼山南(禁區) 專區承辦商

Over 30 neighboring customers have installed our solar system and are benefiting from it.
已超過 30 間鄰里客戶,安裝了我們的太陽能系統並在得益其中。

Special thanks to Lantau South (Restricted Area) Neighborhood Customers
特別鳴謝大嶼山南(禁區)的鄰里客戶

-No.54, Shui Hau Village, Lantau, N.T.
-No.27A, Shui Hau Village, Lantau, N.T.
-No.19B, Shui Hau Village, Lantau, N.T.
-DD325 LOT 221, 410 Shui Hau Village, Lantau, N.T.
-No165, Tai Ping Street Tai O, Lantau, N.T.
-No.8B, Tong Fuk Village, Lantau, N.T.
-No.35, Tong Fuk Village, Lantau, N.T.
-No.6J, Tong Fuk Village, Lantau, N.T.
-No.8F, Tong Fuk Village, Lantau, N.T.
-No.8, Shui Hau Village, Lantau, N.T.
-No.3D, Shui Hau Village, Lantau, N.T.
-No.83, Shui Hau Village, Lantau, N.T.
-No.19C, Shui Hau Village, Lantau, N.T.
-DD326 LOT 367, Shui Hau Village, Lantau, N.T.
-Leyburn Villas, Cheung Sha, Lantau, N.T. (Total13 Houses)
-No.4A, Pui O, Lantau, N.T.
-No.151, Tong Fuk Village, Lantau, N.T.
-No.47B, Pui O, Lantau, N.T.
-No176, Tai O, Lantau, N.T.
-No.665 Section B, Tong Fuk Village, Lantau, N.T.
-No.65A Tong Fuk Village, Lantau, N.T.
-No.90, Mui Wo Tai Tei Tong, Lantau, N.T.

Now, we have to say thanks to you　現在,我們要說聲鳴謝的 就是您

Customers with Special thanks　特別鳴謝的客戶

-No.380A, Nai Wai,Tuen Mun, N.T.
-No.410, Shun Fing Wai,Tuen Mun, N.T.
-No.409, Shun Fing Wai,Tuen Mun, N.T.
-No.307, Ha Hang, Tai Po, N.T.
-No.81, Sheng Che Tsuen, Shek Kong, Yuen Long, N.T.
-No.153B, Shui Tsiu Lo Wai, Shap Pat Heung, Yuen Long, N.T.

三和聯貿工程有限公司
SAM WO ENGINEERING HK LIMITED

PV SYSTEM PAYBACK SCHEME OVERVIEW 太陽能回本計劃總覽
Village House / Detached House Reference 村屋/獨立屋 參考

The following data are preliminary estimation and are for reference only. The actual situation shall be subject to the actual signing date, actual sunshine and environmental factors.
以下收益數據為初步估算,僅供參考。實際情況需按確實簽約日、確實日照及環境因素而作準。 16 September 2023

Power Supply Type	供電類型	Three Phase	三相
PV Panel NO.	太陽能板數	16	pcs/件
PV Panel Watt	太陽能板瓦數	580	W/瓦
PV Power Generation	太陽能板發電量	9.28	kW/度
Daylight	日照時間	3.91	HR/時
Days of the year	全年日	365	D/日
Efficiency	效能	90	%
Annual Power Generation	年發電量	11919.5568	kW/度
CLP/ HKE Refund Value	電力公司回購價	$4	HKD
Average Monthly Income	每月平均收益	$3,973	HKD

Average Annual Income 每年平均回報收益

HK$47,678

Months Left for FiT Scheme 電價回購剩月

Estimated Signing Date 估計簽約日期	End Date 回購結束日期	Months Left 剩月	
2023-09-30	2033-12-31	123	M/月
Total Power Generation	總發電量	122175.4572	kW/度

Total Payback Value 總回報收益

HK$488,702

PV System Cost	工程投資額	HK$160,000	
Payback Period	回本年期	3.356	YR/年
Annual Rate Return	年回報率	29.80%	

Net Profit Return 淨利潤回報額

HK$328,702

新界屯門建群街3號永發工業大廈11樓A室18號
Room 18, Unit 11A, 11/F, Winfield Industrial Building, 3 Kin Kwan Street, Tuen Mun, N.T.
Website: www.swl-hk.com
Email:samwo@swl-hk.com

Hi-MO 6
Explorer

LR5-72HTH
560~585M

- Based on M10 wafer, best choice for ultra-large power plants
- Excellent outdoor power generation performance
- High module quality ensures long-term reliability

12 12-year Warranty for Materials and Processing

25 25-year Warranty for Extra Linear Power Output

Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO9001:2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

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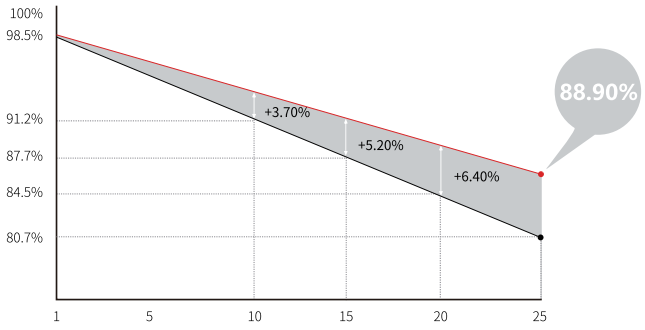
Hi-MO 6

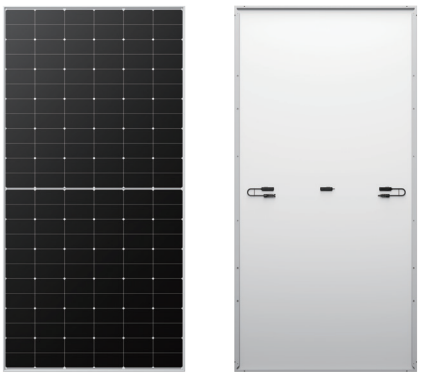
LR5-72HTH 560~585M

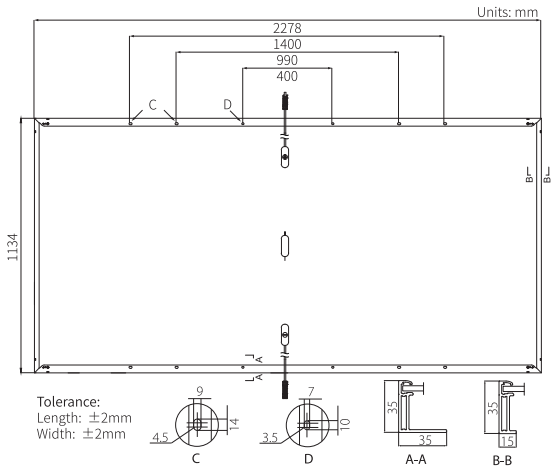
22.6%	0~3%	<1.5%	0.40%
MAX MODULE EFFICIENCY	POWER TOLERANCE	FIRST YEAR POWER DEGRADATION	YEAR 2-25 POWER DEGRADATION

Additional Value

25-Year Power Warranty







Mechanical Parameters

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm², +400, -200mm/±1400mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	27.5kg
Dimension	2278×1134×35mm
Packaging	31pcs per pallet / 155pcs per 20' GP / 620pcs per 40' HC

Electrical Characteristics

STC : AM1.5 1000W/m² 25°C NOCT : AM1.5 800W/m² 20°C 1m/s Test uncertainty for Pmax: ±3%

Module Type	LR5-72HTH-560M		LR5-72HTH-565M		LR5-72HTH-570M		LR5-72HTH-575M		LR5-72HTH-580M		LR5-72HTH-585M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	560	418	565	422	570	426	575	430	580	433	585	437
Open Circuit Voltage (Voc/V)	51.61	48.46	51.76	48.60	51.91	48.74	52.06	48.88	52.21	49.02	52.36	49.16
Short Circuit Current (Isc/A)	13.94	11.26	14.01	11.31	14.07	11.36	14.14	11.42	14.20	11.47	14.27	11.52
Voltage at Maximum Power (Vmp/V)	43.46	39.66	43.61	39.79	43.76	39.93	43.91	40.07	44.06	40.20	44.21	40.34
Current at Maximum Power (Imp/A)	12.89	10.55	12.96	10.61	13.03	10.67	13.10	10.72	13.17	10.78	13.24	10.84
Module Efficiency(%)	21.7		21.9		22.1		22.3		22.5		22.6	

Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	UL type 1 or 2 IEC Class C

Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.230%/°C
Temperature Coefficient of Pmax	-0.290%/°C

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No.8369 Shangyuan Road, Xi'an Economic And Technological Development Zone, Xi'an, Shaanxi, China.

Web: www.longi.com