

Money You SHOULDN'T Pay
Read This, Ask Us!

Energy Saving
with Our Solutions : **61%**

Taiwan Green Demo House

台灣綠色商品 Demo 屋

Go Green,
Act Greener!



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About Taiwan Green Demo House

The global green economy is coming and green business revolutions are ready to explode! Encouraged by the Taiwan Government's green growth policies, enterprises are increasingly mobilizing their capacities to access overseas' markets by participating in international exhibitions. At these exhibitions elaborate decorations are commonly used to showcase the most innovative green products and services. However, at the end of the exhibition the costly decorations are usually dismantled and scrapped, which is neither economic nor environmentally friendly!

The **Taiwan Green Demo House** idea was conceived by the Green Trade Project Office (GTPO), which has been promoting green trade work since 2011. Breaking from the traditional trade show model, the Taiwan Green Demo House was launched in 2013 and has quickly been recognized internationally for its innovative modular approach to delivering various green quality products/services.



▲ Taiwan Green Demo House: Living Room



▲ Taiwan Green Demo House: Commercial Space

Design Concept

The Demo House is based on three key principles: 'module,' 'easy to assemble' and 'reusable.' Besides, the design concept of Taiwan Green Demo House is to present the applications of the high-quality green products and services in a "Reality" way. Along with the ICT control system, visitors to the Demo house, just like they are at real home, offices, retailers or any format of human environment, can experience the products and services contributing to the environmental protection, energy saving, and security in daily life.



▲ Taiwan Green Demo House Road Shows: 2013~2015

LEED & Demo House

LEED (Leadership in Energy and Environmental Design) was established by the U.S. Green Building Council (USGBC), and is one of the world's most renowned green building certification programs. It provides third-party verification that a building has been designed and built using green practices. LEED enables projects to save money, conserve energy, reduce water consumption and drive innovation. With projects in more than 147 countries, LEED has become a globally recognized benchmark for green buildings.

Taiwan is committed to green building development which is an integral part of the rapidly growing green industry. There are various Taiwanese green products that have been produced in line with international practices and can meet LEED requirements. These exciting and innovative products can assist clients in securing credits in LEED projects. Accordingly, the products in the Green Demo House have been categorized by LEED program to enable clients to easily source the products that they require which can help them achieve LEED certification.



Energy Modeling & Demo House

Energy Modeling for Buildings will help stakeholders cultivate the best energy saving strategies. The modeling is based on a computer program, which analyzes a number of inputs, including climate data, building design, HVAC design, etc., to calculate the building's energy

consumption and anticipated energy bills. It will then propose energy saving strategies based on the return on investment through the application of energy saving products. The descriptions of the products that are on display in the Taiwan Green Demo House demonstrate their green credentials and suitability for a wide variety of applications.

Baseline Model

	MWh/year	US\$/year
Heating	292	13,423
Cooling	163	23,443
Fans&Pumps	30	4,349
Lights	315	45,374
Equipment	206	29,722
Renewable	-	-
Total	1,006	116,311

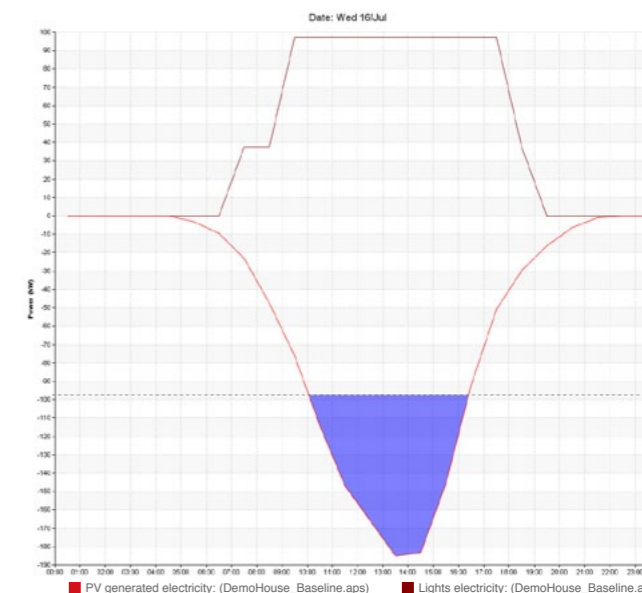
Total Solution Result

	MWh/year	US\$/year
Heating	464	21,344
Cooling	57	8,179
Fans&Pumps	29	4,205
Lights	196	28,224
Equipment	206	29,722
Renewable	321	46,214
Total	631	45,460
Saving	375	70,851

Building Integrated Photovoltaics & Fuel Cells

Saving 30%

	MWh/year	US\$/year
Heating	406	18,662
Cooling	132	19,037
Fans&Pumps	30	4,349
Lights	315	45,374
Equipment	206	29,722
Renewable	248	35,645
Total	842	81,499
Saving	164	34,812



Baseline Scenario

Virtual 3-Floor Demo Building

(Weather Data: London)

- ❖ 1st Floor Store + 2nd & 3rd Office
- ❖ Gross Floor Area: 4889.8m²
- ❖ 6+12+6mm Double Glazing Windows
- ❖ Fluorescent Lighting
- ❖ 300kW Constant Frequency Air-Cooled Chiller
- ❖ 200kW Boiler
- ❖ Fan Coil Units
- ❖ Electricity Rate: 0.144 USD/kWh
- ❖ Gas Rate: 0.046 USD/kWh

1. NexPower Technology Corp.
2. Roof (NB150AN, m²): 1610
3. Window (NB125AP, m²): South (255.9); East (116.9); West (139)



Smart Inverter

Saving Cooling 46%
Saving 9%

	MWh/year	US\$/year
Heating	292	13,423
Cooling	87	12,542
Fans&Pumps	30	4,349
Lights	315	75,374
Equipment	206	29,722
Renewable	-	-
Total	931	105,410
Saving	75	10,904

1. J-Energy International Technology Co., Ltd.
2. Cooling Saving 46%.

LED Bulb

Saving Lighting 38%
Saving 16%

	MWh/year	US\$/year
Heating	350	16,082
Cooling	137	19,757
Fans&Pumps	29	4,176
Lights	196	28,224
Equipment	206	29,722
Renewable	-	-
Total	918	97,960
Saving	88	18,351

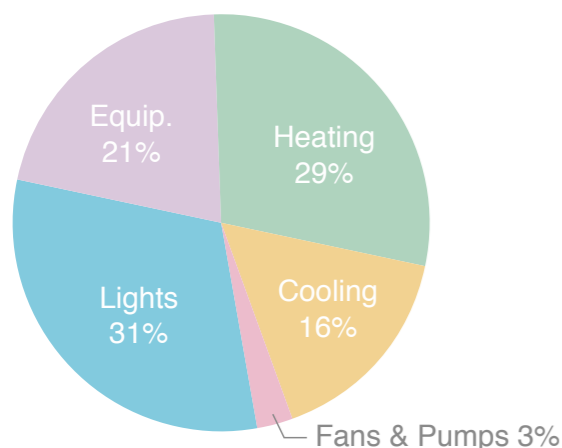
1. CB Lighting Co., Ltd.
2. Replacement: 1F Store

Solar Power Brick

Saving 9%

	MWh/year	US\$/year
Heating	292	13,423
Cooling	163	23,443
Fans&Pumps	30	4,349
Lights	315	45,374
Equipment	206	29,722
Renewable	73	10,569
Total	933	105,742
Saving	73	10,569

1. SunValue Co., Ltd.
2. Wall Area (m²): North (459.6); South (792.5); East (135.2); West (117.2)



Simulated by:
GreenJump Sustainable Design Consulting Company
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Our Members and Product Information

- 10 CB Lighting Co., Ltd.
- 12 EPADA Inc.
- 14 M-FIELD ENERGY LTD.
- 16 NexPower Technology Corp.
- 18 Autotronic Enterprise Co., Ltd.
- 19 Easyup Enterprise Inc.
- 20 J-Energy International Technology Co.,Ltd.
- 21 Nan Yang Chemical Co., Ltd.
- 22 Renato lab
- 23 SunValue Co., Ltd.
- 24 Ua Wood Floors Inc.



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Website : <http://www.carrybeam.com.tw>
<http://carrybeam.taiwantrade.com.tw>

Carry Beam was established in 1982 and has been dedicated to promoting a green environment by providing customers with energy-saving lighting products. Carry Beam is a one-stop supplier for metal halide lamps, ballasts, lighting fixtures and LED lamps from brand-name companies such as GE, Philips and Osram. With more than 20 years of experience and facilities in Xiamen, China, Carry Beam is capable of meeting customers' budgets and demands. On-time delivery, competitive prices and professional services make Carry Beam a preferred supplier for your business partners.



▲ Project in HONDA Showroom, Taipei



▲ Project in King Power International Airport, Thailand



LED BULB / CB-KL101 、 CB-KL202

Our products on display include alternatives to the incandescent light bulbs and are suitable for totally enclosed fixtures. We use a standard E27 base to achieve full light distribution, a high lumen output and also a high efficiency in energy saving. Besides, we have applied aluminum 1050 to heat sinks for excellent thermal management. All products are manufactured by automation stamping and assemblage. Further, production is environmentally friendly without the use of UV/IR or toxic substances. Polycarbonate lamp shields also provide excellent light transmittance and comfort. These are ideal for retail boutiques, coffee shops, restaurants, hotels, bars, museums, galleries, shopping malls, theaters and residential areas.

Specifications of our products include:

- High lumen up to 1000lm, power factor > 0.9, Ra > 80.
- Long lifetime of 30,000 hours.
- Highest conducting coefficient of 212 W/mk. • RoHS compliant and CE certificated.

Suggested Price: CB-KL101 LED BULB (PC/ALUMINUM) : US\$4.20

CB-KL202 LED BULB (PC/ALUMINUM) : US\$9.00



TRACK LIGHT/ CB-BL212

The Adjustable Track Mounted Spot Light series, with its innovative design is available in different wattages (7W~64W). These products are light weight and easy to install. They are also available in 20 and 40 degree projection angles. The single-arm design enables 360 degree rotation with a high power factor >0.9 and efficiency >70%.

All products are compatible with single circuit or three circuit track adapters. They are ideal for application in retail boutiques, coffee shops, restaurants, hotels, bars, museums, galleries, shopping malls, theaters and commercial areas.

Suggested Price: CB-BL212 TRACK LIGHT (ALUMINUM HEAT SINK) : US\$41.00



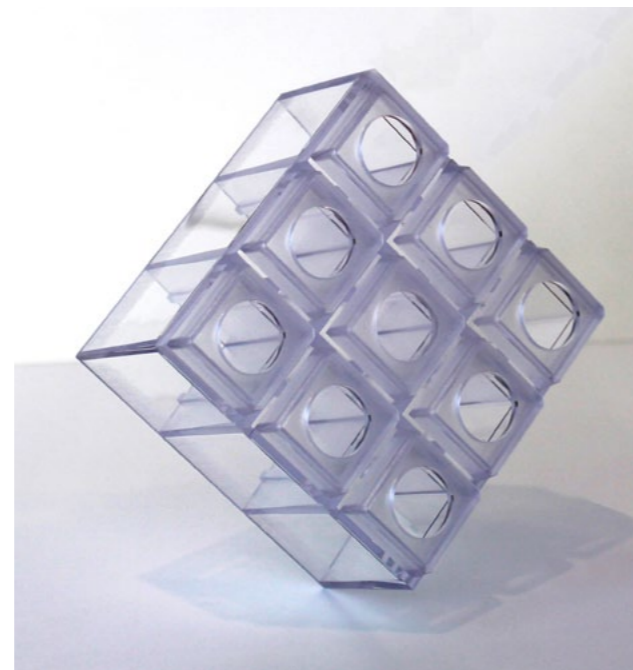
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EPADA Inc.

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EPADA Inc. develops a Easy, DIY, and Green Brick (EDGB), an indoor building material that is based on the principles of easy assemblage and dissembling, a concept similar to Lego. With EDGB, people can create light walls or furniture in different shape by themselves. EPADA is certified by international patents through SGS inspections. Furthermore, EDGB is a totally reusable, multi-functional and modular building material which produces no pollution in the construction process. It is therefore capable of contributing to low-carbon lifestyles.



▲ Corner Theme



▲ EDGB



Wall Theme

Traditionally we create spaces in buildings by using bricks. EDGB offers a whole new idea and alternative to this which is easy and quick to use. For example, a kitchen can be changed into a large storage space and a bedroom can be changed into a washroom all with minimal trouble. EDGB light walls can be easily complimented by digital devices or LEDs to provide stylish lighting in houses.

Suggested Price:

LOGO Wall (PP/PC/PET), Single Layer 9m²:

US\$2,700



Furniture Theme

The concept of EDGB mobile furniture is to assemble indoor spaces in an easy and rapid way. By adopting different recycled materials, EDGB mobile furniture creates environmentally friendly spaces without generating waste production during construction. Also, together with designed lighting, sound, power or sensors, EDGB mobile furniture is a modern and fashionable feature in interior design.

Suggested Price:

High Table (PP/PC/PET), 40cm (L) x 40cm (W) x 105cm (H): US\$550



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M-FIELD provides green power solutions and has had significant involvement in fuel cell technology development for over ten years. In response to fossil fuel depletion and the impacts of climate change, M-FIELD is devoted to delivering the most cutting-edge fuel cell solutions through advanced hydrogen technology. We promise our future generations a more sustainable and greener life.



▲ USFCC SEMINAR 2010 in San Antonio



▲ USFCC SEMINAR 2010 in San Antonio



▲ FC EXPO 2014 in Japan



▲ FC EXPO 2014 in Japan



UEH Series

The UEH Series provides reliable backup power during blackouts. Under normal conditions, it self-refuels when supply is maintained through the grid or an alternative power source is available. The UEH is compactly designed in an all-in-one cabinet and is capable of fuel production and power generation. It can provide more than 8 hours of back-up power while operating at its maximum output. The UEH is a suitable backup system for residential properties and remote telecom facilities.



MF-LPH

The MF-LPH is the most innovative fuel cell power module and has been designed to meet various needs in mobile, portable or stationary power applications. The MF-LPH provides power from 1kW to 3kW. Employing a simplified and highly efficient system with compact dimensions it is the best core system for your power needs.

Certificate: 



▲ HANNOVER MESSE 2014



▲ HANNOVER MESSE 2014



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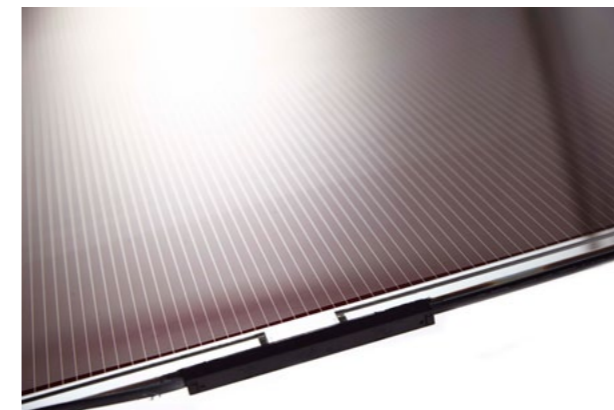
Website : www.nexpw.com

Established in 2005, NexPower Technology is a subsidiary of a world-leading semiconductor foundry, United Microelectronics Corporation (NYSE: UMC). Since its inception, NexPower has committed itself to advancing the development and applications of solar photovoltaic technologies. Currently our major products are μ c-Si tandem solar PV modules. We see ourselves as a pioneer of thin-film silicon solar PV technology in Taiwan. Our team specializes in innovative research and development, manufacturing and quality assurance to make NexPower a world-class thin-film solar PV manufacturer.

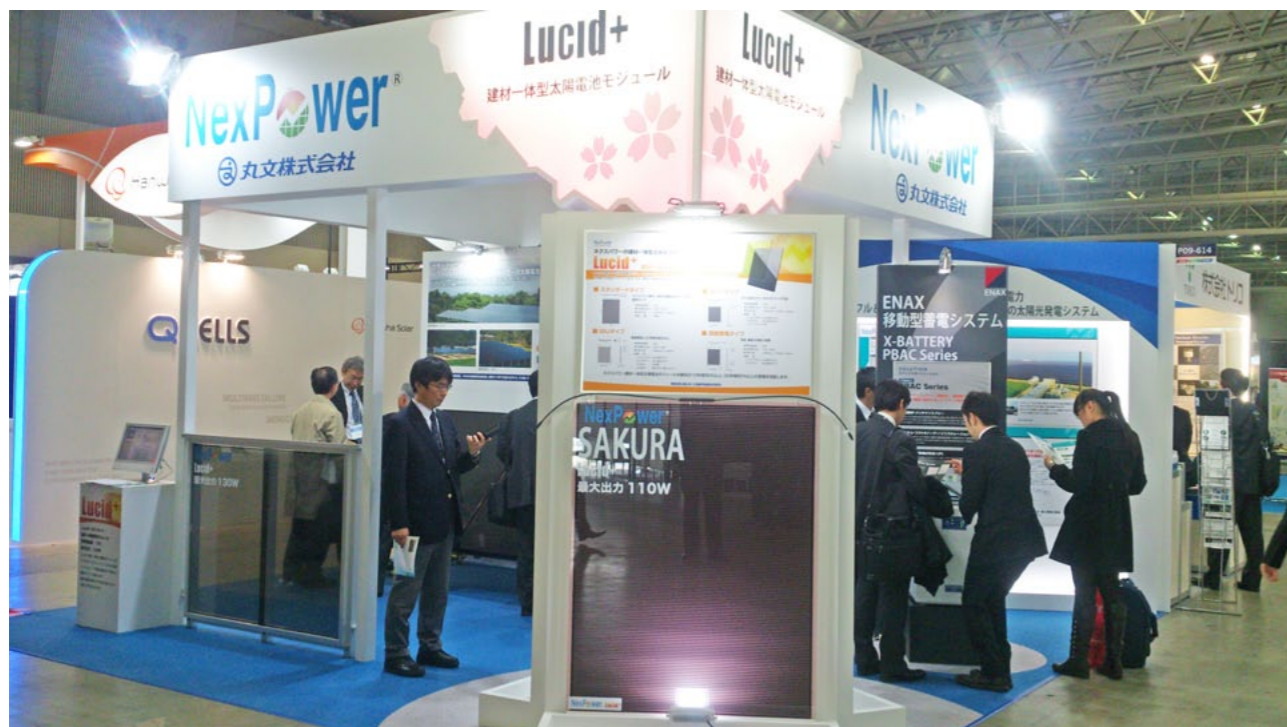


See-Through Building Integrated Photovoltaic Module

“See-Through Building Integrated Photovoltaic Module” has the highest efficiency tandem amongst similar modules produced across the world. It is highly aesthetic and can be customized to any design. It can also be installed to any tile angle to generate electricity.



▲ See-Through Building Integrated Photovoltaic Module



▲ 2012 PV Japan, Tokyo



▲ 2009 Intersolar, Munich



▲ 2010 Intersolar, Munich

Aecl Group®

柏昇事業群

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AECL has been engaged in developing and producing industrial instruments for over 35 years. Foreseeing the potential of environmental management, we develop a series of temperature & humidity transmitters, energy meters and CO2 and CO transmitters, air quality display. Committed to our core policies, AECL continues to work on state-of-the-art technology and stringent quality control to ensure the reliability of our products.



Air Quality Display (AQD)

The AQD series displays three of the most crucial parameters of IAQ (Indoor Air Quality): CO2 level, humidity and temperature. It uses high quality sensors which are usually only available for air quality diagnostic equipment in laboratories. In addition to monitoring humidity and

temperature, the AQD series measures CO2 and send signal to ventilation system to keep indoor CO2 level below the ASHRAE recommended limit of 1,000ppm.

Suggested Price: US\$400



Water Leak Alarm

The water leak alarm is CE approved. The leakage detection works with detecting cable and can be applied in various places such as computer rooms, server rooms, data centers, factories, offices or the bottom of the machines. Its sensitivity

can be easily adjusted accordingly. This product has LED indicators and can detect if cables are broken. It can either operate independently or as part of a smart building system.

Suggested Price: US\$50

雨東商貿 Easyup Enterprise Inc.

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Website : www.usermarket.com.tw

Easyup Enterprise Inc. was established in 1990. We provide our customers with office software, machinery and services, for data and information processing.

Heterogeneous Networks Receptacle Technology

Heterogeneous Networks Receptacle Technology provides a gateway to 802.15.4 and IP networks to enable power consumption data to be stored locally or backed up to cloud services. Users can easily control their home appliances through smart phones, especially those with iOS operating systems, such as iPhones and iPads.



Sockets and Switches

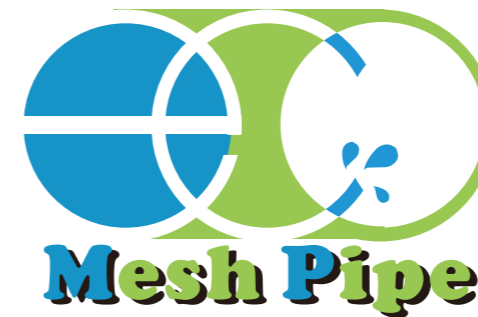
Our sockets and switches that use the Heterogeneous Networks Receptacle Technology look similar to those available in market but can be remotely-controlled with wireless communications. Not only are our products easy to install but they enable you to watch the power consumption of each electrical appliance and adopt a green and smart life style.





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J-Energy, which was initially renowned as an air-conditioning manufacturer, has now transformed into a system integration developer. Building on the professional capabilities developed over the past 20 years in air-conditioning, we have expanded to micro-computer control, power modules and fan brushless motors. J-Energy is one of the few Taiwan vendors who provides both air-conditioning manufacturing capabilities and integrated development of inverter technology. This has culminated in the Smart Inverter which is J-Energy's main product-help customers to develop energy saving fan motors and highly efficient generators.

Smart Inverter

The Smart Inverter is one of J-Energy's patented products. The module can be used for commercial fixed-frequency air-conditioning and is installed through external attachment. The module uses patented technology to control compressor start-stop time to achieve energy saving of up to 25%±5%. The Smart Inverter was nominated in the 16th "Innovative Research Merchandise Award". It has been adopted by Panasonic, Garmin, Taiwan Power Company and many corporations.



▲ Package type air conditioning



▲ Chiller

Nan Yang Chemical Company was established in 1954. The company manufactures plastic extruded netting products such as mesh bags and mesh pipes (eco-mesh pipes, half-moon shaped permeable mesh pipes, permeable water saving systems, spiral drain well water saving systems and square greening mesh pipes). With more than fifty years of experience the company can produce customized specifications for bespoke plastic netting products. The company is fully equipped with auto-machinery and devoted to continuous research and development for new products.



Eco Mesh Pipe Series: Water management (Eco Mesh Pipe · Winding Sewage Pipe · Spiral Drain Pipe)

The Eco Mesh Pipe system has been designed to promote water conservation in farms, gardens and backyards. The system includes several parts and sub-systems: winding sewage pipes, spiral drain pipes, half-moon shaped permeable mesh pipes, permeable water saving systems, spiral drain well water saving systems and square greening mesh pipes. Unlike traditional drainage systems, while maintain good drainage function, the Eco Mesh Pipe system is able to conserve water in soils and reduce consumption of water in gardening, farming and irrigation.



Extruded Plastic Netting PRONET

Extruded Plastic Netting PRONET is a series of products that include packaging netting, protective netting, decorative color mesh, shelf liner, kitchen sink garbage filtration netting, anti-bird netting, fence netting, agricultural netting and gardening netting. This series of products provides a good living environment and enables ecologically friendly farming and gardening practices.



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Renato-lab is a global company, dedicated to sustainable solutions through Reuse, Reduce and Recycle. "RENATO" is a new environmental friendly home decoration brand. Renato-lab believes that great design and recycling technology can be integrated with more sustainable lifestyle choices.



RE I Luminance

"RE I Luminance" is based on recycled Brightness Enhancement Films. We have successfully retrieved the films that were originally placed inside LED panels and used them as the material of lamp products. Characteristics include the crystal effects from bending and aurora effects from curving. Layering and intersecting

also creates many other amazing effects. Lighting products, such as pendent light and desk lamps, have been attractively designed to complement a variety of settings.

Suggested Price: US\$399



RE I Coppetta

"RE I Coppetta" uses the recycled material from waste paper and PET bottles. The waste PET containers are crushed into pieces and processed into granules or monofilaments, which are the raw materials for the textile coverings. The stool frame is made from recycled waste paper. Through the "rebirth" of

this high quality material we have produced creative and interesting stool frames through sophisticated designs.

Suggested Price: US\$125 (Iron Rack); US\$105 (Corrugated Paper Rack)

SunValue is an innovative Taiwanese company that is committed to the greenest practices and sustainable development. We dedicate in developing and manufacturing green products including Solar Power Brick (SPB), Light Guiding Sticker (LGS), and Temperature Regulator Film (TRF).



Solar Power Brick (SPB)

There is more than a simple glass brick! It generates electricity by solar power, ensuring our energy needs can be met in a sustainable and eco-friendly way. SPB can be translucent or opaque, and suits both existing and new buildings. In addition, SPB is perfect for vertical to ground installation as it is designed using advanced light-guiding technology. It is a unique BIPV solution in the market.

Suggested Price: US\$ 39/ pc



Light Guiding Sticker (LGS)

This sticker guides light from edges to the front. It can be cut into different shapes and also works on curved surfaces. LGS turns transparent materials into light-guiding ones, and all you have to do is paste it on, simple as that.

Suggested Price: US\$ 58/ m²



Temperature Regulator Film (TRF)

TRF can be used in all kinds of greenhouses. It allows 70% of ultraviolet to pass through, letting plants perform photosynthesis. It also absorbs 90% of infrared and forms a layer of heat to stabilize indoor temperature, keeping it cooler in summer and warmer in winter. Greenhouses which use heating or cooling systems will benefit considerably from TRF as it helps save significant energy.

Suggested Price: US\$ 9/ m²



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Since it was founded in 1992, Ua Floors' philosophy has been to provide high quality sustainably produced products to our customers. We offer environmentally friendly materials and produce our flooring using eco-friendly manufacturing practices. With a special focus on reducing waste and optimizing recycling, Ua Floors has also implemented rigorous traceability practices and forest management to keep up with its commitment to ensuring the wellbeing of future generations.



The Olde Charleston Collection

This product series is absolutely stunning with a rough textured look, harmonizing beautifully with any décor, from rustic to modern styles. Through a careful selection and recycling process, the True Reclaimed Heart Pine reuses

wood from once thriving facilities such as churches or textile mills that have since become obsolete. During the demolition process as much wood as possible is salvaged and then reused. The rich colors and grain textures of the refurbished antique woods can enhance the beauty of any home.




Manhattan Collection


The New Manhattan collection series is perfect for both contemporary and traditional interior designs, providing an exciting new flooring concept from Ua Floors. At 5.5 inch-wide and with micro-beveled edges, this series creates attractive plank flooring. Manhattan Collection is easy to

maintain and clean, giving an enduring beauty at home for many years to come. The rich colors and sheer beauty will delight your family and any visitors.

The logo features a green house icon with a leaf on its roof, followed by the text "TAIWAN" in a bold, green, sans-serif font. Below "TAIWAN" is the text "GREEN DEMO HOUSE" in a smaller, green, sans-serif font. A small globe icon is positioned between the words "HOUSE" and "GREEN".



Supervisor:  Ministry of Economic Affairs, R.O.C.

Organizer:  Bureau of Foreign Trade

Executor:  Green Trade Project Office, Ministry of Economic Affairs

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