BACH KHOA INVESTMENT & DEVELOPMENT
OF SOLAR ENERGY CORPORATION (Head Office)
No 47, Le Van Thinh Street, Quarter 5, Binh Trung Dong Ward, District 2, HCMC, Vietnam
Tel: (+84.28) 7300 6759 I Fax: (+84.28) 6255 8093
Email: info@solarbk.vn I Website: solarbk.vn

REPRESENTATIVE OFFICE OF BACH KHOA INVESTMENT & DEVELOPMENT
OF SOLAR ENERGY CORPORATION
A18, Villas My My, Nguyen Hoang Street, An Phu Ward, District 2, HCMC, Vietnam
Tel: (+84.28) 7300 6759 I Fax: (+84.28) 6255 8093

• No 310, Street 30/4, Chanh Nghia Ward, Thu Dau Mot City, Binh Duong Province, Vietnam
Tel: (+84.28) 6255 8092 I Ext: 7000

• No 70, Le Hong Phong Street, Phuoc Hai Ward, Nha Trang City, Khanh Hoa Province, Vietnam
Tel: (+84.28) 6255 8092 I Ext: 6000

• No 349, Hoang Hoa Tham Street, Lieu Giai Ward, Ba Dinh District, Hanoi, Vietnam
Tel: (+84.28) 7305 8687

CENTRAL REGION SOLARBK INVESTMENT AND DEVELOPMENT CORPORATION
No 400, Street 2/9, Hoa Cuong Bac Ward, Hai Chau Dist, Da Nang City, Vietnam
Tel: (+84.236) 374 9279 I Fax: (+84.236) 374 9079
Email: info@solarbk.vn

IREX ENERGY JOINT STOCK COMPANY
No 47, Le Van Thinh Street, Quarter 5, Binh Trung Dong Ward, District 2, HCMC, Vietnam
Tel: (+84.28) 7300 1559 I Fax: (+84.28) 6255 8093
Email: info@irex.vn I Website: irex.vn
Factory: No. 1A Street, Phu My 1 Industrial Zone, Tan Thanh District, Ba Ria - Vung Tau Province, Vietnam
Tel: (+84.254) 392 3594 I Fax: (+84.254) 392 3594

SOLAR ESCO JOINT STOCK COMPANY
A18, Villas My My, Nguyen Hoang Street, An Phu Ward, District 2, HCMC, Vietnam
Tel: (+84.28) 6685 4535

SolarBK
Green Energy Made Smarter

SUCCESS comes from ASPIRATION

When small **dreams** are converged
When youth's **passion** is nurtured
When generations' **elite** is inherited
And when from heart **"Vietnam"** comes proudly

...Big dream grows bigger...
At SolarBK **we call it Aspiration!**

THE COMPANY PROFILE

BACH KHOA INVESTMENT & DEVELOPMENT
OF SOLAR ENERGY CORPORATION

Issued on August, 2017

Like us on FB
www.facebook.com/solarbk

Website: www.solarbk.vn
Email: info@solarbk.vn

Hotline: **1900 636 759**

Part I
THE INTRODUCTION

Part II
BUSINESS SECTOR

Part III
APPENDIX

OPEN LETTER

Dear valued customers,

The application of new energy-saving and renewable energy technologies is not only a top choice for improving competitiveness, but also the best way to demonstrate commitment to environmental protection as well as responsibility for the future generation.

The United Nations Conference on Climate Change (COP) in many years that set the tone for global climate change, including Vietnam. If the new economic trends like participating TPP (Trans-Pacific Economic Partnership Agreement) or joining the ASEAN economic community, which would help to Vietnam GDP growth over 5 %, few people can notice that climate change is causing Vietnam to lose no less than 5 % per year.

Understanding the above, Bach Khoa Investment & Development of Solar Energy Corporation (SolarBK) has the passion in research and development to fulfill its mission of bringing clean energy to life with a variety of applications, convenience and low cost in order to solve the problem not only for businessman but also for individual customers.

Proud of a foundation in 40 years of scientific research; more than 10 years of experience carry out the major projects, the national level topics and pioneering work to show the concept: "Providing energy saving solutions must be accompanied by a commitment"; We believe that Customers will have a firm belief that together with solarBK to build a clean and green living environment and contribute to bringing the Vietnam's brand to the international level.

Wish Customers success and sustainable development.

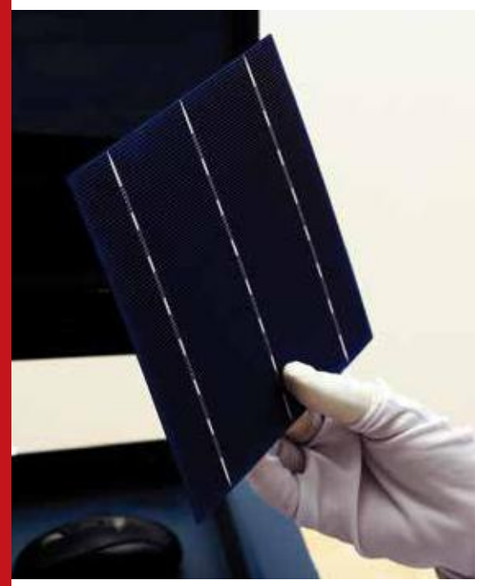
Respect.

Ho Chi Minh city, 2017
GENERAL DIRECTOR

NGUYEN DUONG TUAN

Part 1

INTRODUCE ABOUT COMPANY



1975

A team of professors from Thai Nguyen University of Engineering and Bach Khoa Hanoi University of Technology started conducting research on renewable energy. Professor, and later SolarBK's co-founder, Nguyen Huu Hung served as Project Manager.

1990

The Research Center for Thermal Equipment and Renewable Energy (RECTERE) of Ho Chi Minh City University of Technology conducted a piloting program to install water heating and solar, wind energy equipment to generate electricity for irrigation.

RECTERE was the only agency in the country to cary out national projects of this type assigned by the Ministry of Science and Technology (MOST).

1994

RECTERE developed its own specially designed wind turbine. Professor Nguyen Huu Hung took charge of the Ministerial-level project "Darrieus type wind turbine with vertical axis and soft wings" successfully developed by Professor Nguyen Huu Hung under the Ministerial-level project of the same name. The Ministry of Education awarded the project with Certificate of Merit for Innovative solutions and Training.

Our first commercially viable solar water heater Solar-BK-3 came to market as result of the research project "Complete design and technology for solar water heaters in Vietnam for residential and industrial use".

Company co-founder, Professor Duong Thi Thanh Luong commissioned this project by Ho Chi Minh city Department of Science of Technology.

2004-2005

In the year 2004 the Solar Water Heater product, SolarBK® was officially in the Vietnam market. The product attracted great attention of press and news agency.

This period considered the initial phase of the Solar Water Heater industry in Vietnam.

2006

Bach Khoa Investment and Development of Solar Energy Company (SolarBK) was founded to bring research to market. Former professors and researchers of RECTERE served as board of directors and executive advisors. With decades of experience at RECTERE.

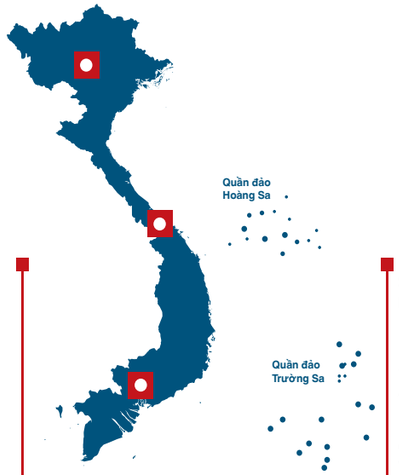
SolarBK's purpose is to contribute to the development and widespread use of green energy in Vietnam.

2008

Transformed into Joint Stock Company with bigger ambition and goal.

Received ISO 9001: 2000 certificate.

Implemented Clean Energy project for entire Spratly Islands and DK1 platform.



2009

SolarBK's member companies and subsidiaries were established throughout Vietnam.

- 8/2009: Establishment of Central SolarBK.
- 10/2009: Establishment of Southern SolarBK.
- 01/2010: Establishment of Northern SolarBK

2011

- Social responsibilities are part of SolarBK's mission through our participation in community projects.
- SolarBK also respects strictly the Labour Law and Tax Law of Vietnam. We were Top 100 Best companies in Vietnam Gold Star Award 2011.
- Our own Corporate Quality Development department ensures necessary actions will be taken for sustainable development and maintain corporate values. In the same year, SolarBK awarded Energy Saving certification for Solar water heating products by the Ministry of Industry and Trade and achieved Quality Management System certification ISO 9001:2008.

2012

- March 2012: SolarBK Participated in Vietnam's Earth Hour campaign.
- June - July 2012: Awarded Globe Energy Award for "Hybrid power supply system for the Spratly Islands using solar and wind energy". SolarBK also signed the UN Global Pact on Energy and Environment.
- October - November 2012: SolarBK and Vietnam Electricity (EVN) successfully deployed ESCO model under the direction of the Ministry of Industry and Trade.
- December 2012: IREX Energy Joint Stock Company established to produce solar panels, realizing SolarBK vision to exploit energy for common use.

2013

- September 2013: IREX Energy Joint stock company was awarded with IEC 61215:2005 and IEC 61730: 2004 issued by TÜV Rheinland for solar panels.
- Mr. Nguyen Duong Tuan – SolarBK's CEO became Energy Globe Ambassador and special Representative of Energy Globe 2013.
- October 2013: SolarBK announced its official pledge "60% Energy Saving Guarantee" for industrial scale solar water heater systems, became the first company in Vietnam to issue such quantitative commitment.
- Hundreds of Hotel, Factory all over the country using the Industrial scales Solar Water heating system installed by SolarBK

2014-2015

- Since 2014, SolarBK had been the first and only representative of Vietnam's top firms at annual international exhibition of renewable energy - Intersolar and Solar Power International.
- In April 2015, SolarBK has been successfully completed the pilot desalination project in Song Tu Tay - Truong Sa island. This application is spred speading over other islands.
- Energy Savings Commitment - Solar Monay Back Guarantee - which is guaranteed by the banks is a breakthrough in the renewable energy market in Vietnam: "Commited Energy Savings Solutions".
- Inauguration of SolaireViet Cell factory whose automation rate is up to 100%.

2016-2017

- May 2016
SolarBK won the Energy Globe Award 2016 with the project " Sea water filters with clean energy on Southwest Cay island (Song Tu Tay, Truong Sa)
- July 30, 2016
Khanh Hoa Power Company and the Bach Khoa Investment & Development of Solar Energy Corporation launched the ESCO model that provides comprehensive energy solutions to its customers, including auditing, redesigning and implementing changes to the ways the customer consumes energy, the main goal being improved efficiency.
- July, 2016
Opening the SolarBK showroom at Nha Trang city, Khanh Hoa Province.
- Febuary, 2017
IREX energy corporation, member of SolarBK has started to expand investment project " the high-tech renewable energy complex".
- March, 2017
Opening the SolarBK showroom at Binh Thuan province.

02 VISION - MISSION

VISION
Green Utility Company

MISSION
Bring clean energy to life with a variety of applications, close, convenient and lower price.

BRAND PHILOSOPHY
SUCCESS comes from ASPIRATION
Based on the available capacity of science and technology, passion for Research & Development, we always nurture our aspirations and step by step realization of big dream: bring SolarBK - Vietnam become the bright spot on the world clean energy map.

CORE VALUES

TRUST
With the concept of trust is the foundation of the durable relationship between partners, customers and SolarBK, we always aim to honesty and willingness to commit responsibly.

PERSISTENCE
A unit have a foundation for research and development and the determined clean energy is the world's future energy, we know that persistence companion and sharing of accomplishments with the community is the key to fulfilling our mission.

CREATIVITY
SolarBK always have the right investment in the improvement, the technological application in products, solutions and quality management. Continuous innovation has helped us to improve our reputation and to confirm our position as the leader in the fields.

TEAMWORK
SolarBK is a united body of people with the same ambitions, aspirations. With us, success is always the result of hard working, serious work of the whole team.

LEARNING
With the spirit of learning from colleagues, customers, partners and practicality is the intensive training programs, which are held regularly in solarBK to maintain and improve the level of personnel department.

Company name (Vietnamese):

CÔNG TY CỔ PHẦN ĐẦU TƯ VÀ PHÁT TRIỂN NĂNG LƯỢNG MẶT TRỜI BÁCH KHOA

Company name (English):

BACH KHOA INVESTMENT AND DEVELOPMENT OF SOLAR ENERGY CORPORATION

Transaction (Acronyms):

SolarBK®

Contacts:

No 47, Le Van Thinh Street, Quarter 5, Binh Trung Dong Ward, District 2, HCMC, Vietnam

Tel: (+84.28) 7300 6759 I Fax: (+84.28) 6255 8093

Email: info@solarbk.vn I Website: solarbk.vn

Certificate of business registration:

No. 0304194942 – First issued: 10/16/2008, 7th of revised: 28/08/2017

By Department of Investment Plan Ho Chi Minh city

Name of legal representation:

NGUYEN DUONG TUAN – POSITION: GENERAL DIRECTOR

Company type:

JOINT STOCK COMPANY

Main business sectors:

Consulting, designing and delivering energy saving solutions, clean energy solutions. The production of solar water heating machine, consultant-designer-constructor for the solar water heating solutions with industrial scale. Researching technology and put it to use in life.

SỞ KẾ HOẠCH VÀ ĐẦU TƯ
THÀNH PHỐ HỒ CHÍ MINH
PHÒNG ĐĂNG KÝ KINH DOANH

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập – Tự do – Hạnh phúc

GIẤY CHỨNG NHẬN ĐĂNG KÝ DOANH NGHIỆP
CÔNG TY CỔ PHẦN

Mã số doanh nghiệp: 0304194942

Đăng ký lần đầu: ngày 16 tháng 10 năm 2008

Đăng ký thay đổi lần thứ: 7, ngày 28 tháng 08 năm 2017

1. Tên công ty

Tên công ty viết bằng tiếng Việt: CÔNG TY CỔ PHẦN ĐẦU TƯ VÀ PHÁT TRIỂN NĂNG LƯỢNG MẶT TRỜI BÁCH KHOA

Tên công ty viết bằng tiếng nước ngoài: BACH KHOA INVESTMENT & DEVELOPMENT OF SOLAR ENERGY CORPORATION

Tên công ty viết tắt: BK-IDSE CORP

2. Địa chỉ trụ sở chính

47 Lê Văn Thịnh, khu phố 5, Phường Bình Trưng Đông, Quận 2, Thành phố Hồ Chí Minh, Việt Nam

Điện thoại: *(08) 7300 6759* Fax: *(08) 6255.8093*

Email: *info@solarbk.vn* Website: *www.solarbk.vn*

3. Vốn điều lệ

Vốn điều lệ: 30.000.000.000 đồng

Bằng chữ: Ba mươi tỷ đồng

Mệnh giá cổ phần: 10.000 đồng

Tổng số cổ phần: 3.000.000

4. Người đại diện theo pháp luật của công ty

* Họ và tên: NGUYỄN DƯƠNG TUẤN Giới tính: *Nam*

Chức danh: Tổng giám đốc

Sinh ngày: *23/06/1976* Dân tộc: *Kinh* Quốc tịch: *Việt Nam*

Loại giấy tờ chứng thực cá nhân: *Chứng minh nhân dân*

Số giấy chứng thực cá nhân: *022930648*

Ngày cấp: *05/08/2008* Nơi cấp: *CA TP HCM*

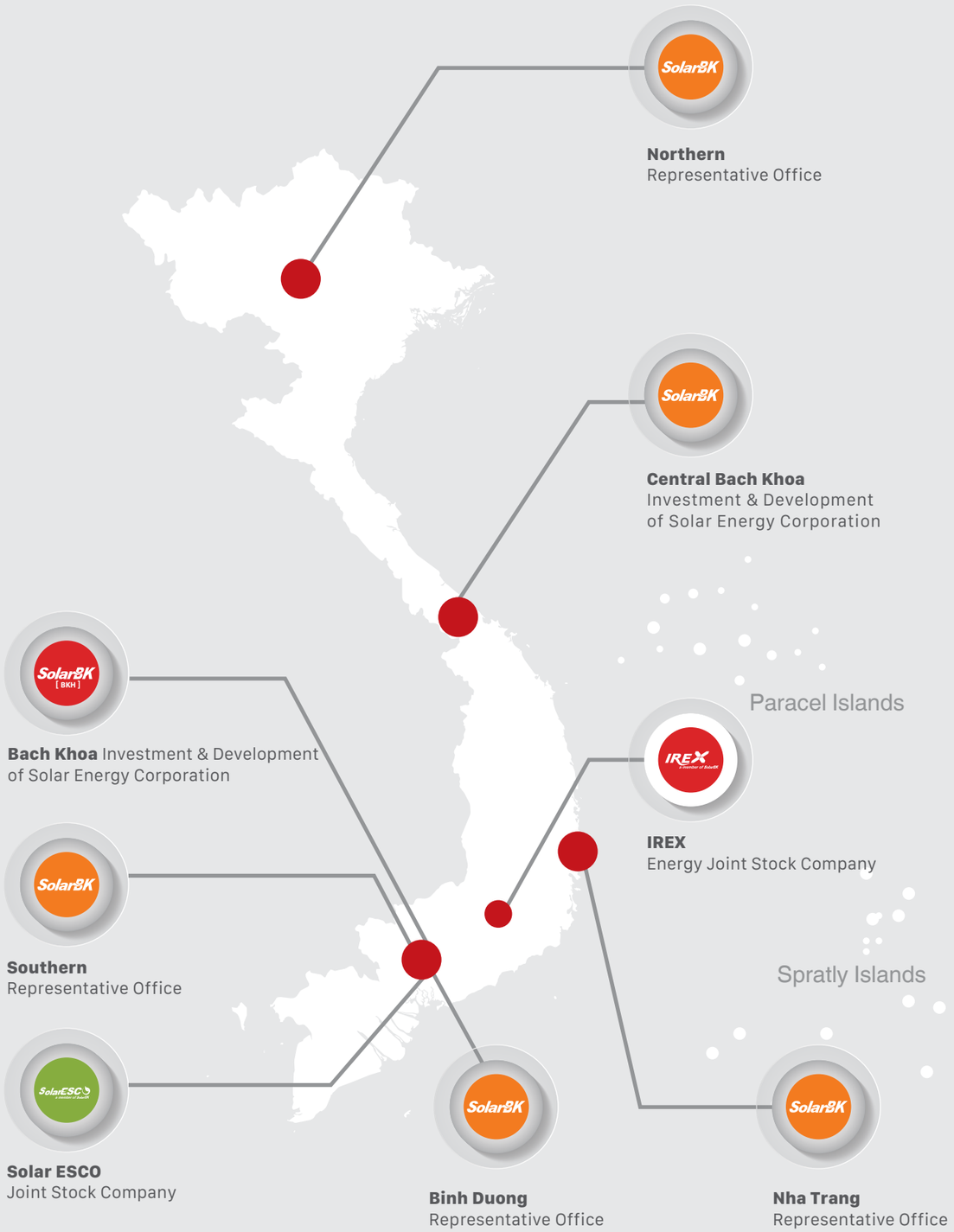
Nơi đăng ký hộ khẩu thường trú: *98/111/19 Cách Mạng Tháng Tám, Phường 5, Quận Tân Bình, Thành phố Hồ Chí Minh, Việt Nam*

Chỗ ở hiện tại: *98/111/19 Cách Mạng Tháng Tám, Phường 5, Quận Tân Bình, Thành phố Hồ Chí Minh, Việt Nam*

TRƯỞNG PHÒNG
Phó Trưởng Phòng

PHÒNG ĐĂNG KÝ KINH DOANH

Hồ Hoành Sơn



Northern
Representative Office

Central Bach Khoa
Investment & Development
of Solar Energy Corporation

Bach Khoa Investment & Development
of Solar Energy Corporation

IREX
Energy Joint Stock Company

Southern
Representative Office

Solar ESCO
Joint Stock Company

Binh Duong
Representative Office

Nha Trang
Representative Office

IREX ENERGY JOINT STOCK COMPANY

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SOUTHERN
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Tel: (+84.28) 6255 8092
Ext: 7000

CENTRAL BACH KHOA
INVESTMENT & DEVELOPMENT
OF SOLAR ENERGY CORPORATION

No 400, Street 2/9, Hoa Cuong Bac Ward, Hai Chau Dist, Da Nang City, Vietnam
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Tel: (+84.24) 7305 8687

CENTRAL
REPRESENTATIVE OFFICE

No 70, Le Hong Phong Street, Phuoc Hai Ward, Nha Trang City,
Khanh Hoa Province, Vietnam
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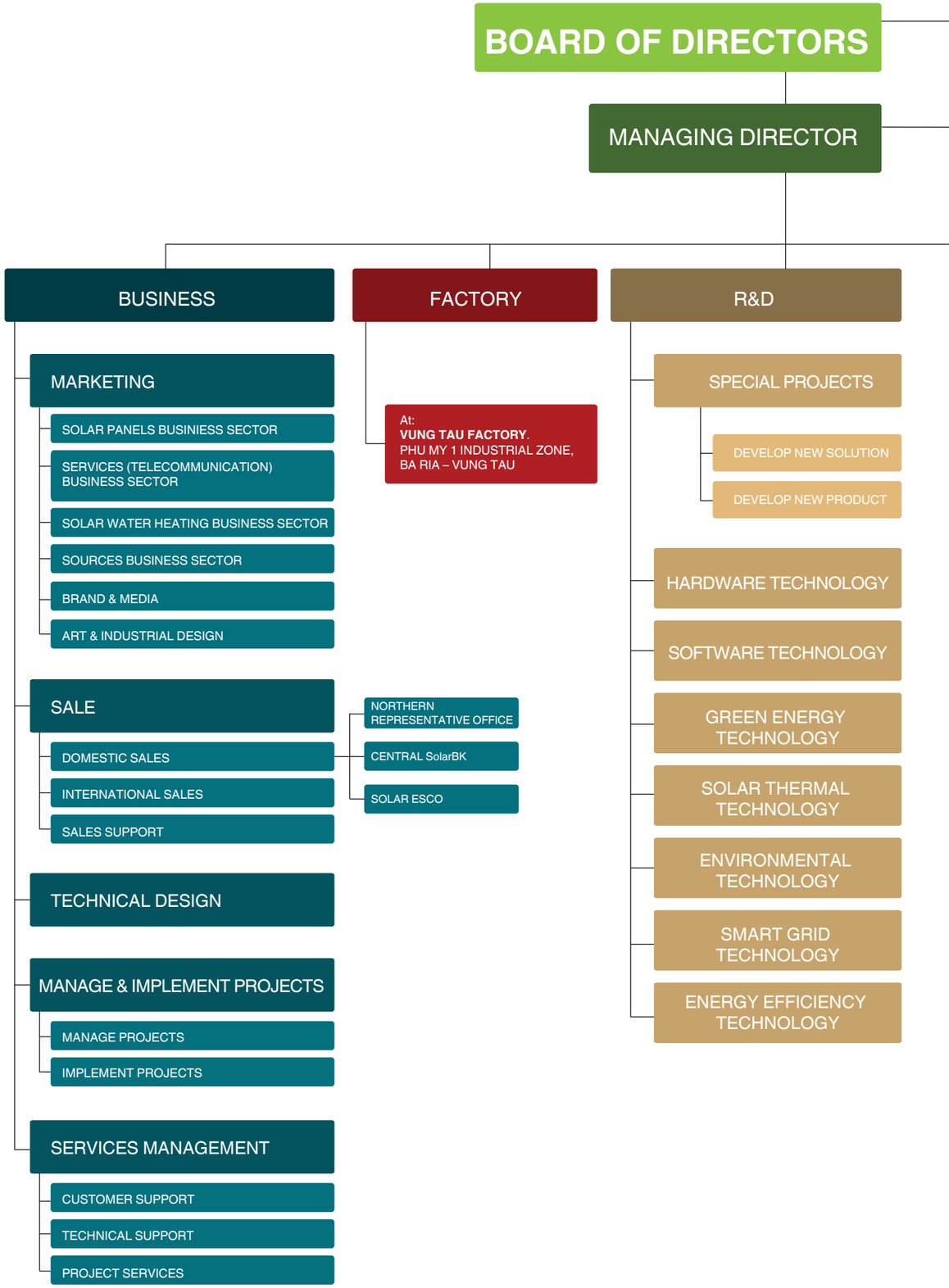


KEY LEADERS :

Mrs. Duong Thi Thanh Luong
Position: Chairman of the Managing Board

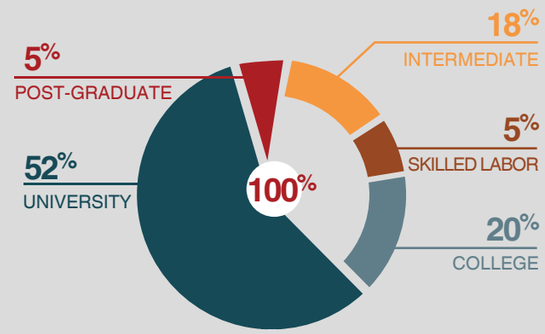
Mr. Nguyen Duong Tuan
Position: General Director

Mrs. Sylvie Lam
Position: Chief of Operation Officer

Staff - Employees:

By May, 2017:

- Total of Staff – Employees: 254 people
- The proportion of staff with more than 3 years of experience in clean energy industry: 35%



SOLAR WATER HEATING
PRODUCT FACTORY

Persistence in research and application of new technologies into production, products and solutions, we are always confident and committed to quality, to meet the needs and requirements of domestic and foreign markets.

SolarBK's products and manufacturing processes meet the following criteria:

- Quality management system ISO 9001: 2015
- National standard (TNVC) in the design of control equipment, electrical equipment, safety equipment
- IEC standard on equipment selection
- 5S standard on workplace management and improvement

Always apply modern technology into production, SolarBK has invested:

- Solar water heating production line in Vietnam according to international standards
- Swiss thermal absorption (CFP) production line

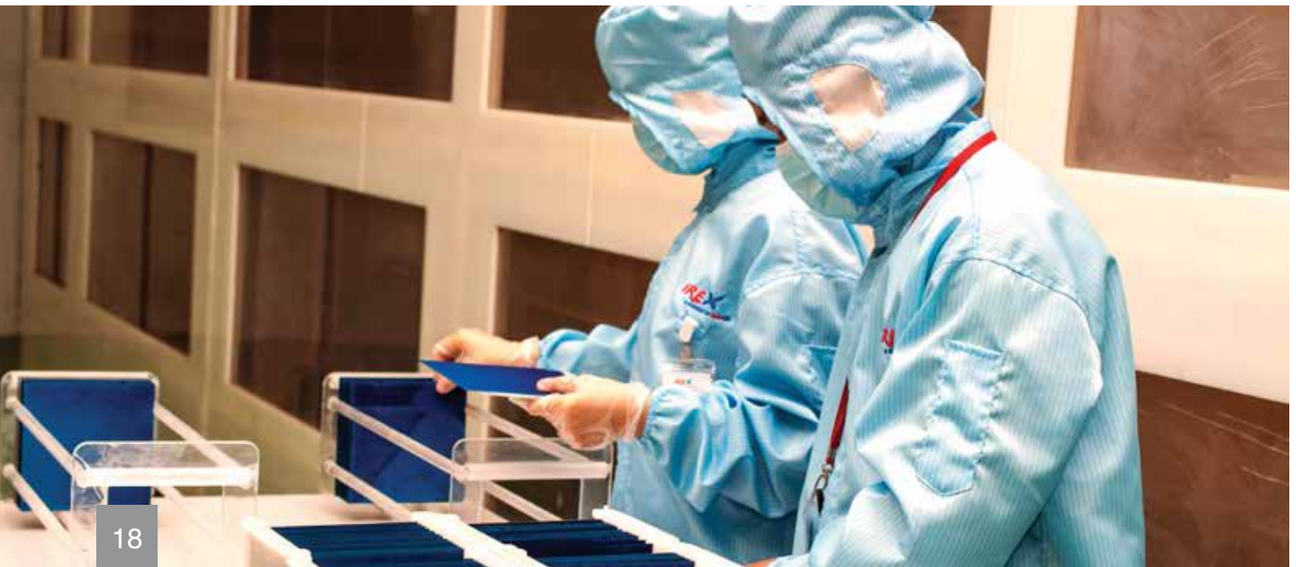
IREX
a member of SolarBK

PHOTOVOLTAIC SOLAR PANELS

FACTORY

The IREX – member of SolarBK found in 2012. The company include skilled personel, factory, the most modern production lines that reach up to a capacity of 300 MW/year. We are proud to be the first Vietnam enterprises that produce solar cells (solar) with international standards at a competitive price.

"Mono" and "Poly" solar panels line with capacity from 35 kWp to 300 kWp per panel that are exported to European and US's market.



By strictly follow the production process, quality, environment, occupational safety. We constantly improve and apply latest technologies such as Multi-busbar, PERC, Anti-PID ... Due to structural changing internal and external of solar cells such as increasing number from 3, 4 to 5 busbar. The latest technology also helps to to counter diffusion of the particles loading to the outside and increases the energy conversion efficiency of the IREX solar panels by 3% (both Poly and Mono). In particular, Mono-Crystalline PV have a high energy conversion efficiency, reaching nearly 20%. We meet international standards:

- *Design standards compliance to IEC 61215*
- *Safety standards compliance to UL 1703*
- *Safety standards compliance to IEC 61730*
- *Quality Management System ISO 9001: 2015*

Quality Policy

BACH KHOA SOLAR INVESTMENT & DEVELOPMENT CORPORATION

With the goal of using **"TECHNOLOGY & INTELLECTUAL PROPERTY",** Bach Khoa Solar Investment & Development Corporation **(SolarBK)** wants to make a difference in product and service business philosophy **SMALL CHANGES – BIG DIFFERENCE**

The Board of Directors and all employees of SolarBK commit to:

- Constantly researching and developing new solutions.
- Reasonable product price.
- Professional, dedicated customer service.
- Building a professional working environment based on the aspirations, trust, creativity, collective spirit, learning and perseverance of each individual.
- Building, implement, maintain and continually improve the quality management system in accordance with ISO 9001: 2015.

HCMC, June 10, 2017

GENERAL DIRECTOR

NGUYEN DUONG TUAN

The commitment is guaranteed by applying International and Vietnamese standards in producing:

- **Quality management system ISO 9001: 2015.**

- **National standard (TNVC) in the design of control equipment, electrical equipment, safety equipment:**
  1. **TCVN 7447:** Elictric installations of building.
  2. **TCXDVN 319:** Installation of equipment grounding system for industrial works - General requirements.
  3. **TCXDVN 394:** Design and installation of electrical equipment in construction works - Electrical safety.
  4. **TCXDVN 263:** Installation of cables and wires for industrial works.

- **Standards:**
  1. **IEC 60269-1:** Low voltage fuses-Part 1: General requirements.
  2. **IEC 60364-5-52:** Electric installation of building-Part 5-52: Selection and erection of electrical equipments-Wiring systems.
  3. **IEC 60947-2:** Low-voltage switchgear and controlgear-Part 2: Circuit Breaker
  4. **IEC standard** on equipment selection.

- **5S standard on workplace management and improvement.**

As a R&D driven enterprise, SolarBK keeps up with the latest trends in technology and services. Some outstanding results:

- Apply information technology to improve work efficiency. Besides investing in network infrastructure, the company also uses software, especially open source code.
- Building Research & Development (R&D) Department with modern facilities. Have good relationships with universities, especially Polytechnics, to recruit elite students, and combine new technology training with long-standing partners: Mitsubishi, Outback Power, Ritar, etc.
- Raise the sense of "green culture" in the staff by the activities: Earth Hour, Only air conditioning when needed, saving electricity - water, etc.

SOLAR SYSTEM OPERATION CENTER SSOC™

Successfully Researching and applying remote control solution, creating breakthrough and bring big difference in the designs of the company to the market. Currently, most SolarBK systems are available for monitoring and control on websites and applications on mobile. When the Solar System Operation Center detects a error of system, it will send notification. In addition to SSOC visual monitoring function (capacity, voltage, temperature, etc. the system SSOC™ helps customers with actual efficiency evaluation of the system in real time. It is available for exporting excel file, send inspection email.

Research and development of the control devices which combines wifi, Ethernet, GMS for monitoring, control on SSOC, including:
- **iStar**: a small-scale solar water heater controller
- **iSolarBK**: The control panel of solar water heating system with industrial-scale
- **iLight**: a light solar controller
- **iBoK**: the monitoring combine remote controller with Base Transceiver Station
- **iDesal**: a sea water filtering controller combines a remote monitoring via GSM
- **iGenSet**: the controller with an electric generator of the hybrid system between solar and battery of accumulator

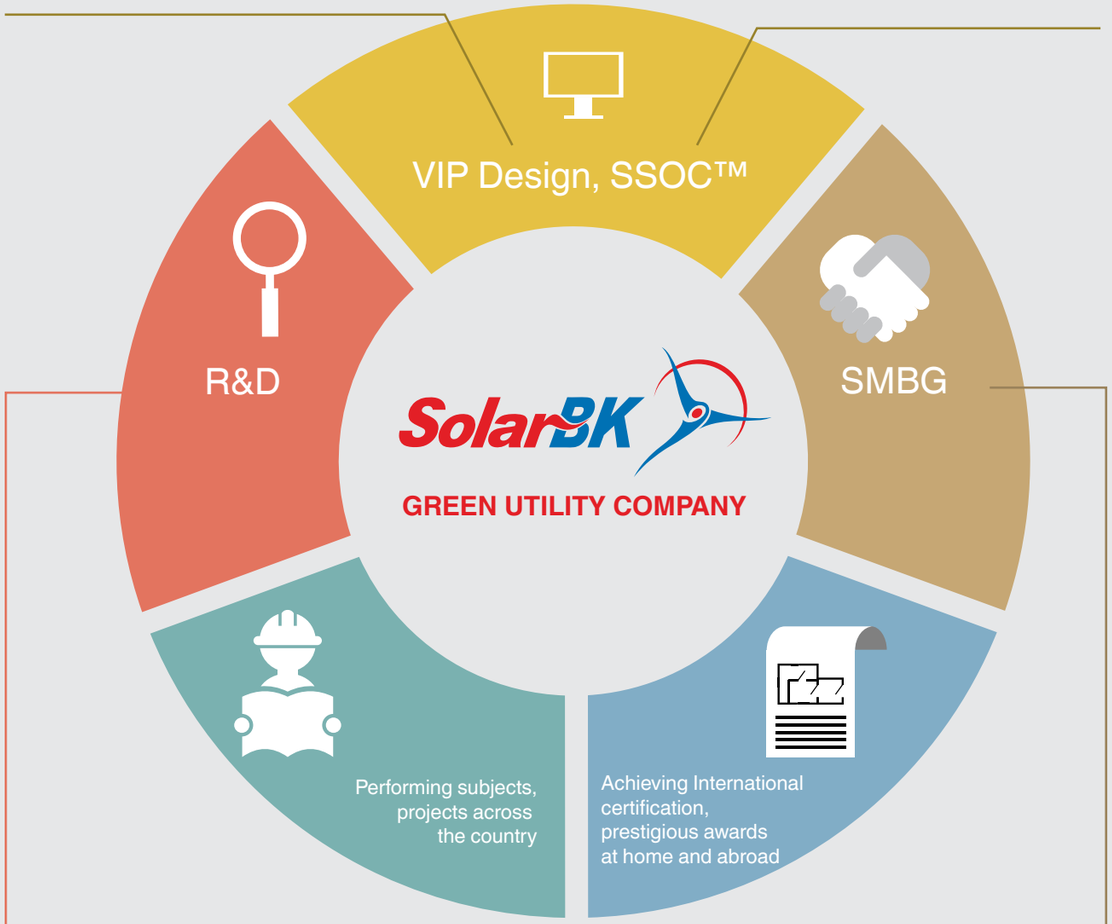
Following a requesting project, we will combine or separate a monitoring, controller
Belink: the controller and a data collection which use collect, transmit data with the solar water heater or solar power system.

Continuous improvement of the design and materials of the SolarBK water heating product series such as adding 4-corners shoot pad of heat sink, change of foot design, Solar tank can separate the absorption plate, it offers the ability to conceal tanks that meet installation on tiled roofs and still maintain aesthetics, so on.

Water tanks are placed underneath the roof, helping to enhance the aesthetics of the house.

VIP Design & Tailored
to every project

Unique & featured design for each project,
SSOC: **Solar System Operation Center**



Research & Development

SMBG:
Solar Money Back Guarantee

At SolarBK, we focus on research and application of advanced technology in the world, while improving to reduce costs, advancing the product features.

In the field of water heating product:

• Investing in the production line of heat-absorbing CFP panels using Swiss technology, SolarBK now researches and localizes 100% of this product line.

• Anti-corrosion technology of materials in the saline environment.

• Intelligent control technology, control software is optimized and reprogrammable without replacing hardware devices.

• In designing industrial water heating solutions, we apply advanced technologies such as:

• Analytical solution using the f-chart: F-Chart to help calculate the contribution rate of the solar heating system in the system.

• Powerful solution - Φ-Utilisabilité - helps to calculate the energy that the system can obtain.

• Adaptive algorithm - based on various values to control convection pumps, applied to the device controller.

• Siemens Industrial Communications Network Monitoring and Data Acquisition Control System (SCADA) - 2D-3D modeling for error control and monitoring.

• Design & re-model the system on the computer, analyze & optimize the pressure, flow before the actual construction.

• The solution provided the output water heating no more than 5 seconds after the water opened.

• The solution allows 150% overloading compare to the original design.

In the field of clean energy - renewable energy:

By linking with leading businesses around the world, SolarBK offers products that incorporate the latest technologies, representative:

• The solar panel (PV) uses the technology of producing a 4 bus bar - which makes the cells smaller, less heat-emitting, and more efficient, and lasts longer than conventional PV panels. Lead-free / non-welding technology (first in Japan) and environmentally friendly silicone material, anti-reflective, BSF surface.

• The MPPT (peak power search) algorithm is used in the charge controller to optimize the charging time while minimizing battery life, overloading for the battery.

• Wind motors use the technology to control the transmitter brake - which is considered the safest today. Radio waves monitoring & controlling technology.

• Use of materials and anti-corrosion technology, making the device usable in harsh environments (islands, coasts,etc.)

• Pure sinusoidal inverters technology - applied when converting DC power into a stable alternating current that meets the standard for use on all types of electrical equipment.

• DC-AC switching technology, applied in power backup systems, when power outages occur, the system switches to backup power for periods of less than 16 milliseconds, enabling electrical appliances (Computers, lights, etc.) operate normally.

• And many other technological applications.

2008 - Now

Many Clean Energy projects (including solar water heating projects) have been implemented and operated effectively.

2009

Certificate of Merit presented by the Marine Command to the company has achieved excellent achievements in participating in the implementation of Truong Sa Clean Lighting and Energy Pilot Project in 2009.

2010 - 2011

A certificate of merit from the head of the HCMC Tax Department. Ho Chi Minh City and well implemented tax policies in 2010 and 2011.

Certificate of Merit and Gold Cup Vietbuild 2010 Solar water heating brand SolarBK.

A Certificate of Merit by the Marine Corps Command to Bach Khoa Investment & Development Corporation for its excellent performance in the implementation of the "Clean Energy and Lighting Project for Spratly Islands and DK Platform" on December 23, 2014.

Certification of energy-saving products.

Certificate of energy saving products issued by the Ministry of Industry and Trade.

TOP 100 VIETNAM BRAND Golden Star Award 2011.
ISO 9001: 2008 certification.

Certificate of Merit by the People's Committee of Ben Tre Province "Actively supporting material for Voluntary Youth Movement in Ben Tre Province".

Certificate of Merit and Gold Cup Vietbuild 2009 Solar water heating brand SolarBK.

2012

The Clean Energy and Lighting Project for the Truong Sa and DK Platform won "The Energy Globe Award 2012".

2013

IREX's PV panels are issued "Certificate of Product Quality, International Standard" by TUV Rheinland Shanghai.

2014

SolarBK is the first and only representative of Vietnam participating in the international exhibition on clean energy - InterSolar, Germany.

2015

Inaugurated the solar cell production line with 100% automation.

Continue to participate in InterSolar as an annual activity.

2016

SolarBK won the Energy Globe Award 2016 – with the project "Sea water filters with clean energy on Southwest Cay island (Song Tu Tay, Truong Sa)".

2017

SolarBK's flat plate solar collector CFP-C-200 was certified Solar Keymark issued by TUV.
SolarBK's flat plate solar collector CFP-C-200 was certified solar collector issued by SRCC.™

OTHER SOCIAL ACTIVITIES

2010

Sponsored and participated in "Earth Hour" event organized by World Wildlife Fund.

2011

SolarBK Implemented the program "Gathering the sunshine - Lighting the remote countryside" in 2011: sponsoring a clean energy generation system for poor households in Hoa Vang district - Da Nang with a total value of VND 500 million (Co-sponsored by Mitshubishi).

2013

SolarBK joins 350.org to announce the launch of the Vietnam Power Shift campaign to limit the use of clean energy, limiting CO_2 emissions in everyday activities and production.

2015

SolarBK and the Energy Development Center (EDEC) sponsored Nguyen Ba Ngoc Primary School, Quang Hoa Commune, Dak Giong District, Dak Nong Clean energy generation system with a total capacity of VND 320 million (Co-sponsored by others).

2016

SolarBK awards a scholarship to the best talent students who are entering Manufacturing Engineering, Power Delivery for Industrial, Faculty of Electrical & Electronics Engineering and Thermal Engineering at Cao Thang Technical College and Nguyen Tat Thanh University.
SolarBK celebrates Green Summer. The company has donated 50 sets SolarBK lights and solar batteries for people in remote areas without electricity to trawl in Thanh Phu District – Ben Tre Province.

Annual Years

... And many other sponsoring and support activities such as the program "Contributing Stone to build Truong Sa", Tuoi Tre Newspaper, Supporting compatriots in the Central of flood disaster - Red Cross Ho Chi Minh City.


TEST CERTIFICATE


TEST CERTIFICATE

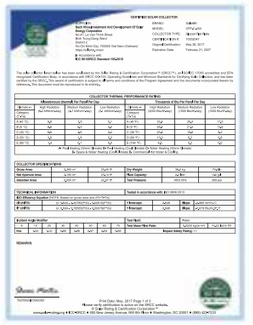

TEST CERTIFICATE

Certificate

Certificate

Certificate


DIN CERTCO
ZERTIFIKAT




YOUTH
GLOBAL FORUM
3rd


Certificate
ISO 9001:2008


BỘ CÔNG THƯƠNG
GIẤY CHỨNG NHẬN
SẢN PHẨM TIẾT KIỆM NĂNG LƯỢNG
Số: 111101
Nhà sản xuất: Công ty CP ĐT & PT Năng Lượng
Mặt Trời Bách Khoa
Địa chỉ: 11 TTN17, P. Tân Thới Nhất, Q.12, TpHCM
đạt tiêu chuẩn Tiết kiệm Năng lượng
Theo TCVN 8251: 2009
"NGÔI SAO NĂNG LƯỢNG VIỆT"
VNEEP


Certificate
ENERGY GLOBE NATIONAL AWARD 2012
WINNER VIETNAM


Certificate
ENERGY GLOBE NATIONAL AWARD 2016


TOP100
GIẢI THƯỞNG SAO VÀNG ĐẤT VIỆT
Giấy Chứng Nhận


BẰNG CHỨNG NHẬN
CÚP VÀNG
THƯƠNG HIỆU NGÀNH XÂY DỰNG
SOLAR - BK


GIẤY CHỨNG NHẬN
HUY CHƯƠNG VÀNG
BỘ XÂY DỰNG
VIETBUILD 2005


GIẤY CHỨNG NHẬN
HUY CHƯƠNG VÀNG
BỘ XÂY DỰNG
VIETBUILD 2004


BỘ XÂY DỰNG
HUY CHƯƠNG VÀNG
VIETBUILD 2005 - TP. HỒ CHÍ MINH


CHỦ TỊCH ỦY BAN NHÂN DÂN TỈNH BẾN TRE
TẶNG
BẰNG KHEN


BỘ TƯ LỆNH HẢI QUÂN
TẶNG
BẰNG KHEN


BỘ TƯ LỆNH HẢI QUÂN
TẶNG
BẰNG KHEN

MITSUBISHI ELECTRIC Changes for the Better
RITAR
SKYSTREAM
xzeres wind
AIR
SolarWorld
TRUNZ
OutBack Power Systems
HYBRIDGEN
WHISPER
MEET-BIS Vietnam
SMA
trakkacorp
ECC
VNEEP
EVN
HOTEL MAJESTIC
HOANG ANH GIA LAI
HUD
Your Nature Home
NORFOLK MANSION
CASEAMEX

1. Typical state projects

1991 - 1992

State level project:
"Researching, designing, manufacturing high-pressure headwater pump" (1991). The project has been excellently evaluated by the State Council for Pre-acceptance Test on 28/3/1991.

"Slow Wind Generator" (1992). This topic was excellently evaluated and awarded the Certificate of Merit by the Council of Ministers in Official Letter No. 375-CT dated 02/11/1991.

1994 - 1996

State level project:
"Completing the technology of wind power generation and wind power pumping engine" - in 1994. The project was excellently evaluated by the Council for Pre-acceptance Test.

Ministerial level project:
"Darrenus soft-axis wind turbine engine" (1994). The project was excellently evaluated by the Ministry of Education and Training for the creative solution of the topic.

State level project:
"Soft-axis vertical wind turbine engine" (1994-1995). The project was excellently evaluated by the Council for Pre-acceptance Test.

Science and Technology supporting project:
"Building wind energy village model for Vinh Nguyen island ward - Nha Trang". The project installed 50 PD-170 wind turbine generators (1995). The project was excellently evaluated by the Council for Pre-acceptance Test.

City level Science project:
"Constructing a wind energy village model for Thieng Lieng-Can Gau - Can Gio" (1995). The project has installed 50 PD-170-6 wind turbine generators.

The project is sponsored by a number of international organizations such as the Switzerland-Vietnam Friendship Association:
The French-speaking community organization (ACCT) provided financial support for the installation of 200 PD-170-6 wind turbine generators and soft-axis vertical wind turbine motors for some southern provinces (1995-1996).

1997 -1999

State level project:
"Research on the ability to exploit the use of wind energy in mountainous areas and islands in the South" (1997).

Ministerial level project:
"Experimental research of vertical soft-axis wind turbine engine for shrimp farming" (1998). The project was fairly evaluated by the Council for Pre-acceptance Test.

Ministerial level project:
"Research on the application of the 100 kW Wind - Diesel Combination" (1999). The project was fairly evaluated by the Council for Pre-acceptance Test.

2001 - 2004

Ministerial level project:
"Researching on electrification of Vietnamese islands by 50 kW - 500 kW Wind - Diesel combination" (2001-2002). The project was fairly evaluated by the Council for Pre-acceptance Test.

KC-07-04 State level project:
"Researching on selection of technologies and equipment for exploiting and using renewable energy in agricultural, forestry and fishery processing, living and environmental protection in rural areas" (2001-2003). The project was excellently evaluated by the Council for Pre-acceptance Test and Won 3rd place at Science and Engineering Fair (VIFOTECH).

Province project:
"Building wind power model for life and activities for Vinh Chau District, Soc Trang Province" (2002-2003). The project was fairly evaluated by the Council for Pre-acceptance Test.

State level project:
"Power Solutions for remote areas of the Mekong Delta" (2002). The project was excellenty evaluated by the Council for Pre-acceptance Test.

Project funded by the World Bank (WB):
"Evaluation of Wind Source Quality of Phu Quoc Island District" (2003-2004).

Project in CT-04 program of the Department of Science and Technology Ho Chi Minh City:
"Technology and design improvement for solar water heating in Vietnam for family and industrial scale" (2003-2004).

2007 - 2009

Project key Ho Chi Minh City National University:
"Technology improvement, diversification of products for mass deployment of solar water heating" (2007-2008).

2012 - 2015

Project :
"Complete technology for localization of 1 kW - 3 kW rechargeable / grid-connected wind turbine combined with remote monitoring capabilities over GSM and anti-corrosion variants," under the Sector Development Scheme Vietnam's environmental industry to 2015 with a vision to 2025 " (2012-2013).

Project :
"Research on technology to improve the used battery life to reduce environmental pollution" under the program "Scientific research, application and technology transfer development of environmental industry" The project "Development of Vietnam's environmental industry to 2015 with a vision to 2025" (2013-2014).

Project :
"Research on the application of technologies for saltwater and brackish water into mobile water using wind energy and solar energy", under the program "Scientific research, application and technology transfer development. Environmental industry "to implement the project" Development of Vietnam's environmental industry to 2015 with a vision to 2025 " (2013-2014).

Project :
"Experimental production of solar water heating for industrial scale", under the project "Development of Vietnam's environmental industry up to 2015, vision to 2025" (2014-2015).

2. Survey and evaluate projects to the potential wind

1991 - 1992

Survey on potential wind in Can Gio

Tool: The Second Wind – USA.

Researching Time: 1 year / survey height: 20 - 30m / project sponsored by: Federation of Science in South California.

State-level project management "Production of wind turbines for water pumps and generators serving rural areas of Vietnam". This project was awarded by the Council of Ministers, under Decision No. 370-CT dated November 2, 1991. State-level project management for rural areas in Vietnam".

1993 - 1996

Project management at the state level in the application of renewable energy (wind energy) to provide energy to remote, mountainous and island areas of Vietnam. So far, more than 800 wind turbine power supply systems have been installed and installed in more than 40 provinces in Vietnam. Direct the establishment of the wind village on the islands of Nha Trang, Khanh Hoa, Thieng Lieng, Can Gao Island, Can Gio District, the remote area of Cuu Long Delta.

Project management installed 100 wind generators for farmers in remote and island areas of 10 provinces in Vietnam with the support of the Swiss-Vietnamese Association.

Project Management "Wind Energy Development for Southern Rural Areas" with the installation of 100 wind turbines for water pumps and generators in 20 regions supported by ACCI / IEPF (Canada).

1997 - 1999

Evaluated on potential wind at Bach Long Vy island

Tool: NRG 9200 PLUS – USA.

Researching Time: 1 year / Survey height: 20 - 30m / Project sponsored by: DANIDA (Denmark).

Survey and evaluated on potential wind at Ca Na

Tool: NRG 9200 PLUS – USA.

Researching Time: 1 year / Survey height: 20 - 30m / Project sponsored by: DANIDA for NEG Micon.

Survey and evaluated on potential wind at Mui Ne

Tool: NRG 9200 PLUS – USA.

Researching Time: 1 year / survey height: 20 - 30m / project funded by the Ministry of Education and Training.

Together with Song Da Construction Company, carry out a pre-feasibility research for the wind farm project in Ca Na, Ninh Thuan province.

Management of the Ministry-level project "Feasibility Study of the Wind-Diesel Project for Electrification of Vietnamese Islands".

Collaborate with Denmark energy consultants (DPC / ELSAM Project) to develop a feasibility research of "100kW Wind-Diesel Power Station" for Thanh An Island, Can Gio District, Ho Chi Minh City and Bach Long Vy Island, Hai Phong.

State-level project management of rural energy supply in the Mekong Delta.

2000 - 2006

Project Management at Ministry level **"Longitudinal wind turbine system for shrimp feeding".**

RECTERE Center deploys 2 survey stations in Phu Quoc: at Ganh Dau Post Office (height: 30 - 40m) and at Ham Ninh Post Office (height: 40 - 50m).

Tool: NRG 9200 PLUS – USA.

Researching Time: 3 years / survey height: 30 - 50m.

State-level project management "Wind energy for rural areas". Cooperate with Electricity Company 3 to consult Wind-Diesel Project for Phu Quoc Island.

City-level project management **"Solar water heating with commercial scale".**

RECTERE Center deploys 3 survey stations in Phu Quoc: 1 in Dam Bay (height: 40m), 1 at Apple Garden (height: 40m).

Tool: NRG Symphony 9300 Plus – USA.

Researching Time: 2 years / survey height: 40m / project funded by World Bank RECTERE Center works as a national consultant partner.

Become a leading corporation in providing utility services from clean energy

SolarBK
GREEN UTILITY COMPANY

2010

"CONFIRMED BRAND IN VIETNAM"

- Professional solutions
- Complete quality
- Sophisticated personnel
- The structure is compact and consistent
- Optimal cost
- Careful about service
- Synchronization across the system
- Standardization of Regulatory System - Charter

2011

"INVESTMENT IN TECHNOLOGY AND INTELLECTUALS"

- Modern technology
- R&D investment affirms its position in Vietnam. Raise technical range
- Make the most of the gray matter from universities
- Certified Solar Keymark
- Leading provider of Clean Energy in Vietnam
- Make the most of the support from the government

2012

"COOPERATION "

- Strategic investor team
- Partner Network in potential markets outside Vietnam
- Establishment of Green energy in Vietnam
- Participate in the development and planning of Vietnam's Green energy
- The corporation system operates effectively
- Establish relationships with commercial banks

2013

"DOMINATE DOMESTIC MARKET"

- International Standard LAB Solar Room
- Prestigious investment consultant on CE
- Involved to invest in wind / solar power plant
- Establish standard system for CE equipment / solution
- The leading Nurse Consultancy and Design Training Center in Vietnam
- Manufacturer of wind, solar cell & SWH Collector in Vietnam
- Products with reasonable price and good quality
- Diversify product support for CE

2014

"EXPLORE NEW AREA"

- Products meet International standard
- Execution of projects outside Vietnam
- Exporting products
- Establish a distribution system outside Vietnam
- Establish an office / joint venture company in potential markets
- Complete International Sales Department

2015

"IMPROVEMENT TO INTEGRATION"

- Continue to boost investment in R&D
- Modernization and upgrading and expansion of the plant
- Acquire & develop talents
- Synchronization - standardize information management system

2016 - 2017

"STRAIGHT TO THE OCEAN"

- Improve the SolarBK brand image
- Distributed network system and interactive showroom (SolarBK Experience Space)
- Develop a remote energy management solution
- Promote and integrate business activities with environmental and social responsibility (through the "Save the environment" campaign)
- Inaugurated SolarBK Clean Energy Building
- Extend the plant, scale production
- Expand the international market
- Plan to prepare the IPO
- To begin construction of a the investing extension project: the invested renewable energy production complex
- The project consists of two categories: Clean energy factory and Research & Development Center of Renewable energy product. The solar cell manufacturing plant with 150 MWp and the solar cell manufacturing plant with 200 MWp

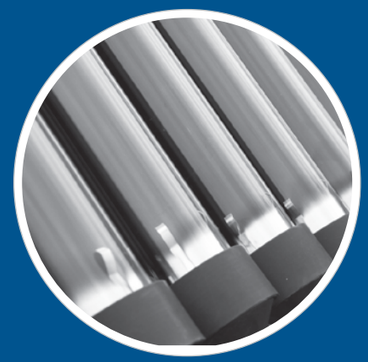
Build international working environment & keep learning:

SolarBK is a company with an international working environment, regularly cooperating with foreign businesses to exchange knowledge and technology, and create conditions for international students to practice and work in the company.

Part 2

BUSINESS SECTOR

SOLAR WATER HEATING SOLUTION



For residential and industrial water heating systems designed by SolarBK in modular form and optimally according to the needs and habits of customers, highly compatible with many types of surfaces, easy to upgrade and expand.

The system is controlled and can be monitored remotely by the system solar operation center (SSOC™).

RESIDENTAL SCALE

SOLAR WATER HEATING **CFP-X®**

STANDARD
SOLAR WATER HEATING
STANDARD
OF MODERN FACILITIES

CFP-X solar water heater is designed with advanced technology. In addition, it still ensures strict aesthetic requirements in modern architecture.

The collector is a pure copper design that is protected by a low-iron tempered glass that is resistant to external impact. In addition, the CFP-X solar water heater can separate the heat sink and the sink. The system's hot water tank can be installed anywhere in your home, ensuring architectural aesthetics.

The collector has been tested and certified by the German certification body DIN CERTCO according to the Solar Keymark standard DIN EN 12975-1: 2011-01 and DIN EN ISO 9806: 2014-06.

Product characteristics

- **Culprit buried beneath the house**
- **Easy to install and easy to use**
- **Powerful pressure, rapid heating speed**

SPECIFICATION	TYPE	
	CFP-X 220	CFP-X 320
Dimensions (LxWxH) (mm)	2500 x 1400 x 1300	2500 x 2600 x 1300
Capacity (liter) / users	220 liters /5-8 users	320 liters /10-12 users
Water temperature output	$45^0 - 75^0C$	
Collector	• Heat absorbing component: 100% pure copper pipes and plates, high durability. Chrome-plated front panel & rear nickel plate help to absorb heat • Frame: The die-cast aluminum has high durability and aesthetics, with an antioxidant protective coating • Insulating and protection glass: Low-Iron glass	
Collector dimensions (LxWxH) (mm)	1960 x 1200 x 65	1960 x 1200 x 65 x 2 panels
Hot water tank	• Inner: SUS 304 stainless steel (1.2 mm thick) • Outer: powder coated steel (0.45 mm thick) • Insulation: PU Foam (Polyurethane Foam) 50 mm thick using the pumping technology of High pressure foaming, good heat insulation, heat retention capacity up to 48 hours. • Withstand water pressure up to 3 bars	
Footframe	Powder coated steel	
ISTAR intelligent Resistor / Controller	Optional	
Circulation pump system	Optional	

SOLAR WATER HEATING **E-life®**

SMART
SOLAR WATER HEATING
NEW TECHNOLOGY
MEANS HIGH QUALITY

E-Life solar water heater is designed to ensure 3 indespensable factors for the high-end applicated product line: convenient, technology, aesthetic. Moreover, hiding tub feature, increasing the aesthetic for the house, E-life is also capable of with standing the strong water pressure and rapid heating that guaranteed for customers the most relaxing moments.

Product characteristics

- **Smart control application**
- **Modern design ensures aesthetics in architecture**
- **Strong water pressure, rapid heating**

SPECIFICATION	TYPE	
	E-Life 220	E-Life 320
Dimensions (LxWxH) (mm)	2500 x 1400 x 1300	2500 x 2600 x 1300
Capacity (liter) / users	220 liters /5-8 users	320 liters /10-12 users
Water temperature output	$45^0 - 75^0C$	
Collector	• Heat absorbing component: 100% pure copper pipes and plates, high durability. Chrome-plated front panel & rear nickel plate help to absorb heat • Frame: The die-cast aluminum has high durability and aesthetics, with an antioxidant protective coating • Insulating and protection glass: Low-Iron glass	
Collector dimensions (LxWxH) (mm)	1960 x 1200 x 65	1960 x 1200 x 65 x 2 panels
Hot water tank	• Inner: SUS 304 stainless steel (1.2 mm thick) • Outer: Powder coated steel (0.45 mm thick) • Insulation: PU Foam (Polyurethane Foam) 50 mm thick using the pumping technology of High pressure foaming, good heat insulation, heat retention capacity up to 48 hours. • With stand water pressure up to 3 bars	
Footframe	Powder coated steel	
ISTAR intelligent Resistor / Controller	• Integrated intelligent controller helps ensure continuous the hot water supply under all weather	
Circulation pump system	Optional	

RESIDENTAL SCALE

SOLAR WATER HEATING SElife®

SMART
SOLAR WATER HEATING

NEW TECHNOLOGY
MEANS HIGH QUALITY

SE-life solar water heater is a high-end, multi-technology, high-tech product in its product line. In addition to the aesthetic hiding feature of the home, the water tank is specifically designed with an enamelled technology and with anti-corrosive magnesium bars. Suitable for installation in areas near the ocean or where contaminated inputs are present.

Product characteristics

- Smart control application
- Modern design ensures aesthetics in architecture
- Anti-corrosion technology
- Strong water pressure, rapid heating

SPECIFICATION	TYPE	
	SE-Life 220	SE-Life 320
Dimensions (LxWxH) (mm)	2400 x 2100 x 1070	2400 x 2900 x 1070
Capacity (liter) / users	220 liter/5-8 users	320 liter/10-12 users
Water temperature output	$45^0 – 75^0C$	
Collector	• Heat absorbing component: 100% pure copper pipes and plates, high durability. Chrome-plated front panel & rear nickel plate help to absorb heat • Frame: The die-cast aluminum has high durability and aesthetics, with an antioxidant protective coating • Insulating and protection glass: Low-Iron glass	
Collector dimensions (LxWxH) (mm)	1960 x 1200 x 65	1960 x 1200 x 65 x 2 panels
Hot water tank	• Inner: SUS 304 stainless steel (1.2 mm thick) • Outer: Powder coated steel (0.45 mm thick) • Insulation: PU Foam (Polyurethane Foam) 54 mm thick using the pumping technology of High pressure foaming, good heat insulation, heat retention capacity up to 48 hours • With stand water pressure up to 6 bars	
Footframe	Powder coated steel	
ISTAR intelligent Resistor / Controller	• Integrated intelligent controller helps ensure continuous the hot water supply under all weather	
Circulation pump system	Optional	

SOLAR WATER HEATING Life®

QUICKLY
ENJOYING

NATURAL
HOT WATER SOURCES

Life solar water heater provides customers with hot water right from the first minute. Vacuum tube collectors are designed with a stable performance for short-term water heating even in cloudy days. In addition to the Life 200 series, Life 300 also equipped with the intelligent iStar controller to help customers customize the parameters of temperature, water volume, time use.

Product characteristics

- Rapid heating speed, suitable for low solar radiation
- Keep heat longer, providing hot water up to
- Intelligent control technology
- Cost savings

SPECIFICATION	TYPE		
	Life 150	Life 200	Life 300
Dimensions (LxWxH) (mm)	2140 x 1495 x 1050	2140 x 1695 x 1050	2140 x 2700 x 1050
Capacity (liter) / users	150 liters / 3- 5 users	200 liters / 4-6 users	300 liters / 8-10 users
Water temperature output	$45^0 – 85^0C$		
Dimensions of vacuum tubes	Ø58mm, length 1.8m. Can be replaced individually.		
Number of vacuum tubes	15 tubes	20 tubes	30 tubes
Vacuum tubes characteristics	• Material: high-quality borosilicate glass, good heat shock resistance • Two-layer structure, special material coating (SS-CU-TI-N/AL), optimizes the absorption capacity by 10% • Vacuum up to 5 bars (100%) • Thickness: 1.8 mm		
Hot water tank	• Inner: SUS 304 stainless steel (0.6mm thick), in direct contact with water (certified by Ministry of Health - Vietnam) • Outer: SUS 430 stainless steel • Insulation: Insulation: PU Foam (Polyurethane Foam) 50 mm thick using the pumping technology of High pressure foaming, good heat insulation • Plastic tank cover PP CO		
Footframe	• Reflective panels help increase the efficiency of heat absorption • SUS 430 stainless steel.		
ISTAR intelligent Resistor / Controller	Optional		
Circulation pump system	Optional		

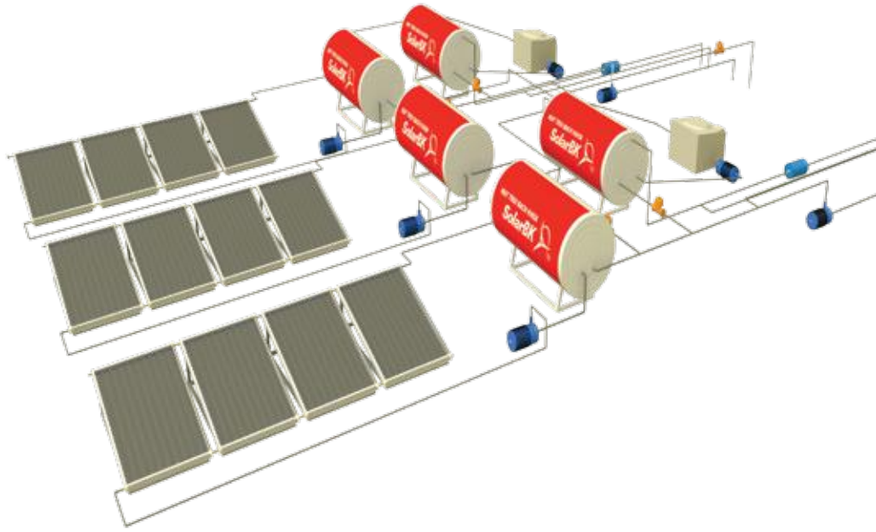
INDUSTRIAL SCALE

EXPERIENCE THE DIFFERENCE OF SOLAR WATER HEATER FROM SolarBK

OUTSTANDING ADVANTAGES

- The quality of products meets TCVN standards and is strictly managed according to ISO 9001: 2015.
- Superior technical features with intelligent control system ensures 24/24-hour hot water, even in the water Weather conditions are not favorable.
- Competitive price.
- Meet the complexity of every building.
- Warranty for over 5 years, after-sales service, with customer care centers and agents throughout. Ensure that the problem is resolved within 24 to 48 hours after receiving the notification.
- Products obtained Energy Saving Certificate from Ministry of Industry and Trade.
- Applying the program "Providing energy saving solutions must be accompanied by commitments" (SMBG - Solar Money Back commitment Guarantee). With this program, customers will be guaranteed to compensate for the difference between committed saving sand the fact.

SOLAR WATER HEATING SOLUTION 01



Vietnam Rich's Products Factory Project - Ho Chi Minh city

5* Rex Hotel Project - Ho Chi Minh city

PRODUCTS

Boostek INVERTER CABINET

In order to meet the constant pressure requirements of the water supply, the output pressure is always stable for high-grade industrial water heater projects, specially designed FC202 inverter series. Water supply and waste water treatment, rotary / boost pump control up to 8 pumps, protection up to IP68, Display 5 graphic parameters with capacity up to 1400kW. Origin: Denmark - European Imports High quality. PID control feature that can be applied to closed-loop control systems. The application of this inverter in the water supply system will bring many advantages such as low cost, high level of automation, full of protection functions, easy to operate and effective. Clearly save on water and energy consumption.

In addition to the Modularization design of each component, the upgrade and control of each component is very flexible, easy. High security is a hallmark of the system, by designing and manufacturing to industry standards, focusing on the ability to warn and protect themselves when there is an error.

CONTROL PANEL FOR BlogiK® INDUSTRIAL WATER HEATING SYSTEM

Control panel for BlogiK industrial water heating Is an outstanding achievement in the design and operation of solar water heating systems with a capacity of 5.000 liters / day or more.

BlogiK® consists of 2 versions:
. BlogiK ® Pro: Using PLC Siemens – Germany
. iSolarBK®: Using microcotroller ATMEL – Germany

CONTROL PANEL FOR SOLARBK BKOMMANDER WATER HEATING SYSTEM

Control panel for SolarBK BKommander Solar water heating systems Is an outstanding achievement in the design and operation of solar water heater systems with small scale, simple, high economic efficiency.

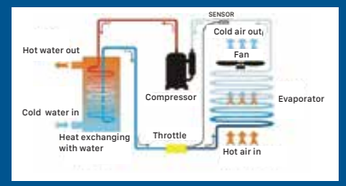
Bheatek Plus WATER HEATING PRODUCT CONTROLLER

- Bheatek Plus V6.0 is an upgraded version of the Bheatek Plus controller that improves the quality and performance of the product.

- The product was born to meet the needs of industrial water heaters projects with complete expansion of the hardware, which requires high stability.

- The product was born to demonstrate the initiative in SolarBK's system control solutions, to better prepare for Water Heating Product projects, to actively utilize the technology, components and features desired.

HEAT PUMP SYSTEM



Operating principle of Heat Pump:

Operating principle of Heat Pump:

- Heat Pump water heating device is the solution to provide safe hot water with high efficiency up to 400%, saving from 70 - 80% of energy consumption..

The main task:
- Heating for hot water when solar energy does not provide enough the required temperature, ensuring constant hot water under all weather conditions..

- Heat pump heating system is suitable for Insudtrial Scale.

ESCO SOLUTION

Use hot water / heating for production or business with
MAXIMUM COST IS 80% COMPARED TO CURRENT COST

ESCO MODEL

It is the form of investor completely invested machine system solar water heater at the production base of the customer, and collect money based on the efficiency of electricity savings due solar water heating system brings back.

ESCO EFFICIENCY SAVING

- Invest100%
- Quality service
- Saving efficiency

ESCO JOINT VENTURE

EVN EVNSPC SolarBK

ESCO joint venture between the Electricity Corporation South (EVN SPC) and SolarBK are established based National policy (*) to support Vietnamese enterprises keep up the international trend on energy usage saving & efficiency, improving competitiveness by how to apply the ESCO model in business production activities

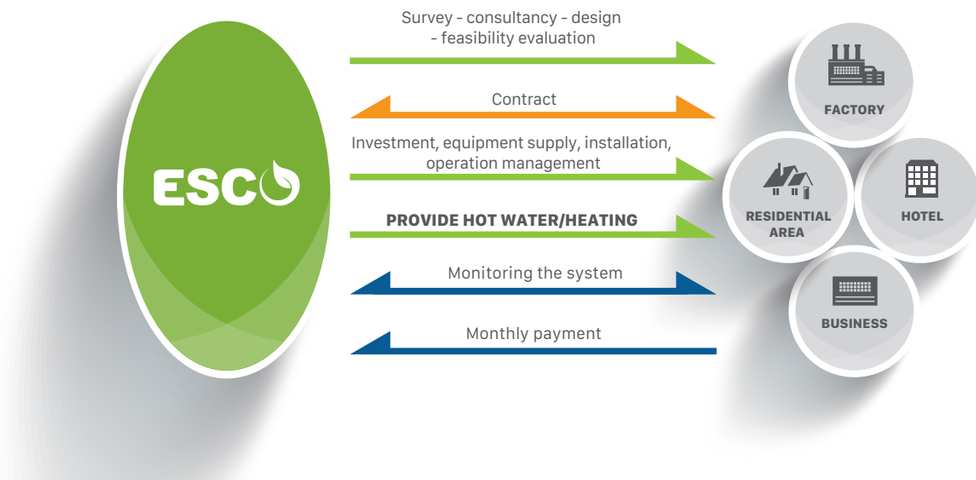
(*) Document No. 10315 / BCĐ-TKNL guiding the Group electricity of Vietnam in cooperation with Bach Khoa investment and Development of Solar Energy Corporation develops the ESCO model.

VB 3262 - SPC - ESCO Electricity of Vietnam assigned to the general southern Power Company jointly launched ESCO with the Sun encyclopedia adopts a business cooperation contract.
Business Co-operation Contract No. 01.2014 / HDTVKD dated 22/9/2014 about the capital contribution to the ESCO partnership

BENEFITS FOR BUSINESS

- Do not invest
- No worries about technology
- No operating costs
- Use clean energy
- Increase brand value
- Increase competitiveness

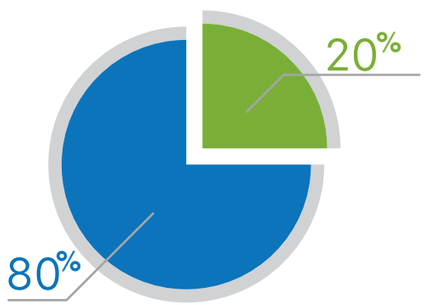
ESCO MODEL



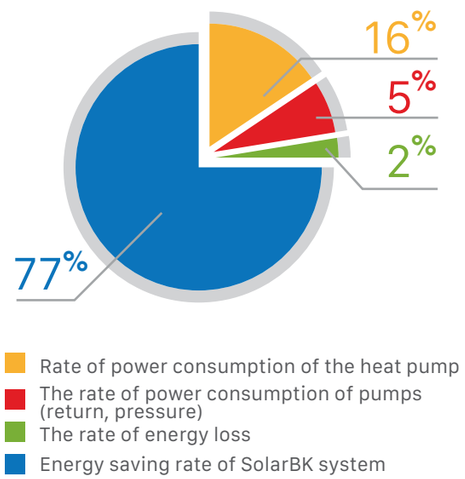
Typical projects: **CASEAMEX** - Can Tho

Hot water demand: 23,000 L/ day

Contribution rate



Energy distribution



Other Projects

CUU LONG TOURISM JOINT STOCK COMPANY - CUU LONG HOTEL – VINH LONG PROVINCE
Hot water demand: 5.000 L/ day

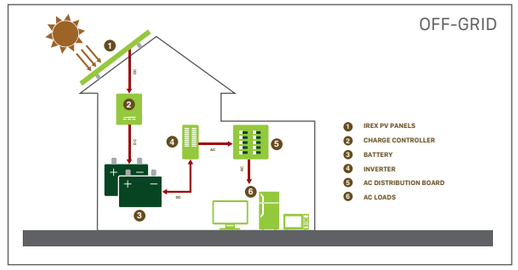
GENERAL CORPORATION 622- 4 STARS NINH KIEU HOTEL, CAN THO PROVINCE
Hot water demand: 15.000 L/ day

CLEAN ENERGY SOLUTION

Meet the benefits of the environment and reduce operating costs (OPEX) for businesses.
With a series of large projects (buildings, residential clusters, etc.) with high efficiency when using SolarBK solar power system providing solutions and construction, we are proud to be the leading brand in this field.

THE OFF-GRID
STANDALONE PV POWER SYSTEM

An off-grid standalone PV Power system suitable for remote areas as islands where there arr limited access to electricity from the national power grid. This solution can be designed with renewable energy resources such as solar or wind energy combined with diesel generators and back-up batteries for continuous electricity supply 24/7.

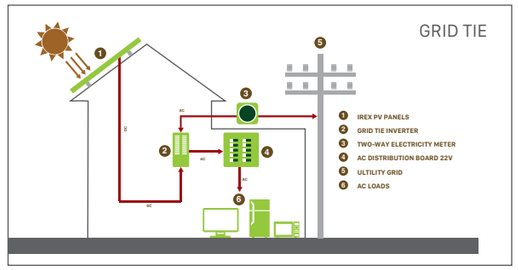


THE GRID-TIE
PV POWER SYSTEM

A grid-tie PV Power system is especially suitable for areas where the national power grid is available. This system will use the photovoltaic power as the first priority pwer supply for the electrical appliances. If the electric power comes in excess, this surplus of energy will be transferred to the national power grid. When the system is short of electricity, it will take power from the national grid as a supplementary power source.

• The grid-tie system's advantages are the lowest investment cost compared to the other PV solutions, sustainability and longevity.

• The grid-tie system's drawback is the shutdown of the system when the electricity from the national power grid is cut off.

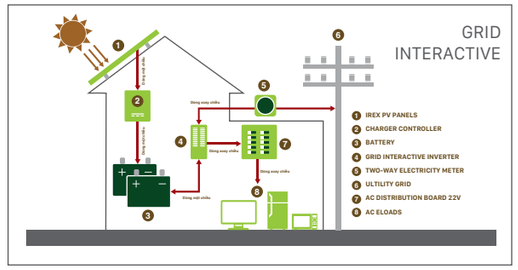


THE GRID-INTERACTIVE
PV POWER SYSTEMTEM

A grid-interative PV power system is the same as a grid-tie PV power system but the former comes equipped with back-up batteries.

• The grid-interactive system's advantage is to maintain the power supply to the load even when the national power grid is cut off. It is suitable for the areas where electricity suppliers are unstable.

• The grid-interactive system's drawback is the higher investment cost in comparison with the grid-tie system.



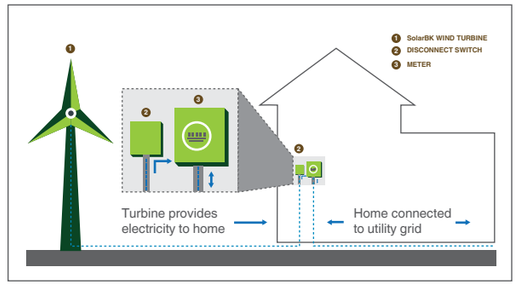
WIND TURBINE

The wind turbine system includes: the wind turbine, the tower and control & connection systems. Some systems also include a battery system to store electricity.

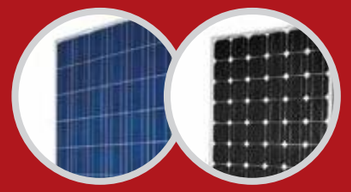
Once impacted by wind, the turbine will spin and generate electricity commensurate with wind speed.

The generated energy is controlled by the wind turbine's integrated controller to provide AC power to the house. This electricity is the first priority for usage by the loads. In cases the load demand is higher than energy from the wind turbine, the electricity from the grid will be added. However, if the load deman is lower than energy from the wind turbine, the excess energy will sell back to the grid. This wind power solution is for areas already connected to the national power grid.

For areas where the national grid is unavailable, batteries are added to the system to store energy from the wind turbine and energy balance control system.

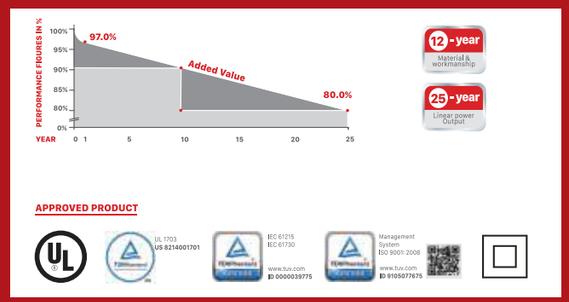


IMPORTANT COMPONENTS OF THE SYSTEM



PHOTOVOLTAIC (PV) PANELS

- These Made-in-Vietnam PV panels are produced by Irex, a member of SolarBK. These panels comply with international standards such as UL (USA) and IEC (Europe).
- Irex PV panels warranty is 12 years for materials or technical faults and 25 years for performance decline.



INVERTER/CHARGER: OUTBACK and SMA

- An inverter converts DC current into AC current and is intergrated with the charge controller and the lagging AC current converter. The intelligent multi-status battery charge function of the controller helps the battery to be long lasting. This product can also be expanded by being connected to other similar products in case more power is required.
- There are 2 types of inverter/charge controllers: the sealed one (FX) and the vented one (VFX). The sealed one can be used in the harsh conditions such as high humidity, high corrosion or dusty environment. The vented one, which is designed with anti-insect net, is available for supply high AC power in high-temperature environments.

THE PROGRAMMABLE CHARGE CONTROLLER FLEXMAX

The programmable charge controller is designed with Maximum Power Point Tracking technology (MPPY) and energy data storage. MPPT algorithm helps to increase the efficiency of the system by 30% compared to non-MPPT one. Temperature management and active cooling system makes this controller available to operate with maximum capacity evenwhen the outdoor temperature is high. FLEXmax can connect to the internet, be programmed and managed remotedly, display and provide complete information about the operating status of the whole system.

THE BACK-UP BATTERY

Inside the solar system of SolarBK are the SEC GEL Deep Cycle batteries, which are designed specifically for the frequent refill, fully discharge and high temperature conditions. This type of battery has a 40% higher life expectancy in comparison with the similar one of AGM. Its special features are: absolutely no need for the maintenance as other kinds of batteries, slow self-discharge, high stability when being discharge completely, extremely long life and being designed as a completely sealed, completely stainless, non-polluting as well as eco-friendly system.

TYPICAL PROJECTS:

Administrative Building Project
Binh Duong City

Green One UN House Project
Ha Noi Capital

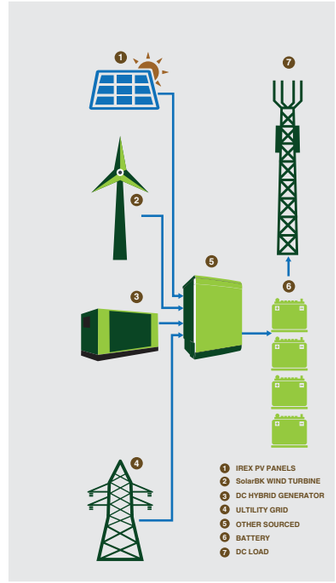
FPT City
Da Nang City

GREEN ENERGY POWER SOLUTION FOR BASE TRANSCEIVER STATION – BTS

Designed and constructed by SolarBK based on combination of power, wind power, grid electricity, DC generator and electricity from other power sources, ensuring the continuous operation of BTS stations.

- The Hybrid power solution offered by SolarBK is combined of energy sources from PV Panels, wind power, grid power, hybrid generator HybridGen and Zinc-Air batteries. This solution saves operating costs by prioritizing the use of renewable energy sources for load and charged into the batteries to back up for the energy shortage case. The system works fully automatically and can be monitored remotely via the internet.

- Depending on the conditions of the particular location od the BTS, the system may be set to be used with the most optimal and economical combination of the power supply sources but still ensure enough power to supply for the load 24/7. We offer flexible solutions depending on the actual situations of the installation places.

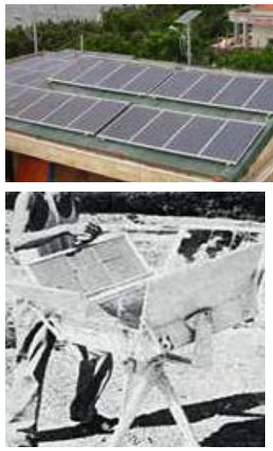


GLOBAL POSITIONING STATION (GPS) -
The mapping department project - Spartly Islands

AUTOMATIC PLANE SURVEILLANCE AND TRACKING STATION (ADS-B) -
Spartly Islands Project

TELECOMMUNICATION TRANSCEIVER STATION (BTS) -
Me Island - Thanh Hoa province




MICRO/MINI – GRID POWER SOLUTION

Suitable for areas without electricity such as islands, mountainous areas, remote areas ... The Solution combines solar power, wind power and battery electric storage system, which is ensuring uninterrupted power supply, stable.

Projects for all clean energy and lighting at Spratly islands (locally known as Truong Sa) and DK1 platform

This is one of the largest Vietnam national key constructions, was invested by Naval Command and Petro Vietnam. SolarBK is the project contractor run the process of building, setting up, training and technology transferring. It ran from 2008 to 2010 and kept mantainance and upgraded continuously.

This project uses solution of hybrid system between wind energy and solar energy in large scale. It was run spreadly over 48 islands. So far, it completed more than 5.700 photovoltaic solar panels, 120 wind turbines, 60 lights, and 1.000 LED lights. It helped to save national energy and improve living standard for soldiers and citizens in islands. This project was honor to be awarded by Energy Globe 2012.

FACTS & FIGURES

- 5.167 kWh/day (155 MWh/month) electricity output for the island group
- 2.100 liters of diesel oil saved per day (774.000 liters/year)
- 2.300 tons/year reduction of CO_2 emissions

TYPICAL PROJECTS:

Tran island – Quang Ninh province

Son Cha island project – Thua Thien Hue province

Eden resort project – Phu Quoc island, Kien Giang province

DESALINATION SYSTEM

The desalination system uses wind and solar energy to power salt water filtering equipment to create drinkable water. This system is suitable for areas such as islands where there is a lack of usable water.

TYPICAL PROJECTS:

THE SYSTEM PURIFIES SEAWATER INTO CLEAN WATER –
Pilot project in Southwest Cay island- Spartly Islands

CLEAN ENERGY GADGETS

Developed by SolarBK research and development teams such as iSolBox rechargeable suitcase, solar charging station, solar light, etc., bring clean energy closer to community and society.

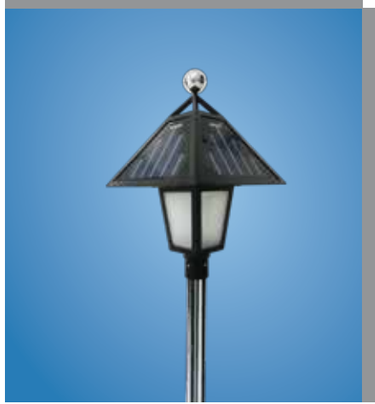
SOLAR
LIGHTING SYSTEM

PACKBACK (SunPack)

SUITCASE (SunPack)

HAND BAG (SunPack)

MOBILE CHARGING STATION



SOLAR
LIGHTING SYSTEM

TURN-KEY SOLUTION
SOLAR POWER, WIND POWER PROJECTS
(EPC Concept – Solar Farm, Wind Farm)

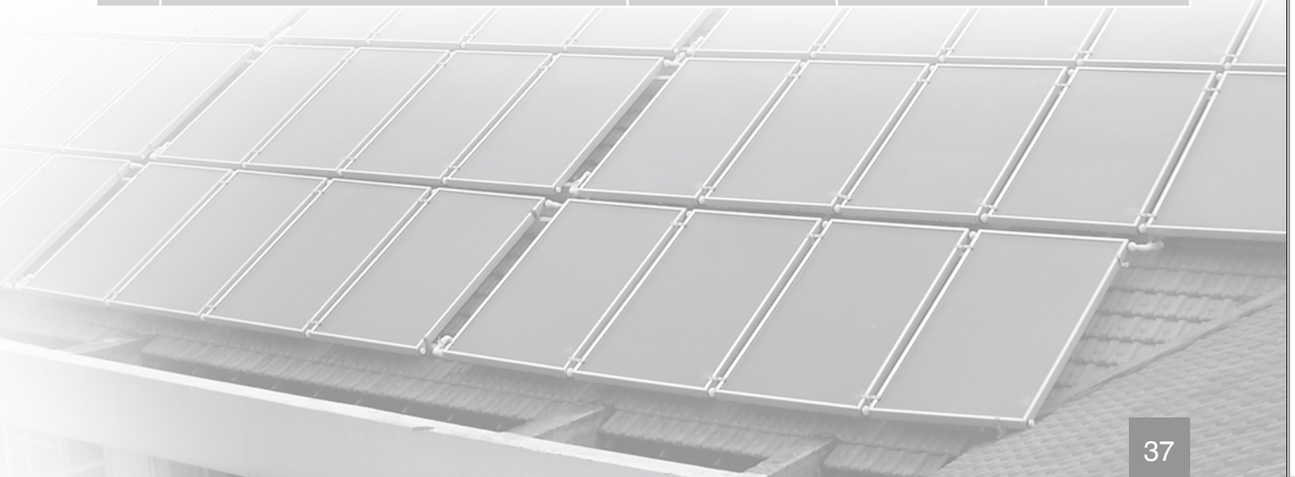
From stage of investment project to design, supply of equipment, technology, construction and operating inspection, handing over package to investors.

Part III
APPENDIX
THE TYPICAL PROJECTS

2.1. Industrial scale solar water heating project

NO.	PROJECT	PLACE	CAPACITY	TIME
1	**SAI GON HOTEL**	HCM	**10.000 L**	2006
2	**LONG THUAN RESORT**	NINH THUAN	**16.000 L**	2007
3	**LAVENDER HOTEL**	HCM	**4.000 L**	2007
4	**CAT LAI PORT CANTEEN**	HCM	**4.000 L**	2007
5	**MORIN PHASE 1**	HUE	**10.000 L**	2008
6	**NORFOLK HOTEL**	HCM	**10.000 L**	2008
7	**WOOSHU HOTEL**	DONG NAI	**16.500 L**	2008
8	**MAJESTIC HOTEL**	HCM	**27.000 L**	2008
9	**BECAMEX/NEWHOLIDAY BLOCK H**	BINH DUONG	**18.000 L**	2009
10	**CAP SAINT JACQUES**	VUNG TAU	**11.500 L**	2009
11	**NORFOLK MASION**	HCM	**21.000 L**	2009
12	**KAYA-HIEP HOA HOTEL**	PHU YEN	**5.000 L**	2009
13	**MORIN PHASE 2 HOTEL**	HUE	**4.000 L**	2009
14	**THANH VAN II HOTEL**	QUANG NAM	**3.500 L**	2009
15	**BAMBOO VILLAGE RESORT**	BINH THUAN	**5.000 L**	2009
16	**HOANG LONG FISHERY FACTORY**	DONG THAP	**6.000 L**	2009
17	**02 APARTMENT BUILDING CT 9A, CT 9C IN VIET HUNG NEW URBAN AREA by the hud corporation as the owner**	HA NOI	**36.000 L**	2010
18	**SUNRISE HOTEL**	KHANH HOA	**10.000 L**	2010
19	**SWIMMING POOL**	HCM	**420.000 L**	2010
20	**REX PHASE 1 HOTEL**	HCM	**9.000 L**	2010
21	**HAI QUAN HIGH SCHOOL**	HCM	**5.000 L**	2010
22	**PUBLIC HOUSEHOLDS**	HCM	**2.500 L**	2010

NO.	PROJECT	PLACE	CAPACITY	TIME
23	**SLAUGHTER HOUSE OF CATTLE**	CAN THO	**7.000 L**	2011
24	**DE NHAT HOTEL**	HCM	**14.000 L**	2011
25	**VIETSOVPETRO HOTEL**	LAM DONG	**6.000 L**	2011
26	**CAI MEP PORT PHASE 2**	VUNG TAU	**4.000 L**	2011
27	**SAI GON CONTINENTAL HOTEL**	HCM	**10.000 L**	2011
28	**REX PHASE 2 HOTEL**	HCM	**8.000 L**	2011
29	**SAMMY HOTEL**	VUNG TAU	**9.000 L**	2011
30	**BAMBOO CENTRAL (ESCO)**	DA NANG	**5.000 L**	2012
31	**BAMBOO GREEN**	DA NANG	**3.000 L**	2012
32	**CAI MEP PORT (CONSTRUCTION)**	VUNG TAU	**4.000 L**	2012
33	**EDEN PHASE 1**	KIEN GIANG	**4.000 L**	2012
34	**HOLIDAY BEACH**	DA NANG	**4.500 L**	2012
35	**MELIA HOTEL**	DA NANG	**9.000 L**	2012
36	**MIDTOWN HOTEL**	DA NANG	**9.000 L**	2012
37	**NHI PHI HOTEL**	KHANH HOA	**9.000 L**	2012
38	**137 HAI DOI CANTEEN**	DA NANG	**9.000 L**	2012
39	**HOUSE IN AREA B - REGION 3 HAI QUAN**	DA NANG	**13.000 L**	2012

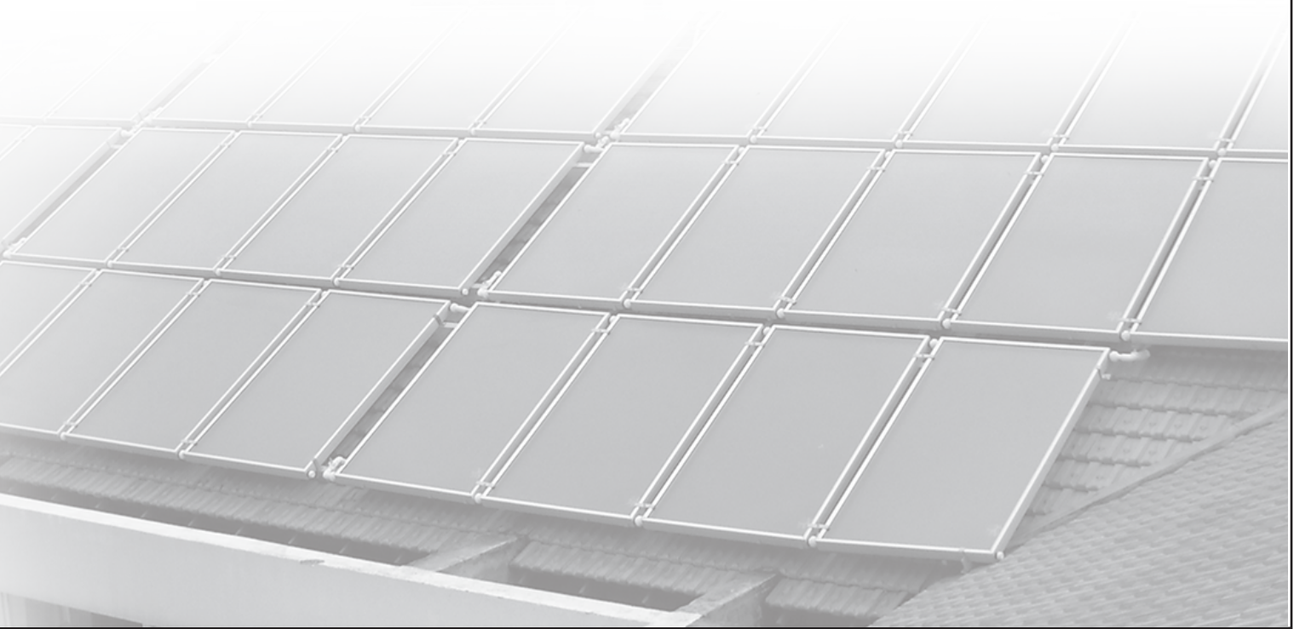


NO.	PROJECT	PLACE	CAPACITY	TIME
40	**FAMILY HOSPITAL**	DA NANG	**7.000 L**	2013
41	**TU DU HOSPITAL**	HCM	**16.000 L**	2013
42	**BAT DAT HOTEL**	HCM	**6.000 L**	2013
43	**BRILLIANT HOTEL**	DA NANG	**6.000 L**	2013
44	**DAU AN HOTEL**	HOI AN – QUANG NAM	**1.500 L**	2013
45	**DREAM HOTEL**	LAM DONG	**2.000 L**	2013
46	**GRAND HOTEL**	HCM	**15.000 L**	2013
47	**HONG PHUC HOTEL**	VUNG TAU	**18.000 L**	2013
48	**KIM AN HOTEL**	QUANG NAM	**3.000 L**	2013
49	**M2 BOUTIQUE HOI AN HOTEL**	QUANG NAM	**13.000 L**	2013
50	**MEPROS HOTEL**	VUNG TAU	**12.000 L**	2013
51	**PHU THINH HOTEL**	QUANG NAM	**3.500 L**	2013
52	**SAI GON NINH CHU HOTEL**	NINH THUAN	**4.200 L**	2013
53	**SANOUVA HOTEL**	DA NANG	**6.000 L**	2013
54	**THE EMPIRE HOTEL**	DA NANG	**2.000 L**	2013
55	**THIEN DUONG XANH HOTEL**	QUANG NAM	**6.000 L**	2013
56	**MC BINH DUONG PLAZA**	BINH DUONG-DA NANG	**9.000 L**	2013
57	**MABUCHI FACTORY**	DA NANG	**3.200 L**	2013
58	**P&G FACTORY**	BINH DUONG	**2.500 L**	2013
59	**VINA KYOEI**	VUNG TAU	**6.500 L**	2013
60	**REGION 1 HAI QUAN – 4th FLOTILLA**	HAI PHONG	**3.000 L**	2013
61	**BROTEX VN COLORED YARN FACTORY**	TAY NINH	**10.000 L**	2013
62	**PEARL HOTEL**	HA NOI	**3.000 L**	2013

NO.	PROJECT	PLACE	CAPACITY	TIME
63	**HAGL – MYANMAR**	MYANMAR	**47.500 L**	2014
64	**4 STAR SACOM TUYEN LAM HOTEL**	DA LAT	**20.000 L**	2014
65	**FURAMA HOTEL**	DA NANG	**2.000 L**	2014
66	**HOANG GIA HOTEL**	QUANG NAM	**8.000 L**	2014
67	**LA RESIDENCE HOTEL**	HUE	**3.000 L**	2014
68	**PALACE PHASE 2**	VUNG TAU	**7.000 L**	2014
69	**SAMDY DA NANG**	QUANG NAM	**10.000 L**	2014
70	**CAM THANH GUEST HOUSE**	QUANG NGAI	**4.000 L**	2014
71	**VIETNAM GAIN LUCKY FACTORY**	TAY NINH	**65.000 L**	2014
72	**OCEAN**	DA NANG	**7.000 L**	2014
73	**RICH FACTORY**	BINH DUONG	**24.000 L**	2014
74	**ANH DUONG HOTEL**	HAI PHONG	**6.000 L**	2014
75	**108 MILITARY HOSPITAL**	HA NOI	**75.000 L**	2015
76	**ISANA HOTEL**	DA LAT	**3.000 L**	2015
77	**ROYAL CLASS NHA TRANG**	NHA TRANG	**10.000 L**	2015
78	**RESORT BAYANA**	NHA TRANG	**1.120 L**	2015
79	**REGION 1 HAI QUAN – HA LONG**	QUANG NINH	**6.500 L**	2015
80	**GENERAL HOSPITAL**	VINH PHUC	**10.000 L**	2015
81	**HOI AN RIVER TOWN HOTEL**	HOI AN – QUANG NAM	**4.000 L**	2016
82	**LASENTA BOUTIQUE HOTEL**	HOI AN – QUANG NAM	**4.000 L**	2016
83	**SHANGRI-LA HOTEL**	HOI AN – QUANG NAM	**3.000 L**	2016
84	**GREEN HEAVEN**	HOI AN – QUANG NAM	**4.000 L**	2016
85	**VINH HUNG 5 HOTEL**	HOI AN – QUANG NAM	**3.200 L**	2016

NO.	PROJECT	PLACE	CAPACITY	TIME
86	**RUBY RIVER VILLA**	MYANMAR	**3.000 L**	2016
87	**VENUS HOTEL AND SPA**	DA LAT	**4.000 L**	2016
88	**PHO HOI RIVERSIDE RESORT**	DA NANG	**3.000 L**	2016
89	**BOUTIQUE HOI AN RESORT**	QUANG NAM	**3.000 L**	2016
90	**CONVALESCENT NURSING HOME 296**	HUE	**11.000 L**	2016
91	**PHU THO GENERAL HOSPITAL**	VUNG TAU	**10.000 L**	2016
92	**CUU LONG HOTEL**	QUANG NAM	**5.000 L**	2016
93	**NINH KIEU HOTEL**	QUANG NGAI	**15.000 L**	2016
94	**SIVA RESORT**	TAY NINH	**5.000 L**	2016
95	**CUU LONG - PPR**	DA NANG	**5.000 L**	2016
96	**WINDSOR**	BINH DUONG	**76.000 L**	2016
97	**VIETNAM GARMENTS MANUFACTURING LIMITED**	HAI PHONG	**7.000 L**	2016
98	**AN GIA HUNG , LA-ASTORIA APARTMENT**	HA NOI	**15.000 L**	2017
99	**HOANG YEN HOTEL**	DA LAT	**5.000 L**	2016
100	**PHOENIX (SEA FLOWER) HOTEL**	NHA TRANG	**5.000 L**	2017
101	**DT 275 MOTEL - HIGH COMMAND**	NHA TRANG	**10.000 L**	2016
102	**TRA CO RESORT**	QUANG NINH	**11.000 L**	2017
103	**GUYOMARC'H FACTORY**	VINH PHUC	**7.000 L**	2017
104	**SOUTH VINA**	HOI AN – QUANG NAM	**20.000 L**	2017
105	**DEPARTMENT OF NATIONAL DEVOTEES**	HOI AN – QUANG NAM	**7.000 L**	2017
106	**HOI AN SILK VILLAGE RESORT & SPA**	HOI AN – QUANG NAM	**5.000 L**	2017
107	**DUC PHU GIA TOURISM COMPANY LIMITED**	DA NANG	**2000 L**	2017
108	**MINH KIEN TOURISM DEVELOPMENT AND INVESTMENT COMPANY LIMITED**	DA NANG	**3000 L**	2017

NO.	PROJECT	PLACE	CAPACITY	TIME
109	**DUONG BO BIEN LIMITED LIABILITY**	DA NANG	**2000 L**	2017
110	**D.T.C CONSTRUCTION INVESTMENT JOINT STOCK COMPANY**	HCMC	**15.000 L**	2017
111	**HUNG THINH COMMERCIAL CONSTRUCTION INVESTMENT & HOUSE DEVELOPMENT LIMITED**	HCMC	**10.000 L**	2017
112	**BUOI SANG MECHANICAL COMPANY LIMITED**	DA NANG	**3.000 L**	2017
111	**PHU QUOC HOI AN SOLE MEMBER LIMITED LIABILITY COMPANY**	DA NANG	**3.000 L**	2017
114	**HOANG NHU LIMITED LIABILITY COMPANY**	HOI AN	**2.000 L**	2017
115	**MINH THAO TOURISM SERVICES PRIVATE COMPANY**	DA NANG	**2.000 L**	2017
116	**DUC NHAT DEVELOPMENT AND INVEST-MENT COMPANY LIMITED**	HA NOI	**13.000 L**	2017
117	**DUC PHU GIA TOURISM ONE MEMBER COMPANY LIMITED**	DA NANG	**6.000 L**	2017



HOT WATER USES SOLAR ENERGY
Industrial scale

NORFOLK HOTEL PROJECT – HCMC Capacity: 10.000 L/day

NORFOLK MANSION PROJECT – HCMC Capacity: 21.000 L/day

WOOSHU COMPLEX PROJECT– BIEN HOA CITY, DONG NAI PROVINCE Capacity: 15.000 L/day

PARK DIAMOND HOTEL PROJECT – PHAN THIET CITY, BINH THUAN PROVINCE Capacity: 16.500 L/day

HOT WATER USES SOLAR ENERGY
Industrial scale

CAP SAINT JACQUEST HOTEL PROJECT – VUNG TAU CITY, BA RIA – VUNG TAU PROVINCE Capacity: 11.500 L/day

PALACE HOTEL PROJECT – VUNG TAU CITY, BA RIA – VUNG TAU PROVINCEINCE Capacity: 4.000 L/day

SUNRISE HOTEL PROJECT– NHA TRANG CITY, KHANH HOA PROVINCE Capacity: 10.000 L/day

SAI GON MORGIN HOTEL PROJECT – HUE CITY, THUA THIEN HUE PROVINCE Capacity: 14.000 L/day

THANH VAN HOTEL PROJECT – HOI AN CITY, QUANG NAM PROVINCE Capacity: 3.500 L/day

INTERNATIONAL SCHOOL POOL PROJECT – HCMC Capacity: 420.000 L/day

BAMBOO VILLAGE RESORT PROJECT - PHAN THIET CITY, BINH THUAN PROVINCE Capacity: 4.000 L/day

MAJESTIC HOTEL PROJECT - HCMC Capacity: 25.000 L/day

HOT WATER USES SOLAR ENERGY
Industrial scale


LONG THUAN RESORT PROJECT – PHAN RANG CITY, NINH THUAN PROVINCE Capacity: 16.000 L/day

KAYA – HIEP HOA HOTEL PROJECT – TUY HOA CITY, PHU YEN PROVINCE Capacity: 5.000 L/day


SUNRISE HOTEL PROJECT – NHA TRANG CITY, KHANH HOA PROVINCE Capacity: 10.000 L/day

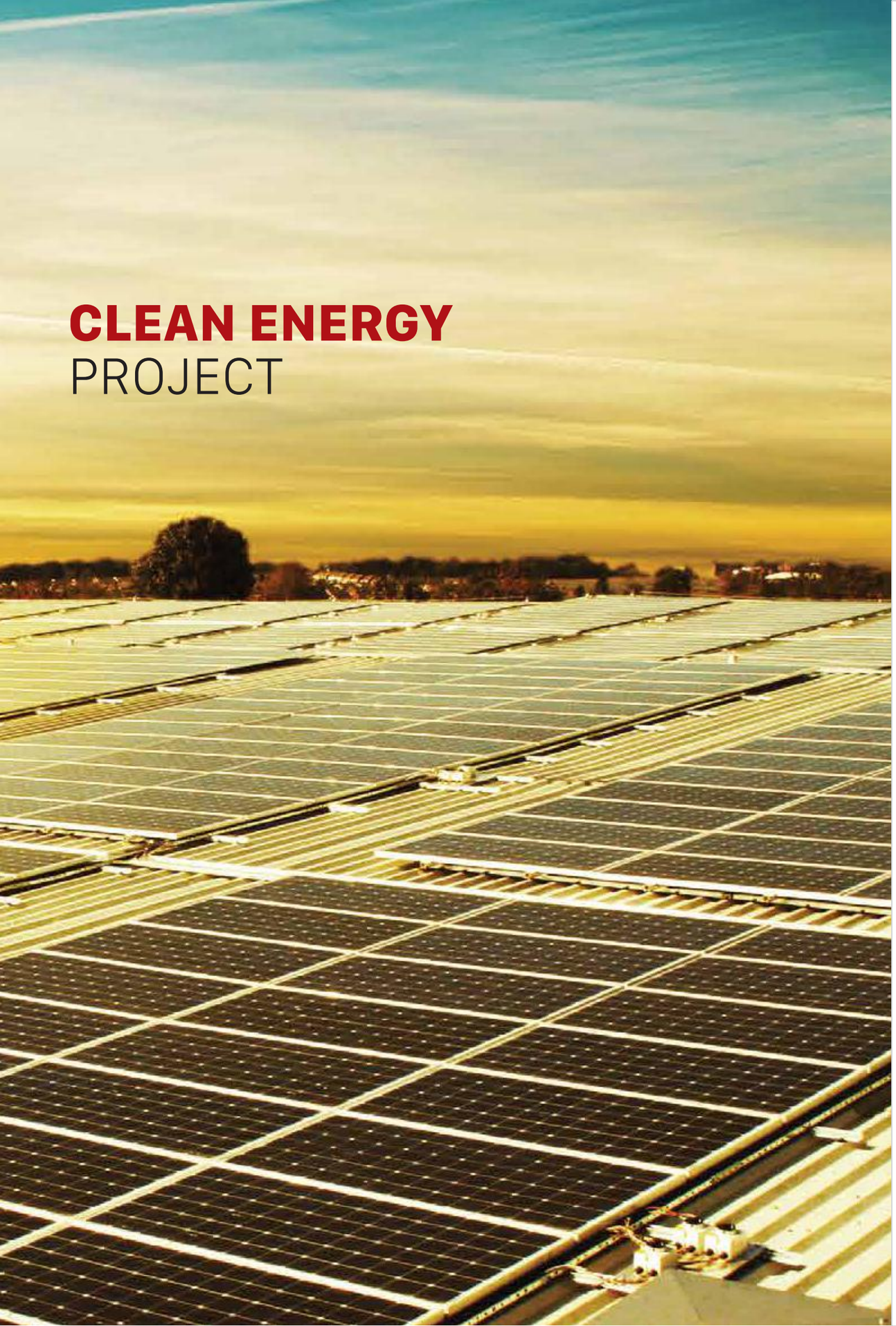
DE NHAT HOTEL PROJECT – HCMC Capacity: 17.000 L/day


SOLAR WATER HEATING SYSTEMS – GOLD COAST HOTEL RESORT & SPA, QUANG BINH PROVINCE Capacity: 12.000 L


SOLAR WATER HEATING SYSTEMS – THIEN THANH HOTEL, PHU QUOC ISLAND Capacity: 13.000 L


SOLAR WATER HEATING SYSTEMS – SOUTH VINA CO. LTD Capacity: 20.000 L


SOLAR WATER HEATING SYSTEMS – NINH KIEU HOTEL - CAN THO PROVINCE Capacity: 15.000 L



CLEAN ENERGY PROJECT

2.2. Solar & Wind Energy Resource Supply Project

NO.	PROJECT	PLACE	CAPACITY	TIME
1	The project **"Solar energy lighting system"**	BIG SPRATLY ISLAND	Includeing 210 solar-powered lighting systems around the embankment of nine floating islands and illuminate the internal roads for Big Spratly Island.	10/2008-03/2009
2	Pilot project **"Clean Energy System"**	BIG SPRATLY ISLAND	Ten the 32 kW wind turbine hybrid with 210 PV165 Wp panels and automatic control systems	01/2009-05/2009
3	**Supply and install 50 solar powered lighting systems**	THANH PHU - BEN TRE PROVINCE	**2 kWh/day**	06/2009-07/2009
4	The overall project **"Clean Energy and Lighting System"**	SPRATLY ISLAND AND DK PLATFORMS	Total capacity 5.167 kWh / day . Includes 129 wind turbines (Capacity 412.8 kW). . Over 5.700 solar panels (Capacity 1.003.200 Wp). . Over 4.000 GEL 230 Ah batteries. . Over 1.000 sets of street lights.	09/2009-10/2010
5	Project **"Clean energy production system using wind and solar energy for the station of monetary policy"**	BIG SPRATLY ISLAND	Providing the installation of clean energy production system using wind and solar energy	12/2009-09/2010
6	**Supply and installation of solar battery power system**	CAN THO UNIVERSITY	**1.110 kWh/day**	04/2010 - 05/2010
7	**Supply and installation of 50 solar powered lights**	HOA VANG - DA NANG	**2 kWh/day**	07/2011-08/2011
8	The project **"Supplying equipment for installation of clean energy to provide electricity for BTS station"**	VINAPHONE THANH HOA	**18.396 kWh/day**	11/2010-01/2012
9	Building Nam Yet cultural center	SPRATTLY ISLAND	Supply of construction equipment to install grid connected solar power system	10/2011-12/2012
10	Project **"Clean energy supply and lighting system"**	TRAN ISLAND	. 6 wind turbines with a capacity of 14,4 kWp . 28,2 kWp solar cell	12/2011-10/2012

NO.	PROJECT	PLACE	CAPACITY	TIME
11	**CU LAO CHAM ISLAND**	HOI AN -QUANG NAM	**28 kWp**	2013
12	**SON CHA HUE ISLAND**	HUE	**10 kWp**	2013
13	**EVN HA GIANG**	HA GIANG	**9,35 kWp**	2013
14	**TINH TRUC GIA - HUE**	HUE	**3 kWp**	2013
15	**BINH DUONG ADMINISTRATIVE CENTER**	BINH DUONG	**31,2 kWp**	2013
16	**THANH TAM SCHOOL**	DA NANG	**2,7 kWp**	2013
17	**THE GREEN ONE UN HOUSE (UNDP)**	HA NOI	**110 kWp**	2013
18	**FPT CONSTRUCTION**	DA NANG	**3 kWp**	2014
19	**EVN SPC**	HCMC	**5 kWp**	2014
20	**DEPARTMENT OF DA NANG S&T**	DA NANG	**3,68 kWp**	2014
21	**SEA WATER FILTER**	KHANH HOA PROVINCE	**50 L/h**	2015
22	**BINH THUAN SHOWROOM**	BINH THUAN	**5 kWp**	2016
23	**L VILLA - FPT CITY CENTER**	DA NANG	12 solar panels (Capacity 205 Wp). Inverter 3000 VA	2016
24	**EVN HCM**	HO CHI MINH	**28,52 kWp**	2017
25	**PANDORA CITY PARK**	DA NANG	Include: 16 solar panels (Capacity 255Wp) 18 sets of street lights (Capacity 30Wp) 02 automatic control systems"	2017
26	**SUN GATE**	QUANG NAM	Include 04 solar light, 01 street light	2017
27	**TRUONG THINH BUILDING MATERIAL JOINT STOCK COMPANY**	BINH THUAN	**5,2 kWp**	2017
28	**C.H.K BUILDING AND ERECTION JOINT STOCK COMPANY**	HCMC	**3,12 kWp**	2017
29	**PHU YEN RESIDENTIAL AND INDUSTRIAL CONSTRUCTION INVESTMENT PROJECT MANAGEMENT UNIT**	PHU YEN	**20,28 kWp**	2017
30	**OFFICE BUILDING PROJECT MANAGEMENT UNIT - EVN HCMC**	HCMC	**28,52 kWp**	2017
31	**TECHNOLOGY, QUALITY & SUSTAINABLE INNOVATION (TQSI)**	MYANMAR	**20,15 kWp**	2017
32	**HCMC GRID COMPANY**	HCMC	**29,17 kWp**	2017
33	**HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY**	HCMC	**160 kWp**	2017
34	**VAN LANG UNIVERSITY**	HCMC	**54,96 kWp**	2017
35	**DA NANG BRANCH - SOUTH VINCOM RETAIL LIMITED LIABILITY COMPANY**	DA NANG	**226,61 kWp**	2017
36	**TAN CANG - SONG THAN ICD JOINT STOCK COMPANY**	BINH DUONG	**500,96 kWp**	2017
37	**HOA DAT LIMITED LIABILITY COMPANY**	BINH DUONG	**3,12 kWp**	2017
38	**TRAN DAC BINH**	VUNG TAU	**5,89 kWp**	2017
39	**LONG GIANG COMMERCIAL CONSTRUCTION TECHNIQUES LIMITED LIABILITY COMPANY**	HCMC	**10,4 kWp**	2017
40	**NGUYEN HAI NGUYEN SOLE MEMBER LIMITED LIABILITY COMPANY**	DA NANG	**15,5 kWp**	2017
41	**INFINITY HONG HOA COMMERCIAL IMPORT-EXPORT LIMITED LIABILITY COMPANY**	LONG AN	**15 kWp**	2017
42	**PHUC AN BUILDING AND ERECTION COMPANY**	HCMC	**3,12 kWp**	2017
43	**BE ISLAND SOLAR POWER PROJECT**	QUANG NGAI	**96 kWp**	2017
44	**VINH KHANH PLASTIC CABLE JOINT STOCK COMPANY**	BINH DUONG	**5,08 kWp**	2017
45	**POWER ENGINEERING CONSULTING JOINT STOCK COMPANY 2**	HA NOI	**19,84 kWp**	2017

NO.	PROJECT	PLACE	CAPACITY	TIME
46	**DANANG POWER COMPANY, LTD**	DA NANG	**21,08 kWp**	2017
47	**JSC THIEN LONG GROUP**	HCMC	**198,4 kWp**	2017
48	**PEOPLE'S COMMITTEE OF HIEP BINH PHUOC WARD - THU DUC**	HCMC	**4,96 kWp**	2017
49	**THANH DO INVESTMENT TRADING AND DEVELOPMENT JOINT STOCK COMPANY**	DA NANG	**50,22 kWp**	2017
50	**KIM DUC LIMITED LIABILITY COMPANY**	LONG AN	**152,52 kWp**	2017
51	**NGUYEN THU THANH NGA**	HCMC	**3,1 kWp**	2017
52	**AN PHU DONG POWER COMPANY**	HCMC	**48 kWp**	2017

02 TYPICAL PROJECTS

CLEAN ENERGY – LIGHTING PROJECT FOR SPRATLY ISLAND & DK PLATFORM

03 TYPICAL PROJECTS

CLEAN ENERGY PROJECT

FPT PROJECT – DA NANG CITY Capacity: 3 kWp

GREEN ONE UN HOUSE PROJECT - HA NOI CAPITAL Capacity: 110 kWp

BINH DUONG ADMINISTRATIVE BUILDING PROJECT – BINH DUONG CITY Capacity: 31.2 kWp

SON TRA ISLAND POWER SUPPLY PROJECT- DA NANG CITY Capacity: 25 – 30 kWh/day

CLEAN ENERGY PROJECT

BACH KHOA UNIVERSITY, HCMC Grid-tie power system of 160kWp (Phase 1)

HOCHIMINH CITY POWER CORPORATION PROJECT, HCMC Capacity: 28.52 kWp

SOLAR PV ROOFTOP 41 SHOP HOUSE OF MARINA COMPLEX, DA NANG CITY Capacity: 63.96 kWp
Estimated lifetime production: 255 kWh

SOLAR PV ROOFTOP CENTRAL REGION
SOLARBK INVESTMENT & DEVELOPMENT CORPORATION OFFICER, DA NANG CITY Capacity: 7 kWp

SOLAR PV ROOFTOP IREX ENERGY CORPORATION Capacity: 50 kWp

SOLAR PV ROOFTOP POWAY CALIFORNIA 92064 Capacity: 5.5 kWp
Estimated lifetime production: 15.7 MWh

SOLAR POWER FOR RESIDENTIAL SCALE – ALPINE CA. 91901 LOCATION: ALPINE CA. 91901 Estimated lifetime production: 24.8 MWh

VAN LANG UNIVERSITY, HCMC Capacity: 59.4 kWp

CLEAN ENERGY PROJECT


PHU YEN RESIDENTIAL AND INDUSTRIAL CONSTRUCTION INVESTMENT PROJECT MANAGEMENT UNIT Capacity: 20,28 kWp


OFFICE BUILDING PROJECT MANAGEMENT UNIT - EVN HCMC Capacity: 28,52 kWp


TECHNOLOGY, QUALITY & SUSTAINABLE INNOVATION (TQSI), MYANMAR Capacity: 20,15 kWp


HCMC GRID COMPANY Capacity: 29,17 kWp


TAN CANG - SONG THAN ICD JOINT STOCK COMPANY, BINH DUONG Capacity: 500,96 kWp


INFINITY HONG HOA COMMERCIAL IMPORT-EXPORT LIMITED LIABILITY COMPANY , LONG AN Capacity: 15 kWp


BE ISLAND SOLAR POWER PROJECT, QUANG NGAI Capacity: 96 kWp


POWER ENGINEERING CONSULTING JOINT STOCK COMPANY 2, HA NOI Capacity: 19,84 kWp