Discover our energy.
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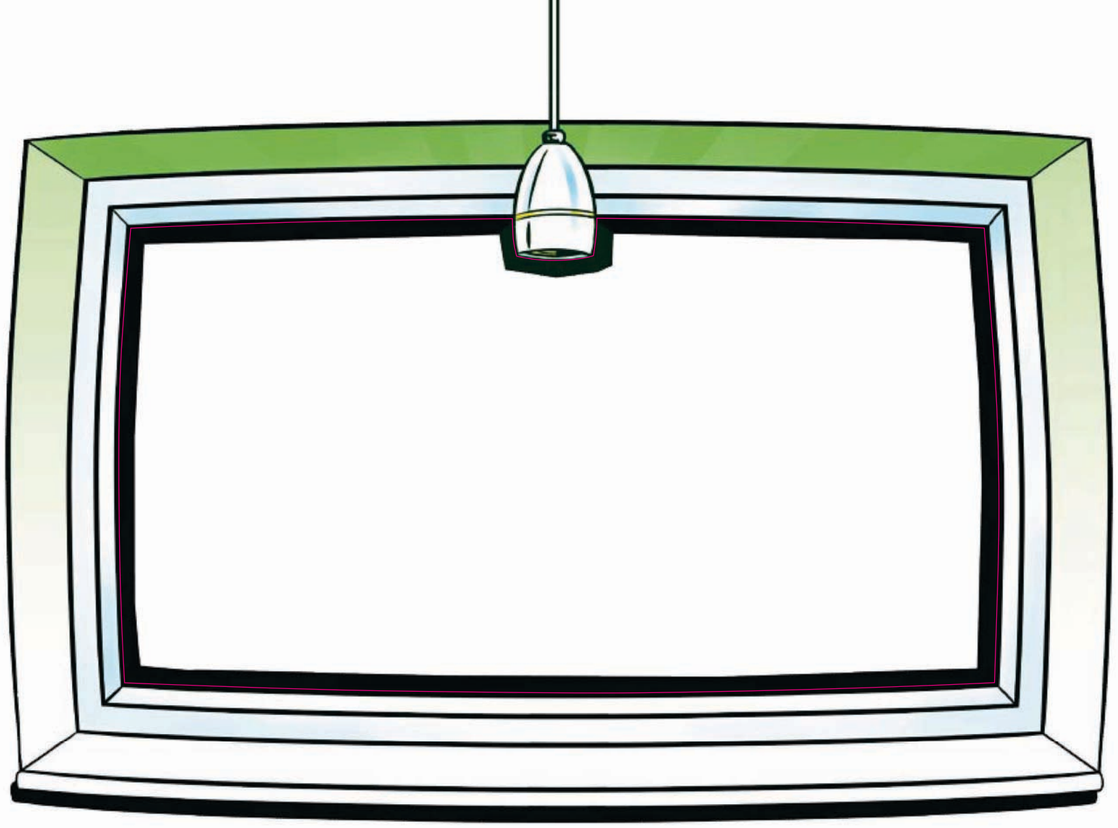


# Discover our energy

bp solar

# Getting more from the sun

Energy and environment are two of the biggest challenges the world faces today. They are essential to the sustainability and development of economies, the way we run our businesses and how we live our individual lifestyles.

BP Solar, with its global reach and almost 40 years of solar industry experience is uniquely positioned to tackle these issues in tandem.

Whether it's for individual homeowners or multinational organisations, BP Solar provides a full suite of product and service solutions, from the design and financing of customers' solar systems to installation, operation and maintenance.

We are backed by BP, one of the world's largest companies.
And we are committed to the future – powered naturally, by the sun.

I invite you to "Discover our energy".

Mike Petrucci
CEO, BP Solar

# Who we are

BP Solar is an industry-leading innovator of photovoltaic solar energy solutions.

We have been researching, manufacturing, and pioneering solar since 1973. In the last three years we've filed over 30 patents in the US alone. To date, over 10 million BP Solar modules have been sold with a cumulative output of over 1GW.

Unlike other companies, we have been around longer than our 25-year warranty. Our products continue to produce energy years after the warranty expires.

BP Solar is part of the BP group, the fourth largest company in the world, which recently celebrated over 100 years in business. In 2008 it was ranked in the top ten in Fortune's Global 500 Most Accountable Big Companies list.

### Energy that lasts year after year

BP Solar modules are tested well beyond International Electrotechnical Commission (IEC) standards.

To ensure a lifetime of dependability, our criteria are much more demanding:

- Thermal cycling through extreme temperatures at 2.5 times the IEC standards
- Damp heat exposure at 25% more than IEC standards
- Load testing up to twice the IEC standard
- And we add wind simulation to IEC humidity freeze cycles to provide additional assurances of reliability for real life situations.

# Taking the lead

Almost 40 years ago, we were the first company to transfer solar PV technology from space to commercial use on earth.

Since then our technology has been proven in the harshest environments – from weather stations in the bitter cold of Antarctica to telephone signal repeaters in the searing heat of outback Australia.

We built reliability and longevity into our photovoltaic solar modules and, in 1998, we were the first company to offer a 25-year power warranty. In 2009 we led the industry once more – the first major solar company to significantly improve the power output warranty for our modules. What gives us the confidence to make this bold move? Internal and third party testing which demonstrates BP Solar's power output degradation is lower over the life of the system versus competition.

In recent years, solar has become an increasingly large part of mainstream energy thinking.

Today's decision makers are increasingly faced not with the question of "When?" but "Who?" And no one is more capable of answering the call than BP Solar.

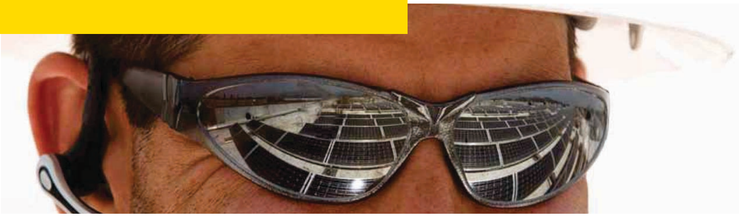

### Energy to support the entire BP group

In 1998 the BP group set itself the aim for the year 2010 of reducing its own greenhouse gas emissions by 10% in comparison with 1990 levels.

This objective was more ambitious than those set by the Kyoto Protocol and was achieved in 2001. Today the BP group is one of its own biggest customers – using BP Solar solutions at its offices and fuel stations around the world.

# Brilliant thinking

BP Solar gives you a long-term energy investment that flows with powerful advantages.



Our products are built to last. And so are we. Not many solar companies have been around longer than their warranties, but we have. You can be sure we'll still be here in the future to take care of your BP Solar solution.

BP Solar modules continue to generate consistently high levels of valuable energy year after year, resulting in a higher return on your investment. Independent tests that simulate 25 years of real world conditions, prove BP Solar's modules to have the lowest power degradation of all major competitors*.

So you get an energy source that delivers long after it's been paid for, to give you a sound, long-term energy investment.

The products and systems you get from BP Solar are designed and developed by us. But we're more than just a hardware provider. Our BP Solar Certified Installers provide a complete service with expert knowledge. And in most locations we offer complete solutions including system design, procurement, development and financing, as well as monitoring, operations and maintenance. We have offers to meet the needs of individual roof owners right through to utility scale investors.

Being one of the world's largest companies enables us to form strategic partnerships with banks and finance companies and work closely with governments. As a result our customers often enjoy advantageous financing opportunities along with many potential subsidies available to bring your solar ambitions to life. We develop long-term partnerships and many BP Solar customers have selected us as their solar partner after working with other BP businesses.

*Study published by C. R. Osterwald et al. for the National Renewable Energy Laboratory (NREL).

# Brighter for longer

BP Solar has an impressive history. We are at the forefront of new developments and this is our journey so far.

## 1839>

**1839**
Edmond Becquerel discovers the photovoltaic effect.

**1954**
The first silicon solar cell is made at Bell Laboratories.

## 1973>

**1973**
The Solarex Corporation (now BP Solar) is formed to transfer solar electric technology from space applications to commercial use on earth.

**1977**
Solarex initiates multicrystalline process.

**1979**
BP enters the solar industry.

Multicrystalline casting technology introduced by Solarex.

## 1980>

**1980**
BP buys Lucas Energy Systems.

**1982**
Solarex constructs the Frederick, MD, US manufacturing plant, which includes a 200kW array – still one of the largest installations of building-integrated photovoltaics in the world.

BP Solar España is created.

**1983**
Amoco Oil acquires Solarex.

Solarex awarded first major contract by United States Coast Guard for 14,000 modules to be deployed on sea buoys.

BP Solar modules awarded IEC503 certification (forerunner to IEC61215).

## 1984>

**1984**
BP opens manufacturing facility in Australia.

Solarex buys Solar Exxon Solar Power Corporation.

**1985**
BP Solar constructs its manufacturing plant in Alcobendas (Madrid), Spain.

**1987**
Solarex introduces the "Mega" cell: 114mm x 114mm. Results in a 30% increase in solar cell power from the previous industry standard of 100mm x 100mm cells.

BP Solar brings clean water and light to remote villages in the Philippines through the MSIP project.

## 1993>

**1993**
Solarex introduces the first 20-year PV module warranty in conjunction with its 20th anniversary in the industry.

**1995**
Solarex joins with Amoco/Enron Solar.

BP Solar supplies advanced monocrystalline "Saturn" PV modules to the first PV plant in Spain of 1MW, Toledo PV.

Solarex supplied 340kW of multicrystalline PV modules to the Georgia Institute of Technology Aquatic Center used for swimming and diving events in the 1996 Olympics in Atlanta, GA, US.

## 1998>

**1998**
Solarex introduces solar industry's first 25-year product warranty.

BP Solarex introduces Integra® – the industry's first rack-less mounting system for residential installations.

**1999**
BP Solar's thin film plant in Fairfield, CA, US is the first PV company to be awarded the ISO 14001 thanks to the implementation of our environmental management system.

BP Solar and Solarex merge to form BP Solarex in the US.

## 2000>

**2000**
BP Solarex changes name to BP Solar.

BP Solar makes a 10% efficiency Apollo thin film module.

BP Solar installs modules on the roofs of the Athlete's Village as part of the Sydney 2000 Olympics, creating one of the world's first solar suburbs.

**2001**
BP Solar installs 97kW canopy system as part of Tennessee Valley Authority's Green Power Switch Program.

BP Solar Australia wins the first ever "green" Helios award for work in the Philippines.

## 2002

**2002**
BP Solar completes 457kW installation for Munich Airport – Terminal 2.

## 2004

**2004**
BP Solar launches residential installation programme through The Home Depot in the US.

BP Solar completes 1MW rooftop installation in Shenzhen, China.

## 2005

**2005**
BP Solar Germany implements the market's first Certified Installer Programme, still the best of its kind today.

BP Solar's products used on the world's largest roof top installation (5MW) in Bürstadt, Germany.

## 2006

**2006**
BP Solar creates the SunOasis joint venture in Xi'an, China.

BP Solar enters into its first agreement with its partner, Banco Santander, for developing 25MW in the Spanish market.

## 2007

**2007**
Australian Federal government selects BP Solar for four of seven Solar Cities projects. This residential program includes 4MW of solar PV incorporated in sustainable energy packages.

Several large plants completed in Spain, such as Campillo (1.2MW), La Vega (1.2MW), Parada (1.5MW), and La Luisiana (1.9MW).

BP Solar expands into Greece and Italy.

## 2008

**2008**
Walmart selects BP Solar to install 4MW of solar modules on seven facilities in California.

BP Solar is selected as exclusive solar supplier to Shea Homes Trilogy Division as they become the first national homebuilder in the US to offer solar as a standard feature across all of their communities.

BP Solar provides the design, supply and installation of an innovative structure using glass/glass modules for a demonstration project in China – the Solar Sail.

Madridejos plant, the biggest one made by BP Solar in Spain, is completed (6.8MW) jointly with Arico (6.3MW) in the Canary Islands.

## 2009

**2009**
BP Solar wins New York's largest solar installation. The 37MW project for the Long Island Power Authority (LIPA) to be installed at Brookhaven National Laboratory. It will sustain more than 4,700 households and reduce $CO_2$ emissions by 34,000 tons a year.

BP Solar wins a project with FedEx Ground to install the largest rooftop installation in the US – 2.4MW.

BP Solar wins a 3MW module supply and technical support services deal for JA solar in Korea.

BP Solar opens office in Dubai, United Arab Emirates.

## Discover our energy.

# Bright ideas

Every detail is important. Here are just some of the many advances we have created:

- Increased power and energy production with reduced internal energy losses provided by our advanced half-cell design
- Our patented Integrabus™ yields better diode cooling which delivers greater reliability, longer life and reduced power degradation
- Smaller, neater connection boxes enable our solar cells to work more efficiently and deliver greater energy more reliably
- Increased electrical safety is delivered through a more reliable and secure patent-pending cable attachment in our connection boxes
- Enhanced anti-theft security systems protect your investment at all times
- A special anti-reflective coating (ARC) on our modules delivers up to 4% more energy than traditional glass, making BP Solar even more cost-efficient
- Purpose designed, strong packaging that makes sure modules arrive in perfect condition while minimising the amount of cardboard required.

# Power in place

Here's how some of our customers are benefiting from our energy.

## Delivering Efficiency for FedEx Ground

BP Solar is installing the largest rooftop solar-electrical system in the US. FedEx Ground is the small-package shipping unit of FedEx Corp. The system is to be installed at its distribution hub in Woodbridge, New Jersey. This is the third project between a FedEx operating company and BP Solar. The 2.42MW solar power system will cover approximately 3.3 acres of roof top space with approximately 12,400 solar panels.

When completed, the system will be capable of producing approximately 2.6 million kWh of electricity a year and could provide up to 30% of the hub's annual energy needs. As part of the agreement, BP Solar is to install and operate the solar power system and FedEx is to purchase the power generated.

When the system is fully operating, the combined environmental benefits based on a projected annual reduction of approximately 1,867 metric tons of $CO_2$ emissions, are equivalent to one of the following:

- 340 or more passenger cars not driven for one year
- 211,900 gallons of gasoline not burned for one year
- 4,300 barrels of oil not consumed for one year
- 259 households' electricity use for one year.


## Super Value for Walmart

In 2008, BP Solar completed construction on 4.1MW of solar energy systems for seven Walmart stores and Sam's Clubs in California. The success of this installation has now led to a new contract for an additional 20 rooftop locations in California. Under a 10-year power purchase agreement, Walmart gains immediate access to clean electricity with no upfront capital cost. BP Solar designs, installs and maintains the systems. Solar energy supplies 20-30% of the electricity needed at each store location.

"BP Solar has been a great partner, and we look forward to accelerating our efforts to utilise more affordable renewable energy in our operations," said Kim Saylors-Laster, vice president of energy at Walmart. "As we partner on this larger scale, our goal is to show how using affordable solar power benefits the environment and makes good business sense."

"BP Solar has been a great partner, and we look forward to accelerating our efforts to utilise more affordable renewable energy in our operations."

## Perfect Power for David Jordan and Muriel Watt, Mudgee, NSW, Australia

In 2003, this forward thinking couple installed a BP Solar 1600Wp Energizer system, which included 10 solar panels and a Sunny Boy grid connect inverter with easy-to-read display. The system is net-metered and feeds back into the grid effectively "selling back" to the local electricity provider, Country Energy. They discount the family's electricity bill according to how much electricity they have produced each quarter. "It's fantastic!" say the couple.

"The sunlight that grows our grapes and the feed for our cows, powers our home!"

## Trusted Partnership

Together, BP Solar and Grupo San Isidro opened one of the biggest solar plants in the Canary Islands in 2008, supplying 6MWp – equivalent to avoiding 10,000 tons of $CO_2$ emissions.

We installed 33,000 modules with a 25-year warranty and will operate and maintain the plant over the lifetime. In 2009, the plant was extended by another 23,000 modules producing another 4MWp for a total of over 10MW.

This plant extension is the proof of a solid partnership between BP Solar and one of the biggest groups in the Canary Islands.

## Power for 4,700 Homes in New York

BP Solar has won the bid to create the largest solar site in the State of New York. Based at the grounds of the US Department of Energy's Brookhaven National Laboratory, the site, commissioned by the Long Island Power Authority (LIPA), will generate nearly 37MW of photovoltaic solar power. That's enough to sustain more than 4,700 households and reduce carbon dioxide emissions by 34,000 tons per year.

New York Governor, David A. Paterson announced "This project is not only the largest of its kind in State history, it is also one of the first of its kind in our nation, proving once again that New York is at the forefront of the renewable energy revolution."

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## The Solar Sail, Guangdong Science Centre, China.

Inspired by the idea of the winds of change, the Solar Sail is a towering 20 metres high and 30 metres wide, designed and constructed by BP Solar.

Conceived as a demonstration project on the benefits of solar power, visitors to the Solar Sail can also see information about its photovoltaic system performance, study environmental data, and learn about solar power through an electronic screen embedded into the structure.

The electricity it generates benefits the science centre and the local community, which receives the Solar Sail's excess power via the local grid.

## Energy for Olivarera, Pozoblanco, Spain

Using a 40kWp solar energy solution provided by BP Solar to power their co-operative "is completely in line with their organic principles" states, Luis Tormo Aguila, Manager of Olivarera Los Pedroches.

The Olivarera co-operative has the largest area dedicated to organic olive growth in the whole of Andalucía, comprising 500 partners and 9,000 hectares.

The system, installed on the roof of the co-operative building, uses BP Solar Multi 3 Series modules with multicrystalline cells.

"I believe BP Solar's guarantee is the guarantee of a great brand," says Luis.

"Nowadays in the market, since there are companies appearing and disappearing, BP Solar's guarantee means having… a total guarantee for the installation's life."