



# British Photovoltaic Association

## UK Solar PV Industry Charter

June 2012

### 1. Introduction

This Charter sets out how the Solar PV energy industry is delivering significant benefits to the UK and its economy, and how it intends to deliver continued investment which will help the UK to prosper in the future.

### 2. Background

The UK Solar PV energy industry – in partnership with the UK and Devolved Governments, the investor community and the public – has a clear and current opportunity to lead the world in developing the technologies and skills that will deliver clean, secure, affordable energy from the sun.

Long-term investment in the conversion of power from the sun into electricity is already creating jobs, energy, and financial security for thousands of families, businesses and communities across the UK. It is also protecting consumers by providing a stable and secure source of energy at a constant price which is untouched by the politics and instability affecting fossil fuels.

The introduction of FIT in April 2010 was instrumental to the market uptake. Since then a great deal of work has been done to educate the consumers in the benefits of Solar PV as well as adjusting the financial returns they can expect to a level where the long term future of the industry is secured.

The UK market has the potential to become one of the largest European PV markets, and significant infrastructure has already been established over the past two years.

### 3. Abstract

This Charter is formed around five key aspirations for deployment and use of Solar PV in the UK. These aspirations can only be successfully achieved through cooperation and partnership between industry and government.

- i. To invest in the prosperity and energy security of the UK.
  - Considering the macro-economic impact and strategic importance of Solar PV.
- ii. To provide financial security for families by lowering energy bills and creating tens of thousands of long-term jobs
  - Highlighting the potential effects on families and the workforce

- iii. To provide clean, safe and affordable energy that will power the UK today and for future generations
  - Looking at Solar PV characteristics and cost trends.
- iv. To share our knowledge and expertise in standardisation and certification in the sector with other nations, creating export opportunities
  - Exploring the opportunity to leverage the UK's recognised design and implementation skills across national boundaries
- v. To reduce the UK's carbon emissions by mass adoption of Solar PV

The Solar PV energy industry intends to embrace these aspirations and work constructively to maximise the benefits that will flow to individual consumers – and to the UK as a whole – following investment in Solar PV energy.

#### **4. Discussion**

##### **i) To invest in the prosperity and energy security of the UK**

We intend to invest billions of pounds in the UK economy building a sustainable industry, developing a new economy around this industry, deploying Solar PV in homes, businesses, community buildings, and by creating Research & Development and training facilities all around the UK. This investment will revitalise communities across the country and increase the secure availability of affordable, domestic power, thereby reducing the UK's reliance on expensive, imported fuels.

- The Solar PV industry has invested a significant amount of money in the UK economy since April 2010 and will continue to do so in the future.
- The Solar PV industry provides clean, secure energy sufficient to fulfil the power requirements of thousands of homes and businesses in the UK. In a short period of time, the industry has achieved over 1.3 GW of installed capacity and is on track to deliver 22 GW by 2020.
- Recent Ofgem figures confirm that investment in building the UK's solar PV energy capability costs the average household just 2p per day. This figure is consistently over-estimated by individuals and the less-informed media, presenting an opportunity to the BPVA and others to encourage widespread communication of the facts.

##### **ii) To provide financial security for families by lowering energy bills and creating tens of thousands of long term careers**

We aim to create thousands of UK-based jobs across a wide range of business sectors. So far, 25,000+ jobs have been created and it appears feasible to double this number by 2015. Companies large and small will benefit as investment in engineering, manufacturing, sales, distribution and training accelerates and extends from the Solar PV industry into other industries including construction and green transport.

- The Solar PV industry has already created over 25,000 jobs in the UK and is set to employ up to 100,000 people by 2020. It is an area that has no barriers to enter and provides a wide range of career choices depending only on levels of qualification and

ability.

- The UK's Solar PV energy industry is a primary investor in technical training and is supporting a growing number of initiatives to attract young people into the energy sector through various apprenticeship programs, thereby helping to reduce youth unemployment.

### **iii) To provide clean, safe and affordable energy that will power the UK today and for future generations**

We are firmly committed to reducing the cost of Solar PV over time and to cementing its role as a vital part of the UK's energy mix. In doing so we will help to protect consumers from fluctuating global energy prices and reduce our dependency on imported fossil fuels.

- Through investment and innovation the industry has more than halved the cost of Solar PV over the last two years. We will continue to drive down costs through economies of scale, technological innovation and the sharing of best practices so that we maximise value for money for all electricity consumers.
- A Solar PV system is a 'fit and forget' proposition; once it is installed, there is nothing else needed to be done. There are no moving parts to the system so the potential for a problem to occur is minimal.
- It is a proven technology and has been tried and tested in other markets.
- Solar PV adds value to the buildings on which it is installed. However, within the domestic market in particular, a greater understanding of this logic by architecture and construction industries as well as estate agents and others would be beneficial. This presents another opportunity for appropriate education of these sectors.
- The building sector plays a critical role in society's shift to renewable and alternative energy sources. Ambitious goals for sustainability are being set throughout the world and can be achieved with a combination of sustainable materials, innovative building concepts and integration of renewable technology. Solar PV industry will play an important role in the future of the building industry. We therefore believe it is important to bring architecture, building construction and solar PV industries closer together.
- The cost of Solar PV is reducing more quickly than other technologies, giving confidence that it will remain among the most attractive of the renewables technologies over the coming years.
- Public support for Solar PV has been steadily building over the last two years, and this momentum is likely to continue. Widespread adoption of Solar PV has always been key to its success and has paved the way for progressive adjustments to FITs.
- The Solar PV industry has proved it is adaptable in the face of significant changes, and is committed to further growth. We expect that Solar PV will be the leading source of renewable energy within the UK.

#### **iv) To share our knowledge and expertise in standardisation and certification in the sector with other nations, creating export opportunities**

British standards have been recognised and well respected globally for decades. We still own some of the best R&D centres, universities and technology institutes in the world. We have been through a period of trial and error with our adoption and implementation of Solar PV policies and standards. The UK is proactive in the field of international standardisation, leading working groups and developing the next generation of standards. Emerging markets are in need of our experience and knowledge and we are well-advanced in supporting the development of a pilot scheme for international certification.

- The UK has the skills, expertise and willingness to develop the pilot scheme with the support of international colleagues and experts. We will develop a set of international standards for the global market.
- Using the existing Microgeneration Certification Scheme (MCS) framework established by UK government and industry, BPVA supports the development and implementation of a licensed independent third party certification scheme that supports confidence in both the products and installers globally, allowing them to operate to a consistent set of protocols with the flexibility to operate in all regions of the world.
- Policymakers, consumers, investors, manufacturers and installers globally can benefit from a uniform scheme that operates in a consistent way, while recognising existing certification schemes through equivalence.

#### **v) To reduce UK's carbon emissions by mass adoption of Solar PV**

All of the initiatives described above will drive the widespread adoption of Solar PV, thereby supporting the UK's commitment to reduce its carbon footprint. However, UK energy policy is at a crossroads. The government's current work to reform the electricity market will determine the shape of the UK's power sector for decades to come.

- The UK has an opportunity to become a world leader in clean, renewable energy. But choices made in the coming months and years could lead to continued dominance of high-carbon fossil fuel power generation; or to greater dependence on risky nuclear power.
- Around a quarter of the UK's ageing power generation capacity is due to close over the coming decade. To have confidence in the security of our energy supply, we need a combination of significant investment in new electricity generation capacity and a concurrent reduction in demand for electricity. The government must also ensure that the power sector plays its full part in meeting the requirements of the Climate Change Act.
- The Committee on Climate Change (CCC) has made it clear that UK power generation must be essentially carbon-free by 2030. The government needs solid, ambitious commitments and targets to drive investment in sustainable low carbon power generation and avoid locking the UK into a new generation of high emission unabated fossil fuel plants.
- The UK can achieve a secure, sustainable and decarbonised power sector by 2030 by shifting away from polluting fossil fuels and nuclear power to an energy-efficient

system built around clean and inexhaustible renewable energy. Solar PV will play an important and pivotal role in achieving this.

- The challenge for government is to encourage the rapid deployment of Solar PV within an economic policy that recognises the industry's relative attractiveness within the renewables sector. The Solar PV industry has already shown that it will not be constrained by lack of available human resources or the pace at which new infrastructure can be established.
- The government is already aware that a greater long-term commitment to renewables is essential, but must remain vigilant about progress towards milestones. Recently DECC announced an ambition to see 5 GW of Solar PV installed by 2015 and 15 to 22 GW by 2020. This commitment is welcomed by the industry, and has given some struggling companies within the sector greater hope for their future.
- DECC's medium and long-term goals must be both credible and convincing, so that industry can invest with confidence, thereby bringing down costs associated with uncertainty. Setting out a long-term ambition to see renewables providing 60% or more of the UK's energy needs by 2030 would provide the level of certainty needed to attract large-scale investment in the UK renewables supply chain. We also need stable market arrangements which provide long-term revenue certainty to reduce risk and mobilise capital investment in renewables.
- Having a higher level of ambition for renewables has many benefits for the UK. It can help reduce the cost of renewable energy in the long term by accelerating the development of a UK supply chain (no longer dependent on imports of components) as well as economies of scale and technology improvements.

## **5. Conclusion**

This Charter attempts to set out a clear framework within which the UK Solar PV industry can operate with confidence in the future, and therefore with maximum efficiency to the benefit of all.

We have discussed the benefits of the Solar PV industry for the UK as a whole, focussing on regeneration of the economy (with investment in infrastructure and the creation of jobs in areas where they are most needed) and the establishment of an international reputation that will give rise to export opportunities as well.

The Solar PV industry, working in partnership with government, can increase energy security at a time when it is most critical and deliver affordable, clean and totally sustainable electricity for all.

Reza Shaybani

Chairman

**The following members of British Photovoltaic Association are founding signatories to this Charter representing the wide range of companies involved in the UK Solar PV industry:**

- Cobra Insurance
- Conergy
- Energeno
- So Gecko Ltd
- Emotion Energy
- Proinso
- Solarjobs.com
- Solar Twin
- SMA Solar Technologies
- SKYShades UK Ltd
- The House of Solar
- Eaton Electric
- Sundial Solar Solutions
- Edmundson Electrical
- EOS Energy
- Sputnik Engineering International
- D&J Roofing Solar
- Sharp
- NGPS Ltd
- Energeno Ltd
- Eclipse Energy
- Upsolar Group
- Alumet Renewable Technologies
- The National Skills Academy for Environmental Technologies
- Solar Peak
- Wagner Solar UK
- Solar Energy Alliance Ltd
- Krannich Solar UK
- Freewatt Renewable Energy
- Manor Solar
- Save Energy Group
- Sheffield Solar Farm
- Sun Gift Solar
- OTB Energy
- Juwi Renewable
- SolarWorld AG
- Canadian Solar
- Golden Sun Solar
- Solar ENLES Ltd
- GS – Solar UK
- NAPIT
- K2 Solar Mounting Solutions Ltd
- SunConnex
- Siemens
- GOODWE SOLAR INVERTER
- Suntech Power
- Enphase Energy
- Puragen