

## Case of BP's solar business model innovations

An analysis of BP Solar's late history revealed that its photovoltaic (PV) business was based on a portfolio of several distinct business models that "cross-fertilised" one another (Lüdeke-Freund, 2014). From a component-based perspective, BP Solar's major business model innovations can be classified as radically new *distribution channels*, unconventional *partnerships*, and a re-interpretation of classic *financing models*.

*Retailing the sun – photovoltaic installations off-the-peg:* "BP Solar Home Solutions", the first branded PV offer for private homeowners in the US, was based on a retail business model innovation that reduced the complexity of purchasing and installing residential solar systems. This model, in which the world's largest home improvement retailer, The Home Depot, served as a market-maker for solar packages and services, offered standardised PV packages in different sizes. Private customers could buy these off-the-peg in The Home Depot stores or order packages online. A new market was created. This business model innovation was copied and refined by new entrants like Grape Solar. BP Solar Home Solutions were introduced in 2003 – long before similar models became common in major solar markets like Germany.

*Roofing solar communities – big sun meets craftsmanship:* In cooperation with Northern California's largest roofing company, Old Country Roofing, PV systems were offered to homebuilders and community developers. "BP Solar Builder Solutions" were based on an innovative configuration of design, distribution, and customer services. This model was new in that it entered radically new partnerships and networks to combine roofing, homebuilding, and community development with specially designed solar equipment and public financial support. BP Solar and Old Country Roofing pioneered this market in 2006 and became a role model for firms like PetersenDean, one of the largest roofing and solar contractors in the US.

*Financing the sun – carrots for commercial customers:* Introduced around, 2008, "BP Solar Business Solutions" offered new financing models to overcome financial barriers perceived by commercial customers. Commercial installations are larger than residential systems and require extensive assistance during installation and operation. Under BP Solar's *asset purchase model* turnkey systems were delivered to commercial end-users who owned and operated the installations. But the capital requirements restrained many potential customers from using PV. This barrier was removed through *power purchasing agreements (PPA)* and *lease contracts*. BP Solar provided for third-party funding when commercial electricity users were unwilling or unable to finance an installation. Financing models were set up to bring together banks and equity investors who were repaid on the base of PPAs or lease contracts. BP Solar's customers, for example the United States Marine, FedEx or Walmart, only had to pay fixed rates per kWh or per month without worries about large investments. This approach finally led to a *project developer* business model targeting large-scale energy producers such as electric utilities and large-scale investors looking for green and lucrative investments. With this model, BP realised large-scale PV power plants with a capacity of a few hundred megawatts.

**Questions (chapter 5.4):**

1. Can you think of the underlying values and motivations that made BP, as a major oil company, develop its solar business?
2. From a strategic perspective, what was driving the company to engage in solar energy for more than 30 years? And why was this business closed shortly before the solar industry reached full maturity?
3. Can you describe the different value propositions and further components of BP Solar’s different business models? Map them onto a refinement sheet of the Business Innovation Kit (below).

