



Non traditional business models consultation

21 May 2015

Swanbarton Limited

The Old Cake House, The Dairy Farm,
Pinkney, Malmesbury, Wiltshire SN16 0NX

Tel +44 (0) 1666 84 09 48
price@swanbarton.com
www.swanbarton.com

Swanbarton Limited

Swanbarton is a consultancy and technology development company active in the areas of electricity storage, community energy and the implementation of the smart grid. Our experience covers the technical as well as the commercial and regulatory aspects of the electricity power system.

We work with clients based in the UK and overseas on the deployment and commercialisation of electricity storage, and we have particular expertise in the market and regulatory structures. Our recent work includes projects on the development of peer to peer trading and its role in local and community energy, particularly as it can support and enhance development of electricity storage.

Introduction

Our assessment of the current market electricity market models is that they perpetuate a number of limitations which will inhibit the development of a system which is optimised for efficiency, economy or sustainability. The current market model has been inherited from the days of the nationalised industry, with a half hour trading period, which sufficed to meet the needs of the 1950s and 1960s. A simple tariff which only put value on energy and ignored the cost of balancing the system was satisfactory then, as there were only, in effect, a monopoly supplier and consumers who accepted dictated prices.

Half hour trading periods are inadequate for current and future market models. Summing the energy flow over a half hour period can lead to distortions at the beginning and end of each period, as participants seek to balance their positions. Overseas, many markets are 15 minutes, some 10 and some 5 minutes. Clearly this leads to increased volatility, but this volatility is a reflection of prices being more responsive to time of day supply and load requirements, and so should be considered benign. The current trading periods encourage maintenance of the status quo, tending to favour those who are able to use their trading size to achieve balancing in their trades.

The value of power is not recognized in consumer energy trading. The value of negative power (demand reduction) is often claimed to be of interest to consumers. The value of power supply is still wrapped up in the cost of energy supply. It is assumed that customers would receive a price signal at peak times, to encourage them to reduce demand at peak; yet a customer who is already drawing load off peak but holding consumption at a constant level should not necessarily pay a higher charge at peak rates when it is their neighbour who may cause prices to peak by increasing their demand. There is a question of whether price signals should relate to peak flows at individual consumer premises, at low voltage feeder level, or at a higher level in the distribution hierarchy.

The discussion document's explicit assumption that 'energy is an essential service' is unhelpful in the context of considering NTBMs. There are energy users for whom energy is deliberately inessential, and while they are an insignificant minority in the context of all UK energy users, they are indeed significant in the smaller field of those who are willing to engage in NTBMs.

Response to Consultation

<p>Chapter One a: What is your view on our definition of non-traditional business models?</p>	<p>The definition is adequate, but new business models should be seen in a very broad context. Some of the discussion has been based on extension of the present arrangements, rather than a complete re-writing of the methods of doing business.</p> <p>We suggest that ‘Those offering these services’ be altered to ‘Those offering or seeking to offer or to use these services’, because:</p> <ul style="list-style-type: none"> * many NTBMs cannot be in fact offered at present, for regulatory reasons; * the motivations of the users are just as important as those of the providers.
<p>Chapter One b: How we can engage with NTBMs more effectively in the future?</p>	<p>We view OFGEM’s structure as reflecting the current organisation of the industry: an industry that has been separated into distinct silos such as generation, networks, supply, metering. These silos do not match the structures in all NTBMs, and so OFGEM needs to take a holistic approach when considering its engagement with NTBMs.</p>
<p>Chapter Two: We would like to hear your views on the drivers for market entry. Do you think there are other important drivers?</p>	<p>We see many drivers for NTBM, only some of which are detailed in the paper. We also consider that a one size fits all approach will not suffice and that in the future there will be many models addressing different market segments. We can draw an analogy with the telephony services market which encourages a multiplicity of business types and organisations.</p> <p>A significant driver is the new willingness of users to actively engage with markets, as demonstrated by the rise of markets in which users play an active role in making trades: for example, eBay and Gumtree. People expect to be able to negotiate prices, to a degree that they didn’t last century.</p> <p>There is a significant desire in some sections of the public for the devolving of decisions to local level.</p> <p>The availability of cheap data communication and computing facilities means that the engagement in energy markets of very large numbers of trading parties has become feasible, to a degree that was inconceivable when the present business models were made.</p>

<p>Chapter Three a: Have we accurately described the NTBM environment? Have we missed something? We'd like to learn more about organisations using NTBMs.</p>	<p>We have significant information about peer to peer participation, whether as part of community energy or whether individually, and the role of energy storage within the new market framework. We will discuss this with you privately as much of the information is commercially sensitive.</p> <p>We suggest that merely to survey the NTBMs that are being attempted now misses the opportunity to find out what NTBMs people might like to operate, but are prevented from operating (or even from seriously considering) because of regulatory restrictions.</p>
<p>Chapter Three b: If you are prepared to discuss this, please contact us</p>	<p>We will be prepared to discuss this with you at a convenient date.</p>
<p>Chapter Four: Our main focus in this paper is on regulatory issues arising from future energy market transformation, but we recognise that there are relevant issues within current regulation. Please let us know if there are any other issues?</p>	<p>Chapter 4 provides a comprehensive overview of many regulatory issues, but does not adequately describe the commercial and technical challenges faced in engaging with existing regulations and licensing conditions when introducing new business models.</p>

<p>Chapter Five a: What are the benefits of different NTBMs to energy consumers?</p>	<p>When changes are made to a market there will always be winners and losers. If a particular business model offers a benefit to consumers, there will be a loss to some other participant in the system. For example, communities going off grid and saving on T&D charges, lead to increased costs for the remainder of the users of the system, reduction in profit of the TNO or DNO and an acceleration of cost increases for other users.</p> <p>While some consumers will therefore benefit from a given new market model, not all will. A regulatory environment that enables a wide range of business models is the best way to ensure that every consumer can have access to a model that suits them well..</p> <p>The benefits of NTBMs to energy consumers can include:</p> <ul style="list-style-type: none"> * simple cost benefits * the ability to use purchasing power to influence energy generation patterns * freedom from the constraints of traditional business models.
<p>Chapter Five b: Are these benefits experienced by all energy consumers or only those directly receiving the NTBM's services?</p>	<p>This would be dependent on each particular business model. With good competition and market freedom, with open price discovery, we would expect benefits to move around the system as traditional market players are driven to match NTBM prices. Here's a parallel: the deregulation of air fares, led to an increased market size, and stable or indeed lower fares on many routes, though some may argue that there has been a loss of quality service.</p>

<p>Chapter Five c: Are there additional wider benefits to the energy system and beyond it?</p>	<p>Yes, a NTBM which encourages more local generation and consumption would reduce system losses, which would be of benefit to the whole system. Equally it would enable increased consumption of electrical energy without the need for costly reinforcement of the DNO networks. Increasing the efficiency of the whole system will bring commercial and environmental benefits.</p>
<p>Chapter Five d: Which of these benefits should be taken account of in regulatory policy-making and decision-taking and why?</p>	<p>We suggest that given the pace of market development that the information age has enabled, it would be entirely inappropriate for regulatory policy to be based on enabling presently foreseen benefits. Rather, regulatory policy should be permissive in outlook, and seek only to regulate to the bare minimum necessary to ensure a Spartan minimum of consumer security. As a parallel, see how diversity in the UK telecoms market blossomed when the Communications Act 2003 abolished carrier licensing.</p>
<p>Question Five e: Are there energy system costs or risks from any of the NTBMs? How might these be addressed?</p>	<p>A common characteristic of all NTBMs is the increased involvement of information systems. As a result, participants in NTBMs are exposed to new and emergent information security risks.</p> <p>We are presently researching information security risks in community energy trading, and will be happy to discuss our findings privately.</p>
<p>Question Five f: How will NTBMs help to drive innovation within the energy system?</p>	<p>We see NTBM as being an important part of the innovation process. For example, we had already identified the importance of a new business model to drive storage, and some of our research results indicate that the deployment of storage would increase substantially if the current business regimen were changed to an improved real time peer to peer system.</p>
<p>Chapter Five g: How could NTBMs potentially transform the energy market and what fundamental challenges to regulatory arrangements could this entail?</p>	<p>The present energy market is based on an outmoded inefficient arrangement, which is derived from the restrictions of a Half hour balanced system, which was in turn necessitated by historical limitations in information technology that have long since ceased to apply. The balancing mechanism is one of many distortions in the market. Moving to a new business model with improved trading arrangements would require a total rewrite of the regulatory arrangements, and introduce the concept of equality of trade between all participants in the market.</p>
<p>Chapter Five h: How could regulatory arrangements change to accommodate NTBMs?</p>	<p>The biggest obstacle that we have observed is that many interesting NTBMs do not see the light of day simply because the regulations forbid them. It's no good just regulating to enable some specific NTBMs: that won't enable further new NTBMs to be tried. As we have remarked above, a permissive regulatory environment, with a presumption of lawfulness, is what the electricity market needs.</p>
<p>Chapter Five i: What role do NTBMs and other parties have in managing energy market transformation and regulatory change?</p>	<p>Energy market transformation cannot, by definition, come from traditional business models. It's the NTBMs that will be the catalysts of transformation.</p> <p>We see this as part of the innovation process. Developers, manufacturers and new entrants, who have most to gain from</p>

	<p>NTBMs will be keenest to see the development of NTBMs and will assist, support and motivate the change process.</p> <p>The UK needs a regulatory environment where NTBMs can be tried easily, and can fail without great cost. It's only by trying a great number of business ventures, many of which will fail, that any market can be transformed.</p>
--	---