LCN Fund Full Submission

Supplementary Answer Form

Tick if this answer is Confidential: ☐

Tick if this answer has been provided verbally: ☐

Project code:	SPT2005	Question Number	22
Question date	17th Sept 2013	Answer date	19th September 2013
Submission section question relates to	2: Project Description		
Topic	Energy Market		
Question	Please describe how the energy market will function? Will communities/homeowners/DSR providers bid into the market? Will individuals actively control their appliances? How will the value of services be determined? How will users interface with the market?		
Notes on question	To reiterate this is not an energy market per se, but a local network constraints market.		
Answer	Again, as in question 21 the full details of the market operation will be driven by the work of Durham and Bangor University. However, as an **example** the following is a use case for market operation that we have used during the initial project development stages. 1. A daily behavioural profile for each residence/I&C location is built up from monitoring. 2. The behaviour at each location is profiled to determine their attitude to their significant energy loads, what stimulus may change their behaviour, their attitude to project stakeholders and what their end goals are. 3. Based on this information an active management profile is set for the household/location (with their explicit agreement) within the central management system operated by Menter Mon. This tells Menter Mon how load can be controlled within acceptable limits at this site at any particular time. 4. SPEN inputs their requirements for services to avoid network reinforcement/constraints and specifies how such "ancillary services" would be rewarded. This would be a near real-time ongoing input and		

	will require additional network monitoring and comms infrastructure. 5. An economic value will be assigned to allow the best economic and technical decisions to be made on electricity use e.g. comparisons between self-generated energy going to on-site consumption, grid energy import and export, SPEN constraint signals. 6. An operational market for network constraint services is created with mechanisms to reward Menter Mon financially and SPEN with avoided network constraints/avoided reinforcement. Note: not all rewards need be monetary e.g. carbon footprint benefits if that is a community goal. 7. Menter Mon is the market participant on behalf of the community. It monitors the effectiveness of the markets and communicates with householders/I&C participants on a regular basis, including reviewing and amending energy management profiles to changing customer needs. It also distributes the profits from market participation to end customers. As can be seen from this use case we anticipate that domestic and smaller I&C participants would engage in the market only via Menter Mon. Larger I&C may already have energy management solutions which would allow them to engage directly.
Attachments	
Verbal Clarifications (Consultants)	