



COMMUNITY ENERGY: POWER TO THE PEOPLE

Metering & Smart Energy International spoke with OMNETRIC Group CEO, Maikel van Verseveld, about community energy and the implications of the rapidly growing market of self-generation for utilities. OMNETRIC Group, the Siemens/Accenture joint venture dedicated to the energy sector, has taken a close look at the 'citizen utility' trend, as part of its vision for enabling a new energy economy.

In a sector currently characterised by disruption, it is interesting to hear van Verseveld admit that, initially, he was uncertain a workable format would be found to bring the true value of renewable energy to end users.

"In the beginning, we were somewhat sceptical," he says. "Back in 2007/08, I was involved in the Amsterdam smart city rollout. Personally, I struggled with how we could ever bring the value of renewables to end users."

He continues that the intuitive collaboration between the elements initially didn't work very well; the first in-home displays were a big challenge in comparison to the devices available now.

"This was a sector I never foresaw changing to the extent it has. The sharing economy has changed how people engage: people want to take

ownership of how they utilise their energy or control their environment. Consumers today are not necessarily of 'big business' or 'corporate institutions'. You just have to look at the rise in protest voices for or against established politicians and it is clear people are starting to take more and more ownership for the things that directly impact them."

Just as the price of solar systems has dropped, in the future, so too will the price point of batteries.

Storage is already a lot less expensive than forecast. Add to that second-hand EV batteries repurposed for grid storage, and the ability to save and share power changes completely. Now it is possible to store energy, either for later use, or to purchase it at a time when prices are lower and store it for use at a time when tariffs are higher. This is a level of flexibility not previously available to consumers.

It is possible to map how the trend is taking root in the way some pro-active regulators have started piloting or have regulated for consumer-enabled, fully fledged sale of electricity on the network – if you can produce it, you can sell it.

“People want to get an idea of how they can further benefit from the power they are generating – can they share with their neighbours, or decide when to feedback into the grid?”

Technical considerations

Are communities really equipped to manage their own power?

“For many communities, I’m not sure if that’s their goal,” van Verseveld admits. “As part of our research, *Power to the People*, which examines how community energy is a major driver of change in the energy ecosystem, communities’ feedback is that while they are becoming more energy-savvy, in the main, they are not looking to become experts.”

The truth is, communities want continuity of power and they don’t want to take the risk of losing it by taking control of the system themselves. They know that they don’t have the engineering or regulatory expertise, but complain that there is a lack of the right partners to help them achieve their goals.

Van Verseveld continues: “This creates opportunities for both new players and incumbents in the sector; for example, companies that could help facilitate the easy exchange of power. Recently launched, ETPA (Energy Trading Platform Amsterdam) allows people within the local community to participate in the wholesale energy market. As new players come into the market to facilitate the sale and exchange of power, utilities need to be aware that their place in this market is being challenged.”

“Let’s get real”

“One of my favourite books is called *Let’s get real or let’s not play*,” van Verseveld says. “It’s about transforming the buyer/seller relationship.

“Our research with community projects points out that utilities are now at the stage where they need to make decisions around what direction they want to take. Many of them have realised that the traditional retail model is a business model with a limited shelf life. There are some utilities or retailers who have made the decision to play in the new energy sphere and who are investing in a different business model. That requires

Some, like Dutch utility Eneco, are choosing to innovate and participate in the start-up economy. They recently bought a 50% share in a German peer to peer platform called LichtBlick, which develops digital energy solutions for consumer and business customers.

Speaking about the partnership at the time, Wilfried Gillrath, co-CEO of LichtBlick, commented that “Eneco and LichtBlick are strong believers in, and supporters of, the four megatrends changing the global energy markets: decarbonisation, decentralisation, digitalisation and democratisation. These trends are going to shift power to the customers and are changing the role of energy companies.”

Eneco was behind the invention of the Toon thermostat, “a user-friendly smart home platform” currently being used in more than 320,000 households. The LichtBlick IT platform ‘SchwarmDirigent’ “connects distributed energy sources like combined heat and power plants, electric cars, heat pumps, solar power and storage to the energy market.” Some of the initial thinking behind the partnership will see an expansion of the Toon thermostat into the German market and an integration of the SchwarmDirigent functionality into the device.

“The partnership builds on the talents of highly motivated and creative employees in both companies with a shared vision on the new energy world,” according to Jeroen de Haas, CEO of Eneco Group.

utilities to manage investment in the relevant technologies as well as managing the scale and integration challenges that working with communities represent.

“I like what Eneco are doing,” van Verseveld shares. “They created an intuitive in-home display/energy management system as a solution for their market; they were the first to partner with Tesla for storage and they started offering demand response services to homeowners, even when regulation wasn’t in place to support it.”

“They have taken it a step further and through their partnership with LichtBlick, now offer a business model akin to the sharing economy.”

Vattenfall, too, have followed this path and have launched a company called Powerpeers, a new entrant which allows consumers to exchange the power they

produce in an easily facilitated manner. Powerpeers take care of the allocations and trading for a small service fee. Consumers can manage their own trading and earn a little bit more, but for those who prefer it, there is a full service offering. Either option allows the consumer to benefit from this exchange.

Van Verseveld cautions: “There will be those who are late followers or those who are ‘too late followers’ – the time of just providing energy advice and putting a few savings options on your website are over.”

In deregulated markets this is a warning to take to heart. While the market is taking time to digest and process the concept of the new energy paradigm, wholesale market prices and margins are dropping and the number of customers is declining. In Germany, there are often days when the power exchange price is negative. Currently

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“Making such options available should become part of a 'new normal' service offering. Otherwise, I think there is a risk that the local community will do it instead.”

New entrants into the market – from the telco market, consumer retail or even automotive – are potentially a more immediate threat. Mercedes-Benz has opened a home energy storage business in the US. What is stopping BMW or Tesla from becoming new retailers in the market?

“If you think about it, at some point, the whole mobile storage market will change,” van Verveveld says. He believes that it is about motivation – with more electric vehicles on the road, the issue of storage and stability will become even more of a priority and will change the way the market operates. Coupled with the trading possibilities made available through the Internet of Things, there are profound changes ahead.

“When I look at the concept of smart cities from 2007, compared to now... you needed to have 15MW of capacity to be considered a player on the wholesale market. Now you sign up and participate with 150kW.”

“I find the lowering of entry barriers particularly intriguing. The entry barriers, the political mindset – these are all converging to facilitate change. But utilities do have the advantage of experience and expertise that they would do well to exploit. We are looking at a role where they become community energy platform providers, white-labelling a number of services for communities to share with their constituents.”

A word of advice

The jury is still out on how this market will evolve, but with the introduction of local trading markets in the UK, van Verveveld is confident this is an unstoppable trend that will continue to grow. Communities will likely have a bigger impact on utilities with the passage of time; it will take only a few savvy people who realise they can be self-sufficient and ‘off grid’ more often than they are now.

Van Verveveld says: “The playing field has changed. The sharing economy is real and utilities need to look at other businesses and how they are digitalising. We are seeing digitalisation in many sectors, but it needs to be more intuitive for people to sign up to and participate. Any attempt to keep the status quo will fail.”

His advice: “Partner with the people who can help you accelerate your services to consumers. Don’t allow tradition to hamper your ability to evolve.” ■

Find OMNETRIC Group’s research: Power to the People: Community energy as a major driver of change in the energy ecosystem, at www.omnetricgroup.com/powertothepeople