

A 2020 Vision for Energy Services

August 2010

A Delta view on how the energy retail market may evolve into an energy services market.

or

‘A day in the life of a smartenergy.com customer’



I drive home from work and plug my electric vehicle into my recharge point. I don't plan on going out that evening, but set the controller to make sure I have a range of 15 km within the hour, and a full battery by 7am the next morning.



Smartenergy.com, my energy supplier, rewards me for this flexibility by giving me 25 km free driving every month, so long as I give them this flexibility ten days every month. I've already given them 8 days this

month, and it's only the 16th. They even use my car to put power back onto the grid! I didn't opt for their 100 km free driving a month as I didn't want to guarantee that I wouldn't need any charging between 6pm and 9pm in the evening.



As I walk into my house, I see that my LED energy lamp is glowing green – that means that prices today are as normal. On

some days of the year it glows red, which means that our electricity price doubles - but we receive free electricity that day if we cut our daily average consumption by one third. It happened for three days in a row last winter when there was little wind to power the wind farms. We did meet our target and get free electricity on one of those days!

I flick onto my energy manager app on my iPhone and see that I'm meeting my average energy consumption target - if I keep the penguins on the iceberg, I'm fine - if one falls off then I'm set to exceed the target. The target's important because if I exceed it, I pay four times as much as the standard rate for each unit. If I get close to the target, my energy manager first does what it can to automatically reduce my consumption, and then sends me a message. On the iPhone, I can see how much energy different appliances are using, so it makes it easier to keep within the target.



Source: Panasonic / SEAS-NVE

The target sounds like a hassle, but actually we're happy to have it, because in return we didn't have to pay for a new boiler when our last one broke down. Smartenergy.com came along and installed a fuel cell boiler - we didn't have

to pay anything!



Source: Ceres Power

We pay a standard charge for smartenergy.com to heat our home - so long as we keep within the target. Apparently the government penalises energy suppliers that sell more, and rewards ones that sell less. It's hard to believe that five years ago they were trying to reduce our country's emissions, and at the same time the energy companies were trying to sell as much as they could because that's how they made more money!

It's made us think a lot about our energy. When we bought a new TV last month, I chose the LED version because it only used half the energy of the others. And would you believe that I bought it from smartenergy.com?

The target's also quite fun - smartenergy.com tells us every month how our consumption compares to homes like our own - a semi-detached house with a family of four. We've been in the top quarter of homes for the last six months, and received a certificate and a solar-powered phone charger as a reward. My children nag me to try and get us into the top ten percent because if we do this for a year we get a free game for our 'Wii'.



As I open my fridge to get a nice cold beer, I see that it's off right now – the temperature's risen to six degrees and the flashing light shows that smartenergy.com has switched it off until the temperature reaches 7 degrees. Apparently they decide whether it's more cost effective to switch off my fridge or ramp up my fuel cell boiler. I could over-ride it and switch the fridge back on, but my beer is cold enough.

My sister's consumption is in the bottom ten percent – she gets quite embarrassed about this but her husband doesn't care, even if he is paying for exceeding his target.

In the kitchen, I glance at the display on my fuel cell boiler – it's generating 1 kW at the moment. It also shows that it was generating 2 kW earlier this afternoon. Smartenergy.com controls how much power it generates. It's all part of the deal for our 'free' fuel cell. Maybe the wind wasn't blowing earlier today.



This vision is intended to provoke discussion and debate about how future energy services markets will develop. Please visit www.delta-ee.com/downloads.asp to see highlights of our June 2010 'Energy Services in Europe' Summit – "Energy Services - Momentum Building But Still In Early Stages"

To discuss this vision, or Delta's energy services research, please contact Jon Slowe on jon.slowe@delta-ee.com, +44 (0) 131 625 1004.

About Delta Energy & Environment

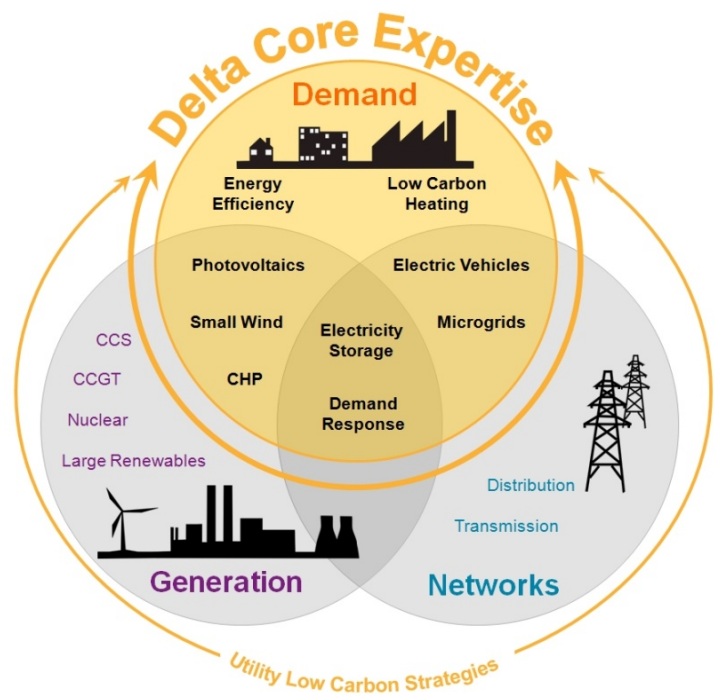
Delta provides commercial insight and market expertise in:

- ▶ Decentralised energy
- ▶ Low carbon strategies

Clients

Clients span Europe, North America and East Asia and comprise:

- ▶ Energy companies
- ▶ Investors
- ▶ Equipment manufacturers & technology developers
- ▶ Policy makers



Offerings

Delta brings its clients deep knowledge of technology, policy and customers, supporting them through:

- ▶ Subscription services
- ▶ Summits
- ▶ Consultancy

For further information please contact Andy Bradley on +44 (0) 131 476 4259 / at andy.bradley@delta-ee.com, or visit www.delta-ee.com