

MAPs of the world

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The smart meter market in the UK, with responsibility for roll-outs lying with energy suppliers, is a competitive market of independent meter asset providers (MAPs), often backed by infrastructure funds.

As the UK's smart meter roll out advances at speed, the most pioneering MAPs are turning their eyes to international expansion, with Australia foremost in their line of sight.

In the year 2000, the UK government decided to introduce competition in its domestic gas and electricity metering market, to achieve lower metering costs, better service, more accurate billing and more advanced metering products.

At the time Transco (now National Grid) was gas distributor and monopoly meter provider. Transco was forced to let tenders for the seven regions of the UK to go to third parties, rather than replacing the gas meters itself when required as part of its regulated asset base. Meter Fit, Capital Meters and OnStream were winners of these contracts, analogous to PFIs, which offered long-term stable cash flows for their special purpose companies from the meter rental agreements with supplier British Gas.

The meter provision concession holders over time were bought and sold until independent companies emerged. The dominant independent meter asset providers (MAPs) are now Calvin Capital, Macquarie Energy Leasing and Northern Powergrid Metering. Infrastructure funds took the chance to invest in those companies in the early stages, with Calvin being owned by Infracapital for about 10 years and Macquarie owning Macquarie Energy Leasing.

Then the UK government, in line with an EU initiative for energy efficiency, decided smart meters should be integral to the country's energy system. Smart meters automatically send usage information to suppliers to end inaccurately estimated bills, and should encourage users to save energy.

Every UK home will be offered a smart meter by its energy supplier by 2020. That target breaks down as around 53 million smart meters in homes and small businesses nationally, with an initial estimated total cost of £11 billion (\$14 billion).

The UK has put the obligation to procure smart meters on the unregulated, competitive energy suppliers. Regulator Ofgem is overseeing the programme, and does have the ability to impose fines if energy suppliers are not keeping to the plans they submitted.

"There used to be a very small number of energy suppliers using independent MAPs, but the suppliers are increasingly looking to them to meet their obligations," says Mark Chladek, transaction director at Infracapital.

While the UK market has six dominant energy suppliers, the pool of smaller and independent energy suppliers in the UK is on the rise and has reached around 10% of the UK's electricity generation. Customers can merrily switch supplier

within 24 hours to save money, and the switching activity is known to those in the industry as “churn”.

Smaller MAP players operate at this end of the market, including Foresight Metering and Smart Metering Systems (SMS).

Infrastructure funds pile in

Infrastructure funds have increasingly shown enthusiasm for the sector smart acquired 100% of Calvin Capital in the beginning of 2017 from Infracapital, after an auction said to have also drawn Cheung Kong Infrastructure from Hong Kong and Goldman Sachs Infrastructure Partners.

Foresight Group, which invests in infrastructure and private equity, established Foresight Metering in December 2016 after acquiring an existing MAP, Utility Funding (UFL), which had nine years of operational experience in the sector. Foresight Metering has positioned itself as a “second generation” MAP. Foresight says it can offer to work with suppliers without minimum volume commitments, which adds flexibility for smaller energy suppliers.

Another infrastructure fund manager Equitix created a joint venture this year with infrastructure service provider Amey, which in February said it has installed and manages more than 300,000 smart meters.

During 2016 US infrastructure fund manager Alinda Funds paid £198 million for another meter installer and manager Energy Assets Group, paying 14x EBITDA.

And it's not just infrastructure funds investing in UK smart meters. Two Canadian pension funds, Ontario Teachers' Pension Plan and OMERS Infrastructure, invested in a new independent MAP named MapleCo, each putting in a third of the capital alongside SSE, while it also raised third party debt.

For SSE this was a more internal solution. This equity and debt was enough to finance one roll-out programme of 2.7 million smart meters, though overall SSE needs to install 7 million still in further tranches. MapleCo has contracted SGN Smart, which has existing technical expertise, to provide management services and resources to MapleCo.

MapleCo is well-placed to obtain those further roll-out contracts from SSE, but outside that it is also actively pursuing opportunities for contracts with other energy suppliers.

Infra-friendly characteristics

It is not surprising infrastructure funds are drawn to owning MAPs. They provide essential infrastructure which is due to meters sector over the last year. KKR's infrastructure business soon be in every home. Revenues come from fixed, long-term contracts typically of 10-15 years with energy suppliers that are generally credit worthy.

Revenues are isolated from any retail risk, MAPs have high EBITDA margins, and are scalable platform companies which gain from economies of scale. In addition there is a low operating leverage as a large work force is not required, as they outsource the manufacturing and installation. Project finance debt, which takes security over the cash flows, typically finances the MAPs' roll out programmes.

Plus many funds truly want to associate with the thesis of decarbonisation, digitisation and deconsolidation. But there are some trickier sector traits. Pricing is becoming more competitive. One source explains: “MAPs historically could achieve double digit yields on meters. That has been coming down over time. Some smaller energy suppliers might pay a slightly higher yield. When all smart meters become fully interoperable I expect yields to settle at around 6-8% across the market.”

One banker who looked at lending on the Calvin Capital acquisition said that in due diligence the certain revenue base can never really be nailed down, as you can't truly know the churn risk. Although their bank was willing to lend but was just beaten by some competitive debt pricing.

Foresight Metering is dealing with a higher churn risk and lower credit qualities for smaller energy suppliers. When a customer switches supplier, the MAP needs to be able to collect lease payments from the new counterparty. Foresight

Metering's CEO Tom Thorp explains: "We have over 30 rental agreements with different energy suppliers across the market. There are over 70 operating today... We typically assume churn rates for a supplier up to about 20%, so it's important we have a wide spread of agreements across the market."

Competition is stiff and most that have invested in MAPs would already say that track record is vital in this industry, making it tough for newcomers to win roll outs. The number of UK MAPs active can be counted on two hands.

Ofgem has not indicated that it will reduce its target of hitting 53 million homes by 2020. However the market is expecting the deadline to soon be pushed back a year or two.

Nevertheless, KKR's head of European infrastructure Tara Davies takes the view that MAPs need to be in the market now. "Over half of the potential growth is already contracted or accounted for by existing utilities and existing MAPs.

Bidding and tendering continues right now. If you're not in the market and established with the right systems, people, processes, relationships (both energy supplier and meter manufacturing) and funding it's challenging to enter," she says.

Technology evolution

Smart meter technology is due to leap forward this year. The government tendered for a Data Communications Company (DCC), which will be a conduit between all individual devices and the relevant industry parties. It passes encrypted data on to the energy suppliers, and is the way by which energy suppliers can feed reading commands through to the smart meter.

Arqiva and Telefonica won contracts to be communications service provider, while the data service provider is CGI. The DCC has pushed back the posts on launching its fully centralised system, integrating second generation SMETS-2 meter devices which are all fully interoperable.

Thorp says: "Under the original programme SMETS-2 should have started a couple of years ago... and only up to about 1 million SMETS 1 smart meters would have been installed. The estimation now is that when we switch... there could be as many as 10-12 million SMETS-1 meters."

SMETS-1 smart meters are not subject to prescriptive technology and methodology, and they vary between manufacturers with no requirement for interoperability between suppliers. Those already installed could potentially be phased out over time.

But sources say the DCC is in testing stages and could launch for SMETS-2 as soon as September. Matthew Freeman, head of operational excellence at DNV GL, says: "The manufacturers are finalising their hardware and firmware designs for SMETS-2 and putting those through various assurance processes. A lot of the devices exist now and we're gearing up for mass deployment. That's when all the retailers will be ramping up resources and installing at a higher volume."

MAPs are arguably well positioned to find ways to monetise and be providers for the next evolutions technologically. The so called "internet of things" refers to internet connections between computing devices in everyday objects, allowing them to send data. Smart meters could well be a vital part of the equation, in a future where smart grids can better allow grid operators to balance energy demand and users can remotely programme devices such as washing machines to turn on at times of off-peak energy demand.

Thorp says: "We're speaking to people already about consumer access devices, which will be the smart connected hub within a home to enable smart phones/ tablets to manage everything. We are investigating whether these devices can be financed through master rental agreements alongside metering equipment or similar agreements. I'd say in the next 6-12 months we could be financing these devices."

Overseas opportunities

The UK market was compelled to action when the EU set a directive as far back as 2009 for 80% of EU households to

have smart meters by 2020, to boost energy efficiency. But generally other EU countries have included smart metering within regulated asset bases of their energy distributors, rather than outsourcing to third party financiers.

Italy was a pioneer as state-controlled power provider Enel launched a roll-out plan in 2001 and it has reached almost all Italian homes. In 2016 Enel announced it would begin replacements with second generation meters. Denmark and Sweden were also out the blocks very early, though they installed smart meters on a demand-driven basis rather than with mandatory programmes.

More recently EDF has begun handling the roll out in France with a 2021 target, while in Spain the three main suppliers are leading a roll out plan which runs to 2018.

With the mature UK market booming and an end in sight for the finite number of contracts, certain smart metering MAP leaders have already turned their eyes to their next big growth markets.

Foresight is beginning to consider opportunities in Germany, as the country is a large potential market albeit one structured around a distributor-led programme.

Dr. Tim Heitling, partner at Baker McKenzie in Berlin, said: “There is a roll-out plan and the Federal legislator put new legislation in place at the start of this year. But pre-conditions exist for the actual start of the roll-out of smart meters... Importantly, also the energy suppliers will need to offer off-peak energy tariffs. The smart meter roll-out for household customers could happen in 2020 or so under the government plan.”

Foresight is already exploring Australia’s market more keenly. KKR’s Davies says the top growth markets where the meter delivery model is similar to the UK are Australia and India. These markets are pursuing energy supplier-led smart meter roll out models, which creates a market for MAPs.

Davies says India is a 250 million meter market driven by a government incentivised to ensure that energy companies are able to collect payments from end-users.

Meanwhile Australia, though relatively small as a 10 million-meter market, is advancing in the sector at a faster pace. Already Calvin recently won its first roll out contract in the country.

Aussie rules

As well as roll-out bids, there are M&A opportunities in the Australian market. Of the three largest energy suppliers - AGL, Origin and Energy Australia – two of them have launched sale processes for their existing metering businesses. AGL is selling Active Stream, while Origin is selling Acumen.

Calvin, Macquarie Energy Leasing and Foresight had been looking to bid on Active Stream.

The regional government of Victoria was the early-mover in the sector, and by 2014 had completed a mandatory programme to install smart meters in all homes.

Of Victoria’s programme, Allens partner Anna Collyer, based in Melbourne says: “That process attracted criticism from industry participants because asking the regulated monopoly part of the industry to lead an initiative which was really about customer engagement didn’t seem to create the right incentive for [the roll-out] to be done in the most cost-efficient way and in a way most likely to benefit customers...”

National Electricity Market Rules govern the roll outs for most other states. Collyer explains: “The rules were changed in a couple of stages. Firstly they got rid of the idea there would be mandatory roll-outs... Another set of changes were drafted in 2015 and come into effect on 1 December 2017, which seek to facilitate a retailer-led roll out.”

There will be an obligation under the new rules for all replacement meters to be smart meters from 1 December, and from the same date all retailers are obliged to appoint metering coordinators.

Meter provision will be the job of the meter coordinators, which can finance meters themselves or appoint meter

providers and meter data providers. They could each appoint multiple providers.

The energy suppliers have not yet shown their cards on how they will be proceeding to structure smart meter roll outs, and governments have not set defined roll out targets.

But this is a market on the edge of launching in earnest. Tanya Denning, partner at Ashurst in Melbourne, says: “At the moment all the retailers, especially the big retailers, are going through tendering processes where they are appointing or contracting with metering coordinators.”

Denning says: “I think the UK story to this market is exciting... As we see [UK players] come in and test the waters I think they’ll bring with them some interesting models around asset ownership, financing and the like”.

It looks as though the UK government, with its fine-tuned, competitive framework for the smart meter industry has potentially created itself an exportable industry.

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