

The meter market in the Netherlands

On 10 February 2006, the Dutch Ministry of Economic Affairs submitted a policy intention to the Lower House on the structuring of the meter market for small energy users. This has been preceded by a year of research and consultation. The government was prompted to look at the meter market for the following reasons: administrative problems with billing following liberalisation, technological developments in the field of telemetry, the European energy efficiency directive and energy saving objectives.

The core of the letter to Parliament is reproduced below.

a. Key points

I propose the following in relation to the meter market:

- in principle, all small users in the Netherlands will be given a ‘smart’ meter¹;
- grid operators will be responsible for roll-out;
- the cost of the physical meter will be regulated;
- suppliers will be responsible for reading and processing metering data (the so-called suppliers’ model) and will select a recognised metering data company for implementation of the above;
- during the initial stage, the supplier will be given some influence on roll-out prioritisation.

As promised in September 2005, I have commissioned research, in consultation with the sector, on the structure required for the meter market for small users, and, in particular, on which division of responsibility over the various parties will be the most beneficial. The research results and the many consultations between all of the market parties concerned ultimately resulted in a clear regulation model.

I will explain the key points of my proposal below.

KEY POINTS OF THE NEW MODEL

Grid operator’s role:

- Responsible for administrative management and for the roll-out of smart meters. The grid operator knows where (smart) meters are being installed, where and by whom;
- Ownership of the meter;
- In the case of new connections, new build and other changes (end of lifespan, meter pool), the installation of a smart meter by the grid operator is compulsory, subject to certain basic requirements;
- Installation as part of large-scale projects (new build/residential district) will occur under the supervision of the grid operator, on the basis of a public tender procedure, in which market parties are able to submit tenders.

Supplier’s role:

- The supplier will be responsible for all customer-related processes (the management of metering data) for its customers; this must be outsourced to metering companies that are registered and certified to do this. In this respect, the supplier is free in its choice of metering company;

¹ The gas or electricity meter itself is not ‘smart’. This particularly concerns the addition of communication technology and the fact that, as a result, the metering device can be read and controlled remotely. Added to this, software can be added to facilitate certain control, de-activation, dimming applications, etc.

- For those operational management tasks for which quality and speed control are crucial (in relation to errors in the metering device, for example) – and for which the arrangement of matters such as liability and responsibility must be optimal – the supplier must have the option to buy in and direct these services.

Transitional measure:

- In the initial stage, the supplier will be able to play a primary role in the roll-out process. The supplier will be able to determine which customers it wants to roll-out smart meters to first. The grid operator will be expected to facilitate this.

The starting point for my policy intention on the meter market is that accessibility to metering data enables suppliers, metering companies and consultancies to offer customers commercial services. Ownership of the meter is not a prerequisite. The physical meter must facilitate the optimal operation of the supply market. The creation of a meter market in itself is not a policy objective. Nor would this reflect the Lower House's wish to actually regulate meter prices. The price increases for meter hire already observed by the Office for Energy Regulation [*Directie Toezicht Energie (DTe)*] are not in proportion to the services provided. Thus, this is what I am now going to bring to an end. Meters (and meter hire) will become part of the regulated domain of the grid operator as part of the physical infrastructure. This is also in line with the idea of ownership unbundling. This will also ensure that meters cannot form a physical or administrative barrier preventing customers from switching to different suppliers, where these other suppliers could also provide meters. This will also avoid situations in which the transfer of all metering equipment to the incumbent supplier gives it an unfair advantage over smaller parties. For example, the distortion of competition could result from cross-subsidisation between the revenue achieved from meter and supply activities.

It is crucial that all processes with a direct relationship with service provision to the customer be placed with suppliers. Where, in some cases, suppliers are still dependent on the grid operator, I want to shift the management role to suppliers. In specific terms, this means that everything connected with the collection and processing of metering data can be organised by the individual suppliers. After all, the supplier is the party that will be approached by the customer if something is not right. The supplier is the party that will be required to respond immediately in these situations. This must prevent situations such as the inadequate administration that we saw last year. Suppliers must also be able to manage quality and speed on matters such as the resolution of breakdowns to the meter or communication with the meter.

b. The 'smart' meter

The presence of a metering device for electricity and gas is a condition for energy supply. Therefore, this forms an intrinsic part of the energy supply and billing process. The addition of intelligent properties to the metering equipment facilitates a number of functionalities, as a result of which the meter becomes a platform, as it were, for various added-value services. For industrial users, this has been widely accepted for a long time now, but this technology is now also becoming attractive to the small users market. Smart-meter technology makes it possible for suppliers to offer their customers other energy-related services over and above simple energy provision (energy-saving tips, for example) on the one hand, while enabling grid operators, on the other hand, to optimise operational management of the network. Therefore, smart meters are relevant both commercially and operationally. In other words, they are relevant to both the public and private sectors. This also clarifies the complexity of this subject.

So, what are we talking about?

1. the ability to remotely read how much energy has been consumed;
2. the ability to remotely activate and deactivate capacity;
3. the ability to remotely meter and detect the quality of energy consumption;
4. on-line interaction between customers and suppliers;
5. real-time response of controllers in energy systems.

Functionalities 2 and 3 are related to the public tasks of grid operators. They contribute to security of supply, amongst other things. However, the starting point is that a high degree of coverage is required for the proper utilisation of these meter functions. The other functionalities offer the basis for commercial service provision in the context of the control and management of energy consumption in consumers' homes. Therefore, this is an incentive for demand response from small users.

For example

One of the functionalities that I am providing scope for in this proposal is the ability to remotely limit the transmission value. This will create another opportunity to help households with payment arrears (to avoid spiralling debt, for example). At the same time, suppliers will be provided with a tool that removes the need for them to actually disconnect the connection. This possibility is already being used in Belgium.

To ensure that all of the above functionalities are also potentially possible with all 'smart' meters, I will impose a number of output-related demands on these meters:

- there must always be at least one indicator (kWh);
- consumption must be logged per period (the technical functionality must be able to facilitate the addition of extra memory if required);
- errors/failure must be registered;
- there must be an internal clock;
- meters must be suitable for two-way data traffic/communication
 - o remote reading facility (standard format data)
 - o remote activation and deactivation (including the dimming of transmission value)
- measurement of electricity buy-back;
- standard output/port for connection with other equipment (for example, communication module, extra intelligence).

I will not dictate a particular technology in any way whatsoever, but there must be a functional basic level on the basis of which grid operators are able to perform their public tasks and which commercial parties can develop services for. The Netherlands Standardisation Institute [*Nederlands Normalisatie Instituut*] has now started a process, commissioned by the Ministry of Economic Affairs, in which the further norming of these basic functions is being agreed upon with the sector. One of the most important parts of this project is to ensure that the data generated by meters have a standard format, making data interexchangeable.

Dutch policy on the field of meters is delineated by the EU Energy Efficiency Directive², which was adopted on 13 December 2005 in the European Parliament after its second reading. In this Directive, Member States are ordered to ensure that, in principle, all households will receive meters that enable individual users to gain an up-to-date insight into their consumption profiles. It is up to the individual

² European Parliament legislative resolution on the Council's common position for adopting a directive of the European Parliament and of the Council on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (10721/3/2005 – C6-0298/2005 – 2003/0300(COD))

Member States to determine the requirements to be met by these meters and how meter roll-out is to occur.

One of the most important objectives of this Directive is to achieve energy savings. In order to promote this objective, customers must be confronted directly with their consumption profiles. This requires an increase in the frequency of metering. In the present situation, with the present meters, this is not possible without physically sending someone out to read the meters. It is up to suppliers to decide how to organise this process of feedback and the increased frequency of metering.

c. Impact on small users

What impact will this have on households and on small business users and which advantages will this offer small users?

Once the small user has a smart meter, he will receive information on his energy consumption more frequently than before. Information aimed more specifically at the individual customer on, for example, energy saving possibilities and on the expected level of the final bill, based on up-to-date data, provides the small user with tools to manage his consumption himself and to actually save money. For these “metering data services” (and related savings advice), small users are free to approach any party offering these services.

Besides the above, the addition of intelligent characteristics to the meter enables grid operators to perform their public tasks more efficiently. The various studies conducted by various parties in this area last year show that this results in major cost advantages. Therefore, I expect that, in time, this will have a levelling effect on the level of meter hire. The Office for Energy Regulation will make explicit allowance for this in its tariff supervision.

d. Points for further development

Roll-out

The EU directive indicates that roll-out must be cost efficient and that potential savings must weigh up against the benefits. A SenterNovem report that I commissioned last year (“*Invoering slimme meters bij kleinverbruikers*” [Introduction of smart metres for small users], October 2005) shows that the results of the cost-benefit analysis are in favour of broad and regulated roll-out. A report produced by EnergieNed also shows that a regulated, large-scale roll-out will result in major cost advantages. However, in both cases, the extent of this advantage does depend, inter alia, on how much energy consumers actually save and on the level of costs avoided through the detection and prevention of fraud.

Given these uncertainties, I suggest that we maintain a time horizon of three 2-year periods, with a 2-yearly assessment by myself of roll-out status and the reasons why certain regions or households still do not have smart meters. Where necessary, I can impose further requirements on the speed of roll-out and/or coverage, in consultation with the Lower House.

Consultations with the market parties in recent months have shown that a number of suppliers and metering companies are already active in the provision of meter contracts. Evidently, technology in the field of digital meters is currently also making it attractive to offer this to households. Of course, in itself, this innovative dynamism is fine. However, without regulation, this would result in dozens of different meters with different technologies in households with various different commercial contracts. Given the importance of ensuring the optimal use of these meters’ “public” functionalities and the need to prevent the above-mentioned market-interference effects, I feel that this is an unwanted

development. Added to this, the large-scale roll-out of digital meters in the free domain at the current time will also be accompanied by certain administrative risks. The last thing that I want is for the gradual restoration of consumer confidence in the energy market to be compromised by a developing free market for meters, with all of the corresponding teething problems. This argues for regulated roll-out under the direction of the regional grid operators. They would be bound by European procurement rules in this respect.

I also want to ensure the creation of a level playing field. A number of suppliers have communicated a two-fold message to me:

- the service provision that can be offered on the basis of a 'smart' meter offers precisely those opportunities for differentiation that parties have long been looking for in relation to a uniform product like energy with limited attractiveness;
- any dependence on the grid operator presents risks in relation to the supplier's service provision to its customer.

By placing responsibility for meter roll-out with the grid operator, the time at which commercial market parties can commence service provision based on the presence of a digital meter that is suitable for remote read-out will be made dependent on the grid operator's physical roll-out process. Added to this, the observation that a number of integrated companies still exist in the Netherlands is also important. While the bill for ownership unbundling is still pending with the Lower House, the Office for Energy Regulation must continue to guard against preferential treatment of the grid operator's existing supplier.

I understand this concern. However, in my opinion, these disadvantages are far less important and, what is more, easier to regulate than the possible risks resulting from the installation of meters and the conclusion of meter contracts entirely free of any regulation. In order to address the above-mentioned concerns on the role of the grid operator, I have agreed upon the following with the sector. Under the direction of my Ministry, an agreement will be formulated containing practical agreements on the implementation of the market model proposed by me and, in particular, on how this will work during the first stage of roll-out. I will finalise these agreements with the sector by 1 September 2006 at the latest.

As early as 3 February of this year, I was pleased to receive a joint response from the sector to my draft proposals for the structuring of the meter market. This response makes it clear just how much importance parties place on agreement on a workable model that is acceptable for all parties. Although all parties will need to compromise, this gives me hope that it will be possible to conclude an agreement in the near future and, by doing so, guarantee a responsible and well-managed roll-out process for smart meters.

Transitional stage

This policy intention heralds a period that will see the staged roll-out of smart meters amongst small users.

One of the transitional measures that I am proposing, the development of which should be given a prominent place in the agreement referred to above, is for suppliers to have the opportunity, in one of the initial stages, to play an important role in the prioritisation of roll-out (in consultation with the parties, I would like to establish how long this initial stage will last). After all, suppliers know their customers best. Suppliers also know which customers are most in need of the information and services that can be provided using a smart meter. Because I feel that suppliers have the greatest interest in the provision of an optimal service to their customers, part of the model is that suppliers that attract

customers with a proposition including metering data services that require the use of smart meters must be able to rely, under reasonable conditions, on a prompt response from the grid operator to requests for the installation of smart meters. Naturally, any risks taken by suppliers in this respect are their own responsibility. Subject to strict conditions and in consultation with the grid operators, it should even be possible for suppliers to ensure the installation of 'smart' meters for customers that specifically ask for them. In the period ahead, these conditions will be finalised in the sector under my supervision.

The structuring of so-called operational management also falls under the agreements made. Parties that provide commercial services using meters as a physical platform should also have the opportunity to manage the quality and the performance of this platform.

Responsibility of the supplier

The installation of smart meters alone will not be sufficient to ensure the achievement of the objectives of the EU Directive, nor would this be in line with the framework of the Cabinet's energy saving objectives. Consumers must be encouraged to improve their management of energy consumption. Targeted feedback to the consumer on his individual energy consumption is crucial in this respect. The way in which this happens is primarily the concern of commercial market parties, which see major potential in savings advice, for example. Too many government-imposed regulations would result in interference in this market. However, the provision of feedback, per se, is a new requirement. A once-yearly notification from the energy supplier on annual consumption would not comply at all with the requirement that consumers must have an insight of their current consumption and consumption periods. The smart meter offers suppliers the opportunity to provide this insight.

I am still considering the requirements to be imposed in respect of a basic level of information provision that suppliers must make to small users on their consumer profiles (energy use in the last period). The Swedish government, for example, has dictated that this occur on a monthly basis. However, I would also like to offer market parties sufficient scope to be able to distinguish themselves. It is up to the free market to determine whether or not it expands a basic level, which is still to be decided upon, with specific advice, more frequent information, the provision of cheaper rate periods. Obviously, suppliers will only be able to comply with an obligation of this nature when end users have the metering device required to this end.

The imposition of requirements in respect of the provision of feedback to consumers does create the expectation that actual savings effects will be achieved. These effects are also anticipated in studies, but, at the present time, there are still too few smart meters in operation for it to be possible to assess these effects against the situation in the field. Therefore, it is important to monitor this development closely in the years ahead and to consider how consumers respond to more frequent and detailed feedback. Possibly, the monitoring outcomes obtained could give rise to changes to the basic package of information to be provided.