



## **ESB NETWORKS - RESPONSE TO CER15137 – EMPOWERING AND PROTECTING CUSTOMERS**

Dear Sir/Madam,

ESB Networks welcomes the opportunity to further engage with the National Smart Metering Programme on this important Programme for Ireland.

The successful implementation of this Programme will usher in a new era of options and benefits for the electricity and gas customers of Ireland.

Customers can expect:

- *Accuracy* in their bills. No more estimates.
- *Choice* in a retail market. Flexibility to select the product that's right for them and to receive information in a manner that suits them
- *Control* of how they choose to consume and how to spend their money

ESB Networks views this consultation as timely and relevant. The High Level Design emerged from decisions made at a point in time (which was derived from our experiences from 2008 to 2011) and rightly set the scope and objectives for the Programme.

ESB Networks is proud of its contribution to the development of that understanding. Now that it is 2015 and given that the decisions were made at a point in time, it is perhaps pertinent and appropriate to reassess aspects of the high level design and challenge assumptions made at that point in time with reference to the evolved and changed market place now. We should also remind ourselves that what were the right choices for us collectively as an industry in 2009 may no longer be optimum for mainstream delivery in 2019.

We believe at this juncture, the next steps of the Programme policy should reference what outcomes and experiences are appropriate or desired as opposed to prescribing overly technical vehicles mandated across the general mass of customers. We need a strategic reference point to build our understanding about planning to deliver an appropriate (and optional) journey for all our customers.

The Programme needs to be strategic about where we invest and there is a requirement to link that strategic investment to a model and plan mapped to desired outcomes. We need to avoid mandating obsolescence before we have even implemented NSMP.

Please note that while we have endeavoured to respond under each of the headings in the paper, our response should be read a whole relating to all the issues raised.

## What has changed?

National 4G coverage is now a reality for the three main mobile networks, thus enabling a seamless online experience whether at home, on the bus, or out and about. From June 2017 EU roaming charges will be abolished. Smartphone penetration across Europe has accelerated and fully enabled touch screen 4G smartphones are feely available and affordable.

Furthermore a key demographic to be a receiver of new products and services by 2020 and beyond are currently in secondary school or starting university. In this demographic 'your own smart device' and online immersion is saturated. It is the norm.

The continued advance in the enterprise sector of "software as a service" has now moved into the consumer space. The traditional TV broadcast model is losing traction with "Over the Top" video streaming subscription services taking hold; and the "Over the Top" model has eroded the traditional GSM Network Operator model with WhatsApp, Skype, Facetime etc. forming new customer-driven experiences. This trend will not dissipate.

This means we are in an era of the mainstreaming of services via 'the cloud', that are not dependent on owning a specific device, or linked to one technology, protocol or another. All consumers will expect to receive information and services in a manner that suits them and not linked to any "mandate".

Understandably, it was impossible to foresee this during the Customer Behaviour Trial. How things have advanced! Given the long lead time to deliver and the 15 year operation of the NSMP - hard mandates implemented via utility infrastructure in 2015 will act as a brake to innovation and a barrier to customer adoption of new products and services.

This paper is best served by identifying the common core of experiences that can be aligned to specific customer categories to engage them without attributing a technical vehicle that risks obsolescence before being implemented.

## Building the Strategy

The Programme decisions taken to date rightly frames the provision of information in a strategic manner recognising that segmentation exists. The model does not adequately

address customer experience linked to a customer journey, nor a desired Benefits Realisation model. It is an excellent platform to further iterate and refine our vision towards delivering an engaged customer population.

Engagement & Effort	Study & Posture	Customer & Prompt	Frequency
<b>Low</b>	Kitchen Worktop <i>Reactive</i>	Casual Customer Short-term	Current
<b>Medium</b>	Armchair <i>Reactive</i>	Engaging Customer Next day plus Bill quality	Periodic
<b>High</b>	Desktop <i>Proactive</i>	Analytical Customer Historical Cumulative	Periodic

FIGURE 1. STUDY AND MODELLING OF PROGRAMME POSITIONS TO DATE

To progress this, an appropriate reference model is needed which will map the customer’s level of engagement to tools that will help them increase their engagement and therefore drive out benefit for the Programme.

## Who are the Customers?

Taking cue from CER’s existing work, we can think of modelling customers as being “low”, “medium” and “high” engagement.

### Casual

- Customers who are unaware of the new products and services
- Customers who are not actively conscious of their household energy outgoings

- Customers who are not energy price sensitive

### Engaging

- Customers with awareness (tentative or otherwise) of their household energy usage
- Average customers – the mass market
- Target for delivering return on investment and benefit to the Programme

### Analytical

- Highly motivated “prosumer” customers
- Already bought in and engaged

## Where do the opportunities lie?

A Strategic Reference Model for Customer Engagement and Benefits Realisation is needed to assure the decisions the Programme seeks to refine. The key consideration can be summed up with the colloquial “80/20” rule. The Programme is best served aiming for maximised return by mandating a set of minimum experiences for the mainstream customers that, if engaged will yield the benefits for the Programme.

The NSMP should recognise that investing in a niche channel or experience only serves to add cost and implementation risk to the overall Programme and thus to the end-user.

## Examples

**Casual customers** are either *unaware* or *are not interested*. There will be a negative return on investment for the End-User in customers who are not price sensitive. 3<sup>rd</sup> parties who identify opportunities that will engage such customers should be allowed to do so. Customers who are unaware present an opportunity for the programme to transition these customers to “Engaging” customers. There is real potential to get a return on investment for the end-user in supporting these customers.

**Engaging customers** present an opportunity for the Programme. In terms of the Customer Behaviour Trial (CBT), this customer category best aligns with the majority of the CBT. In the CBT all non-control group customers were moved to a TOU product, monthly (or calendarised) billing option and a smart energy statement. These customers statistically exhibited sufficient engagement that would merit investment. The majority of engagement planning and benefits realisation therefore should focus on supporting the



“average” customer with a TOU product, the option to be billed monthly and smart energy statement type information (an app that updates or monthly statements).

**Analytical customers** are already engaged “prosumer” or “early adopter” types. They are already likely to have embarked on their own energy management journey. Such customers might have already bought a smart home device or installed their own home energy monitoring kit. They are likely to have already achieved the energy savings that NSMP might propose. Investment in these customers represents a low to negative return for the end-user.

## In Summary: Effort V’s Return – Some Pertinent Positions

- By Design we should be avoiding diminishing returns (80/20 rule).
- We should focus on the general populace, not the niche.
- The general populace should not be asked to fund experiences for a niche audience.
- A customer should be offered an experience that aligns with their place on their journey to engaging with the new services NSMP will offer.
- Micro changes will add up to a macro business case.

## Objectives and Opportunities

Where investment will yield a positive return:

- Engage the casual customer (create awareness of new products, services and ways to receive information)
- Create environment for ‘not price conscious’ to develop awareness of how they are accruing expense. Prompt to search and engage rather than impose. For example a monthly text as a reminder of an upcoming direct debit which might trigger an interaction with an app or statement.
- Focus the majority of effort on promoting engagement with meaningful information driven to promote positive contributions (sell and explain in a way customer can make decisions). These customer segments are either uninterested, or overly interested. Either category will yield little benefit.
- It is counter productive to believe the general populace should cook dinner after 7pm.
- Simple steps like “The dishwasher can wait an hour” are things people can factor into their routines without undermining the general perception of the Programme.

## Model

A high level reference model for planning engagement and targeting investment to maximise likelihood of returned benefits and mitigate against stranded or negative-return investment.

The model aims for a desired transition for 'Casual' customers to migrate to 'Engaging' customers. To embark on that journey, only appropriate tools or prompts are utilised.

The model recognises an 'Elective' transition whereby highly engaged 'Phase 3 Contributing' customers could migrate to 'Analytical'. At this point the expected base benefits of the customer (as modelled in the CBT) would have been realised. An 'Analytical' customer is bought in and needs little prompt, however should 'Analytical' customers wish to further engage and pursue their energy management, then the market should be free to address these customers.

Mandating technologies for mass implementation that only seek to address an advanced niche risks negative return on investment for the End-User.

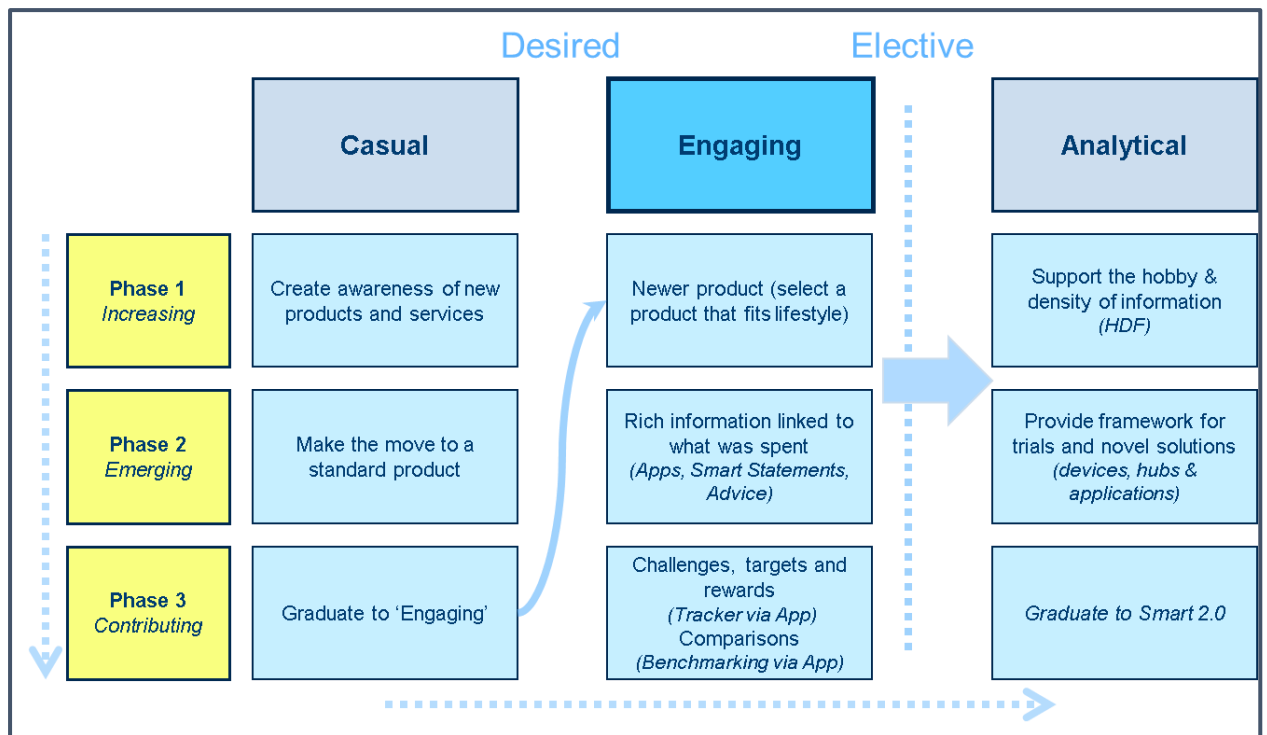


FIGURE 2. HIGH LEVEL STRATEGIC REFERENCE MODEL



## Question 1

**Do you have comments or suggestions for how the information provided to customers in their Smart Bill and Energy Statement could be used to support the transition to Time-of-Use Tariffs?**

Smart Bill and Energy Statements are the most critical of all the tools that will support bringing the customer on their journey and engaging them with the Programme.

These two tools are the most practical – they are concepts in existence already. This minimises the barrier to adoption by customers and maximises the ease of implementation (and therefore success) by market participants.

These tools are the most relevant – the issuing of a new bill, or the reminder to check your progress on your energy app or statement will serve as the most focused area for customers. Linking recent behaviour to a tangible event like an upcoming direct debit is a critical tool for inducting customers into studying and understanding their behaviour and how it affects their pocket.

- How much they have spent?
- When they spent it?
- How they spent it?
- What opportunities exist to help them improve?

We view that as part of a Strategic Model to engage customers, these tools should be aligned to the availability of time based products. It is in seeing where the customer has spent money over time that they can adjust their behaviour.

## Question 2

**Do you have comments on the extent to which further policy definition of the format, processes and/or timeframe for the provision of the HDF is required in this phase of work?**

We believe the decisions to this point are sufficient.

The role of the HDF supports an 'analytical' type customer engaged in a 'desktop' activity.

The requirement for the HDF to be of real use to customers is the availability of historical interval data. The need to provide this service is therefore dependent on a wide deployment with connections sufficiently mature and active that such historical data exists

– indicating that the first meaningful HDF's will be 13 months after the first customer goes onto a time of use interval based product.

### Question 3

**Do you have comments on the availability of data in the home as an effective, enduring platform for providing relevant, timely and useful information to customers? And are there any particular aspects where you consider the specification of minimum standards needs to be clarified, expanded or reduced?**

In the context of moving towards a mainstream 2019 implementation, we believe the current position no longer best serves the programme's objectives.

Our response under Question 4 comprehensively sets out our considered view for this topic and our answer there refers here also.

**In summary:**

We do not believe that non-bill quality data, or instantaneous data is linked to or serves any strategic objective with respect to Benefit Realisation.

We believe that prescribing a technical vehicle as opposed to prescribing the customer experiences, and subsequently mandating it for all customers carries cost risk, implementation risk and obsolescence risk. This is considered with respect to the nature of what customer seeks the experience, what benefit the programme will yield and what ability a service has to evolve (that is to say, a utility specified service via a meter in 2015 carries low chance of relevance in the consumer electronics space by the time mainstream deployment has commenced).

Mandating a "HAN" across all users as opposed to appropriate customer experiences to interested users also introduces the possibility of an unquantifiable cost in maintaining, supporting and operating what could amount to a stranded asset using obsolescent technology. This, we also view to be a considerable risk to the end-user and business case.





## Question 4a and 4b

**Do you have any comments on the most effective way to complement the enduring information channels by providing all residential customers with a display device or service (to build understand of energy usage and cost in an initial period and to empower customers to make good choices over tariffs and services)?**

The High Level Strategic Reference Model refers.

### Option A

This option requires a DSO provided and supported mandated IHD.

We do not believe that this option is tenable in the context of NSMP in 2015.

During the trial in 2008 a number of customers were given in home devices. Those devices were specifically designed for that specific tariff and that specific trial.

The Commission is currently engaging in a consultation on a range of policies including transition to TOU which is proposing some clear principles:

- Non-uniform tariff between competitors (i.e. unlike the trial where it was a single national tariff structure)
- No fixed mandate or staged mandate for transitioning customers to time based products (unlike the trial where the obligation to go on a TOU existed from the outset)

This infers that the conditions that existed during the trial will be impossible to replicate in NSMP.

The IHD as envisioned will utilise instantaneous information using non-bill quality data. We would question the target audience and purpose of this endeavour. In 2015, the High Level Design seeks to deliver next day verified data. The NSMP will best serve customers over the long term by linking customer behaviour and financial outlay with bill quality data.

During the trial, it was observed that the segment of customers who had the “IHD, TOU, Statement and monthly bill option” exhibited levels of engagement similar to those customers who were allocated the “TOU, Statement and monthly bill option”. That is to say: a customer with a TOU and Energy Statement only, exhibits to the same level of statistical certainty, a level of engagement equivalent to a customer with an IHD.

Our conclusion is that no level of engagement can be attributed to an IHD alone and it would be incorrect to mandate such a device for all customers at this point. 3<sup>rd</sup> parties who identify customers who will seek out or respond to instantaneous data should be free to do so from the outset. There are many ways to give customers who want instantaneous data that experience besides prescribing a universal mandate.

Anecdotally during the trial customers ceased engaging with their IHD's shortly after deployment. While this is not hard evidence, what it does suggest is that levels of engagement cannot be attributed to IHD's alone.

We do not believe mandating the provision of this type of information or device across all users represents a good investment but that mandating bill quality data next day available to a smartphone device which a customer already owns (or by statement) represents the best way to engage a customer and obviates the need for risky and potentially loss making investment to be borne by the DUoS customer.

## Option B

Our comments on the IHD in Option A apply to this option, and in addition:

We view this option as even less preferable than Option A as this option presents additional and unnecessary economic risk to the End-User. In having ESB Networks provide a backstop device, what is being sought is effectively all of Option A, but with less certainty of the devices' usage.

ESB Networks would have to deploy the same project and business change and support processes (i.e. incur the same investment for what is now an "optional" element). This means ESB Networks will have to affray a greater cost per unit on each of the now less in demand IHDs (thus pushing the cost per unit up).

ESB Networks would also carry the risk of stranded investment given that no guarantee exists that these devices will ever leave the warehouse. This is especially true given Suppliers will understandably want to market and deploy their own branded services.

Without a revenue recovery model based on DUoS, ESB Networks would be reliant on speculative charges that may be recovered from the Suppliers who opt not to provide their own devices. This is not an acceptable position for ESB Networks and further loads price risk to the end consumer.

## Option C1, C2, D1 and D2

Our comments from Option A and B apply, and in addition:

Option D2 represents the strongest platform to engage customers and thus maximise benefit realisation. We propose that CER’s Option D2 aligns strongly with the High Level Strategic Model for Customer Engagement and Benefits Realisation.

**We believe a modified Option D2, strategically aligned to a targeted investment to appropriately engage customers, represents the strongest basis for proceeding.**

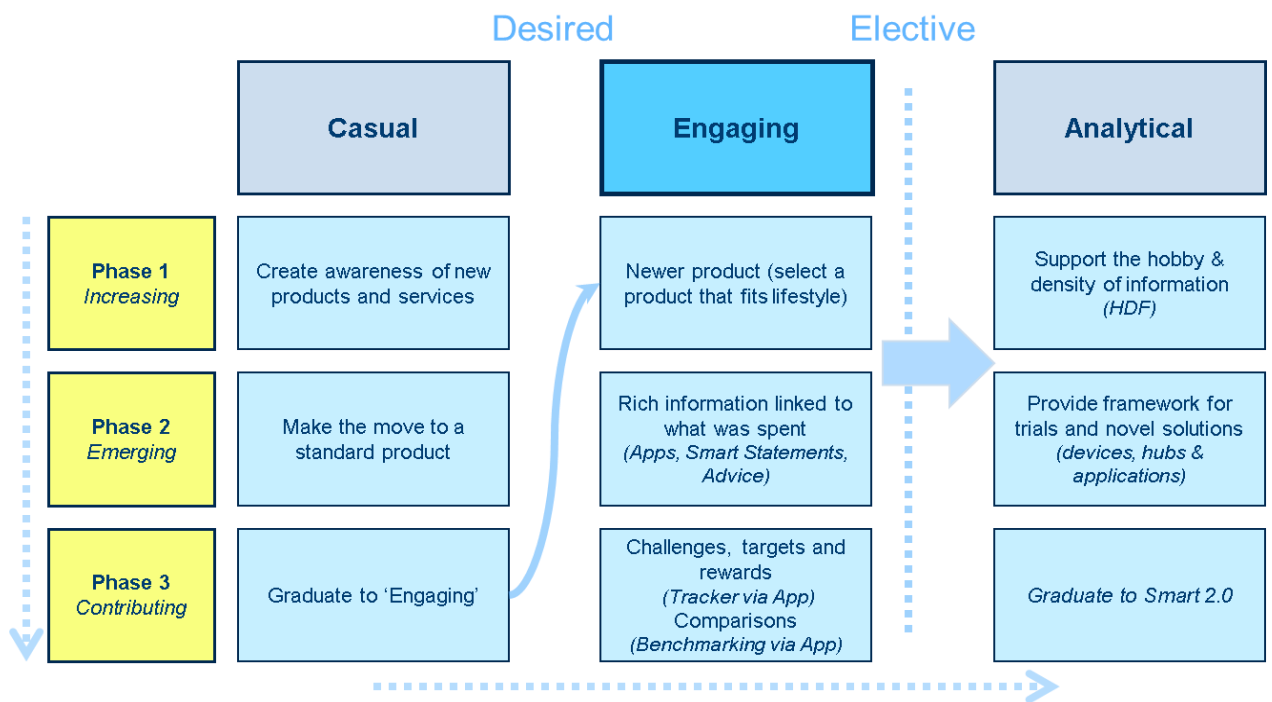


FIGURE 3. MODIFIED OPTION D2 WITH HIGH LEVEL STRATEGY

Treating customers as a single category risks alienating “casual” customers. The incorrect presentation of information to a customer at the incorrect point in their journey risks creating a barrier to further engagement and undermines the realisation of benefits.

We do not want customers to be given the impression from the NSMP will interfere with their quality of life or comfort levels.

The trial clearly demonstrated that customers with time of use tariffs, calendarised or monthly bills, and rich energy statements exhibited statistically significant engagement to justify the investment.

The market should be free to pursue the right service to the right customer. As we have seen in the trial, rich information and a cost reflective tariff drives change to the customers who were not solicited (i.e. neither early adopters nor enthusiasts).

Mandating a “HAN” as suggested in Options C1, C2 and D1 is regressive and risks stranding investment on the End-User.

In terms of the nature of services and the customers that will seek the types of experiences a HAN might provide are likely to be engaging in home energy management applications. This is a prosumer space. We do not believe mandating for all customers an experience that only serves a niche is correct. It adds cost, adds implementation risk and given that the vehicle is a utility meter, will have to be specified in 2015 to operate in 2030.

We believe that minimum experiences should be defined as opposed to prescribing the technical vehicles to deliver them.

**It is the opinion of ESB Networks that a modified Option D2 supported by the Strategic Reference Model as discussed above, presents all parties with the optimum basis for proceeding.**

## Question 5

**Do you have any comments on how the change to retail market operation consequent to the NSMP may warrant changing the existing framework of customer protection, and how it is delivered – including any views on the materiality of the changes highlighted as potentially material in Section 3.6?**

Regarding 3.6.1, with the evolution of products and services that may become available as a result of NSMP, robust and coherent customer protection is an absolute requirement.

We view the requirement for a statutory licensing regime as a prerequisite for 3<sup>rd</sup> parties making representations or decisions on behalf of customers.



## Question 6

**Do you have any comments on the role of policy in shaping outcomes for customers who are not able or willing to participate in full in the new services and information made available through the NSMP - either as a result of technical constraints or through choices that are afforded to customers in respect of the frequency of remote data collection?**

We do not believe that customers who cannot enjoy additional services for economic/technical reasons as a result of delivering the Programme should have to bear the cost of maintaining a service to them.

However, there are questions which require resolution as to what is the appropriate range of tools and tariffs for customers who for non-technical reasons choose not to participate in the programme and thus negatively impact the cost in maintaining legacy systems, solutions and processes that could be otherwise served by the more efficient and cost effective NSMP systems and processes.

Given the early nature of this discussion we do not have a definitive view, however, it does seem reasonable that the wider end-user base should not be asked to subvent legacy costs being imposed on them as a result of non-technical non-participation. We believe a cost reflective tariff structure is a fair, reasonable and transparent approach to addressing such matters.