Ofgem Non-Traditional Business Models: Supporting Transformative change in the energy market

Summary response from workshops held in Wales with Ofgem

Introduction

Ofgem published a discussion paper on 25 February 2015 which acknowledged an increase in enquiries about new ways to interact with the energy market with many proposals seeking new and non-traditional business models.

To ensure regulation does not inhibit progress and still continues to protect the interests of existing and future electricity and gas consumers, Ofgem seeks to understand the benefits, costs and risks of any changes to regulation which enquiries of non-traditional business models are seeking.

These discussions form part of a longer-term engagement in this area to help understand drivers, consumer benefits and risks.

Wales

Wales has experienced an increase in the development of localised generation as technology, systems and processes are developed. This has resulted in an upward pressure on the networks. The shift to "local" has also promoted the question of how to capture the ownership of such interests to help retain benefits in Wales.

As part of developing Smart Living it was recommended there should be proactive discussions on types of models that could be beneficial for organisations and communities in Wales to consider.

Ofgem kindly agreed to work with Welsh Government to hold workshops and five workshops were held with Ofgem able to attend four to gain first-hand feedback from participants:

Cardiff –23rd April 015 Llandudno Junction – 28th April 2015 Aberystwyth – 30th April 2015 Merthyr – 5th May 2015 Swansea – 11th May 2015

Up to 70 representatives participated from different organisations in Wales covering Local Authorities, Local Communities, local community representative organisations as well as Suppliers, Network Operators and Welsh Government. A list of participants is attached at the end of this document.

The workshops focused on understanding the aspirations of participants and whether the current thinking from Ofgem and various business models

highlighted by Leeds University¹ would take account of these aspirations. Further details were provided by subsequent returns of questionnaires and these are reported separately at the end of the document.

Please note this document is a factual note of discussions that took place which have been aligned and summarised to reflect Ofgem's discussion points. The topic being considered has such wide ranging implications and perspectives that all organisations have an interest in debating and providing comments and this document provides a channel to do this. Some organisations have responded directly to Ofgem and it was confirmed by Ofgem that network operators and suppliers were responding directly.

Key areas raised by participants are set out below with Section 1 highlighting overarching strategic points, Section 2 comments on the definition of nontraditional business models, Section 3 provides thoughts on market effects and future challenges, Section 4 looks at aspirations and drivers of change with Section 5 listing potential barriers/issues, Section 6 provides thoughts on types of business model types and finally Section 7 summarises questionnaire responses that followed on from the workshops. It is envisaged this response will help Ofgem to consider how this area can be opened up to capture opportunities and future potential.

Responses may also inform other ongoing discussions such as grid connections. Ofgem has issued a grid connection open letter which outlines existing arrangements for obtaining an electricity connection and how new capacity can be created on the network in anticipation of future connection requirements. Ofgem want to know how these arrangements can be improved and the letter describes various options to enable further anticipatory investment. These include new funding mechanisms proposed by stakeholders and highlights what barriers there may be and asks what could be done to address them. The link to the open letter is here: grid connection open letter consultation closing date 14 May 2015

1. Strategic Points

The workshops identified key points which should be considered alongside specific responses in the other sections.

• Current business models were considered historic and participants struggled with shoehorning new approaches within the current regime. This led to a general call for more disruptive approaches, a step change and a new start with a clean slate to redesign a fit for purpose energy system

¹ Local Electricity Supply: Opportunities, Archetypes and Outcomes. Dr Stephen Hall and Dr Katy Roelich. March 2015 University of Leeds.

- The use of principles rather than rules/regulations for governance was highlighted as this provided a more fluid framework for the level of anticipated change in the future.
- Stable policy direction was important to allow for non-traditional models to flourish and help de-risk developments. However there was a need to avoid an overload of policies which inhibit development. The need for stability is particularly acute for community groups where time is needed for proper development to avoid making a scheme unviable by the time it's ready for delivery
- Reference was made to the importance of the interplay of policies between energy efficiency, sustainability and generation developments and the impact of one on the others. It was suggested that a high level strategic systems perspective would help and the role of the Energy Systems catapult in this development is acknowledged.
- Allowing disruptive models to evolve and be tested will be required or the existing status quo will simply continue without achieving the huge potential that could be achieved. A classic example was given of the work being conducted by SPECIFIC in Swansea which is creating building powerhouses and use of storage that could be self-contained in their generation and usage which would be a significant disrupter of future demands on the network by putting power into consumers' hands. Ofgem confirmed the discussion was to help to recognise serious disrupters and the scenario outcomes this might bring. The rise of serious localised production and consumption on a balanced basis (households or businesses) in new and retrofit is recognised as a radical difference as well as potential huge impact on the market as known today.
- Important to acknowledge that cultural change may be needed for organisations involved in, or affected by the new models
- Opportunities are needed in designated localised innovation areas for trials and demonstrations to take place. A Living Laboratory could be established to provide a learning feedback loop. These areas could explore whether investment in wider innovative activities could be supported. Examples include different forms of "sleeving", virtual metering for net positions to de-risk to supplier and developing "not for profit" models as well as potential for Anglesey Energy Island as a test bed for novel and innovative solutions. It's recognised some innovation trials may be taking place elsewhere in the UK but allowing multiple demonstrations within different local test bed areas throughout Wales will add more value and robustness to results.
- Important to consider priorities and motives first and then consider models that fit them. Some are driven by financial incentives but result in export to the grid without seeing any real local community benefits. With

fuel poverty high on the agenda there is a need to assess impacts of changes that may occur from new developments on living fuel bills.

- Clarity was sought on industry and regulation responsibilities in terms of regulation and practices/codes boundaries to ensure new entrants and new non-traditional models were not affected by conflicts of interests.
- The market is not uniform and the impact of change in rural areas is acute where the challenge is how to facilitate transformation where relevant infrastructure is not available. Professional costs, land and sparsely populated areas can create additional issues that need to be taken into account in terms of developments.
- Any strategic reform must balance flexibility and capability of organisations to rise to the challenge. This highlighted the need to address capacity issues and expertise for development of localised energy developments.
- The role of storage remained a constant theme in all workshops. There was recognition there are regulatory issues and that its entry onto the agenda is being brought about because of the constraints in the networks. Its value and place in the chain was discussed and issues over costs, ownership, power prices were raised. It was thought important that its value and place in the chain and funding sources should be considered in any evolving business models.

2. How to define new business models

Ofgem are keen to define and interpret what non-traditional business models would be.

The definition for non-traditional business models will be influenced by the motivation and drivers of new entrants and how disruptive this proves for current participants. Participants highlighted a strong emphasis on social inclusion, vulnerability and income deprivation as drivers for change which made developing not for profit models attractive.

Key is flexibility to allow for new options to flourish so that models can evolve and trends can then be highlighted to form a view on best practice. This underpins the needs for multiple safe environments to be available for live laboratory experiments.

3. <u>Market effects and future challenges</u>

Ofgem wish to understand benefits, costs and risks of new business models and potential transformation of the energy market and what challenges will they bring.

Discussions raised key questions in terms of how new business models can thrive in the current competitive structures, the importance of wider benefits for new models, support for multi-vector developments, improved understanding for storage to play its part in supporting new developments and what this may

mean for consumers in terms of priorities, protection and understanding, particularly for the vulnerable and disadvantaged affected by the changes.

There was a lack of clarity over how new "non-profit" making or equivalent models which included social drivers could operate in a strong competitive market under current rules. Consideration was needed on how the future competitive market could be applied in a way to allow for these developments. General concern with municipal energy (cities go to expensive length to set up as a supplier only to find they might get undercut). A question of whether community groups could be offered more preferential rates to export or utilise locally was raised to help gain investment.

There was emphasis on generating and utilising energy locally but restrictions meant this could not be divorced from transmission costs. It was important for costs to properly reflect usage of the network assets for new business models to emerge in this area. This called for benchmark costs for new business models interested in "sleeving" or "licence lite" arrangements to be able to negotiate on equal terms (junior and senior supplier or other alternative).

There was also the point made that there were different conversations with the sector when involved in developing projects whether they were businesses or households. This became complex when both are involved in a scheme.

Group discussions also highlighted that somebody has to pay for grid upgrades, that business customers should have more ready access to expert energy advice and that the commercial use of electricity storage should be enabled at both the house and grid levels.

The envisaged scale and scope of support proposed by business models could affect the level of regulatory obligations involved which in turn would define how disruptive change may be.

Grid/connection and anticipatory investment are viewed not just for generation but also forms a tool for economic growth and regeneration opportunities and benefits. Wider benefits are key drivers for local generation and distribution. These are currently not taken into account by Ofgem when considering proposals. A more holistic vision is needed for longer term including economic, social and health benefits. It is important for the regulatory authority to be able to take these into account particularly where new entrants fall within the delivery of social/economic and environmental benefits.

Current regulations do not take account of multi vector aspirations such as vector gas/electricity and Heat. It's important to consider multi vector potential for innovative solutions in order to address some of the issues/barriers raised by participants. For example seeking dedicated hydrogen pipeline and micro grid – connecting to consumers or wider gas grid is difficult.

Heat networks have no regulatory or governance framework – the consensus view was that there should be some overview but not to the degree that it

restricts the potential for innovative evolving of potential business models but does provide wider consumer protection. Some help is needed to support developments and ensure the right competitive environment is in place to support.

The role of storage in business modelling remains high on the agenda. There are on-going UK discussions on storage encompassing a wide range of issues including restrictions on network operators in terms of storage from EU regulations and restricting the amount of revenue operators can make from selling services or deemed an excluded service. Stakeholders also have varying drivers and priorities that affect decisions on storage from network operators, generators, aggregators and users.

Local supply should be facilitated with new regulations. This is not dissimilar to the micro generation act that allowed generation at the small scale. Prior to the micro generation act it would have been illegal to generate electricity via PV panels on the roof at home as generation requires a licence in the UK. It is envisaged that "micro supply" as a similar option requires similar regulatory changes which will facilitate storage developments and supply outside the home on a localised basis

Domestic storage linked to domestic PV and maintained inside a single home, is nearly cost effective, with current non-time varying electricity tariffs. The cost of storage could be paid for within 2-5 years through the "avoided cost" of buying electricity from a supplier in the evening. Time of use tariffs would see the storage paid back within 2-3 years. Currently no recognition is given to the fact that by storing domestic PV in the home, there is less impact on the networks at noon on summer days. This "value" is not captured yet by the homeowner.

With generation restricted geographically one of the challenges raised was how to generate and buy locally so that developments in a locality directly associate the wind turbine or solar farm or other source of energy with their lower energy bills without it just being a marketing ploy.

A suggestion was posed for some redistribution and balancing of subsidies between dirty fuel and clean energy which took account of needs of both.

Questions were raised about what is the next level of strategic direction for consumers after smart meters and how will proposed models fit with balancing mechanism for cost and generation capacity placement.

4. Aspirations and Drivers of Change

Ofgem are interested in what important drivers are encouraging new entrants and the need to consider non-traditional business models.

Discussions highlighted that priorities and expected benefits would influence the type of models to be developed and the aspirations outlined below give a snapshot of current drivers that will need to be interpreted into business models for delivery.

Additional drivers of change were proposed including: bad weather affecting security of supply, introduction of new sources of energy such as tidal lagoons in terms of what we get from it, how sell to people to get benefits, how to provide a service and how to get energy to consumers.

In addition there is a drive to change the way energy is generated and used. Generate and use at source with grid as a back-up provides a disruptive business model if rolled out.

Aspirations will drive change and the following aspirations were expressed at the workshops.

- Wish to pursue how we can evolve the not for profit companies serving vulnerable consumers
- There is interest in short-haul tariffs and local consumption as a way of connecting local generation with local demand and helping alleviate network congestion
- Disrupters could impact on smarter grids and associated areas such as health and transport
- In developing energy efficiency businesses and micro energy, community groups are being encouraged to generate renewable energy but in some cases there appear to be local communities who may want to take developments forward but they are not sure how to champion or how to connect to ensure can match generation and demand and may not currently fit within the type of model that could be supported.
- Housing Associations are interested in becoming energy market participants and intervening in the market with trusted advice/guidance. They are also interested in generation, fuel poverty and not-for-profit.
- Local Authorities want to build on their trust and confidence to address their wider goals and help keep benefits locally. Becoming or partnering with a supplier could possibly achieve such wider benefits – subject to whether supplier objectives and ethics are aligned to this. Other options include aspirations to establish more independent local energy companies which reflect a more municipal style model that revised governance could facilitate without the degree of costs and regulatory requirements that currently exist.
- Cities looking at smarter ways of generation, supplying energy and tackling poverty within defined city boundaries
- Welsh Valleys could develop smart skills, businesses and jobs to address network constraint issues e.g. energy storage or models to bring connection customers together to share development costs

- Business models looking at invest to save and/or/with income generation that are developed in Wales could be replicated and scaled out more widely.
- Communities aspire to sell back to local people so that benefits of cheaper prices with some income generation is kept within locality
- Participants wished to see new players entering the market to create more diversity and more equity into the market place
- There is a need to encourage more innovation with existing or new suppliers to help develop models and understanding of how wider benefits can be achieved
- Denmark and Germany were given as examples of how developments have taken place but comment was made that read across to the UK was difficult as these countries had specific infrastructure and policies that provided the framework for their development which differed to that of the UK circumstances. It was also mentioned that their energy costs tended to be higher and perceived less affordable in the UK. Ofgem confirmed they were looking at other best practice examples including transformation sectors ie telecoms and peer to peer services
- Support and capacity is needed to effect change when key drivers and ambitions to support fuel poor residents are proving difficult to deliver. This is particularly so when you need to achieve the right type of constitution and offering, where there are multi-faceted developments required and several different stakeholders involved
- Delivery of heat networks with significant upfront costs causes issues of ensuring delivery of the right product at right price and how to maintain that offering
- Change was sought with helping to move energy around local networks through developing different models of sleeving arrangements. This was considered a positive opportunity if barriers/issues could be removed to support.
- Aspirations and changes were raised in respect of new developments. How could new approaches best support new housing developments to encourage best use of resources and networks

5. Potential Barriers/Issues

Ofgem are interested in understanding issues relating to current regulatory issues or other areas that may impact on development of a fit for purpose framework that can accommodate emerging energy business models.

Discussions raised the following potential barriers and issues that were thought to affect the development of new business models.

Communication and Behaviours

- Consumers need a better understanding of changes
- Consumers are key to development and lack of engagement creates issues but there are a diverse range of drivers in play meaning that communication and development of the right model is complex particularly where pay as you go meters may form part of a lifestyle choice of how to operate and manage the household
- Need to ensure consumers understand how controls in the home work or else build in controls to ensure optimised system in place
- Community engagement for business model development is important and helps raise awareness of the process
- Mind-sets of all involved need to move with the changing dynamics of localised and disruptive changes taking place to allow for innovative modelling to take place
- Need to avoid silo mentality and ensure during this process that there is information and knowledge sharing to maximise potential of business models to occur.

Development and Planning

- Level of set up costs and lack of opportunity for development and testing of modelling affects developmental opportunities
- Need best practice in co-operation and collaboration to develop thinking in this area public services boards possible starting point
- Whilst developments will evolve if the right regulatory and barriers are removed, the practical reality of balancing high risk and long term returns against the need for short term visible benefits and minimal risks remains complex.
- Access to independent and trusted advice
- Lack of sufficient capacity and capability in this area
- Need to consider impact on networks including load and quality of electricity
- With some community developments, there was an interest in selling to service suppliers but with current business models it was difficult for the model to work as there was insufficient profit remaining after taking account of the costs of participants in the chain.
- The time frame for agreeing business models e.g. licence lite and Greater London Council is currently lengthy and impacts on development viability particularly for potential community models that might emerge
- Planning issues linked to blocked connections and time frames affects how to determine which money to put at risk during the development process to ensure progress can be made
- Could accepted and tested business models help communities secure planning approvals as it provides security and comfort for the planning process?
- Rates of change are too fast and how can we read the market e.g pace of development of PV market

Connections

- Alternatives of private wires are too expensive when trying to overcome grid connection difficulties. Private networks do exist but a liability that few can take on eg UHW Heath
- Sleeving (minimum 20MW required) is still in infancy of testing potential within the wider potential for new business models.
- Local networks are affected by the emerging level of increased localised generation particularly in rural agricultural areas. The situation is exacerbated by lack of alternatives such as gas infrastructure. This is driving proposals of how more generation could be utilised locally which in turn is driving different business model architectures.
- Time is wasted trying to find solutions to avoid network issues Smart grids can enable many things to happen but regulated
- Reference to artificial barriers in place with developers buying available capacity leaving lack of access for others
- Costs of connections affecting projects able to proceed but perceive no independent check available or comparator baseline to help understand how calculations are constructed and whether fair. Concern raised whether some costs were leaking into grid improvements of a wider nature. A real need for quality reassurance in this area by Ofgem and network operators.
- Difficulty in developing schemes with connection arrangements where expectation of connection is blocked by others first past the post. This results in delayed income generation that forms part of the business case.
- Some type of generation may be helpful to network operators more than others but is not taken into account

Funding

- Whilst loss of subsidies was viewed as an issue it was also considered an opportunity to ensure that developments looked beyond subsidies during development.
- Scheme funding is available if it can demonstrate returns and payback is reasonable
- Believe restrictions on monopolistic tariffs and financial risks affect credit worthiness.
- Community Energy aspirations are to sell back to local people but there are cost barriers.
- Difficulties in developing business cases for proposed models where high risks involved
- Public sector and communities can face more difficulties in developing the right funding structures that are attractive for investment which address the wider benefits
- Level of Up-front costs high and questions raised about inability to double grant with FIT or other green funding initiatives where other countries were thought to access both.

Management and ownership of Risks

• Need to help de-risk energy developments

- Need to ensure there is back up for energy schemes if things go wrong
- How can reputation and trust be safeguarded
- How to manage risks and fear of failure affecting vulnerable consumers. How can innovation be de-risked for consumer benefit
- Not for profit models could aim to match local generation with local demand but challenge is in establishing and balancing requirements including liabilities of reinvestment and operational costs
- Mi-data not yet rolled out and not all suppliers are supporting
- Legal advice often required
- With proposed brokerage and other models of this type there could be problems with data protection issues

Suppliers

- How can participants find the right players that match aspirations and drivers
- Localised need to buy electricity but not easy to resolve issues with national suppliers
- Lack of trusted brands and therefore lack of players that could support and mix as part of building new models
- Third party developments require private purchase agreements. But what if it's wrong and you're fixed into a scheme or costs too expensive to entertain with little alternative options.

Equipment and Technology

- Potential complexity and ties to suppliers once you get to consumer e.g. meter, home management tools
- Disruption will come from small companies but there is a closed system e.g. smart meters

<u>Competitive market</u>

- Heat schemes affected by gas and oil prices so flexibility in pricing and supply important to ensure keep abreast of market supply and demand intricacies
- Issue of fairness how get the best price. This should be subject to a competitive environment but how can "not for profit" compete with private sector when drivers are different similar to different environment allowed for charities versus private sector
- Whilst the micro generation act allows people to generate there is no equivalent currently that allows for peer to peer activities
- There is no framework for heat development but some help is needed to support development and ensure the right environment is in place to support
- Acknowledged differences with offering of district heating from one source whereas electricity can be sourced from multiple sources

<u>Capacity</u>

• Reduction in capacity of key organisations who are likely to feature in new models

- Development of business models will require additional support from a range of stakeholders
- Capacity building will be needed in communities in this area to help shape potential models that might work

Complexity

- Cost, land, ownership, other regulations such as Natural Resources Wales (NRW) makes progress complex as they all have to be progressed with competing demands
- Smart adoption is bringing in need for consumer decisions/controls or question of automation that could be confusing
- Combination of barriers/issues compounds problems from different organisations without alignment Ofgem, NRW, Planning
- Need to bring together various vectors within one framework to facilitate Multi-Vector development
- Gas regulation restrictive in areas including regulations affecting injection
- Current models look very complex and lack of understanding in this area could prove a barrier to innovative future development
- Overall models may not actually reduce regulatory barriers

6. Business Type (Archetype) Development

Ofgem are interested in exploring and improving their understanding on potential non-traditional business models from types to potential characteristics.

The following provides developmental thoughts and potential focus areas where opportunities appear to be available provided Ofgem can develop a relevant platform for governance that will allow developments to flourish. For the workshops we were given kind permission by Leeds University to utilise their report on a range of business types to help prompt workshop discussions.

Participants were advised that current models for suppliers could involve high costs up to circa £1m and that developing full supply models took time with Greater London Authority developing thoughts since 2009 and Nottingham over several years. Knowledge of current regulations etc is required and is extensive.

"Licence Lite" was still considered to be too complex and costly even though improvements had been made. There were difficulties in finding the right partner for Licence Lite by identifying who is interested, what basis should be used for costs and how should risks be balanced. How could the current status quo be changed and where were benchmarks to help understand and evolve this part of the market

In terms of the high number of options involving suppliers, there are concerns that current suppliers are not quite reflecting the Route to Market for some public bodies that are looking for a model that gives them control over aspects of energy they are best suited to. It is hoped this will evolve as the extent of various models emerge.

Lots of interest in a not for profit market maker supply company or franchise arrangements that different Community enterprises could plug into to avoid upfront costs/regulatory compliance or through franchising arrangements have a framework of support that has been tested and tried in other sectors but could also align more to charitable competitive environment

Interest in how senior/junior roles could be explored to provide a licence local impact covering direct and wider benefits being sought

Suggestion of not for profit business models along lines of Welsh Water Authority might have potential

Query over implications of Silk proposals and defining requirements for Licence Lite

It was considered unlikely that one model size will fit all and should accept multi vector activity. It is more likely that different models will be required to meet different drivers and benefits. Potential role for independent system architects to support such developments

Models could include Joint Ventures but joint ventures were thought by some to be difficult in practice to deliver

Peer to Peer may be a way forward if current barriers are removed

There should be flexibility for asset ownership to transfer into any models to help create investment potential. Important for models to be financially viable and allow sustainable businesses to help develop

Heat needs to be drawn into modelling thinking to take account of degrees of risk, right aspirations for wider benefits and address longevity of structure for delivery and management of risks.

In terms of addressing capacity issues a suggestion was made about adopting a franchise approach where a franchising type business model could be developed for "not for profit" aspirations which in-built provision of legal, financial, technical expertise plus choices of differing levels of engagement which potential entrants could choose depending on level of acceptable risks within individual franchise models.

It was thought that any business models should take into account/enable the following:

-with the coming importance of an energy systems approach, the integration of electricity heat and low carbon transport fuel services;

- local use of electricity (and heat where feasible) from local generation:

-preferred solutions should be feasible such as a local co-operative e.g. Bath and West exemplar. It was recognised that for success such cooperatives need to operate at scale-perhaps incorporating wind or solar electricity production and that guarantees of supply in case of failure needed to be in place, along with the right commercial and legal template models. But that even with the latter, community schemes had timescale constraints;

-ideally local electricity generators should have an automatic right to connect to the grid as in Germany.

-that some key stakeholders may only wish for a facilitation role where it has been determined that energy is not a core role for them.

-that trust was needed with consumers and also between key stakeholders engaged in any business model that is developed

Storage could benefit significantly from non-traditional business models. Electricity storage is currently high cost and in order to secure investment must be able to access multiple income streams. One potential income stream is managing energy flows within a community (a micro-grid), maximising network efficiency and allowing communities to benefit from their own generation. There are many different potential business models for this and while there are no issues charging electricity storage from domestic or community generation (PV), discharging the storage, so that the community can use the stored energy would be "supply" and there are severe limitations on supply options.

An innovation funded feasibility project demonstrated that Local Energy Markets, involving peer-to-peer trading (including supply) could provide significant benefits to participants and that these benefits were greater when community storage was included.

Questionnaire responses

In addition to the workshops there was a follow up with questionnaires which were returned and the content of these are summarised below.

Aspirations

Use energy as a means of economic development by keeping the benefit of local generation locally – Local resources, used locally for local benefit.

Facilitate cross sector models such as power to gas. Using constrained renewable electricity generation to generate hydrogen which can be used to either make methane to inject into gas network or direct injection of hydrogen or use in standalone hydrogen network

Generate and supply energy to fuel poor/vulnerable consumers (housing association tenants and communities

Primary drivers are tackling social issues eg fuel poverty but increasingly a route to market and a tool for economic development and regeneration. Seen as a means of overcoming network issues

Need for strategic regulation as opposed to just consumer protection

With significant energy related investment on Anglesey Island, including that of proposed new nuclear power and marine / tidal energy and subsequent supply chain opportunities, there is a clear need to work with energy providers and government to ensure that the network is best placed to deal with future demand and the UK's low carbon transition.

Barriers/issues for Aspirations

- Grid capacity and cost of reinforcement.
- Administrative burdens of becoming a local suppliers.
- Complexity and expertise required to understand regulations.
- Cross-sector regulatory barrier. No market for constrained off generation that makes this model work and stops non use of renewable generation
- Procurement; licensing; Funding including charges over assets and existing borrowing; Connections; potential housing regulator uncertainty
- Is there a better way of simple partnering with licensed suppliers than white label
- How can we ensure models will integrate now and the future with e.g. FIT and other Green Initiatives when they keep changing
- Municipal energy companies a platform for public, private and community sectors
- Anglesey needs to maximise any investment in the region and it is imperative that the critical infrastructure is in place prior to the private sector investment otherwise, the opportunity will have been missed. As a local authority, the Isle of Anglesey County Council would be eager to see DNOs allowed to fund strategic reinforcement proactively. Due to the scale of potential investment on Anglesey in the next few years which will transform the local and regional economy, it would be helpful for Anglesey to be identified as a pilot network area which would allow proactive investment to improve the electrical capacity to meet future demand and test out new business models.

Business Type Discussions

- Helpful to see examples of current models e.g. Sleeving, use of private wires and incentives to avoid network operators and national grid assets
- Welcome the potential to consider local aggregator archetype with a notfor-profit supplier.
- Increased emphasis on pooling locally-owned generation for local use and increased local benefit.
- No proposed models focus on multi-vector opportunities as they are all electricity based ie nothing on gas or cross vector models
- Possible models of interest include White Label, local pool and sleeve, fully licensed/local and fully licensed national supplier
- Potential for a private social partnership Joint Venture that could be local or national
- Reference made to housing associations in Scotland establishing "Our Power" which is gaining a licence from Ofgem and going to provide reduced costs from open market trading to pass on to tenants. Aim to incorporate own generation in the future.
- Definition of non-traditional business models is broad enough to encompass emerging models but is it radical enough in terms of the longer term

Participants

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Will PierceFlintshire County CouncilDr John Idris JonesIsle of Anglesey County CouncilRhys PritchardIsle of Anglesey County CouncilRobert JonesDenbighshire County CouncilGrant PeisleyDEG CymruJames LugerOfgemSteven HolcroftLiverpool CouncilCheryl WhitakerWelsh GovernmentDewi Llwyd EvansGrwp CynefinRachel ShorneyScottish Power Energy NetworksGareth LlewellynWelsh GovernmentBethan RobertsAberystwyth University	Dafydd Watts	Severn Wye Energy Agency
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Rachel ShorneyScottish Power Energy NetworksGareth LlewellynWelsh GovernmentBethan RobertsAberystwyth University	Cheryl Whitaker	Welsh Government
Gareth LlewellynWelsh GovernmentBethan RobertsAberystwyth University	Dewi Llwyd Evans	Grwp Cynefin
Bethan Roberts Aberystwyth University	Rachel Shorney	Scottish Power Energy Networks
Gideon Carpenter Natural Resources Wales	Bethan Roberts	
	Gideon Carpenter	Natural Resources Wales

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Vicky Davies	Welsh Government
Lisa Lloyd	Rhondda Cynon Taff County Borough
	Council
Peter Morgan	Blaenau Gwent County Borough
	Council
Gareth Harcombe	Cardiff City Council
Dr Jill Cainey	Energy Storage Network
Matt Aplin	Ofgem
Tony Diciccio email link	ETI
Steve Keating	Pembrokeshire County Council
Joanne Morgan	Swansea University
Sarah Hughes	PLANED
Dan McCallum	Awel Aman Tawe
Ben Furguson-Walker	Severn Wye
Louise Knight	Aston University
Helen Peake	ARUP
Simon Butler	ARUP
Gwyn Davies	Pembrokeshire County Council
Louise Brown	Welsh Government
Neil Lewis	ROCBF
Ant Flannagan	Gower Power
Charlotte Gibson	Welsh Government
Dr Ron Loveland	Welsh Government
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