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DG Forum
Glasgow
12 November 2012

Andy Burgess
Associate Partner
Smarter Grids and Governance: Distribution
Ofgem

Purpose of DG Forum

- Concerns that DG customers are encountering a number of difficulties in connecting to the network
- Need to understand the challenges faced by all parties involved in the connection of DG
- The DG Forum is an opportunity for customers and DNOs to discuss issues and steps taken to improve arrangements
  - a platform to share an understanding of the issues associated with connecting and using the network
  - to hear directly from the DNOs on their progress since last year
  - to provide a springboard for ongoing engagement between DNOs and customers on those issues
  - to provide a framework for Ofgem to maintain engagement with stakeholders in order to inform policy

Outstanding issues

Application Process

- Lengthy and requires a lot of information upfront
- Recognition of heavy workload on DNOs

Provision of Information

- Feasibility studies not detailed or reliable enough
- Provision of network data would help developers know where to connect

DNO customer service and transparency

- Process lacks transparency and not designed around customer needs

Charges

- Disparity of connection costs between DNOs, even where projects appear comparable

Transmission and network issues

- Lack of creative thinking and innovative use of network

Role of Ofgem

For the current price control (DPCR5) we introduced arrangements to improve the quality of customer service through:

-Guaranteed Standards of Performance (GSoP)

-Customer Surveys (Broad Measure of Customer Satisfaction)

-Requirement to publish information on network capacity

-Requirement to produce a connections guide and information strategy

For the next price control (ED1) we are currently consulting on what changes to the arrangements are required to deliver the service that customers need

RIIO-ED1

(2015-2023)

- Quality of Connection Service
- Provision of Information
- Timeliness of Connections

Do you think these are the key issues?

	Agenda
10.00	**DNOs**: to tell us about the progress they have made since last year
	DG customers: to outline their recent experiences of connecting connected
11.40	Coffee
11.55	Open the floor to everyone for full discussion **Please get your questions ready!**
13.00	Lunch
13.45	Afternoon sessions on role of: National Grid DG application process Ofgem approach to charging Projects being developed through the Low Carbon Network Fund (LCNF)
15.35	Round up and next steps


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DG Forum - Glasgow

DNO Overview

Stuart Hogarth

12 November 2012

Agenda

- Role of the ENA
- ENA Highlights for the year
- Wider industry working groups
- RIIO-ED1

Role of ENA

- ENA activities provide key support for member companies and help to promote the introduction of new initiatives through joint working.
- The key documents are subject to Distribution Code Review Panel governance, which is supported by the ENA.
- These Engineering Documents support important initiatives including the drive to low-carbon networks through the connection of distributed generation. They will need to be further expanded to assist the development of smart grids.

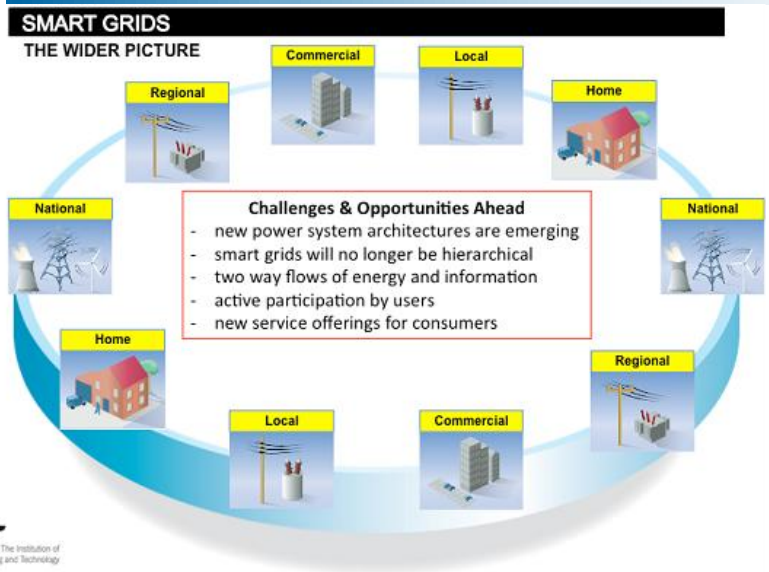
ENA Highlights

- Small scale/domestic generation (ER G83/1)
  - Has been modified to account for new generation types
  - Currently awaiting Ofgem sign off
  - Interim exemption for generation that doesn't quite comply (Distribution Code Guidance Note 2)
  - Proposed exemption for Stirling engined domestic CHP (Distribution Code Guidance Note 3)
- Type testing
  - Establishment of a Industry Stakeholder Working Group to review the Type Testing requirements for distributed generation (ER G59 and ER G83)
  - Establishment of a ENA database for collation of DG manufactures Type Testing Verification Reports
  - To recommend to the DCRP amendments to ER G59/2 as a result of G83/2 consequential changes and the work of the Type testing WG;

ENA Highlights

- Contribution to policy and standards development here and abroad to preserve customer friendly approach in GB:
  - DG Connection Guide Workshop – to be held in Nov 2012.
  - GB input into development of EU Network Codes, with the objective of minimising new costs and complexity in GB
  - ER L44 Separation between Wind Turbines and Overhead Lines: Principles of Good Practice;
  - Acted as liaison between clients, installers and DNOs with regard to issues of concern or clarification relating to G59, G83 and other DG related matters;
  - Engaged with UK Stakeholders on the development of European Standards ie recent review of EN 50438 to ensure it is no more onerous than G59

Smart Grids Forum



- ENA is engaged in European developments and is represented on the smart grids working group set up by the European electricity industry association, Eurelectric
- DNOs also represented on the DECC/Ofgem ***Smart Grid Forum*** which is considering how a Smart Grid could be introduced to support the transition to a low carbon economy.

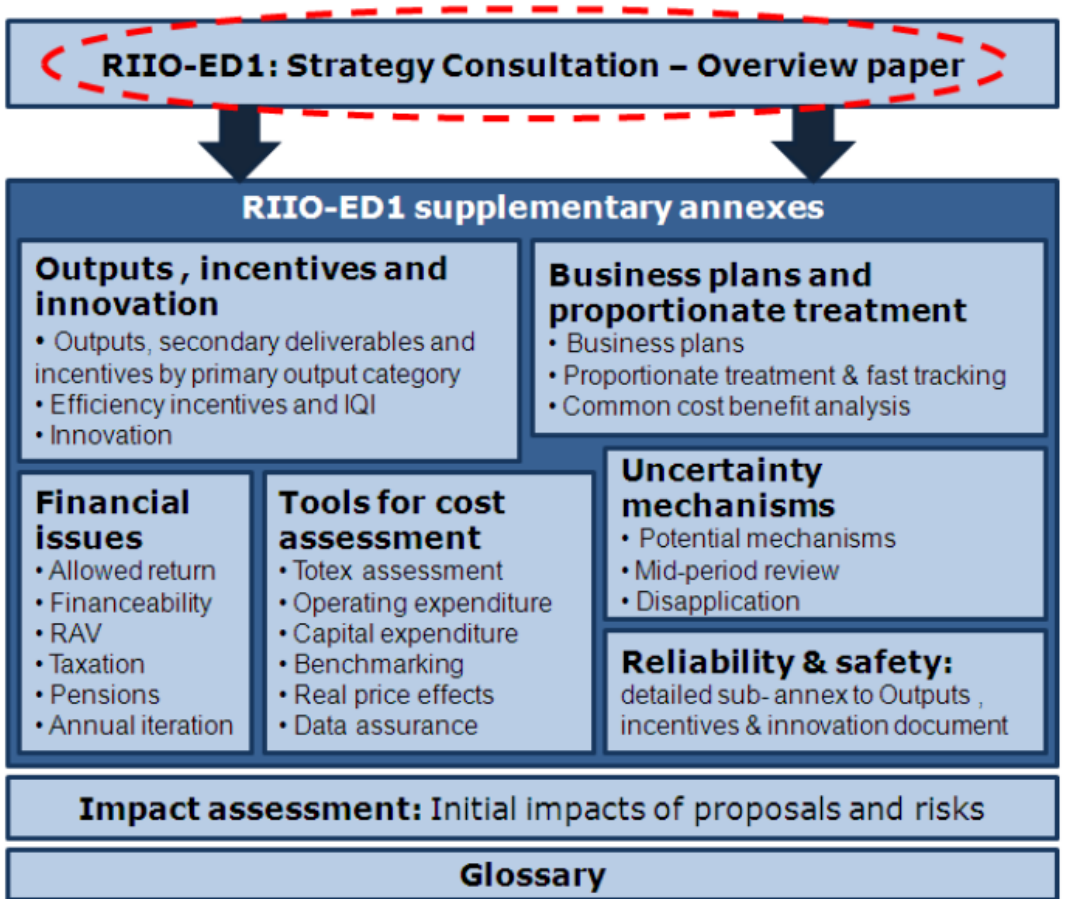
There are six Work Streams under the forum and in particular:

- **WS1 Assumptions and scenarios**
  - led by DECC, to establish the assumptions and scenarios necessary for the network companies to produce business plans that are consistent with DECC's low carbon transition.
- **WS3 Developing Networks for Low Carbon**
  - led by the DNOs, this work models the network impacts of the assumptions and scenarios from WS1 and assess the costs and benefits of different smart grids solutions
  - Phase 1 report and Phase 2 model and report have been published and are available from Ofgem's website
- **WS5 Ways of Working**
  - this work stream is developing knowledge management and dissemination of smart grid developments
- **WS6 Commercial and Regulatory**
  - brings together stakeholders to investigate the commercial and regulatory challenges of implementing the smart grid solutions (including demand side response).
  - The work stream published a report in August 2012

RIIO-ED1

- RIIO-ED1 is the next electricity distribution price control
- It will set the outputs that the 14 DNOs need to deliver for their consumers and the associated revenues they are allowed to collect for the eight-year period from 1 April 2015 to 31 March 2023.
- This will be the first electricity distribution price control to reflect the new RIIO (Revenue = Incentives + Innovation + Outputs) model.
- Ofgem have set out, for consultation, the key elements of the regulatory framework that the DNOs will need to understand in order to develop their business plans.

Figure 1.1: Map of RIIO-ED1 Strategy Consultation documents

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SP ENERGY NETWORKS

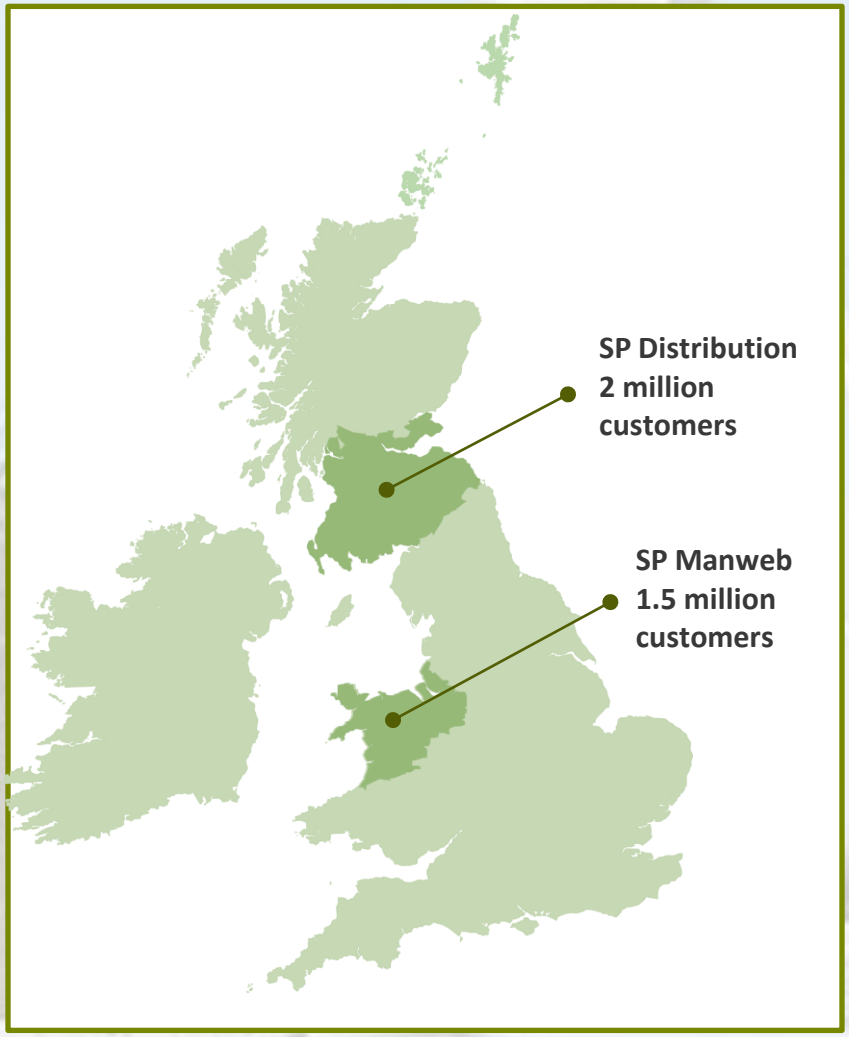
Distributed Generation Forum – 2012

Paul Brown
Director - Connections

12th November 2012

Glasgow

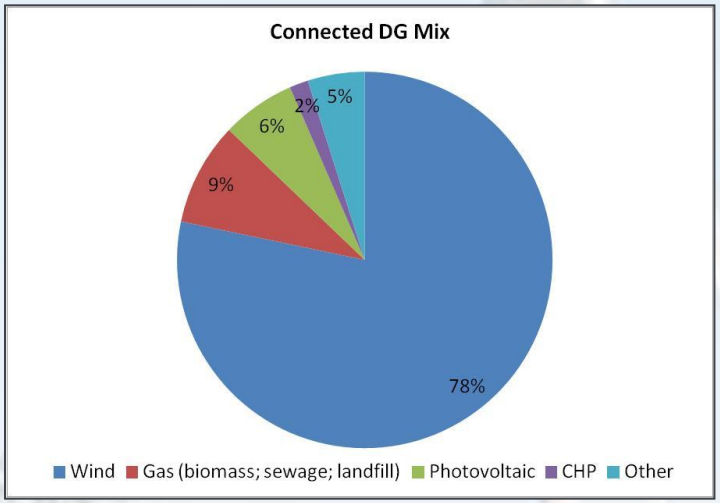
SP Energy Networks

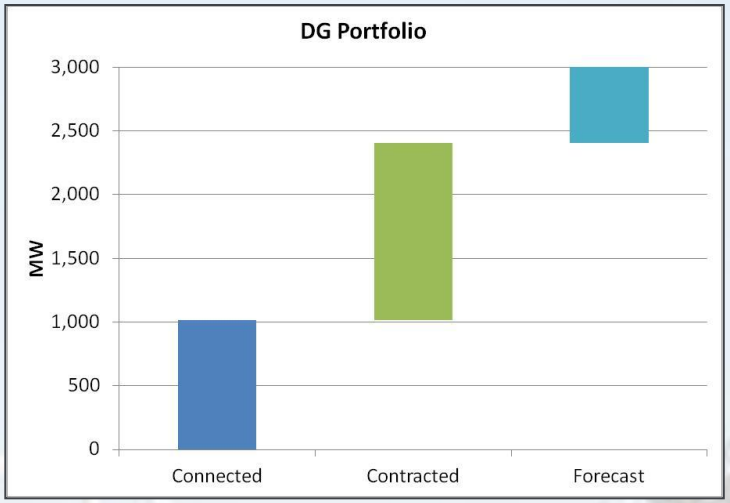


- We have 3 licences
  - SP Transmission
  - SP Distribution
  - SP Manweb
- We serve 3.5million direct customers
- With a population of 8million in area
- We own, maintain and operate;
  - 30,000 ground mounted substations (a sub-station for every 100 customers)
  - 40,000km overhead lines (once round the globe)
  - 70,000km underground cables (almost twice round the globe)
- We are investing;
  - £5bn between now and 2020 in our assets

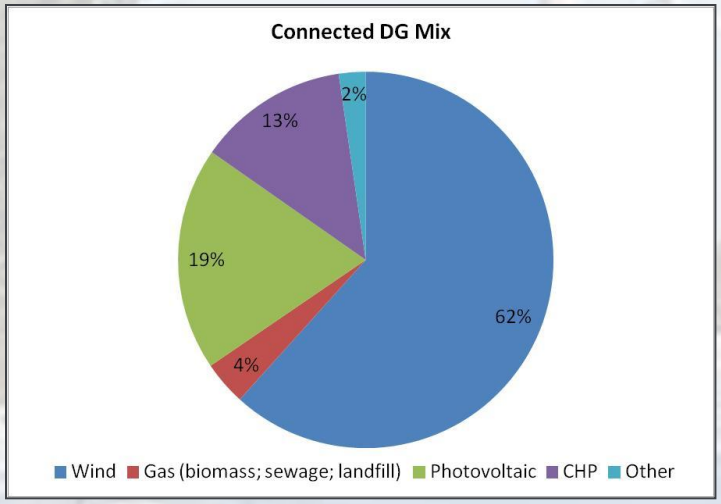
DG - Portfolio

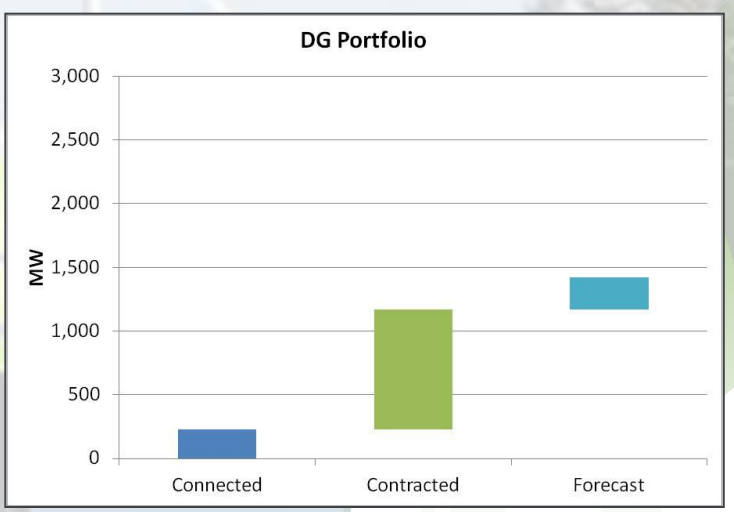
SP Distribution





SP Manweb





Your Feedback

We will…..	Why? Because you said……
Simplify the application process	• "why do I need to complete such a complex application form? I don't even know which turbine I'm using yet" • "you are hampered by a large volume of speculative enquiries"
Provide you with more information	• "why does it cost so much? There is an overhead line running through the adjacent field" • "I need options, but I'm concerned that I lose my place in the queue"
Make your quote easier to understand	• "where can I connect? why can't you tell me?" • "what are the limitations on the system?"
Improve our customer service	• "I can never get a hold of someone that can answer my questions" • "it feels like I only ever get my quote in 65 days"

We're Acting on Your Feedback (1)

Simplify the Application Process

WE'VE DONE…..

- Implemented a 'triage' to assess your requirements
- Up skilled an additional 20 staff

WE'RE DOING…..

- Developing a database of turbine types to minimise your workload
- Reviewing options for on-line application
- Developing our feasibility product to meet your requirements

Provide you with more Information

WE'VE DONE…..

- Given you 'heat maps' and an indicative quote tool on our DG website
- Provided you with access to our GIS maps
- Held technical workshops

WE'RE DOING…..

- Reviewing options for interactive GIS mapping and on-line quote facility
- Seeking to provide you with 'heat maps' down to 11kV

We're Acting on Your Feedback (2)

Make your quote easier to understand

WE'VE DONE…..

- Provided greater clarity of works & charges within your quote letter
- Made available indicative costs prior to your quote being issued
- Supported your offer with a route map

WE'RE DOING…..

- Developing a suite of guidance notes to accompany your offer
- Using your feedback to further refine the content of your offer

Improve our Customer Service

WE'VE DONE…..

- Improved communication links
- Dedicated Account Managers for our high volume customers
- Held our own DG forums and customer workshops

WE'RE DOING…..

- Expanded our service, making contact with you to discuss
  - Your application within 5 days of receipt
  - Your offer within 5 days of issue
- Provide regular updates on progress

Innovation in Connections

ARC (Accelerating Renewable Connections)

- Matching local generation with local demand
- Actively managing the Transmission boundary
- Empowering customers with greater information

Active Network Management

Dynamic Rating

In Summary

We have >1.2GW of DG connected

We have 2.3GW contracted, with a with a further 1GW forecast

We have responded to your feedback but we recognise that there is more to do

Innovation is key to continued success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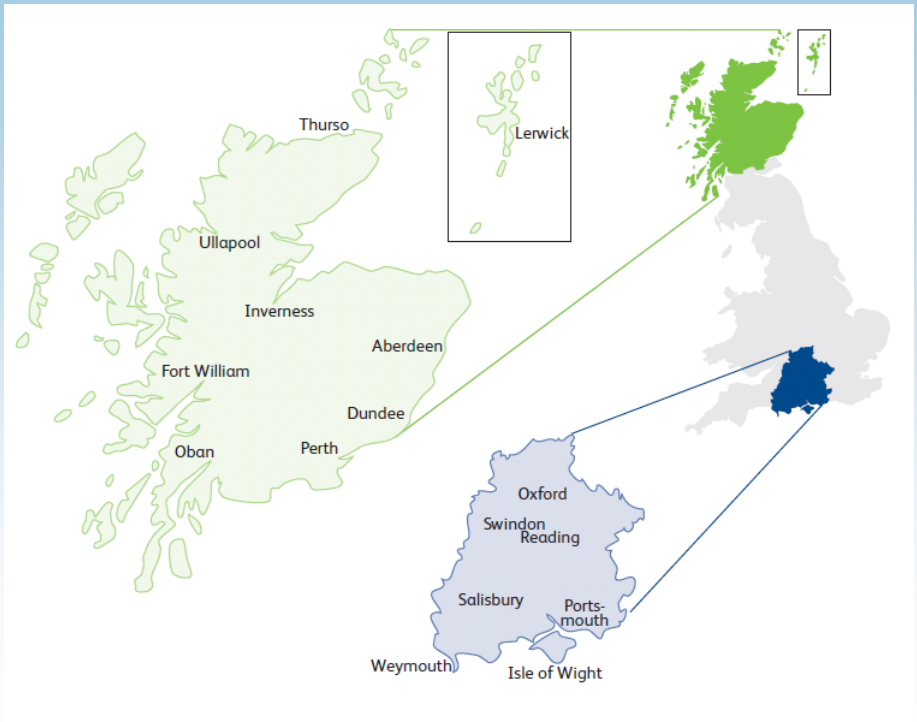
Stuart Hogarth
Director of Distribution

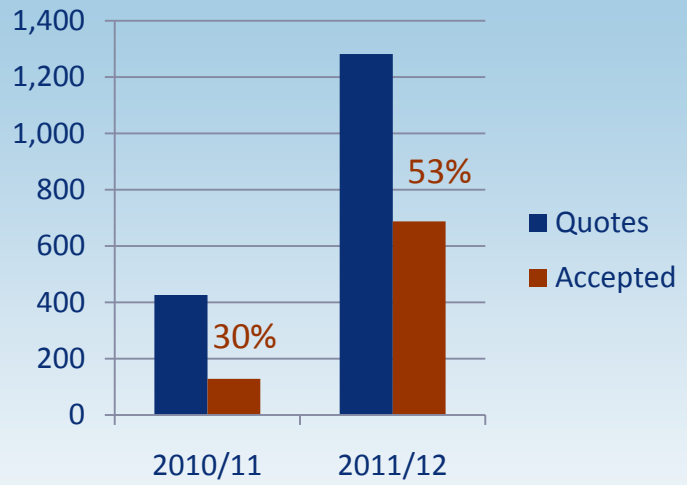
Scottish and Southern Energy
Power Distribution

Overview of SSEPD

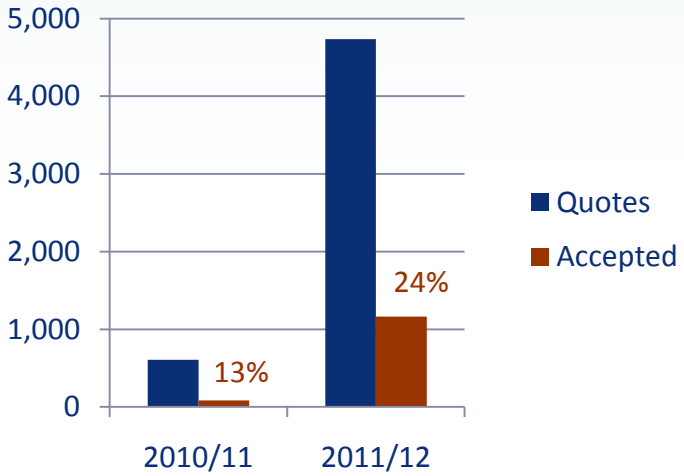


Characteristic	SHEPD	SEPD
Land area (km2)	55,167	17,068
Number of customers	740,768	2,934,581
Length of circuits (km)	47,024	76,220
Number of substations	7,788	28,575

North



South



What I have heard in London and Cardiff

- Communication is still not great
- Whilst individual DNOs have made improvements, there is a lack of a co-ordinated workplan
- Inflexible approach to projects by DNOs
- Technical assistance not easy to obtain
- Too much industry jargon
- Lack of ‘heat maps’ to help developers site projects

YOU SAID	WE HAVE LISTENED
Why does it take you just as long to quote for a "small generator" as it does for a "large generator"?	We have adapted our processes to ensure those quotations which can go out quickly, do. Our current average overall quote delivery time-scale is 48 days
The 30 day quote acceptance period is not long enough	We now offer standard Extensions to this period and re-validation of Offers, where applicable
I want a central point of contact for SSE for my project	We now have dedicated Contract Managers, which are appointed at Offer stage and see the project all the way through to energisation
I don't understand the content of the Offer and I want a cost breakdown for the quote	We have streamlined our Offers and will be providing a cost breakdown as standard, with every Offer.
Your website is difficult to use / you are difficult to contact	We are looking at a number of different ways to ensure customers are able to contact us more easily. We have also made significant website improvements in the last few months
I do not want to wait 65 days for you to send me a quote which is uneconomical	If costs exceed 'tipping point' given by the customer we will give them a call before proceeding any further with the quote
We want earlier engagement from you	At the Offer stage, your dedicated Contract Manager will call you to explain the key points from the Offer in detail
We want better engagement with you	We are committed to including stakeholders in the development of our business

THERE IS STILL A LOT OF WORK TO DO

Approach to Customer Service

- Improvements in past year
- Commitment Based Management

  "doing what we say we will do"
- Recognise that there are still issues
- We are listening
- We still have a way to go

We want to know what our stakeholders want...

- Our stakeholder engagement strategy
- Face-to-face meetings with individuals and groups
- Business Plan consultations

  www.ssepd.co.uk/HaveYourSay/
- Targeted campaigns
- Forums
- Online via the website and social media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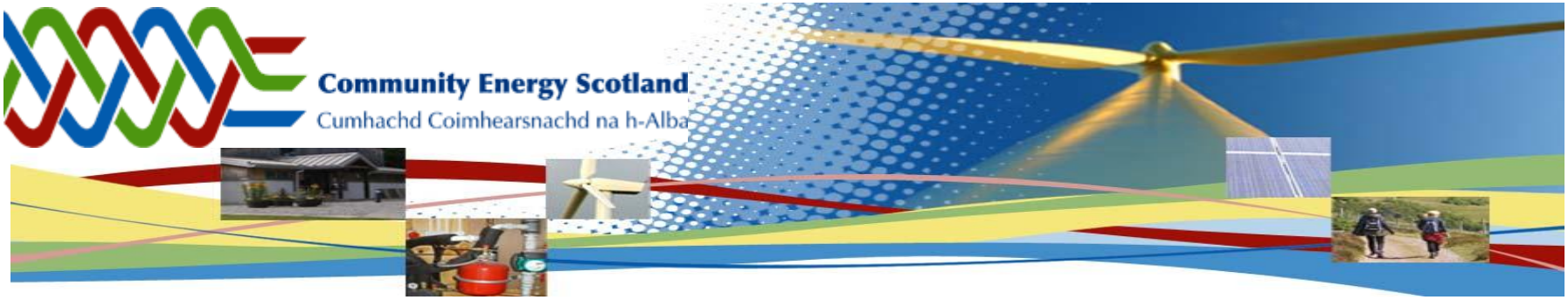
DG connections in 2012

Ofgem DG Forum 2012
Glasgow Nov 12th

Mo Cloonan
Head of Development

Scottish Charity Number: SC039673

Community Energy Scotland
Cumhachd Coimhearsnachd na h-Alba



Community Energy Scotland

31 staff across Scotland –Shetland to the Borders

Support whole lifecycle of a project ; inception, feasibility, planning, installation and operation.

Microgen to MW

All renewable technologies supported

300 + members

Engage in policy, regulation and research

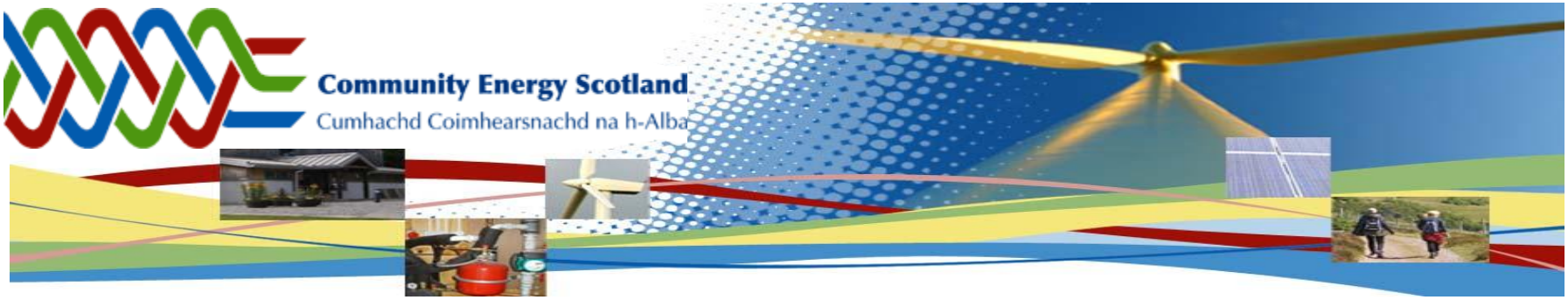
Community Energy Scotland
Cumhachd Coimhearsnachd na h-Alba

Activity to date in community sector

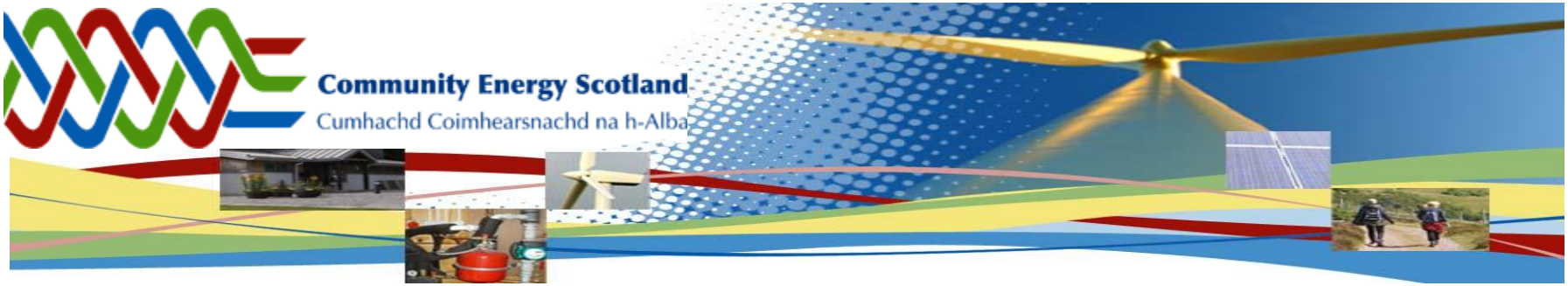
216MW in development

162 projects underway (162 connections!)

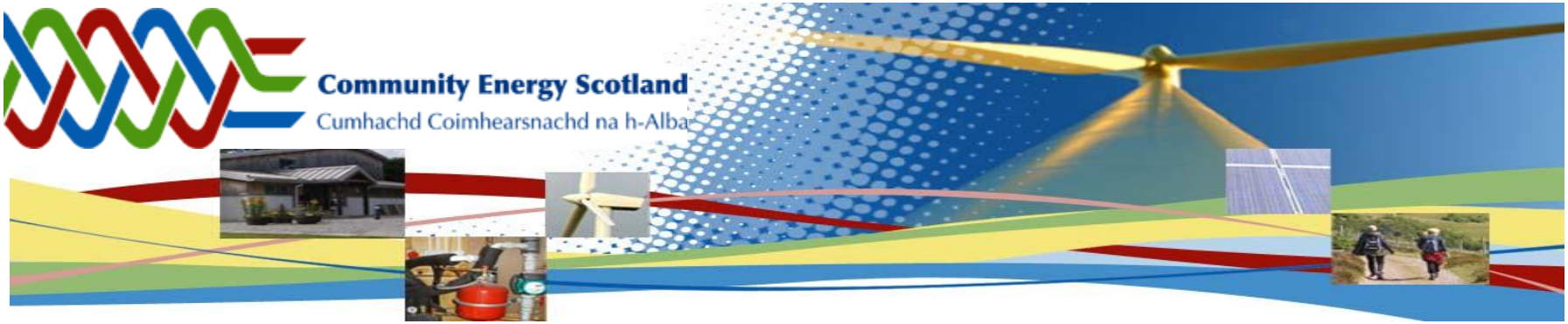
Projects ranging in scale from kW to ~ 13MW



Policy drivers	Reality on the (Grid) ground
Scottish targets 100% of demand by 2020 from renewables, UK targets	No discrimination for renewables
Community Energy 500MW by 2020	Renewable resource is rich in remote and rural areas with weak grid networks
Local Authority and National planning policy and frameworks	Not aligned with grid availability e.g. Argyll
FiT degression rates – shortening window of opportunity	Transmission and distribution delays out to 2020
EMR looming	High costs of connection



Network capacity and transmission constraints	
Orkney	ANM - constraints
Shetland – constraints	NINES
Western Isles	HVDC delays
Argyll – 50 kW limit transmission delays until 2020	
North and West Highland – transmission delays and single phase supply common	
North East Scotland	
Lochaber and Skye- transmission delays 2020	
St Andrews	Flexible Networks
Borders	ARC
Dumfries and Galloway	
South Lanarkshire	



Activity since last year

Relationship and information exchange

Community Energy DNO working group

Workshops for all our staff on connections from both DNO's

Innovation and Infrastructure fund – working with DNO's

Process improvements

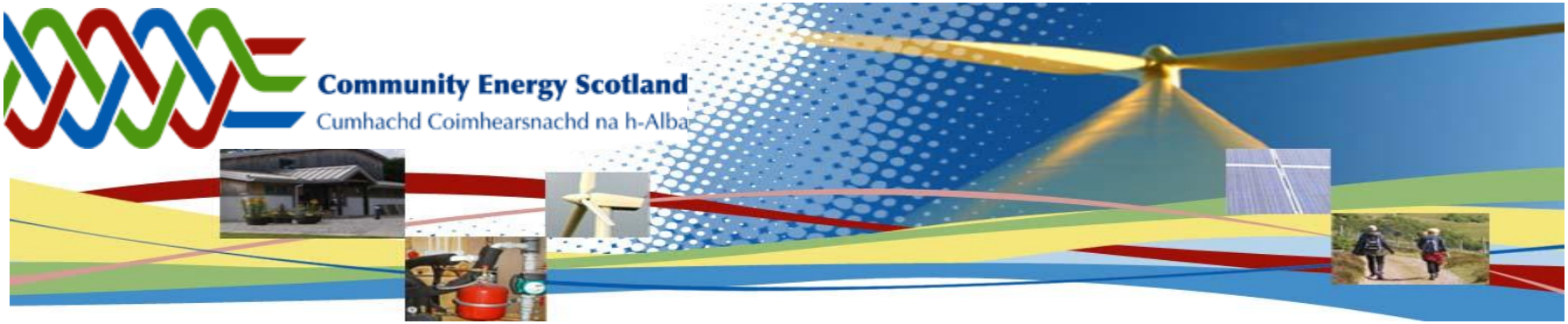
Contracted generation review

Revised payment schedules in transmission constrained areas

Improvements in connection documentation forthcoming

Improvements in online data available

Improvements in costs to SoW system but not to delays



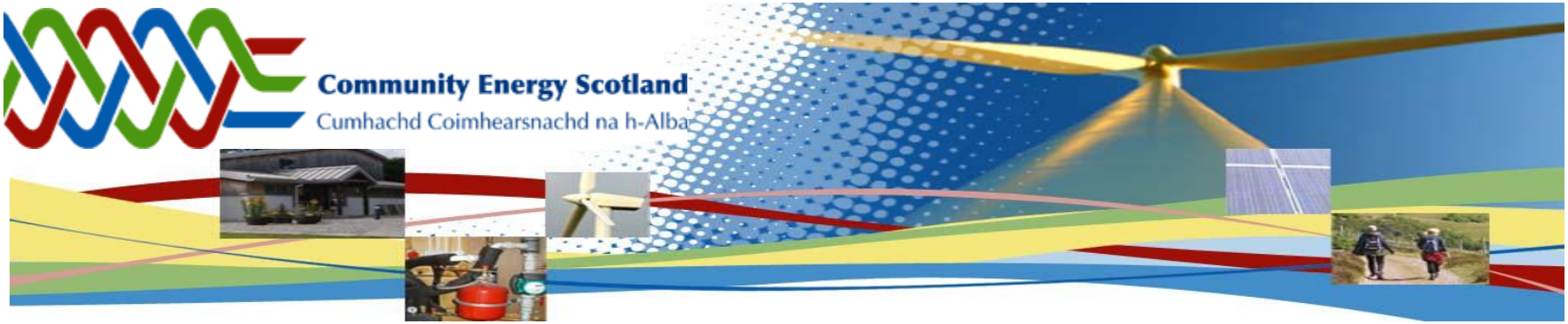
Connection Offer Process – is it currently Fit for Purpose?

Validity and value of feasibility studies v's Connection queue race ?
More information required upfront – informal discussion and easy to understand on website- to be able to identify tipping point for network upgrade

No available information on interactive generation offers before full connection offer received- should be similar to planning permission system i.e. once a project has applied for connection- plant and capacity details made publicly available

Transmission system delays- need to be upfront in conversation and documentation

Least cost connection – is it really?

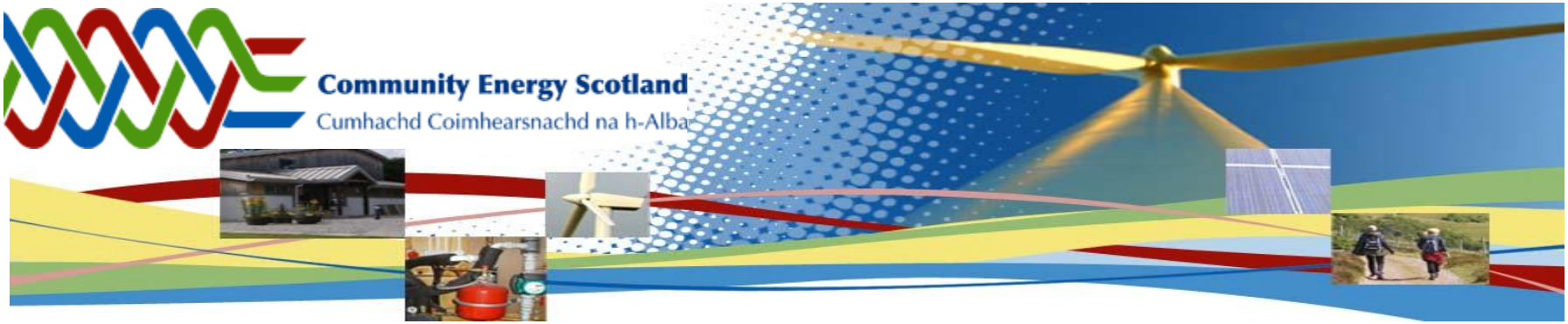


Customer Service from initial discussion to constructed connection

Treatment of customers is not equal – inability/unwillingness to deal with customers who are not technical experts

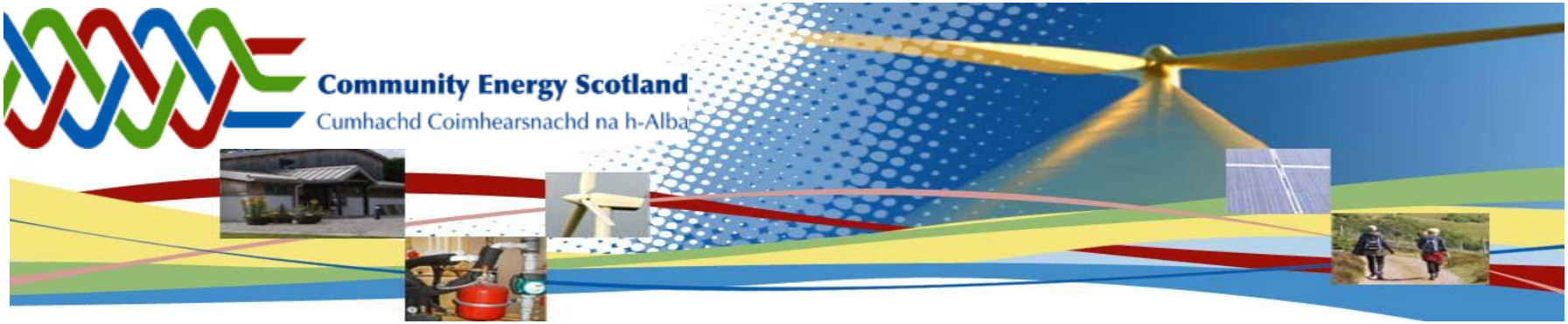
Re-costing of projects if DNO is challenged- but this requires technical expertise on part of customer

Customer service once connected when technical faults arise



Once in process - Case study

I. Existing connection offer and signed agreement – with deposit paid
II. New connection agreement was provided with a six figure reduction in the connection cost – cost apportionment - new additional generator
III. Some weeks later DNO staff advised that the new agreement had been issued in error and the previous discussions were to be disregarded - no rebate available at this time, although potentially available at the future within a 5 year timeframe once a new customer was energised.
IV. And ... A new replacement offer would have to be issued and this would have a higher connection cost than original due to additional unforeseen works !
V. 7 months..Still awaiting issue of this new agreement and new connection cost since April 2012
VI. Full balance of the connection cost (??) must be settled before the final stage of grid works in January. No up-to-date grid agreement/payment schedule and are unable to forecast grid expenditure at one of the most critical times of the project.



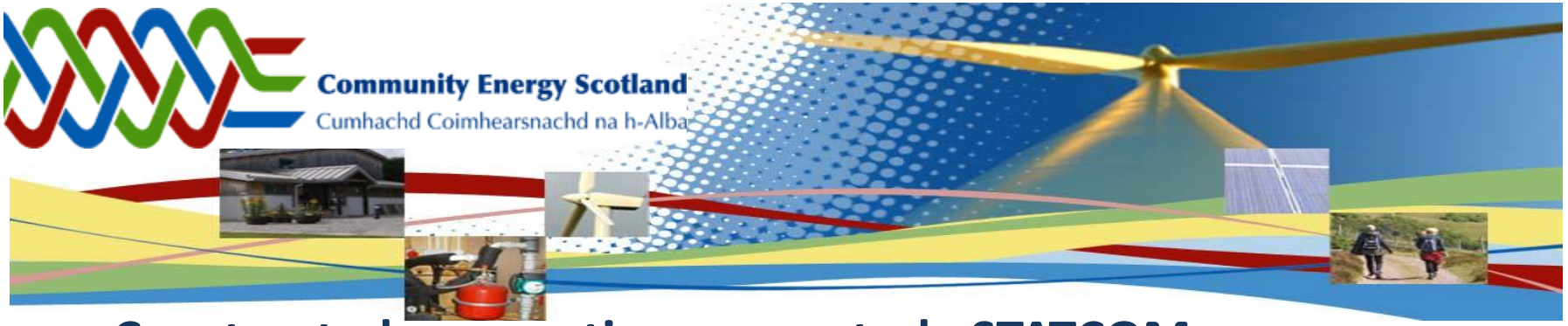
Connection construction – case study

Upgrade from single to 3phase in order to service 9.9kW PV and GSHP.

Confusion over 3 phase supply- actually in place and highlighted as such but DNO quoted for new 3 phase cable – despite on site survey

Once identified 3 phase in situ a rebate for 3 phase costs took 6 months

Customer /DNO communication ?
"We had a name and mobile number - but it was usually switched off and without a message service.."



Constructed connection– case study STATCOM

I. Consultant study highlighted no need for statcom

II. The study also highlighted that the grid was currently being run under a derogation and that it was outwith the statutory limits....was the statcom in part a response to a situation that was already an issue?

III. STATCOM– option for in- turbine STATCOM at cost of £20,000 rejected by DNO, only option was a £360,000 device which sits on DNO network .

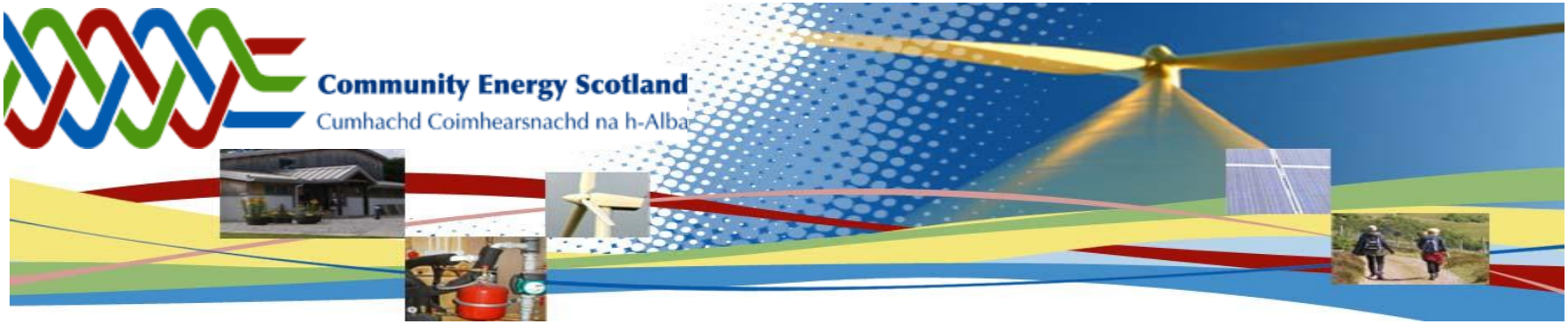
IV. Community bought paid and installed STATCOM, DNO have now adopted it .

V. Transformer fault within STATCOM soon after commissioning.

VI. Communication on repair works is proving difficult with DNO

VII. Turbine now restricted in generation until fault rectified

VIII. Request for response from DNO on potential to operate with leading power factor (and increase generation export) – no answer



Summary

To achieve targets a much greater integration of DG is required and a collaborative approach in addition to :

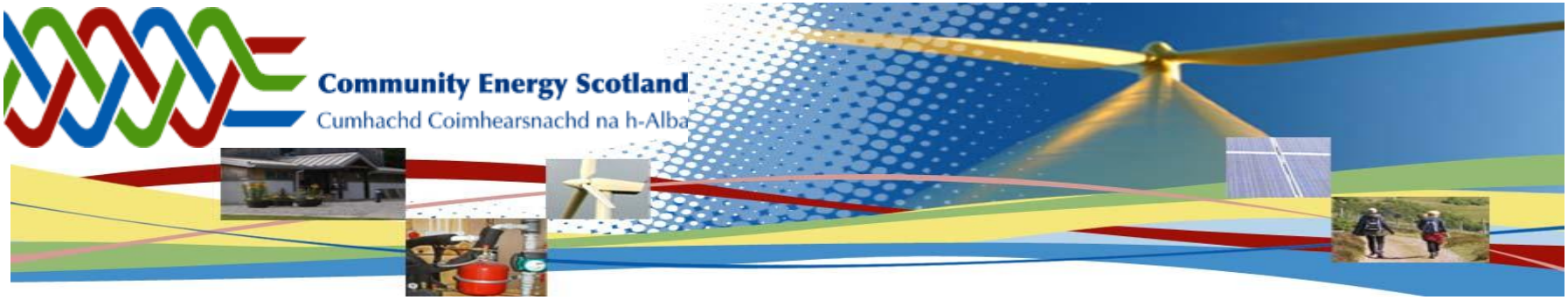
faster connection timescales – earlier than 2020!
Innovation Innovation Innovation

strategic upgrades to network which are not financed upfront by DG

a regulation and incentive structure to enhance integration of DG

DNO's providing information, support, guidance and a transparent service to all customers

SUPPORT RENEWABLE UK' s PROPOSED WORK PROGRAMME



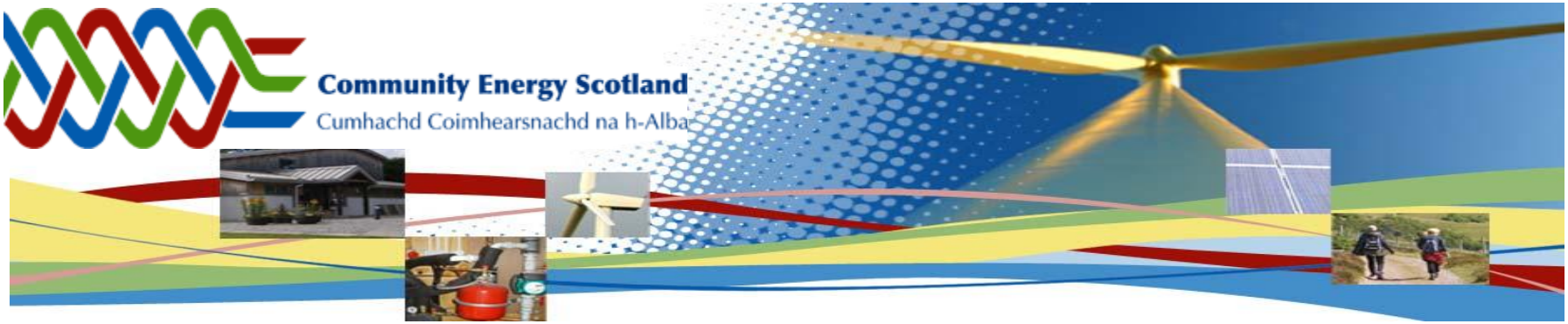
Clarity , Transparency and Distinction?

Energy suppliers – Scottish Hydro , Scottish Power

DNO's – Scottish Power EN, Scottish Hydro Electric PD

Transmission- Scottish Hydro Electricity TL, Scottish Power T

Generation – SSE, Scottish Power Renewables



From one community owned 900kW connected generator

"In conclusion, we were very pleased with the service and support we received from our DNO"

mo.cloonan@communityenergyscotland.org.uk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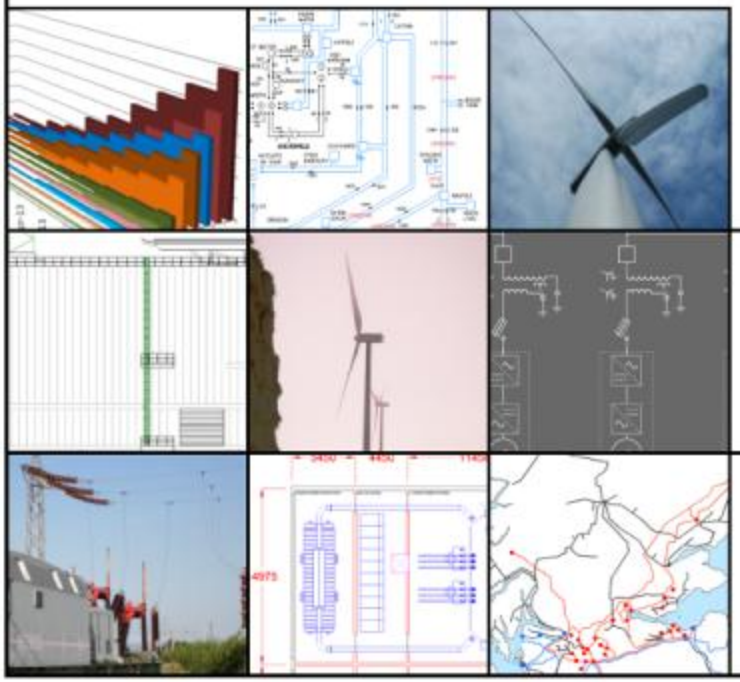
DISTRIBUTED GENERATION

CUSTOMER EXPERIENCE

OFGEM DG FORUM



12 November 2012

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Registered as No. SC313697 in Scotland, at 2/1A, 2 Parkgrove Terrace, Glasgow G3 7SD, UK

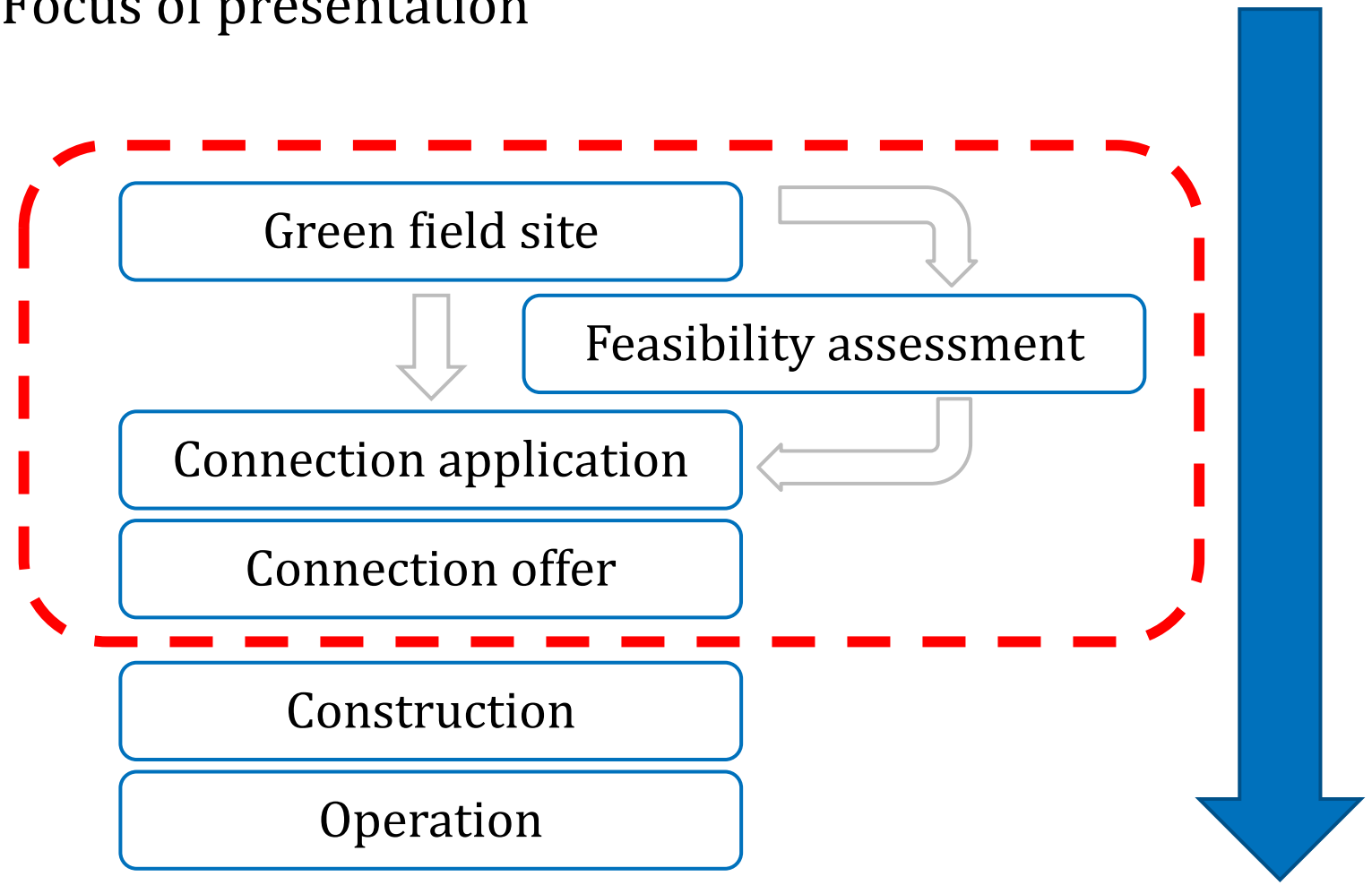
- Who – a specialist consultancy
  - → 10 people -> mainly engineers
- Where – Glasgow, Scotland
  - → Mainly UK projects but experience is worldwide
- What – grid connection of renewable energy
  - → Every single day, that's all – no nuclear, no fossil fuels
- Why – because we believe in it
  - → Our ethics are important to us and we work off quality and value

- Scottish Renewables – Distribution Connection Working Group

"provide a forum for discussion for embedded generators, or those representing embedded generators, on the challenges presented to them when connecting to the electricity distribution network."

- The group contains members who have an interest in a number of technologies at a range of scales, from micro generation to large wind developments.

› Focus of presentation



GREEN FIELD SITE

Grid is a key constraint that heavily influences project economics / size.

- Developers at pre-application stage need to know the:
  - → Costs and timeframes for connection options
  - → Local distribution system breakpoints
  - → Risks, liabilities and other commercial issues

- The connection application process is a constrained way of developing an understanding of these issues.

- **A feasibility study is the most appropriate vessel, but…**

- Recent experiences - SRF DG working group feedback
  - → Feasibility study timelines from DNOs (long)
    - Statutory obligations prioritised (obviously)
    - DNO resourcing
  - → Third party study work
    - LTDSs, updated bi-annually.
    - Available data is limited (@11kV) and a bit patchy (@33kV)
  - → Full application process is required after feasibility study
    - By which time things may have changed!
  - → FREE applications!
    - Many speculative applications – used as an optioneering tool
    - High % of unaccepted offers
    - DNO resourcing

› Helpful suggestions - SRF DG working group feedback

→ **Access to information**

- Better data availability from DNOs (especially at 11kV)
- 'Micro websites' – good idea, but could be much better.
- Maps with good network data
- Up-to-date information in the LTDS

→ **DNO resourcing**

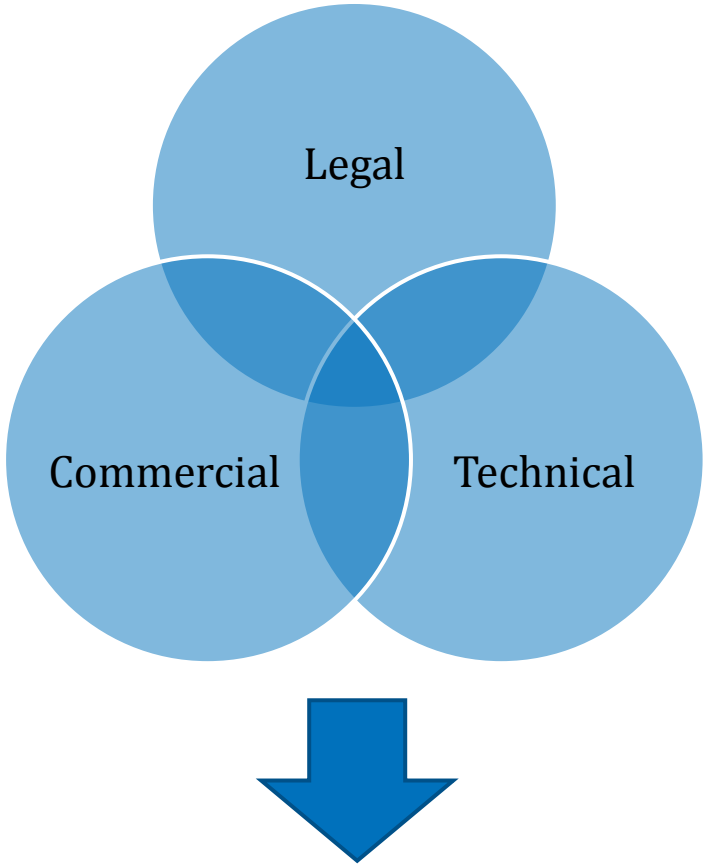
- Reintroduce fees for connection applications (resulting in better service?)
- Settlement under RIIO-ED1 (output measure e.g. customer service)

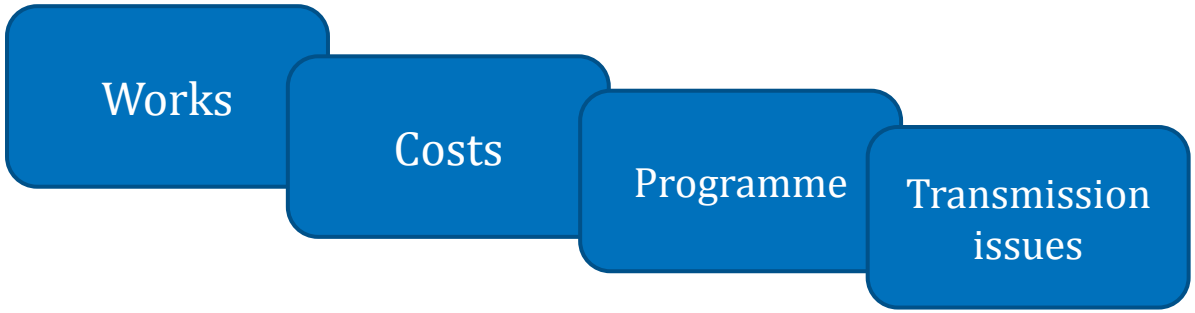
→ **Processes**

- Streamline the process between feasibility studies and connection applications

CONNECTION OFFER

- Offer sets out:
  - → T&C
  - → Costs
  - → Programme
  - → Technical issues and site specifics
- Commitments will be necessary
  - → legally binding contracts
  - → Capital expense and underwriting





- Connection works and costs
  - → *What have I been offered?... and is it reasonable?*
- Contestable Vs. Non-contestable
  - → *Can it be done cheaper by an ICP?*
- Timelines
  - → *What are the consenting risks of the works?*
- Transmission system
  - → *What are all transmission related issues and risks?*
- Technical issues
  - → *What are they?*

› Recent experiences - SRF DG working group feedback

→ Connection solutions

- Little evidence of (and incentive for) creative thinking from DNOs

→ Large down payments

- Can be a big issue, particularly for smaller projects

→ Long connection timelines

- "Legacy" projects
- Non-firm access

→ Transmission

- Statement of Works (ordeal!)
- CMP 192 – clarity on the impact on DG?

→ Technical issues

- Lack of available technical personnel

› Helpful suggestions - SRF DG working group feedback

→ **Payments**

- Scaled appropriately to project size/connection cost
- Itemised breakdown of costs included in the offer

→ **Innovative connection solutions**

- Increase the rate of introduction
- Active network management
- Non-firm options

→ **Transmission interface**

- Reconsider how the process between D and T could work better.

- Next steps
  - → Scottish Renewables
    - SR Member event – Active network management **29 Nov 2012**
    - DNO engagement at next DG working group
    - Continued regular DNO engagement via DG working group
  - → RIIO-ED1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Charging Workshop

James Veaney
Head of Distribution Policy
Smarter Grids and Governance: Distribution
Ofgem

DG customer concerns

- Why are connection costs so high?
- Should I have to pay for a connection?
- Why is there disparity of connection cost between DNOs even where the projects appear comparable?
- Why do I have to use the DNO?

Ofgem Approach

- Charging policy
- One-off connection costs
- Reinforcement costs
- Non-contestable vs contestable works
- Ofgem’s efforts to open up the market to competition
- Disputes and determinations

Charging arrangements

Policy: The same charging arrangements apply to all customers

- An up-front charge (commensurate with the cost of making that connection) is made to any customer connecting to the network.
  - principle is applied to energy users AND energy producers.
  - to meet our energy needs and carbon reduction targets at the lowest possible cost to consumers.

- In 2005 we introduced shallow-ish connection boundaries
  - connecting customer pays full cost of sole-use connection assets.
  - Customers contribute towards reinforcement up to one voltage level above the voltage at which they connect to the network

- Connecting DG also pay for use of the distribution system reflecting the cost impact they cause.
  - for lower voltage DG customers this results in 'credits' where they defer the need for investment

Reinforcement of the network

- In areas where there is limited capacity the network may need to be reinforce to accommodate a customer' requirement
- Reinforcement can be triggered by an individual customer or undertaken in advance by the DNO in anticipation of future network reliability issues
- If undertaken by a DNO in advance, these costs are recovered from all users through Use of System charges (assuming approval from Ofgem)
- More upfront reinforcement may reduce connection costs for individual customers, but increase bills for everyone

Smart-grid solutions to reinforcement

- Smart grid solutions have the potential to lower the cost (and potentially timescales) of all connections – particularly DG
- Some Low Carbon Network Fund projects are exploring connecting DG through innovative means to avoid reinforcement for new connections

  (i) Low Carbon Hub
  (ii) Capacity to Customers
  (iii) FALCON

- Better information might also allow opportunities for customers to avoid triggering reinforcement

Contestable vs non-contestable costs

- Installation of new connection assets is not a natural monopoly
- Ofgem believe that competition in the connections market will lead to improved service delivery
- Independent Connection Providers (ICPs) and Independent Distribution Network Operators (IDNOs) can also provide connections

Contestable activities	Non-contestable activities
Design	Determination of the point of connection to distribution system
Procurement	Approval of ICP/IDNO connection design
Construction of the sole use connection assets	Reinforcement/diversionary work on the upstream distribution system
(live jointing to LV mains)	Inspection and monitoring of work

Incentivising competition in connections

- We set out arrangements to facilitate the development of competition for connection services
- The market was split into segments and DG is considered to be a market segment where competition can exist
- In 2010 we introduced arrangements for DNOs to charge a 4% margin on contestable services in potentially competitive market segments – to create headroom for competition to develop
- DNOs have been asked to come forward with evidence that competition exists in these Relevant Market Segments before December 2013 – the 'Competition Test'
- If a DNO passes the Competition Test Ofgem will lift price regulation on contestable connection services in the relevant market segment

What indicates effective competition?

- Actual and potential levels of competition
- Customer awareness/ability to choose alternate providers
- Price/transparency of pricing
- DNO policies and processes
- Barriers to competition

How do DNOs set their charges?

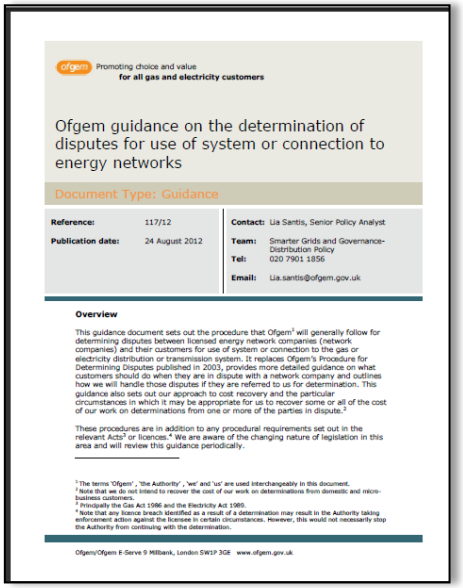
- DNOs have to provide customers with a minimum scheme design
  - *If* a DNO chooses to carry out reinforcement works in excess of the minimum required to make the connection, the DNO bears the additional costs and passes this onto all other customers

- Recover efficient costs +
  - A 4% margin allowed for contestable services in certain market segments
  - OR an unregulated margin where there is proven and effective competition

- Charging methodologies set out the scope of contestable activities and how the rates are calculated
  - We approve methodologies – not the charges themselves
  - We can only review charges in the context of a determination

Disputes and determinations

- If a DG customer is in dispute with a DNO they should seek to resolve it directly with the DNO, if necessary using the complaints system
- If this is unsatisfactory, they can pursue with the Ombudsman (domestic, micro-business customers)
- DNOs have financial incentives to resolve complaints to the satisfaction of customers
- If a customer or DNO feels there is still a problem, they can ask Ofgem to determine the dispute
- Ofgem has recently published guidance on what customers should do when they are in dispute with a network company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Ofgem guidance on the determination of disputes for use of system or connection to energy networks

Document Type: Guidance

Reference: 117/12
Publication date: 24 August 2012

Contact: Lia Santis, Senior Policy Analyst
Team: Smarter Grids and Governance-Distribution Policy
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Overview

This guidance document sets out the procedure that Ofgem[1] will generally follow for determining disputes between licensed energy network companies (network companies) and their customers for use of system or connection to the gas or electricity distribution or transmission system. It replaces Ofgem's Procedure for Determining Disputes published in 2003, provides more detailed guidance on what customers should do when they are in dispute with a network company and outlines how we will handle those disputes if they are referred to us for determination. This guidance also sets out our approach to cost recovery and the particular circumstances in which it may be appropriate for us to recover some or all of the cost of our work on determinations from one or more of the parties in dispute.[2]

These procedures are in addition to any procedural requirements set out in the relevant Acts[3] or licences.[4] We are aware of the changing nature of legislation in this area and will review this guidance periodically.

[1] The terms 'Ofgem', 'the Authority', 'we' and 'us' are used interchangeably in this document.
[2] Note that we do not intend to recover the cost of our work on determinations from domestic and micro-business customers.
[3] Principally the Gas Act 1986 and the Electricity Act 1989.
[4] Note that any licence breach identified as a result of a determination may result in the Authority taking enforcement action against the licensee in certain circumstances. However, this would not necessarily stop the Authority from continuing with the determination.

Ofgem/Ofgem E-Serve 9 Millbank, London SW1P 3GE www.ofgem.gov.uk

http://www.ofgem.gov.uk/domestic-consumers/ncamm/Documents1/DeterminationsguidanceAug2012.pdf

Questions?


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Calculating connection costs

Connection Costs = extension costs + reinforcement costs (where necessary)

Calculating reinforcement costs

Reinforcement costs = costs (same as any demand connection) x cost apportionment factor (CAF)

$$CAF = \frac{\text{customers' required capacity}}{\text{new network capacity after reinforcement}}$$

Costs are subject to 'high cost threshold' of £200/kVA (above which customer bears the full costs)

In other words… all reinforcement costs over £200,000 (ie. 1000kVA x £200) are borne by the connectee and the rest are apportioned based on the CAF.

▪ **DG customer required capacity:**	**1MVA**
▪ **DNO carried out minimum cost reinforcement scheme which Increases network capacity from 2 MVA to 5MVA**	**£500,000**
▪ **Reinforcement costs borne by the customer: (£500,000 - £200,000 'high cost threshold')**	**£300,000**
▪ **Remaining costs apportioned by the CAF £200,000 x 0.2 1MVA/5MVA = 0.2)**	**£40,000**
TOTAL CUSTOMER CHARGE	**£340,000**

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DG Forum 2012 Glasgow

James Veaney
Head of Distribution Policy
Ofgem

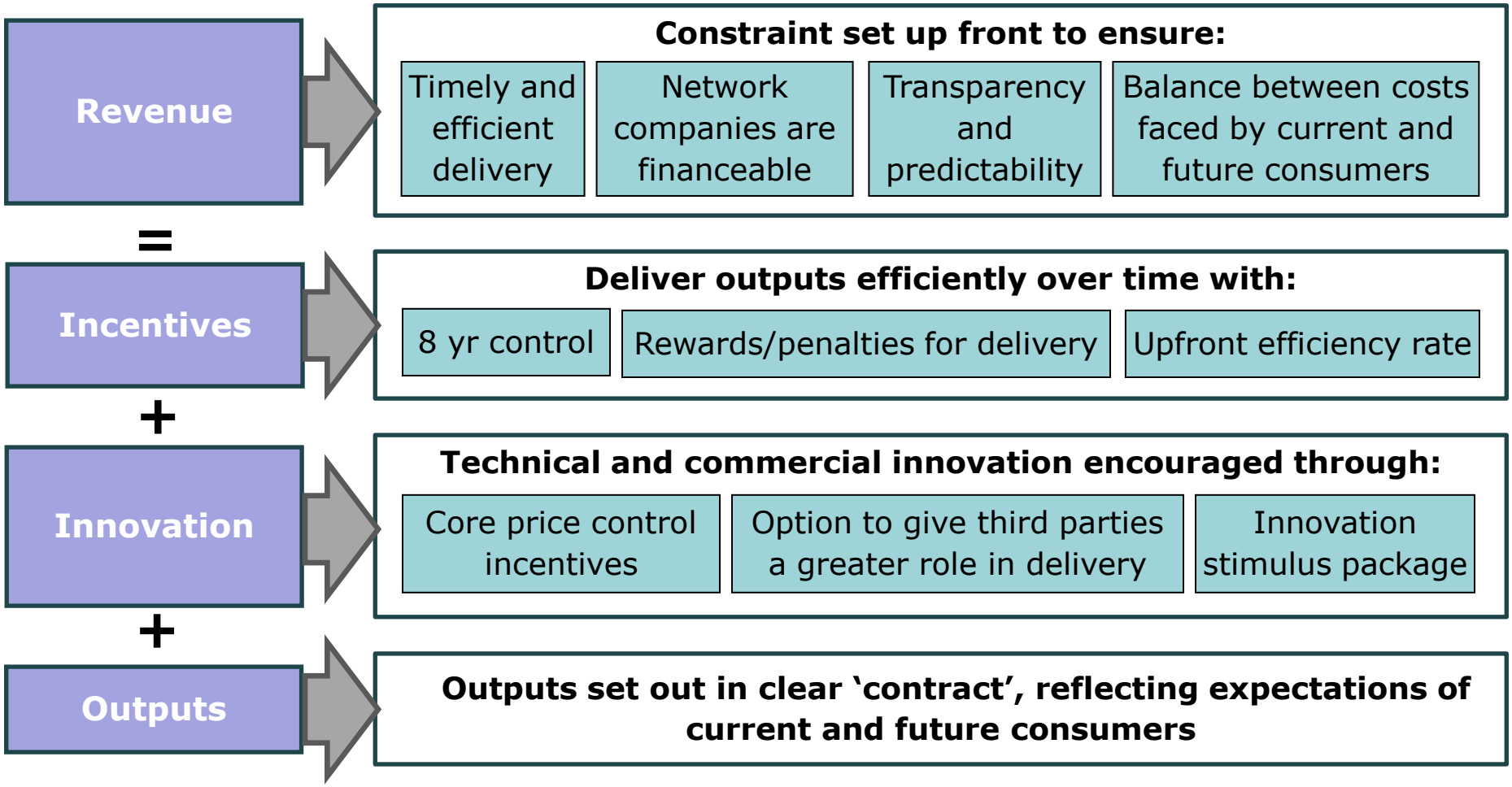
Feedback from breakout sessions

- National Grid
- Low carbon and innovative solutions
- Application process
- Charging

Regulatory tools

- Policies in relation to:
  - Ensuring the integrity of the network
  - Charging for network connections & use of distribution system
  - Incentivising networks to provide a good service to customers seeking a connection
- Engineering recommendations
  - P2/6 and G83
- Licence conditions
  - Requirement to offer a connection
  - Timescales for issuing quotes
  - Ability to recover costs for connection and Use of System
  - Requirement to have charging methodologies
- Price Controls; setting out the outputs DNOs need to deliver for their customers and the associated revenues they are entitled to connect:
  - DPCR5 (2010 – 2015)
  - RIIO-ED1 (2015 – 2023)

RIIO: A new approach to regulation



The outputs-led framework

We are committed to developing clear and comprehensive outputs

These will help deliver the objectives of RIIO to encourage network companies to

- Play a full role in the delivery of a sustainable energy sector
- Deliver long-term value for money network services for existing and future consumers

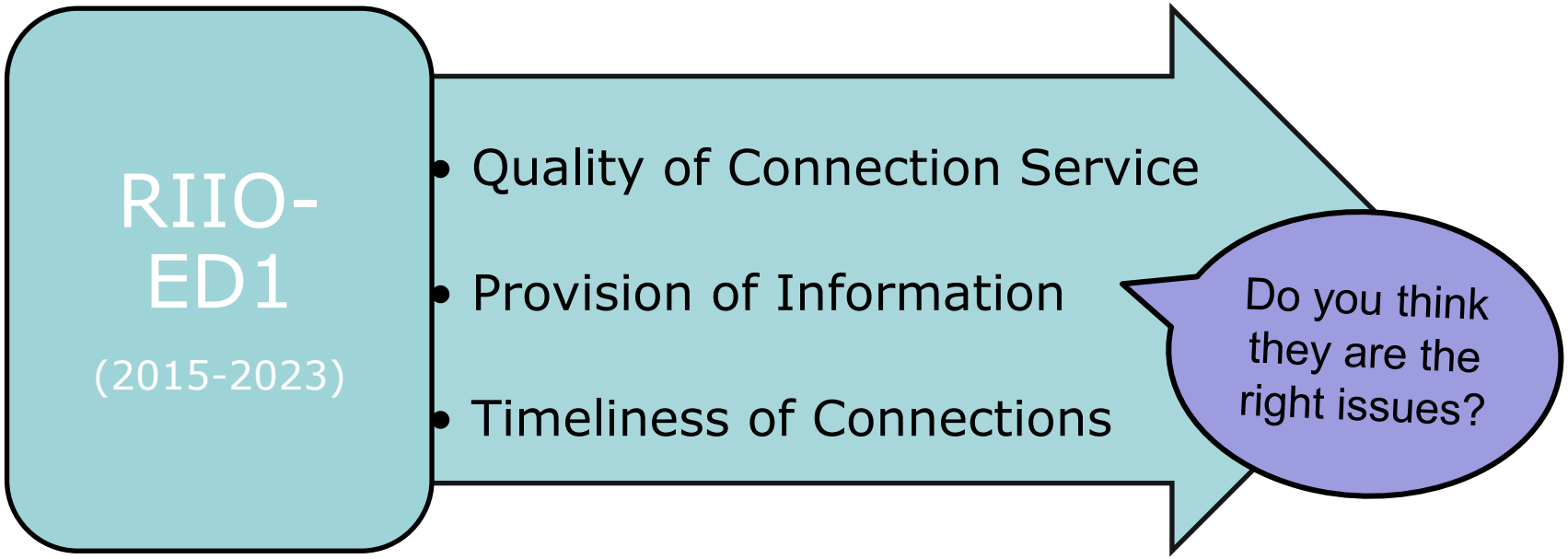
RIIO includes **six output categories** within which network companies should deliver	
	Environmental impact: Help to reduce direct/indirect GHG emissions
	Customer satisfaction: Maintain/increase customer satisfaction levels
	Connections: Connect customers in a timely and efficient way
	Safety: Provide a safe network in compliance with HSE standards
	Reliability and availability: Promote reliability e.g. less interruptions
	Social obligations: Treatment of vulnerable customers and fuel poor

RIIO-ED1 Timetable

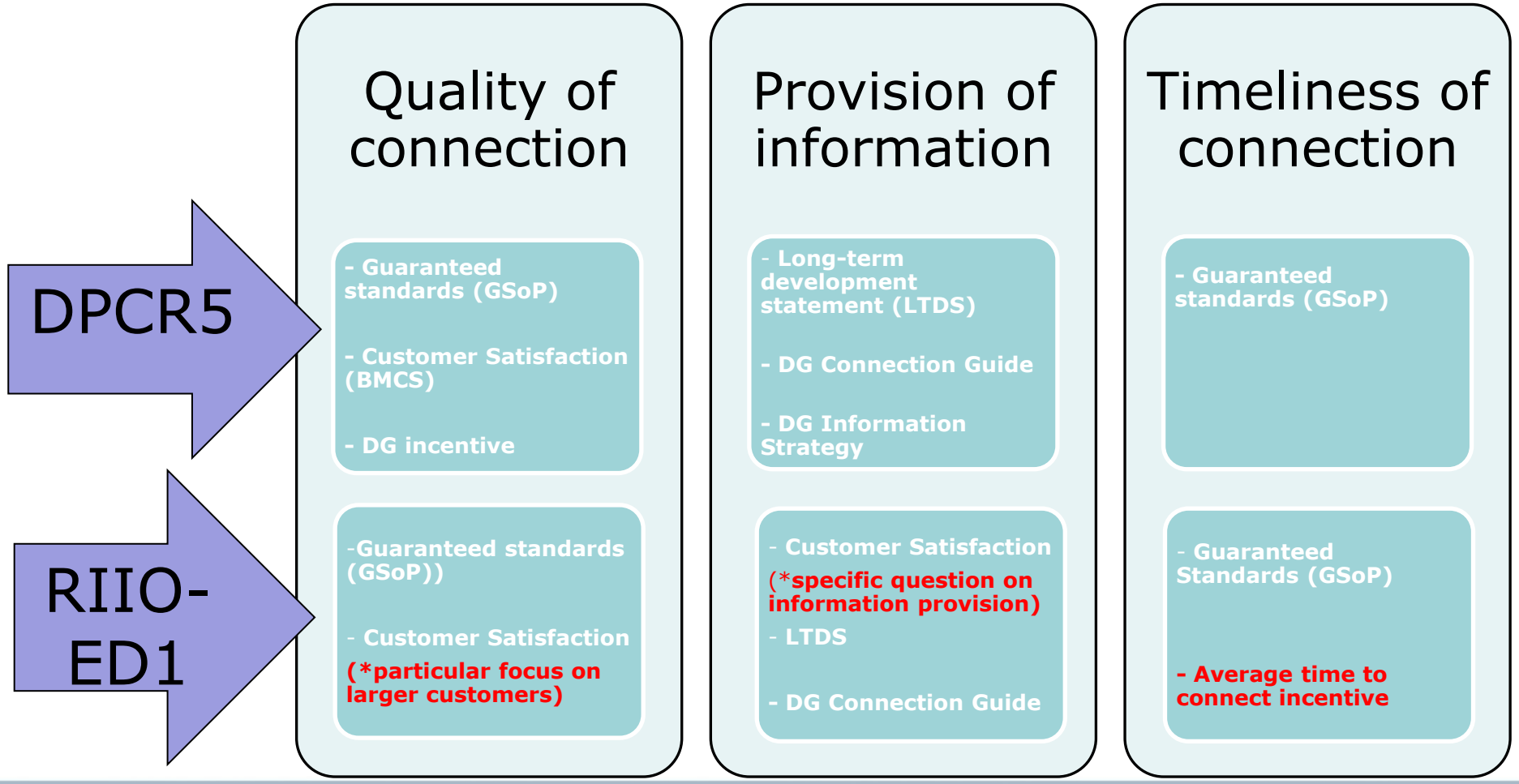
Consultation ends 23 November 2012

RIIO- ED1: Connections

For connections, we are considering the following key issues:



How price controls affect DG customers



Next steps

- We have sought to ensure that DG does not encounter any unnecessary barriers when seeking to connect and that DNOs have an incentive to consider the role DG can play in managing the network
  - Please respond to the ED1 consultation with your views
  - Consultation ends 23 November 2012

- We are hosting these DG Forum events in London, Cardiff and Glasgow and will take issues raised into consideration in our ongoing development of policy

- Over to you
  - Regular engagement between DNOs and customers
  - Customers to highlight their requirements to DNOs in order to make an efficient connection
  - DNOs continue to put measures in place to respond to customer needs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