

# Small generator issues under BETTA

David Gray

Managing Director, Regulation & Financial Affairs

# Creating a GB market

- Joint Ofgem/DTI project
- BETTA will create:
  - A GB wholesale market
  - With common rules for access to the transmission network
  - One operator of the three existing networks
- Top priority for Ofgem
- Commitment from Government
- Target date of April 2005

# Key outcomes

- Benefits for customers across GB
  - Greater choice
  - Downward pressure on prices
- Essential for growth in renewables in Scotland
  - Network investment
  - Independent operation of networks
  - Direct access to liquid GB market

# Current position

- Project on track
- Ofgem/DTI working closely with transmission licensees
- Detailed consultation over past 12 months
- Clearer picture of what it will mean for participants
- But still some areas of policy to develop, some of which affect small generators

# Small generators consultation

- Small generator issues cut across a number of different codes and documents
- England and Wales arrangements are untested in respect of small, transmission-connected generators
- Benefit from consideration across the piece
- Rationale for November consultation document

# Purpose of today

- Review November consultation proposals
- Open discussion
- Informed by expert industry presentations
- Ofgem/DTI would welcome additional views

## Next steps

- Ofgem/DTI conclusions document in next 4-6 weeks
- Implementation of conclusions might require further detailed consultation
- Conclusions will be incorporated in relevant codes and documents

The ofgem logo, consisting of the word 'ofgem' in white lowercase letters inside an orange rounded rectangle.A vertical collage on the left side of the slide featuring a blue electrical plug, a woman working on a laptop, and a close-up of a gas meter.

Promoting choice and value for all  
gas and electricity customers



# Trading issues and small generators

Simon Street  
BETTA project, Ofgem

# Framework

- Establish a GB Balancing & Settlement Code (BSC)
- Consultation based on current England and Wales BSC
- Current position on BSC consultation
- Interaction with small generators consultation

# Issues

- BSC is cornerstone of competitive arrangements in England and Wales
- Expectation of minimal change
- But BSC is untested in respect of small, transmission-connected generation
- Need to consider appropriateness of obligations
  - Trading options
  - Trading charges

# Trading options

- Depends currently on size (specifically, being 'exemptible' as defined in the BSC) and being distribution-connected
- Proposed to retain this classification in GB BSC
- Not appropriate to 'pretend' that transmission-connected generators do not trade centrally – issues of discrimination
- But is appropriate to consider whether trading options are unnecessarily constrained
- Views invited in November document

# ELEXON trading charges

- ELEXON administers the balancing and settlement arrangements
- Cost recovery via BSC trading charges
- Charges in part based on output
- Some fixed elements
- Views invited on proportionality for small generators

## Next steps

- Ofgem/DTI conclusions document in next 4-6 weeks
- Implementation of conclusions might require further detailed consultation
- Conclusions will be incorporated in relevant codes and documents

The ofgem logo, consisting of the word 'ofgem' in white lowercase letters inside an orange rounded rectangle.A vertical collage on the left side of the slide featuring a blue electrical plug, a woman working on a laptop, and a close-up of a gas meter.

Promoting choice and value for all  
gas and electricity customers

# **ELEXON and the Industry**





# Agenda



- **ELEXON's role as BSC Co**
- **Trading options for Licence Exempt Generators (LEGs)**
- **Market Entry Checks & Tests**
- **Metering & Trading Units**
- **ELEXON BETTA Project**
- **Testing & Trialling**

# Balancing and Settlement Code Company (BSCCo)



- **ELEXON is the BSCCo which is defined in and created by the Balancing and Settlement Code (BSC)**



- **Non profit making**
- **Wholly owned subsidiary of National Grid**

- **ELEXON procures, manages and operates services and systems which enable the balancing and settlement of the wholesale electricity market and retail competition**
- **ELEXON supports the BSC Panel which oversees the operation of the trading arrangements and modifications to trading rules**

# Key Responsibilities



- **Contracting party for BSC Agents**
- **Employing staff to manage BSC arrangements**
- **Providing support, advice and resources to BSC Panel, Panel Committees and Modification Groups**
- **Implementing BSC Modifications and other changes**
- **Monitoring compliance with, and enforcing, the BSC**
- **Undertaking periodic reviews of the BSC and recommending changes for greater efficiency**

# Cost Recovery



- **ELEXON costs budgeted annually, charged and invoiced monthly**
- **ELEXON charges = Costs**
- **Charges composed of:**
  - **BSC Charges which include:**
    - 'Net Management' Charges (55%)
    - 'Tariff' Charges
    - 'NETA' Recharges
  - **Supplier Volume Allocation (15%):**
    - Production
    - Consumption (NH and NHH)

# Differences between Scotland and E&W



- **Lower limit for transmission in Scotland is 132kV**
- **Most smaller generators in Scotland transmission connected**
- **Most smaller generators in E&W distribution connected**

- **Embedded Generators need to decide whether or not to become a BSC Party – influenced in part by:**
  - **Whether to trade through SVA or CVA arrangements**
  - **Whether or not to operate in the Balancing Mechanism**
  - **Pass energy imbalance management and resultant risks to another Party (eg MVRN) or manage risk in-house**

- **Embedded Generators need to decide whether or not to become a BSC Party – influenced in part by:**
  - **Whether to trade through SVA or CVA arrangements**
  - **Whether or not to operate in the Balancing Mechanism**
  - **Pass energy imbalance management and resultant risks to another Party (eg MVRN) or manage risk in-house**



# SVA Trading Options (1)



- **Trading through a licensed Supplier**
  - **Supplier takes responsibility for exports (and if applicable, imports)**
  - **Supplier registers to be the Supplier of the MPAN associated with the Exemptable Generator in relevant SMRS**
  - **Output of Exemptable Generator is allocated to Supplier as a negative demand**

# SVA Trading Options (1)



- **Processed under the Supplier Volume Allocation rules**
- **BSC sets out rules about who is Primary and who is Secondary Supplier and how the volume is allocated if output of generator is split between two suppliers**
- **Exemptable Generator does not have to be a signatory to the Code**

# SVA Trading Options (2)



- **Independent Trading**

- **The person responsible for Imports & exports must be a licensed Supplier**
- **Register an Additional Supplier BM Unit which , if it complies with the Exemptable Generating Plant rules set out in the Code (Section K), can be granted Exempt Export status**

- **Independent Trading**
  - **LEG would need to become a BSC Party**
  - **Register Metering System with CRA**
  - **Register Exempt Export BM Unit**
  - **Option to operate in Balancing Mechanism**

- **Trading Through an Agent**
  - **Metering System Registration with CRA**
  - **Exempt Export BM Unit Registration**
  - **Manages energy imbalances and resultant risks**
  - **Licensed Supplier takes responsibility for Imports & Exports**
  - **Therefore, LEG does not have to be a signatory to the Code**

- **Class 4 Trading Unit introduced for LEGs (Code Section K)**
    - **Set of BM Units in the same GSP Group**
    - **Enables range of embedded benefits to be realised:**
      - **TNUoS Benefits\***
      - **BSUoS Benefits\***
      - **Transmission Loss Benefits**
      - **BSCCo Charge Benefits**
- \*non BSC-related**

# Trading Unit Options for Exemptable Generators



- **Stay in GSP Base Trading Unit (BSC default)**
- **Allocate any or all of its Export Exempt BM Units to form a Trading Unit with other Exempt Export BM Units in the same GSP Group**

# Range of Market Entry Processes



- **Accession**
- **Registration**
- **Qualification**
- **Authorisation**
- **Accreditation (SVA only)**
- **Entry Process Tests (SVA only)**



- **Three basic categories of market participant:**
  - **Trading Parties**
  - **Party Agents participating in the Central Volume Allocation Systems**
  - **Party Agents participating in the Supplier Volume Allocation Systems**

- **CVA systems are the mechanisms for clearing & settlement of imbalance between physical & contracted positions:**
  - **ECVNA**
  - **MVRNA**
  - **CVA MOA**

- **Process by which a company becomes a Party to (signatory of) the BSC**

- **All Parties, ECVNAs & MVRNAs are required to register the following, where applicable:**
  - **Company details including participant role**
  - **Metering systems & BM Units**
  - **Banking details**
  - **Credit cover**

- **All Parties and CVA Party Agents must:**
  - **Install a communications line**
  - **Undergo Qualification Testing**

- **All Parties and CVA Party Agents must:**
  - **Authorise signatories to perform BSC functions**

# Summary of Requirements **ELEXON**

---



- **Metering CoPs in E&W under BSC will be unchanged under GB BSC**
- **Metering CoPs in Scotland under SAS will be incorporated under the GB BSC**
- **Ofgem Consultation on metering dispensations concluded last December**
- **Ofgem consultation on BM and Trading Units being carried out.**



- **Has operated on Assumption that existing E&W Arrangements will be extended to the GB Arrangements with the following exceptions:**
  - **Transmission boundary voltage**
  - **Profiling**
  - **Transmission Owner reporting**
  - **BM and Trading Unit configuration (e.g. Cascade hydro)**

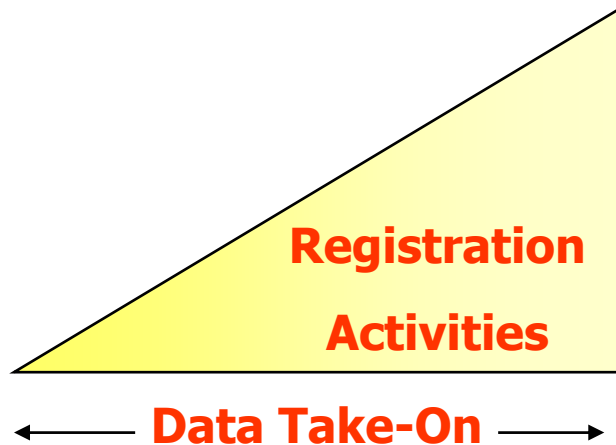
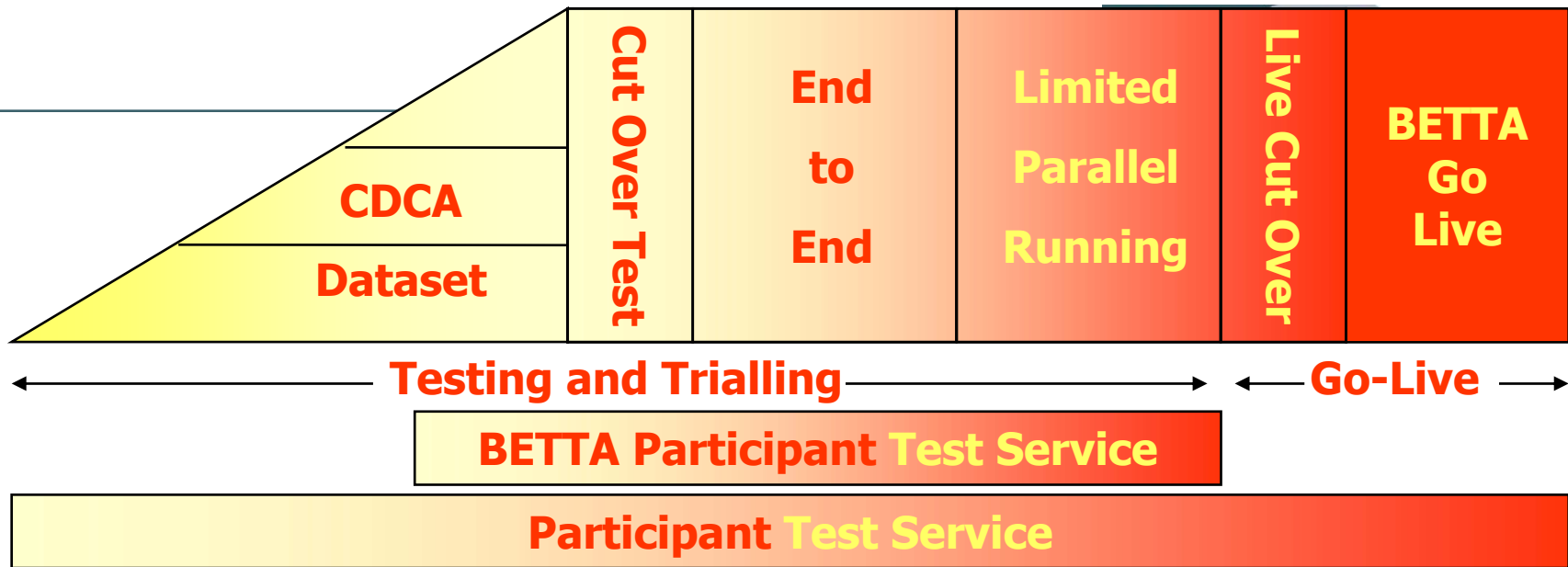
# Recent Achievements



- **Systems changes ordered**
- **Deliverables approved**
  - **Test and Assurance Strategy**
  - **Metering Dispensation Consultation – Final Report**
  - **Data Acquisition Strategy**
  - **Transition Approach & Plan**
- **Deliverables with Project Board for approval**
  - **Data Acquisition and Validation Plan**
  - **Market Trialling Plan**
- **To date delivered to time and cost**

- **BETTA Project planning to carry out testing & trialling for BETTA**
- **6 levels of testing**
  - **Level 1: Data Take-on – MTD**
  - **Level 2: Aggregation to VAU**
  - **Level 3: GSP Group Aggregation & Verification**
  - **Level 4: BSC Agent Testing Cut-over**
  - **Level 5: Integrated BSC Agent System E2E**
  - **Level 6: Parallel Running**

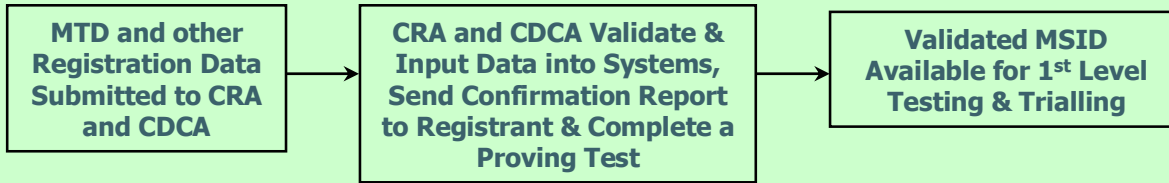
# High Level Activities



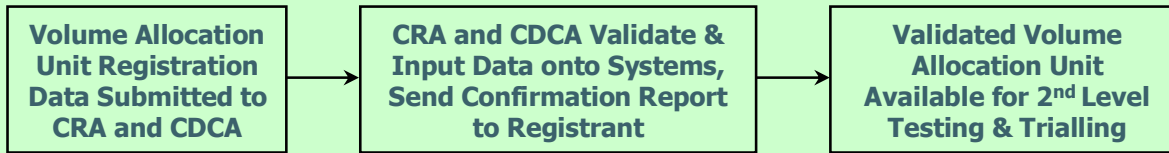
# Testing & Training

## Data Take-on

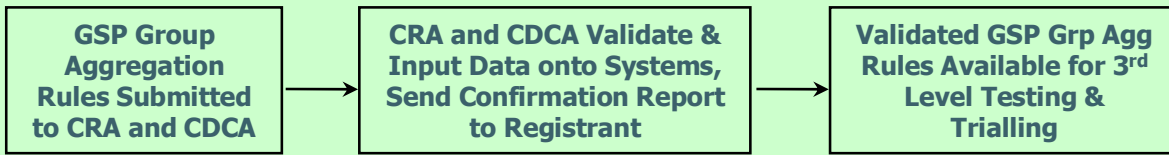
### Level 1 Meter Technical Details (MTD)



### Level 2 Aggregation to Volume Allocation Units (VAU)



### Level 3 GSP Group Aggregation & Verification of Transmission Losses



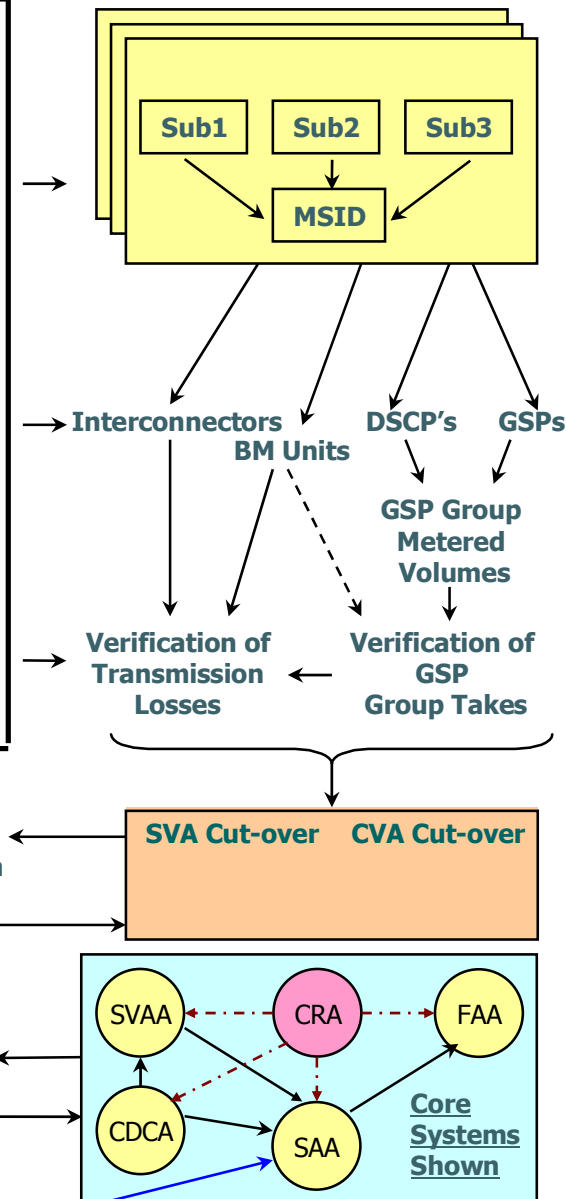
### Level 4 BSC Agents Testing Cut-over Arrangements



### Level 5 Integrated BSC Agent System End to End Testing



### Level 6 Parallel Running



# Participation in Testing & Trialling



- **Participants can make use of Participant Test Service (PTS)**
- **Participant Workshops to be held on:**
  - **17<sup>th</sup> February 2004 (Scottish Power)**
  - **18<sup>th</sup> February 2004 (SSE)**
  - **19<sup>th</sup> February 2004 (in Scotland)**
  - **24<sup>th</sup> February 2004 (at ELEXON)**

# **BETTA & Smaller Generators**

**trading issues**

**SCOTTISH** *renewables* **FORUM**



*The Forum for Scotland's Renewable Energy Industry*

## – introduction

- Scottish Renewables – our work
- BETTA – overriding principles
- Balancing & Settlement – by whom
- 132kV, transmission charging and balance
- Looking ahead to the grid we want
- Resolving Discrimination





- A member association working since 1996
- Represent over 100 organisations involved in renewables
- Represent a mix of technologies and organisations
- A supporter of the principles of BETTA
- Concerned about details and delivery of BETTA



# BETTA – overarching principles

- BETTA will:
  - Bring more competitive prices and greater choice to all electricity customers, particularly those in Scotland and the fuel poor
  - Mean that renewable and other generators, particularly in Scotland, will benefit from access to a wider British market
- There are concerns that provisions in the smaller generators consultation will frustrate

# BETTA – overarching principles

- BETTA will:
  - Bring more competitive prices and greater choice to all electricity customers, particularly those in Scotland and the fuel poor
  - Mean that renewable and other generators, particularly in Scotland, will benefit from access to a wider British market
- There are concerns that provisions in the smaller generators consultation will frustrate achievement of these objectives

# BETTA – concerns

- Timescale
  - 8 months later than originally planned
  - Creates concern about issues being unresolved
- Ability to influence other work areas
  - CUSC, BSC and Grid Code at late stage of evolution
  - Legislation currently in Parliament
- Establishing of transition measures
  - Transitional arrangements must not be seen as an interim solution but as a stepping stone to

## BETTA – concerns

- Discrimination
  - 132kV issue has potential to discriminate against Scottish Generators and proposed solution does not resolve issue
  - Full comparison needed with distribution systems in England-Wales
- Postage Stamp vs. Cost-Reflectivity
  - Need to balance change of market principles with the ability of market to deliver GB Energy Policy
- Looking forwards

# BETTA – negative scenarios

- Threaten Security of Supply
  - High charges in Scotland would threaten conventional generation, leading to less generation and an unstable mix of generation types
- Threaten achievement of GB & Scottish Executive targets
  - Renewables targets will depend on a sizeable contribution from Scotland. There are also aspirations of island communities and of an

# BETTA – transmission issues

- Balancing & Settlement
  - Need to be realistic about imposing conditions on smaller generators through the BSC
  - The growth in renewables in Scotland will see a rapid increase of number of developers connected to transmission in Scotland
  - This will make balancing & settlement more problematic
  - Should allow grid operators to take on responsibility



Maf Smith ~ Development Manager

Tel: 0141 249 6705

Email: [maf@scottishrenewables.com](mailto:maf@scottishrenewables.com)

Web: [www.scottishrenewables.com](http://www.scottishrenewables.com)





The background of the slide features a close-up, slightly blurred image of electrical components, including what appears to be a circuit board with various components and a blue plastic component, possibly a switch or connector, in the upper left corner.

# Transmission issues and small generators

Colin Sausman  
BETTA project, Ofgem

# Framework

- Establish GB CUSC and GB Grid Code
  - Consultation based on England & Wales documents
  - Current position
  - Next steps – establishing GB agreements
- Establish GB charging methodology
  - Licence conditions consultation
  - Methodology consultation by GB system operator
  - Using England & Wales methodology as starting point
  - DTI consultation on renewables

# Definition of transmission

- Proposal not to change current statutory definition based on function
- Defined in law and reflected in licences and price controls
- Wider issues re. growth in distributed generation outside scope of BETTA

# Transmission charging

- Cost-reflective GB methodology
- Unwind existing cross-subsidies and differences in treatment
- Will result in changes
- Key issue in consultation responses
- Aggregate effect for Scottish generation?

## Impact – additional costs

- Higher transmission network use of system charges in Scotland (based on NGC's initial consultation):
  - £2.48/kW to £11.28/kW in SP's area
  - £10.34/kW to £20.69/KW in SSE's area
- Total net effect of £92m for Scottish generation
- Equates to £9/kW
- Based on charges towards the top end of range published by NGC in addendum to initial consultation

# Impact – reduction in costs (1)

- Balancing Services and losses
  - England & Wales generators pay BSUoS but earn revenue from provision of balancing services
  - Payment to Scottish generators implicit in calculation of Scottish wholesale price
  - Net benefit (adjusted for losses and allowing for firm access across interconnector) of approximately £10m for Scottish generation
- Connection charges
  - Vary on a site by site basis
  - Lower charges if based on ‘plugs’ proposal by NGC
  - Benefit of £25m for Scottish generation (£2.50/kW)

## Impact – reduction in costs (2)

- Scotland-England Interconnector
- Charges to exit Scottish network
  - £5.77/kW plus £20.74/kW on upgrade capacity for SP's area
  - £10.15/kW plus £17.40/kW on upgrade capacity for SSE's area
- Charges for access to England & Wales network - £9.01/kW
- Total net effect of £62m

# Impact – Total

Charge type:	Net impact on Scottish generation
■ TNUoS	- £92m
■ Balancing services & losses	+ £10m
■ Connection	+ £25m
■ Interconnector	+ £62m
TOTAL	+ £5m



# Alternative generation charges

- Dampen locational element by 50%
- Keep all other assumptions the same
- Net benefit to Scottish generation of £52m
- Net cost to Scottish consumers of £35m
- Every £1 benefit to Scottish generation will cost Scottish customers 65p
- Ofgem's principal statutory duty is to protect customers
- Higher prices are key concern in context of Fuel Poverty

# November proposals - charging

- Overarching principle of cost reflective charges
- Proposal to address specific difference in how costs are reflected in charges (and benefits) between transmission and distribution-connected small generators
- Interim discount related to 'residual' charge
- Recognition that this is not enduring solution
- But does in Ofgem/DTI's view represent a net reduction in market distortions

# CUSC obligations

- Contractual interface between users and independent GB system operator – will require new agreements
- Obligations go along with connection to and use of the system
- Someone must be responsible for these obligations
- Existing arrangements in England and Wales enable responsibility to be transferred to a third party
- November document asked whether more needed to be done to facilitate this for small generators

# Grid Code obligations

- Current obligations do vary by size in Scotland and in England and Wales
- Key is to ensure system integrity and maintain operating standards - BETTA must not dilute this
- Separate issue of whether additional obligations under GB Grid Code are burdensome
- Initial view that this is not the case – unavoidable costs are low, and scope to avoid certain costs
- November document invited views



Promoting choice and value for all  
gas and electricity customers

# Government Perspective

Maria Bazell

Head of Transmission/BETTA

# Transmission Charging

- 18 August 2003 – Ofgem/DTI consultation paper on Transmission Charging
- 2 parts – second part DTI only
- Conclusion to Part 1 – 2 December 2003
- Conclusions to Part 2, April if not sooner.

# **BETTA Small Generators Seminar**

## **5 February 2004**

### **Role of GBSO**

Charles Davies, Commercial Policy Director



# ROLE OF GBSO

- Balancing of GB System
- Transmission System configuration
- Operational Planning
- Connection and Use of System Agreements with Generators, Suppliers and Distributors
- Connection and Use of System Offers
- GB CUSC and Grid Code
- Charging Principles
- Charges and Billing

# OPERATIONAL ISSUES (1)

- GBSO to operate the system to meet SQSS
- CUSC and Grid Code obligations on generators
- All transmission connected generation
- Embedded generation depending on size and/or impact
- Similar issues in England and Wales
- Transmission definition has regional variation

# OPERATIONAL ISSUES (2)

- 132kV is a transmission voltage in Scotland
- Consider impact of 30MW generator on transmission:
  - In E&W 30MW is circa 2% of typical 400 or 275kV circuit
  - In Scotland 30MW could be 25 % of a 132kV circuit
  - Similar increase in impact on voltage issues and short circuit levels
- GBSO needs data from and visibility of generation to ensure SQSS compliance

# CONNECTION PROCESS (1)

- Application to GBSO
- Changeover to GBSO for Scottish Applicants may precede BETTA go live
- Precise date to be determined
- For the present Scottish Applicants should continue to apply to SPT and SHETL

# CONNECTION PROCESS (2)

- From changeover (latest BETTA GO-LIVE) applications to GBSO
- GBSO work with TO
- TO will design scheme and cost it
- GBSO will prepare offer and pass to customer
- Discussions will be with GBSO and TO
- Agreement will be between GBSO and customer
- Charges payable to GBSO

# CHARGES

- Connection Charges
- Transmission Use of System Charges
- Balancing Use of System Charges
- Consultation Document issued 16/12/03
- Initial thoughts only – based on application of England and Wales methodology for 2004/05
- Further consultations planned for April and for later in the year
- Proposals require Ofgem approval

# CONNECTION CHARGES

- Shallow methodology - Plugs
- Generator charges are expected to be minimal
- Distribution/Directly connected consumers charges relating principally to transformers at GSPs

# TRANSMISSION NETWORK USE OF SYSTEM CHARGES

- Addendum issued 27/01/04
- Initial consultation included indicative tariff for GB based on 2004/05 methodology
- Addendum included further sensitivities on some key parameters
- Licence requirement for charges to be cost reflective



# INDICATIVE GENERATION TARIFF BASE CASE (ADDENDUM)

Zone No.	Zone Name	Zonal Tariff (£/kW)
1	Scottish & Southern	22.012510
2	Scottish Power	11.988124
3	North East	7.293680
4	North West	4.060333
5	Anglesey	4.933346
6	Dinorwig	8.322816
7	N Wales, Mersey & S Yorks	1.992865
8	Humberside & Aire Valley	3.568478
9	Midlands	0.179527
10	South Wales & Gloucs	-5.194506
11	Seabank	-3.749169
12	Oxon & Bucks	-1.750822
13	East Anglia	1.327517
14	NE London & Thames Estuary	-0.281634
15	Central & SW London	-7.358315
16	South Coast	-1.905980
17	Wessex	-6.415053
18	Peninsula	-8.945141

# INDICATIVE DEMAND TARIFF BASE CASE (ADDENDUM)

Zone No.	Zone Name.	HH Zonal Tariff (£/kW)
1	Northern Scotland	-6.396015
2	Southern Scotland	1.321116
3	Northern	6.132870
4	North West	10.104934
5	Yorkshire	9.595007
6	N Wales & Mersey	10.101901
7	East Midlands	12.140617
8	Midlands	13.774707
9	Eastern	12.300699
10	South Wales	17.748842
11	South East	15.819976
12	London	17.971332
13	Southern	16.974010
14	South Western	19.367707

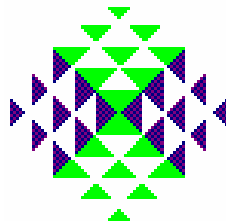
# **Transmission Issues**

SP Transmission & Distribution

Robin MacLaren

Managing Director, SP Transmission Ltd

February 2004





# BETTA

---

**Supportive – working with Ofgem and other transmission licensees to deliver BETTA. BETTA must deliver:**

- An equitable GB market for our customers
- Be consistent with wider energy policy objectives, support renewables
- Deliver a sound electricity infrastructure for Scotland

**Fundamental restructuring of transmission sector:** we continue to own, plan, maintain and develop network; NGC responsible for system operation

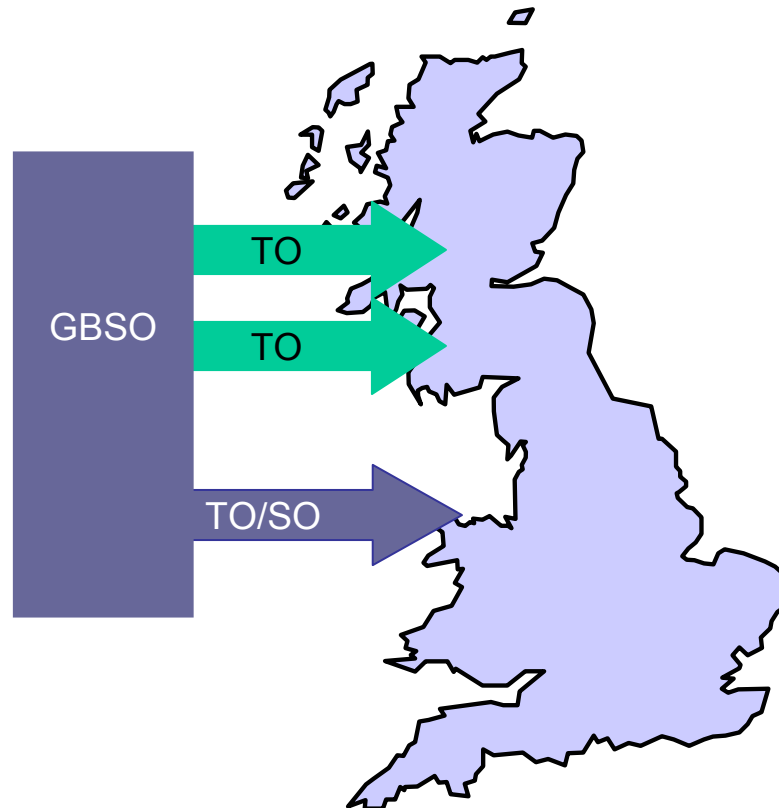


# Proposed Model

---

Integrated TSO in E&W

Two Scottish TO's & One GBSO

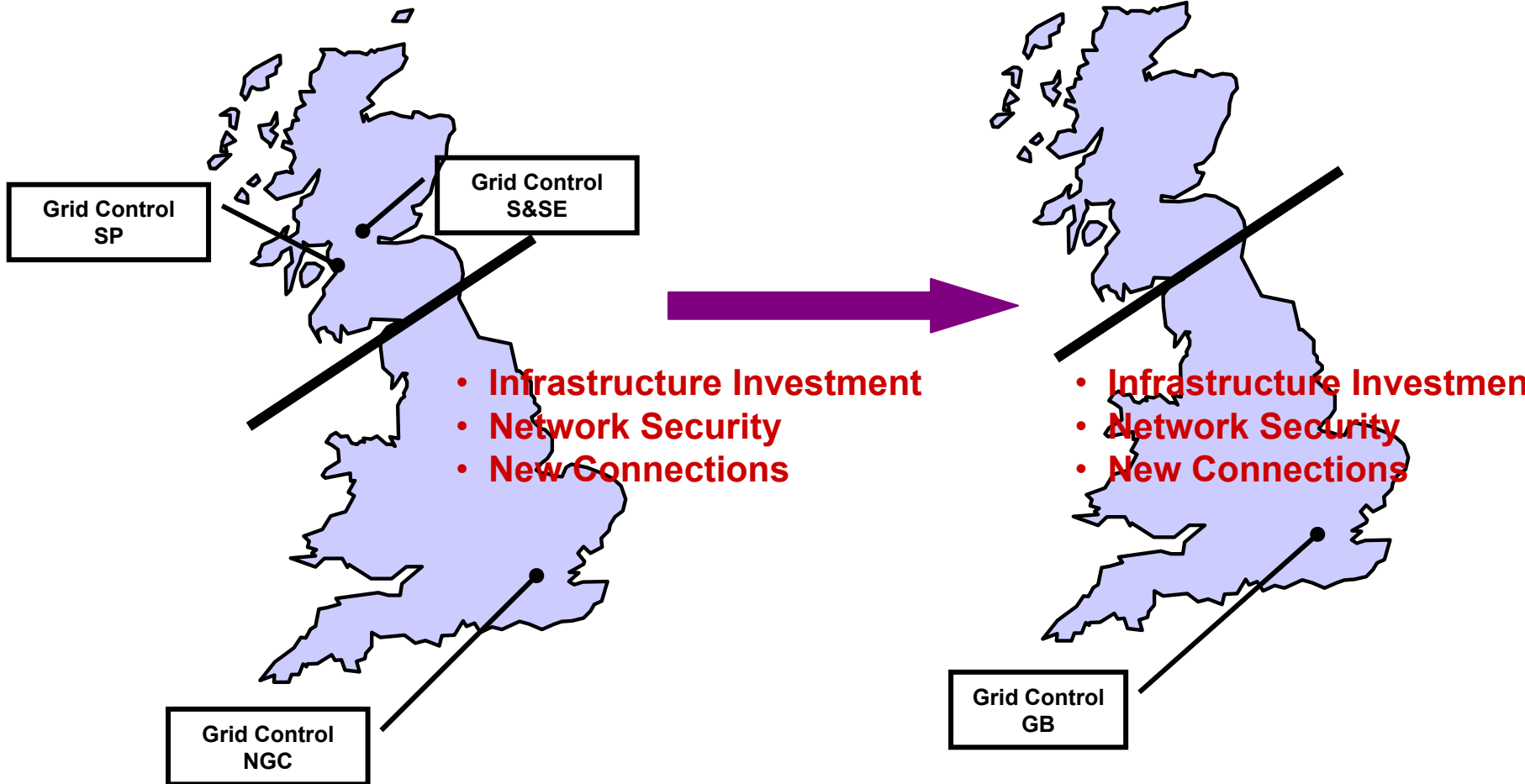




# Changed Transmission Responsibilities

- Infrastructure Investment
- Network Security
- New Connections

- Infrastructure Investment





# BETTA

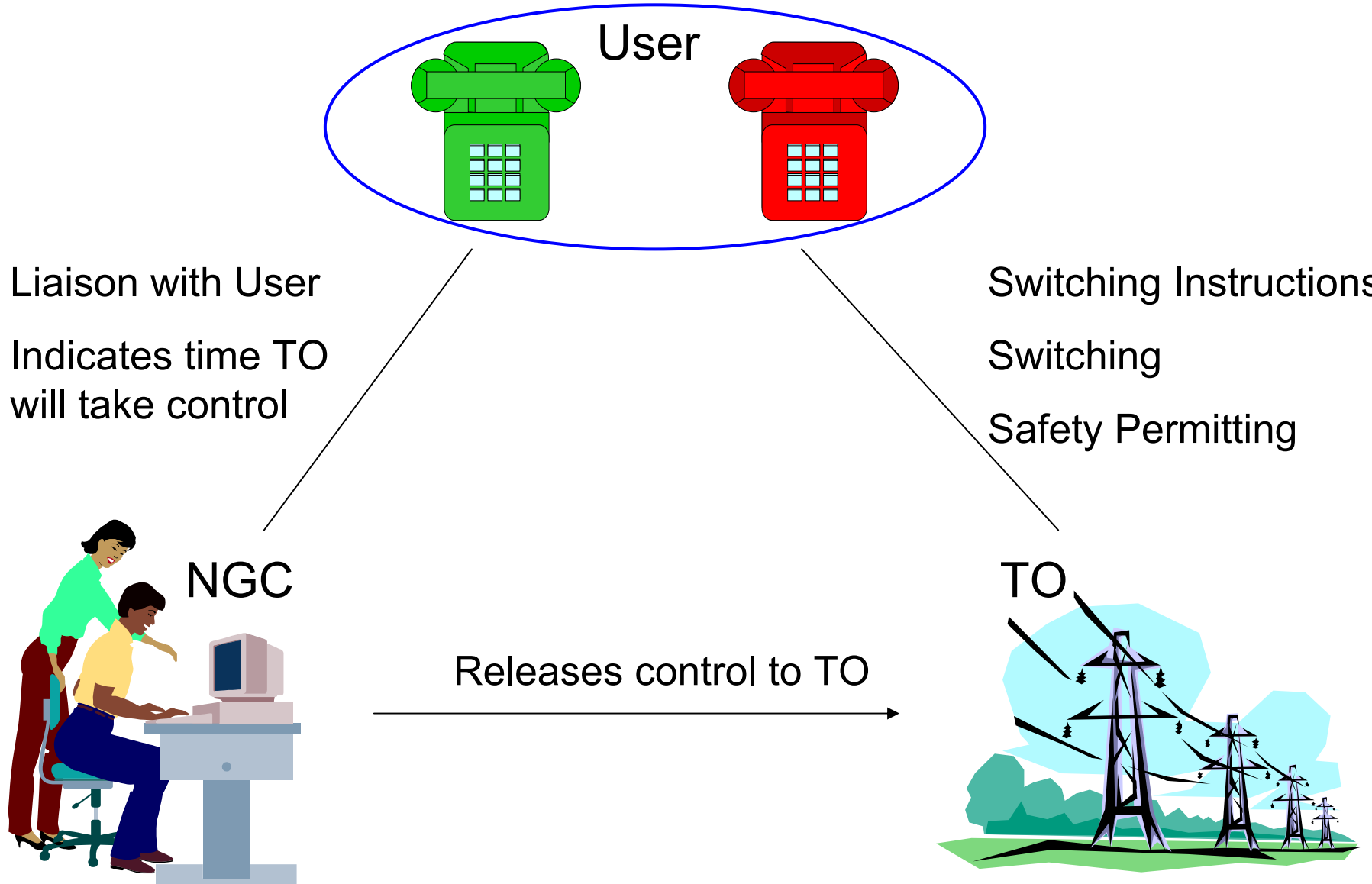
---

Under BETTA SP Transmission will no longer be responsible for:

- Design of use of system charges; this becomes NGC's responsibility. NGC will bill and collect transmission use of system for GB
- Use of System and connection agreements will be the responsibility of NGC



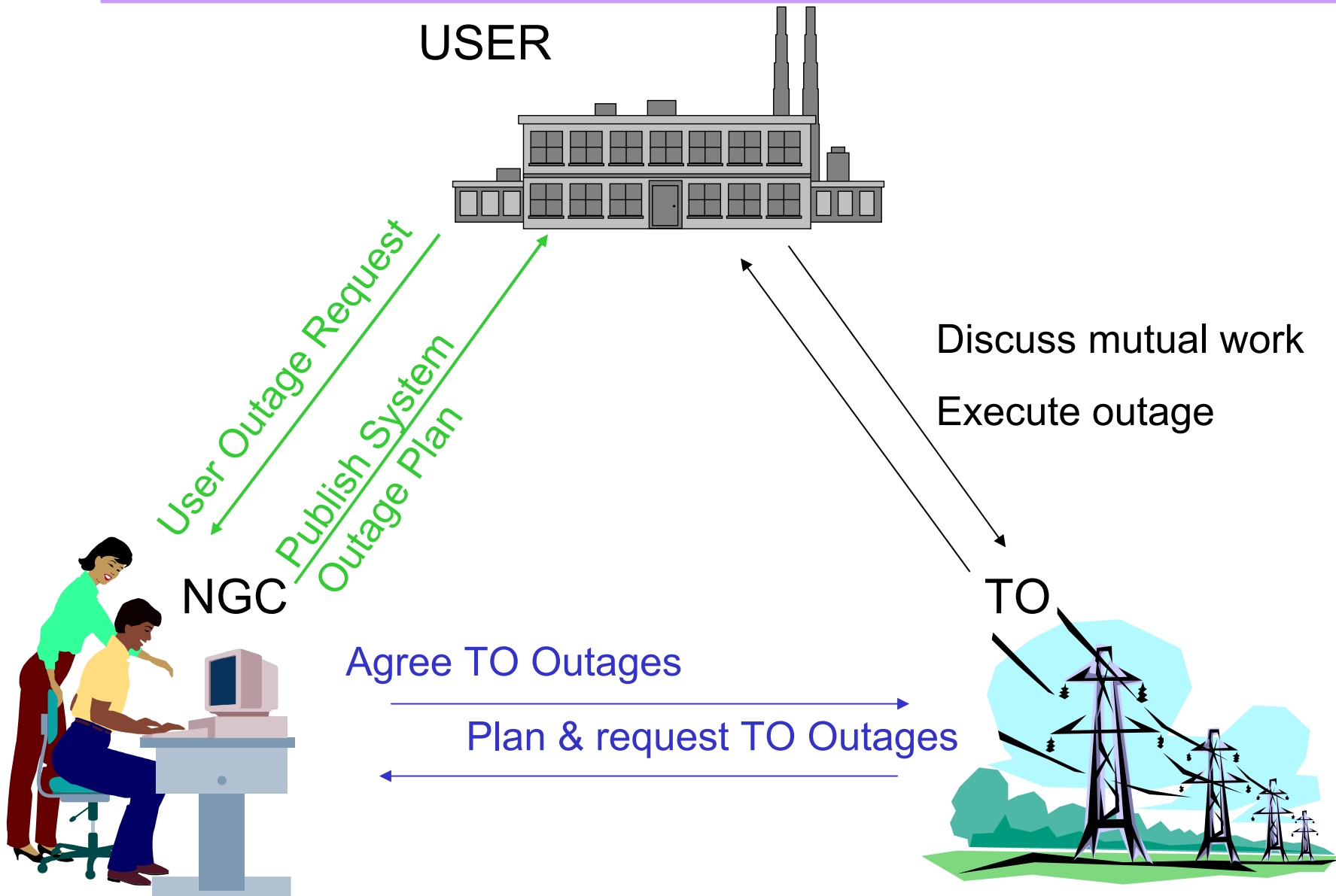
# Planned Switching







# Outage Planning





# Conclusion

---

- Main customer interface will be with NGC
- Existing contract arrangements terminate
- New contracts created with NGC
- Detail remains to be worked out for customers:-
  - Charging & Prices
  - 132kV Equality
  - Connections

Dave Densley

Regulation Manager

≡ Scottish and Southern Energy plc

# Overview

- July 2003 Seminar Conclusions
- Progress on key issues
- SSE's role going forward

# July 2003 Seminar

- SSE Conclusions:
  - Further work required on:
    - Connection process and governance
    - Transmission pricing methodology
    - Level playing field for 132kV

# SSE's Role Under BETTA

- Providing Transmission Services
  - investing in and maintaining infrastructure
  - design and cost new connections
- New Connections
  - Transmission connections costed by SSE, but quoted by NGC
  - Distribution connections costed and quoted by SSE

# Key Outstanding Issues

- Transmission pricing
  - NGC indicative prices out for consultation
  - Some way to go before issues resolved
- Level playing field for 132kV
  - Trading options
  - Pricing / liability for charges

# Embedded Benefit

Ofgem conclusion is £2/kW discount on TNUOS

Actual benefit under BETTA is shown below

Zone	Transmission Tariff	132kV tariff	Benefit
Scotland:			
North	£20.69	£18.69	£2
South	£11.28	£9.28	£2
North England	£8.03	(£6.22)	£14.25



# Conclusions

- Resolution of pricing and 132kV issues is now urgent
- Risk of reduced renewable development in Scotland if not resolved

# **BETTA & Smaller Generators**

**transmission issues**

**SCOTTISH** *renewables* **FORUM**



*The Forum for Scotland's Renewable Energy Industry*

## – introduction

- Removing discrimination – 132kV
- CUSC obligations
- Cost-reflectivity vs. postage stamp
- Avoiding mirages – stick & stick vs. carrot & stick
- Delivering energy policy



# **BETTA & Smaller Generators - Transmission**



## **-discrimination & 132kV**

“A fair and equitable market requires that all participants are treated on the same basis...

Whether by regulation or amendment of the industry codes to exempt smaller generators from the burden of transmission charges, or by other means, an equality of treatment must be established among generators connected at 132kV.”

Trade & Industry Select Committee 2003



## **BETTA & Smaller Generators - Transmission**



### **– discrimination & 132kV**

- Ofgem proposal of rebate to transmission charges in Scotland
- This accepts principle of removing discrimination but comparison incomplete
- Need to see full comparison with distribution charging in England & Wales to provide full picture of potential discrimination
- Rebates will not reassure developers or financiers

## **BETTA & Smaller Generators - Transmission**



### **– CUSC obligations**

- Smaller generators should be exempt from CUSC provisions
- Automatic signing over of liability to grid operator/supplier
- Creates level playing field
- Allows for more simple management of grid system by avoiding “too many cooks” scenario



## **BETTA & Smaller Generators - Transmission**



### **– Postage stamp & cost-reflectivity**

- Locational signals appropriate to encourage sensible connection
- Locational signals need to be
  - Proportionate
  - Equitable
  - Bankable
- Signals need to recognise wider Energy Policy agenda

## BETTA & Smaller Generators - Transmission



### – Appropriate cost-reflectivity

- To ensure that deliver effective grid management and connection without penalising operation in Scotland Scottish Renewables has proposed:
- Develop dual charge
  - Postage stamp main charge = GB average TUoS
  - Secondary charge to encourage locational response
  - Secondary charge to be set at +/- 100% of main charge



Maf Smith ~ Development Manager

Tel: 0141 249 6705

Email: [maf@scottishrenewables.com](mailto:maf@scottishrenewables.com)

Web: [www.scottishrenewables.com](http://www.scottishrenewables.com)



# Small generator issues under BETTA

David Haldearn  
Director, BETTA project

## Next steps

- Progress towards implementation
- GBSO negotiation of GB agreements with users
- Codes and documents approaching final versions from April
- Royal Assent by July leading to period of 'Go Active' where aspects of the arrangements begin to get switched on, e.g. entry processes
- 'Go Live' in April 2005 and GB wholesale trading begins



ofgem

Promoting choice and value for all  
gas and electricity customers