

# Distributed Generation Enduring Regime

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National Grid Response to Ofgem Consultation

# Structure

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- ◆ The Problem (National Grid perspective)
- ◆ The Options
- ◆ National Grid preferred way forward

# The Problem - National Grid Perspective

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- ◆ All generation has an effect on transmission flows
- ◆ Previously, volumes of distributed generation have been too small and dispersed to be significant for transmission
  - ◆ 100MW threshold set by DTI
  - ◆ Generation below this threshold treated as negative demand
- ◆ Government policy now promoting distributed generation
  - ◆ ROCs and DNO incentives
  - ◆ Many embedded projects
- ◆ Unlicensed EG forecast to grow from 7GW to 10GW by 04/07
  - ◆ National Grid making huge investments for generation that is not seeing a charge

# Requirements on National Grid

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- ◆ Licence Conditions

- ◆ Facilitate competition
  - ◆ level playing field
- ◆ Cost reflective charging
  - ◆ Incentives to embed not cost reflective
- ◆ Reflect developments in transmission
  - ◆ BETTA, government policy, DNO incentives
- ◆ No undue discrimination
  - ◆ Transmission charges not consistently applied

- ◆ Ability to demonstrate efficient investment

# Transmission Issues

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- ◆ Lack of transmission rights
  - ◆ directly connected generators have TEC
  - ◆ who is exporting onto transmission from GSPs?
    - ◆ The embedded generator/ DNO/ Supplier?
- ◆ How to commercially constrain down Exporting GSPs?
- ◆ Unlicensed EG not exposed to location decisions
- ◆ Inconsistencies in contractual framework
  - ◆ BELLA v BEGA
  - ◆ 132kV connected generators

# How is this resolved?

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- ◆ Time is right to review present arrangements
- ◆ Important to consider rights as well as charges
- ◆ Consistently apply transmission charges across generation, not just to those above 100MW

# Options (1)

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- ◆ Option 1 - Do Nothing
  - ◆ Not consistent with present situation
  - ◆ CAP093 is Catch 22
- ◆ Option 2 - De-energise spilling plant
  - ◆ Would be an admission of failure of the current regime
  - ◆ Not viable, need a commercial solution
- ◆ Option 5 - Reduce 100MW threshold
  - ◆ Helps, but to what level, and how justified?
  - ◆ Incentive to structure projects below threshold
  - ◆ Everyone to contract with National Grid?

# Options (2) - Charging Model Tweaks

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- ◆ Option 3 - Add 132kV Scottish EGs to DCLF ICRP
  - ◆ solves only a tiny fraction of the problem
- ◆ Option 4 - extend DCLF ICRP to bits of distribution
  - ◆ does not come with associated contractual framework
  - ◆ looks like DNO or DSO Agency model if it did
- ◆ Option 6 - separate transport and tariff models
  - ◆ agree with consistent liability concept
  - ◆ but retains arbitrary embedded benefit
  - ◆ still leaves residual charge to allocate non-discriminatorily

# Options (3) - Agency Models

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- ◆ In principle, all the Agency models provide a sustainable solution to distributed generation
- ◆ DSO Agency Model
  - ◆ 14 new SOs and BMs or National Grid SO to manage 132kV
  - ◆ Either of the above require primary legislation
  - ◆ Vast change to contractual frameworks
  - ◆ Disproportionate
- ◆ DNO Agency Model
  - ◆ Attractive - physical alignment
  - ◆ Interaction in BM
  - ◆ New role for DNO
    - ◆ incentives
    - ◆ price control re-opener
    - ◆ conflict of interest
  - ◆ Methodology to pass charges to Suppliers



**Supplier Agency Model preferred**

**nationalgrid**

# Supplier Agency Model

- National Grid preferred solution

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- ◆ Minimum level of reform to address EG
- ◆ Delivers many benefits
  - ◆ formally confers rights to export from GSPs to Suppliers
  - ◆ provides consistent liability across generation
  - ◆ cost reflectivity delivered by including distributed generation in DCLF ICRP model
  - ◆ clear operational interface

# Supplier Agency Model Principles

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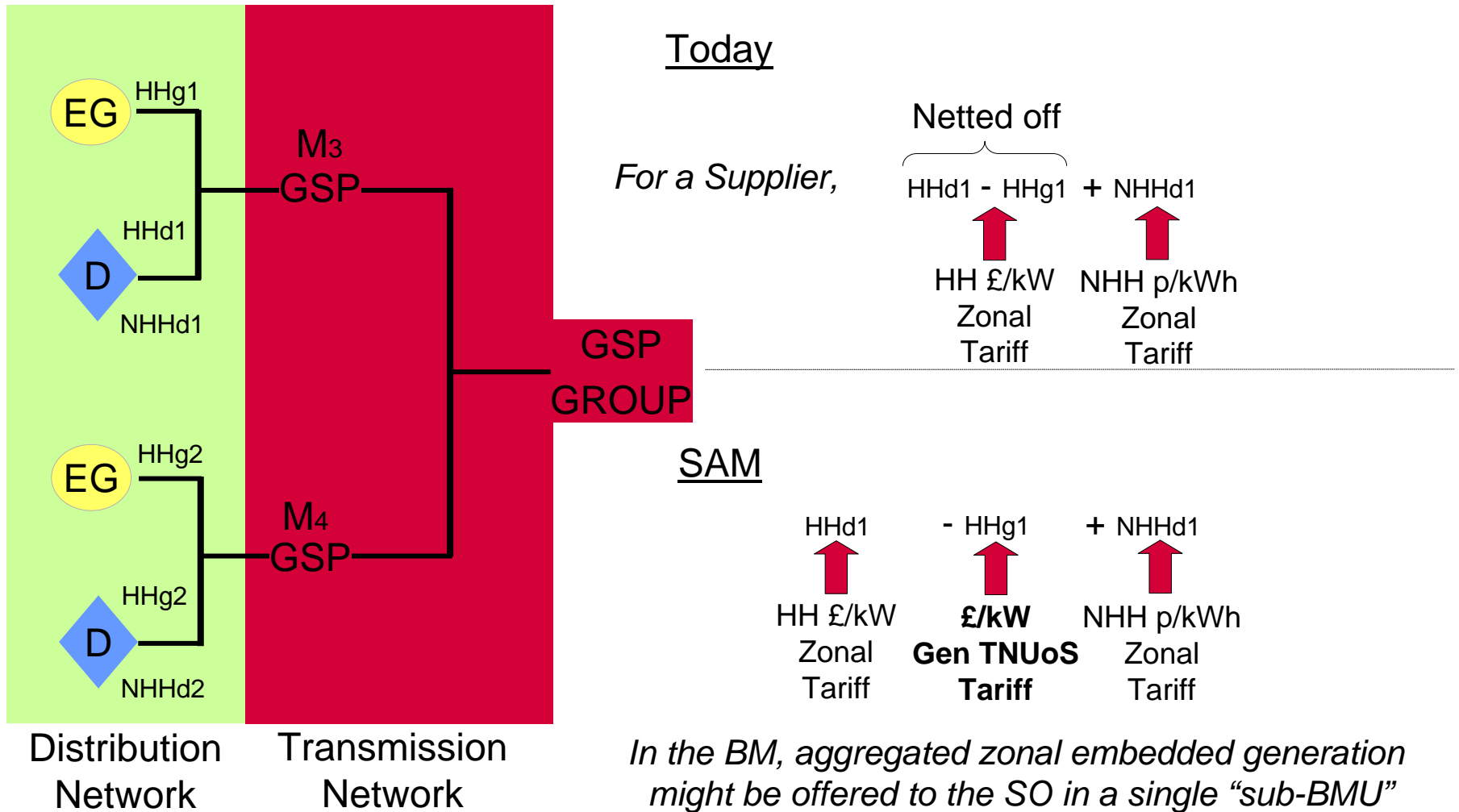
- ◆ Generation to be treated equally whether transmission or distribution connected
- ◆ Suppliers would be given zonal export rights (not nodal TEC) for unlicensed embedded generators
- ◆ Suppliers would be charged/ receive generation TNUoS for MW installed embedded generation
- ◆ Indirectly exposes unlicensed embedded generation to the full cost of a location decision
  - ◆ assumed Supplier pass through

# Supplier Agency Model Charging Process

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- ◆ Establish installed EG capacity at each GSP node
  - ◆ Need to consider the appropriate deminimus level
- ◆ Three ways to do it:
  - ◆ supplier provides information
    - ◆ lowest cost solution
  - ◆ IS changes to SVA settlement system
    - ◆ access to HHd, NHHd & HHg metered data
  - ◆ Sub-BMU for unlicensed embedded generators?
    - ◆ operational benefits/ visibility
- ◆ Include EGs in DCLF ICRP model
  - ◆ may require information from DNOs to map EGs to nodes
- ◆ Charge/ pay Suppliers according to current charging methodology

# Supplier Agency Model



# Supplier Agency Model Benefits

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- ◆ Removes discrimination
- ◆ Removes perverse incentives to embed
  - ◆ exposure to cost reflective charges
  - ◆ more efficient National Grid investment
- ◆ Maintains Supplier interface
- ◆ Sustainable
- ◆ Creates commercial avenue to manage operational issues
- ◆ Larger charging base, therefore potential for lower overall tariffs

# Next Steps

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- ◆ Ofgem Workshops
  - ◆ January 19th (Glasgow) and 24th (London)
- ◆ Communication to industry
- ◆ Gauge industry thoughts on viability of proposal