Distribution Charging

Embedded Generation

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Charging Methodologies

- Distribution charging methodologies are ‘common’ across all 14 DNO areas
- Developed through Ofgem’s Structure of Charges Project
- CDCM implemented for demand and generation in April 2010 – LV and most HV connections
- EDCM implemented for demand in April 2012 and for generation in April 2013 – EHV and some HV connections
- Two variants of EDCM – FCP and LRIC
- Methodologies incorporated into DCUSA

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Allowed Revenue

- Price control determines revenue requirements to enable DNO to fulfil it's Licence objectives
- Price control formula establishes annual revenue
- Charging methodologies allocate revenue to end users
- Revenue collected through tariffs
- Both allowed revenue and collected revenue can vary during charging year
- Price control formula allows for over / under recovery

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CDCM Demand Charging

- CDCM based on ‘500MW’ approach
- Emphasis on reinforcement costs with some other costs allocated
  - Replacement costs excluded
- Simple tariff structures for NHH metered sites
  - Fixed charge and unit rate
- More complex tariff structure for HH metered sites
  - Fixed charge, capacity charge and unit rates (kWh and kVArh)
- Fixed adder scaling used to adjust ‘yardstick’ revenue to revenue required

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EDCM Demand Charging

- EDCM based on either FCP or LRIC modelling
- Power flow modelling used to establish future cost of reinforcement
  - Replacement costs excluded
- Charges calculated on a site specific basis
- Tariff structure based on fixed charge, capacity charge and single ‘Super Red’ unit rate
- Fixed adder scaling used to adjust ‘yardstick’ revenue to revenue required

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Generation Charging

- Generation charges calculated using same models as demand
- Modelling calculates both charges and credits
- Charges based on generation ‘costs’
- Credits based on notional demand cost ‘offset’
- Pre-2005 generation were able to apply for a 25 year exemption to charges due to previous ‘deep’ connection charges

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CDCM Generation Charging

- Generation deemed to offset reinforcement cost at voltages above connection
- Un-scaled ‘yardstick’ demand charge paid as credit
- Single unit rate credit for NHH metered sites
- kWh unit rates based on intermittent or non-intermittent for HH metered sites – Single or Three unit rate
  - kWh credit plus kVArh charge for LV HH metered sites
  - kWh credit plus fixed charge and kVArh charge for HV HH metered sites
- HV fixed charges based on additional service model costs – no additional charges at LV

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EDCM Generation Charging

- Charges based on:
  - Socialised allocation of DG incentive revenue
  - Site specific allocation of sole use asset costs
- Credits applied if deemed to support the network
  - Power flow modelling determines level of credit based on demand charge reinforcement costs
  - Non-intermittent deemed to support network (ER P2/6)
- Tariff structure based on:
  - Fixed charge – Sole use assets
  - Capacity charge – Socialised DG incentive + GSP credit (if applied)
  - 'Super Red' kWh unit rate credit

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Distribution Charging Development

- CDCM and EDCM incorporated into DCUSA
- DCMF hosted by DNOs to discuss charging methodology
- MIG meets to progress specific issues, including sub-groups where required
- DCUSA change proposals raised when sufficient understanding of the solution is known
- DCUSA working group finalise proposal, including impact analysis and consultation
- DCUSA parties vote on proposal
- Ofgem have final decision on charging changes

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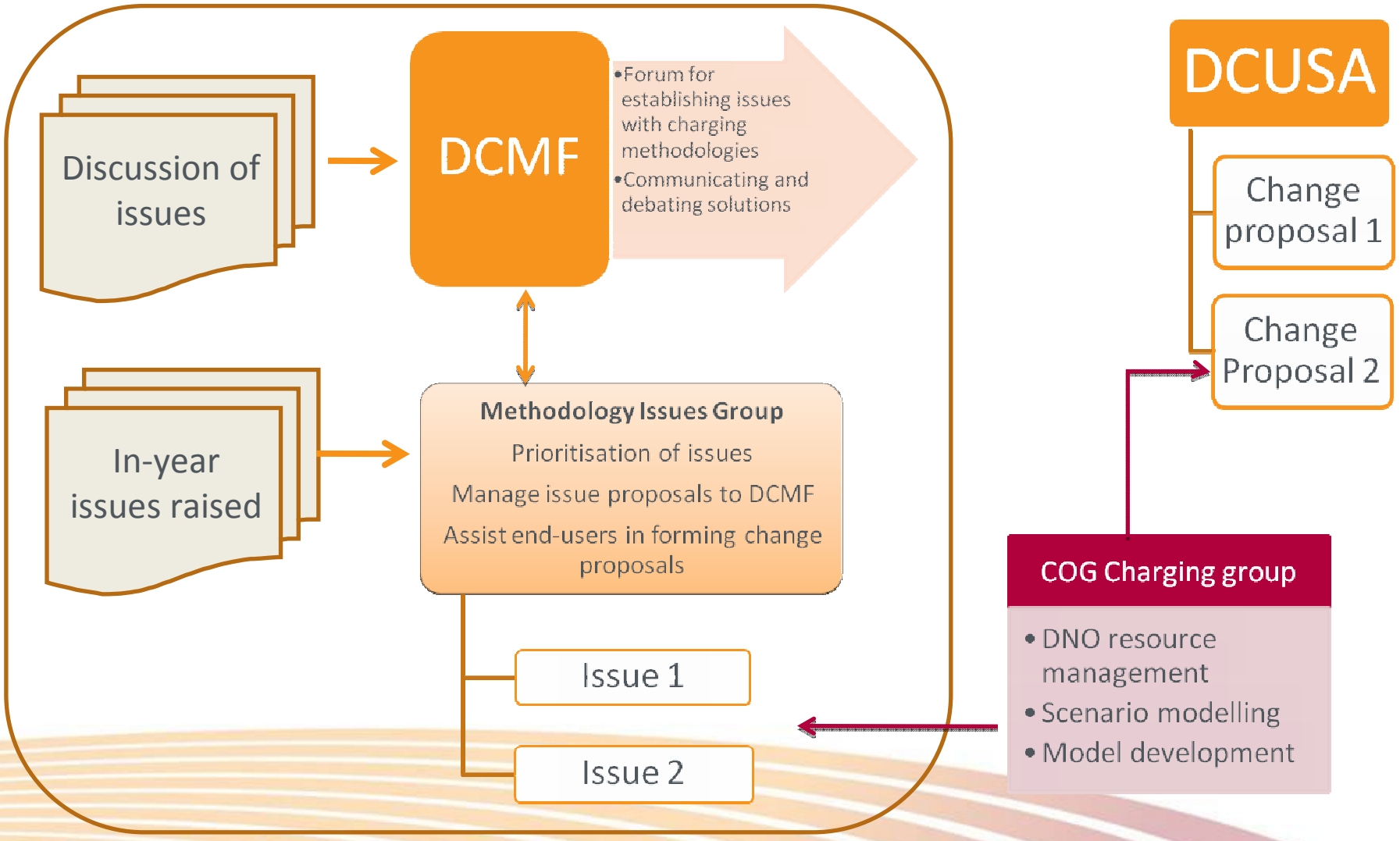
Methodology Changes



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Glossary

- CDCM – Common Distribution Charging Methodology
- EDCM – EHV Distribution Charging Methodology
- DCUSA – Distribution Connection and Use of System Agreement
- DCMF – Distribution Charging Methodology Forum
- MIG – Methodology Issues Group
- FCP – Forward Cost Pricing
- LRIC – Long Run Incremental Cost

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Thank you

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