

The Retail Electricity Market

Retail Market Design

Introduction

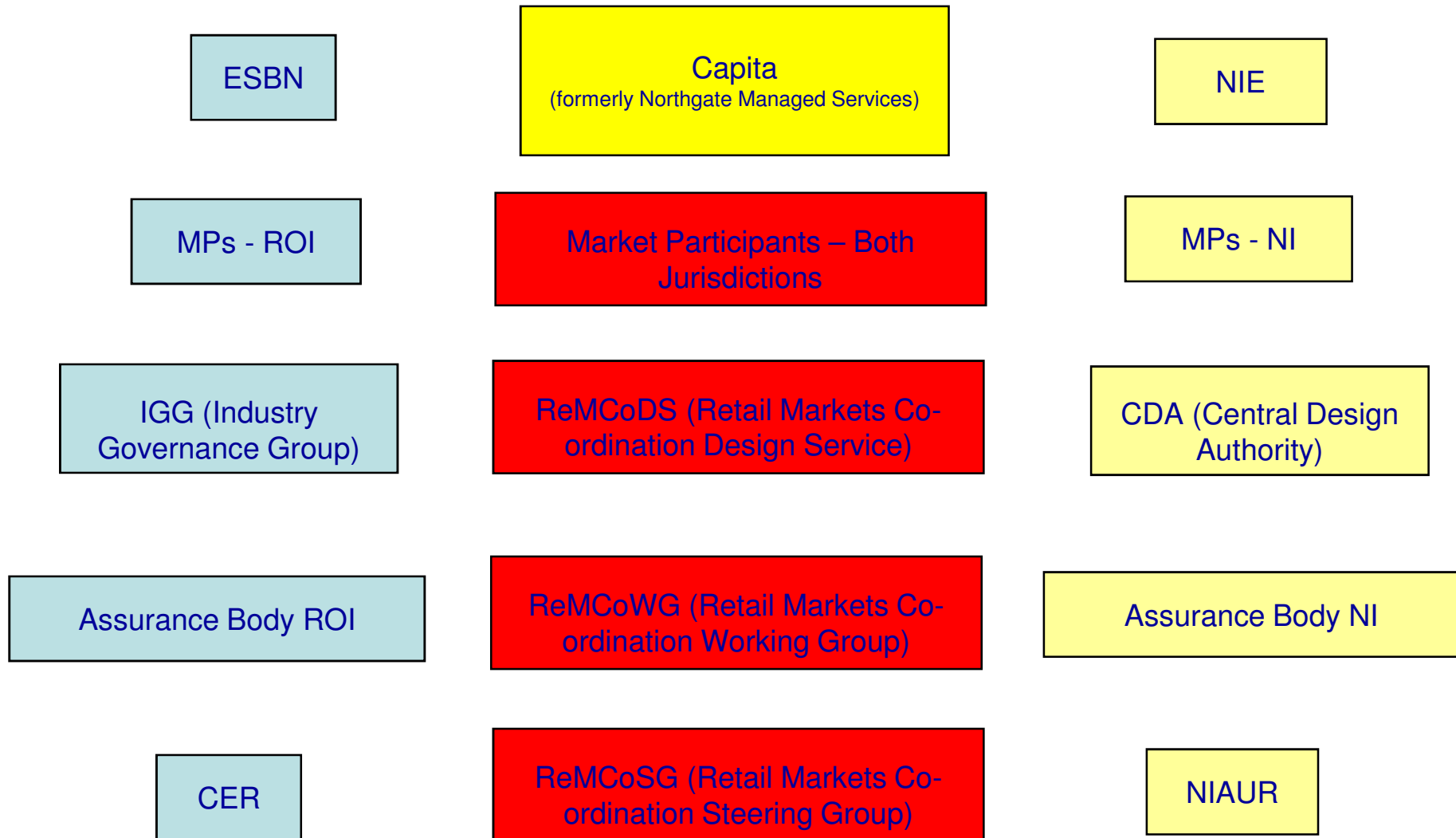
- ❑ The following presentation is a brief description of the processes and procedures involved in the Retail Market Design.
- ❑ This document has been created with New Market Entrants in mind, to provide an overview of how the design functions. It includes short descriptions of the main processes and key learning points.

Agenda

- ❑ Structure of the Harmonised Retail Market
- ❑ Structure of the ROI Retail Market
- ❑ Ownership of the design
- ❑ Scope of the Design
 - Market Messages
 - Market Process Documents
 - Other Documentation
- ❑ Key Processes MPDs
- ❑ Explanation of Design Elements
- ❑ PrePayment Meters
- ❑ Provision of Customer Data to Suppliers

Structure of the Harmonised Retail Market

Structure/Stakeholder Chart



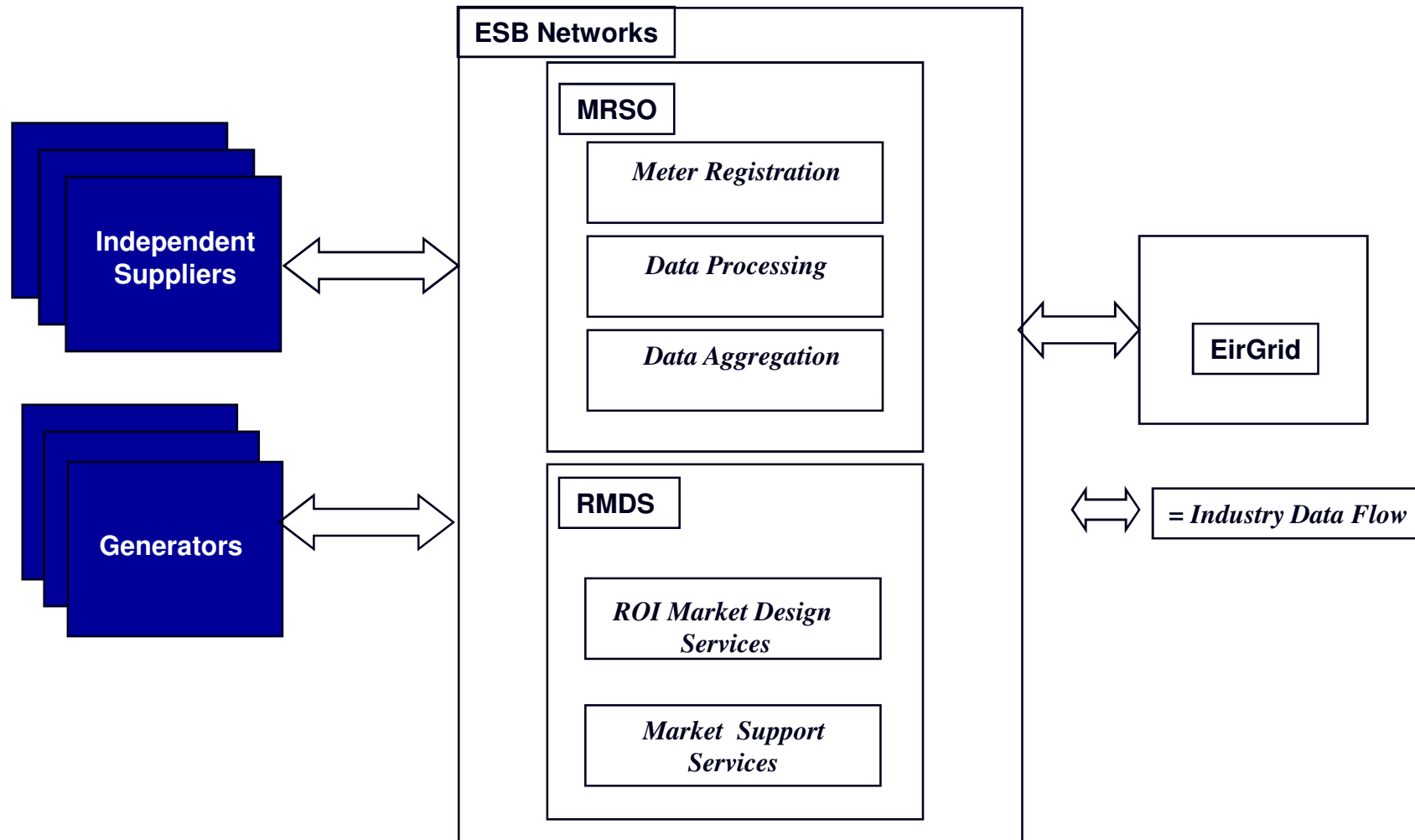
Retail Market Design Service



Structure of the ROI Retail Market



Structure of the ROI Retail Market



Ownership of the Design

Ownership of the Design

- ❑ The Retail Electricity Market Design is maintained by RMDS which is the "ring-fenced" function within ESB Networks responsible for all aspects of the design, on behalf of the Commission for Energy Regulation (CER)
- ❑ The design of the Retail Market was constructed by the MOIP (Market Opening IT Programme) team in 2005 and approved for implementation by CER
- ❑ Since Go Live in 2005 there have been a number of Market releases delivering changes or amendments to the system design
- ❑ Any proposed changes to the design of the Market are firstly discussed at the IGG (Industry Governance Group) and must be approved by MPs
- ❑ All design documentation must be approved by CER before being implemented and delivered to the Market Participants

Scope of the Design

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- ❑ The Retail Market Design consists of:
 - Market Messages
 - Market Process Diagrams (MPDs)
 - Market Process Flows
 - Design Documentation - including Working Practices
- ❑ Full detail on Market Process Documentation can be found on the RMDS website at:
www.rmdservice.com/market_design_10_0/index.htm
- ❑ The Retail Market Design ranges from a high level end-to-end view of each Market Process to a detailed view of each Market Message.
- ❑ The Retail Market Design covers the detail of how the messaging process works and provides a detailed description of the lifecycle of each Market Message.

Scope of the Design

- ❑ **Market Messages – 91 in total**

- ❑ Market Message traffic issues between Market Participants and ESB Networks in a number of different instances

- ❑ Market Messages sent by MPs to ESB Networks would commonly involve the following requests:
 - Change of Supplier (CoS)
 - New Registration
 - Meter Works
 - Change of Customer Details

- ❑ Market Messages sent from ESB Networks to MPs would normally be in response to MP requests or to provide data and information to MPs for billing purposes

Scope of the Design

Market Process Diagram – MPD

- ❑ There are 42 MPDs included in the Market Design
- ❑ The MPD displays in flowchart form the events in the particular process from the initiation of the request to the end point, when the request is delivered
- ❑ The MPD details the Market Messages required in each process
- ❑ The Market Processes are documented at a high level diagrammatically and supporting descriptive text is included to provide a more detailed explanation
- ❑ To design a new Business Process an MPD must to be documented

Scope of the Design

Other Documentation

- ❑ The following Retail Market documentation is contained here:
 - Briefing Documents
 - History of Changes and Open Non-Conformances
 - Market documentation Framework Index
 - Market Message MPD Matrix
 - User and Technical Information
 - Working Practices

- ❑ All relevant documentation can be found on the RMDS website at:
 - ❑ www.rmdservice.com/market_design_10_0/index.htm

Key Processes - MPDs

Key Processes - MPDs

- Business Process Diagrams are grouped in a number of main areas:
 - Change of Supplier
 - Customer Data Changes
 - Data Processing and Aggregation
 - Distribution Use of System
 - Meter works
 - New Connections
 - Unmetered

- The following slides provide a high level walkthrough of these key processes

Change of Supplier (CoS) Processes

Change of Supplier (CoS) - MPD 01, 02, 03, 04

- ❑ MRSO will select a reading for use as the CoS read based on Supplier instructions
- ❑ Where reads cannot be obtained MRSO will generate an estimate, with agreement from the New Supplier
- ❑ Successful CoS requests will trigger energisation of the site where the electricity supply is not energised
- ❑ Debt Flagging – background and procedures/actions for Old & New Suppliers are documented in Working Practice 20
- ❑ A CoS request can be combined with limited meter works requests
- ❑ CoS Objection process is a mechanism for use where a customer is transferred erroneously to a new Supplier
- ❑ COS Process for QH (Interval) customers is similar and COS request message must specify a required date.

Customer Data Changes Processes

Change of Customer Details - MPD 24

- ❑ Process includes changes to:
 - Meter Point Address
 - Customer Name
 - Customer contact details
 - Usage type (i.e. DUoS Group)
- ❑ Suppliers should inform DSO of Customer Details changes as per their Use of System Agreement
- ❑ Multiple changes on a 013 message may trigger multiple rejection/acceptance response messages from ESB Networks. This can be avoided by sending a separate 013 message for each change requested

Change of Legal Entity Process

Change of Legal Entity (CoLE) - MPD 25

- ❑ Reading - For Non Maximum Demand (MD), NQH (Non-Interval) sites, Suppliers may provide a meter reading. Otherwise, an estimate will be generated
- ❑ Change of Legal Entity requires the Distribution System Operator (DSO) to obtain a new Connection Agreement
- ❑ For smaller customers this may be a Deemed Connection agreement

Data Processing & Data Aggregation Processes

NQH (Non-Interval) Meters – Data Processing MPD 14

- ❑ A meter reading, is sent to the Supplier every two months
- ❑ An estimated reading is sent in cases of no access or where a plausible read was not obtained
- ❑ NQH (Non-Interval) scheduled readings may be received on either Market Message 300 or 305, depending on the read type issued
- ❑ Message 300 may contain a mixture of actual and estimated readings
- ❑ Meter reads may be provided by Suppliers on message 210 for various purposes e.g. COS, COLE, customer read for billing etc.
- ❑ Supplier provided reads can be rejected for various reasons e.g. incorrect MPRN, Supplier not registered etc.

NQH (Non-Interval) Meter Readings – Withdrawal Process

In certain circumstances MRSO may choose to reverse a reading. Examples include:

- Where a CoS read is disputed and that dispute is upheld
- Where an estimate is subsequently proved incorrect
- Where a reading is sent for an incorrect meter, register etc.

DUoS (Distribution Use of System) Processes

DUoS Billing - MPD 34

❑ DUoS Charge Billing

- Suppliers are invoiced twice a month

❑ Transactional billing

- Suppliers are invoiced at month end for transactions carried out in that month

❑ PSO Billing

- Suppliers are invoiced for customers registered to them at month end

Invoices, plus supporting documentation, are sent to the supplier via CD Rom. Hard copies of documents are also issued

DUoS and Transactional Billing Disputes

(Market Process MPD 34)

Upon receipt of the DUoS bill a Supplier may choose to:

- Accept the invoice and pay in full by EFT
- Raise a Designated Dispute and send payment for all non disputed items. In this case the Supplier should notify ESB Networks of all disputed items by sending a 507 message for each item
- Raise a Non Designated Dispute and send payment in full for the amount on the invoice. Such disputes should be communicated manually to the office stated on the DUoS invoice
- In all cases the Supplier should send a 507C as this allows Networks to allocate the Supplier's payments against the current and any previous invoices

PSO Billing Disputes Process

(Market Process MPD 34)

- ❑ All PSO disputes, designated or non designated, should be communicated manually to ESB Networks
- ❑ Suppliers cannot withhold payment for any PSO related disputes
- ❑ For further details see 'DUoS, Transaction and PSO Payment Processing' on RMDS website

New Connections Processes

New Connections - MPD 05, 06, 07

- ❑ New Connections process is initiated by the customer
- ❑ Supplier registrations may take place when the MPRN number is assigned for a site
- ❑ Information to assist in the generation of a valid request is available via the RMP Extranet web-site
- ❑ Customers under 30 kVA will default to the Supplier of Last Resort five days after energisation of supply, if no Supplier registration has been received by MRSO
- ❑ For other customers a Supplier registration request is required before energisation
- ❑ Similar process exists for QH (Interval) customers

Meter Works Processes

Meter Works MPD 08, 09, 10, 11, 12, 35

- ❑ Appointments can be flagged (for certain call types only)
- ❑ Readings will be provided for all cases where Meter Works have taken place
- ❑ The processes for de-energisation and reenergisation follow a similar path

Explanation of Design Elements

QH, NQH & Unmetered Sites

- ❑ QH (Interval) site is generally defined as a high consumption site where meter reads are taken on a quarter hourly basis and sent from ESB Networks to Suppliers via the 341 Market Message. QH meter points must have a kW import and kVAr import channel.
- ❑ NQH (Non Interval) site is defined as a low level consumption site where meters are scheduled to be read bi-monthly.
- ❑ Unmetered site is defined as a site where electricity consumption is not measured via a meter, e.g. Public Lighting for street lights, traffic lights etc.

Quarterly Hour (Interval) Meters

- ❑ A QH (Interval) site may physically have multiple readers and recorders. Only one meter will be used to communicate with the Market. Totalising of multiple meters into a single data stream (per channel) is performed by ESB Networks
- ❑ ESB Networks applies Multiplier factors and/or Transformer Loss Factors prior to sending interval data to MRSO.
- ❑ ESB Networks sends 15 minute interval data to Market Participants daily, via the 341 message
- ❑ TLF is communicated on the 341 message
- ❑ Multiplier factor is not communicated to the Market

QH (Interval) Meters and who receives the 341 Message

- ❑ **Suppliers** For MPRNS registered to them:
 - Gross Import kW
 - Net Import kWh (autoproducer sites only)
 - Import kVA

- ❑ **Generators** For their site:
 - Gross Export kW
 - Export kVAr (if measured)

A Generator can nominate a Supplier to receive messages on his behalf

- ❑ **TSO (EirGrid)** For all MPRNs:
 - Same data as Suppliers for all MPRNs

PrePayment Meters

ESBN/CER Prepayment Solution

- ❑ In November 2010, CER directed that Suppliers must offer customers the option of accepting a budget controller as an alternative to disconnecting supply for non payment of accounts
- ❑ Solution was implemented by replacing the existing credit meter with a Keypad Meter with the dual functionality of both PrePayment and meter of record.
- ❑ Installation of Keypad Meters is confined to Domestic customers in financial hardship
- ❑ Allocation of numbers of eligible customer per Supplier is decided by CER and corresponds to Supplier Market share
- ❑ Costs are socialised across the entire customer base
- ❑ Working Practice 19 details the Core Assumptions and Business Rules applicable to PrePayment

Downstream Devices

- ❑ It is important to distinguish between the solution identified above versus a Suppliers own downstream budgeting device solution that they may wish to offer customers.
- ❑ A downstream device exists on the customers side of the meter.
- ❑ There is currently no market design covering these devices although CER requires detailed discussion with the New Entrant around this offering.
- ❑ ESB Networks is also able to provide limited technical discussion around the offering to ensure that there are no technical/safety breaches. Contact RMDS to discuss further

Provision of Customer Data to Suppliers

- ❑ Extranet Website – access enables Suppliers to:
 - Retrieve data associated with an MPRN e.g. the Meter Point Address etc. to facilitate the COS Process and the collection of customer meter reads
 - Be advised of **new MPRNs** (new connections to the electricity network) and their associated datasets.
 - Use a look up facility that enables them to view the **Appointment timeslots** available for a specific Meter Point (**MPRN**) and Work Type combination.
 - Access arranged through RMDS <https://www.esbextra.ie/netlogon/jsp/logon.jsp>
- ❑ Downloadable Meter Points File
 - Regularly refreshed files containing all Metered and Unmetered Meter Point details, updated & available for download on 10th of each month, by authorised Supplier contacts.
 - Access to the ESB Networks Secure File Transfer Service enables files to be downloaded through an encrypted tunnel.
 - Access arranged through RMDS <https://secure.esb.ie/SFE/Logon.aspx?ReturnUrl=%2fSFE%2fdefault.aspx>.