

#### All-island European Stakeholder Forum

22 September 2016 Dublin





### Agenda

- 1 Welcome & Introductions
- 2 RA update on regulatory developments
- 3 TSO update on European Network Code developments
  - Market Guidelines
  - Operations Guidelines & Connection Codes
- 4 TSO update on European Network Code Implementation
  - European Network Code Implementation Programme
  - Regional Implementation

#### Lunch- 13h00-14h00

- 5 EU policy update
- 6 Update on Multi-Regional Coupling & XBID
- 7 NEMO update on Day-ahead and Intraday developments
- 8 Future stakeholder engagement & communication
- 9 Q&A and Close









#### 1. Welcome & Introduction

Elaine Gallagher (CER) Leigh Greer (UR)





# Background

The drafting of the future European rules for electricity is nearing completion

• Tasks for implementation (in addition to I-SEM) are ramping up!

SEM Committee requests to increase the level of stakeholder engagement (29 July paper)

 "Market participants should be facilitated in appropriately contributing to discussions at a European level on issues relating to the European Network Codes including matters relating to the Nominated Electricity Market Operator (NEMO)."

#### Re-establishment of the All-Island Forum for EU Stakeholders

#### (aim to meet at least quarterly)

- Provide an overview of European developments
- "Allow market participants to feed into discussions on European Network Codes & facilitate presentations by industry representative groups."









#### 2. Regulatory developments

CACM update

- MCO Plan
- NEMO Regulation
- Capacity Calculation Regions
- Products Accommodated







# Overview

- Third Energy Package (Regulation (EU) 714/2009)
- Network Code Status

#### Comitology

Electricity Balancing Emergency and Restoration

#### Positive ECBC vote

(now in scrutiny process) SOGL (May 2016) FCA (Oct 2015) Entry into force

HVDC (26 Aug 2016) RfG (17 May 2016) DCC (18 August 2016) CACM (14 Aug 2015)

- Transitional period of 3 years
- CER Roles
  - Ensure compliance of the TSO & DSO & their obligations under EU legislation
  - Monitor network codes implementation in Ireland
  - Regulatory approvals as required







# Connection and System Operation Codes

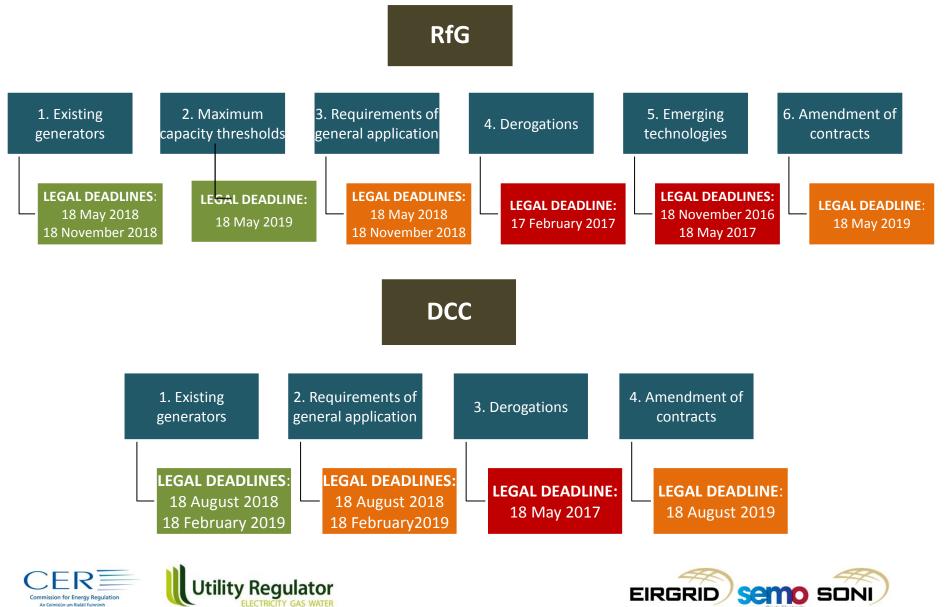
RFG – Requirements for Generators	<ul> <li>Industry- emerging technologies, derogations</li> <li>System Operators</li> </ul>
DCC – Demand Connection	<ul><li>DSO interactions</li><li>Demand connections</li></ul>
SO – System Operation	<ul><li> Operational parameters</li><li> Balance services</li></ul>
HVDC – High Voltage Direct Current	• Interconnectors
ER – Emergency Restoration	<ul> <li>Emergency operational procedures</li> <li>Generators and market suspension</li> </ul>







# **Next Steps**



# Interactions

- System Operators
- Industry
- Regulators in the adjacent Member States
- Government Departments
- European Institutions & Associations







#### 3. Network Codes

Mark Lane (EirGrid) Eoin Kennedy (EirGrid) Lisa McMullan (EirGrid)

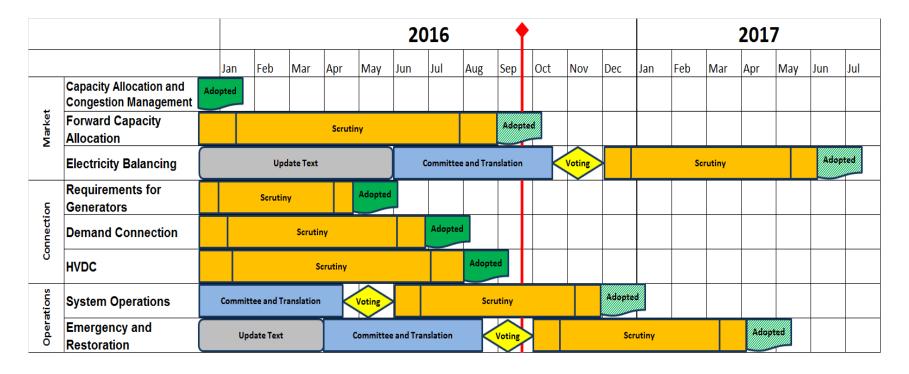




### Network Code development status

- **CACM** (24 Jul/ 14 Aug 2015 ) 🗸  $\checkmark$
- **RfG** (14 Apr/ 17 May 2016) **FCA** (Q3 2016)
- **HVDC** (26 Aug 2016)
- **DCC** (17 Aug/ 07 Sept 2016) **SO** (Q4 2016)  $\checkmark$

- **EB** (2017) 0
  - **ER** (2017) 0











#### Market Code Status

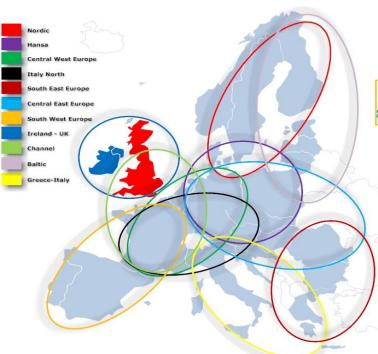


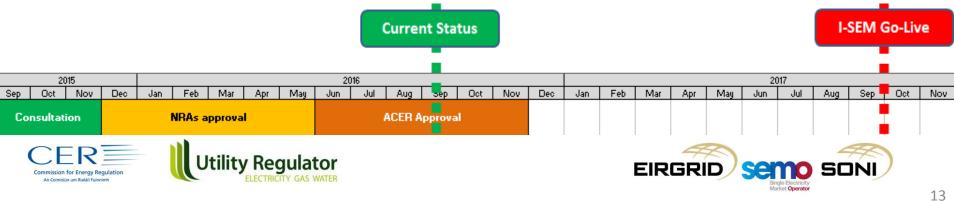


# **Capacity Calculation Regions**

Timeline for ACER CCRs decision is as follows:

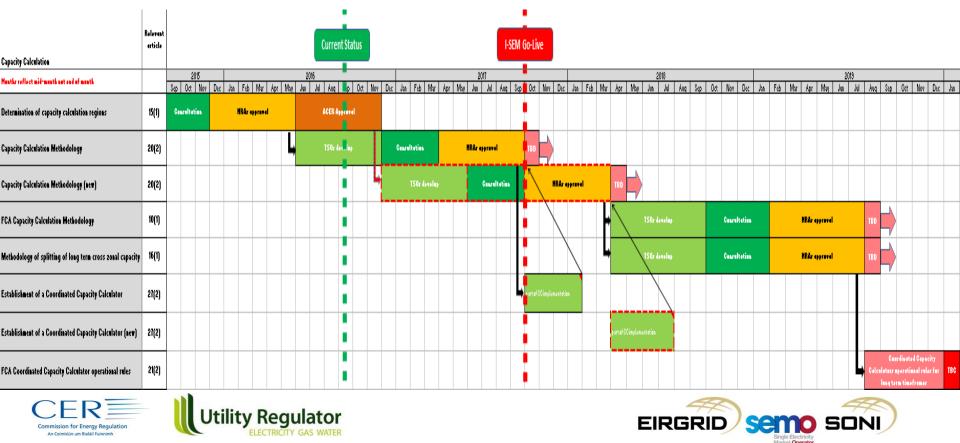
- Nov '15: TSO proposal submitted to NRAs
- 09 Sep: Deadline to provide first feedback from NRAs to ACER on the decision
- 16 Sep: Circulation of a new version in parallel to TSOs and NRAs - 3 week consultation
- 07 Oct: Deadline to provide comments from NRAs and TSOs to ACER
- 14 Oct: Updated version to ACER Board of Regulators
- 09 Nov: Approval of the decision by ACER Board of Regulators
- 17 Nov: ACER deadline to approve the CCRs





# **Capacity Calculation Methodologies**

#### CCR determination delayed 6 months Impacts on Capacity Calculation methodologies timelines



## **CGM & GLDP Methodologies**

#### TSOs submitted proposals in June 2016 NRAs approval of proposals expected by December 2016

	Relevant article	ş						Current Status								I-SEM Go-Live																	
Months reflect mid-month not end of month				2015		$\square$					20										2017												2018
		Sep	ep Oct	<u>.</u> No	lov Dec	2 Jan	i Feb	) Mar	Apr	May	Jun	Jul	Aug	oep Oct	Nov	Dec	Jan Feb	Mar	Apr	May J	Jun Ji	ul Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Generation and Load Data Provision Methodology	16(1)				TSOs d	develop			Consu	ultation			NF	As appro	val			Da	ta prov	sion pro	ocess is	operatio	nal			TBC							
List of entities to provide information & content of information & time schedules for provision of information	16(6)																see 16(1)																
FCA Generation and Load Data Provision Methodology	17(1)															Ļ	TSOs develop	(	Consult	ation			NRAs A	pprova	al		TBD	$\Rightarrow$					
Common Grid Model Methodology	17(1)				TSOs d	develop			Consu	ultation			NF	As appro	val			OPDE ope	rationa		TE	3 <b>C</b> C(	GM proce	ess is (	operatio	onal	TBC						
Establishment of process for IGM merging	27(1)															Ц,		GM mergir	ig proc	ess Ti	BC												
FCA Common Grid Model Methodology	18(1)															Ļ	TSOs develop	C	Consult	ation			NRAs A	pprova	al		TBD						
FCA Establishment of process for IGM merging																										Ļ		10	6M mer <u>c</u>	ging pro	cess	TBC	







# Redispatch & Countertrading Methodologies

**CCR determination delayed 6 months** 

#### Impacts on Redispatch & Countertrading methodologies timelines

	Relevant article									Curre	ent Stat	tus								I-SI	M Go	-Live																
Months reflect mid-month not end of month		Sep	2015 Oct Nev	Dec	Jan Fi	iob Ma	ar Apr	Max	2016 Jun J	Jul Aug		Oct	Nov	)oc d	Jan Fob	Mar	Apr Me		2017 Jul	Auq	Sop 📥 0	ct Nev	Dec	Jan	Fob 1	Mar A	Apr	May .	2018 Iun Ju	al A	uq Sop	Oct	Nov	Dec	Jan	Fob	Mar	Apr Ma
Determination of capacity calculation regions	15(1)		ultation			As appro					Apporal							.,																				
Coordinated Redispatching & Countertrading methodology	35(1)							÷			÷		TSC	s devel	lop				Consul	tation			NRAs ap	proval		т	BD											
Coordinated Redispatching & Countertrading methodology (new)	35(1)										i		÷					T\$0s	develop					Consulta	ation			NR	As appro	oral		TBD						
Redispatching cost sharing methodology	74(1)							÷	see R&D (	methodolo	ogy												NRAs ap	proval		s R	iee &D											
Redispatching cost sharing methodology (new)	74(1)												•	e R&D	methodolo	ogy					İ							NR	As appro	oval		see R&D						
Report assessing the progressive coordination and harmonisation of RD and CT mechanisms and agreements	35(3)							Ļ			ł								T\$Os d		1																	
Report assessing the progressive coordination and harmonisation of RD and CT mechanisms and agreements ( $\pmb{new}$ )	35(3)										:		Ļ								ł				T\$Os d	evelop						·			i			
Harmonisation of redispatching and countertrading methodologies across CCRs	74(7)																				1													-	TSOs devel op			o develop, gel 1 implement un 2018
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### **Day-ahead & Intraday**

**Methodology for Scheduled Exchanges** - TSOs expect to consult in October and submit to NRAs in Dec 2016

Day-ahead Fallback - CCRs not determined.

Day-ahead Firmness Deadline - Consultation finished. TSOs to submit to NRAs by Dec 2016

Intraday Cross Zonal Gate Opening and Closure Time - Consultation finished. TSOs submit to NRAs by Dec 2016

Algorithm Requirements - TSOs submitted to NEMOs in Apr 2016

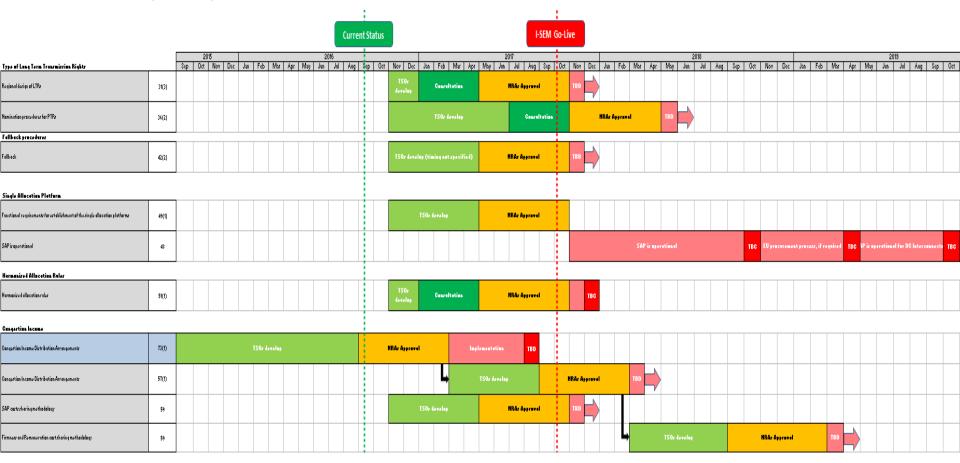
**Congestion Income Distribution** – TSOs submitted to NRAs in Aug 2016

			• • • • • • • • • • • • • • • • • • •										
		Cur	I-SEM Go-Live										
	Balauant arti-l-	2015 Sep   Oct   Nov   Dec   Jan   Feb   Mar   Apr   May   Jun   Jul   Av	In L Sep L	Det   Neu   Dec.	Jan Enh	2   Mar   Apr   May   Jun	017 L.Jul I.Aug	Sep Oct No		L Eeb J	Mar Arr		
Proposal for a common set of requirements to enable development of the Price	37(1)(a)	TSO develop requirements NEMOs develop NE	HOS refine	Consultat		NRAs Approv				i ieb	inai mpi		
Coupling & Continuous Matching Algorithm	37(1)(b)	NEMO develop requirements proposal	T\$0s										
Maximum and minimum prices	41(1),54(1)	NEMOs develop in cooperation with TSOs		Consu	ultation	NRAs Approv	al	тво					
Products	40(1),53(1)	NEMOs develop		Consu	ultation	NRAs Approv	al	тво					
Methodology for scheduled exchanges	43(1),56(1)	TSOs develop	C	onsultation		NRAs Approval	тво						
Backup methodology	36(3)	NEMOs develop in cooperation with TSOs		Consu	ultation	NRAs Approv	al	тво					
Fallback	44	TSOs develop	с	onsultation		NRAs Approval	тво						
Day Ahead Firmness deadline	69	TSOs develop	с	onsultation		NRAs Approval	тво						
Intraday Capacity Pricing	55(3)	TSOs deve	ор			Cons	ultation	NBA	s Approval		тво		
Intraday Cross Zonal Gate Opening and Closure time	59(1)	TSOs develop	C	onsultation		NRAs Approval	тво						
Complementary regional auctions	63	Relevant NEMOs and TSOs on bidding zone borders develop		Consu	ultation	NRAs of concerned Me Approve	mber States	тво					
Congestion Income Distribution Arrangements	73(1)	TSOs develop		NRAs Approv	al	Implementation	твр						
Arrangements for more than one NEMO in one bidding zone or new interconnectors	45(2), 57(2)	TSOs develop NRAs Appr	oval										

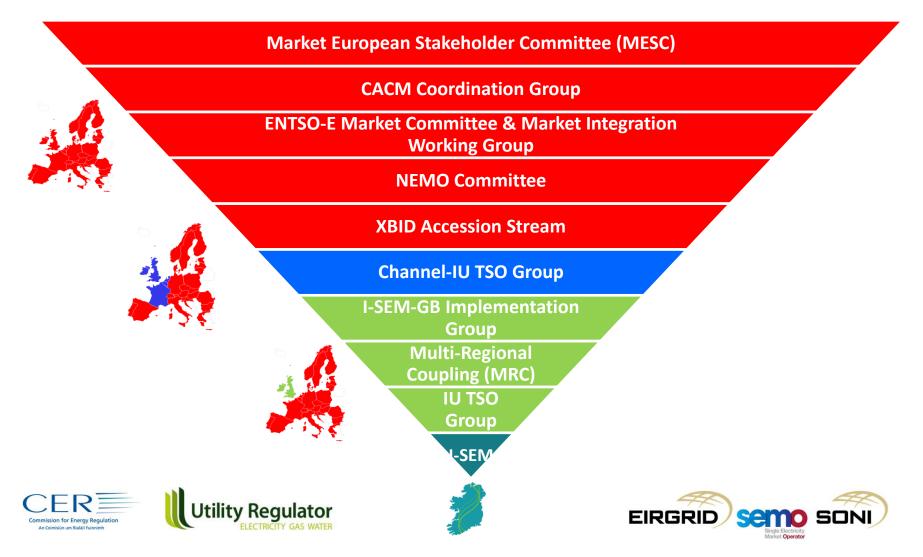
# **Forward Capacity Allocation**

**Harmonised Allocation Rules (early implementation)** – Consultation finished and submitted to NRAs in Jul 2016. NRAs on track with approval in Oct 2016 for allocation in Jan 2017. TSOs will finalise HAR following FCA EiF.

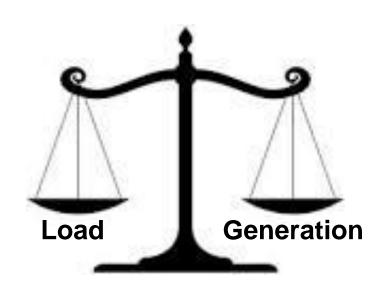
**Single Allocation Platform** – TSOs drafting proposal on functional requirements, governance and cost sharing arrangements.



# **EirGrid Group role on CACM & FCA**



### Market – Electricity Balancing (1/5)



- Balancing Key role of TSO
- Ensure supply and demand are equal in real time
- Electricity Balancing Guideline will set out rules for the operation of balancing markets





### Market – Electricity Balancing (2/5)

#### What will Electricity Balancing Guideline do?

- Set legal deadlines for integration of electricity markets
- Standardise rules for procurement of balancing capacity and energy
- Standardise balancing products across Europe
- Provide rules for balancing energy pricing and imbalance pricing
- Provide rules for reservation and use of cross-zonal capacity for balancing





# Market – Electricity Balancing (3/5)

# Standardise rules for procurement of Balancing Capacity and Energy....

#### DS3 System Services

• "'balancing capacity' means a volume of reserve capacity which a balancing service provider has agreed to hold and in respect to which the balancing service provider has agreed to submit bids for a corresponding volume of balancing energy to the TSO for the duration of the contract;"

## I-SEM

• "'balancing energy' means energy used by TSOs to perform balancing and provided by a balancing service provider;"







### Market – Electricity Balancing (4/5)

General principles are set but detail on some items is still under discussion, for example....

Timelines for achieving European Model Approach to achieving Target European Model Imbalance Settlement Period

Approach to Specific Products Balancing Capacity Procurement







## Market – Electricity Balancing (5/5)

European Cross-Border Committee Meeting (24<sup>th</sup>/25<sup>th</sup> Oct 16) European Cross-Border Committee Meeting - Vote

(Early 17)

Electricity Balancing Guideline Entry into Force (Mid 17)

**Expected Timeline** 









#### **Connection Code Status**





# **Requirements for Generators (1/2)**

- Technical requirements for all
  - Synchronously connected power generating modules
  - Power park modules (PPM)
  - Offshore PPMs
- Requirements are dependent on generator capacity & connection voltage
- Compliance simulations & testing requirements
- Derogations





## **Requirements for Generators (2/2)**

#### Entry into Force

<u>May 2016</u>

Not applicable to plant procured pre: <u>May 2018</u> Compliance Required by <u>May 2019</u>





# Demand Connection Code (1/2)

- Technical specifications for all:
  - Transmission-connected demand facilities
  - Transmission-connected distribution facilities
  - Distribution systems including closed distribution systems
  - Demand units used by to provide demand response services
- Compliance simulations & testing requirements
- Derogations





### **Demand Connection Code (2/2)**

#### Entry into Force

September 2016

Not applicable to plant procured pre:

September 2018

Compliance Required by September 2019





# HVDC Systems & DC Connected PPMs (1/2)

- Technical specifications for all:
  - HVDC systems connecting synchronous areas
  - HVDC systems connecting PPMs
  - Embedded HVDC systems connected to transmission systems
  - Embedded HVDC systems connected to distribution systems
- Compliance simulations & testing requirements
- Derogations





# HVDC Systems & DC Connected PPMs (2/2)

#### Entry into Force

September 2016

Not applicable to plant procured pre:

September 2018

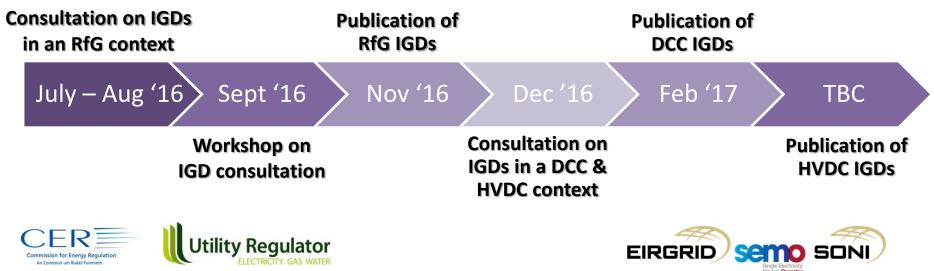
Compliance Required by September 2019





### **Implementation Guideline Documents**

- Arts 58/56/73: no later than 6 months after entry into force ENTSO-E shall prepare non-binding written guidance to it's members & other SOs
- 18 IGDs for Connection Codes





#### **Operation Code/Guideline Status**





# System Operation Guideline (1/2)

- Made up of three previous operational codes:
  - Load Frequency Control & Reserves Code
  - Operational Security Code
  - Operational Planning and Scheduling Code
- Rules for:
  - Maintaining a secure, coordinated & efficient system
  - Assessing operational security & adequacy analysis
  - Maintenance of assets on the power system & scheduling outages
  - Frequency control & reserve provisions
  - Common grid model requirements
  - Data exchange







### System Operation Guideline (2/2)

European Cross-Border Committee Meeting

**Positive Vote** 

Published in the Official Journal of the European Union (Q4 '16) System Operation Guideline Entry into Force (Q1 '17)





# **Emergency & Restoration (1/2)**

- Minimum standards for:
  - Managing emergency, black out and restoration situations
  - Simulations and testing of restoration plans
- System defence & restoration plans
- Market interactions
- Communications





#### **Emergency & Restoration (2/2)**

#### Draft text to member states

European Cross-Border Committee Meetings continuing Emergency & Restoration Code Expected Entry into Force (Mid '17)







#### 4. Network Code Implementation

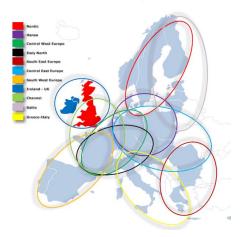
Peter Campbell (SONI) Lisa McMullan (EirGrid) Alan Kennedy (SONI)





#### **Network Code Implementation**







**Local** Beyond the scope of I-SEM

#### DEREMINISION FOr Energy Regulation An Combinin um Rualif Fundminh

Regional

#### **Pan-European**



## **Network Code Implementation**



#### Need to ensure:

- Operational readiness;
- Legal compliance including additional legislation REMIT, Transparency etc.;
- Timely process for modifications;
- Advocacy for regional / European implementation;
- Consultation.









#### **Connection Code Implementation**





## **Requirements for Generators**

- It is not intended to apply retrospection of the RfG Network Code at this time.
- Three major elements for implementation







## **RfG Banding & Requirements**

- Threshold values for banding:
  - Based on maximum capacity
    - Max continuous active power less house load.
  - Intended to maintain RfG maximum limits:

Туре А	Туре В	Туре С	Type D
0.8kW – 0.09 <sup>.</sup> MW	0.1 – 4.99 <sup>.</sup> MW	5 – 9.99 <sup>.</sup> MW	10 MW <

Requirements for each band will be defined

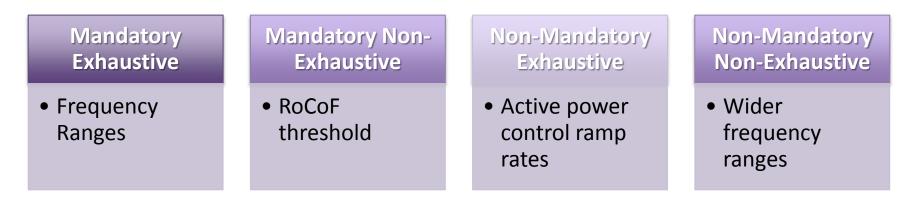






## **RfG Parameter Definitions**

• Four types of parameters



- Site specific & generic parameters too
- Intention is to maintain parameters that are currently in the Grid Codes as they are defined where possible.







## **RfG Implementation Plan**

Task	Timeline	
Banding consultation	Mid-Jan -> Mid Feb '17	
Submit report to Regulators for approval	Mid-March '17	
Approval from Regulators	Mid-April '17	
Parameter consultation	May –> Mid-June '17	
Submit draft report to Regulators	Mid-Aug '17	
Final report to Regulators	End-Sept '17	
Approval from Regulators	Nov '17	







## **RfG Stakeholder Engagement**

- Bi-weekly meetings with both TSOs and DSO/DNO
- Updates at GCRPs and DCRPs
- Quarterly Stakeholder Forums
- Pre-Consultation Forums
- Open Consultations







## **Other Connection Codes**

- DCC and HVDC
  - Same format as RfG
  - Await outcomes from RfG consultations
  - Additional consultation work in Sept '17
- DCC and HVDC Codes will be considered during RfG implementation stages
- Significant engagement required between TSOs & DSO/DNO for DCC requirements







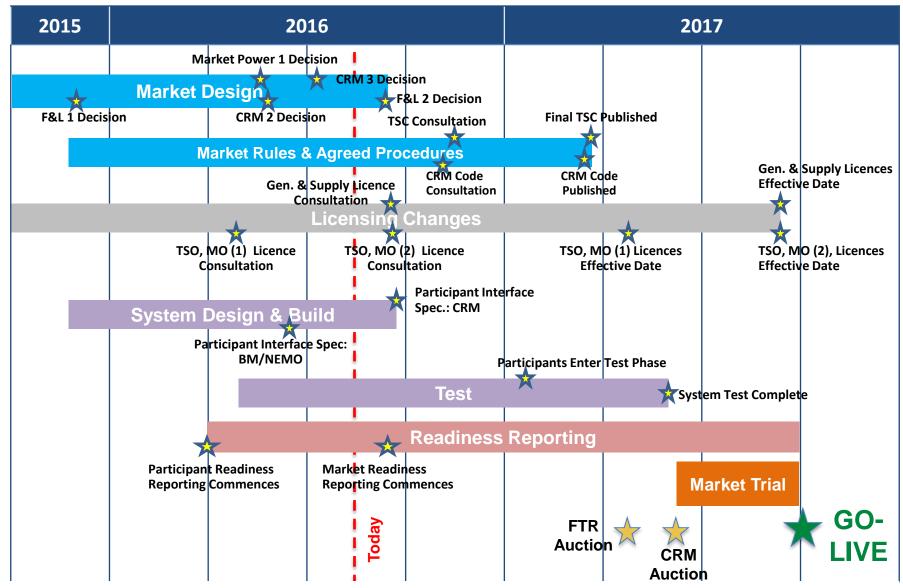


#### Market Code Implementation





#### CACM & FCA – Current Implementation (focus on I-SEM)



**NEMO**= Nominated Electricity Market Operator; **FTR**= Financial Transmission Rights; **CRM**= Capacity Remuneration Mechanism; **BM**= Balancing Market; **F&L**= Forwards & Liquidity; and **TSC**= Trading & Settlement Code.

# Code not Ginal Balancing - Implementation

- Early implementation started
- ENTSO-E to propose reference projects for aFRR, mFRR and RR this year.



Electricity Balancing Network Code: Methodology for Cost Benefit Analysis

ENTSO-E welcomes stakeholders' comments on a draft report describing the General Methodology for the Cost Benefit Analysis and on a draft scoping paper for a specific methodology for the Imbalance Settlement Period Harmonisation. The public consultation runs from 23 February until 31 March. T... Interest(s): Network Code Department: Market

This consultation was closed on 31 March 2015

Public consultation for the design of the TERRE (Trans European Replacement Reserves Exchange)

The Electricity Balancing network code is still under discussion and should be put to vote in 2016. As with other network codes, transmission system operators are engaged in projects that are implementing already some of the objectives of the future EU regulation on electricity balancing. One of t...

Interest(s): General

Department: Market

This consultation was closed on 8 April 2016







#### **Operation Code/Guideline Implementation**





#### System Operation Guidelines Pan-European Tasks

TASK Status Coordinated security analysis All activities are on track methodologies Data exchange All activities are on track Year ahead scenarios Preparatory activities on track, PID finished LFCR information transparency Not started Development / implementation / reporting on (5) LFCR Synchronous Area Agreements LFCR SA Agreements runs under StG Operation CGM & OPDE Implementation within CGM Programme **RSC** services frame Implementation within RSC Project Outage coordination frame Implementation within RSC Project Short-Medium Term Adequacy forecast Implementation within RSC Project 13. Sept 2016 SPD workshop on Inertia Report. Dynamic stability analysis Main target 2019 - full content still not clear.







c. 31

tasks

#### System Operation Guidelines Pan-European Tasks

#### Concept of **Regional Security Coordinators (RSCs)**:

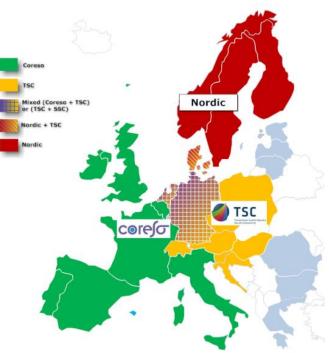
- Embedded in upcoming SOGL
- Service providers for TSOs

# Pro-active operational coordination at regional level

 Operational focus within a timeframe from a few days before until close to real time









#### System Operation Guidelines Local Tasks

**Publications Contingency analysis** • Protection Monitoring ٠ **Dynamic stability** Reporting ٠ ٠ **Tools and facilities** Data exchange • Training System states ٠ **Operational security limits** ٠ **Critical infrastructure** ٠ CGM protection **Operational security analysis** Voltage ٠ **Regional operational security** • Short-circuit current ٠ coordination Data exchange **Outage coordination** ٠ •







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tasks



# Code not Emergency Restoration

TASK	Status
Agreement with non EU TSOs for secure system operation	within 18 months after EIF
Coordination of system defense plans	By 12 months after EIF
Coordination on automatic over-frequency control parameters determination	By 12 months after EIF
Coordination of restoration plans	By 12 months after EIF
Reporting to ACER assessing the level of harmonisation of the rules for suspension and restoration of market activities defined by TSOs	By 3 years after EIF
Monitoring of the implementation of NC ER	from EIF
Relevant information to be communicated by ENTSO-E to ACER for monitoring	Within 12 months after EIF
Agreeing on a threshold for "significant impact" of actions of one or more TSOs in the emergency, blackout or restoration states	
Consistency assessment of systems defense plans and system restoration plans	Within 12 months after EIF









## Regional Implementation IU (interim) & IU-Channel (enduring)





#### Content

- Introduction
- Channel-IU Group
- IU Group
- GB-ISEM Implementation Group





## Introduction

- Several groups have been established to implement the requirements of EU Regulations that require regional coordination of certain TSO activities:
  - Capacity Access and Congestion Management (CACM) and
  - Forward Capacity Allocation (FCA).
- This presentation will summarise each group's membership, its role and, as appropriate, the timeframes for key deliverables.





## Channel-IU TSO Group (Enduring Solution) > Covers two Capacity Calculation Regions

#### Parties Involved

- National TSOs
  - EirGrid & SONI (SEM)
  - National Grid Electricity Transmission (GB)
  - Reseau de Transport d'Electricite (France),
  - TENNET (Netherlands),
  - Elia (Belgium),

#### Interconnector TSOs

- EWIC (Ireland-GB)
- Mutual Energy (NI-GB)
- BritNed Development Limited (GB-Netherlands),
- National Grid Interconnectors Limited (GB-France),
- NEMOLink (GB-Belgium)





# Channel-IU TSO Group (Enduring Solution)

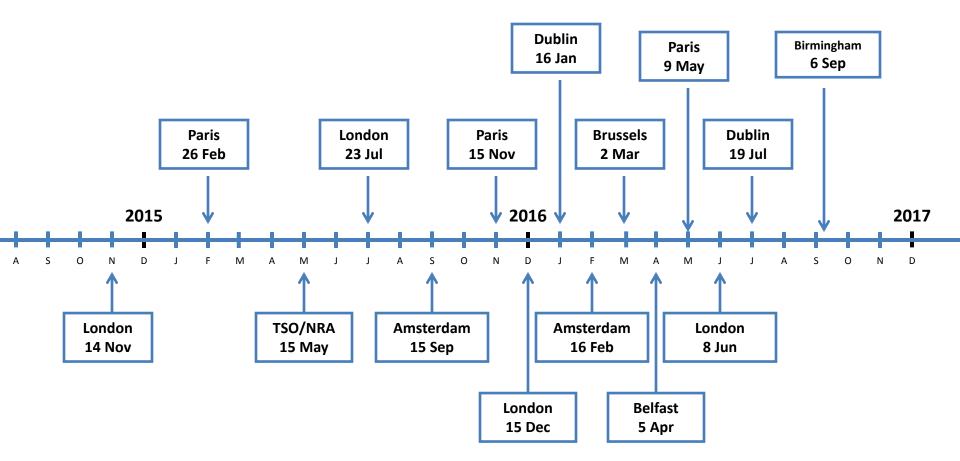
#### Remit

- Identify the CHANNEL-IU regional tasks required by CACM and FCA guidelines.
- Plan the CHANNEL-IU activities required for CACM and FCA compliance.
- Develop proposals for terms, conditions and methodologies.
- Stakeholder consultation.
- Coordinate submissions to the respective regional NRAs.
- Implement the methodologies following NRA approvals.





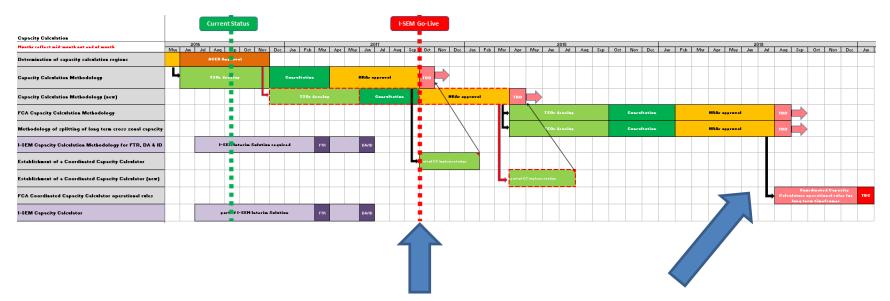
#### **Channel-IU meetings calendar to date**







# Channel-IU TSO Group (Enduring Solution)



- Completion of the Enduring Solution is after I-SEM Go-Live.
- But we need a solution in place by I-SEM Go-Live!
- So an Interim solution will be developed.







# IU TSO Group (Interim Solution)

- Covers a single CCR
- Parties Involved
  - National TSOs
    - EirGrid & SONI (SEM)
    - National Grid Electricity Transmission (GB)
  - Interconnector TSOs
    - EWIC (Ireland-GB)
    - Mutual Energy (NI-GB)







# IU TSO Group (Interim Solution)

#### Remit

- Identify and develop interim I-SEM regional methodologies and solutions:
  - Identify all IU regional tasks required by I-SEM go-live.
  - Plan of the IU activities required for I-SEM go-live.
  - Develop proposals for terms, conditions and interim methodologies.
- Coordinate submissions to the respective regional NRAs (for the IU region).
- Implement the interim methodologies following NRA approval.





# IU TSO Group (Interim Solution)

- Key Dates
  - Financial Transmission Rights Auctions April 2017
  - Market Trial June 2017
  - I-SEM Go-Live October 2017





# **GB-ISEM Implementation Group**

#### Parties Involved

- NRAs and government departments
  - Ofgem,
  - CER,
  - UREGNI
  - and relevant Departments (as necessary),
- National TSOs
  - EirGrid,
  - SONI,
  - National Grid Electricity Transmission,
- Interconnector TSOs
  - East-West Interconnector (EWIC),
  - Moyle Interconnector (Mutual Energy).







# **GB-ISEM Implementation Group**

## ≻ Remit

- Monitor implementation of European Network Codes.
- Monitor implementation of the I-SEM project.
- Resolve issues efficiently to ensure timely implementation of both projects.
- Identify and resolve cross-jurisdictional issues.
- RA approval of interim solutions where necessary.







# **GB-ISEM Implementation Group**

#### ➢Key Dates

- European Network Codes
- I-SEM project







#### Lunch







#### 5. European policy update

Jon O'Sullivan (EirGrid)







# **European energy policy**

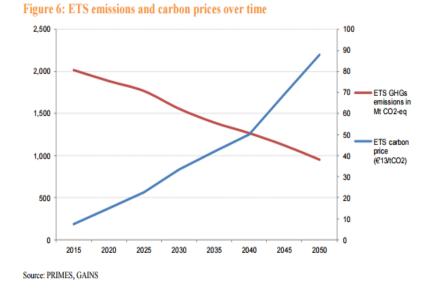
#### • EU Reference Scenario 2016

Energy, transport and greenhouse gas emissions trends in the EU up until 2050

#### Winter package

A proposal of new regulations aiming to strengthen the EU's energy security. More emphasis on the development of energy infrastructure.

Renewables package



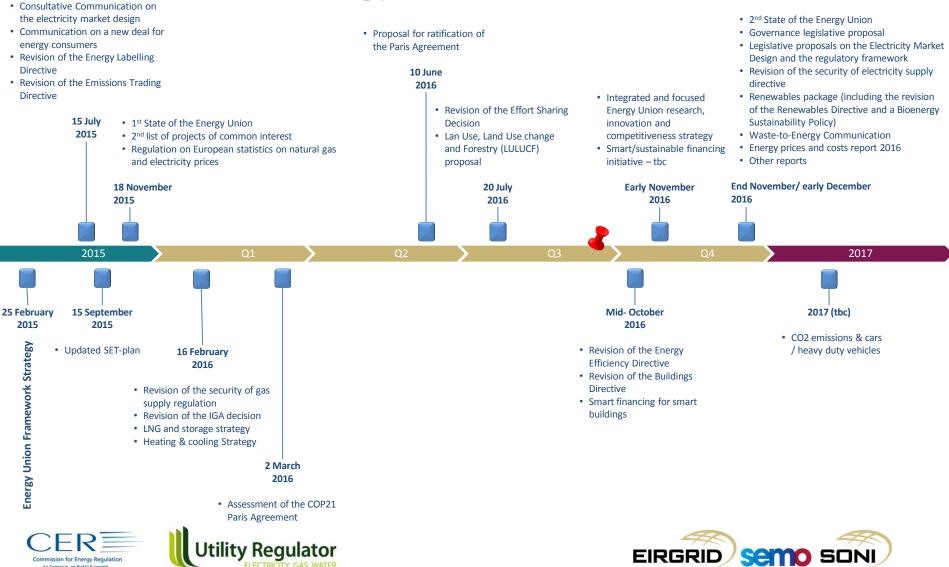
 PCI: On 15 July, the EC announced investment of €263 million in key energy infrastructure. Included in the nine selected projects was the Compressed Air Energy Storage (CAES) project in Larne. Gaelectric won an €8M grant for further study.







#### **Energy Union Timeline**



An Coimisiún um Rialáil Fuinnimh

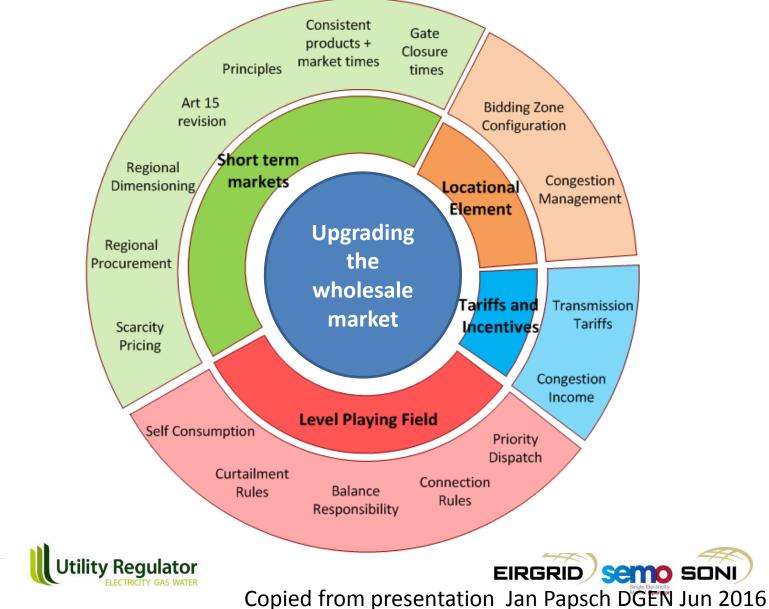
Market Operato



#### The electricity market design initiative

- Legislative proposals by end 2016
- In parallel to remaining network codes (E&R; Balancing)
- Making the market work effectively wholesale & retail
- Ensuring the market is **fit for renewables**
- Integrating renewables into the market
- A coordinated approach to **Capacity Remuneration**
- Stepping up regional cooperation
- Ensuring co-ordination and co-operation in times of crisis
- Adapting the institutional framework

## So what might be happening...



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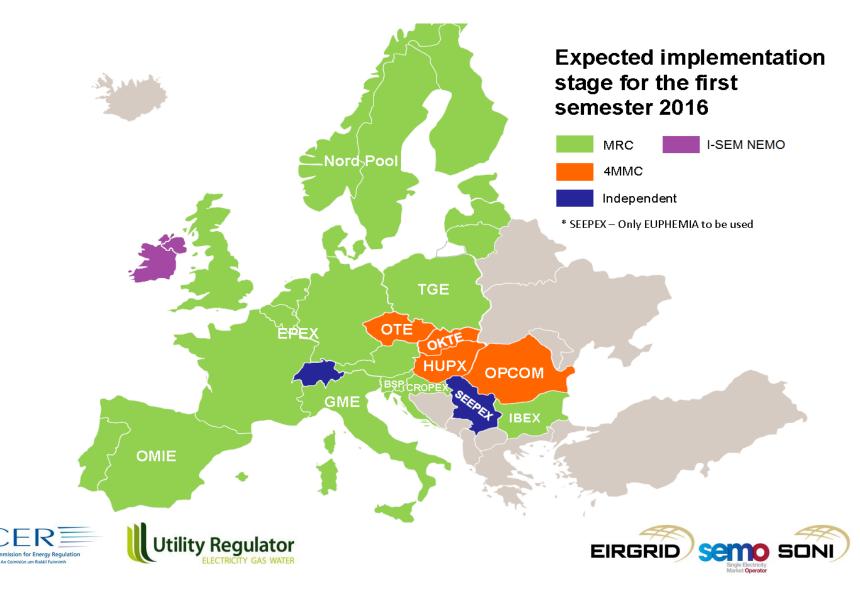
#### 6. MRC and XBID

Mark Lane (EirGrid) Anne-Marie McCague (NEMO)



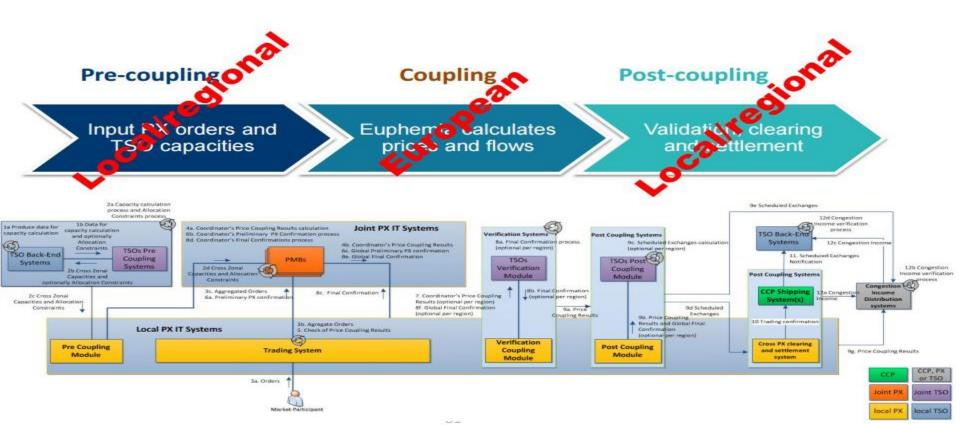


#### **MRC – Current Status**



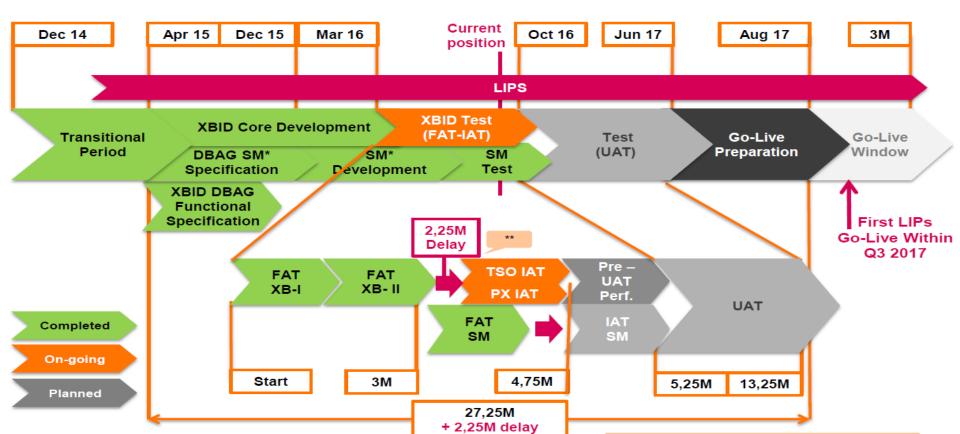
## **MRC – Observer Status**

- EirGrid and SONI achieved MRC Observer status on 13 Sep 2016
- EirGrid/SONI will attend next MRC Joint Steering Committee
- SEM-GB Regional Project scoping has commenced
- PCR and MRC change requests due to be submitted by end September



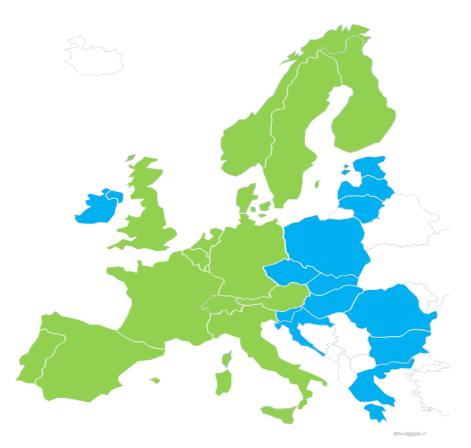
## **XBID Project Timeline**

- XBID project has moved from the Development Phase to Testing
- Go-live is still planned to be within Q3 2017
- Not all LIPs will go-live by Q3 2017 (e.g. IFA & BritNed)
- XBID Accession Stream is mobilised



## **XBID Accession Stream**

- EirGrid and SONI are members of the XBID Accession Stream (AS) in their capacities as TSOs and NEMOs
- Goals of AS:
  - To bring AS members up to the speed as soon as possible (knowledge transfer)
  - To identify AS members needs
  - To evaluate impact of AS members' needs on the XBID Project
  - To integrate AS members into the XBID Project







## **Intraday Capacity Pricing**

#### **ENTSO-E Stakeholder Workshop**

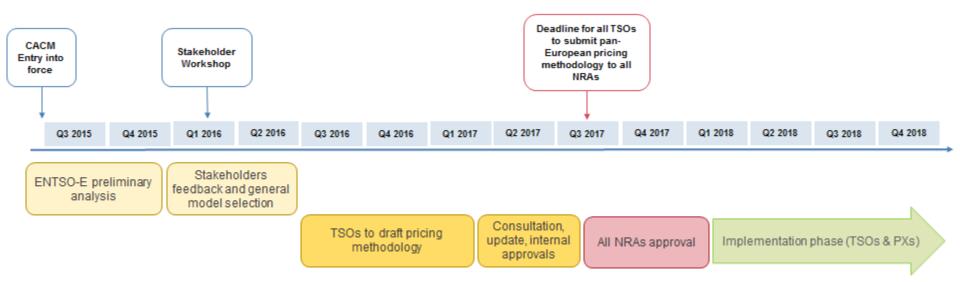
• Feb 2016 – to discuss proposed hybrid solution with industry associations

#### Market European Stakeholder Committee

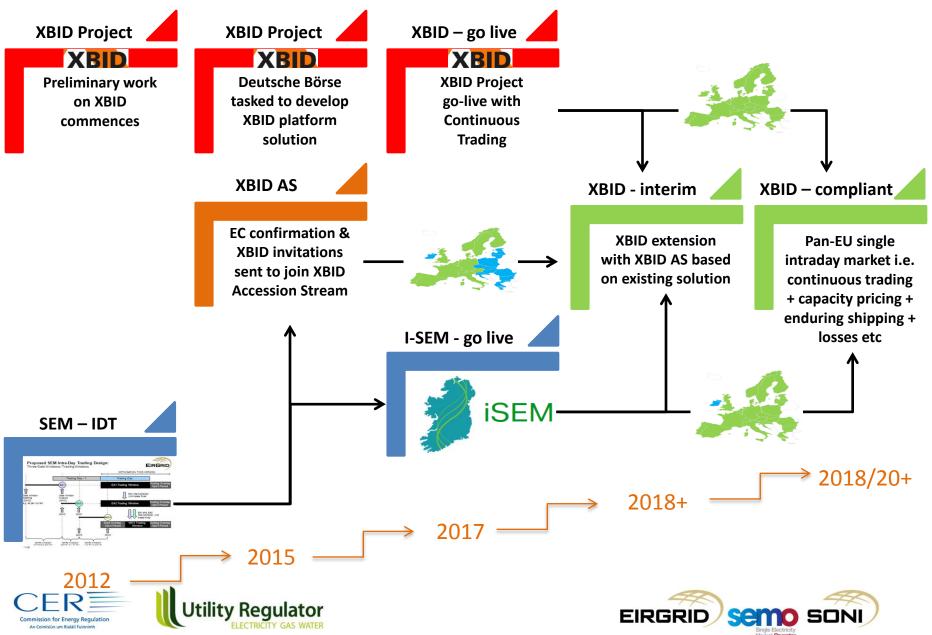
 May 2016 – ENTSO-E (EirGrid) presented on workshop outcomes & next steps

#### **ENTSO-E drafting team established**

• Q3 2016 – drafting methodology for intraday capacity pricing by Aug 2017



#### **Roadmap to XBID**





## 7. NEMO update on Day-ahead and Intraday developments

Anne-Marie McCague (NEMO)





## **CACM Methodologies**

- Article 7 MCO Plan
- Article 37 & 51 Day-Ahead and Intraday Algorithm
- Article 41 & 54 Maximum and Minimum Prices
- Article 40 & 53 Products
- Article 36 Back-up (Article 44 Fallback)







- Sets out how NEMOs will jointly set up and perform the MCO functions listed in Article 7(2)
  - Developing, maintaining and operating algorithms
  - Processing data from CCCs
  - Validating results









# AlgorithmsNEMOs & TSOs<br/>Develop<br/>(8 mths - mid Apr<br/>16)NEMOs develop<br/>(3 mths - mid July<br/>16)NEMOs develop<br/>(3 mths - mid July<br/>16)NEMOs develop<br/>(4 mths mid<br/>Feb17)NRA Approval<br/>Submit in Feb 17<br/>(6 mths)

- PCR Day-ahead price coupling matching algorithm
- XBID continuous trading matching algorithm
- TSO efficient capacity allocation
- NEMOs efficient matching
- NEMOs currently finalising proposal
- Preparing to consult for 1 month (4 mths incl. prep and review)





## **Max/Min Prices**



- Developed with TSOs
- Related to the EC New Energy/Market Design Package
  - Targeting consultation by end of October



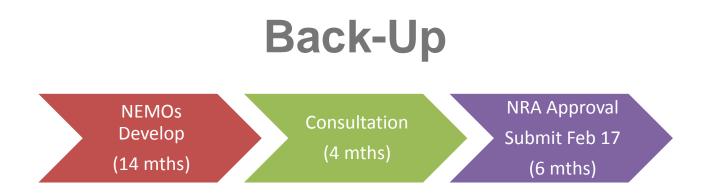


#### **Products**









- Back-up mechanisms are procedures and steps to be taken when problems or issues appear in the daily operation of the DA or ID coupling, but still the final results are achievable (Coupled prices and cross border flows)
- Fallback procedures are procedures to be followed which ensure the capacity allocation and market prices are delivered, in case coupled prices or cross-border flows cannot be obtained for either DA or ID coupled markets.
- Relevant Articles:
  - Article 44 Establishment of fallback procedures
  - Article 50 Initiation of fallback procedures







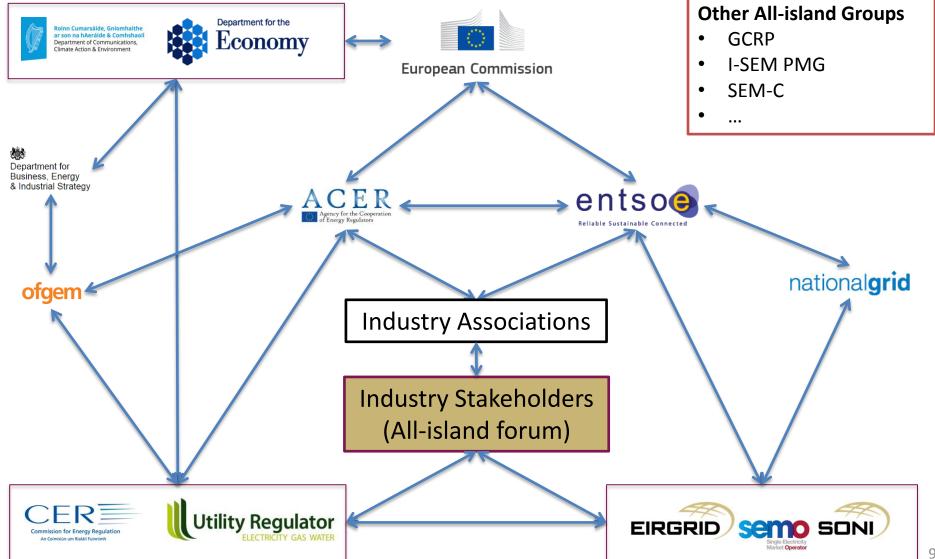


#### 8. Future stakeholder engagement Peter Campbell (SONI)





## **Stakeholder Engagement**



## Stakeholder Engagement

#### Increased involvement

- Clear communication
- Raise awareness
- Improved relationship

#### Encourage advocacy

- Support of policy makers
- Representative Groups
- Co-ordinated input

#### **Compliance and monitoring**

- Improved implementation planning
- Improved impact assessment
- Achieving compliance to rules and sufficient monitoring







## [Closed Forums] Stakeholder Engagement

#### **European Stakeholder Committees**

https://www.entsoe.eu/major-projects/network-code-implementation/stakeholder-committees/Pages/default.aspx

- Market ESC (7 Sept; 7 Dec)
- Grid Connection ESC (8 Sept; 9 Dec)
- System Operation ESC (Autumn 2016)

#### Open to all (but please register) All-island European Stakeholder Forum

- **Early December** (Belfast) (Suggestions for topics welcome)
- March (Dublin)

#### **Consultations**

https://consultations.entsoe.eu/

http://ec.europa.eu/energy/en/consultations

- Connection Codes Implementation Guidance Documents (closed 15 Aug)
- Second consultation: Expected Q4/2016
- Open to all EC Consultation on the establishment of the annual priority lists for the development of network codes and guidelines for 2017 and beyond Deadline: 14 October 2016





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EIRG

## **Further Information**

http://www.eirgridgroup.com/customer-and-industry/european-integration/integration/

#### EirGrid website

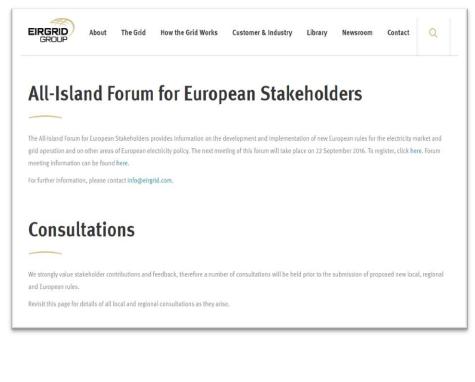
- Forum presentations
- Consultations
- Implementation programme
- Q&A
- Links & updates

#### Quarterly updates

- EU policy update
- NC implementation incl. timings
- More frequent if required











#### 9. Q&A







#### Thanks for your attention!





#### Backup





## **RSC** services

