



# EirGrid Customer Connections Forum

**Wednesday 20<sup>th</sup> July 2011**

## Customer Communications

Claire Kane

# Purpose of the Forum



Two Fold –

- Engagement
- Information Provision
  
- Propose to hold these quarterly
- Provision of information on EirGrid work
- Agenda informed by you
- Part of an overall Communications Plan

# Outline Communications Plan



## Monthly Updates

Regular, consistent info  
Wider industry audience



## Customer Forum

Quarterly  
Agenda informed by you



## Customer Meetings

Manage your needs  
Management of the relationship



## Website

Customers and stakeholders  
General Public + Media



## Liaison Group

EirGrid support  
Provision of regular information



# Agenda – Session 1



- 11.10 – 11.20      **Customer Communications**  
*Claire Kane, Customer Relations*
- 11.20 – 11.50      **Firm Access Quantities (FAQs) and Associated Transmission Reinforcements**  
*Simon Grimes, Transmission Access Planning*
- 11.50 – 12.10      **Firm Access Quantities (FAQs) and Associated Transmission Reinforcements - Communications Process**  
*Derek Lawler, Commercial and Regulation*
- 12.10 - 12.30      **EirGrid Constraint Studies - Possible Impact of Scheduling & Dispatch Decision**  
*Eoin Kennedy, Generation Analysis*
- 12.30 – 1.00      **Discussion/Questions and Answers**
- 13.00 – 1.30      **Lunch**

# Agenda – Session 2



13.30 – 13.50

## **Short Circuit Reinforcements**

Cormac McCarthy, Transmission Access Planning

13.50 – 14.20

## **Dynamic Analysis Process and Generator Obligations**

John McGuckin, Transmission Access Planning

14.20 – 14.50

## **Temporary Connections for Gate 3 Wind Farms – Technical Aspects**

Gary Nolan, Transmission Access Planning

14.50 – 15.30

## **Discussion/Questions and Answers**

15.30

## **Close**

# Feedback



EirGrid Customer Relations Team

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# **EirGrid Customer Connections Forum**

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## **Firm Access Quantities (FAQs) and Associated Transmission Reinforcements**

**Simon Grimes**

**Manager Transmission Access Planning**

# Overview

- Introduction
- What are FAQs?
- Key features of '*Interim FAQs for Gates 1 & 2*' CER direction
- Worked example
- Progress to date
- Changes to associated reinforcements risk
- Next steps / timelines





# Introduction

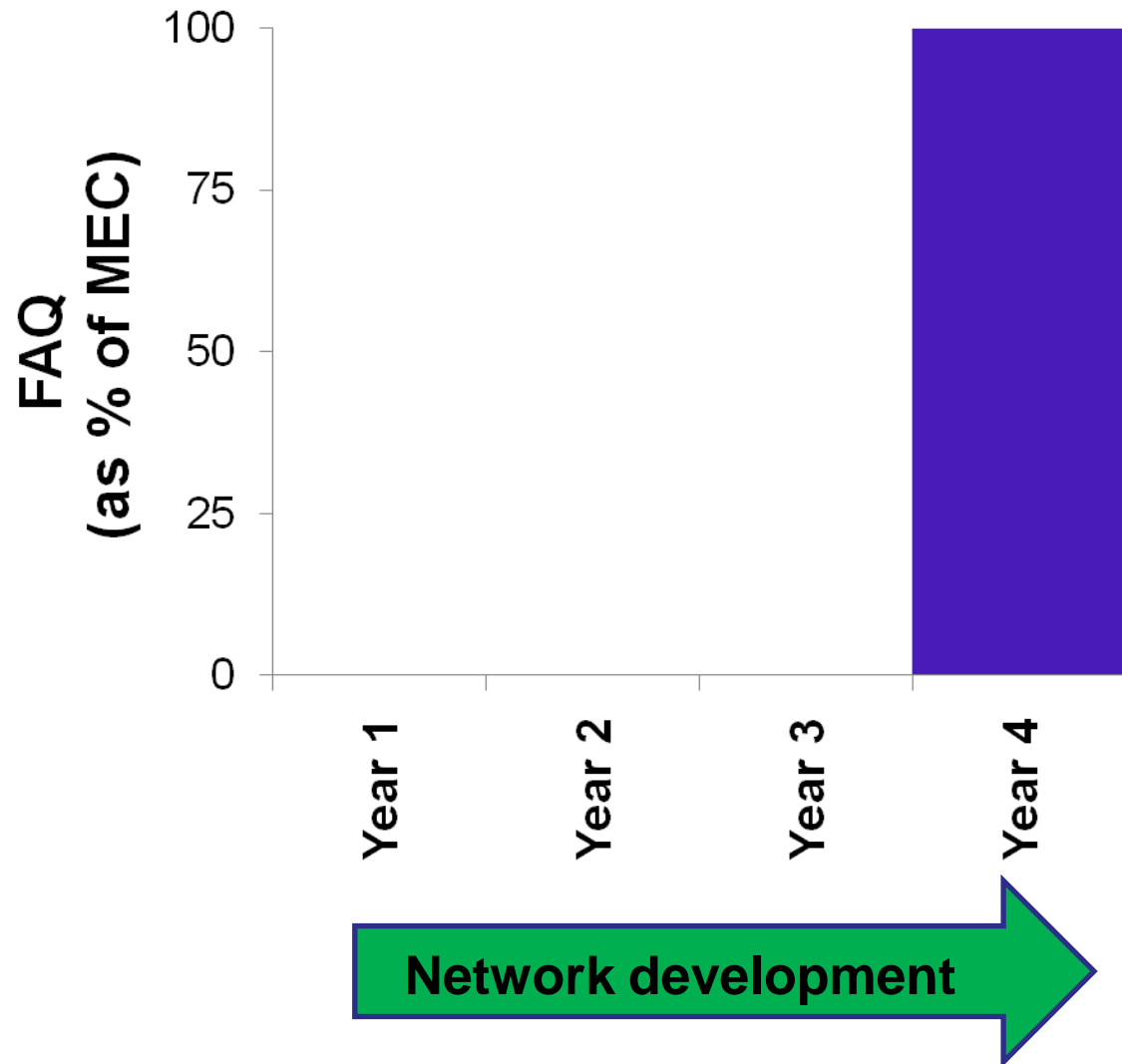


- CER 'Decision on calculation of interim Firm Access Quantities for Gates 1 & 2 Generators' issued 23 June 2011
- Level of firm financial access in the transmission network = Firm Access Quantity (FAQ)
- Firm financial access means that if a generator is constrained on or off, it is eligible for compensation in the manner set out in the Trading & Settlement Code

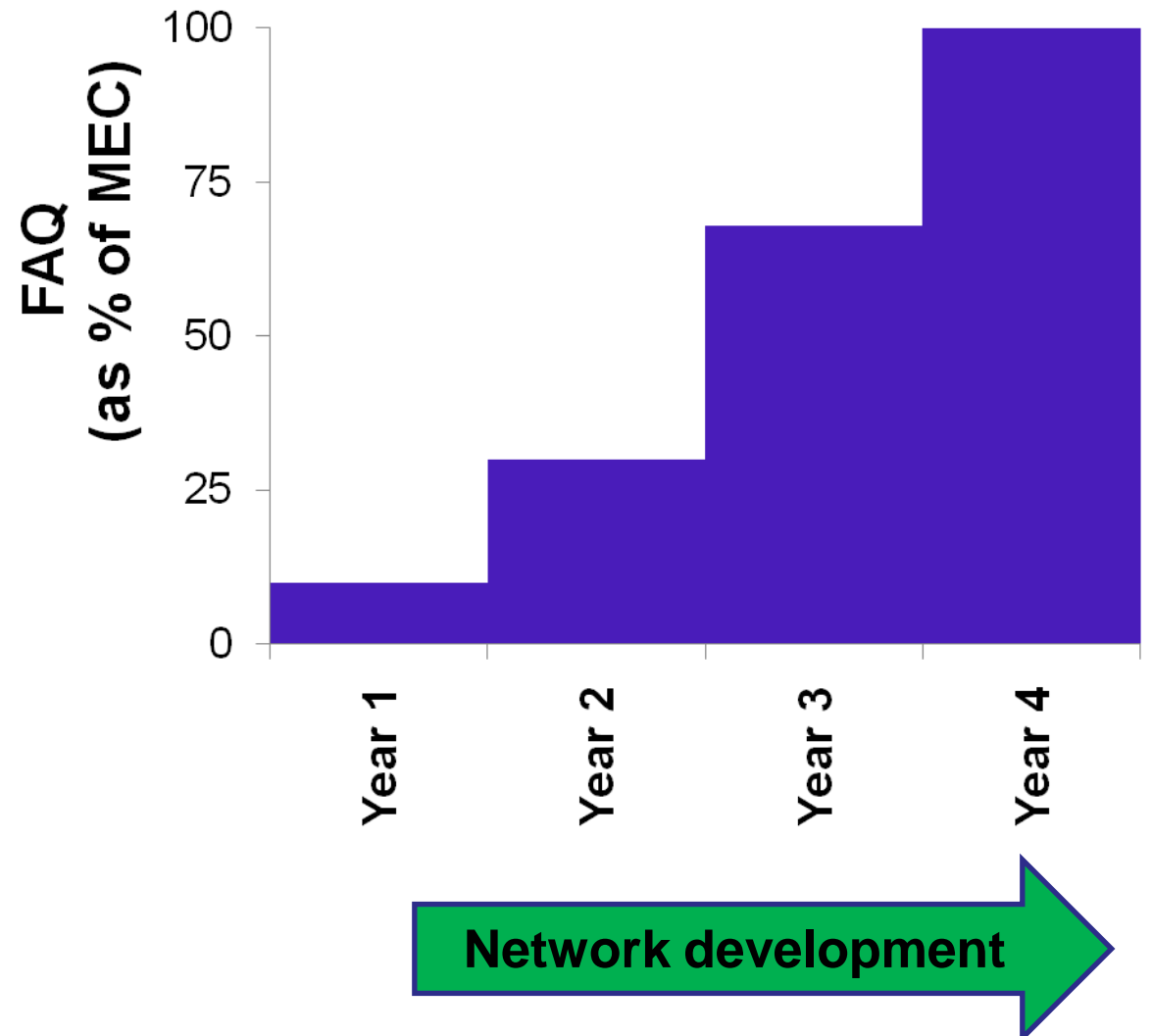
# Old Vs New approach to allocating firm access



## Old 'all or nothing' model



## New model



## Key features of *Interim FAQs for Gates 1 & 2* decision



- Firm access allocated on an application date order basis
- Generators tested at the transmission node to which their permanent connection is fed from
- EirGrid to calculate for each generator:
  - **Actual FAQ** currently available
  - **Additional FAQ** expected to become available during current year
  - **Scheduled FAQs** for each year until MEC achieved
- EirGrid to identify the reinforcements associated with the provision of FAQ for the given year(s)

## Key features of *Interim FAQs for Gates 1 & 2* decision (continued)



- Analysis based on *Incremental Transfer Capability* (ITC) methodology used in Gate 3 under intact & single contingency (N-1) network conditions
- N-1 = loss of any single item of generation or transmission line/equipment
- Timing of network rollout based on most up-to-date information
- Expected study timelines:
  - Gate 1: 4-6 weeks from CER decision date
  - Gate 2: 5-6 months from CER decision date

## Key features of *Interim FAQs for Gates 1 & 2* decision (continued)



- Recognition given to possibility of different associated reinforcements to those originally associated with Gate 1 & 2 generators
- CER and EirGrid to actively consider the impacts and risks which developers are subjected to as a result of on-going optimisation of transmission reinforcements
- FAQ & associated reinforcement analysis to be undertaken annually

## Worked example



- Project: Windfarm ABC Ltd
- MEC: 100 MW
- Status: Energised in 2010
- Scheduled Deep Operational Date (as per Connection Agreement): 2013
- Associated Transmission Reinforcements (ATR) (as per Connection Agreement):  
ATR 1, ATR 2, ATR 3, ATR 4, ATR 5, ATR 6
- Current Market FAQ: 0MW (only ATR 1 is complete)



## Worked example (continued)



### ANALYSIS RESULTS FOR WINDFARM ABC LTD.:

FAQ Category	FAQ Amount (MW)	Associated Transmission Reinforcements
Actual (2011)	25MW	
Additional (2011)	+10MW (→ 35MW)	ATR 2, ATR 3
Scheduled (2012)	50MW	ATR 4
Scheduled (2013)	85MW	ATR 6
Scheduled (2014)	100MW	ATR 7

....ATR 5 no longer associated



## Worked Example - Scenarios to consider



- 1) Reinforcement(s) required for the 'Additional FAQ' is completed prior to this year's analysis being completed
- 2) One (or more) of the reinforcements required for the 'Additional FAQ' to be realised is delayed beyond 2011
- 3) The reinforcement(s) linked to the following year's 'Scheduled FAQ' is/are completed prior to the **next** year's analysis being completed

***...what does each of the above mean for Windfarm ABC Ltd's market FAQ?***

FAQ Category	FAQ Amount (MW)	Associated Transmission Reinforcements
Actual (2011)	25MW	
Additional (2011)	+10MW (→ 35MW)	ATR 2, ATR 3
Scheduled (2012)	50MW	ATR 4
Scheduled (2013)	85MW	ATR 6
Scheduled (2014)	100MW	ATR 7

# Scenario 1: The reinforcement(s) required for the 'Additional FAQ' is completed prior to this year's analysis being completed



FAQ Category	FAQ Amount (MW)	Associated Transmission Reinforcements
Actual (2011)	25MW	
Additional (2011)	+10MW (→ 35MW)	<b>ATR 2, ATR 3</b>
Scheduled (2012)	50MW	ATR 4
Scheduled (2013)	85MW	ATR 6
Scheduled (2014)	100MW	ATR 7

- Windfarm ABC Ltd should apply to SEMO for a market FAQ of 35MW following provision of the 2011 analysis results

## Scenario 2: One (or more) of the reinforcements required for the 'Additional FAQ' to be realised is delayed beyond 2011



FAQ Category	FAQ Amount (MW)	Associated Transmission Reinforcements
Actual (2011)	25MW	
Additional (2011)	+10MW (→ 35MW)	<b>ATR 2, ATR 3</b>
Scheduled (2012)	50MW	ATR 4
Scheduled (2013)	85MW	ATR 6
Scheduled (2014)	100MW	ATR 7

- Windfarm ABC Ltd's market FAQ will remain at 25MW until ATR 2 and ATR 3 are both completed
- Following completion of both reinforcements, Windfarm ABC Ltd should apply to SEMO for an increase in market FAQ to 35MW

## Scenario 3: The reinforcement(s) linked to the following year's 'Scheduled FAQ' is/are completed prior to the conclusion of next year's (2012) analysis



FAQ Category	FAQ Amount (MW)	Associated Transmission Reinforcements
Actual (2011)	25MW	
Additional (2011)	+10MW (→ 35MW)	ATR 2, ATR 3
Scheduled (2012)	50MW	<b>ATR 4</b>
Scheduled (2013)	85MW	ATR 6
Scheduled (2014)	100MW	ATR 7

- Let's assume that ATR 2 & ATR 3 were completed in 2011 and Windfarm ABC Ltd's market FAQ increased to 35MW in 2011
- Following completion of ATR 4, Windfarm ABC Ltd should apply to SEMO for an increase in market FAQ to 50MW

# Communications



- FAQ and associated reinforcement details will be formally advised to each generator by their respective System Operator
- **Generators are themselves responsible for notifying SEMO of any changes to their FAQ market values**

## Progress to date



- On schedule to communicate Gate 1 results before 4 August 2011
- Gate 2 analysis has commenced

# Changes to associated reinforcements risk



- Developers currently bear risk of reinforcements originally identified for association being replaced by new reinforcements
- Number of generator FAQs currently dependent on re-optimised reinforcements
- Issue viewed by many as key issue currently facing wind industry
- CER consider issue as a SEM Committee matter

# Proposed next steps / timelines



	MONTH / YEAR																		
Gate	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	Jan 12	Feb 12	Mar 12	Apr 12	May 12	Jun 12	Jul 12	Aug 12	Sep 12	Oct 12	Nov 12	Dec 12	
1	█																		
2		█	█	█	█	█													
3			█	█	█	█	█	█	█	█	█	█	█	█					
All												█	█	█	█	█	█	█	█

Provision of 'Actual FAQ' & 'Additional FAQ' information





# Summary



- Annually EirGrid to determine:
  - **Actual FAQ** currently available
  - **Additional FAQ** expected during current year
  - **Scheduled FAQ** for each year until MEC achieved plus associated reinforcements
- Changes to associated reinforcements risk/issue under consideration by CER
- Gate 1 & 2 on schedule for completion early Aug. & mid Dec. respectively
- Accelerated timeline of Sep. '11 – Mar. '12 proposed for Gate 3
- Going forward expect FAQ analysis to take place Apr – Sep annually
- Each year *Actual FAQs & Additional FAQs* will be provided as soon as practicable



# **EirGrid Customer Connections Forum**

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## **Firm Access Quantities (FAQs) and Associated Transmission Reinforcements Communications Process**

**Derek Lawler  
Manager – Commercial & Pricing**

# Outline of Presentation



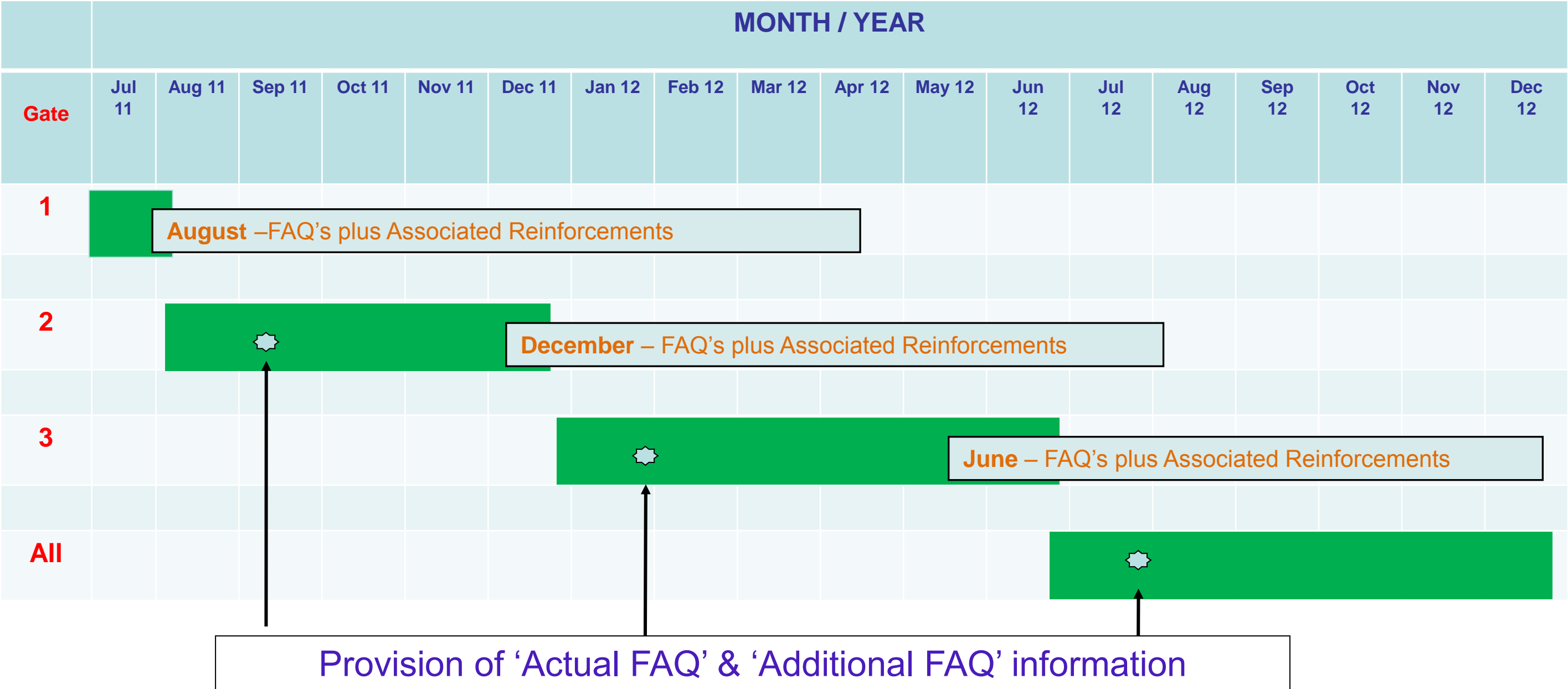
- Background
- Schedule
- Process
- Next Steps
- Questions

# Background

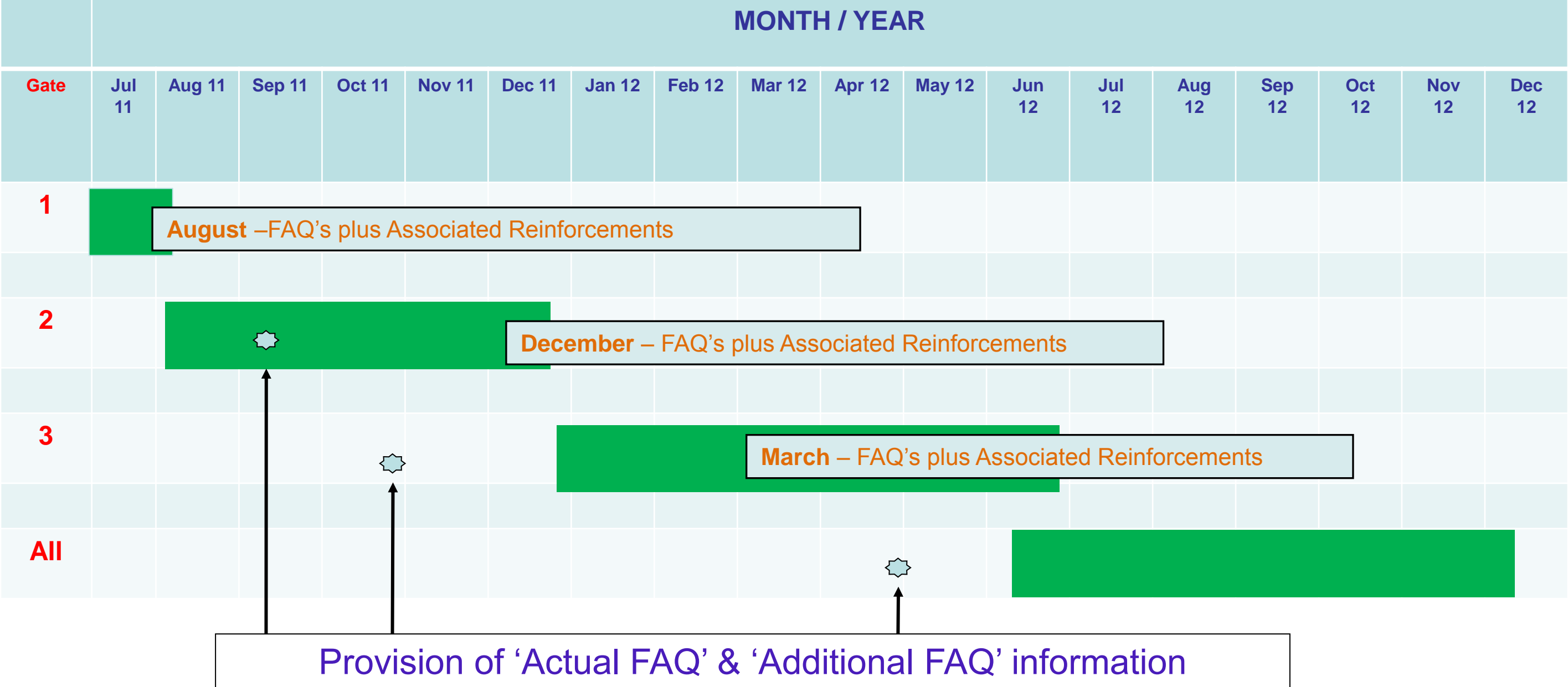


- Current, Actual & Scheduled FAQ's plus Associated Reinforcements
- Changes to the schedules
- Combination of Website updates, formal updates and customer notifications
- Consultation with the Distribution System Operator for DSO customers
- First stage is to work through Gates 1, 2 & 3 for 2011
- Thereafter annual cycle of studies and communications in 2012
- TUoS Charges

# Current Communication Schedule 2011



# Possible Communication Schedule 2011 (tbc)



# Communications Process

## Gate 1



Date	Gate	Formal notification by letter	EirGrid Website
Aug 2011	Gate 1	<ol style="list-style-type: none"> <li>1. Actual FAQ for 2011</li> <li>2. Additional FAQ for 2011</li> <li>3. Scheduled FAQ's until MEC achieved</li> <li>4. List of Associated Transmission Reinforcements (ATR's) for scheduled FAQ's</li> </ol>	<p>Summary Gate 1 list of Associated Transmission Reinforcements (ATR's) showing</p> <ul style="list-style-type: none"> <li>• Scheduled completion dates for 2011 (by month)</li> <li>• Scheduled completion dates for remaining (by year)</li> </ul>

# Communications Process

## Gate 2



Date	Gate	Formal notification by letter	EirGrid Website
September 2011	Gate 2	1. Actual FAQ for 2011 2. Additional FAQ for <b><u>2011</u></b> 3. List of Associated Transmission Reinforcements for <b><u>2011 Additional FAQ</u></b>	Updated list of Associated Transmission Reinforcements showing <ul style="list-style-type: none"> <li>• Scheduled Completion dates for 2011 (by month)</li> </ul>
Dec 2011	Gate 2	1. Scheduled FAQ's until MEC achieved 2. List of Associated Transmission Reinforcements for scheduled FAQ's	Updated list of Associated Transmission Reinforcements showing <ul style="list-style-type: none"> <li>• Scheduled Completion dates for 2011 (by month)</li> <li>• Scheduled completion dates for remaining (by year)</li> </ul>



# Communicating changes to scheduled completion dates for Associated Reinforcements



## General Programme Approach

- Quarterly update on progress of all reinforcements on the website
- General email communication to all customers (Transmission)
- Communication to the DSO

# Communicating changes to scheduled completion dates for Associated Reinforcements



## Project Specific Approach

If your project 's Associated Reinforcement(s) is completed or delayed and impacts your Additional FAQ:

- Specific communication to customer (Transmission)
  - Formal notification under the Connection Agreement and/or
  - Project management update
  
- Quarterly update on progress on the website
- Communication to the DSO

**Responsibility of the customer to apply for change to market value FAQ to SEMO.**

# Next Steps



- Review comments from this forum
- Communicate the results for Gate 1 per schedule
- Consult with the DSO
- Review the process post Gate 2 and refine

# EirGrid Customer Connections Forum



**20<sup>th</sup> July 2011**

## **EirGrid Constraint Studies - Possible Impact of Scheduling & Dispatch Decision**

**Eoin Kennedy  
Generation Analysis**

# Overview of Presentation



- Possible Generator Output Reductions Reports
- Potential Impact of the Scheduling & Dispatch Paper
- Provisional Constraints Modelling Plan
- Modelling Assumptions & Scenarios
- Key Messages

# Possible Generator Output Reductions Reports



## Possible Generator Output Reductions Report for Area F (2011 – 2022)

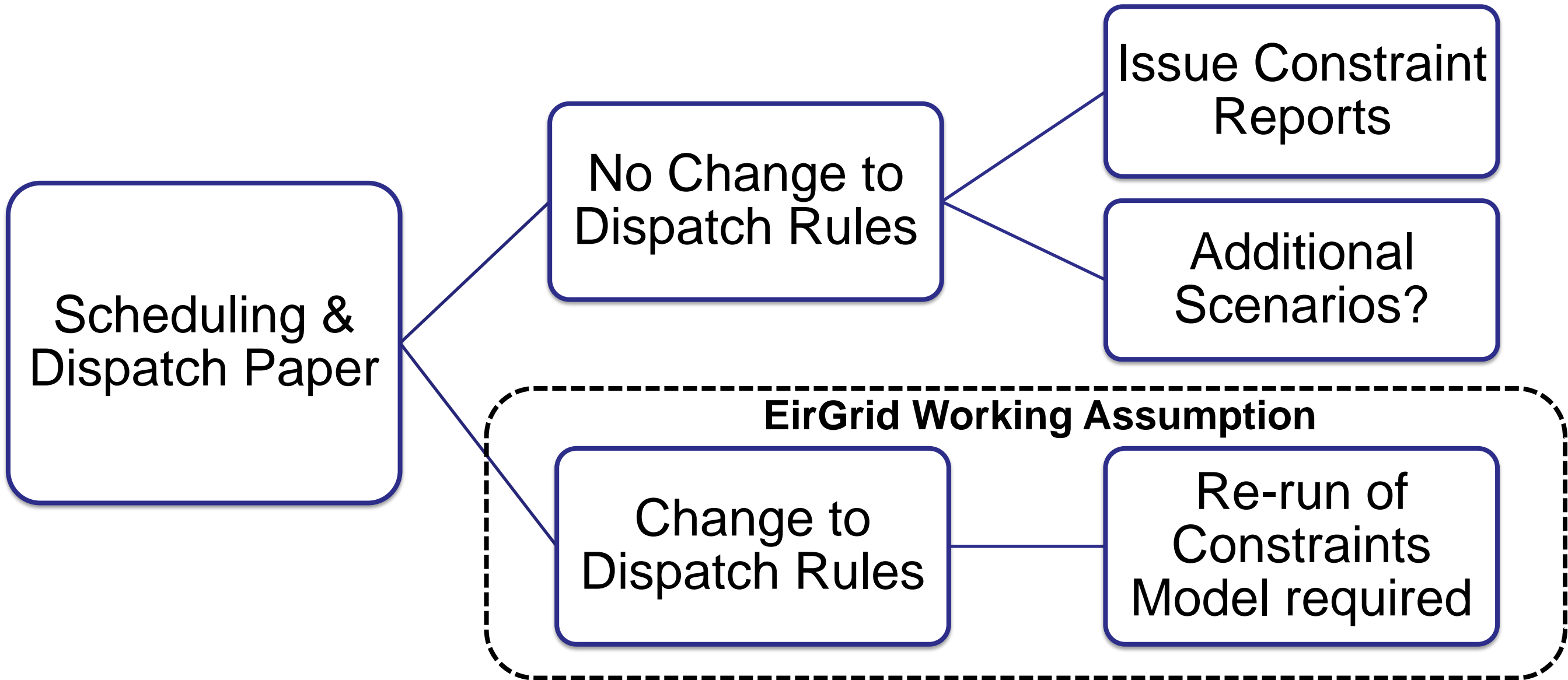


Version 1.0

Published March 2011

- PGOR Reports delivered on schedule for all Areas
- Customer Workshops held on an Area basis to answer queries
  - 8 Workshops held to date
  - 2 Workshops remaining
    - Area A, 3<sup>rd</sup> August
    - Areas C, G & I, 4<sup>th</sup> August

# Impact of Scheduling & Dispatch Paper



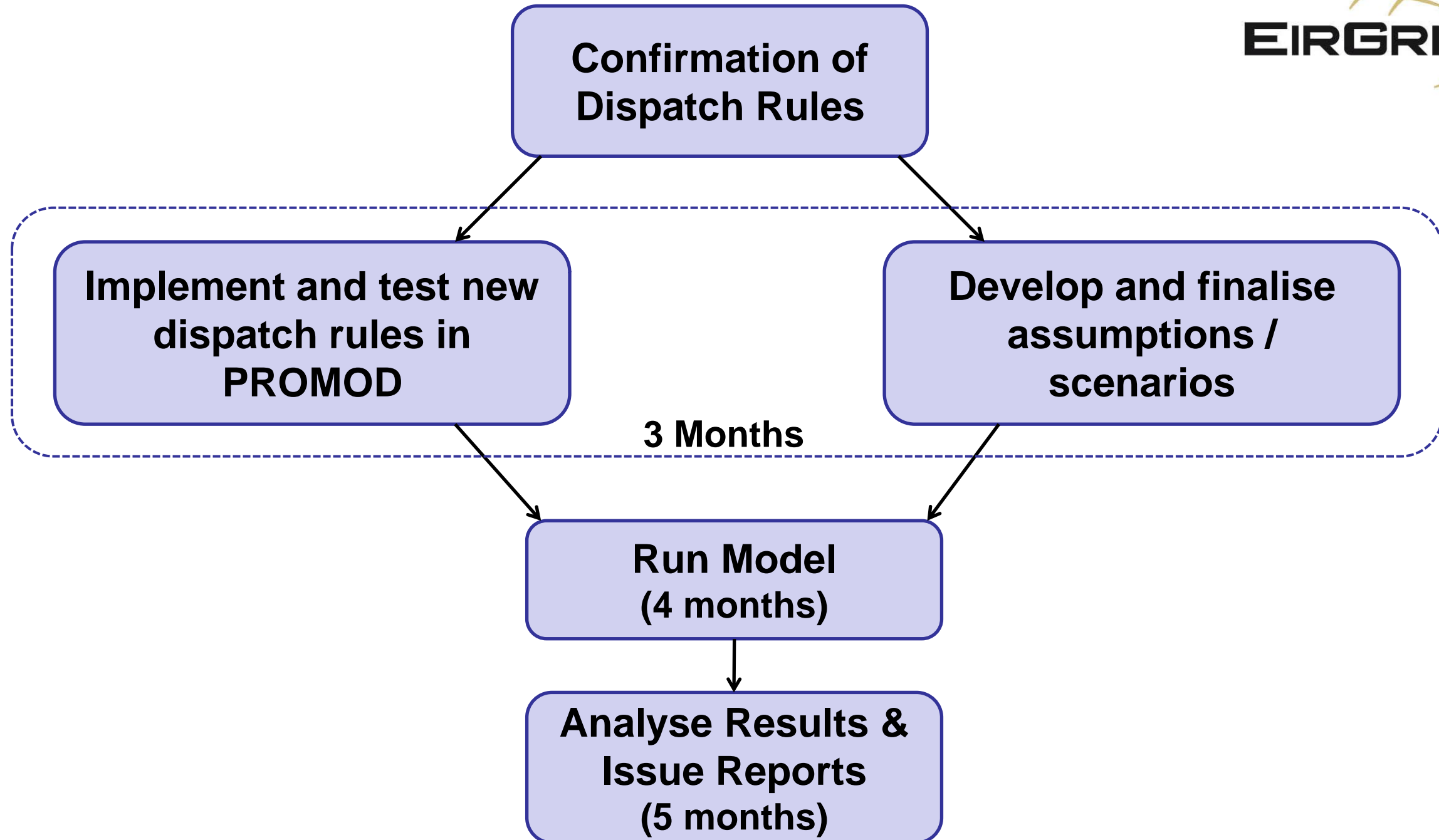
# Dispatch Rules



- **Existing draft Dispatch Rule-set (PGOR Rule-set)**
  - Pro-rata reduction of wind generation output in tie-break situations
  - Applied to both Curtailment and Constraint
- **Possible new Dispatch Rule-set?**
  - If the Scheduling and Dispatch decision results in a material change to the existing draft dispatch rule-set, the constraints model will need to be re-run using the new rules.
  - Potential new dispatch rule-set likely to be significantly more complex to model than the existing draft rule-set



# Provisional Constraints Modelling Plan



# Modelling Assumptions & Scenarios



- EirGrid will discuss the modelling assumptions and scenarios with the Gate 3 Liaison Group

## Potential modelling scenarios

- 25%, 50%, 75%, 100% Gate 3 take-up
- Industry-informed 'realistic' Gate 3 take-up
- Alternative fuel price

## Key modelling assumptions

- Rate of Gate 3 build-out and shallow connection
- Transmission network & Interconnection
- Operational rules
- Wind profiles
- Demand
- Fuel & Carbon prices
- Windfarm controllability
- Modelling of Northern Ireland

# Key Messages



- EirGrid has issued all PGOR Reports
- Potential Impact of Scheduling & Dispatch paper
  - EirGrid Working Assumption => Material change to dispatch rules
    - Complete re-run of model required with new rules
    - Potential new rule-set likely to be considerably more complex to model than the existing draft rule-set
- EirGrid will present and discuss the assumptions and potential scenarios with the Gate 3 Liaison Group



# Thank You

Eoin Kennedy

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**Discussion / Questions and Answers**