

Draft Transmission Development Plan 2013 – 2023 Workshop

Friday 22nd November



Agenda

Time	Topic
13:30 – 14:00	Tea/coffee
14:00 – 14:15	Introduction (Paul Brandon, CER and Louis Fisher, EirGrid)
14:15 – 15:00	TDP Content: <ul style="list-style-type: none">- Scope and Projects (Tim Hurley, EirGrid)- Planning and the Environment (Maeve Flynn, EirGrid)- Programme and Project Delivery (Patricia Kelly, EirGrid)
15:00 – 15:15	Recent Changes to the TDP (Tim Hurley, EirGrid)
15:15 – 15:30	Interaction with European Plans (Tim Hurley, EirGrid)
15:30 – 16:00	Q&A and Wrap-up (Louis Fisher, EirGrid)



Introduction

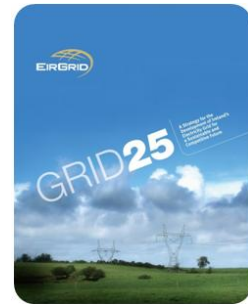


Purpose & Background of TDP



What is the TDP?

- A snapshot of EirGrid's 10 year plan for transmission development in Ireland (Grid25)
- Comprehensive document providing information on
 - system reinforcement planning
 - drivers of the investment programme
 - needs being solved by the programme
 - details of the plan
- Means for communicating those plans at programme level with industry and public



Other sources of information

Capex Monitoring Report (CER website)

ATR Updates (EirGrid website)

Why we Produce the TDP?

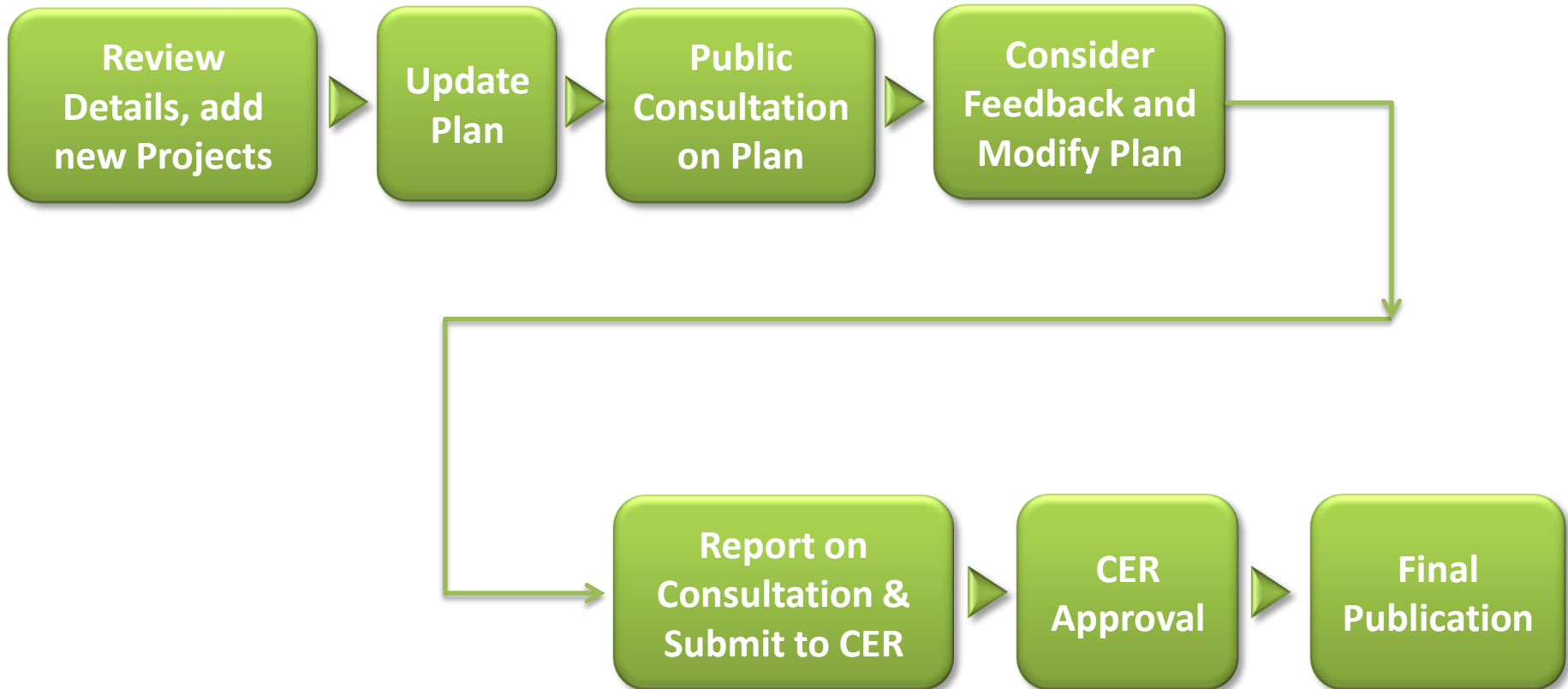
- Communicate & inform on Grid25
- Legislation:

	Irish (SI445/2000)	EU (Directive 72/2009)
Period of Plan	5 years	10 years
Update	Annually	Annually
Consultation	EirGrid	CER

- TSO Licence (Condition 8)



TDP Annual Process



Purpose of TDP Public Consultation

- Feedback from stakeholders on TDP
 - Content
 - Format
 - Presentation
- Improve the TDP



Purpose of This Workshop

- Give an overview of draft TDP 2013-2023
- Facilitate the public consultation process
- Get feedback from stakeholders
- Outline next steps in the process



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TDP Content – Scope and Projects



Drivers of the TDP

Transmission Development Plan

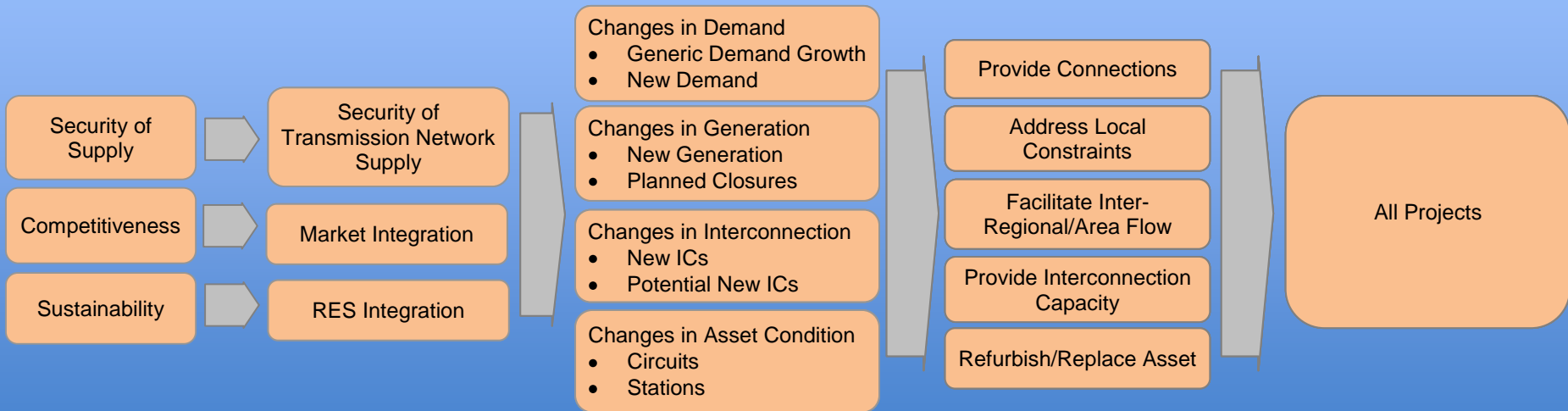
NATIONAL & EU ENERGY POLICY

POLICY DRIVERS

TECHNICAL DRIVERS

NEEDS

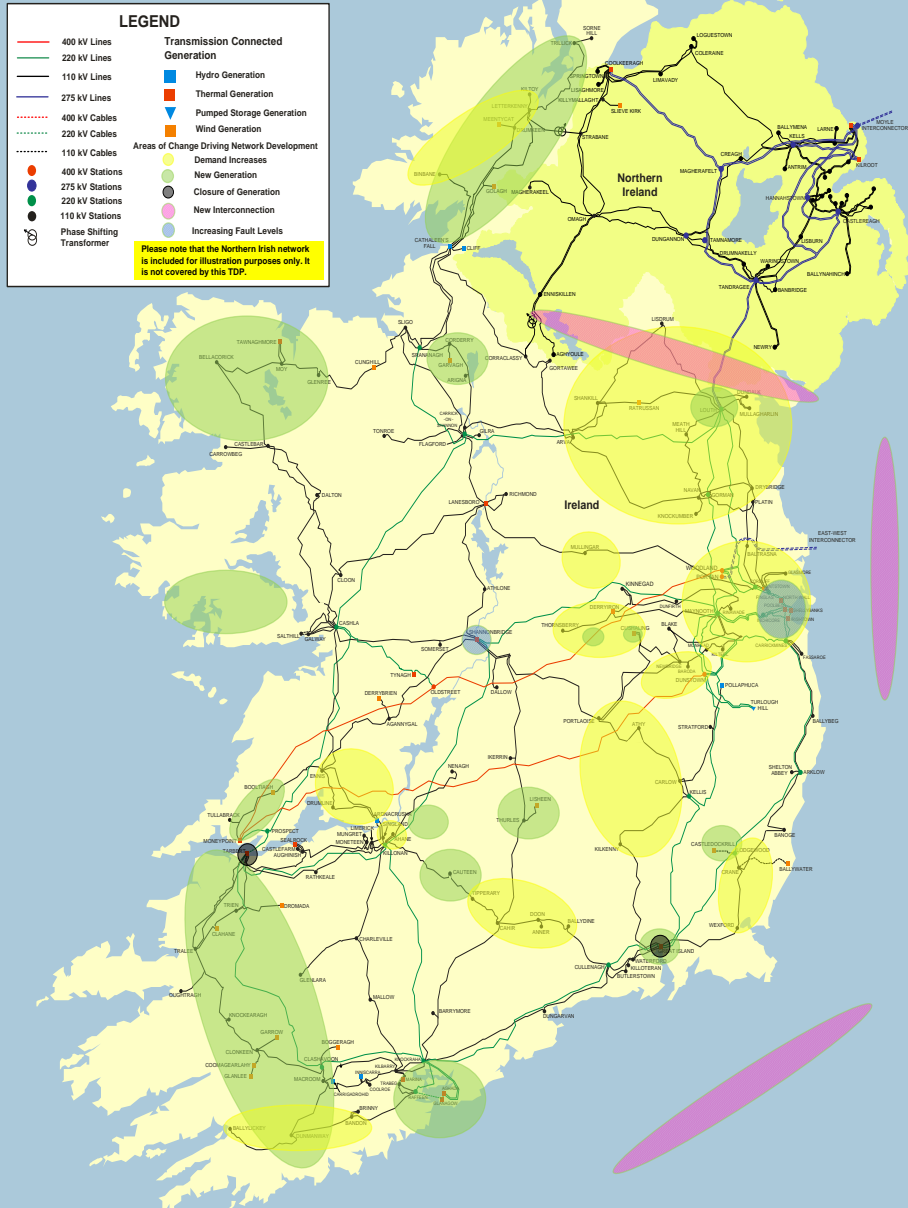
PROJECTS



Technical Drivers & Major Needs

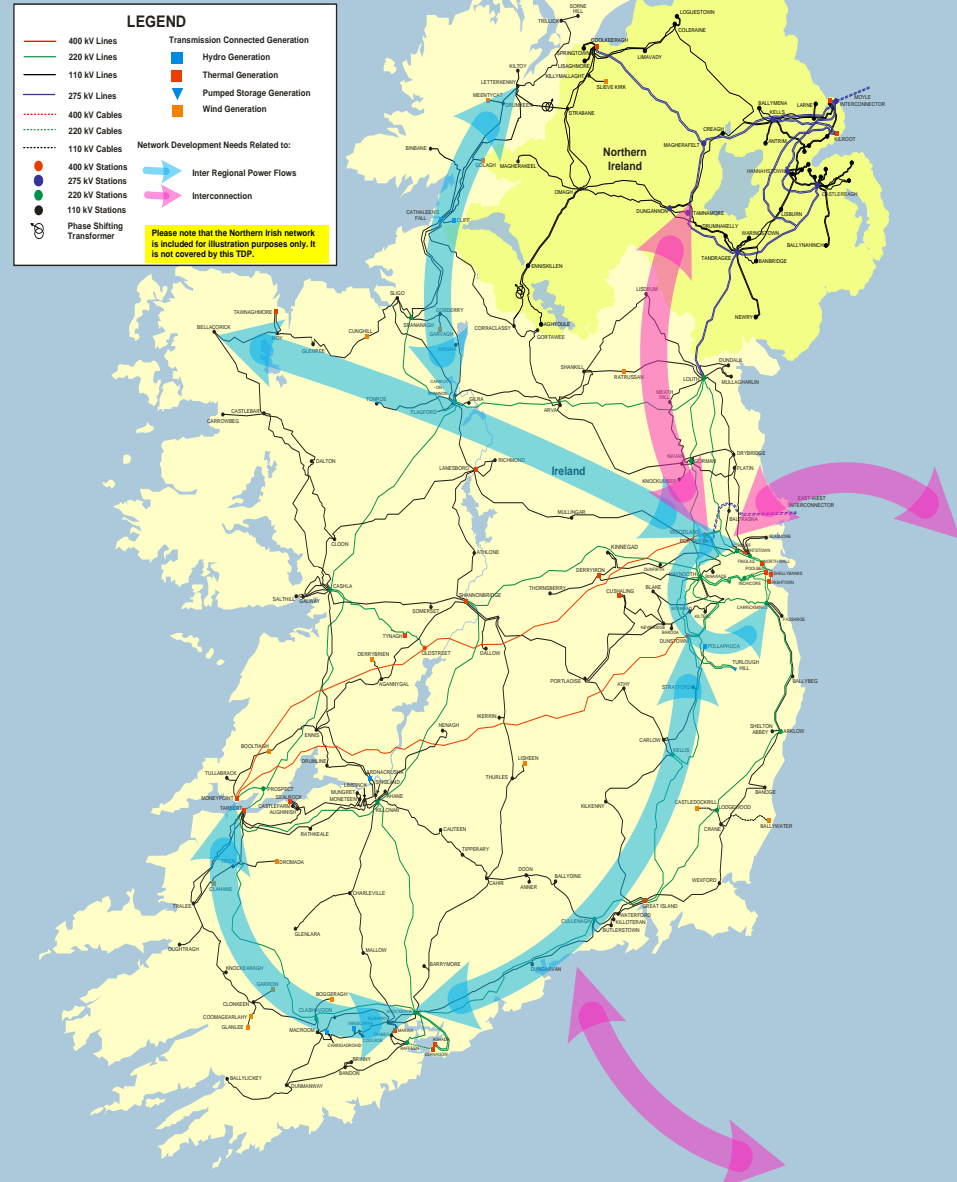
Transmission System: 400 kV, 275 kV, 220 kV and 110 kV

Showing Areas of Change Driving Network Development



Transmission System: 400 kV, 275 kV, 220 kV and 110 kV

Showing Inter-Regional Power Flows & Interconnection Driving Network Development Needs



Changes to the Plan since TDP 2012 (1)

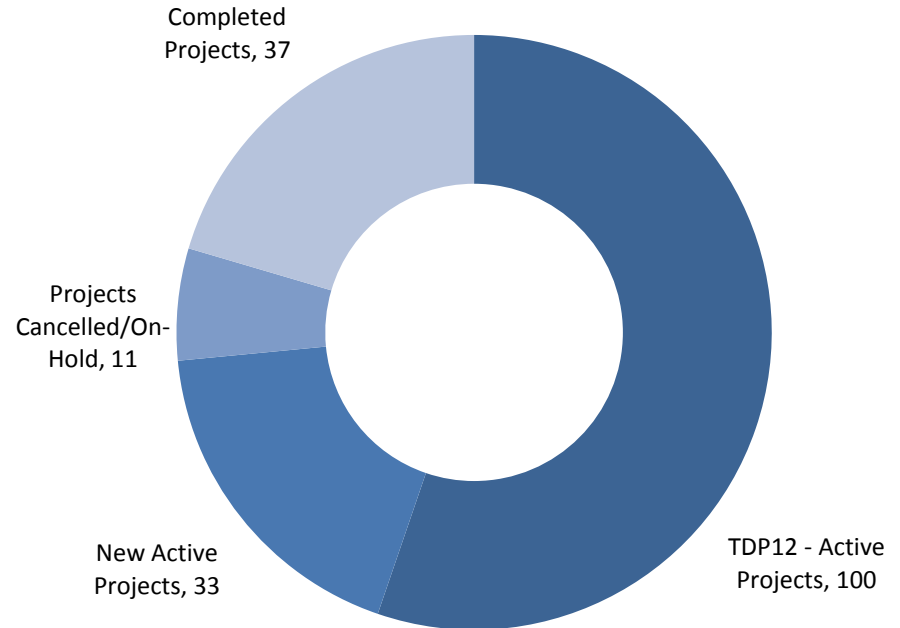
Description of Projects	<i>No. of Projects</i>
Projects Active in TDP12	136
Completed Projects	35
Cancelled Projects	1
TDP12 Projects Active in TDP13	100

Changes to the Plan since TDP 2012 (2)

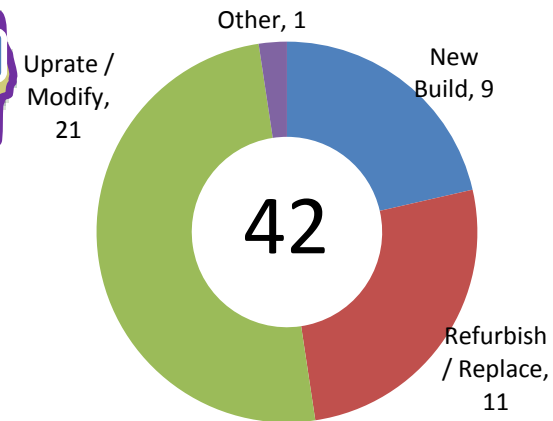
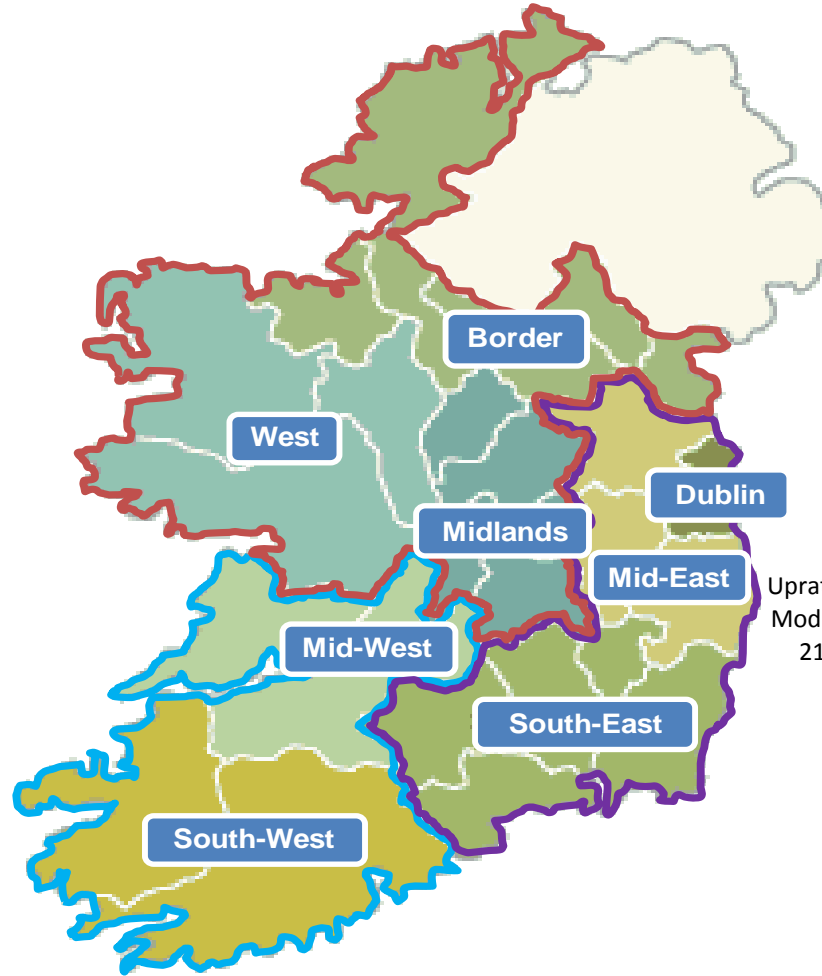
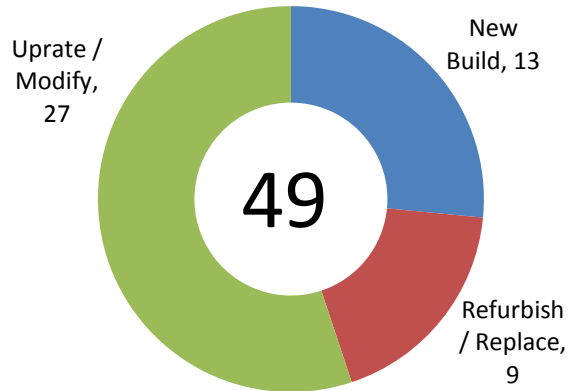
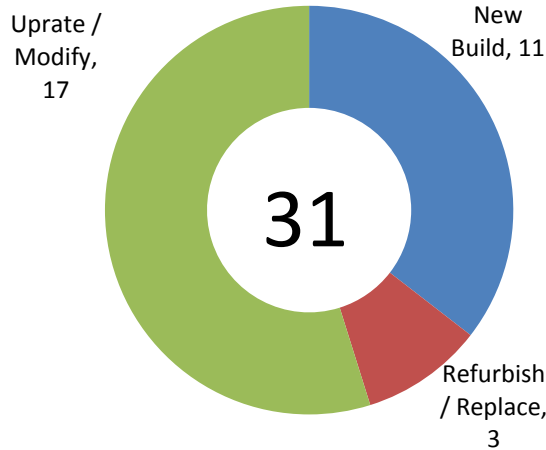
Description of Projects	<i>No. of Projects</i>
New Projects	35
Completed New Projects	2
New Active Projects	33

Summary of TDP 2013

Description of Projects	No. of Projects
TDP12 - Active Projects	100
New Active Projects	33
Projects Cancelled/On-Hold	11
Completed Projects	37
TOTAL	181



TDP 2013 Regional Project Statistics



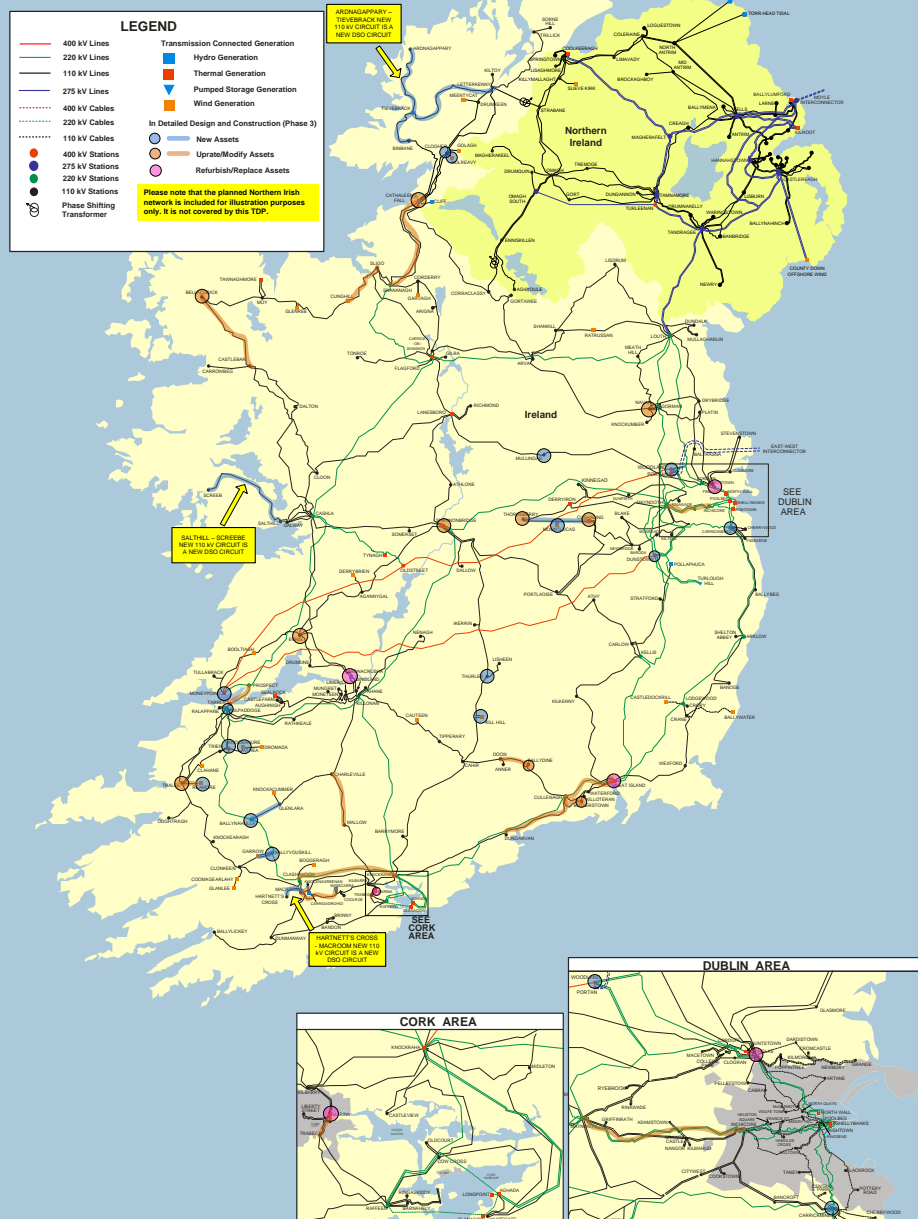
11 National Projects
133 Active Projects in Total



Projects

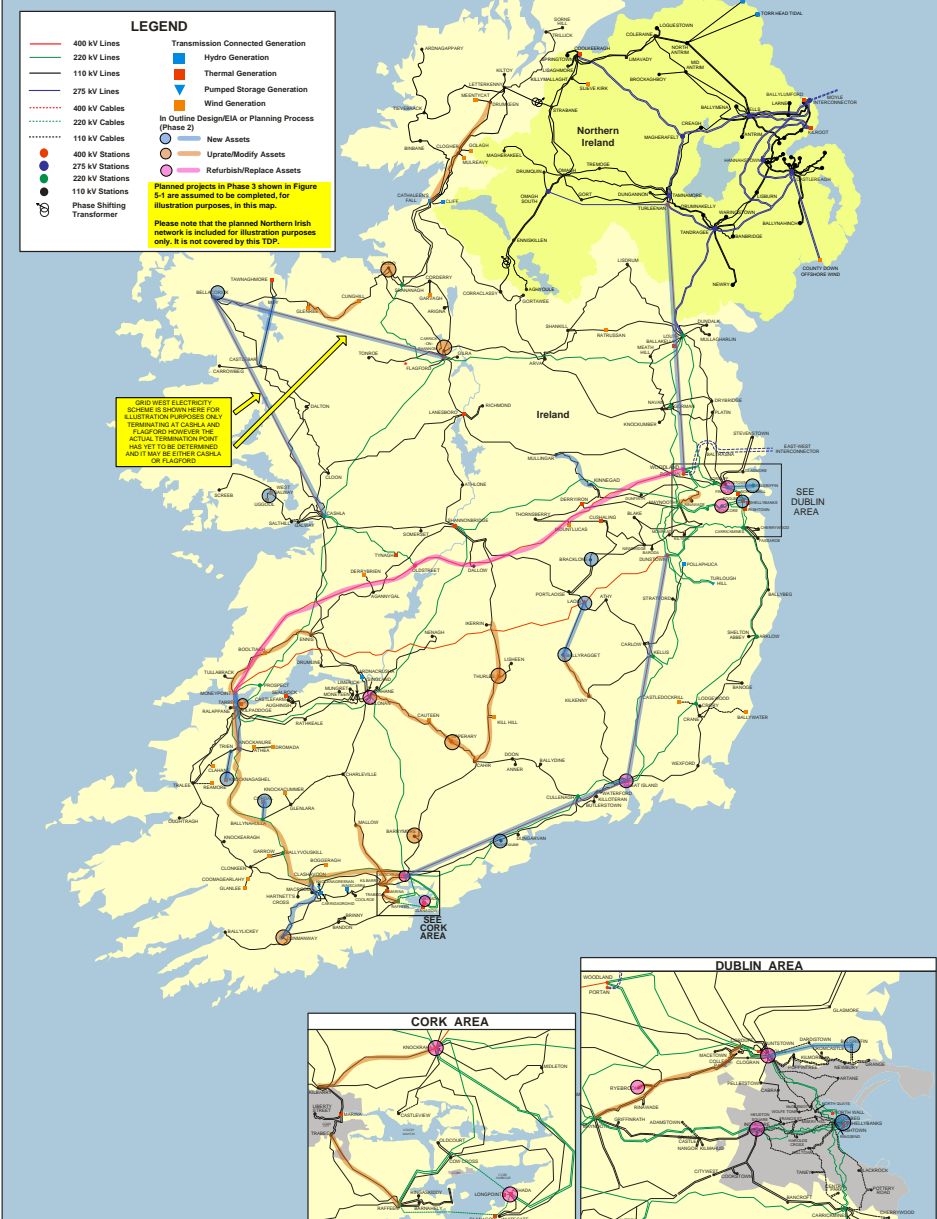
Transmission System: 400 kV, 275 kV, 220 kV and 110 kV

Indicating Developments in Phase 3 (i.e. Detailed Design & Construction) as at March 2013

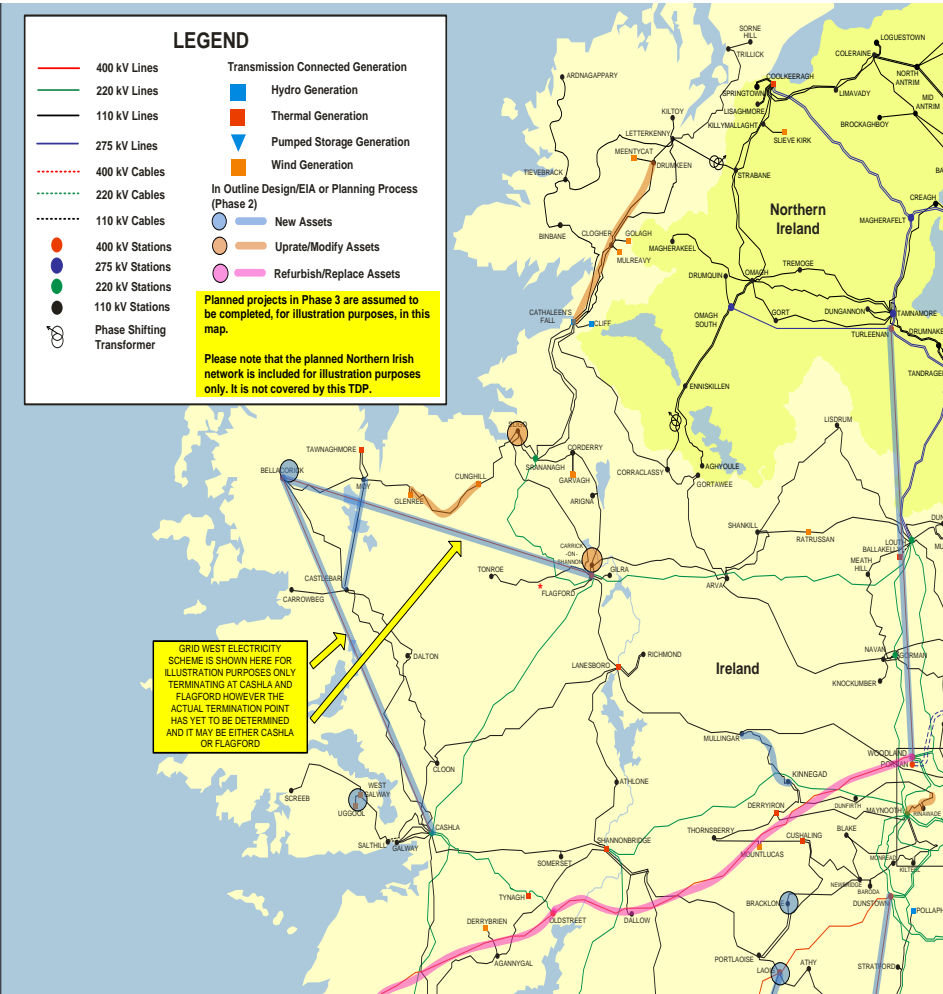
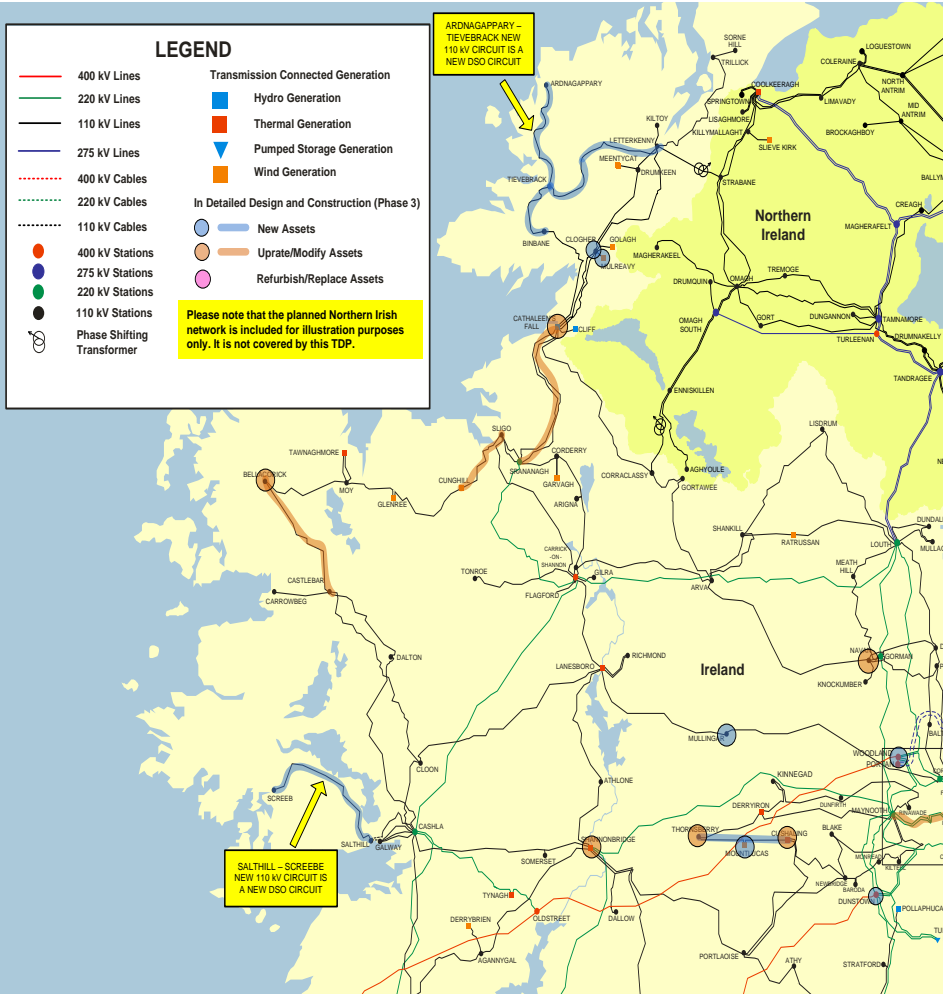


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Indicating Developments in Phase 2 (i.e. Outline Design, EIA or Public Planning Phase) as at March 2013



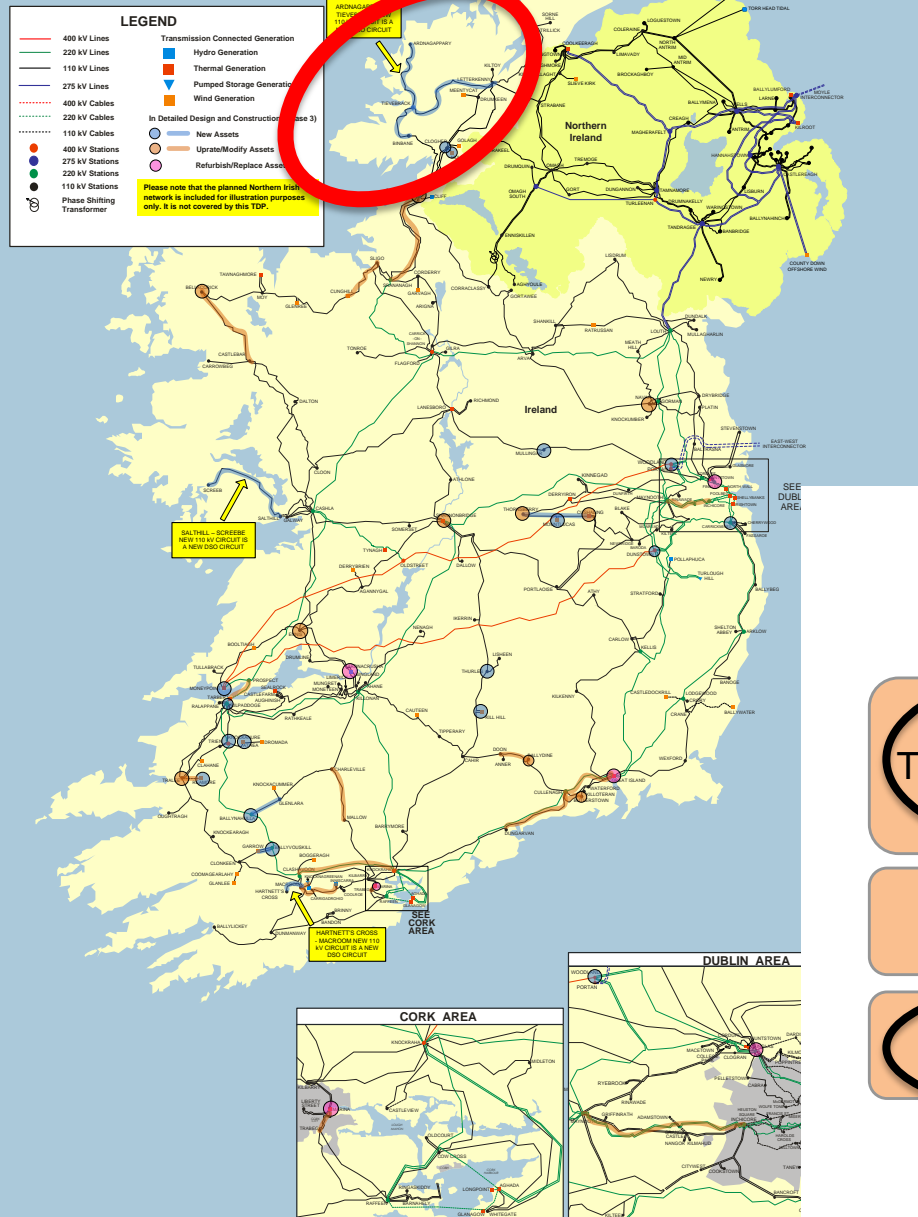
Projects in the BMW Region



Donegal 110 kV Project

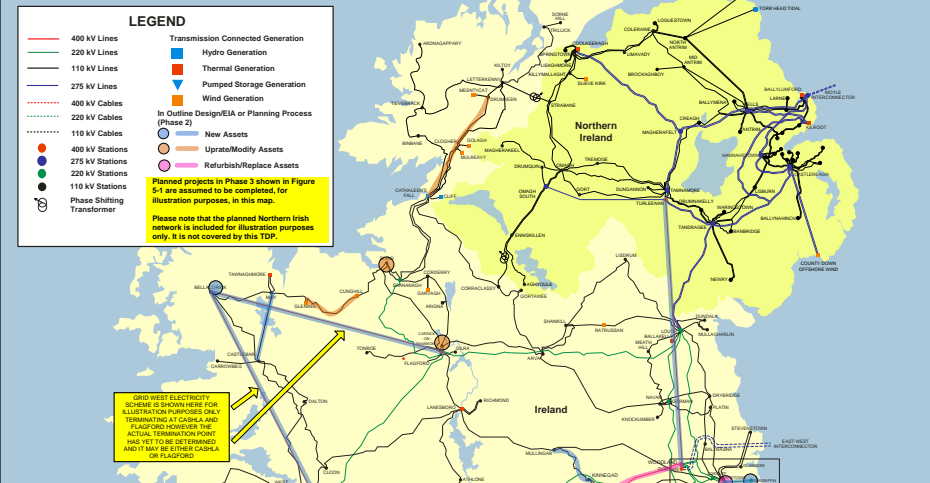
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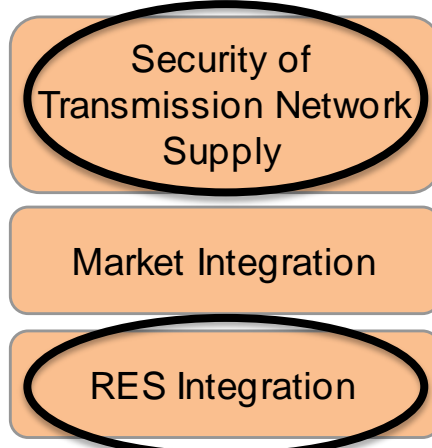


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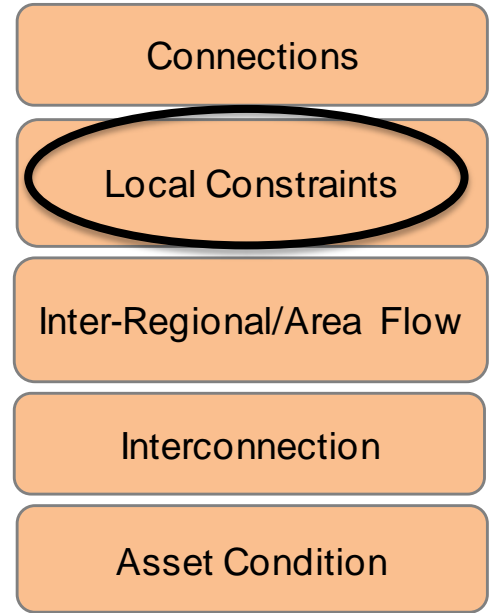
Indicating Developments in Phase 2 (i.e. Outline Design, EIA or Public Planning Phase) as at March 2013



DRIVERS



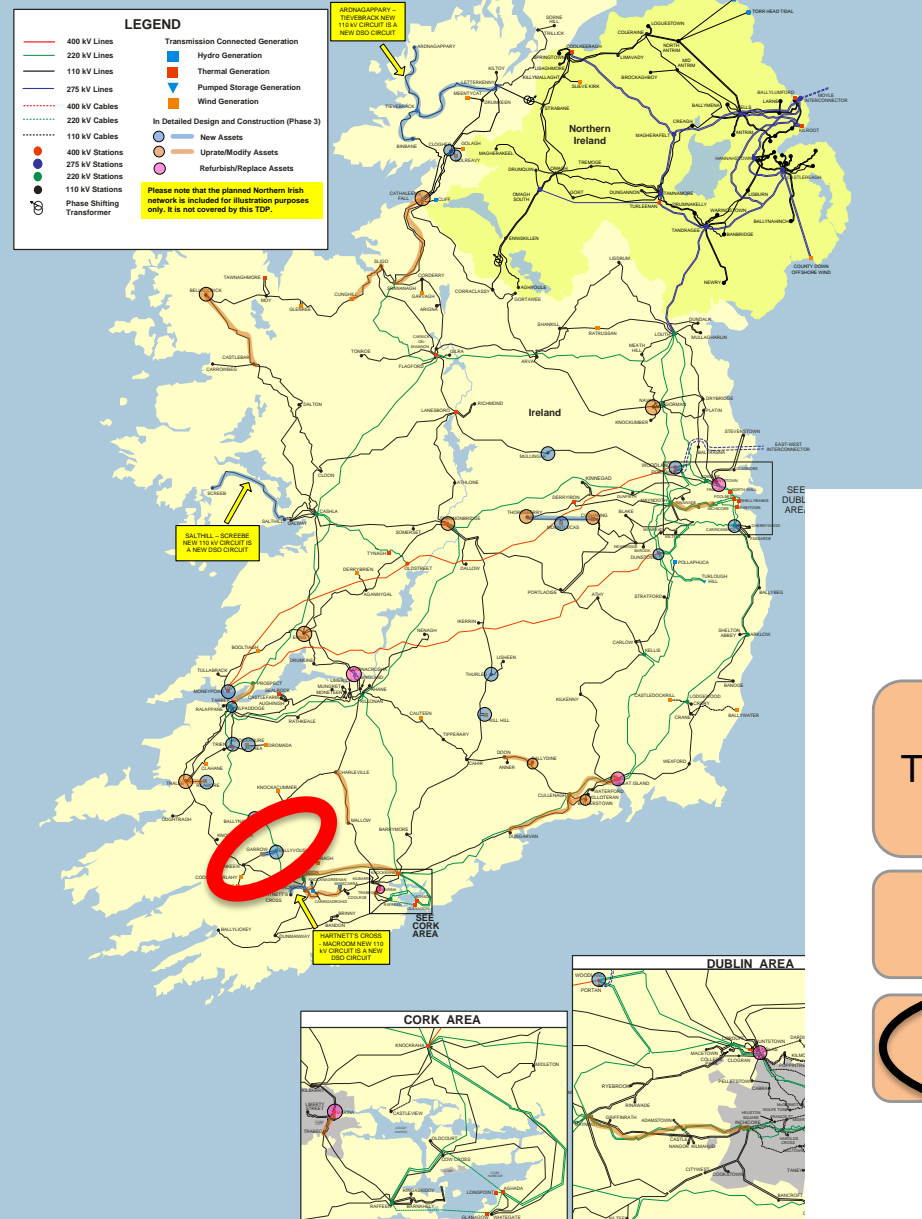
NEEDS



Millstreet 220/110 kV New Station

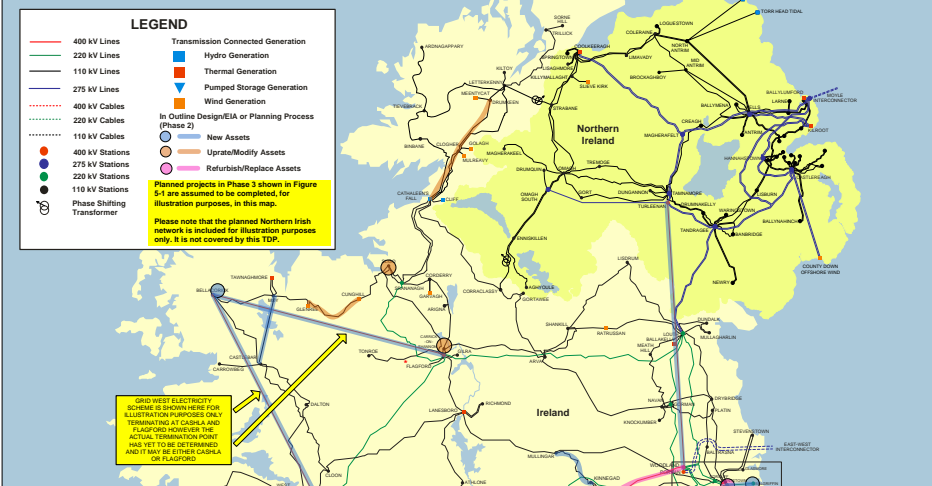
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Indicating Developments in Phase 3 (i.e. Detailed Design & Construction) as at March 2013



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Indicating Developments in Phase 2 (i.e. Outline Design, EIA or Public Planning Phase) as at March 2013



DRIVERS

- Security of Transmission Network Supply
- Market Integration
- RES Integration

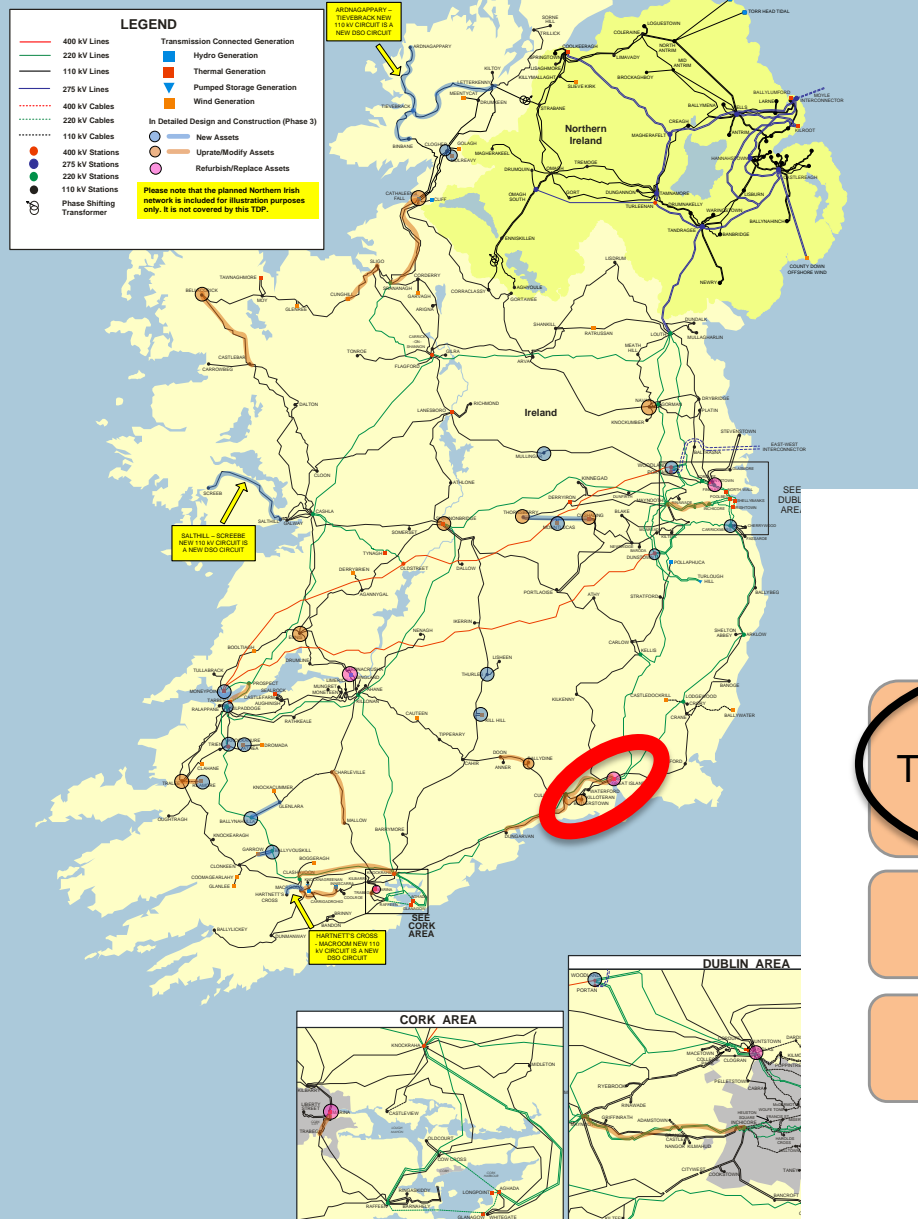
NEEDS

- Connections
- Local Constraints
- Inter-Regional/Area Flow
- Interconnection
- Asset Condition

Great Island 220 kV Station Redevelopment

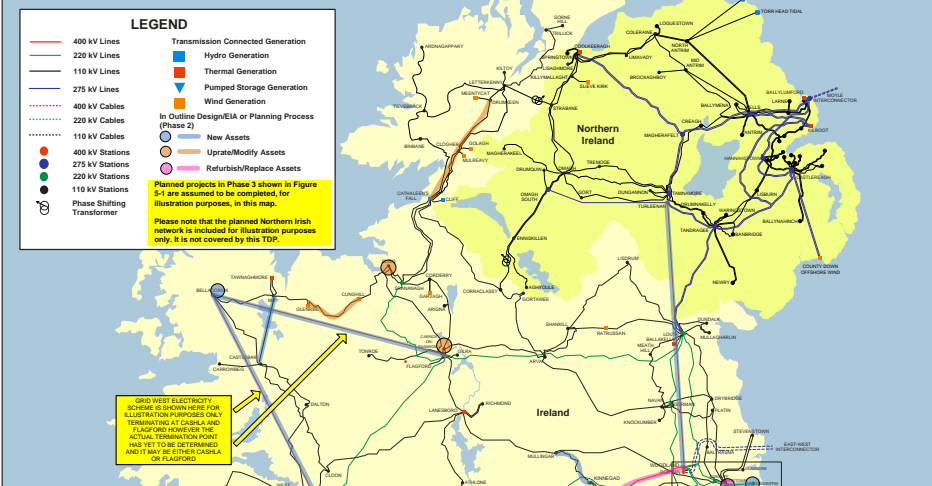
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Transmission System: 400 kV, 275 kV, 220 kV and 110 kV

Indicating Developments in Phase 2 (i.e. Outline Design, EIA or Public Planning Phase) as at March 2013



DRIVERS

- Security of Transmission Network Supply
- Market Integration
- RES Integration

NEEDS

- Connections
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- Asset Condition

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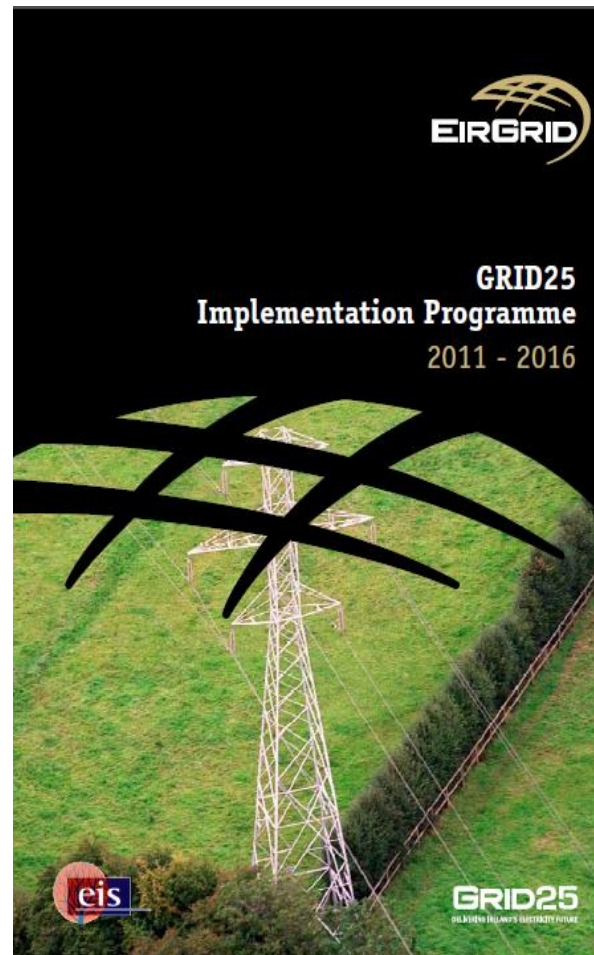
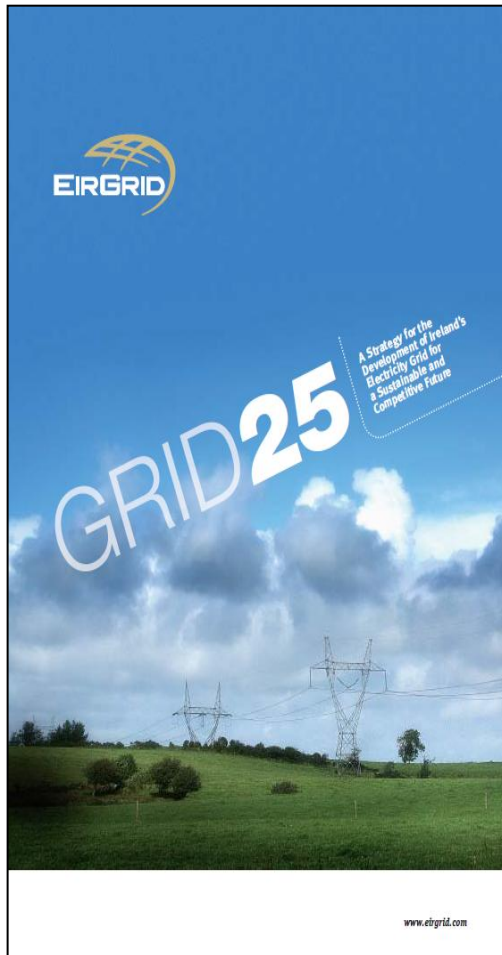
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TDP Content – Planning & the Environment



Grid25 and the Grid25 Implementation Programme 2011-2016



The Grid Development Strategy

(Figure 2.3 of the *Grid25 Implementation Programme 2011-2016*, and 8.10 of the *SEA*)

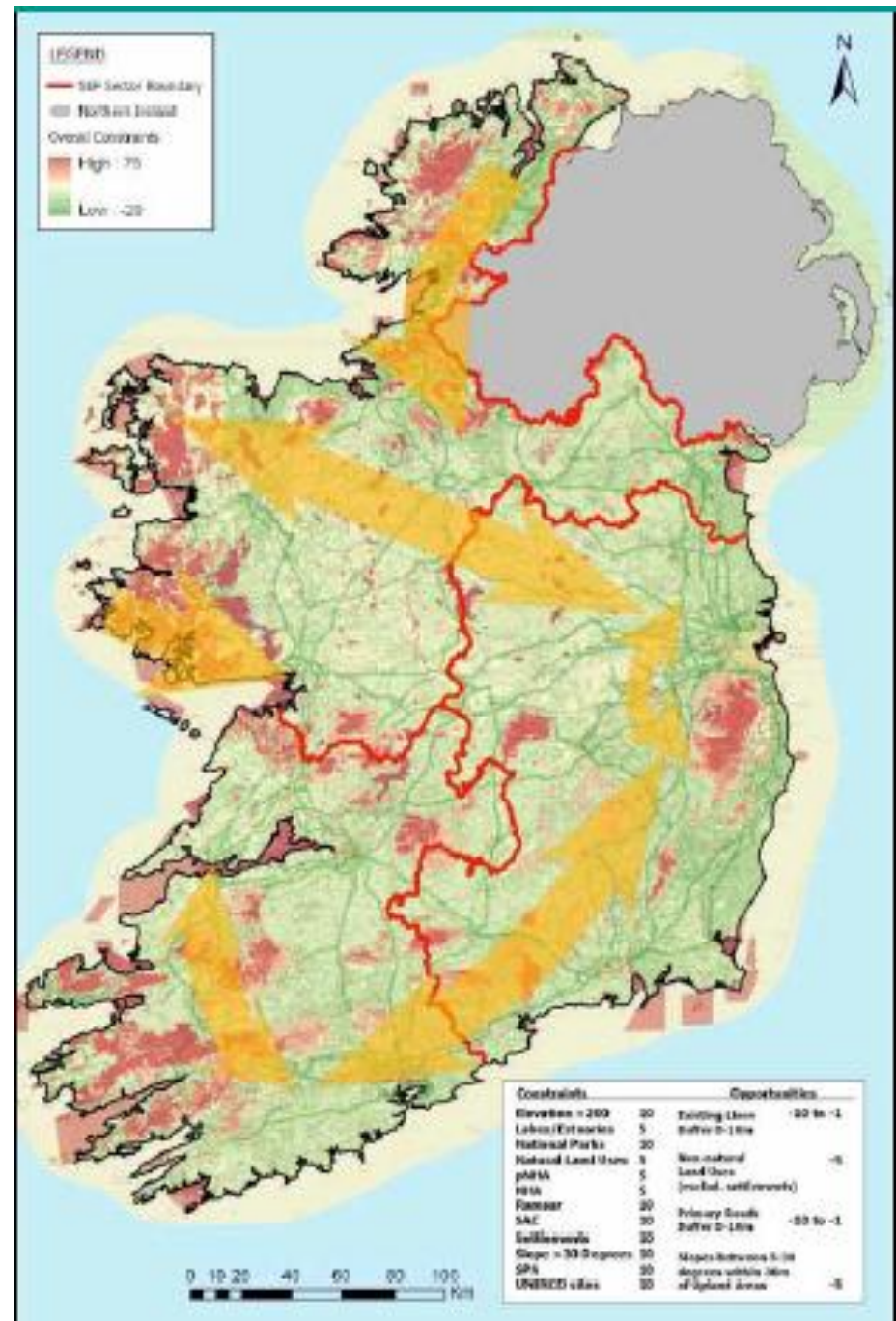
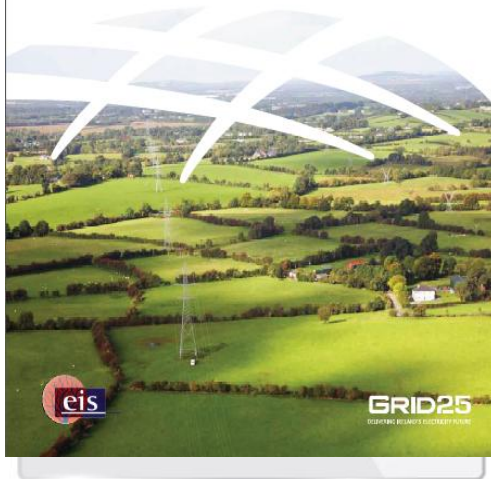


The Grid Development Strategy Overlain on National Overall Development Potential Rating Map

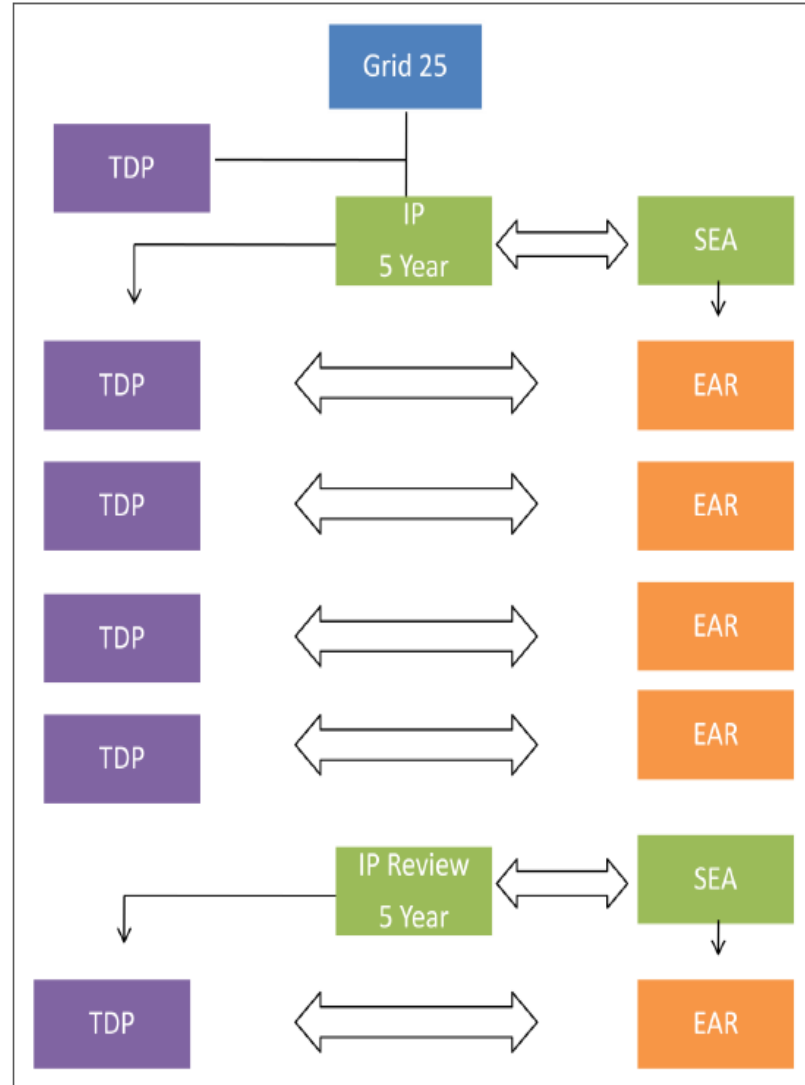
(Figure 8.1 of the SEA for the *Grid25 Implementation Programme 2011-2016*)



ENVIRONMENTAL REPORT
for the Grid25 Implementation Programme 2011-2016
Strategic Environmental Assessment



Approach to Integration of Strategic Environmental Assessment into TDP



Strategic Decision Making Process: Planning and Environmental Considerations

	Environmental Process	EirGrid Process	Policy
Policy		Grid 25	White paper
Programme	Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA)	Grid 25 Implementation Programme	National Plans and Strategies
Plan	Screening for SEA	Master Plan	Regional Guidelines and Strategies County Development Plans and Strategies
	Strategic Environmental Framework and technical guidance	Scheme Development	
Project	Screening for EIA and AA	Scheme Design and Permitting	County/Local Development Plans and Strategies



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TDP Content – Programme and Project Delivery

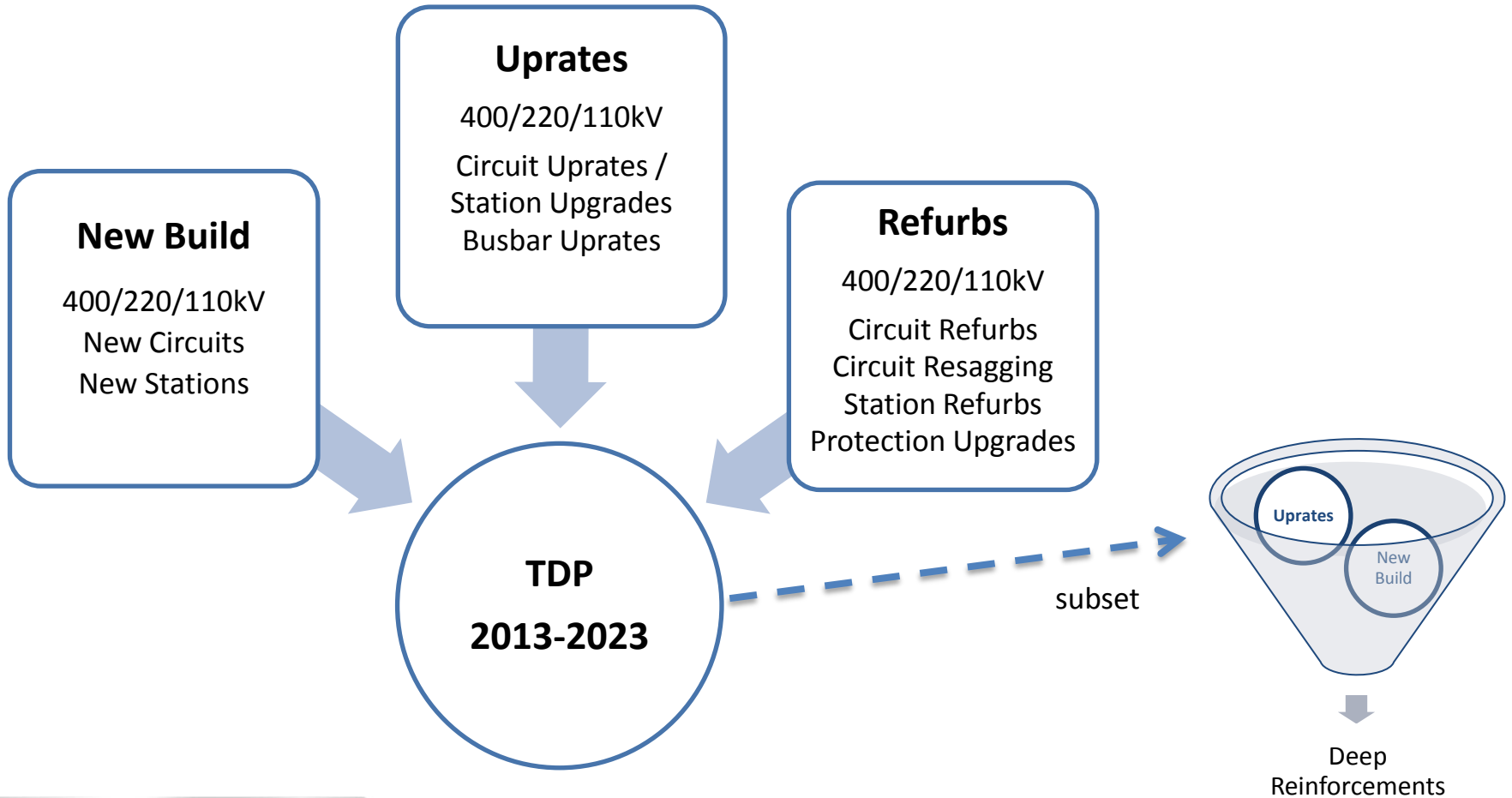


Overview

- Transmission Programme
- Transmission Project Lifecycle
- Project Delivery Lead Times
- Risks



Transmission Programme



Transmission Programme 2013

Significant Programme of Works in 2013
Increase on 2012 volumes

Upgrades	110kV	200km
	220kV	50km
	TOTAL	250km
Refurbs	110kV	100km
	220kV	50km
	TOTAL	150km

New Stations:

Under construction in 2013:

- 220kV GIS 8
- 110kV GIS/AIS 5

Busbar Upgrades:

- Navan 110kV
- Butlerstown 110kV
- Cushaling 110kV
- Bellacorick 110kV
- Thurles 110kV (1/2)
- Ennis 110kV (1/2)
- Cathaleen's Fall 110kV (1/2)

New Transformers

Woodland 400/220kV



2013 Key Achievements

- Investment Decisions

- The North West Project
- Louth 220kV station refurbishment

- Planning Permission Granted

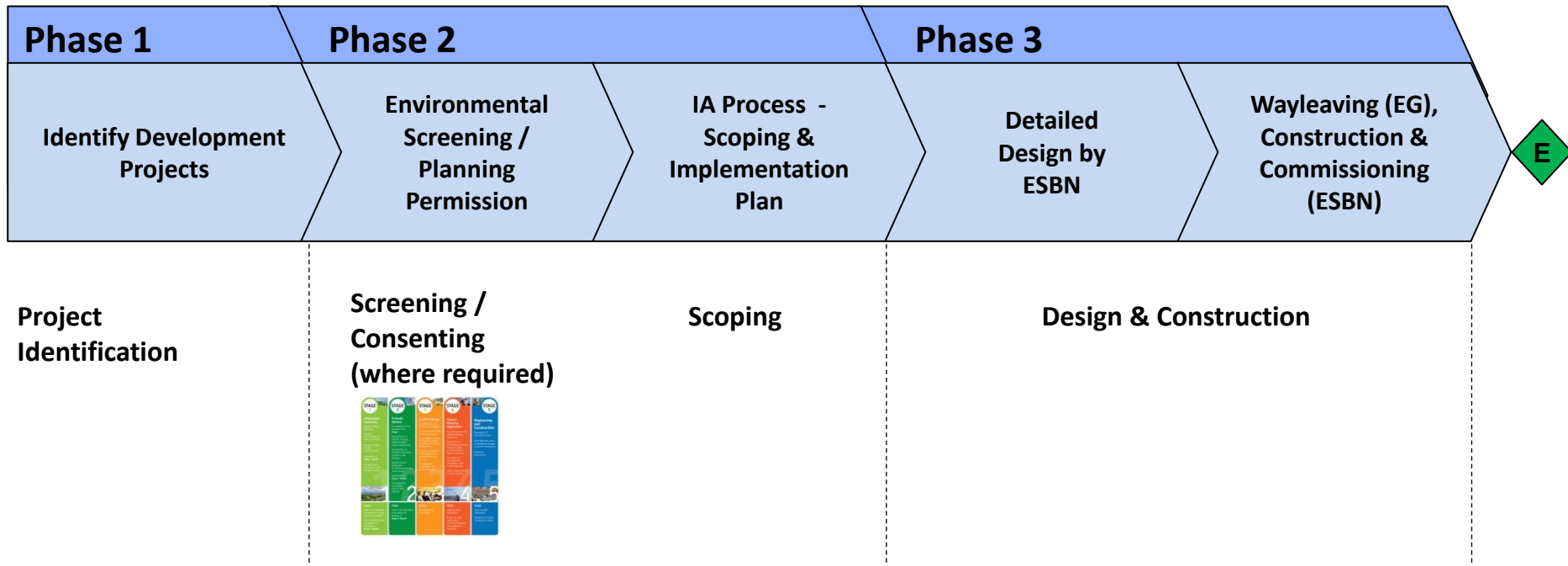
- Kinnegad - Mullingar 110kV circuit in January 2013
- Dublin North Fringe (220kV GIS station at Belcamp) February 2013
- Killonan 220kV GIS station July 2013
- Finglas 220kV Busbar Reconfiguration July 2013
- West Galway 110kV station October 2013

- Energisations

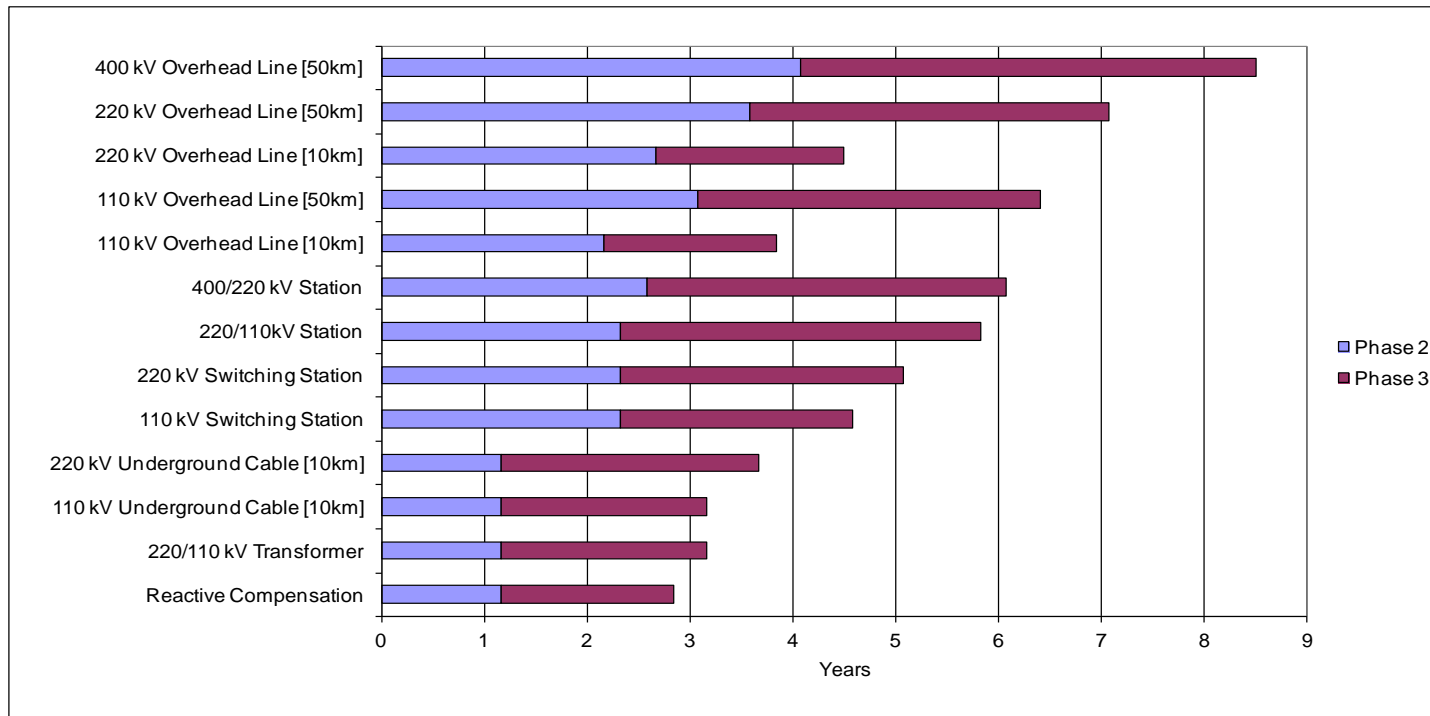
- Cloghran 110kV station in Co. Dublin on 31st March
- Athea 110kV station in Co. Limerick on 9th October
- Great Island 220kV GIS station in Co. Wexford on 25th October



Transmission Project Life Cycle



Project Delivery Lead-times



Lead Times: Assumptions

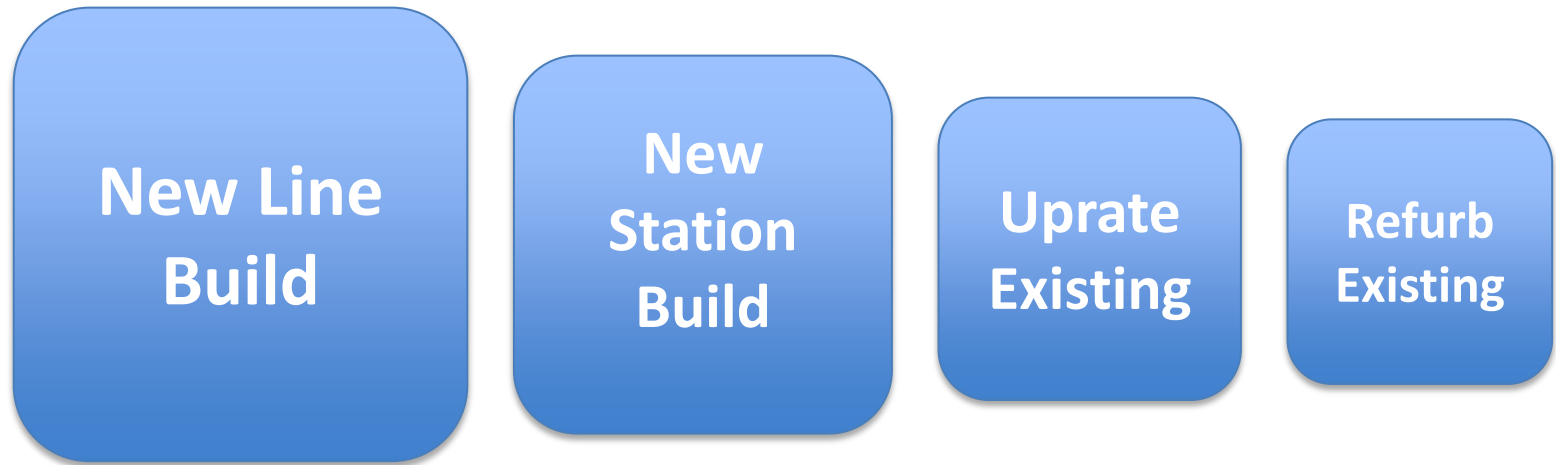


Dynamic Variables

Risk - Project Phase



Risk – Project Type



Grid25: Delivery Challenges

- Public Consultation
- Environment
- Stakeholder Management
- Land Access
- Outage Availability
- Lead Times
- Uncertainty on Generator Timeframes for Construction

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Recent Changes to the TDP



Drivers, Needs & Projects

Transmission Development Plan

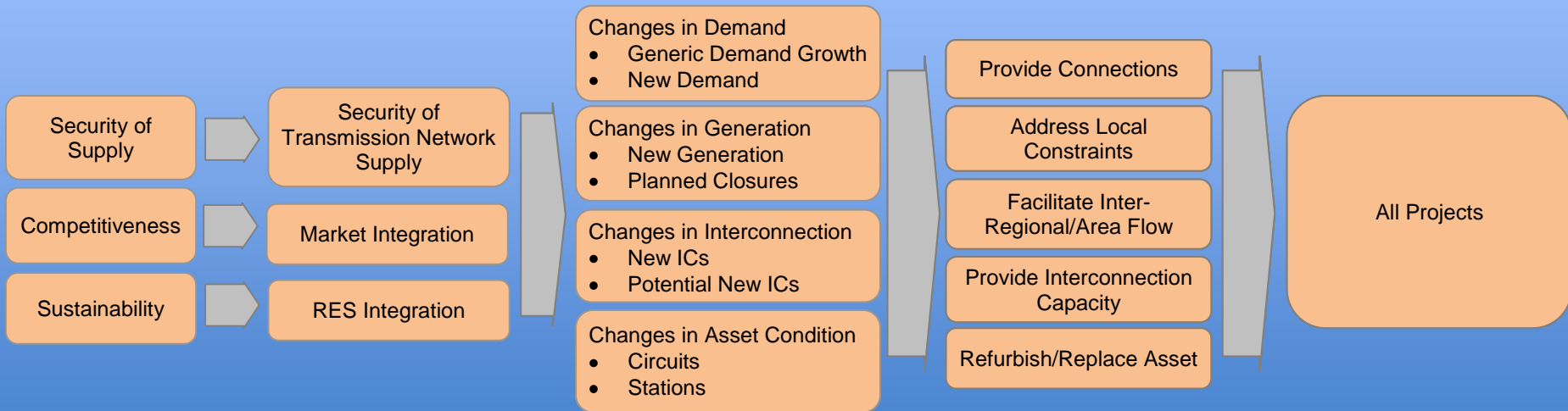
NATIONAL & EU ENERGY POLICY

POLICY DRIVERS

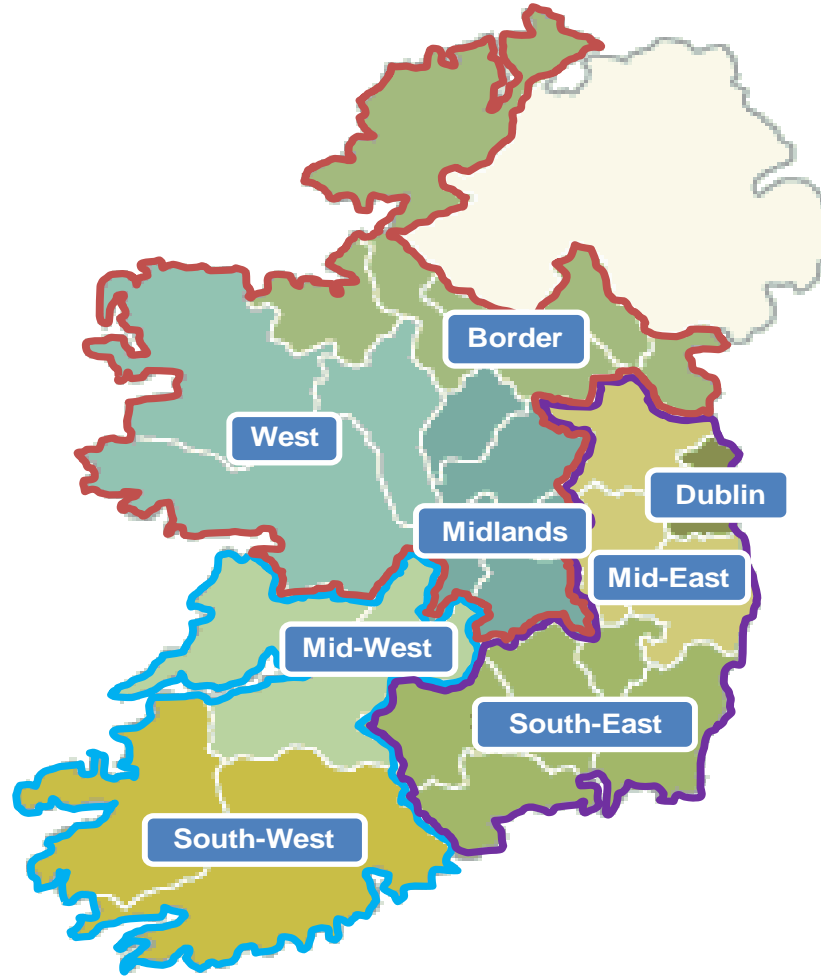
TECHNICAL DRIVERS

NEEDS

PROJECTS

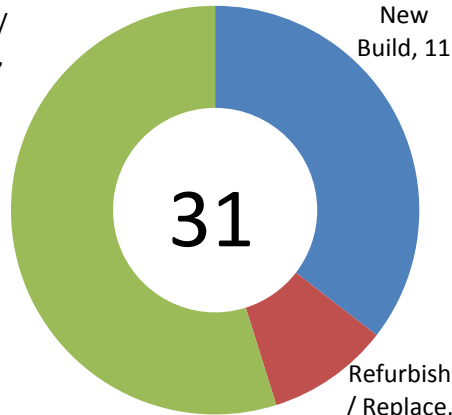


Planning Area Categorisation

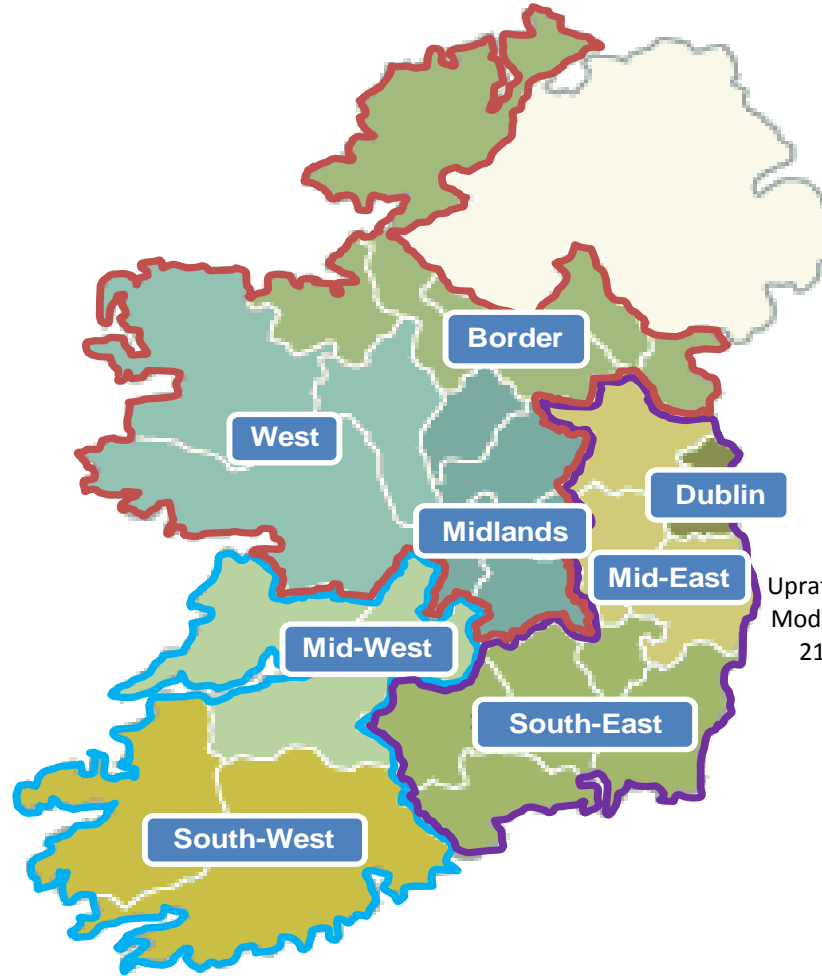
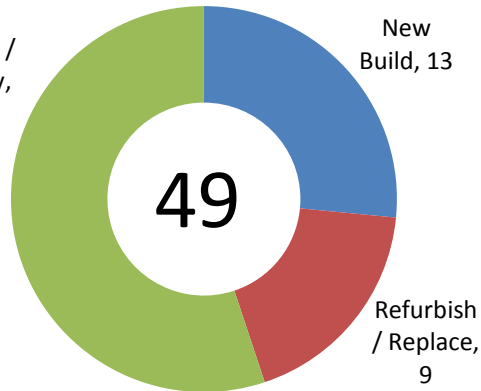


Project Categorisation

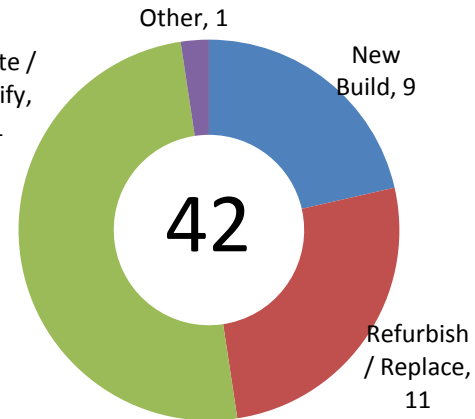
Uprate /
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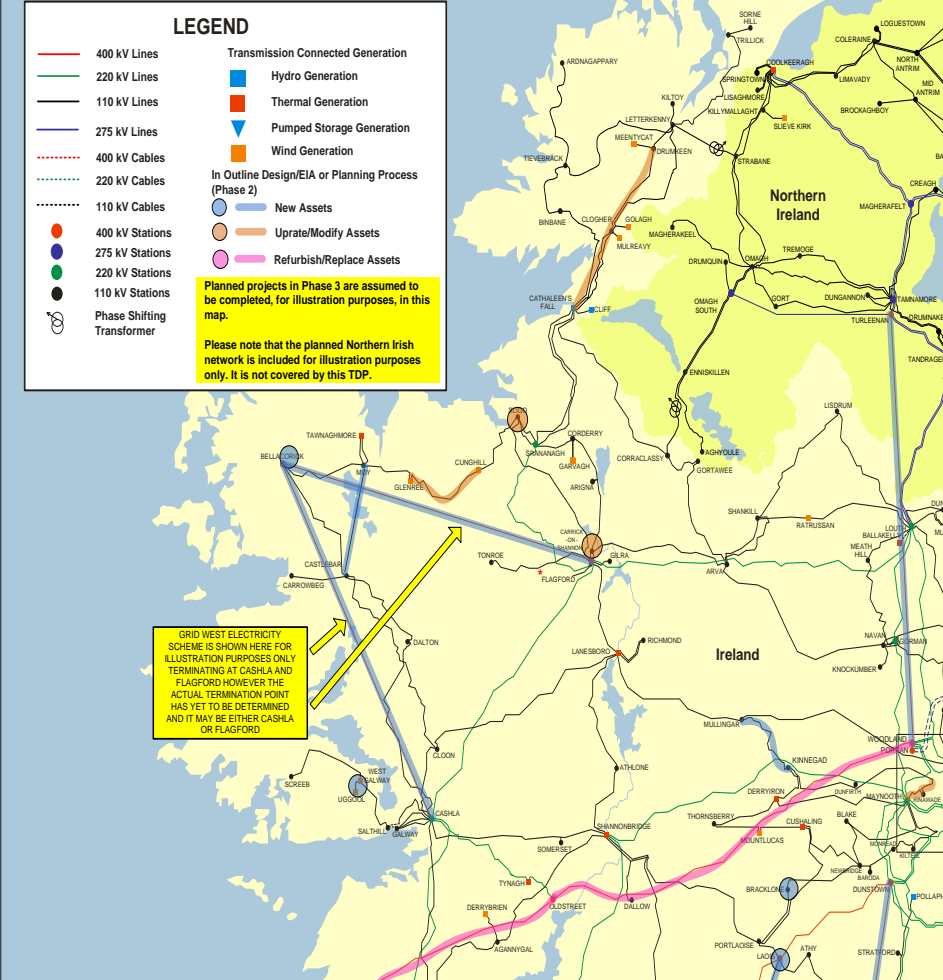
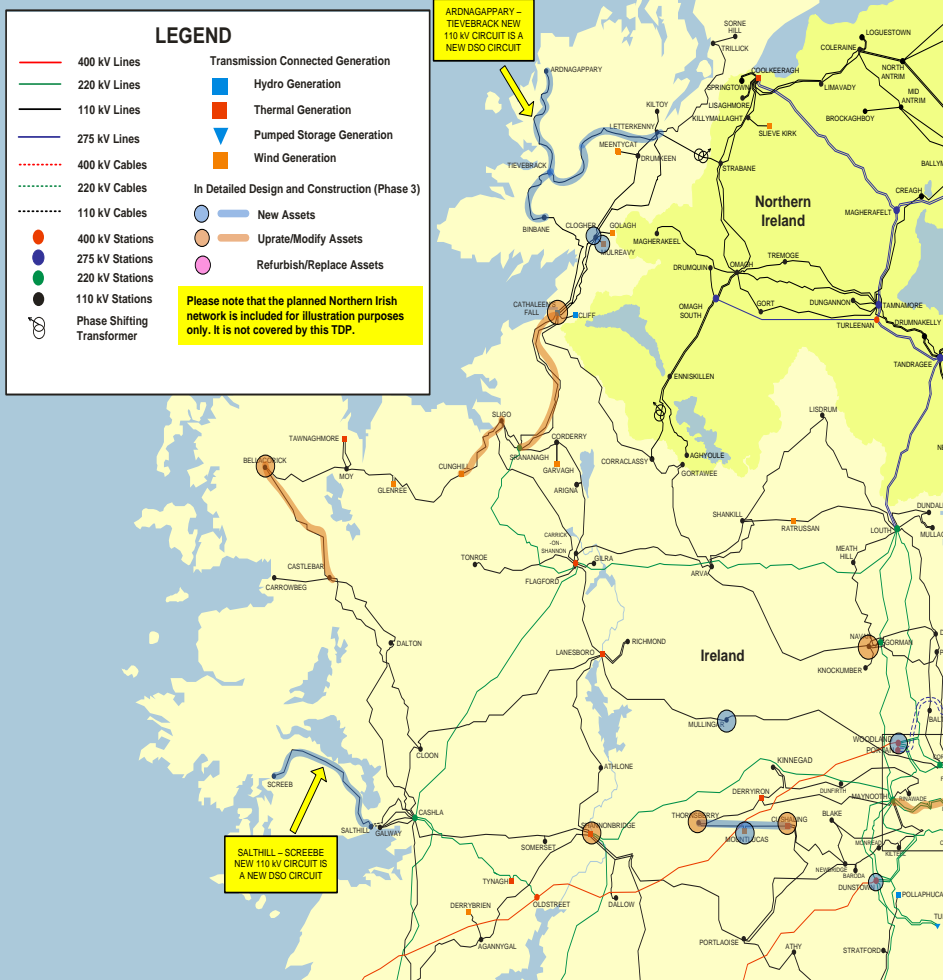
Uprate /
Modify,
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Uprate /
Modify,
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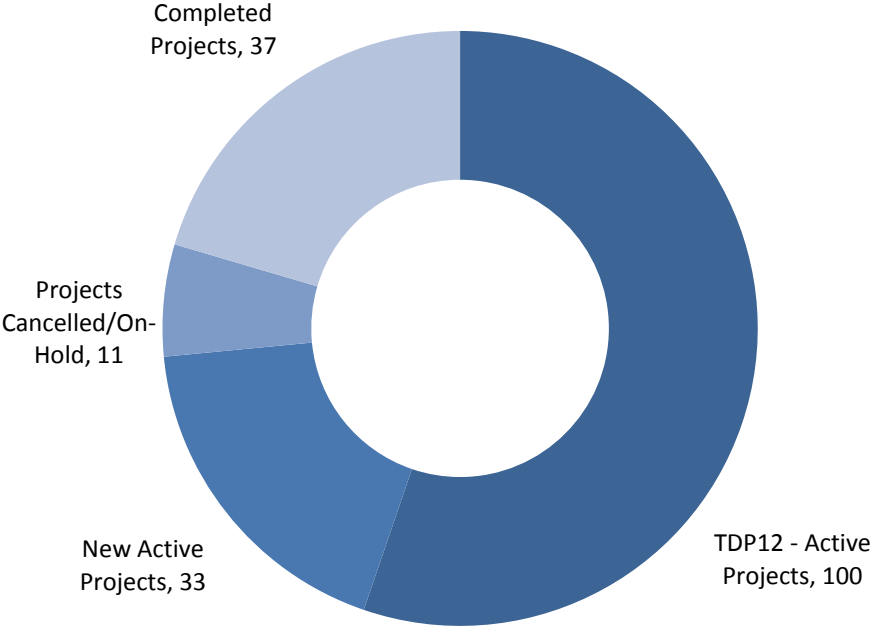


Planning Area Maps



Monitoring against Previous Plan

Description of Projects	No. of Projects
TDP12 - Active Projects	100
New Active Projects	33
Projects Cancelled/On-Hold	11
Completed Projects	37
TOTAL	181



Tables of Projects in Appendix C


CP No	Project Title	Type	km	DRIVERS			NEEDS					Location		Phase	ECD	
				Security of Supply	RES Integration	Market Integration	Inter-Regional Power Flow	Local Constraints	Connection	Inter-connection	Asset Condition	County/Countries	Planning Area/s			
CP0755	Cauteen - Killonan 110 kV Line Uprate	Uprate / Modify	27.9	0	1	0	0	1	0	0	0	0	Tipperary South, Limerick	SE-ME-D, SW-MW	2	2015
CP0824 (NEW)	Moneypoint - Oldstreet 400 kV Line Refurbishment	Refurbish / Replace	102.5	1	0	0	0	0	0	0	1	0	Clare, Galway	SW-MW, B-M-W	2	2017
CP0466	North South 400 kV Interconnection Development - TYNDP/81 	New Build	106.0	1	0	1	1	0	0	1	0	0	Meath, Tyrone	B-M-W, SE-ME-D	2	2017

Table of Irish Projects in ENTSO-E TYNDP in Appendix D

TYNDP No.	CP No.	Project Title
80	-	East – West Interconnector
81	CP0466	North South 400 kV Interconnection Development
82	CP0721	The Grid West Project
	n/a	Renewable Integration Development Project (RIDP)
83	CP0399	Moneypoint - Kilpaddoge 220 kV New Cable
	CP0726	Moneypoint - North Kerry Project
	CP0732	The Grid Link Project
84	n/a	Project to Reinforce the Greater Dublin Area/'Dublin Ring' Project
106	n/a	2 nd Ireland – Great Britain Interconnector
107	n/a	Ireland – France Interconnector
109	n/a	Connections for Offshore Wind Farms off the East Coast

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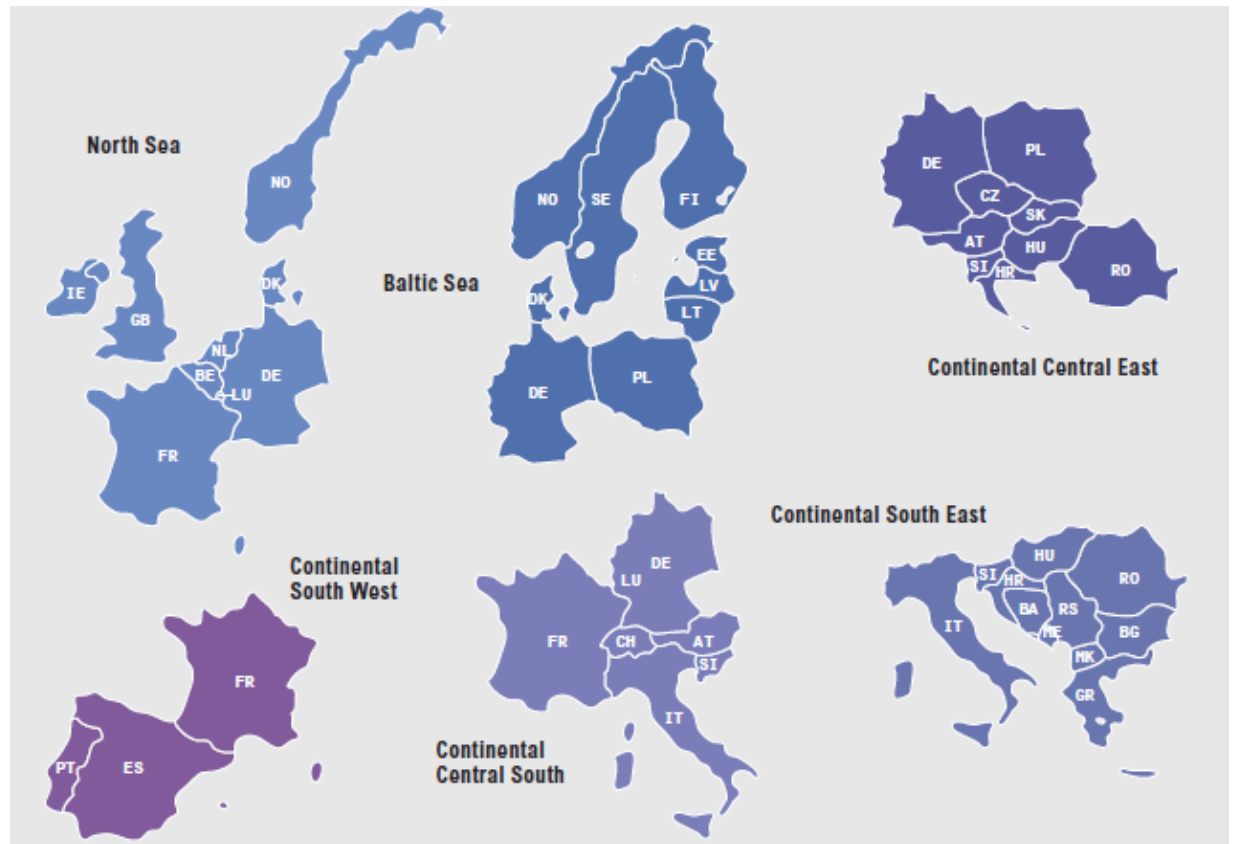


Interaction with European Plans

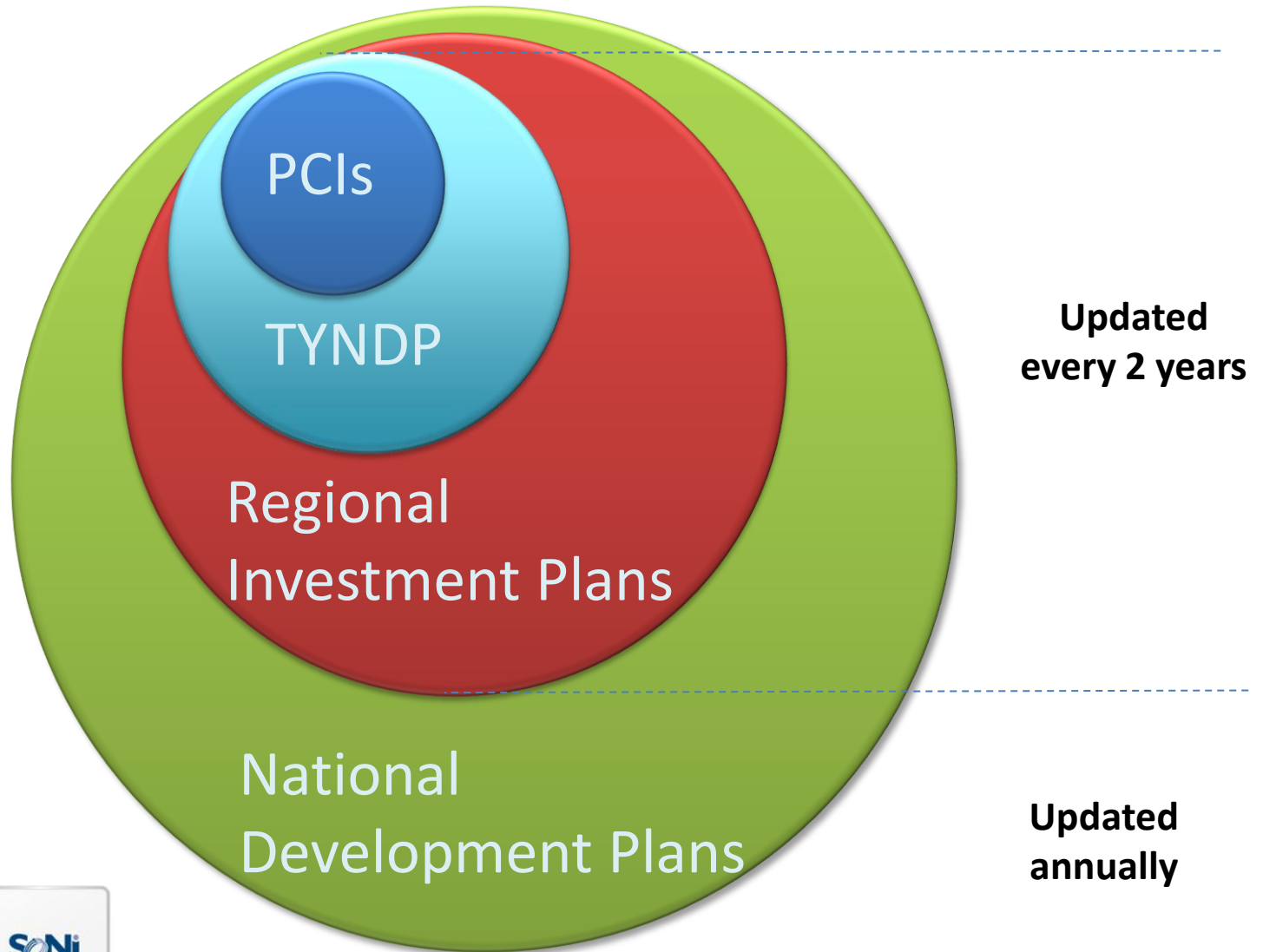


ENTSO-E's TYNDP Package

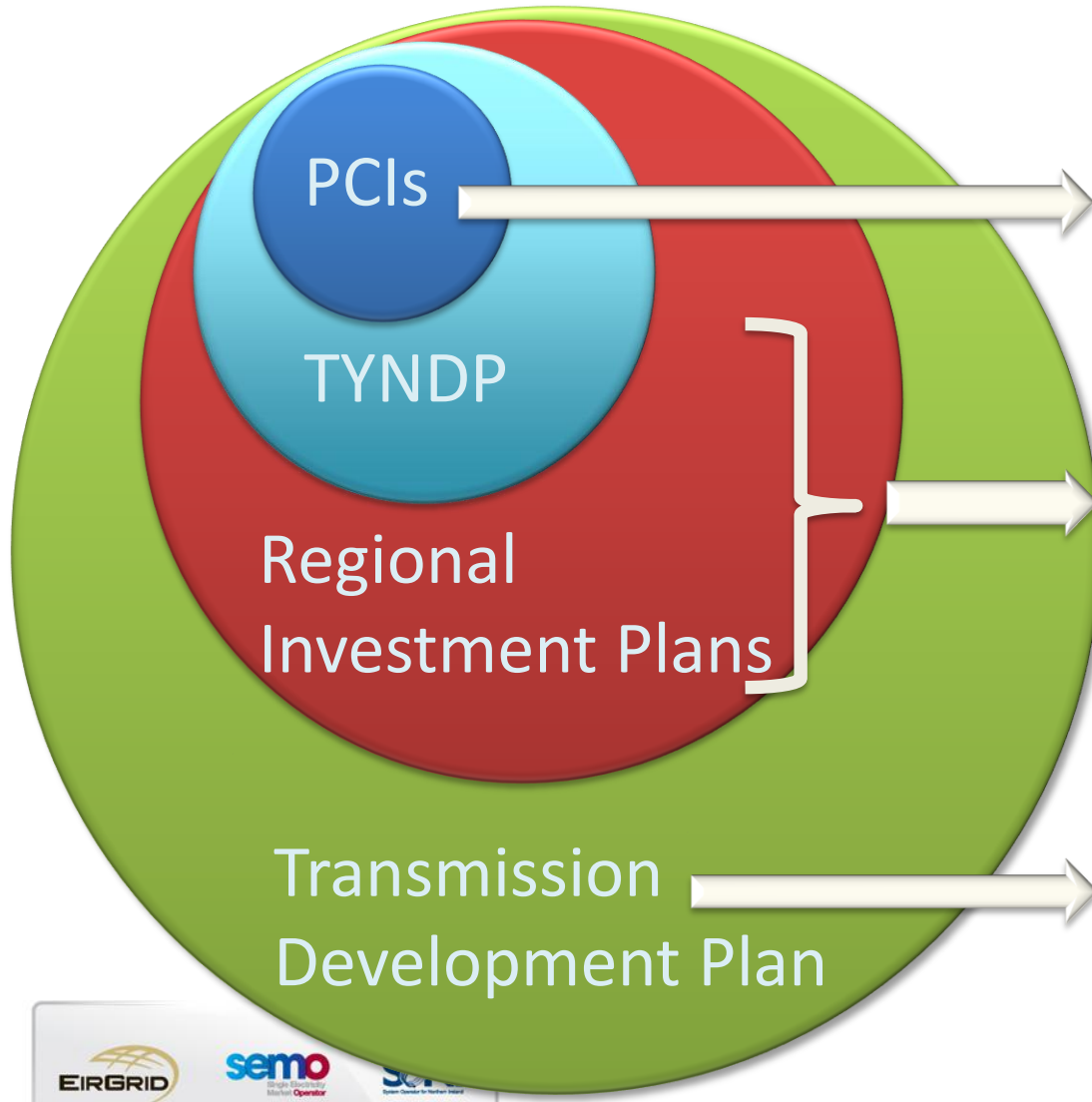
- The TYNDP Package consists of
 - System Outlook & Adequacy Forecast (SOAF)
 - 6 Regional Investment Plans
 - Pan-European TYNDP report



Interaction Between Plans



Interaction Between Plans

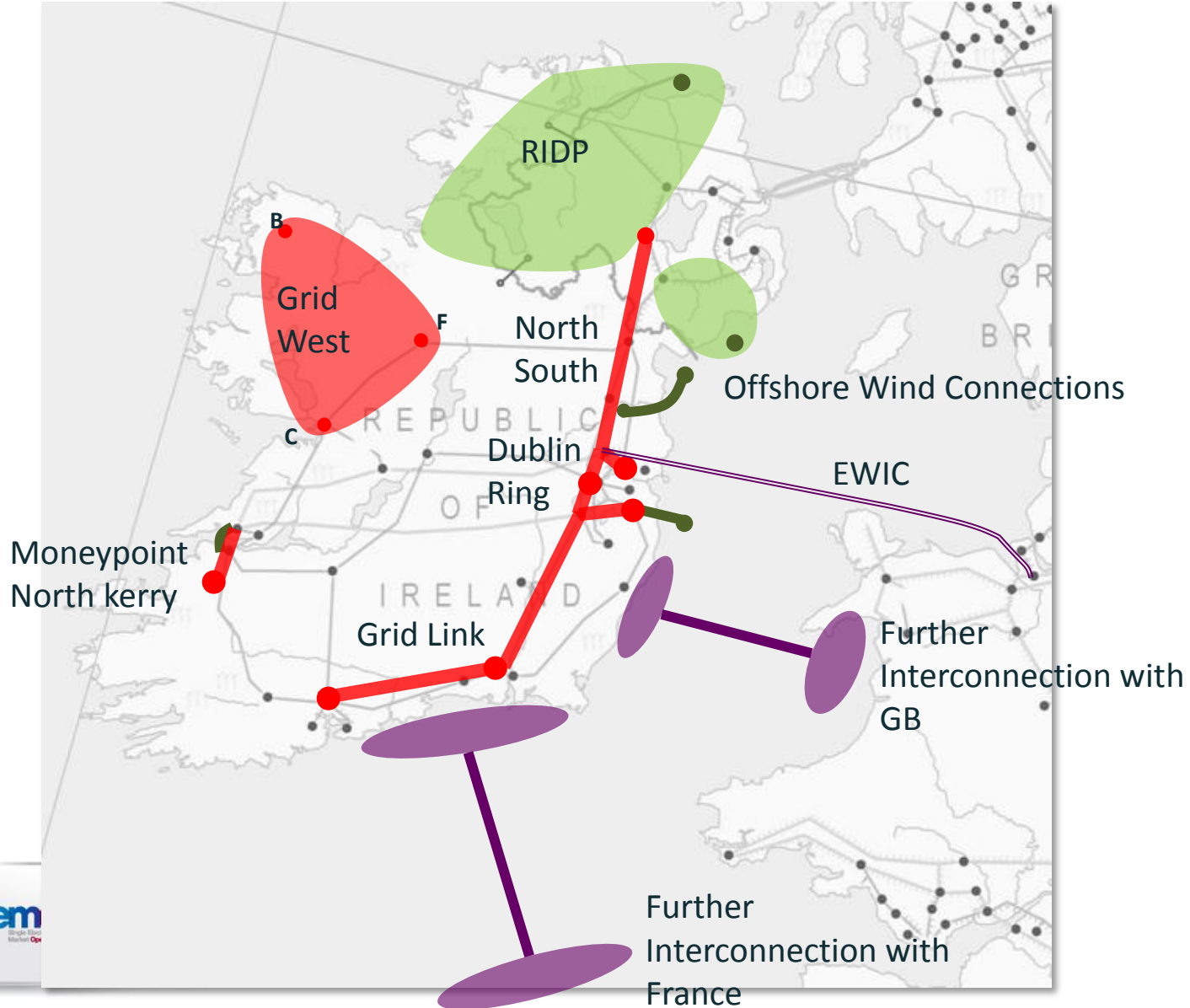


Legal: Regulation 347/2013
Governance: EC, Dept & CER
No of Irish Projects: 3 TSO, 6 3rd Party
Criteria: Same as TYNDP + X-Border

Legal: Regulation 714/2009
Governance: EC & ACER Opinion
No of Irish Projects: 12 in TYNDP 2012
Criteria: Voltage & capacity related

Legal: SI445/2000 & Directive 72/2009
Governance: CER Approval
No of Projects: 133 in TDP 2013
Projects: Large (e.g. N-S IC) & small projects (busbar & line uprates)
Criteria: Capitally approved & potential

Ireland's Projects of European Significance

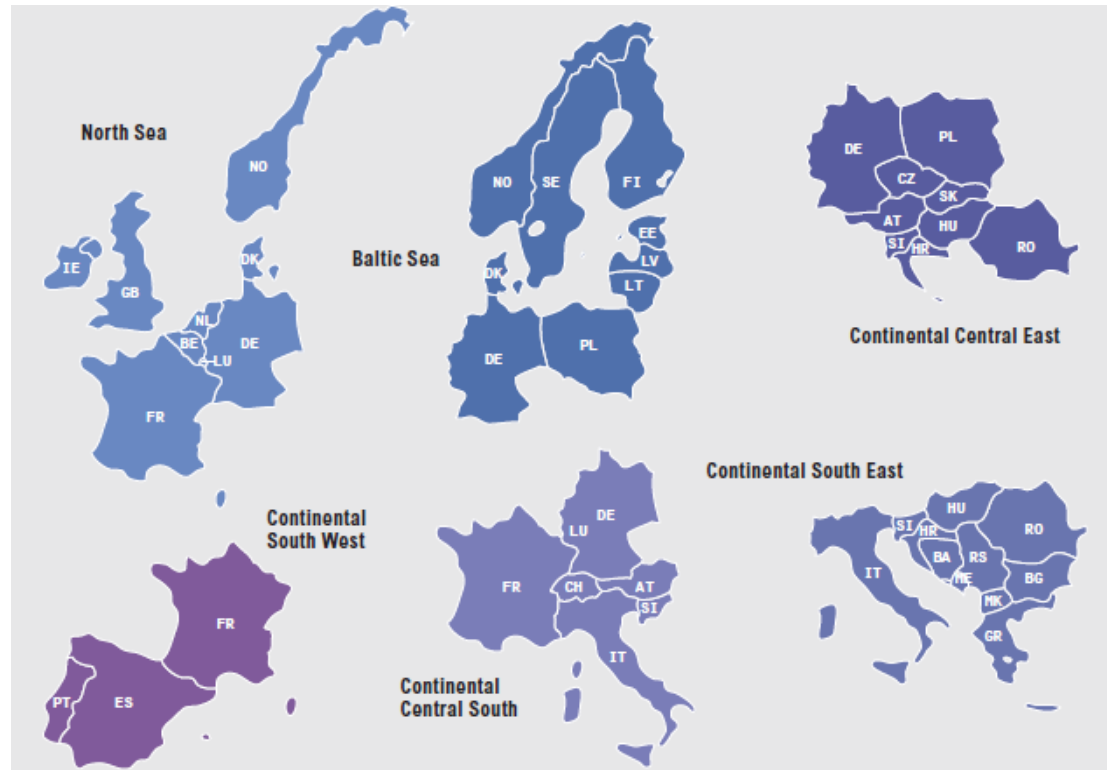
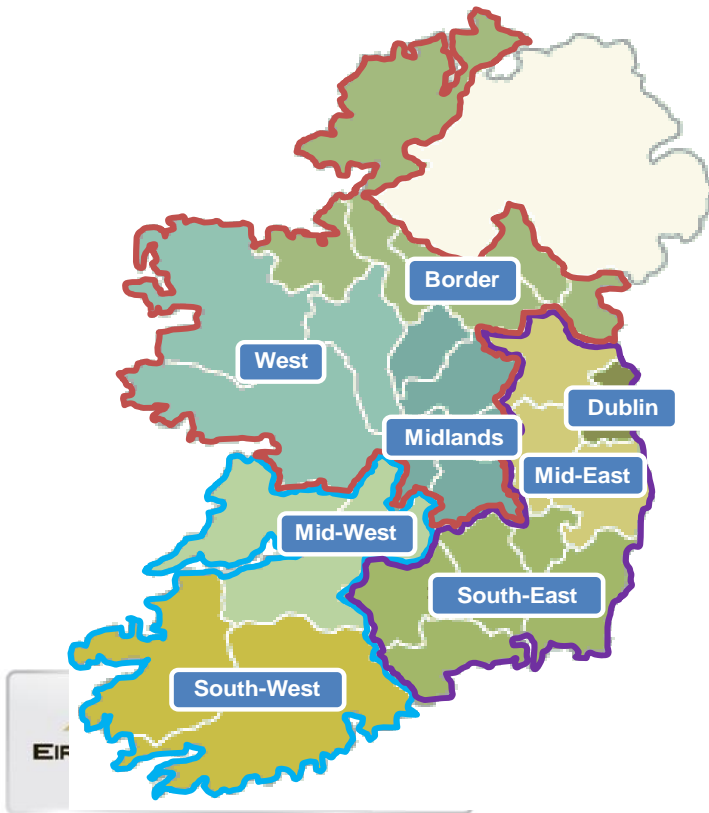


Irish Projects of Common Interest (PCIs)

- TSO Projects
 - North – South IC
 - RIDP
 - IRL – FR IC
- Third Party Projects
 - Greenwire
 - Energy Bridge
 - Marex
 - Natural Hydro
 - ISLES
 - Project CAES-Larne



Growing Importance of the TDP



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14:15 – 15:00	TDP Content: <ul style="list-style-type: none">- Scope and Projects (Tim Hurley, EirGrid)- Planning and the Environment (Maeve Flynn, EirGrid)- Programme and Project Delivery (Patricia Kelly, EirGrid)
15:00 – 15:15	Recent Changes to the TDP (Tim Hurley, EirGrid)
15:15 – 15:30	Interaction with European Plans (Tim Hurley, EirGrid)
15:30 – 16:00	Q&A and Wrap-up (Louis Fisher, EirGrid)



Q&A and Wrap-up



TDP 2013 Process

