

What holds back the private sector: the impact of planning and regulatory delays for major energy infrastructure

DATE

20/02/2025

VENUE

IFAC Path for Public Finances
Conference

AUTHOR

Genaro Longoria
Muireann Lynch
Niall Farrell
John Curtis



Introduction

- RES-E is a major pillar of energy policy

Introduction

- RES-E is a major pillar of energy policy
- RES-E projects face several planning and regulatory hurdles

Introduction

- RES-E is a major pillar of energy policy
- RES-E projects face several planning and regulatory hurdles:
 - Planning permission
 - Grid connection
 - Subsidy support

Introduction

- RES-E is a major pillar of energy policy
- RES-E projects face several planning and regulatory hurdles:
 - Planning permission
 - Grid connection
 - Subsidy support
- Literature suggests delays impact on delivery

Introduction

- RES-E is a major pillar of energy policy
- RES-E projects face several planning and regulatory hurdles:
 - Planning permission
 - Grid connection
 - Subsidy support
- Literature suggests delays impact on delivery
- Anecdotal evidence of delays in the Irish system

Introduction

Research questions:

- What impact do delays vs regulatory set up have on delivery timelines?

Introduction

Research questions:

- What impact do delays vs regulatory set up have on delivery timelines?
- What are the power system impacts of delays?

Planning and regulatory framework

Authorisation	Public Body	Authorisation cycle	Decision timeframe
Planning permission	Local authority/An Bord Pleanála	Continuous	18 weeks

Planning and regulatory framework

Authorisation	Public Body	Authorisation cycle	Decision timeframe
Planning permission	Local authority/An Bord Pleanála	Continuous	18 weeks
Grid connection	EirGrid/ESB Networks	Bi-annual (March & September)	12-15 months

Planning and regulatory framework

Authorisation	Public Body	Authorisation cycle	Decision timeframe
Planning permission	Local authority/An Bord Pleanála	Continuous	18 weeks
Grid connection	EirGrid/ESB Networks	Bi-annual (March & September)	12-15 months
Licence to generate/authorisation to construct	Commission for the Regulation of Utilities (CRU)	Continuous	12-16 weeks

Planning and regulatory framework

Authorisation	Public Body	Authorisation cycle	Decision timeframe
Planning permission	Local authority/An Bord Pleanála	Continuous	18 weeks
Grid connection	EirGrid/ESB Networks	Bi-annual (March & September)	12-15 months
Licence to generate/authorisation to construct	Commission for the Regulation of Utilities (CRU)	Continuous	12-16 weeks
Renewable Electricity Support Scheme (RESS)	Department of Environment, Climate and Communications (DECC)	Yearly (March)	3 months

Planning and regulatory framework

Authorisation	Public Body	Authorisation cycle	Decision timeframe
Planning permission	Local authority/An Bord Pleanála	Continuous	18 weeks
Grid connection	EirGrid/ESB Networks	Bi-annual (March & September)	12-15 months
Licence to generate/authorisation to construct	Commission for the Regulation of Utilities (CRU)	Continuous	12-16 weeks
Renewable Electricity Support Scheme (RESS)	Department of Environment, Climate and Communications (DECC)	Yearly (March)	3 months
Foreshore licence/lease	Department of Housing, Local Government and Heritage	Continuous	18 weeks

Planning and regulatory framework

- Judicial review not considered
- Requests for further information included in planning permission timeframe

Planning and regulatory framework

- Consider impact of shortening times for decisions

Planning and regulatory framework

- Consider impact of shortening times for decisions
- Consider impact of increasing number of application gates per year

Assumptions

Track 2000MW of “approved” capacity

Assumptions

Track 2000MW of “approved” capacity

- ABP target decision time is 18 weeks
- ABP average decision time is 37 weeks
- Assume 97.5% of cases take longer than 18 weeks

Assumptions

Track 2000MW of “approved” capacity

- ABP target decision time is 18 weeks
- ABP average decision time is 37 weeks
- Assume 97.5% of cases take longer than 18 weeks

- Assume lead time of 6 months for auction application

Assumptions

Track 2000MW of “approved” capacity

- ABP target decision time is 18 weeks
- ABP average decision time is 37 weeks
- Assume 97.5% of cases take longer than 18 weeks

- Assume lead time of 6 months for auction application
- Assume 12-15 months build time

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37						
GridOff	1*						
RESS	1						
Hybrid	No						

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37	25					
GridOff	1*	1					
RESS	1	1					
Hybrid	No	No					

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37	25	18				
GridOff	1*	1	1				
RESS	1	1	1				
Hybrid	No	No	No				

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37	25	18	37			
GridOff	1*	1	1	2			
RESS	1	1	1	1			
Hybrid	No	No	No	No			

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37	25	18	37	37		
GridOff	1*	1	1	2	n/a		
RESS	1	1	1	1	1		
Hybrid	No	No	No	No	Yes		

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37	25	18	37	37	37	
GridOff	1*	1	1	2	n/a	1	
RESS	1	1	1	1	1	2	
Hybrid	No	No	No	No	Yes	No	

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
ABP	37	25	18	37	37	37	18
GridOff	1*	1	1	2	n/a	1	2
RESS	1	1	1	1	1	2	2
Hybrid	No	No	No	No	Yes	No	No

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
Y4	0	0	0	0	<1%	0	0
Y5							
Y6							
Y7							
Y8							

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
Y4	0	0	0	0	<1%	0	0
Y5	<1%	<1%	17%	<1%	75%	<1%	58%
Y6							
Y7							
Y8							

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
Y4	0	0	0	0	<1%	0	0
Y5	<1%	<1%	17%	<1%	75%	<1%	58%
Y6	50%	56%	75%	59%	100%	75%	100%
Y7							
Y8							

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
Y4	0	0	0	0	<1%	0	0
Y5	<1%	<1%	17%	<1%	75%	<1%	58%
Y6	50%	56%	75%	59%	100%	75%	100%
Y7	92%	95%	100%	100%	100%	100%	100%
Y8							

Scenarios

	StatusQuo	ABP#1	ABP#2	GridOffer	Hybrid	RESS	Combined
Y4	0	0	0	0	<1%	0	0
Y5	<1%	<1%	17%	<1%	75%	<1%	58%
Y6	50%	56%	75%	59%	100%	75%	100%
Y7	92%	95%	100%	100%	100%	100%	100%
Y8	100%	100%	100%	100%	100%	100%	100%

Results

- ENGINE model: determines least-cost generation and transmission expansion
- Run for Status Quo and Combined scenarios
- Years 4-7 are relevant

Results

	Y4	Y5	Y6	Y7	Y8
System Cost	0.0	0.3	-3.2	-3.3	-0.6
CO2 emissions	0.0	-4.2	-3.4	-1.0	0.0
Marginal price	0.0	-9.9	-7.3	-0.6	0.0

Conclusion

- Planning delays have an impact on RES-E rollout

Conclusion

- Planning delays have an impact on RES-E rollout
- Delays increase costs, emissions and prices in particular

Conclusion

- Planning delays have an impact on RES-E rollout
- Delays increase costs, emissions and prices in particular
- Increasing number of gates and reducing ABP timelines both impactful

Muireann.lynch@esri.ie
@mu_lynch