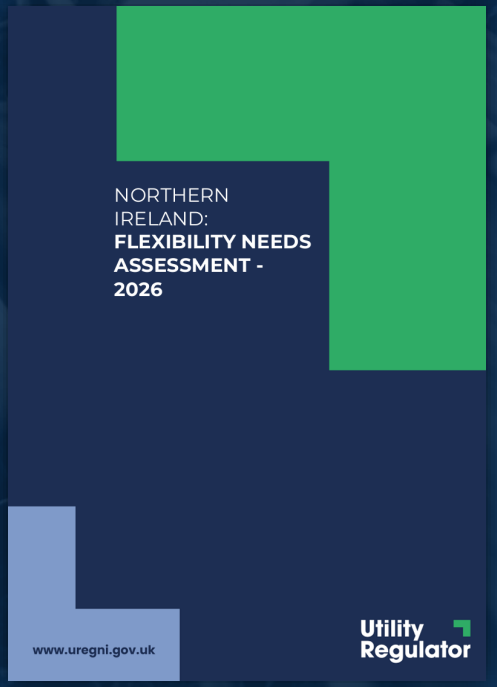
RenewableNI:

Northern Ireland's first Flexibility Needs Assessment

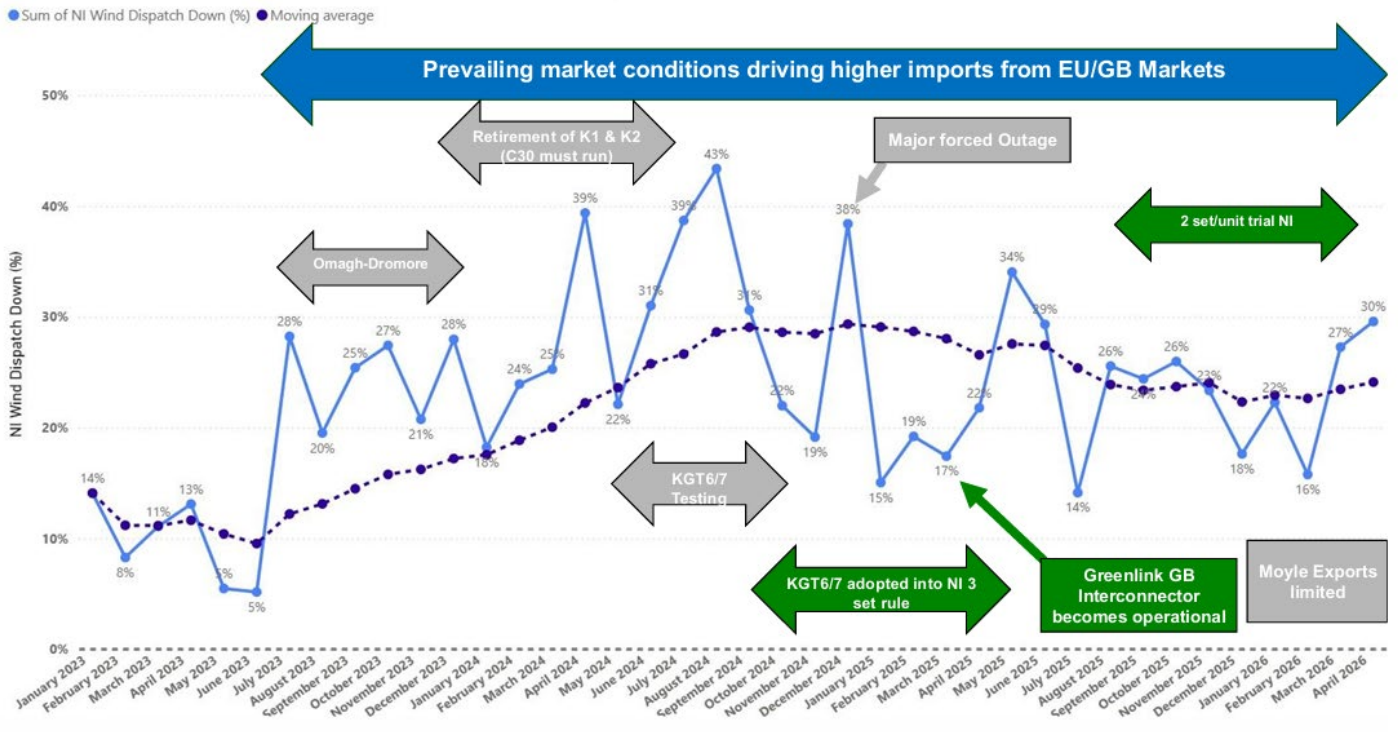
Claire O'Kane- Claire.okane@uregni.gov.uk

Utility Regulator



Northern Ireland's changing electricity system

- Renewables already meet **48% of electricity consumption-** NI is targeting **at least 80% by 2030**
- Managing a highly renewable system will require **much greater flexibility**
- Dispatch down increased rapidly from **2023- market conditions**, **lower demand**, **network and operational constraints**
- As conventional flexibility sources are phased out, **new flexibility solutions will be essential**



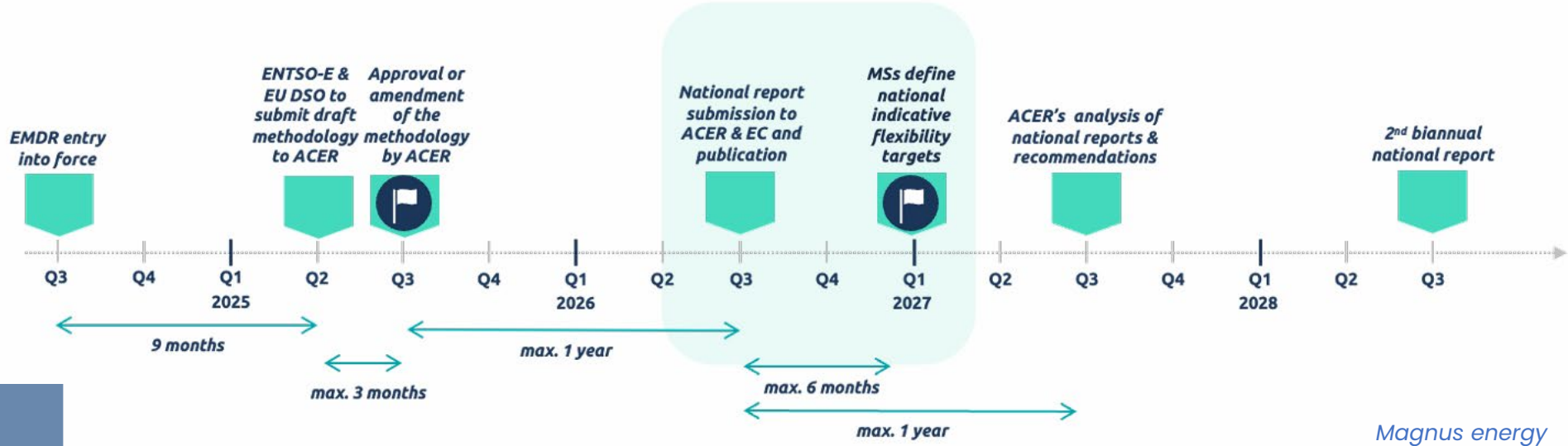
SONI Dispatch Down Action Plan 2026

Flexibility Needs Assessment overview

- New European legislation requiring Member States to assess their future flexibility needs
- The assessment considers:

1. **System-level flexibility requirements**
2. **Distribution and transmission network flexibility needs**
3. **The scale, timing and location of future flexibility requirements**
4. **Market barriers to non-fossil flexibility and the role of digitalisation**
5. **Potential flexibility solutions**

- The **Utility Regulator** acted as the Designated Entity for Northern Ireland's first FNA
- We prepared and published the report, building on the analysis from **NIE Networks and SONI**



Magnus energy

Modelling scenarios

1. Base scenario-

- Consistent with the median All-Island Resource Adequacy Assessment inputs

2. High-RES scenario-

- Consistent with the renewable trajectory required to achieve climate targets

		Northern Ireland RES generation trajectory: Base v High-RES scenarios (MW)									
		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Base	**Offshore wind**	0	0	0	0	0	0	0	0	0	500
	Onshore wind	1410	1470	1550	1700	1850	2000	2150	2300	2450	2600
	Solar	270	300	350	410	480	550	620	690	760	830
High-RES	**Offshore wind**	0	0	0	0	1000	1000	1000	1000	1000	1000
	Onshore wind	1420	1490	1590	1780	1970	2160	2340	2530	2720	2910
	Solar	280	310	380	450	540	630	710	800	890	980

NI's Flexibility Needs Assessment Report

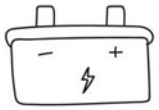
Flexibility Needs Assessment findings



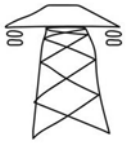
No uncovered need does not mean 'no need for flexibility'- limitation with methodology

Northern Ireland's flexibility requirement is estimated at

4,800 MWh from 2030



More renewables means more flexibility will be required- demonstrated by High-RES scenario



Network constraints are critical – transmission constraints are the dominant driver of curtailment

Dispatch down is anticipated to increase with higher renewable availability

Base scenario= 30-37%

High-RES scenario= 50-57%

Energy storage and demand-side response represent key areas of focus in meeting future needs

Important to note this is the **first iteration in an evolving process**

How will the assessment help to unlock flexibility



Informs national planning for electricity system flexibility



Contributes to future policy and regulatory development- **Storage Policy Statement** to be published by end of 2026



National non-fossil flexibility targets to be established by January 2027



Potential for **post-FNA non-fossil support scheme**



Contribute to **wider European assessments of flexibility needs**- ACER review to be published in July 2027

Challenges for flexibility

ECONOMIC BARRIERS- Misaligned price signals driving suboptimal storage investment

REGULATORY BARRIERS-

Market rules and access arrangements restricting participation

OPERATIONAL BARRIERS-

Limited TSO-DSO coordination reducing visibility and use of distributed flexibility

Measures to address barriers:

Create investment certainty for long-duration storage



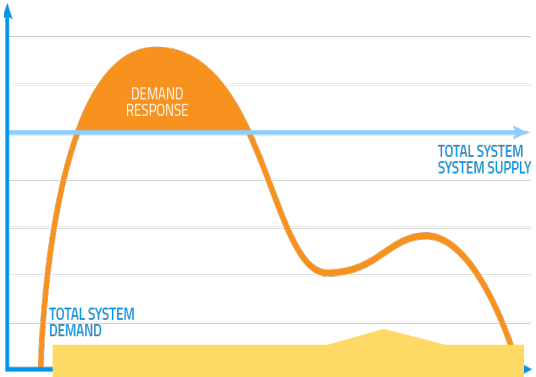
Reform policy, regulatory and market framework



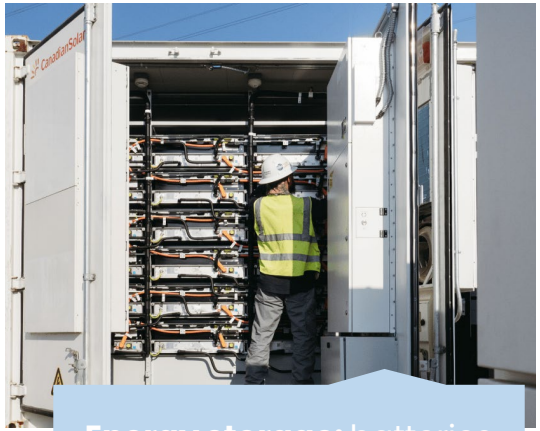
Develop data and digital infrastructure

Opportunities for flexibility

The FNA points to **a portfolio of solutions** rather than a single technology:



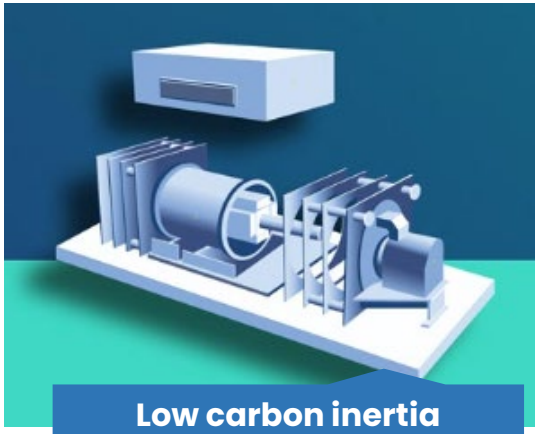
Demand response



Energy storage: batteries and pumped hydro



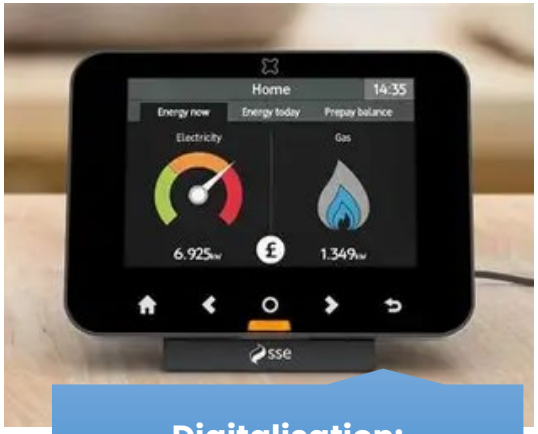
Network enhancements: Dynamic line rating



Low carbon inertia services: synchronous condensers



Interconnection: North-South interconnector



Digitalisation: smart meters

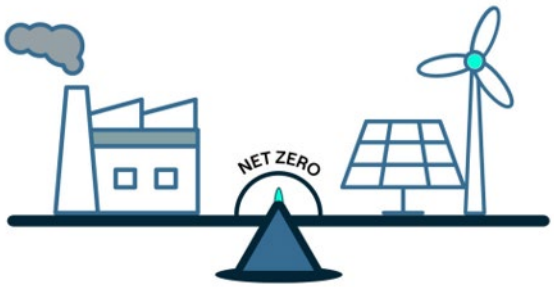
Summary

First FNA: provides the evidence base for action

- **Provides insights** into Northern Ireland's growing flexibility needs
- **Informs non-fossil flexibility objectives**
- **Builds momentum** for storage policy and potential support mechanisms
- **An evolving assessment**, with lessons learned informing future iterations

Key takeaways for industry:

- As renewables grow, **greater system variability** will drive the need for more flexibility
- **Flexibility is critical**, but it's **part of the solution**- no silver bullet
- **Networks, flexibility and system operation** must evolve together to enable greater renewable integration
- Delivery will require an **enabling policy, regulatory and market framework**



Flexibility Needs Assessment

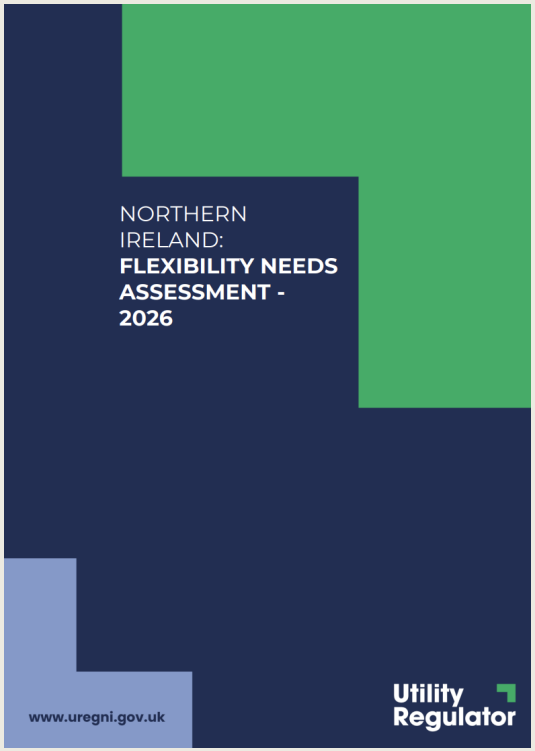
Unlocking Flexibility and Storage for a Cleaner Power System

13th October 2026

SONI System Operator Northern Ireland

Context and Regulatory Background

- The Flexibility Needs Assessment (FNA) is a new mandatory process driven by EU Regulation: The Electricity Market Design Reform (EMDR).
- The purpose of the FNA is to guide electricity network operators and Member States in identifying how much non-fossil and flexibility their country needs.
- Standarised analysis methodology developed by ENTSO-E and the DSO Entity; approved by ACER.
- Jurisdictional reports required.
- Northern Ireland's first FNA report was delivered on 14th September.



FNA: A new biennial process for analysing flexibility needs

Medium term planning



All-Island Resource Adequacy Assessment
Ten-year demand and generation and adequacy forecasts.



All-Island Ten Year Transmission Forecast Statement
Assessment of opportunities for new connections.



Transmission Development Plan
Ten-year development plans for the transmission network.



Flexibility Needs Assessment (FNA)
Assessment of the flexibility needs across Northern Ireland.

- 2026 report published in September.
- 5-10 year flexibility needs outlook.
- Analysis to be repeated every 2 years.

Long term scenario planning



Tomorrows Energy Scenarios
Energy transition scenarios until 2050.



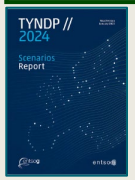
Tomorrows Energy Scenarios Needs Assessment
Long term needs of the transmission system.

Strategic Visions



Shaping Our Electricity Future
A single scenario to deliver 2030 targets.

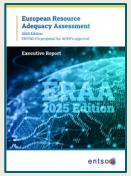
European planning



Ten Year Network Development Plan – Scenarios Report
ENTSO-E's pan-European energy scenarios



Ten Year Network Development Plan
Assessment of pan-European projects.



European Resource Adequacy Assessment
Pan-European resource adequacy assessment.

Collaborative approach to delivering the Flexibility Needs Assessment

Utility Regulator

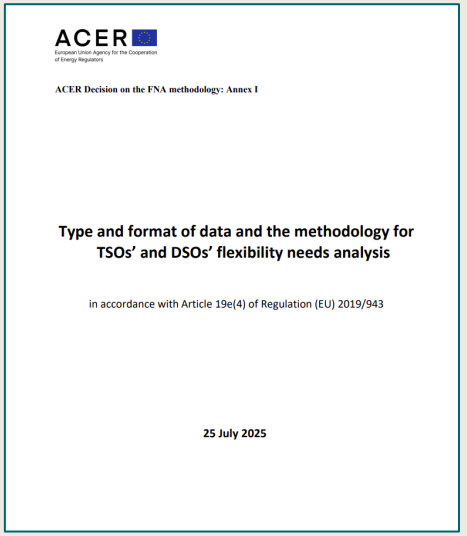
- “Designated Entity”, as nominated by the Department for the Economy.
- Responsible for overall completion of the report, publication and delivery of it to ACER and the European Commission.
- Target years analysed: 2030 and 2033.

SONI System Operator Northern Ireland

- Analysis focused on System needs, transmission network needs and market barriers to flexibility.
- Responsible for delivery of above analysis and outputs to the UR.
- All-island model used by both SONI and EirGrid allowing for a consistent approach on scenarios and assumptions.

Northern Ireland Electricity Networks

- Analysis focused on distribution network needs and market barriers to flexibility.
- Responsible for delivery of above analysis and outputs to the UR.


ACER
European Union Agency for the Cooperation of Energy Regulators

ACER Decision on the FNA methodology: Annex I

Type and format of data and the methodology for TSOs’ and DSOs’ flexibility needs analysis

in accordance with Article 19e(4) of Regulation (EU) 2019/943

25 July 2025

Immediate follow-up work on the FNA in Northern Ireland

Actions and timeline driven by EU Regulation[1]:

Sept 2027 — **Jan 2027** — **?**



Published report

Indicative National Objective for Non-fossil Flexibility.

Department for the Economy

1. Potential Non-fossil flexibility support scheme(s).
2. Potential integration of flexibility into the Capacity Remuneration Mechanism (CRM).

1. Regulation (EU) 2024/1747 Articles 19e-h

A wide variety of solutions are needed to maximise flexibility

	Projects	In SONI's Forward Workplan 2026-27 [1]	Status
1	Non-fossil Flexibility Objective (Jan-27)	✓	SONI is prepared to support DfE.
2	Flexibility Procurement	✓	Subject to the Flexibility Objective.
3	Maximum Export Capacity Sharing	✓	Scope of work in development.
4	Integrated Hybrid Connections	✓	Conceptual Overview in development.
5	Plan-led System Development	✓	Recommendations in development.
6	Flexibility and Capacity Market Design		SEMC: CRM 2.0 design option.
7	TSO-DSO Multi-Year Plan		Initial scoping planned for this year.
8	EU Network Code on Demand Response		Under European Commission review.
9	Flexible Connections		Initial deployment underway by NIEN.

1. Published 30th September 2026 for the year beginning 1 Oct 2026.

SONI System Operator Northern Ireland

A&L Goodbody

The Legal Framework to Unlocking Flexibility

Niamh Collins | Senior Associate

13 October 2026

A&L Goodbody

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A&L Goodbody Northern Ireland LLP

Energy Team

ALG is a leading all island law firm with market leading energy specialists in Ireland and Northern Ireland. The Belfast based energy team is the largest in the market comprising two dedicated energy partners and five additional lawyers with the support of specialists in various ancillary sectors.

ALG is embedded in the Northern Ireland energy sector with strong links to government, regulators and semi-state companies. We are also at the forefront of shaping energy policy through key roles in trade bodies such as RenewableNI, Hydrogen NI and the CBI.

We deliver the most extensive range of specialist legal services available to those investing in Northern Ireland. International legal directories place us at the top of the market in all core practice areas.

The team has advised on virtually all the significant projects in the energy sector in Northern Ireland and is the firm of choice for international investors. In recent years we have advised on the consenting, construction, regulation, development, project finance and corporate aspects of multiple large-scale energy projects.

ABOUT A&L GOODBODY

	6	**OFFICES INTERNATIONALLY** Global reach with dedicated legal programmes. More US offices than any other NI firm.
	#1	**TOP RANKED** Consistently ranked by Chambers and Legal 500 at the top of the NI market.
	600	**INWARD INVESTORS** We have acted for >600 leading multinationals interacting with Ireland.
	PE	**INVEST NI** We are a framework supplier to NI's regional economic development agency.
	Reg	**CROWN COMMERCIAL SERVICE** We are a supplier on the Public Sector Legal Service framework for the region.



A&L Goodbody: Northern Ireland's largest team of dedicated energy lawyers.

UK Top Ranked Law Firm 2026

Legal500 UK Tier 1 Law Firm 2026



From System Need to Investable Project

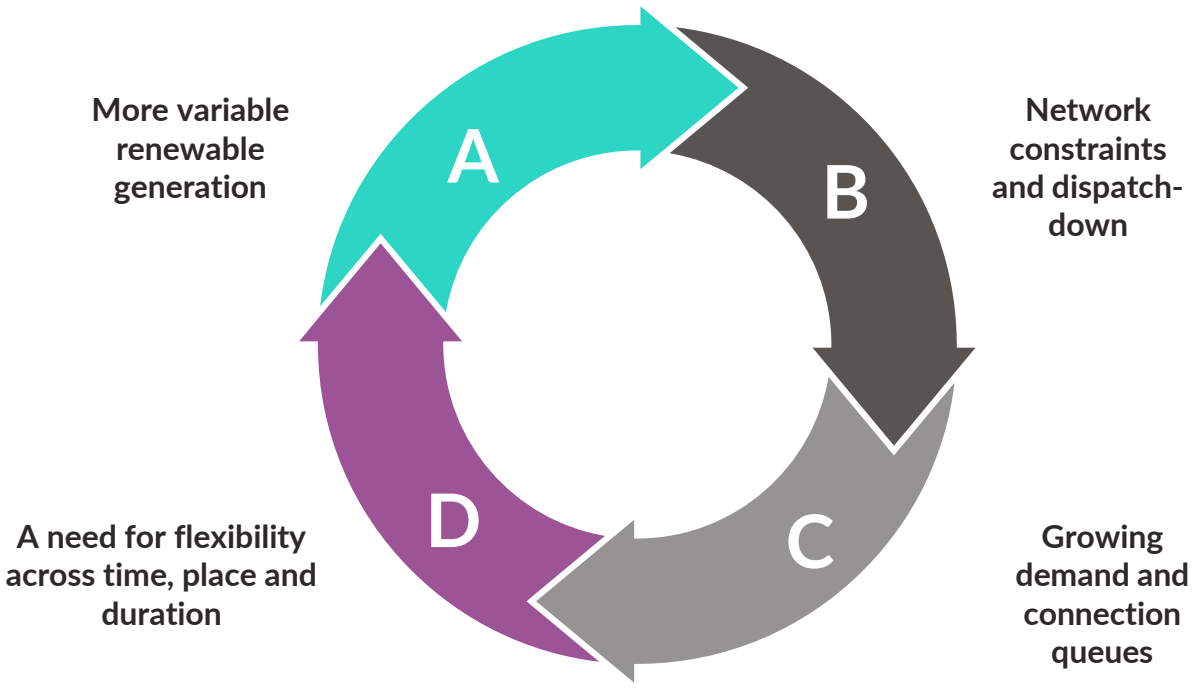
Northern Ireland needs flexibility

The legal question is whether projects can:

- CONNECT
- CONTRACT
- OBTAIN FINANCE

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Why Flexibility Matters



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Assessment establishes need | Law must enable delivery



Flexibility

is becoming a measurable system requirement.

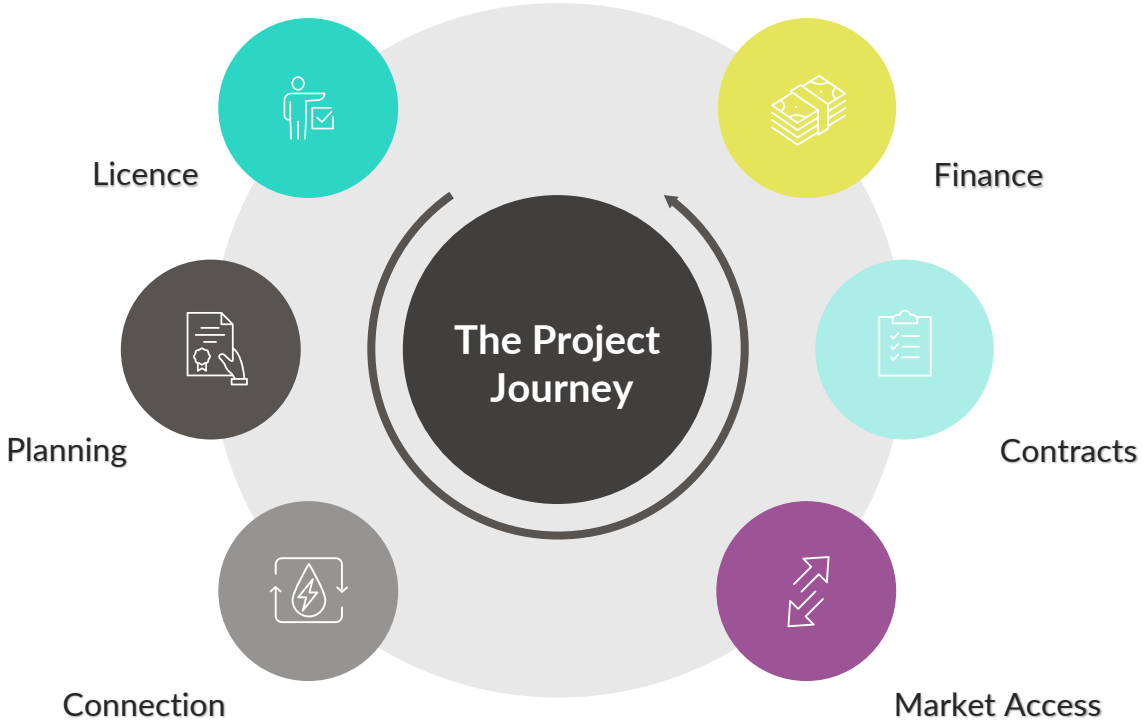
Needs

will evolve in location, duration and scale.

Network Reinforcement

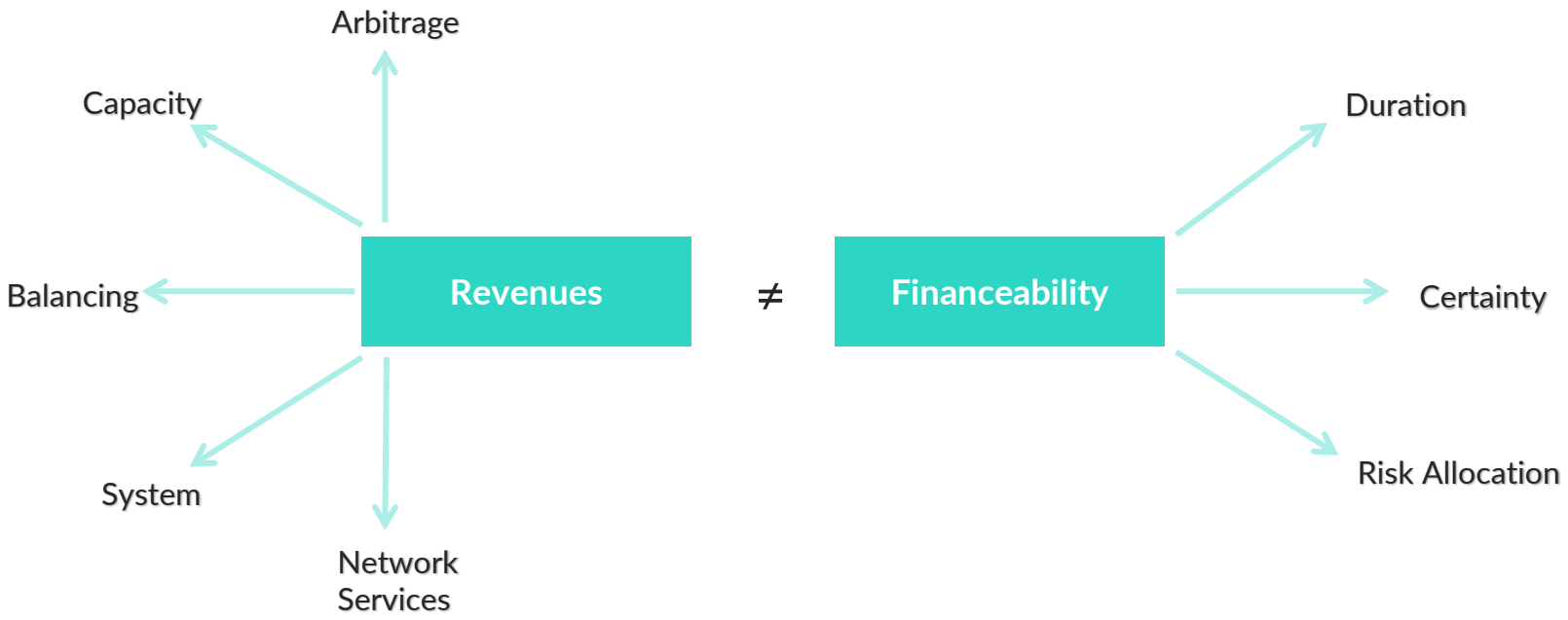
and flexibility are complementary.

The Project Journey – Where Legal Friction Arises



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Revenue is not the same as Bankability



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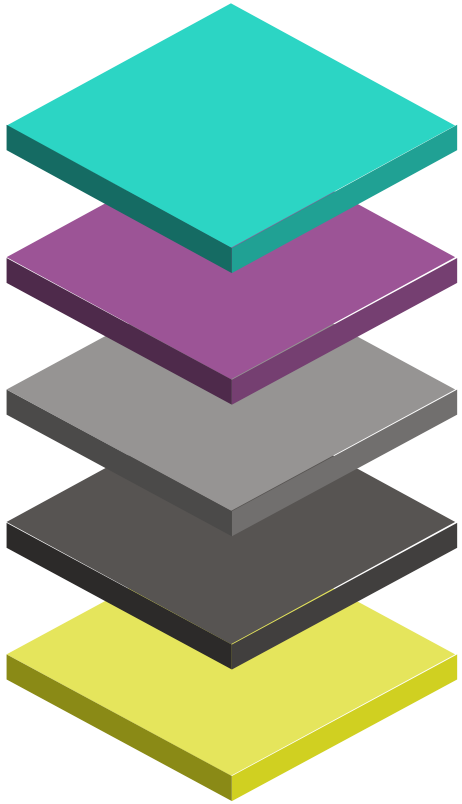
Lender Concerns



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Bankable Revenue?

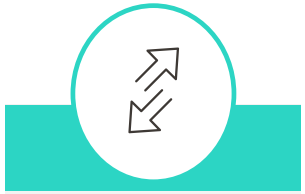
Revenue stacking is better than one single support mechanism



Co-Location: A Practical Legal Test Case

Efficiency	Better use of connection capacity
Integration	Interfaces between ownership, metering, dispatch and revenues
Alignment	Project documents must operate as one structure

Co-Location – Practical Questions



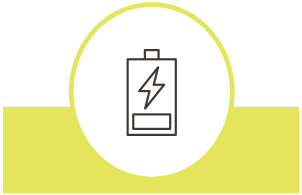
How is shared connection capacity allocated?



How is the electricity metered and settled?



Which asset has priority?



Are arrangements and commitments compatible?

Four Legal Priorities for Delivery

01

Regulatory Clarity

Proportionate treatment of storage and aggregation

02

Investable Markets

Transparent procurement and workable revenue stacking

03

Deliverable Infrastructure

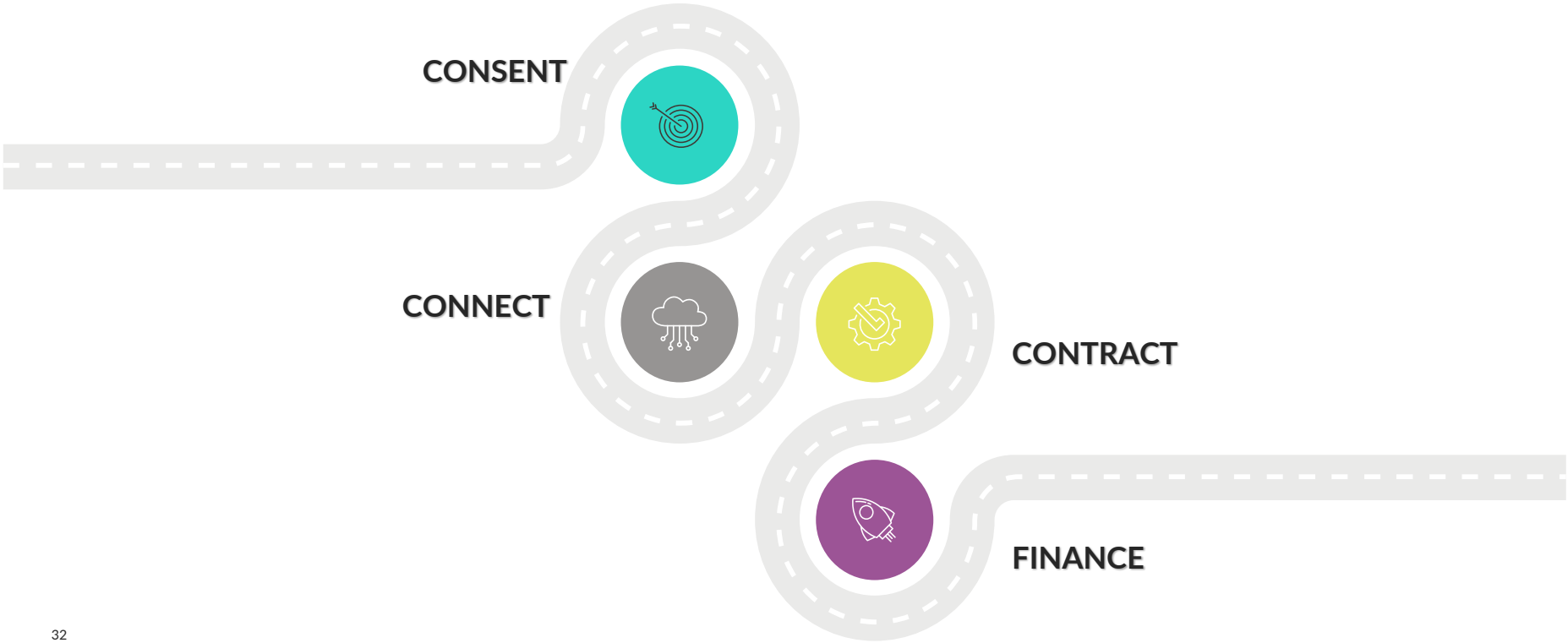
Certainty around connections and identifiable flexibility

04

Coordinated Consenting

Predictable planning, environmental and safety pathways

Conclusion: Build a Route to Finance



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Thank you

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