ElectroRoute

Forecasting Ireland

Battery Asset Management Conference
Rome, 3 December 2024

Brian Kennedy, Head of Client Origination

ElectroRoute

Our Vision is to Make Net Zero a Reality

ElectroRoute, a 100% subsidiary of Mitsubishi Corporation, is a renewables focused, energy trading and services company.

Started in 2011 we now employ over 100 professionals based in Ireland, GB, Europe, and Japan.

Our vision is to: *make net zero a reality by solving the commercial mechanics of a decarbonised energy system.*

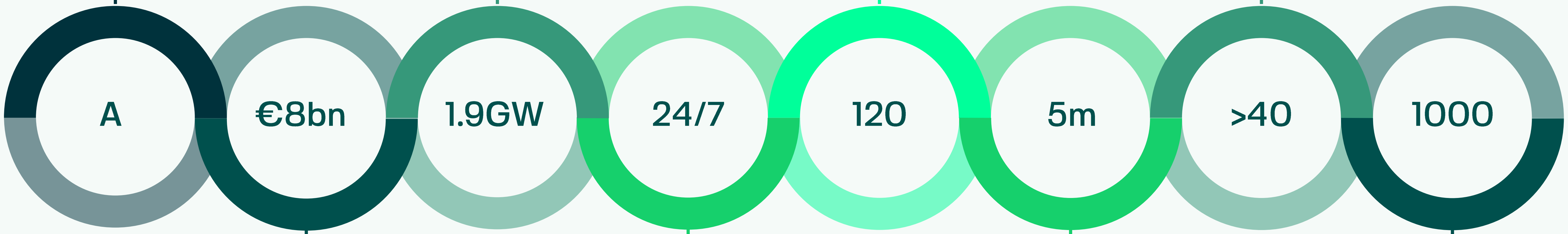
About Us

A Group Credit Rating

1.9 GW Assets Under Management

120 Energy Professionals

>40 Markets



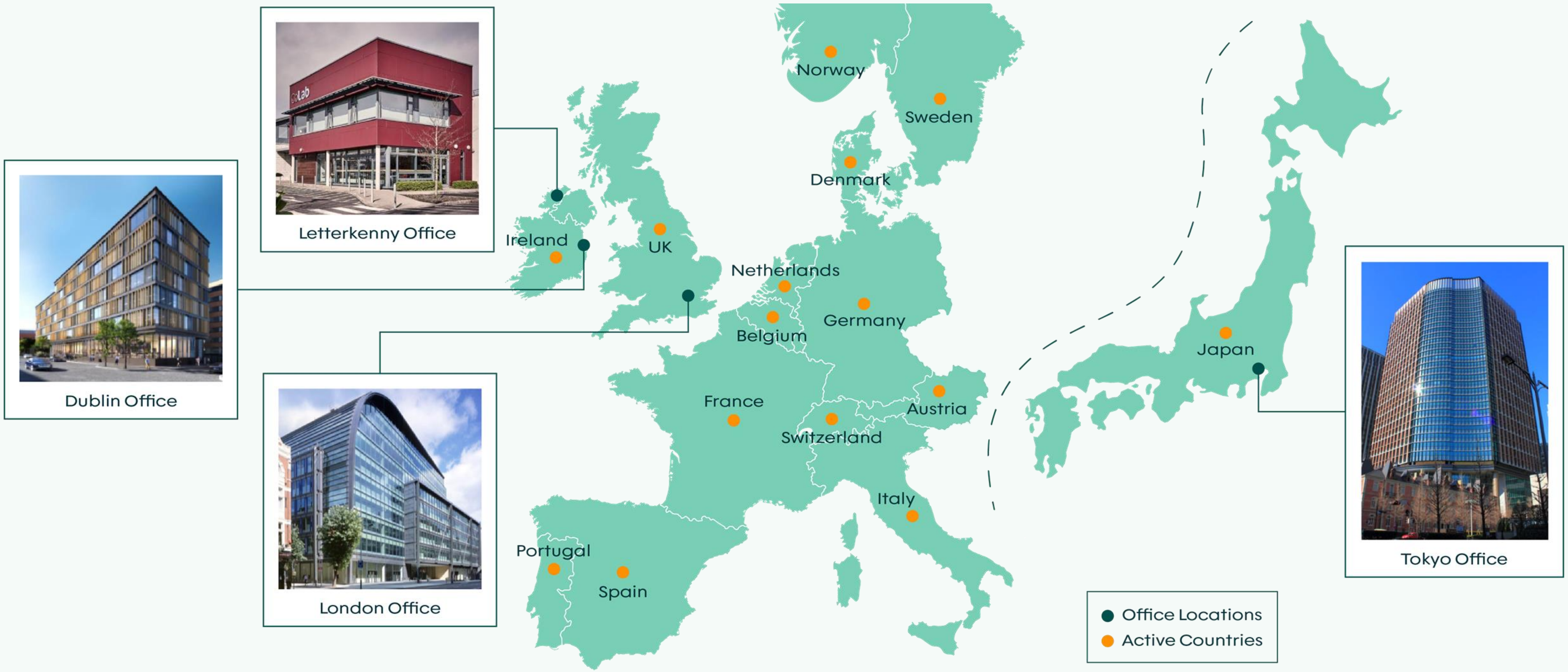
€`8bn Commodity Turnover 2023/24

24/7 Over 10 Years Of Continuous Trading

5m tonnes CO2eq. abated

1000 Individual Trades Per Day

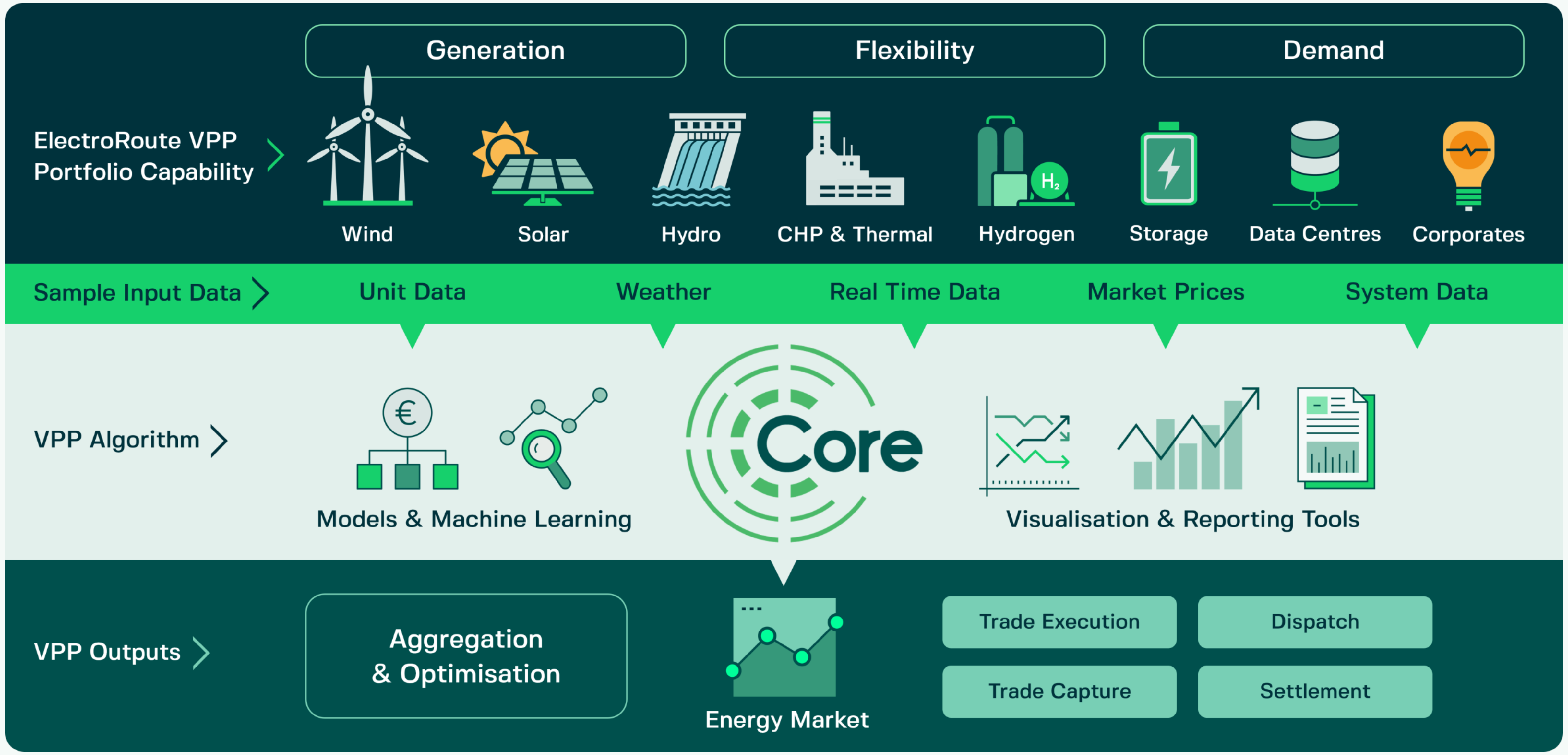
Our Markets



Letterkenny Office
Dublin Office
London Office
Tokyo Office
Ireland
UK
Norway
Sweden
Denmark
Netherlands
Belgium
Germany
France
Switzerland
Austria
Italy
Portugal
Spain
Japan
Office Locations
Active Countries

ElectroRoute Core – Optimising Client Assets

- Seamless Integration: ElectroRoute's Core platform supports trading in multiple markets.
- Optimization: Core, with expert traders, optimizes assets in:
  - Wholesale Markets
  - Ancillary Services
  - Capacity Markets
- Technology Agnostic: Core adapts to various technology limitations for optimal trading.



Client Solutions

ElectroRoute uses its comprehensive market access, platform, knowledge and tools to provide bespoke products, services and contracts for its clients.

These products include:

- Renewables & Flex - through PPAs and Financial products, we take balancing risk for renewables using our 24/7 shift desk in addition to optimizing over 275MW of storage.
- Gas Services – Includes Supply, Trading, physical gas operations, gas storage, route to market services and green trading (green certificates and carbon credits).
- Green Gas – our extensive gas operations and trading desk supports clients in purchasing, shipping and evidencing green credentials for biomethane throughout Europe.
- Corporate Solutions - Partnering with corporates structure Corporate PPA/GPAs, enabling the requisite market access, trading, balancing and operational services capability across renewable and green gas sectors.

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Our Clients

ElectroRoute is a leading provider of innovative Trading, Routes to Market and Risk Management Services in the power and gas markets.

Current Landscape: Energy Storage in Ireland

Current Landscape

The Current All-Island System:

7 GW Peak Demand

6.1 GW Installed Wind

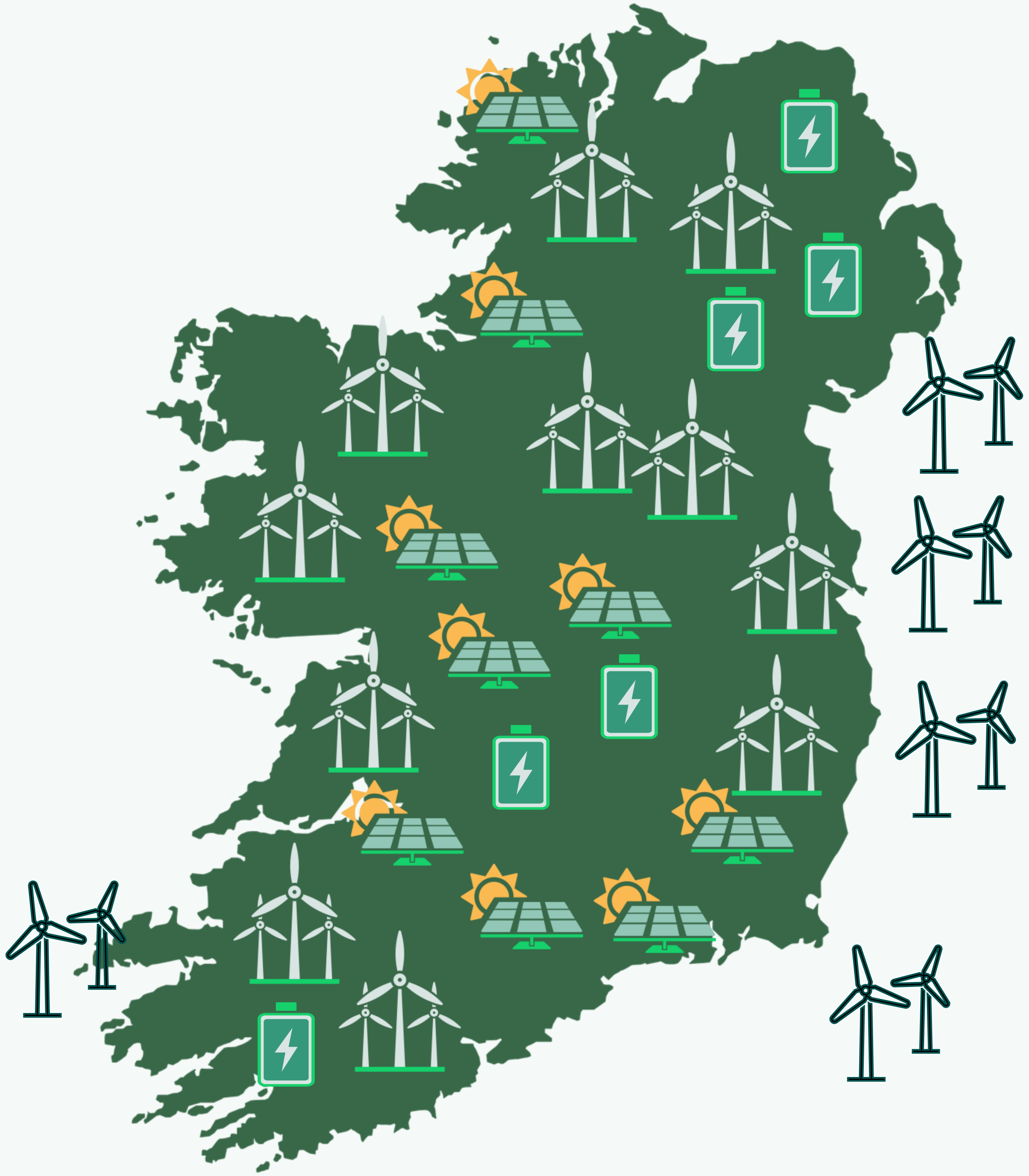
0.8 GW Installed Solar

40% RES Contribution to Demand

14% YtD Dispatch Down

1 GW Interconnection

1.25GW Storage
Of which BESS – 950MW



The Future All-Island System:

7.5 -9 GW Peak Demand

9 GW Onshore Wind
5GW Offshore Wind

8 GW Installed Solar

80% RES Contribution to Demand

Up to 35% YtD Dispatch Down

3.5 GW +Interconnection

??????

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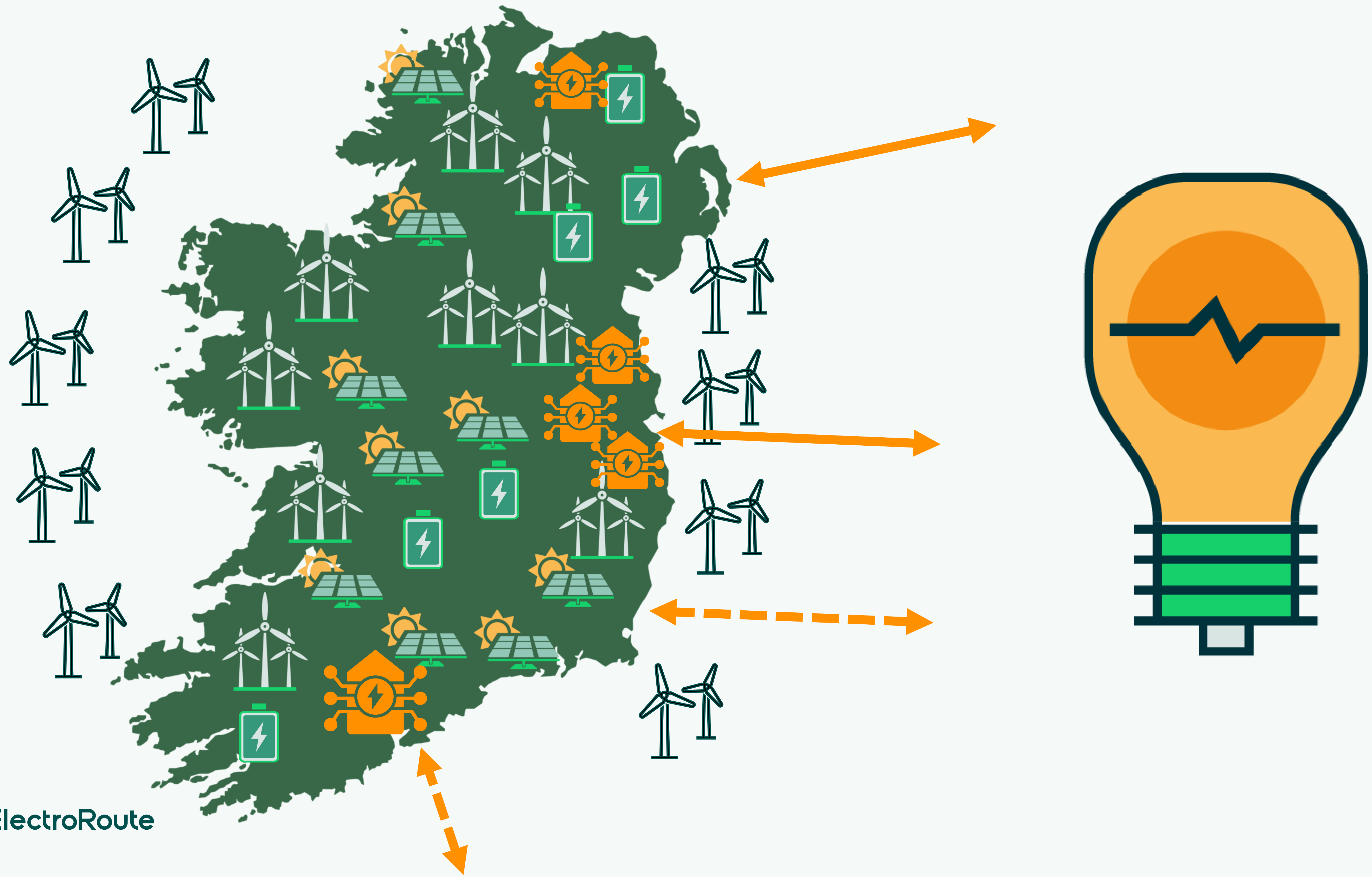
What's so Interesting about Ireland then?



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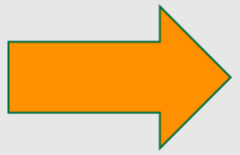
Regulatory & System Developments

Current Landscape

	The Past	Near Horizon	The Future
Investment Certainty			
Margin / Returns			
Access to Wholesale Markets			
Summary Route to Market	DS3 Ancillary Service Regime Capacity Market	Tail end of DS3 Capacity Market Wholesale Market (opening)	Day Ahead System Service Auction Capacity Market Wholesale Market Active BM Participation

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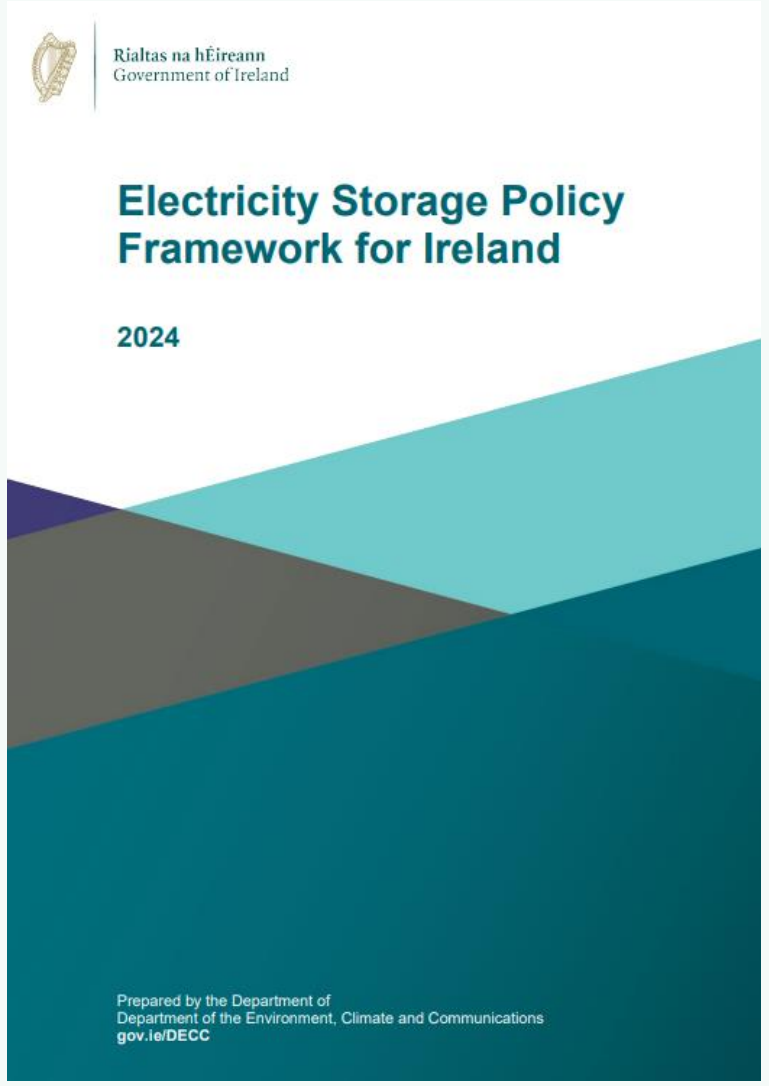
Key Policy Initiatives

- Government Energy Storage Framework
- EirGrid (TSO) LDES Procurement Framework
- ESB Networks (DSO) Medium Duration Procurement
- Co-location – Dynamic Sharing of Export Capacity
- Scheduling & Dispatch

Scale of Ambition

Ambition for Storage in Ireland

- Irish Government's Climate Action Plan mandates;
    - Delivery of a Storage Policy – delivered in 2024
    - Requirement for ES policy supporting 75% ↓ in power sector CO_2 emissions by 2030.
- 10 Key Policy Actions, of which:
    - Maintain a technology neutral approach
    - Immediate procurement of 500 MW of long duration storage (4+ hrs duration) pre-2030.
    - Analysis to identify long-term storage needs post 2030 & develop necessary market mechanisms supporting investment. Route to market to be in place by 2028
    - Establishes emerging technology sandbox to trial several emerging LDES technologies on the grid



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Key Challenges & Opportunities

Challenges and Opportunities

Challenges

- Grid Delivery
- Limited access to Markets
- Dilution of the Capacity Market
- Uncertain transition to new regimes
- Co-Location opportunities limited

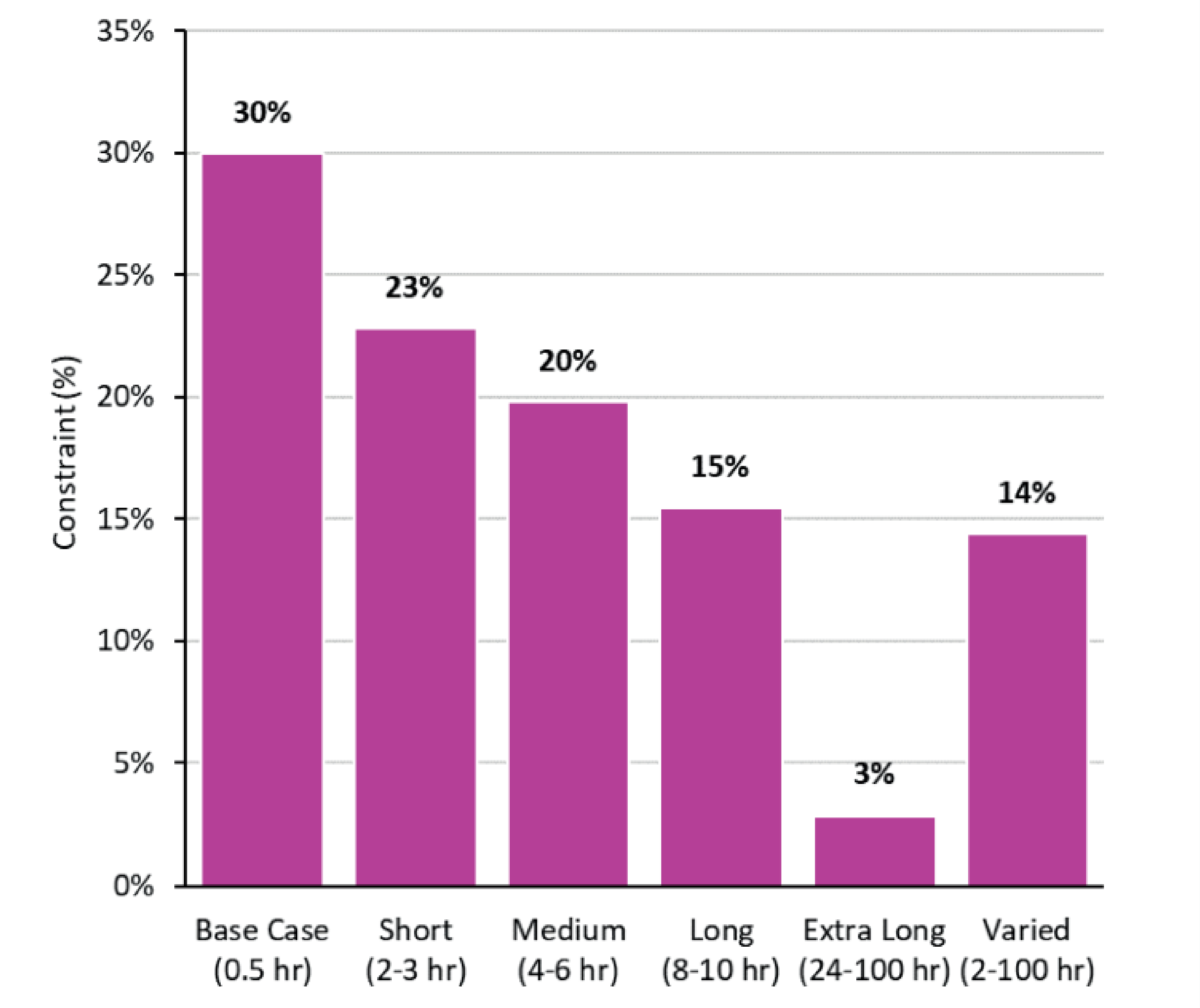
Opportunities

- Wholesale Market Access Opening
- Recognition of storage as solution for constraints
- LDES (4+ and 8++ hour) procurement frameworks imminent
- Co-location policies under active review
- Strong ambition to electrify, volatility attractive for storage

ESI Game Changer Report

- Report by ESI and Baringa (2022)
- Modelled: 2030 scenario with an additional 2 GW of different durations of energy storage (2 hrs - 100 hrs).
- Results: Energy Storage can:
  - 50% ↓↓ electricity market emissions from LDES technologies
  - ↓↓ curtailment of renewable generation
  - ~€85mln ↑↑ net saving to consumers p.a. via avoided fuel, carbon & grid reinforcement costs.

- Modelled a highly constrained region (Co. Donegal)
- LDES provides substantial improvement to RE constraint



Future Outlook

Future Outlook for Energy Storage

- Broad support for accelerated development of storage
- Specific storage procurement policies under review/consultation

Strong support from relevant authorities

- No declared targets for storage
- However frameworks/initiatives and industry analysis sets expectation

TSO analysis suggests 4.5 GW of storage (varied technology) in 2030

- LDES Procurement exercises to be initiated during 2025.
- ESI seeks;
  - technology neutral,
  - Floor + shared upside structure
  - revenue stacking potential
  - Winners procured through assessment of system value

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