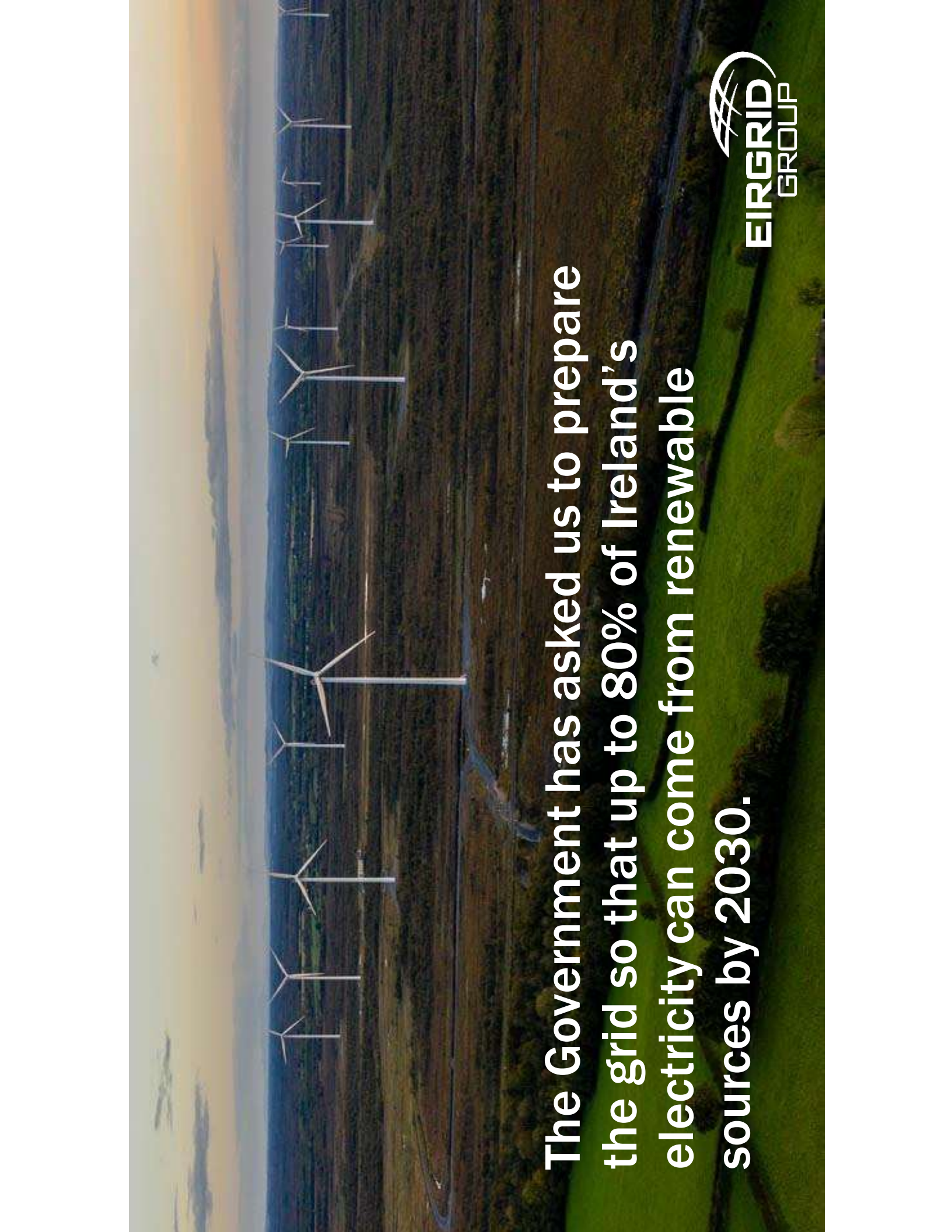


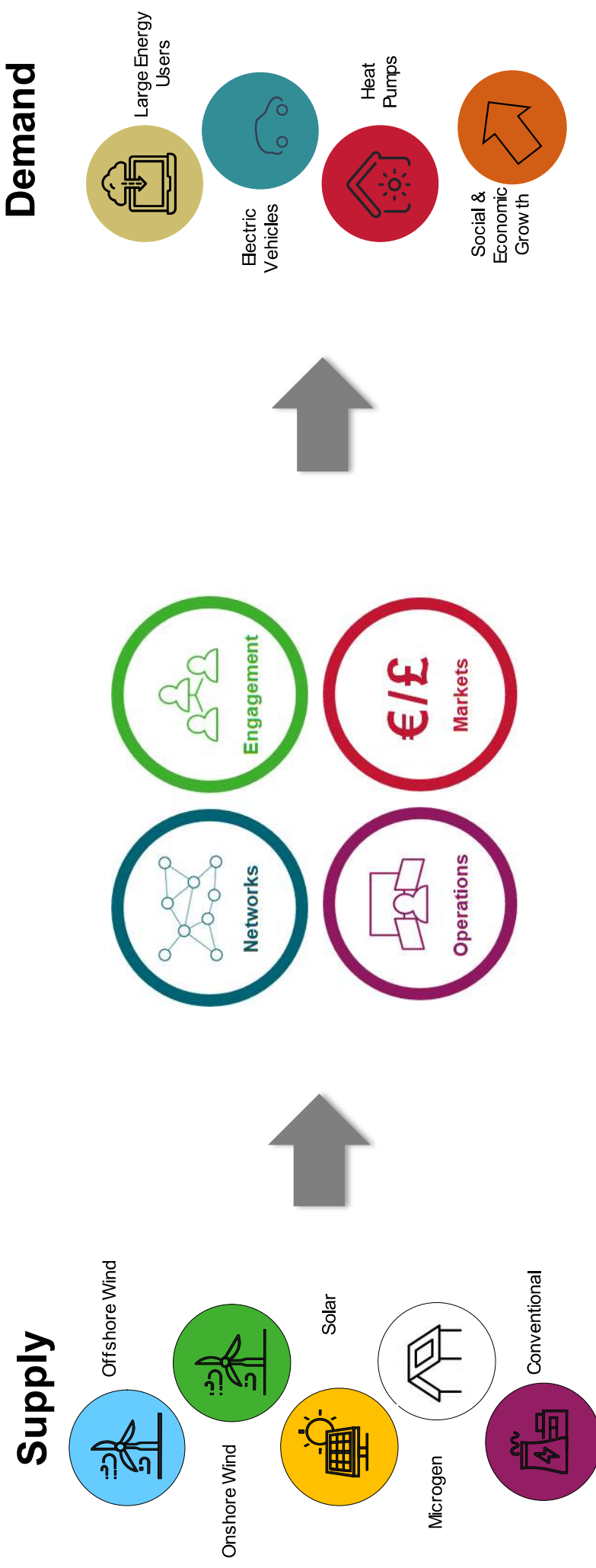
SHAPING OUR ELECTRICITY FUTURE ROADMAP

April 2022

An aerial photograph of a vast wind farm. Numerous white wind turbines are scattered across a green and brown landscape. A river or stream flows through the middle ground. The sky is a mix of blue and orange, suggesting dawn or dusk. The overall scene is rural and expansive.

The Government has asked us to prepare the grid so that up to 80% of Ireland's electricity can come from renewable sources by 2030.

WHOLE OF ELECTRICITY SYSTEM CHALLENGE



Shaping Our Electricity Future



Consultation and Engagement

14-week

Consultation and
Engagement Programme

Ireland and
Northern Ireland

500

Over 500
Consultation
Responses

2

Civil Society
Forums

2

Industry Forums

100+ Virtual
Consultation Events

- Local Authorities
- Chambers of Commerce
- Rural Communities
- Agricultural Organisations
- Community and Voluntary Groups

**TEDxStormont
Youth Event**

**National Youth
Assembly
in Ireland**

99

**Deliberate Dialogue
Participants in Ireland**

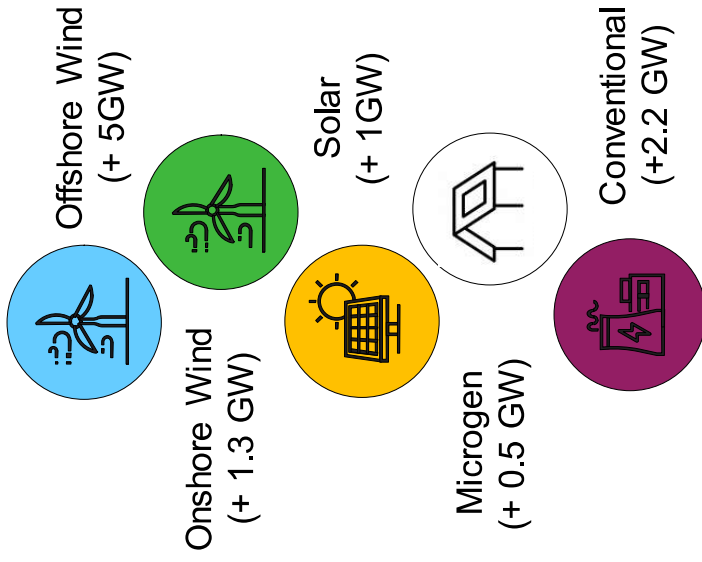
FINAL GRID DEVELOPMENT ANALYSIS



Blended Scenario

WHOLE OF ELECTRICITY SYSTEM CHALLENGE

Supply

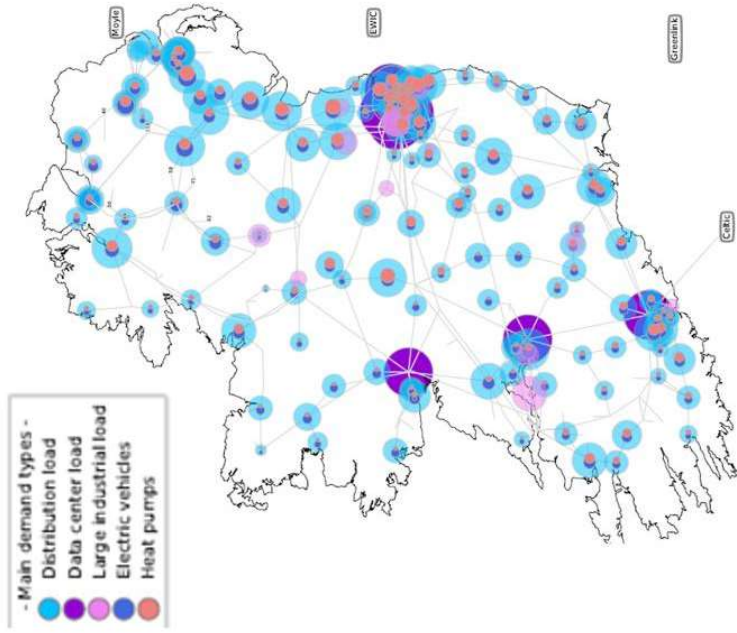


Demand (+50%)

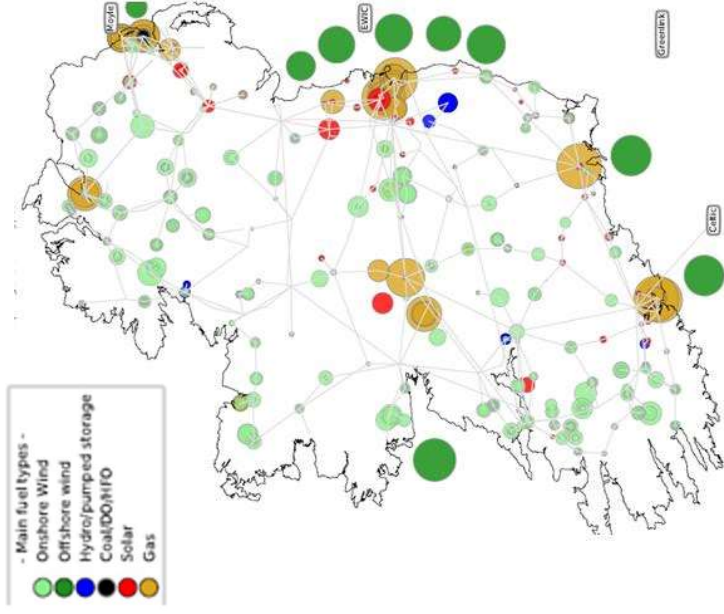


DEMAND & GENERATION – WIDESPREAD GROWTH

2030 Demand



2030 Generation



High demand scenario
 1550 MW Large Energy Users (including 300 MW in total distributed across Cork, Limerick and Galway)

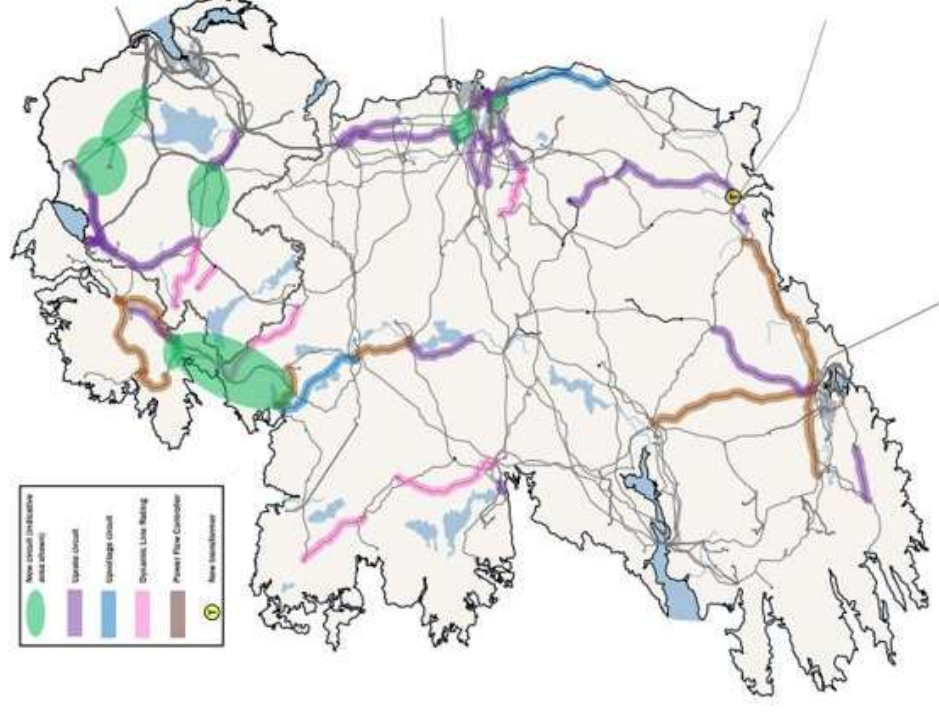
Main concentration of new generation:

- Offshore wind off east coast
- Solar in south and east
- Onshore wind in north west and midlands
- Conventional generation in Dublin, West, South



GRID DEVELOPMENT

- **Approx. 40 new projects (~€1.1 bn) in Ireland***
- Public acceptance at the heart of future grid development
- Have maximised use of existing grid and focussed on publicly acceptable, deliverable solutions
- However significant new grid infrastructure required – complex, contentious and takes many years to deliver.
 - Particular concentration in Greater Dublin area



* In addition to committed pipeline of approx. 100 significant projects (~€2.2 bn). Excludes customer projects.

ENGAGEMENT – MULTI YEAR PLAN



Engagement at the heart of transition to 2030....public, industry, key stakeholders

Continue to evolve our engagement expertise and methods – innovative methods and new processes

Initiatives required to support community buy-in; as well as delivering wider societal and industry awareness and acceptance

Involve, Inform and Empower all parts of society on the transition and build a coalition of support

OPERATIONS – MULTI-YEAR PLAN

electric-vehicles
dynamic-line-rating
probabilistic-operations

offshore-wind
synchronous-compensators

european-market-re-integration
heat-pumps

DSO-partnership

climate-action-plan
clean-energy-package-dispatchable wind

control-centre-of-the-future
statcoms system-services-future-arrangements

Greenlink-interconnector solar

70%+ RES-E

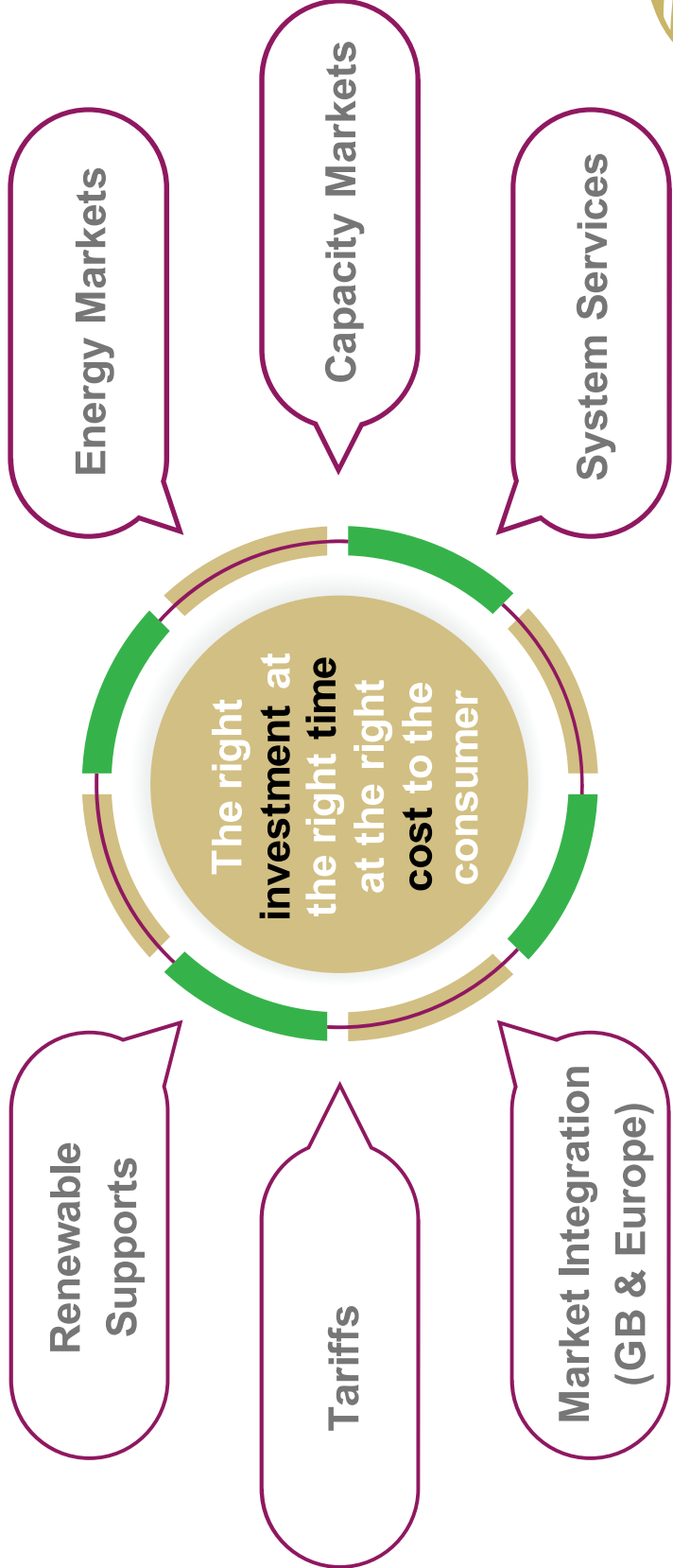
95% SNSP

distributed-energy-resources
Celtic-interconnector

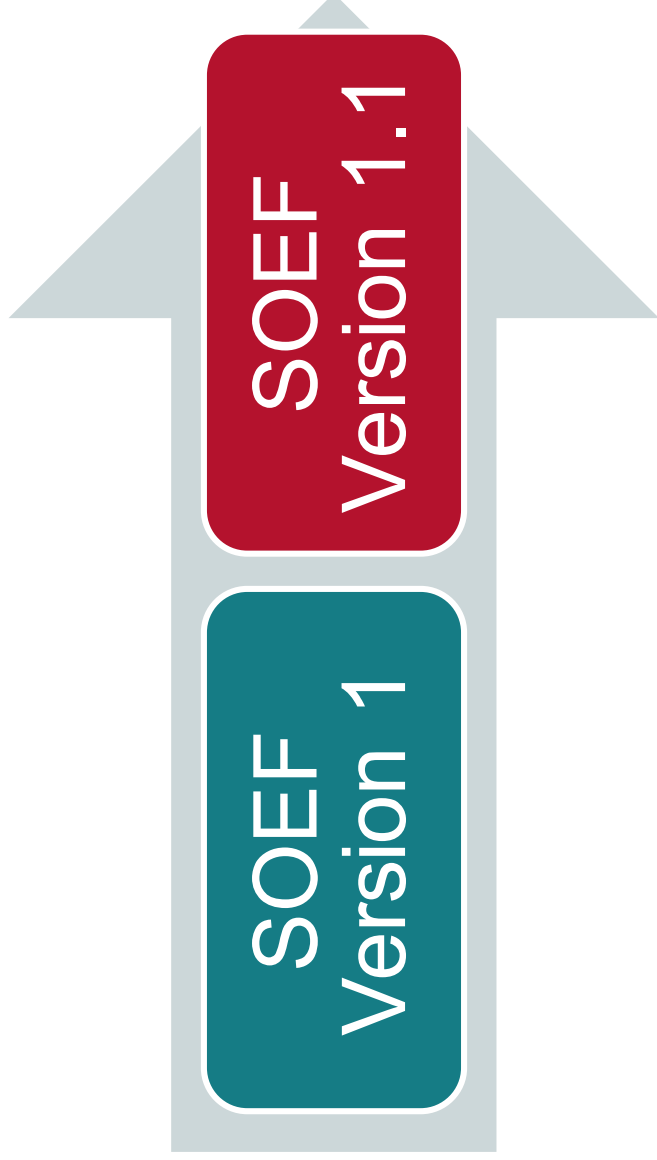
2nd North-South-Tie-Line
power-flow-controllers
series-compensation

roof-top-solar
onshore-wind

ELECTRICITY MARKET EVOLUTION – RECOMMENDATIONS



LOOK FORWARD



SUMMARY

Recognises the many challenges, including:

- Public acceptance of electricity infrastructure
- Public concern about increasing electricity prices
- Security of supply
- Demand growth

Shaping Our Electricity Future provides:

- Robust, and deliverable plan for 2030 and ultimately towards a net zero carbon energy system by 2050
- Accommodates social and economic growth (national and regional)
- Facilitates a secure transition from a non-renewable to renewable majority system through the decade