



Irish solar:
From promise to
delivery



Irish renewable landscape

- Ireland dominated by **wind** energy to date
- **43%** of 2020 demand from renewables (primarily onshore wind)
- **Renewable Electricity Support Scheme (RESS)** - policy supporting renewable deployment

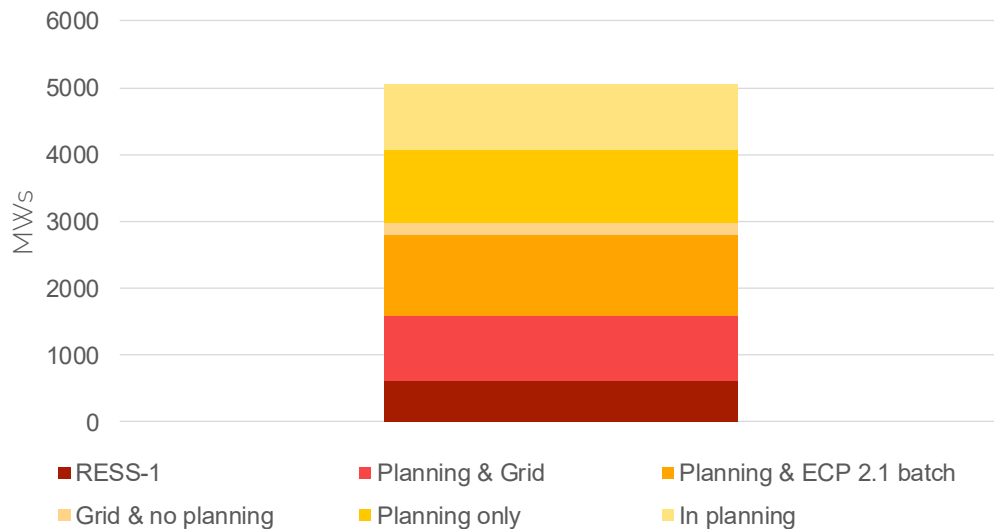


Solar's time to shine



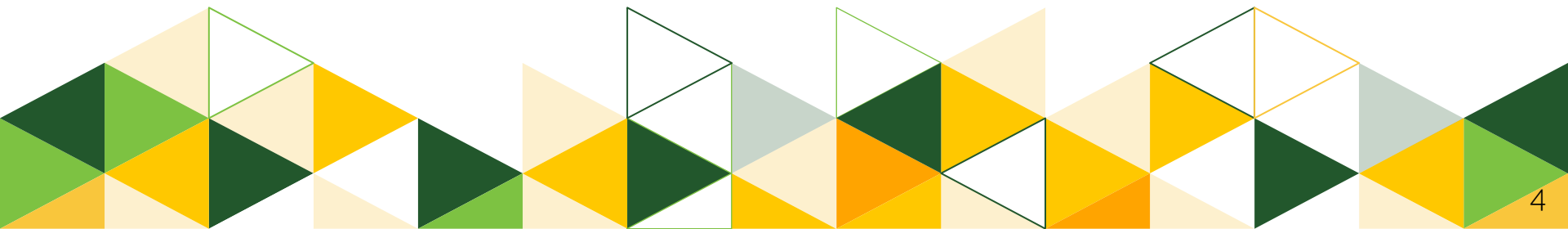
- Large scale industry active since 2013
- 790MW+ of solar in 2020 RESS-1 auction
- First large scale projects being installed
- Microgeneration support scheme design expected Q3 2021

Solar development pipeline



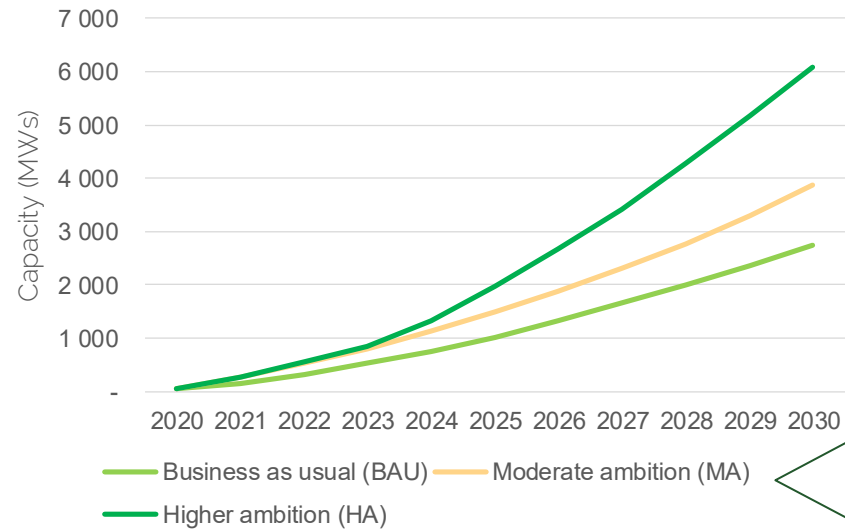
- ◀ 1.5GW-2.1GW RESS-2 eligible
- ◀ A further 2.0GW-2.5GW of early stage projects
- ◀ A substantial pipeline of potential projects built up by development community

Source: MullanGrid



Solar PV deployment scenarios

- ▶ Range of scenarios to move from current base
- ▶ Portfolio of utility scale and behind the meter



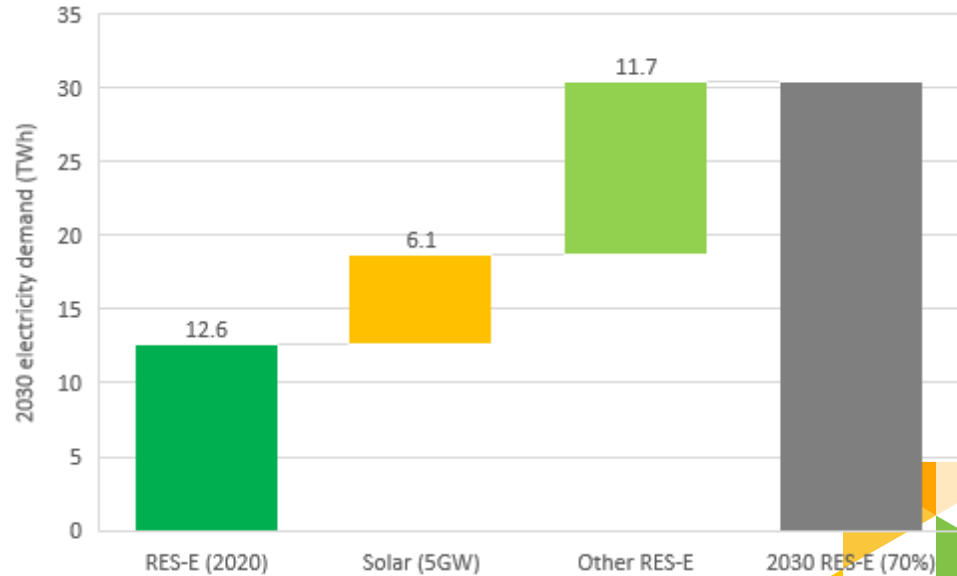
Source: ISEA



To decarbonise electricity
most effectively will require
at least 5GW solar by 2030

Solar key to achieving at least 70% renewable electricity

- ▶ Challenging to get there without solar at scale
- ▶ RESS volumes in first half of 2020s
- ▶ Solar at least one third of the gap
- ▶ Can connect volumes without significant network upgrades

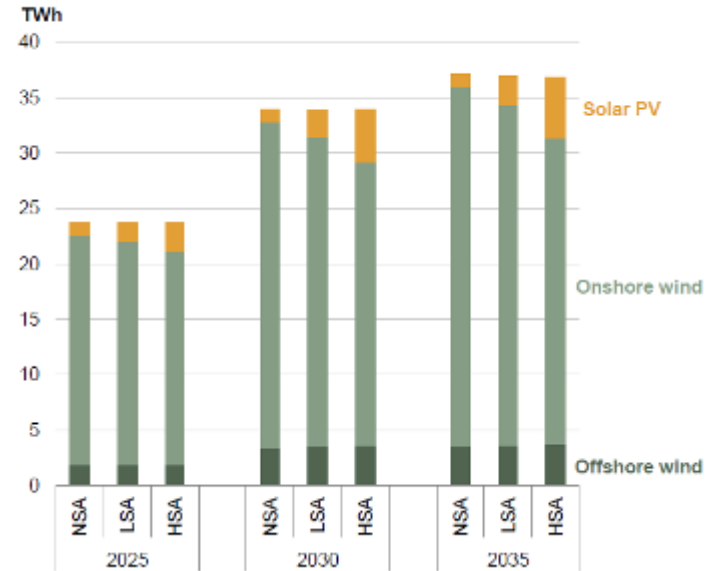


Source: ISEA

Solar blended with wind makes a cheaper and better system

- ▶ Net gain to society across all scenarios potentially €106mn p.a. by 2035
- ▶ In addition, a substantial decrease (over 40%) in the levels of renewables being turned down
 - ◀ 11.4% wind lost in 2020 due to constraints and curtailment
 - ◀ Payments to compensate valued at €286mn 2020/2021

RENEWABLE GENERATION IN THE SEM (TWh, post curtailment)

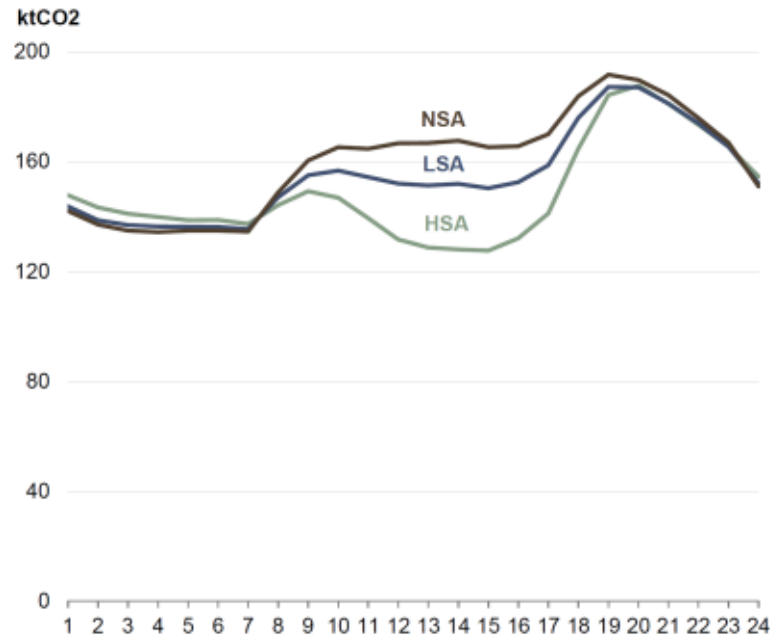


Source: AFRY

Solar blended with wind more effective at displacing emissions than wind alone

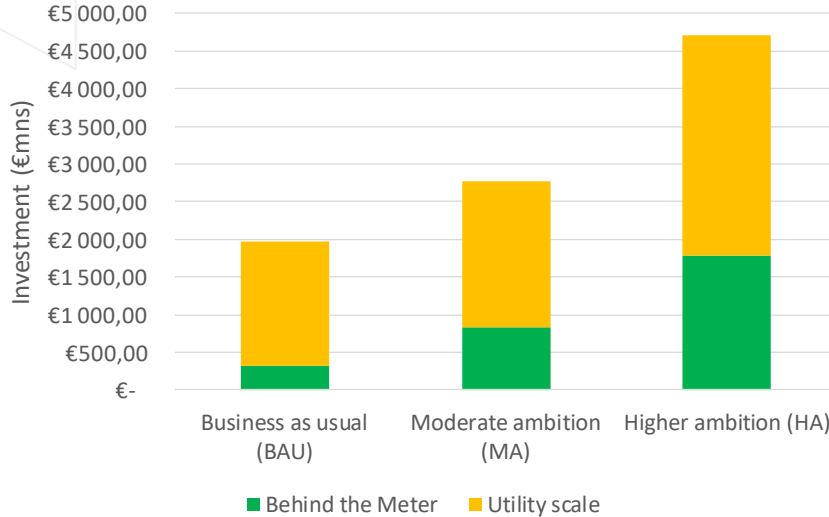
- By running during the day, solar displaces higher emitting units
- In high solar scenario – impact can be a further 7% GHG emissions reduction in 2030

TOTAL EMISSIONS BY HOUR OF THE DAY IN 2030 (ktCO₂)



Source: AFRY

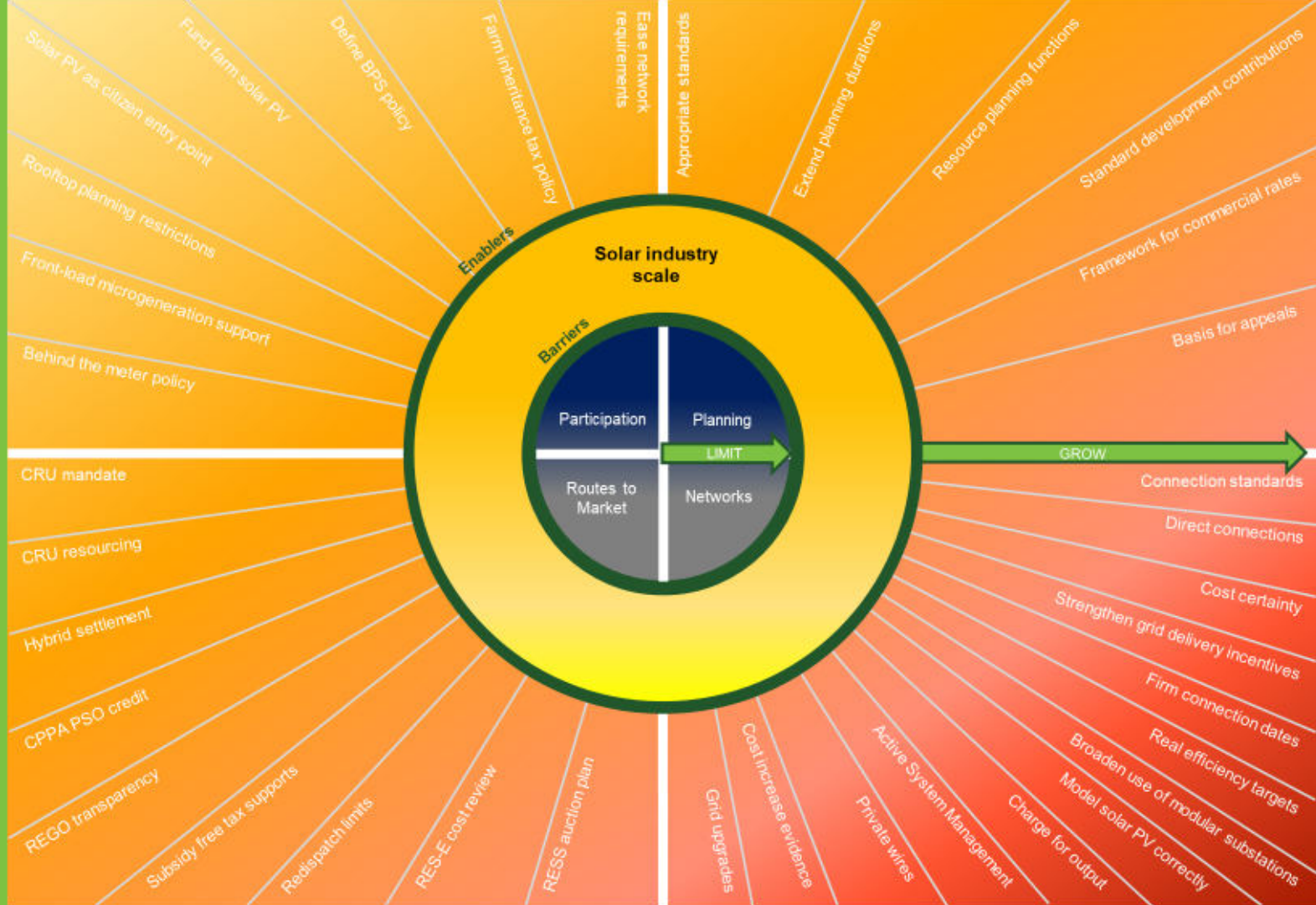
Substantial investment in Irish economy



€1.97bn - €4.7bn total by 2030

- Utility scale more efficient connecting capacity.
- Behind the meter space facilitates homes, schools, businesses and industry in the energy transition.

Source: ISEA



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