



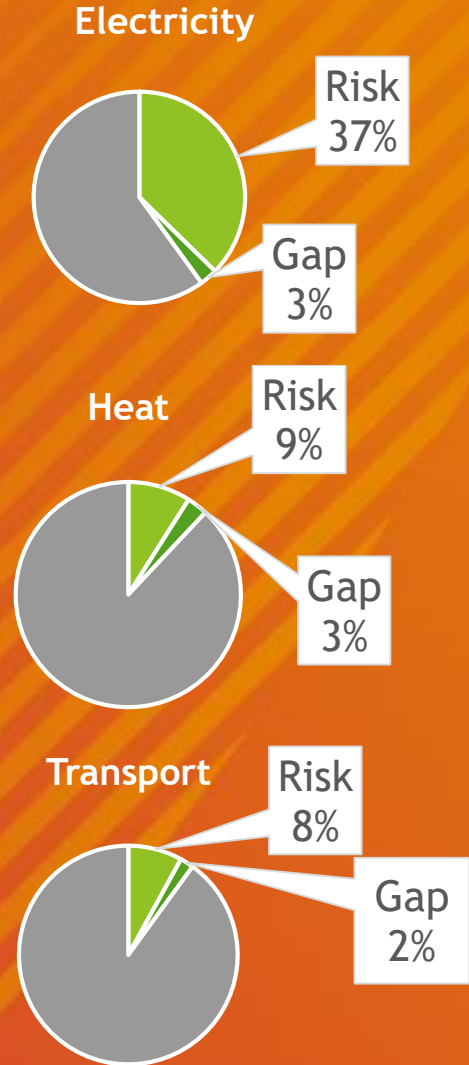
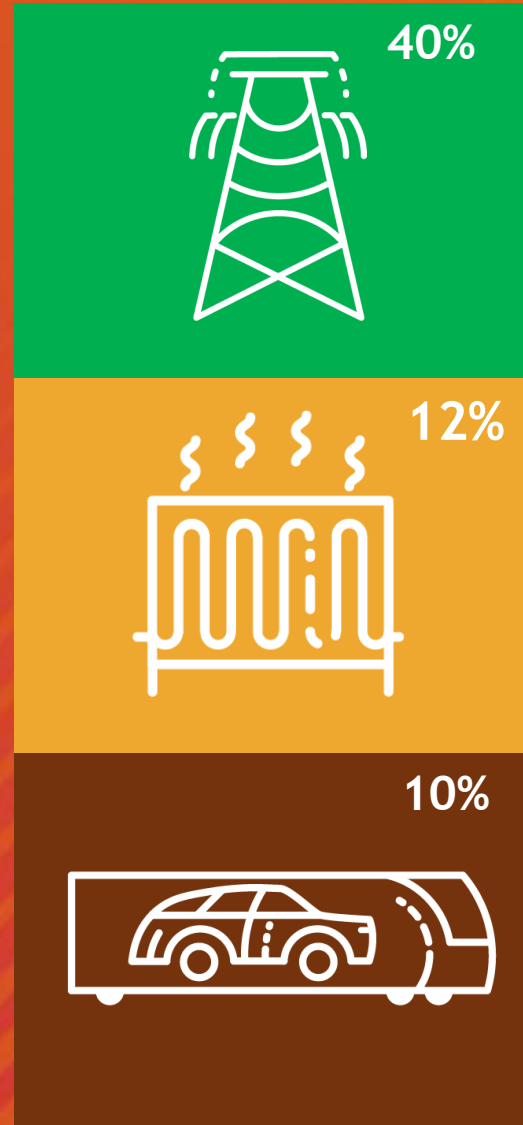
Joint Oireachtas Briefing 16th Jan 2018

Jim Gannon, CEO

www.seai.ie

Context

1. Expansion of Solar
2. Deep Retrofit
3. Offshore Wind

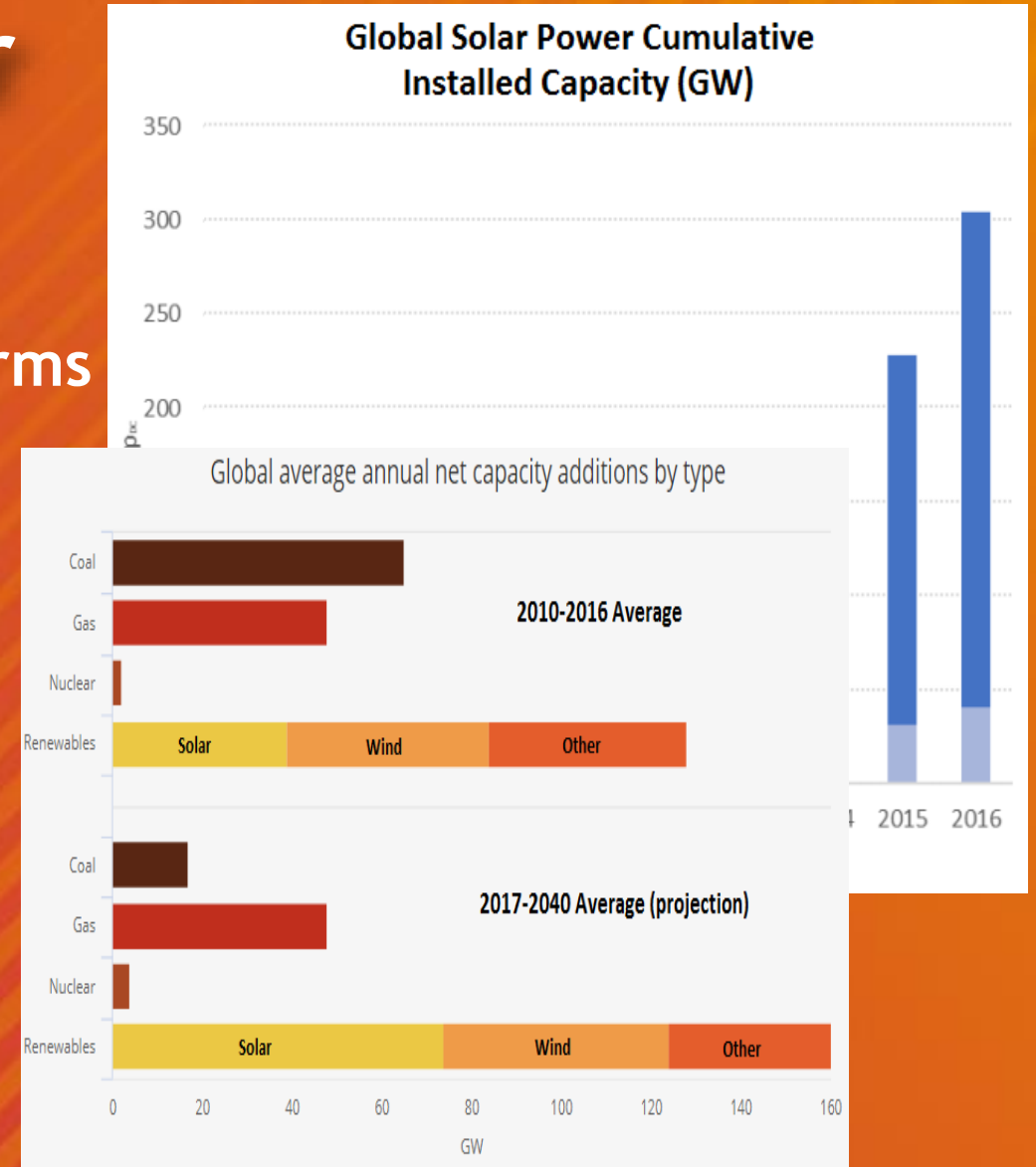


Expansion of solar power

IEA (2017)

- Solar is the fastest growing power generation technology worldwide in terms of new capacity additions
- Solar still only around 2% of global electricity supply but growing rapidly

IEA PVPS (2017)



Costs of solar power

- Significant cost reductions in solar power over last 10 years
- Solar panel costs have dropped more than 85% since 2009
- Driven by a combination of economies of scale, supply chain innovation and catalysed by support schemes
- Costs per unit of electricity produced still higher for solar in Ireland than for onshore wind, but falling

Deployment in Ireland

Small-scale Deployment

- Considerable homeowner and SME interest across several SEAI programmes
- Stakeholder challenges: Cost; Grid Connection and Integration; Planning Challenges; Supply Chain Quality and Capacity
- No clear low-risk mechanism for incentivisation of microgeneration



Large Scale

- Renewable Electricity Support Scheme (RESS)
- Planning and community involvement a key facilitator
- Ultimate cost to consumer must be considered

Opportunities for Ireland

Research & Enterprise

- Significant opportunity for Irish research and business in the solar supply chain
- Irish business could capture over €200m/yr of a €10bn/yr European market by 2020



Deep retrofit

Significant upgrade of a building toward nearly zero energy requirements where practically feasible and achievable

Principles:

- Minimum A3 Building Energy Rating + uplift of 150 kWh/m²/yr
- Whole house, fabric first philosophy
- Deployment of renewables transitioning away from fossil fuels
- Support comfort and health benefits e.g. ventilation

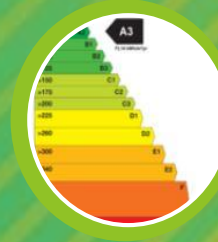


Deep retrofit: approach

Range of Residential Archetypes

Finance:

Consumer & National



A3 BER
150kWh/m²/
yr Target

Advice &
support



Supply Chain
Readiness

Consumer Choice
& Behaviour



Standards and
Certification

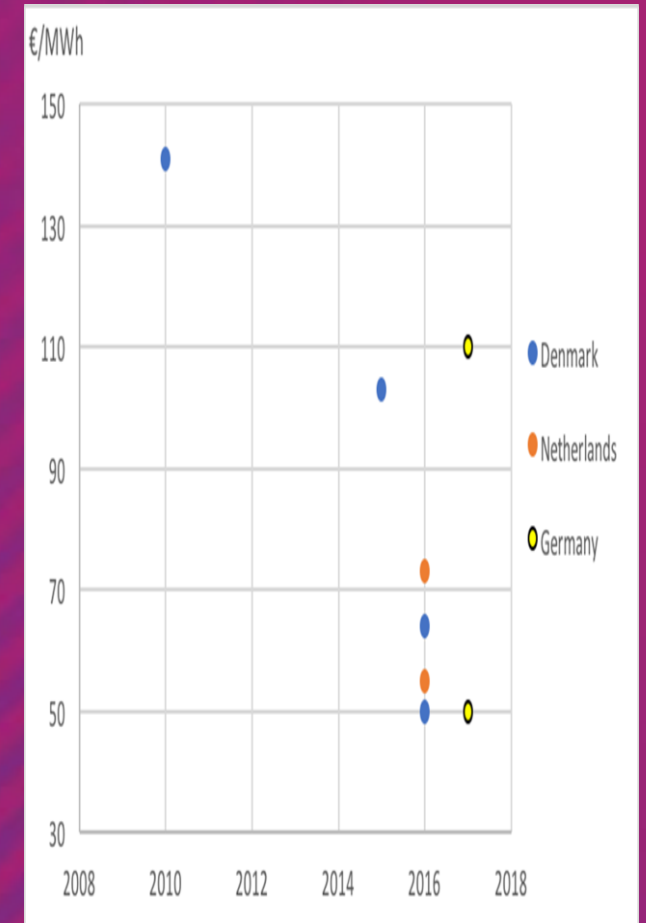
Deep retrofit: Early learnings

- Supply chain constraints:
 - Capacity
 - Competency
- Economies of scale are lacking
- Complexity of retrofit and variability across house type a challenge
- Large variances in pre-existing fuel mix geographically



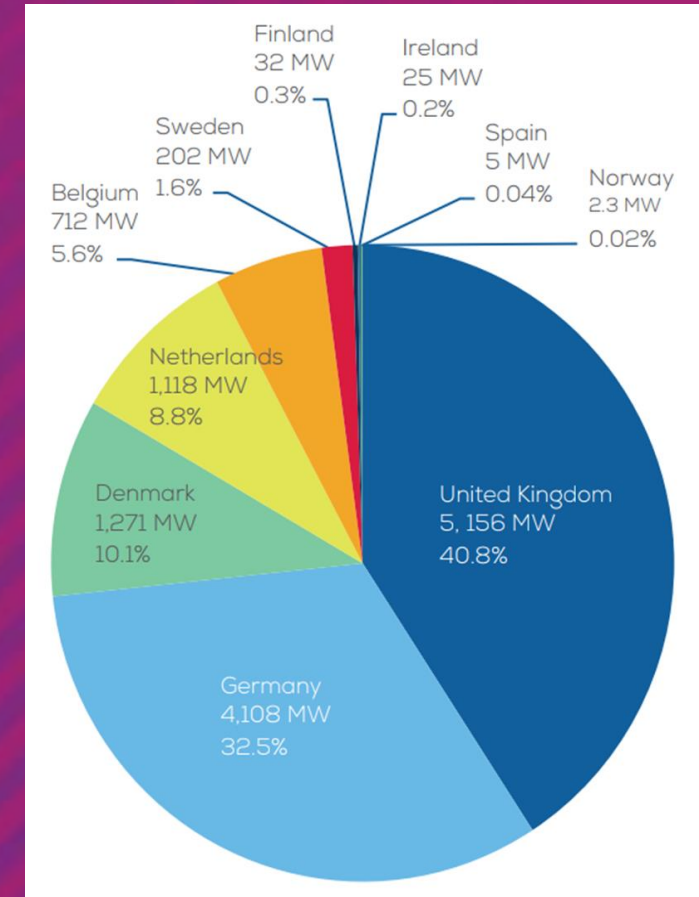
Offshore Wind: EU trends

- Decreasing Contract for Difference (CfD) prices in UK
- Decreasing auction prices in Germany / Denmark / Netherlands
- Offshore wind turbines potentially 8 - 10 MW; up from 3 - 4 MW (a few years ago)
- Offshore Wind Capacity increasing at a faster rate than Onshore Wind Capacity in EU



Offshore Wind: Ireland

- Offshore Wind originally linked to national demand
- Only one project - Arklow bank in place
- Renewed interest in Ireland
- Significant interest in floating wind



Offshore wind: Facilitators

- Offshore Renewable Energy Development Plan (OREDPA)
- Maritime Area and Foreshore (Amendment) Bill
- Renewable Energy Support Scheme
- Test facilities for offshore wind
- Supply chain opportunities
- **Needs community buy-in**