

A World Leading SFI Research Centre



Electricity and Climate Change

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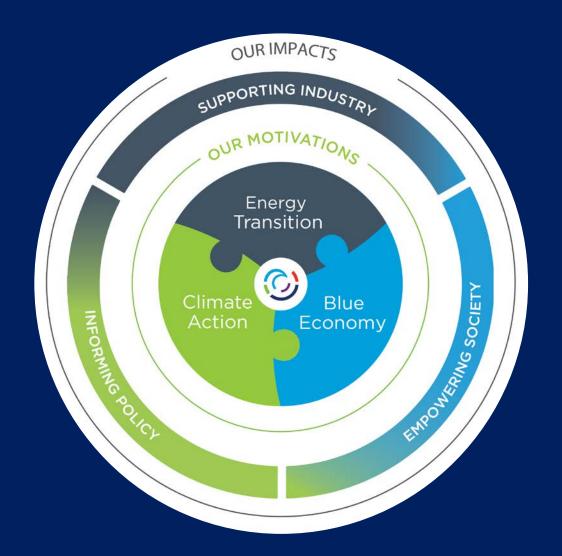














Climate Change is happening











Citizens are seeking action

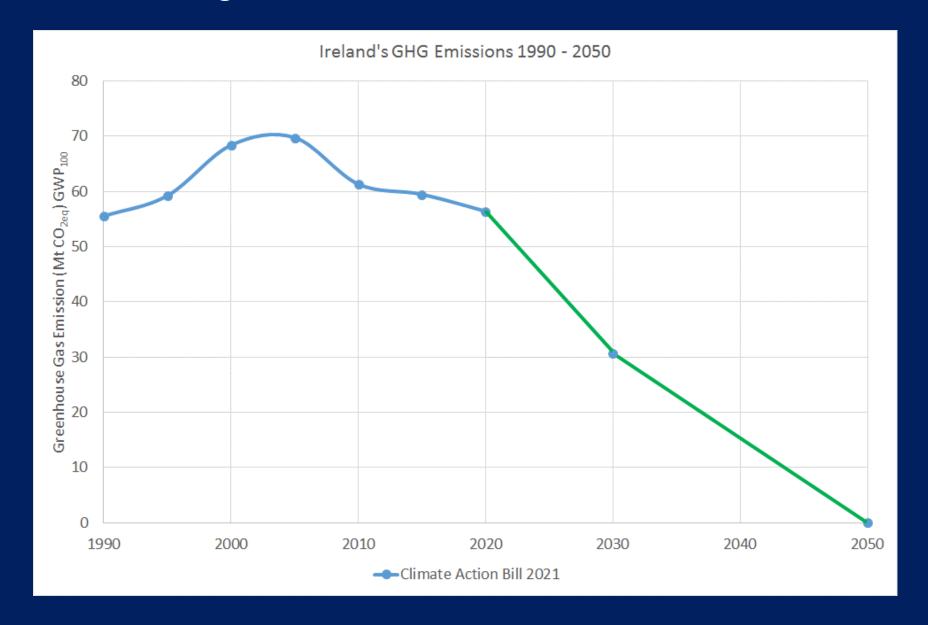








Climate Bill 2021 – Significant increase in ambition





Ireland's Greenhouse Gas Emissions Manufacturing Combustion Stocks es Enteric Fermentation Welling Electricity **Production** Soils 61 MT 10% 20% 4 iming Waste Non-ETS Public Services A Combustio Manufacturing Combustion Home Homes Road **Transport**

Many options and opportunities







Many options and opportunities











Many options and opportunities







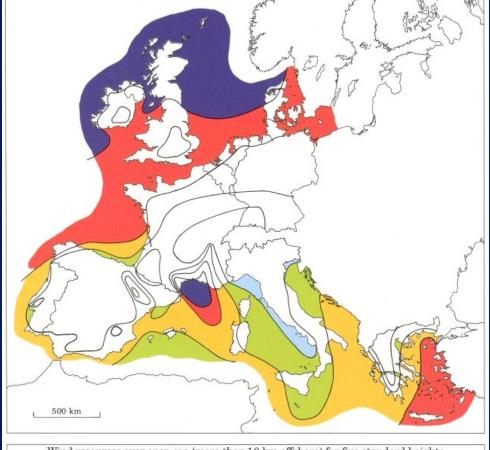




Why renewable electricity?

We have lots of it



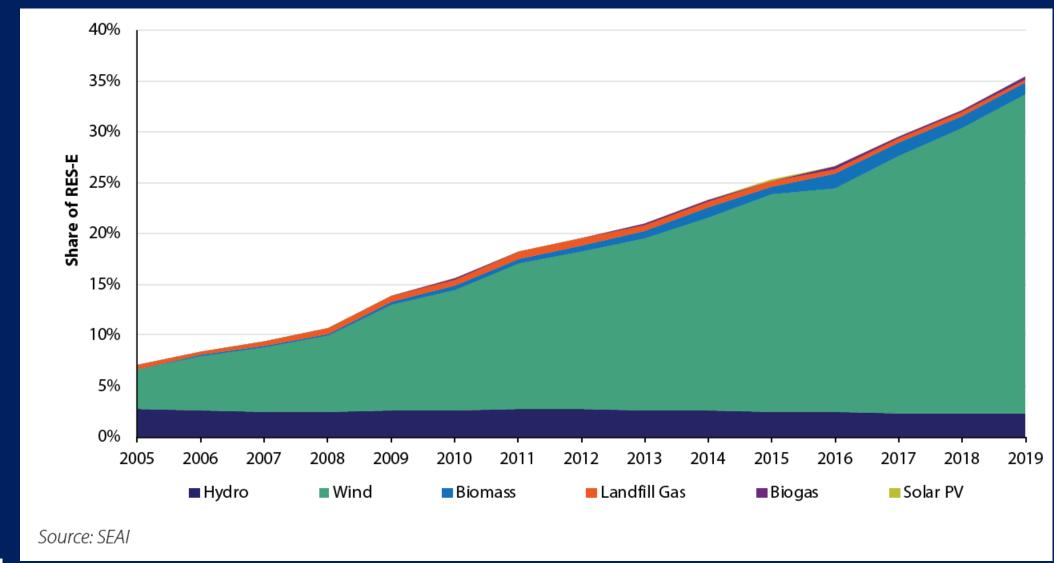


1	10 m		25 m		50 m		100 m		200 m	
$\mathrm{m}\mathrm{s}^{-1}$	Wm^{-2}	$m s^{-1}$	Wm^{-2}	${ m ms^{-1}}$	$\rm Wm^{-2}$	${ m ms^{-1}}$	Wm^{-2}	${\rm m}{\rm s}^{-1}$	Wm^{-2}	
> 8.0	> 600	> 8.5	> 700	> 9.0	> 800	> 10.0	> 1100	> 11.0	> 1500	
7.0-8.0	350-600	7.5-8.5	450-700	8.0-9.0	600-800	8.5-10.0	650-1100	9.5-11.0	900-1500	
6.0-7.0	250-300	6.5-7.5	300-450	7.0-8.0	400-600	7.5- 8.5	450- 650	8.0- 9.5	600- 900	
4.5-6.0	100-250	5.0-6.5	150-300	5.5-7.0	200-400	6.0- 7.5	250- 450	6.5- 8.0	300- 600	
< 4.5	< 100	< 5.0	< 150	< 5.5	< 200	< 6.0	< 250	< 6.5	< 300	



Why renewable electricity?

We're very good at it







Marel

Energy · Climate · Marine