

Key statistics in 2030 and 2050

	2020	2030				2050				
Emissions		CT	ST	LW	SP	CT	ST	LW	SP	Emissions
Annual average carbon intensity of electricity (g CO ₂ /kWh)	155	20	22	6	42	-54	-55	-43	14	Annual average carbon intensity of electricity (g CO ₂ /kWh)
Electricity										Electricity
Annual demand (TWh) ¹	294	333	309	340	324	702	559	686	459	Annual demand (TWh) ¹
Peak demand (GW) ²	58	69	65	67	68	113	99	95	92	Peak demand (GW) ²
Total installed capacity (GW) ³	104	182	168	200	158	374	313	339	242	Total installed capacity (GW) ³
Wind and solar capacity (GW)	36	100	87	113	70	236	183	216	132	Wind and solar capacity (GW)
Interconnector capacity (GW)	5	19	16	22	16	27	20	28	17	Interconnector capacity (GW)
Total storage capacity (GW)	4	14	9	18	8	58	36	63	24	Total storage capacity (GW)
Total vehicle-to-grid capacity (GW) ⁴	0	2	0	3	0	34	16	39	8	Total vehicle-to-grid capacity (GW) ⁴
Natural Gas										Natural Gas
Annual demand (TWh) ⁵	891	633	714	545	789	66	512	19	752	Annual demand (TWh) ⁵
1-in-20 peak demand (GWh/day)	5,832	4,138	4,688	3,197	5,221	431	2,375	156	4,910	1-in-20 peak demand (GWh/day)
Residential demand (TWh) ⁶	334	255	297	196	313	3	1	5	255	Residential demand (TWh) ⁶
Import dependency (%)	57%	73%	68%	64%	63%	95%	98%	46%	69%	Import dependency (%)
Hydrogen										Hydrogen
Annual demand (TWh)	0	2	8	13	1	149	475	297	52	Annual demand (TWh)
Blue hydrogen production (TWh) ⁷	0	0	6	0	0	34	332	0	50	Blue hydrogen production (TWh) ⁷
Green hydrogen production (TWh) ⁸	0	2	1	12	1	103	78	246	2	Green hydrogen production (TWh) ⁸
Bioresources										Bioresources
Bioresource demand (TWh)	–	105	118	116	118	219	246	200	143	Bioresource demand (TWh)

1. Customer demand plus on-grid electrolysis plus losses.

2. Refer to data workbook for further information on winter average cold spell (ACS) peak demand.

3. Total installed capacity and total storage capacity including vehicle-to-grid. Includes all network connected generation.

4. Less capacity will be available during winter peak 6-8pm due to vehicle usage.

5. Includes shrinkage, exports, biomethane and natural gas for methane reformation.

6. Residual demand made up of biomethane and natural gas.

7. Blue hydrogen is created via methane reformation using natural gas as an input, plus CCUS.

8. Green hydrogen is created via electrolysis using renewable electricity (does not include hydrogen produced directly from nuclear or biomass).