

Common Assumptions - CAUTION - ROWS 7-49 USING OLD DATA, NEEDS TO BE UPDATED

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	
<b>Assumptions</b>																													
GDP Growth		-7.8%	-2.3%	5.2%	5.2%	5.2%	5.2%	5.2%	3.3%	3.3%	3.3%	3.3%	3.3%	2.6%	2.6%	2.6%	2.6%	2.6%											
GNP Growth		-9.0%	-1.9%	5.5%	5.5%	5.5%	5.5%	5.5%	3.3%	3.3%	3.3%	3.3%	3.3%	2.7%	2.7%	2.7%	2.7%	2.7%											
Personal Disposable Income		-5.6%	-2.4%	2.3%	2.3%	2.3%	2.3%	2.3%	3.7%	3.7%	3.7%	3.7%	3.7%	3.3%	3.3%	3.3%	3.3%	3.3%											
<b>Total Population</b>																													
Total Population	4424	4428	4428	4528	4528	4528	4528	4528	4769	4769	4769	4769	4769	5000	5000	5000	5000	5000											
Population - under 14, thousands	912	916	926	955	955	955	955	955	987	987	987	987	987	975	975	975	975	975											
Population - aged 15 to 24, thousands	618	577	543	523	523	523	523	523	562	562	562	562	562	612	612	612	612	612											
Population - aged 25 to 34, thousands	784	783	768	712	712	712	712	712	598	598	598	598	598	577	577	577	577	577											
Population - aged 35 to 64, thousands	1629	1,658	1,683	1,773	1,773	1,773	1,773	1,773	1,951	1,951	1,951	1,951	1,951	2,043	2,043	2,043	2,043	2,043											
Population - aged 65 and over, thousands	482	494	508	564	564	564	564	564	671	671	671	671	671	793	793	793	793	793											
Dollar Euro Rate	1.46	1.33	1.32	1.30	1.28	1.26	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25											
Sterling Euro Rate		0.91	0.90	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88											
Oil Price €/MW	38.42	52.72	33.92	46.92	46.92	46.92	46.92	46.92	71.43	71.43	71.43	71.43	71.43	78.28	78.28	78.28	78.28	78.28											
Oil Price (updated) \$/bbl									72.40	76.60	80.80	85.00	92.00	99.00	106.00	113.00	120.00	120.00	120	120	120	120	120	120	120	120	120	120	120
Gas Price €/MW	25.75	18.71	17.70	18.78	19.73	20.21	20.80	21.30	22.16	23.01	24.29	25.78	26.16	27.70	29.19	30.26	30.90	31.54											
Gas Price (updated) p/therm									49.00	50.00	51.00	52.00	55.00	58.00	61.00	64.00	67.00	67.00	67.2	67.4	67.6	67.8	68	68	68	68	68	68	68
Coal Price €/MW	8.06	8.18	8.94	9.15	9.38	9.59	9.91	10.89	11.60	12.07	12.55	12.78	12.80	13.26	13.49	13.49	13.73	13.97											
Peat Price €/MW	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00											
Carbon Price		13.24	13.91	14.61	15.59	16.76	17.93	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00											
Carbon Price (new)								6.92	7.29	7.29	7.29	10.00	10.00	10.00	10.00	10.00	14.00	14.00	14.00	14.00	14.00	35.00	35.00	35.00	35.00	35.00	35.00	57.00	
Electricity price €/MWhr	49.17	47.20	44.10	50.50	50.50	50.50	50.50	50.50	63.20	63.20	63.20	63.20	63.20	79.70	79.70	79.70	79.70	79.70											
Electricity price (new)																													
Consumption Price Deflator		-1.0%	-0.2%	2.5%	2.5%	2.5%	2.5%	2.5%	2.7%	2.7%	2.7%	2.7%	2.7%	2.2%	2.2%	2.2%	2.2%	2.2%											
Housing Completions	20000	12500	30451	30451	30451	30451	30451	30451	38205	38205	38205	38205	38205	35773	35773	35773	35773	35773											
Total Housing Stock, Thousands	1815	1815	1871	1871	1871	1871	1871	1871	2006	2006	2006	2006	2006	2151	2151	2151	2151	2151											
Car Stock, Thousands	1824	1810	1868	1868	1868	1868	1868	2078	2078	2078	2078	2078	2078	2270	2270	2270	2270	2270											
Petrol >2L	64	64	66	66	66	66	66	73	73	73	73	73	80	80	80	80	80	80											
Petrol 1.4-2L	223	221	229	229	229	229	229	254	254	254	254	254	254	278	278	278	278	278											
Petrol <=1.4L	15	14	15	15	15	15	15	17	17	17	17	17	18	18	18	18	18	18											
Diesel >2L	28	28	29	29	29	29	29	32	32	32	32	32	32	35	35	35	35	35											
Diesel 1.4-2L	536	532	549	549	549	549	549	610	610	610	610	610	667	667	667	667	667	667											
Diesel <=1.4L	958	950	981	981	981	981	981	1091	1091	1091	1091	1091	1091	1192	1192	1192	1192	1192											
Petrol Price per litre excl taxes									0.42	0.43	0.43	0.44	0.44	0.46	0.49	0.51	0.53	0.56	0.58	0.61	0.64	0.66	0.69						
Petrol Price € per litre incl taxes (updated)									1.29	1.29	1.30	1.31	1.31	1.34	1.37	1.40	1.42	1.45	1.48	1.52	1.55	1.58	1.61						
Diesel Price per litre excl taxes									0.41	0.41	0.42	0.42	0.43	0.45	0.47	0.49	0.52	0.54	0.56	0.59	0.62	0.64	0.67						
Diesel Price € per litre incl taxes (updated)									1.16	1.16	1.17	1.18	1.19	1.21	1.24	1.27	1.29	1.32	1.35	1.38	1.42	1.45	1.48						
Home Heating oil per litre excl taxes	0.77	1.06	0.68	0.94	0.94	0.94	0.94	0.94	1.44	1.44	1.44	1.44	1.44	1.57	1.57	1.57	1.57	1.57											
Natural Gas Residential CENTS per kilowatt hour	4.74	3.44	3.26	3.46	3.63	3.72	3.83	3.92	4.08	4.24	4.47	4.75	4.81	5.10	5.37	5.57	5.69	5.80											
Household Electricity per KWhr (excl taxes)	0.17	0.16	0.15	0.17	0.17	0.17	0.17	0.17	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12						
Peat Price (Bale of Bricquettes'80) excl tax	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70	246.70											
Coal (Standard Anthracite per tonne) excl tax	381.06	386.95	422.56	432.57	443.60	453.37	468.35	514.82	548.46	570.85	593.23	604.42	605.32	626.81	638.00	638.00	649.20	660.39											
shadow price of public funds		130%																											
Department of Finance Test Discount rate		5%																											

Standard Values

Factor	Value	Units	Ref
ktoe to kWh	11630000	kWh/ktoe	
ktoe to PJ	0.041868	PJ/ktoe	
MJ/kWh	3.6	MJ/kWh	
LHV Diesel	43.1	MJ/kg	Biograce standard values spreadsheet
LHV Petrol	43.2	MJ/kg	Biograce standard values spreadsheet
LHV Biodiesel (FAME)	37.2	MJ/kg	Biograce standard values spreadsheet
LHV Ethanol	26.81	MJ/kg	Biograce standard values spreadsheet
Density Diesel	832	kg/m3	Biograce standard values spreadsheet
Density Petrol	745	kg/m3	Biograce standard values spreadsheet
Density Biodiesel (FAME)	890	kg/m3	Biograce standard values spreadsheet
Density Ethanol	794	kg/m3	Biograce standard values spreadsheet
Energy Density Diesel	35.9	MJ/litre	
Energy Density Petrol	32.2	MJ/litre	
Energy Density Biodiesel (FAME)	33.1	MJ/litre	
Energy Density Ethanol	21.3	MJ/litre	
Petrol	9.348	litre/kWh	<a href="http://www.seai.ie/Your_Business/Public_Sector/FAQ/Energy_Reporting_Overview/What_units_do_we_use_to_submit_energy_data_What_are_the_conversion_factors_used.html">http://www.seai.ie/Your_Business/Public_Sector/FAQ/Energy_Reporting_Overview/What_units_do_we_use_to_submit_energy_data_What_are_the_conversion_factors_used.html</a>
Diesel	10.169	litre/kWh	
ktoe to kWh	11630000	kWh/ktoe	
CO <sub>2</sub> per litre of petrol	2.30	kg/litre	
CO <sub>2</sub> per litre of diesel	2.63	kg/litre	
CO <sub>2</sub> per litre of petrol (tonne)	0.0023		
CO <sub>2</sub> per litre of diesel (tonne)	0.00263		
CO <sub>2</sub> emission value	13.22	€/tonne	<a href="http://www.dttas.ie/sites/default/files/publications/corporate/english/common-appraisal-framework-annex-1/caf-2016-annex-1.pdf">http://www.dttas.ie/sites/default/files/publications/corporate/english/common-appraisal-framework-annex-1/caf-2016-annex-1.pdf</a>
PM emission value	19,143	€/tonne	<a href="http://www.dttas.ie/sites/default/files/publications/corporate/english/common-appraisal-framework-annex-1/caf-2016-annex-1.pdf">http://www.dttas.ie/sites/default/files/publications/corporate/english/common-appraisal-framework-annex-1/caf-2016-annex-1.pdf</a>
NOx emission value	5,851	€/tonne	<a href="http://www.dttas.ie/sites/default/files/publications/corporate/english/common-appraisal-framework-annex-1/caf-2016-annex-1.pdf">http://www.dttas.ie/sites/default/files/publications/corporate/english/common-appraisal-framework-annex-1/caf-2016-annex-1.pdf</a> </