

Annex 4 – General Data in relation to Part III (Economic Analysis)

Natural Gas and Carbon Prices

Year	Natural Gas	Carbon Price	Natural Gas	Carbon Price
	Gas prices, <i>Scenario 2</i> <i>ENTSO-E PSV</i>	EU ETS CION/PRIMES Assumptions		
	€ 2016/MWh	€ 2016/t CO ₂		
2021	€21.2300	€17.0704	€0.0212	€0.0171
2022	€22.0538	€18.6223	€0.0221	€0.0186
2023	€23.1314	€20.1741	€0.0231	€0.0202
2024	€24.1398	€21.7260	€0.0241	€0.0217
2025	€25.0628	€23.2778	€0.0251	€0.0233
2026	€25.6950	€25.5539	€0.0257	€0.0256
2027	€26.3271	€27.8299	€0.0263	€0.0278
2028	€26.9593	€30.1060	€0.0270	€0.0301
2029	€27.5914	€32.3821	€0.0276	€0.0324
2030	€28.2236	€34.6581	€0.0282	€0.0347
2031	€28.1364	€36.4169	€0.0281	€0.0364
2032	€28.0492	€38.1757	€0.0280	€0.0382
2033	€27.9620	€39.9344	€0.0280	€0.0399
2034	€27.8748	€41.6932	€0.0279	€0.0417
2035	€27.7876	€43.4520	€0.0278	€0.0435
2036	€27.7004	€45.1073	€0.0277	€0.0451
2037	€27.6132	€46.7626	€0.0276	€0.0468
2038	€27.5260	€48.4179	€0.0275	€0.0484
2039	€27.5260	€50.0732	€0.0275	€0.0501
2040	€27.5260	€51.7285	€0.0275	€0.0517
2050	€27.5260	€51.7285	€0.0275	€0.0517

Table 1 – Natural Gas and Carbon Price (EU ETS) projections, € 2016/MWh and € 2016/kWh, € 2016/t CO₂ and € 2016/kg CO₂¹.

¹ Source: EWA and NECP, pg. 115

Electricity Tariffs

Residential		
Bands	Cumulative Consumption (kWh)	Consumption Tariff incl. VAT (€)
Service Charge – SP		€65.00
Service Charge – 3P*		€195.00
Band 1	0 – 2000	0.1047
Band 2	2001 – 6000	0.1298
Band 3	6001 – 10000	0.1607
Band 4	10001 – 20000	0.342
Band 5	>20000	0.6076
Domestic		
Bands		
	Cumulative Consumption (kWh)	Consumption Tariff incl. VAT (€)
Service Charge – SP		€65.00
Service Charge – 3P*		€195.00
Band 1	0 – 2000	0.1365
Band 2	2001 – 6000	0.1673
Band 3	6001 – 10000	0.2023
Band 4	10001 – 20000	0.418
Band 5	>20000	0.686
Non-Residential (kWh)		
Bands		
	Cumulative Consumption (kWh)	Consumption Tariff excl. VAT (€)
Service Charge – SP		€120.00
Service Charge – 3P*		€360.00
Maximum Demand		€20.50/kW
MD ->5000MW/year		€17.20/kW
Band 1	0 – 2000	0.1215
Band 2	2001 – 6000	0.1275
Band 3	6001 – 10000	0.1373
Band 4	10001 – 20000	0.1485
Band 5	20001 – 60000	0.1613
Band 6	60001 – 100000	0.15
Band 7	100001 – 1000000	0.1403
Band 8	1000001 – 5000000	0.1275
Band 9	>5000000	0.108
Non-Residential (kVAh)		

Bands	Cumulative Consumption (kVAh)	Consumption Tariff excl. VAT (€)
Service Charge – SP		€120.00
Service Charge – 3P*		€360.00
Maximum Demand		€19.20/kVA
MD ->5000MVA/year		€17.20/kVA
Band 1	0 – 2000	0.1118
Band 2	2001 – 6000	0.117
Band 3	6001 – 10000	0.126
Band 4	10001 – 20000	0.1365
Band 5	20001 – 60000	0.1485
Band 6	60001 – 100000	0.138
Band 7	100001 – 1000000	0.129
Band 8	1000001 – 5000000	0.117
Band 9	>5000000	0.099

Table 2 – Electricity tariffs (REWS, 2020)²

² <https://www.rews.org.mt/#/en/a/13-regulated-electricity-tariffs>

Repairs and Maintenance Costs in the Financial Analyses

Repairs & Maintenance	Cost (% of investment)	Intervals (every n years)
	%	n
Electric water heaters	20%	5
Heat pumps - water	20%	10
LPG heater (space)	20%	10
Hotels - Boilers (water) - routine maintenance	5%	1
Hotels - Boilers (water) - major maintenance	10%	10
Hotels - Heat pumps (water) - routine maintenance	5%	1
Hotels - Heat pumps (water) - major maintenance	10%	12
Hotels - Chillers (air) - routine maintenance	5%	1
Hotels - Chillers (air) - major maintenance	10%	12
Hotels - Chillers (water) - routine maintenance	5%	1
Hotels - Chillers (water) - major maintenance	10%	12

Table 3 – Repairs and Maintenance Costs

Fuel Costs in the Financial Analyses (hotels)

	kg	kWh	Weight %	Price per litre € exc. VAT	Price per kg € exc vat	Weighted price per kg € exc VAT	Calorific values (kWh per kg)	Weighte d price per kWh inc. VAT €	Weighted price per kWh exc. VAT €
Gasoil	3,729,570	44,547,617	66%	€0.76	€0.90	€0.59	11.944	€0.049	€0.042
LPG	1,676,580	21,422,982	32%	€0.32	€0.63	€0.20	12.778	€0.016	€0.013
Diesel	118,240	1,412,343	2%	€0.65	€0.90	€0.02	11.945	€0.002	€0.001
Fuel oil	55,760	619,521	1%	€0.65	€0.90	€0.01	11.110	€0.001	€0.001
Total	5,580,150	68,002,464	100%			€0.81		€0.07	€0.0568

Table 4 – Fuel Costs for the hotel sector