

REPORT TO THE BOARD OF EDUCATION OF SCHOOL DISTRICT NO.46 (SUNSHINE COAST)

STRATEGIC PLAN REPORT: DISTRICT FACILITIES

Submitted by Secretary-Treasurer Nicholas Weswick
May 11, 2022

Goal 2.d.: Our **district facilities** will be safe, engaging and energy efficient.

OVERVIEW:

Our maintenance and custodial staff continue to work hard to ensure our sites are safe and clean for students and staff. Further to this, we continue to look for opportunities to reduce energy costs and develop efficient facilities. This year we have installed two additional solar arrays, for a total of 6 sites with photo voltaic solar. We are well on our way to met our goal of installing solar arrays at all schools by 2030. In addition to solar, we have completed LED lighting upgrades at Elphinstone Secondary and Langdale Elementary, improving efficiency at both sites.

SYNOPSIS OF THIS YEAR'S INITIATIVES:

- All sites:
 - Custodial staff continue to ensure daily disinfection of high touch points
 - All fields are aerated, seeded, fertilized and top-dressed
- Halfmoon Bay Elementary:
 - Interior renovation is nearly complete
 - New playground, new retaining walls and new basketball court
 - Waterless urinals
 - 100 kW PV Solar, as well as electric car charging stations
- Kinnikinnick Elementary:
 - Pass-through window added from PAC kitchen to multipurpose room for food programs
 - Flooring is now 50% complete. Remaining flooring, will be completed in summer 2022
 - 100 kW PV Solar, as well as electric car charging stations
- Elphinstone Secondary:
 - LED lighting upgrade
 - \$500k roofing 2022 (SEP)
 - Adding ventilation to 5 rooms (summer 2022)

- Chatelech Secondary:
 - Renovation of CSS AutoCAD room complete
 - LED lighting upgrade 2022 (CNCP)
- Other projects of note:
 - Early Years Centre renovations complete with YMCA daycare in operation
 - Completion of West Sechelt Expansion project
 - Hazard tree removal complete at Gibsons Elementary; replanting late April

DATA ANALYSIS AND REVIEW:

- 2,178 tCO₂e (tonnes of carbon dioxide) avoided since 2011

RESOURCES/BUDGET:

- \$1,400,000 in Minor Capital Funding (SEP & CNCP)
- \$949,000 in Annual Facilities Grant (AFG) Funding
- Existing Maintenance Department budgets

EMERGING AREAS OF NEED:

- Need for additional space at Davis Bay Elementary and Gibsons Elementary

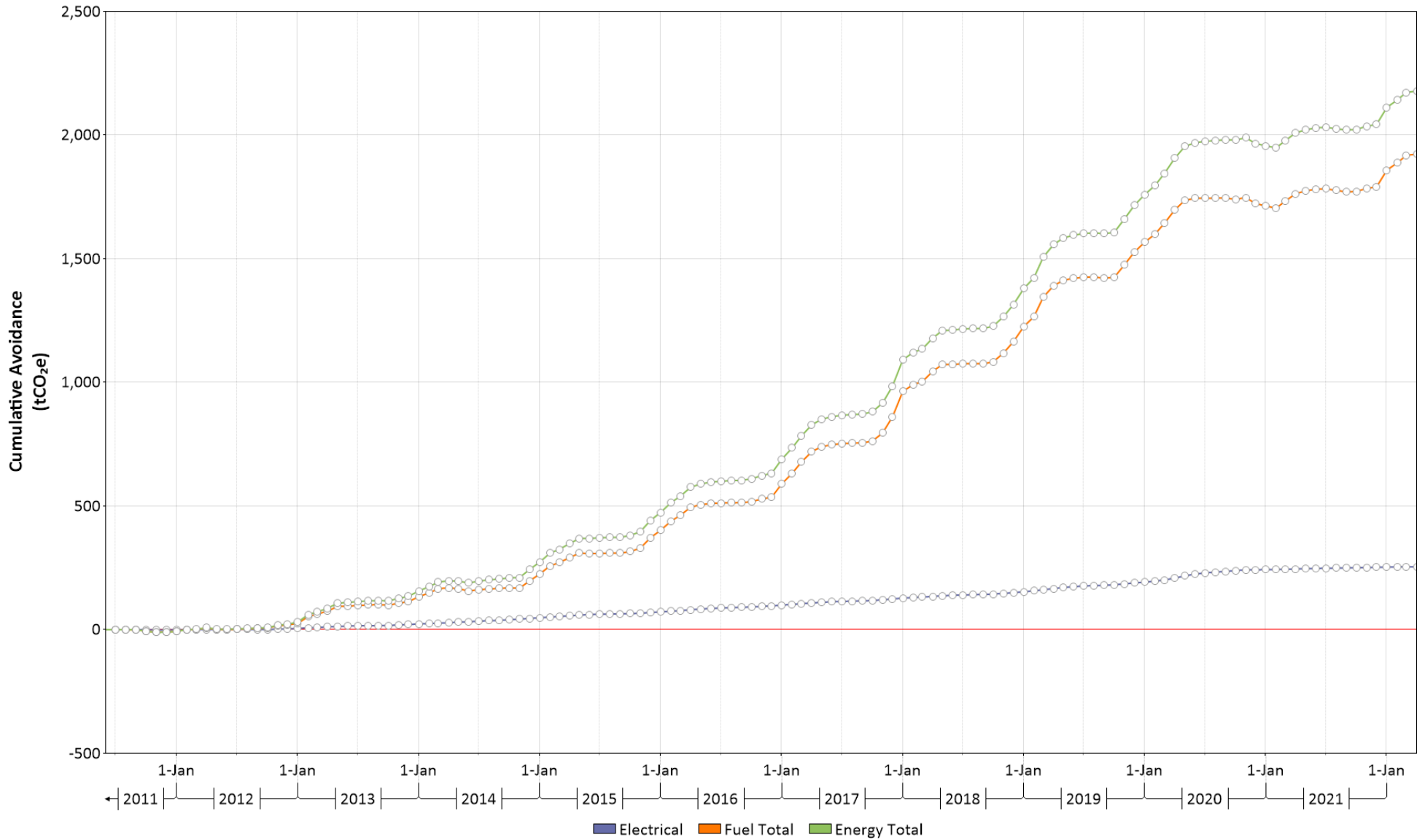
ADAPTATIONS/NEXT STEPS:

In addition to the items listed on the Annual Facilities Grant Spending Plan, included in this agenda package, the following projects are scheduled for 2022/23:

- Interior renovation at Chatelech Secondary to begin in the fall of 2022
- Completion of interior renovations at Kinnikinnick Elementary (SEP)
- Roofing upgrades at Elphinstone Secondary (SEP)
- LED lighting conversions at Langdale Elementary and Chatelech Secondary (CNCP)
- Completion of child care centre at West Sechelt Elementary (New Spaces)
- Development of child care at Madeira Park Elementary (New Spaces)
- Development of a new Long-Range Facilities Plan

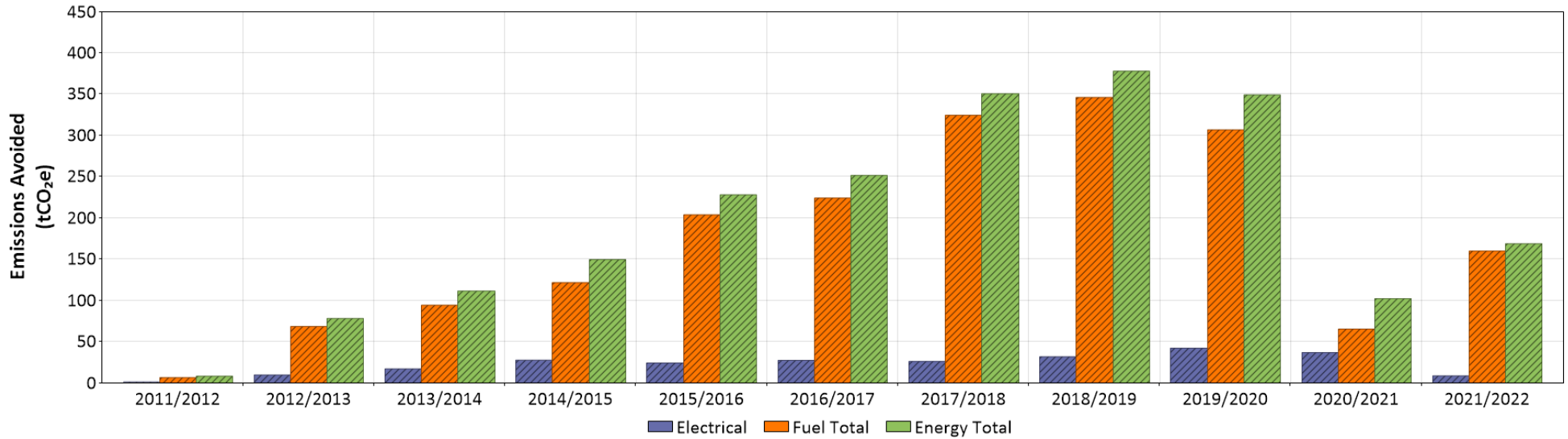
Greenhouse Gas CUSUM: Project

Project: SD #46 Sunshine Coast - PUMA (2014035)



Annual Greenhouse Gas Savings: Project

Project: SD #46 Sunshine Coast - PUMA (2014035)



Year ¹	Electrical							Fuel Total									Energy Total					
	Consumption				Emissions ²			Consumption				Emissions					Consumption				Prorated Actual	
	Prorated Actual	Prorated Baseline	Savings	%	Prorated Actual	Prorated Baseline	Savings	Prorated Actual	Prorated Baseline	Savings		Prorated Actual	Prorated Baseline	Savings	Prorated Actual	Prorated Baseline	Savings	%	Prorated Actual			
	kWh	kWh	Abs. kWh		tCO ₂ e	tCO ₂ e	Abs. tCO ₂ e	GJ	ekWh	GJ	ekWh	Abs. GJ	ekWh	%	tCO ₂ e	tCO ₂ e	Abs. tCO ₂ e			ekWh	ekWh	Abs. ekWh
2011/2012	2,971,985	3,008,548	36,563	1.2	121.8	123	1.5	13,414	3,726,025	13,551	3,764,076	137	38,050	1.0	669	676	7	6,698,010	6,772,623	74,613	1.1	79
2012/2013	3,621,372	3,890,985	269,613	6.9	139.7	150	9.9	16,525	4,590,356	17,900	4,972,173	1,375	381,816	7.7	824	893	69	8,211,729	8,863,158	651,430	7.3	96
2013/2014	3,420,522	3,926,281	505,759	12.9	115.9	133	17.2	16,818	4,671,674	18,712	5,197,743	1,894	526,069	10.1	839	933	94	8,092,196	9,124,024	1,031,828	11.3	99
2014/2015	2,748,913	3,612,078	863,166	23.9	89.2	117	27.9	11,466	3,184,884	13,908	3,863,390	2,443	678,507	17.6	572	694	122	5,933,796	7,475,469	1,541,672	20.6	66
2015/2016	3,064,991	3,787,282	722,292	19.1	103.5	128	24.3	11,350	3,152,840	15,441	4,289,249	4,091	1,136,409	26.5	566	770	204	6,217,831	8,076,532	1,858,701	23.0	66
2016/2017	3,041,762	3,892,534	850,772	21.9	98.7	126	27.6	12,385	3,440,268	16,881	4,689,271	4,496	1,249,003	26.6	618	842	224	6,482,030	8,581,805	2,099,775	24.5	73
2017/2018	3,054,184	3,933,230	879,045	22.3	90.5	117	26.2	11,290	3,136,014	17,802	4,944,899	6,512	1,808,885	36.6	563	888	325	6,190,199	8,878,129	2,687,930	30.3	65
2018/2019	2,715,670	3,899,015	1,183,345	30.3	72.6	105	31.9	10,105	2,807,020	17,049	4,735,759	6,943	1,928,739	40.7	504	850	346	5,522,690	8,634,774	3,112,085	36.0	53
2019/2020	2,630,246	3,905,708	1,275,462	32.7	87.3	130	42.3	10,857	3,015,792	17,016	4,726,674	6,159	1,710,882	36.2	541	848	307	5,646,038	8,632,382	2,986,344	34.6	62
2020/2021	2,759,410	3,881,789	1,122,380	28.9	80.8	118	37.0	15,350	4,263,798	16,661	4,628,146	1,312	364,348	7.9	765	831	65	7,023,208	8,509,935	1,486,728	17.5	84
2021/2022	2,613,165	3,532,482	919,317	26.0	25.3	34	8.9	13,213	3,670,330	16,425	4,562,506	3,212	892,176	19.6	659	819	160	6,283,495	8,094,987	1,811,493	22.4	68

¹"Year" refers to fiscal year ending in March ² Electrical GHG emissions factors reference: BC Integrated Grid - BC Gov
Brown indicates missing data and Blue indicates data that has been prorated down so that it is comparable to incomplete data.

Annual Greenhouse Gas Savings: Project

Project: SD #46 Sunshine Coast - PUMA (2014035)

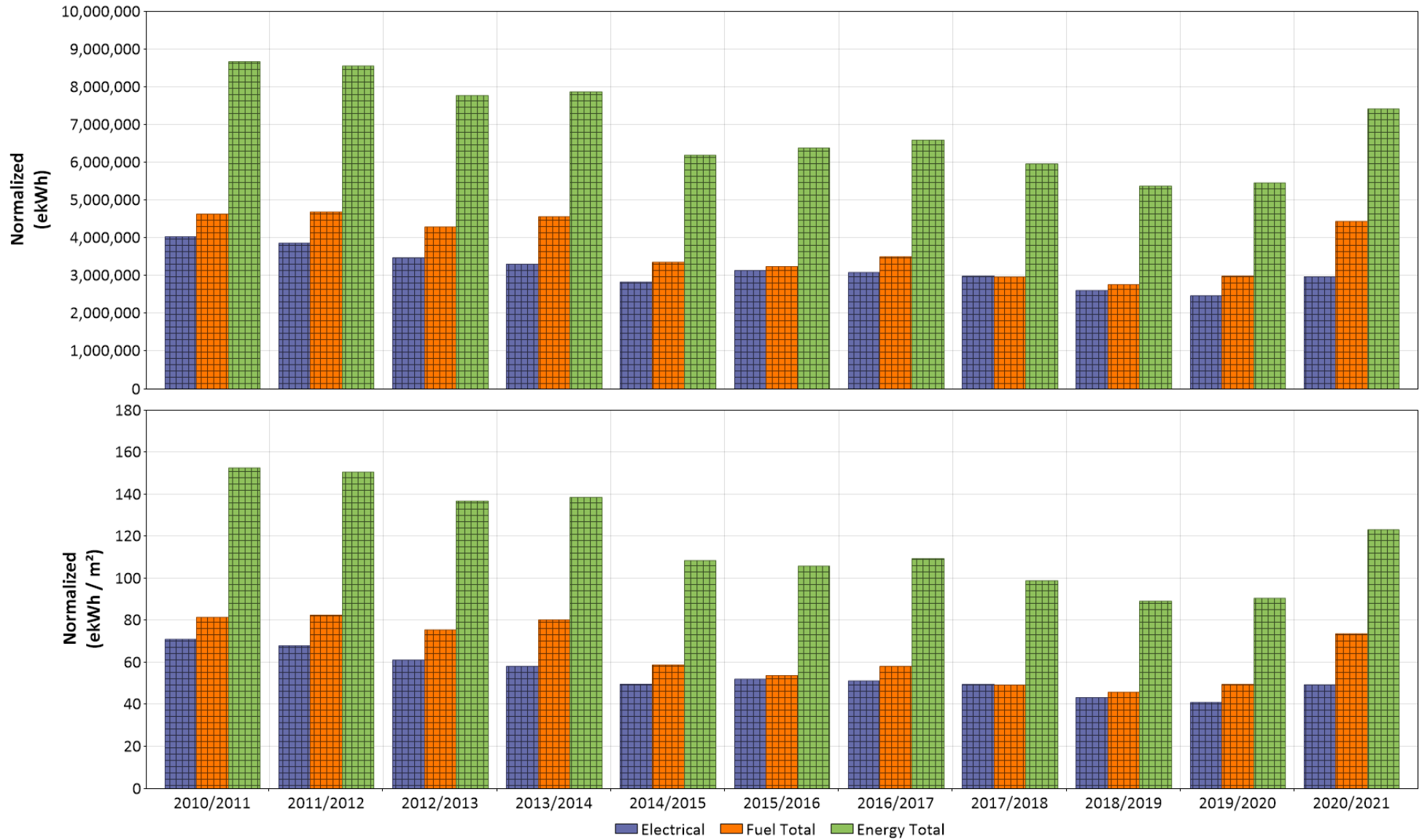


Year ¹	Electrical							Fuel Total									Energy Total					
	Consumption				Emissions ²			Consumption						Emissions			Consumption			Prorate Actual		
	Prorated Actual	Prorated Baseline	Savings		Prorated Actual	Prorated Baseline	Savings	Prorated Actual		Prorated Baseline		Savings		Prorated Actual	Prorated Baseline	Savings	Prorated Actual	Prorated Baseline	Savings			
	kWh	kWh	Abs.	%	tCO ₂ e	tCO ₂ e	Abs.	GJ	ekWh	GJ	ekWh	Abs.		tCO ₂ e	tCO ₂ e	Abs.	ekWh	ekWh	Abs.		%	tCO ₂ e
kWh			tCO ₂ e									GJ	ekWh						ekWh	ekWh		
Overall:	32,642,219	41,269,933	8,627,714	20.9	1,025.1	1,280	254.8	142,772	39,659,000	181,346	50,373,885	38,574	10,714,885	21.3	7,119	9,043	1,923	72,301,219	91,643,818	19,342,599	21.1	8,140

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Normalized Performance Index: Compare Years

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Normalized Performance Index: Compare Years

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Year ¹	Floor Area	Electrical				Fuel Total						Energy Total	
	m ²	Actual		Normalized		Actual		Normalized				Normalized	
		kWh	kWh / m ²	kWh	kWh / m ²	GJ	GJ / m ²	GJ	GJ / m ²	ekWh	ekWh / m ²	ekWh	ekWh / m ²
2010/2011	56,808	4,116,207	72.5	4,037,388	71.1	17,693	0.31	16,682	0.29	4,634,008	81.6	8,671,396	153
2011/2012	56,808	3,909,001	68.8	3,864,487	68.0	17,903	0.32	16,892	0.30	4,692,205	82.6	8,556,692	151
2012/2013	56,808	3,464,347	61.0	3,477,863	61.2	15,467	0.27	15,463	0.27	4,295,211	75.6	7,773,073	137
2013/2014	56,808	3,338,899	58.8	3,308,706	58.2	17,158	0.30	16,429	0.29	4,563,547	80.3	7,872,252	139
2014/2015	57,044	2,731,762	47.9	2,833,563	49.7	10,733	0.19	12,093	0.21	3,359,257	58.9	6,192,820	109
2015/2016	60,258	3,059,944	50.8	3,140,781	52.1	11,012	0.18	11,676	0.19	3,243,285	53.8	6,384,066	106
2016/2017	60,258	3,107,980	51.6	3,088,733	51.3	13,009	0.22	12,620	0.21	3,505,622	58.2	6,594,355	109
2017/2018	60,258	2,992,818	49.7	2,991,047	49.6	10,837	0.18	10,696	0.18	2,970,985	49.3	5,962,032	99
2018/2019	60,258	2,604,914	43.2	2,610,848	43.3	9,963	0.17	9,957	0.17	2,765,852	45.9	5,376,700	89
2019/2020	60,258	2,472,377	41.0	2,470,158	41.0	10,876	0.18	10,771	0.18	2,992,022	49.7	5,462,180	91
2020/2021	60,258	2,967,740	49.3	2,978,064	49.4	15,887	0.26	15,993	0.27	4,442,387	73.7	7,420,451	123

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Cost CUSUM: Project

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