



## Kellett Annual Environmental Report 2023-24

### INTRODUCTION

In this report we take a look at some of the efforts made by the Kellett community in 2023-24 to reduce our impact on the environment, get educated on the issues and look for collective solutions.

### RECYCLING

As a school we stopped 12,495kg of waste material going to landfill through our recycling efforts in 2023-24.

Last year KLB campus saved 10,000kg of materials from ending up in landfill. By recycling over 9000kg of paper we saved 157 trees, and we gathered 584kg of plastic which can be used to make 14,600 recycled bottles.

<b>KLB</b>	<b>Paper</b>	<b>Plastic</b>	<b>Metal</b>	<b>Glass</b>	<b>Tetra Pak</b>	<b>Discarded</b>	<b>Total (kg)</b>
Term 1	3149.5	207.0	47.5	41.0	1.9	16.0	3462.9
Term 2	1852.5	130.0	34.8	67.0	1.4	0.0	2085.7
Term 3	4263.6	247.5	150.5	0.6	0.4	2.5	4665.1
<b>Total (kg)</b>	<b>9265.6</b>	<b>584.5</b>	<b>232.8</b>	<b>108.6</b>	<b>3.7</b>	<b>18.5</b>	<b>10213.7</b>

The PFL campus' recycling efforts resulted in saving 30 trees with 1773kg of paper saved from landfill, and 327kg of plastic recycled, which could be used to make 8175 recycled bottles.

<b>PFL</b>	<b>Paper</b>	<b>Plastic</b>	<b>Metal</b>	<b>Glass</b>	<b>Tetra Pak</b>	<b>Discarded</b>	<b>Total (kg)</b>
Term 1	627.5	106.0	8.4	0.0	1.8	3.6	747.3
Term 2	319.0	30.0	1.8	0.0	0.8	0.0	351.6

Term 3	827.0	191.6	162.4	0.0	1.7	0.0	1182.7
<b>Total (kg)</b>	<b>1773.50</b>	<b>327.60</b>	<b>172.60</b>	<b>0.00</b>	<b>4.30</b>	<b>3.60</b>	<b>2281.60</b>

**FOOD WASTE**

KLB Campus collected and disposed responsibly over 3200kg of food waste in 2023-24 (first record date is November 2023). All food waste from the Harbour Dining Hall and other kitchen facilities around the KLB campus is fed into an ORCA machine on site, which mimics the natural digestion process. In the Harbour Dining Hall there is a real-time food waste weight scale so students can see how much waste is being generated.



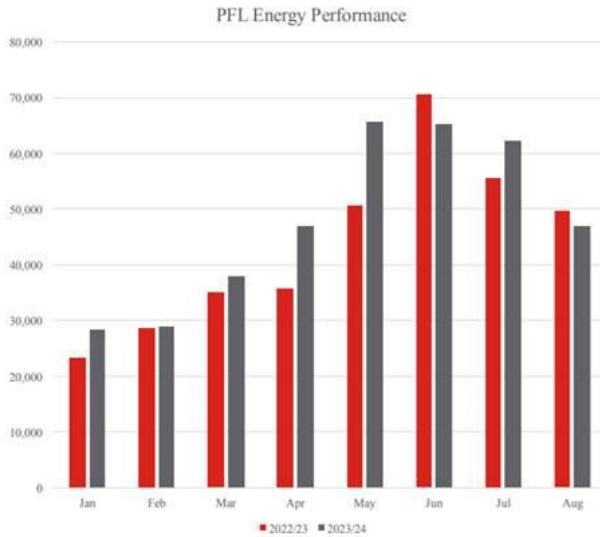
Kellett School Real-time food waste data		
Month	Total Weight (kg)	Daily avg. (kg)
Nov-2023	362.29	25.88
Dec-2023	181.16	20.13
Jan-2024	534.76	31.46
Feb-2024	453.6	30.24
Mar-2024	390.35	24.40
Apr-2024	511.17	30.07
May-2024	378.17	18.01
Jun-2024	410.00	22.78

**PRE-LOVED UNIFORM**

Our secondhand uniform is sold via [Retykle](#) and generates funds for our chosen charities, as well as being beneficial for the environment. In 2023-24 HK\$25,000 was raised from the sale of 820 items of Pre-Loved Uniform across the two Preps and Senior School. These funds are earmarked for the Kellett Cares Disasters Fund, and UNICEF moving forward.

## ENERGY CONSUMPTION

### PFL Energy Performance Overview



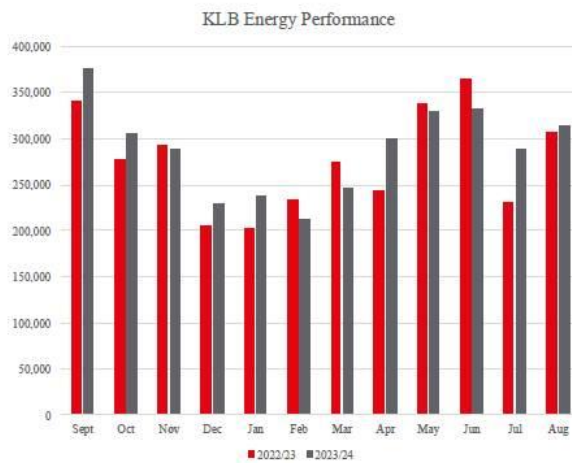
Location	Jan 2023 – Aug 2023 (kWh)	Jan 2024 – Aug 2024 (kWh)	% change
Extension	217,580	229,250	5.36%
General	98,990	122,161	23.41%
2/FAC	32,945	33,042	0.29%
<b>Total</b>	<b>349,515</b>	<b>384,453</b>	<b>10.00%</b>

#### EUI Benchmarking

EMSD Benchmark (School)	139 kWh/m <sup>2</sup>
<b>EUI 2023/24</b>	<b>139 kWh/m<sup>2</sup></b>

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### KLB Energy Performance Overview



Location	Sept 2022 – Aug 2023 (kWh)	Sept 2023 – Aug 2024 (kWh)	% change
School	3,178,695	3,343,278	5.2%
Kitchen	127,856	115,832	-9.4%
<b>Total</b>	<b>3,306,551</b>	<b>3,459,110</b>	<b>4.6%</b>

#### EUI Benchmarking

EMSD Benchmark (School)	139 kWh/m <sup>2</sup>
EUI 2022/23	139 kWh/m <sup>2</sup>
<b>EUI 2023/24</b>	<b>145 kWh/m<sup>2</sup></b>

To note: 2022 saw some school closures as a result of Covid, which reduced our energy use.

## SOLAR PANELS

Annual Energy Generation:  
(Jan 2023 – Dec 2023)  
**96,920 kWh**  
(2.63% of annual consumption)

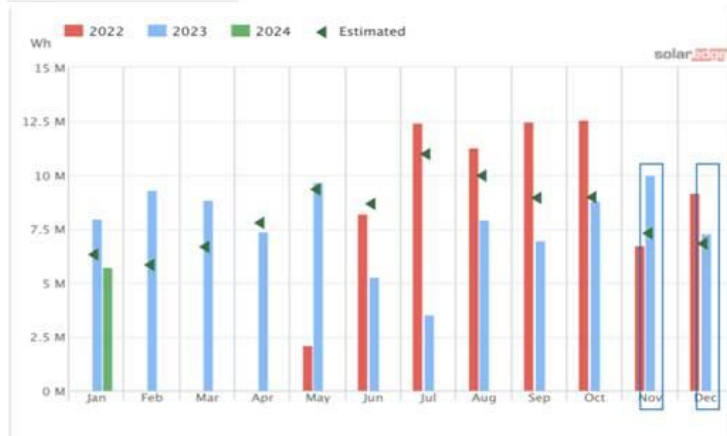
Environmental Benefits	
	CO2 Emission Saved 87,019.48 kg
	Equivalent Trees Planted 1,996.33

### Project detail:

- PV System Capacity : 100 kW
- FiT rate (\$/kWh): 4.00
- Area: Lower roof area

### RE generation Updates:

- System malfunction rectified in Oct
- RE generation performance is slightly better than estimated generation in Nov and Dec 2023



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## CURRICULUM

At Kellett we take a solution-based approach to sustainability. We teach the issues, scary as they may be, but we are clear that we want our students to feel empowered to be part of the solution. Our curriculum is rich in content related to sustainability and the SDGs running from Reception classes through to Sixth Form. We know this having done a review over the past year.

### Innovation Lessons

Our Innovation program, which includes dedicated lessons starting in our Prep Schools, is explicitly tied to the SDGs and is solution-focused. The aim is to provide students with unique opportunities to develop transferable skills that prepare them for real world challenges.



For example, in Year 7, students undertake a Greenhouse Effect project, where they are challenged with maintaining an indoor vertical hydroponic greenhouse. Projects continue across years, and thanks to the efforts of last year's innovators who established a fully functional indoor hydroponic setup, it will be the job of this year's Year 7 students to maintain and expand upon this setup, fixing issues along the way such as algae, nutrition and pests. Students have propagated, planted, maintained and harvested several plant types with the aim of introducing some into school lunches.

## Bespoke Sustainability Course

Unable to find a Sustainability GCSE appropriate to our unique context in Hong Kong we created our own. Our two-year course, launched in 2023-24 is part Oceanography and part Innovation. Oceanography delves into the wider challenges facing our oceans and explores coral, once a major feature of Hong Kong. Pairs of students take responsibility for creating an eco-system in tanks, replicating our shorelines to determine how coral thrives, with the aim of returning coral to our shores (students undertake a PADI course as part of their qualification). In Innovation students explore a challenge of their choosing, learning critical skills like collaboration, problem-solving, failing and refining, as we collectively seek to become more sustainable.



## STUDENT-LED PROJECTS

There have been a wealth of environmental projects undertaken by students over the year, below are just two examples, one from PFL Prep and one from Senior.

### Window-tinting

We now have student leadership roles centred on Sustainability in both our Prep and Senior schools. Green Dragons as our sustainability council is known in Prep requested window tinting to help reduce our need for AC in classrooms. Charged with exploring the options available they sourced some options and window-tinting has now been installed throughout our Hong Kong Island campus.

### Environmental Conference

In 2023-24 sixteen volunteer students, from Years 10 and above designed, ran and hosted an environmental conference entitled *Feeling Connected* for 150 students online from schools in Thailand, Vietnam, China, Myanmar, Nepal, India and Malaysia, in addition to 150 in person from Hong Kong, Singapore and South Korea. The spirit of the conference was overwhelmingly positive and solutions-focused, with students,



staff as well as local NGOs and businesses sharing ideas, and helping our students realise they are not alone in their efforts and worries.

## COMMUNITY-SUPPORTED PROJECTS



We already resell our pre-loved uniform but our highly supportive Parents Committee initiated a community effort to recycle unsellable pieces of uniform. Students designed products and then parents worked with students to bring the designs to life, from hair scrunchies to cushion-covers, ready for sale for charity.

## SUMMARY

Whilst we are pleased with all we have collectively achieved over the past academic year, we know we can and should be doing more. We are currently in the planning stages of a ten-year strategic plan where sustainability will be at the core of our strategic objectives.

