

Sime Darby Property CFP 2020 Report

Summary & Key Findings for Carbon & Energy
(1st Jan–31st Dec 2020)



Table of Content



No	Topic	Page
1.0	Executive Summary	4
2.0	Background	5
	2.1 Overview of Carbon Inventory	
	2.2 Scope for Carbon Inventory	
3.0	Carbon Profile	7
4.0	Energy Profile	12
5.0	Moving Forward	16
6.0	Appendices	18



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1.0 Executive Summary

1. This report presents the Scope 1 and Scope 2 carbon emissions results for Sime Darby Property (SDP) in the reporting period from 1st January to 31st December 2020, covering twenty- three (23) operating units across SDP's operations. The Carbon Inventory only includes operations that SDP has management control over.
2. Carbon management has been the key priority in Sime Darby Property since 2010. Under the Carbon Footprint Project (CFP), we track and monitor our carbon emissions (scope 1 and 2) as well as identify and implement key emissions reduction opportunities to achieve set reduction targets.
3. Overall carbon emissions for SDP is 38,452 tCO₂-e* (absolute) and energy consumption (absolute) is 426,902.86 GJ .
4. The carbon emissions breakdown as follows:
 - Township Development -28,799.00 tCO₂-e
 - Integrated Development- 2,146.84 tCO₂-e
 - Leisure- 6,397.31 tCO₂-e
 - Asset Management- 1,108.47 tCO₂-e
5. The largest carbon emissions contributor in the business was Township Development at 74.9% of overall carbon emissions where they have the highest usage of diesel (heavy machinery) among the business segments.
6. The reduction of carbon emissions in purchased electricity by 26.1% at Leisure is mainly due to the MCO and reduced number of events.
7. Through completing this report Sime Darby Property has set total operational carbon emissions reduction targets (replacing intensity reduction targets) toward being operationally carbon negative by 2030.
8. The 2016 baseline is revised and restated in 2020 due to Exclusion (E) /Divestment (D) of several assets under Investment Management and Leisure from the 2019 inventory, where SDP does not have management control and/or no longer owned the assets.

* Figure assured by PWC

2.0 Background

2.1 Overview of Carbon Inventory

1. This is 11th CFP for Sime Darby Property covering financial year of 2020 (1st January to 31st December 2020).

Details of Sime Darby Property Carbon Inventory 2020

Number of Townships & BUs covered	23
Location	Selangor, Kuala Lumpur, Negeri Sembilan and Johor
Business segment covered:	
• <i>Township Development</i>	12
• <i>Integrated Development</i>	6
• <i>Leisure (L)</i>	3
• <i>Asset Management (AM)</i>	2

2. The list of twenty three (23) OUs is provided at Appendix 1.
3. The Assurance Report of carbon data is at Appendix 2.

2.0 Background

2.2 Scope for Carbon Inventory

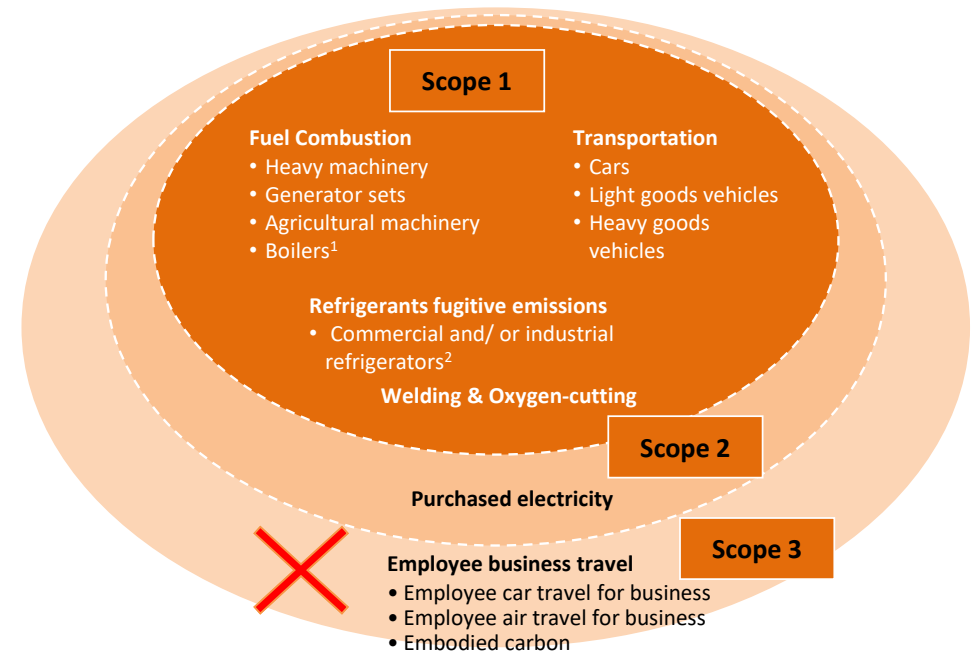


SDP Carbon Map

SDP CFP covers scope 1 and scope 2 emissions. It presently exclude scope 3 emissions.

Note :

Scope 1	Direct carbon emissions from sources owned/managed by SD
Scope 2	Indirect carbon emissions from production of purchased electricity, heat or steam
Scope 3	Other indirect carbon emissions as a consequence of SD activities that occur from sources not owned or controlled by SD and embodied carbon emissions.



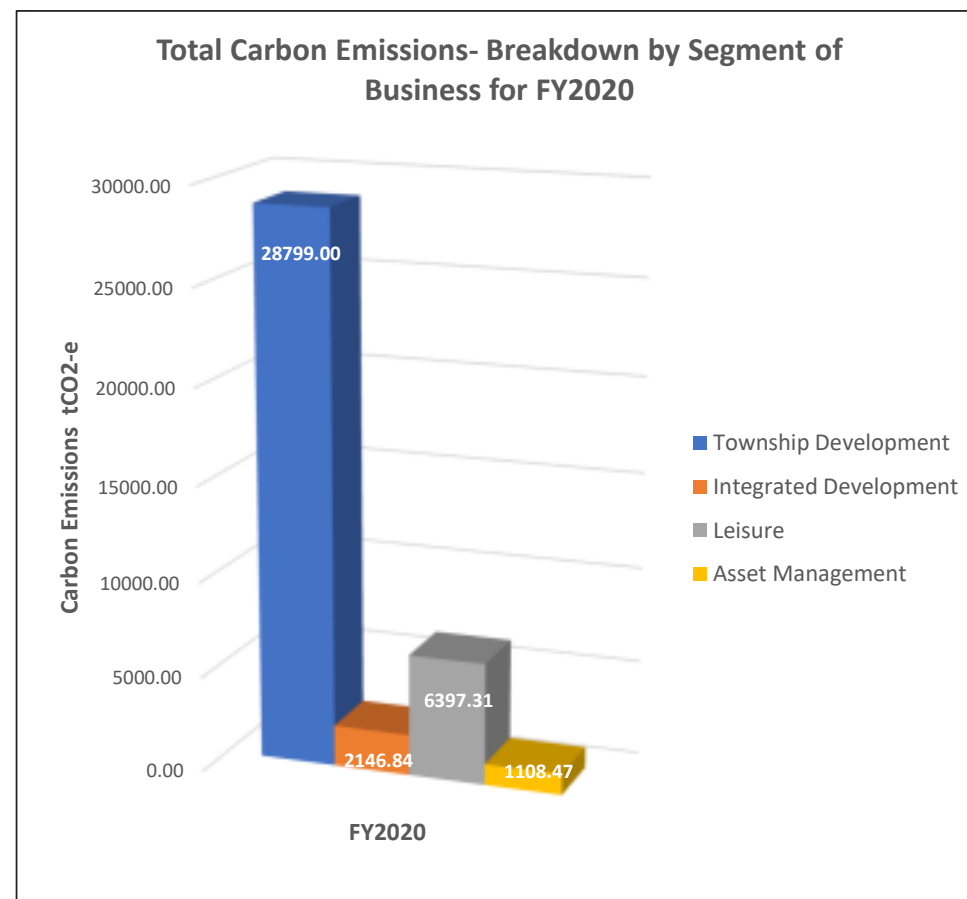
3.0 Carbon Profile

3.1 Emissions by Business Segment FY2020

No	Business Segment	Total Carbon Emissions (tCO2-e)	% from total carbon emissions
1	Township Development	28,799.00	74.9
2	Integrated Development	2,146.84	5.6
3	Leisure	6,397.31	16.6
4	Asset Management	1,108.47	2.9

- Total Carbon Emissions FY 2020 is 38,452*
- The largest carbon emissions by business segment was Township Development , at 74.9% of overall carbon emissions. This was primarily from infrastructure works including earthworks.

* Assured figure by PWC



3.0 Carbon Profile

3.2 Emissions by Business Segment and Scope

No	Business Segment	Scope 1 (73.3% of overall emissions) (tCO ₂ -e)	Scope 2 (26.7% of overall emissions) (tCO ₂ -e)	Total Carbon Emissions (tCO ₂ -e)
1	Township Development	26,711.78	2,087.22	28,799.00
2	Leisure	764.17	5,633.14	6,397.31
3	Integrated Development	662.20	1,484.64	2,146.84
4	Asset Management	6.39	1,102.08	1,108.47

- Scope 1 emissions are the largest part of company emissions at 73.2% from overall carbon emissions.
- The scope 1 emissions comes from fuel use at townships from infrastructure works.
- Therefore, the company must focus on improving the efficiency of earthworks to reduced our carbon footprint toward our 2030 aspiration (carbon negative).
- The second highest contributor is from the Leisure segment due to high electricity consumption. Carbon reduction and savings can be achieved by focusing on improving energy use habits.

3.0 Carbon Profile

3.3 Emissions comparison 2019 vs 2020 by business segment

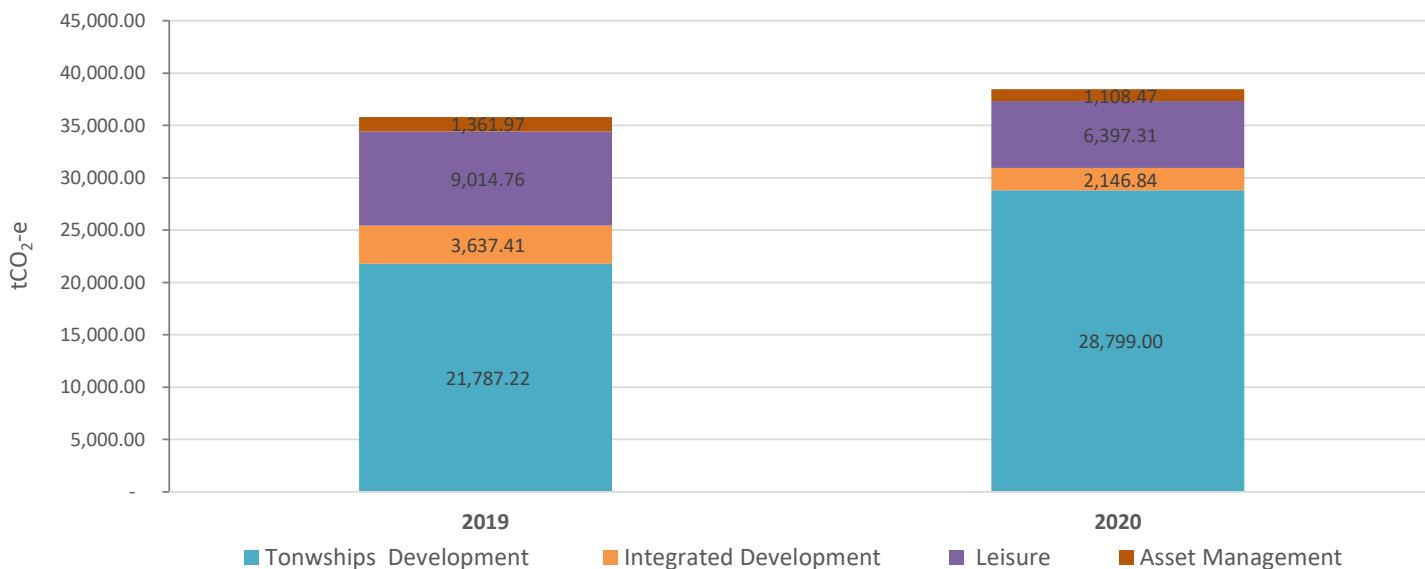


Units	Performance (tCO2-e)		
	2019	2020	%
Sime Darby Property (Overall - Absolute)	35,801.36	38,451.62	↑ 7.4
Township Development	21,787.22	28,799.00	↑ 32.2
Leisure	9,014.76	6,397.31	↓ 29.0
Integrated Development	3,637.41	2,146.84	↓ 41.0
Asset Management	1,361.97	1,108.47	↓ 18.6

- The emissions in 2020 were 7.4% higher than 2019.
- This was due to increased infrastructure (e.g., earthworks) at township developments. This is not unusual as new landbank is opened up every 2-4 years.
- Integrated and Leisure emissions reduced impacts of pandemic. They likely also had reduced revenue. Asset management reduction due to lower occupancy (less electricity use).

3.0 Carbon Profile

3.4 Analysis emissions comparison 2019 vs 2020 by business segment



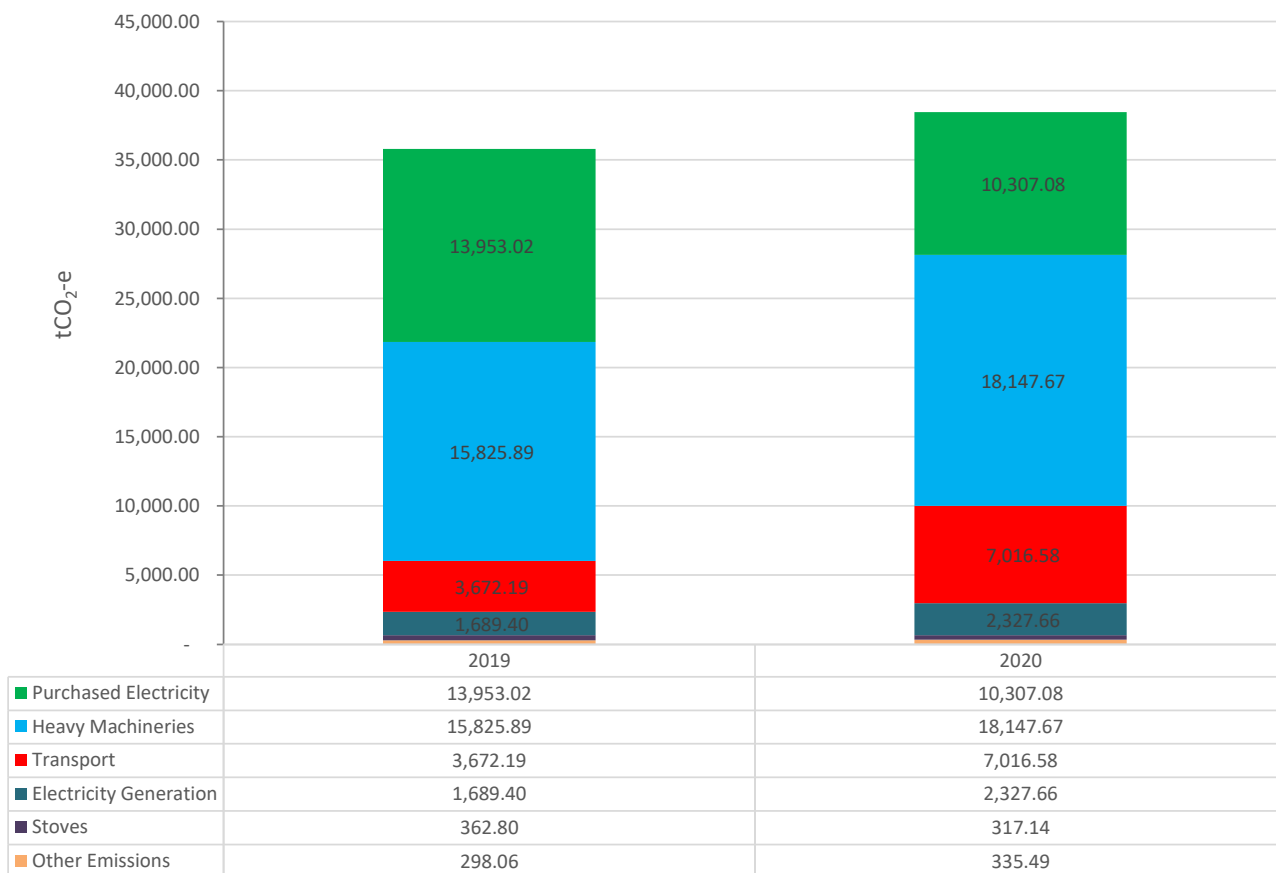
Business unit	Change from previous year (2019)
Townships Development	↑ 32.2 %
Integrated	↓ 41.0%
Leisure	↓ 29.0%
Asset Management	↓ 18.6%

Facts:

- Townships Development contributed largely in SDP carbon emissions (absolute) in 2020 with 74.9%. This is followed by Leisure (16.6%), Integrated Development (5.6%) and Asset Management (2.9%).
- Integrated Development , Leisure and Asset management show a reduction in carbon emissions (absolute) with 40.98%, 29.04% and 18.61% against previous year 2019 . Townships Development shows an increment in their carbon emissions in 2020 due to earthworks activities.

3.0 Carbon Profile

3.5 Analysis by emissions source



Top 5 Emission Sources	Change from previous year (2019)
Purchased electricity	↓ 26.1%
Heavy machineries	↑ 14.7%
Transport	↑ 14.7%
Electricity generation	↑ 37.8%
Other Emissions	↑ 12.6%

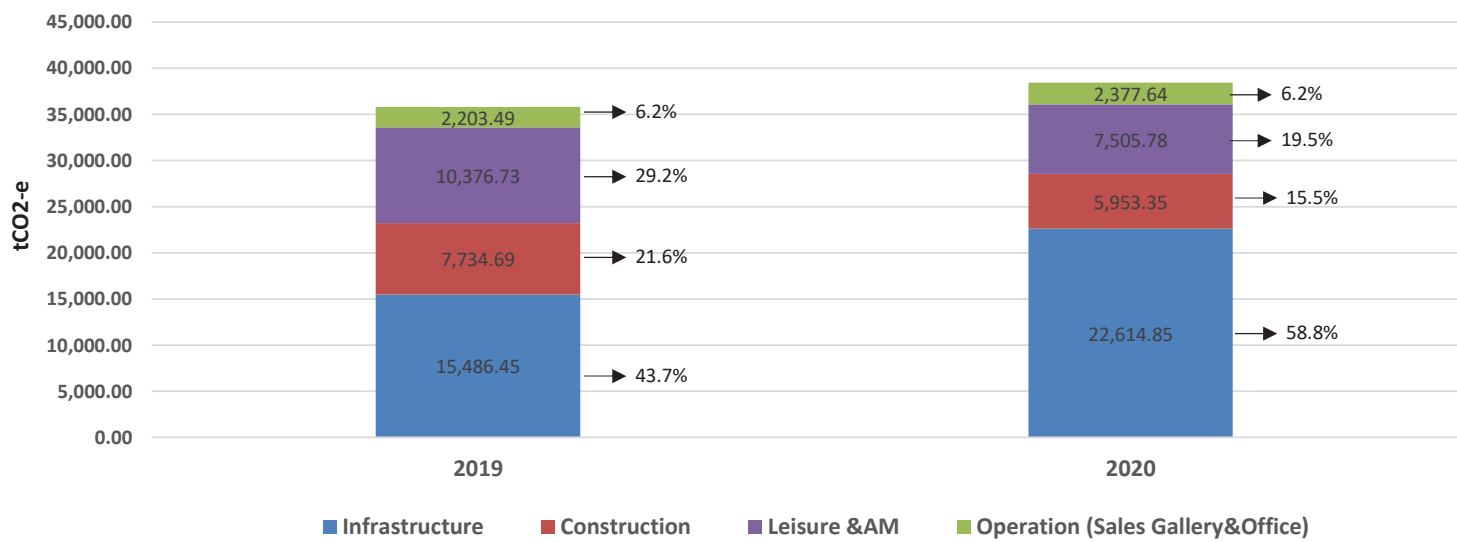
Facts:

- Heavy machineries is the largest carbon emissions contributor by 47.2%. This is due to increased diesel usage at Township Development especially at main infra work.
- For 2020 carbon emissions (absolute) has shown a reduction in purchased electricity by 26.1%
- The reduction of carbon emission in purchased electricity by 26.1% which is mainly due to the MCO and reduced events at Leisure.



3.0 Carbon Profile

3.6 Emissions by activity type



Activity	Change from previous year (2019)
Infrastructure	↑ 46.0%
Constructions	↓ 23.0%
Leisure & AM	↓ 27.7%
Operations (Sales Gallery & Office)	↑ 7.9%

Facts:

- Infrastructure activity contributed largely in SDP carbon emissions (absolute) in 2020 with 58.8%. This is followed by Leisure & AM (19.5%), Constructions (15.5%) and Operations (6.2%).
- Constructions, Leisure & AM show a reduction in carbon emissions (absolute) with 23.0%, and 27.7% against previous year 2019 .
- Infrastructure activity shows an increment in their carbon emissions in 2020 due to higher in fuel usage for machinery and transportations.



Property

ENERGY

4.0 Energy Profile

4.1 Energy consumption comparison 2019 vs 2020 (comprises electricity, diesel, petrol, LPG and CNG)

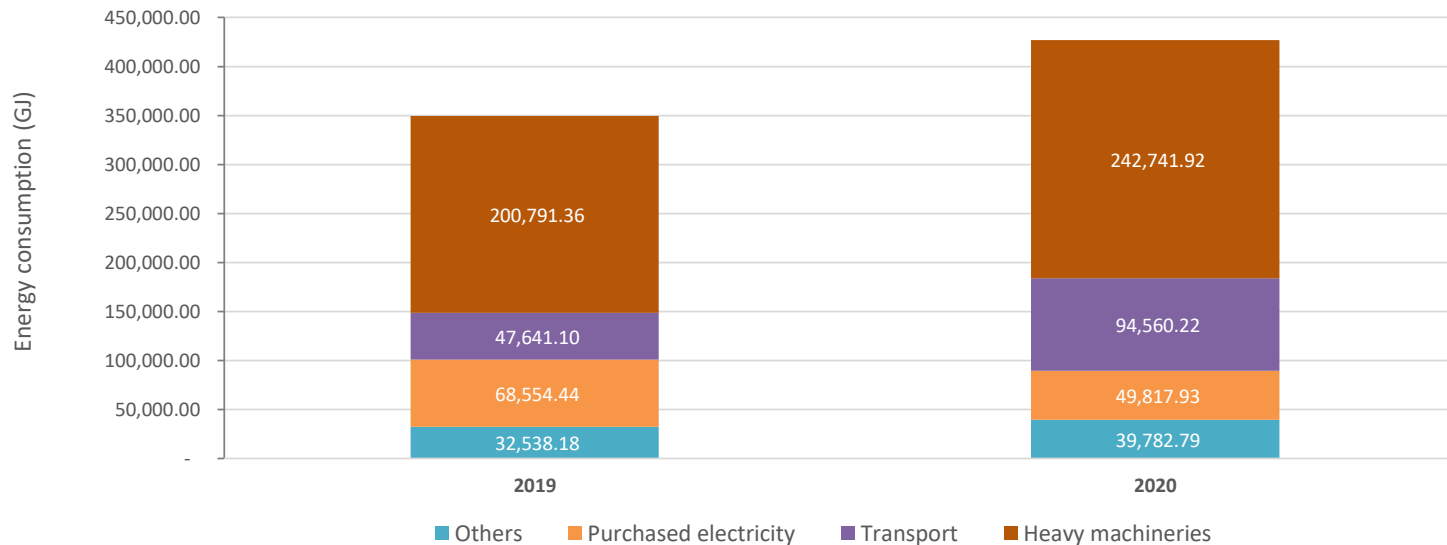


Units	Performance (GJ)		
	2019	2020	%
Sime Darby Property (Overall)	349,525.09	427,180.26	↑ 22.2
Township Development	262,159.10	368,097.10	↑ 40.4
Integrated Development	29,424.17	16,088.17	↓ 45.3
Leisure	51,228.05	37,550.34	↓ 26.7
Asset Management	6,713.73	5,44.65	↓ 18.9

- All energy forms used by the company are expressed in GJ. Meaning energy profile is not just electricity.
- The energy consumption in 2020 were 22.22% higher than 2019.
- This was due to increased in fuel consumptions for heavy machinery and vehicles at township developments especially in infrastructure works.
- Integrated, Asset management and Leisure energy consumption reduced impacts of pandemic. They likely also had reduced revenue. Asset management reduction due to lower occupancy (less electricity use).

4.0 Energy Profile

4.2 Analysis by key energy consumption sources



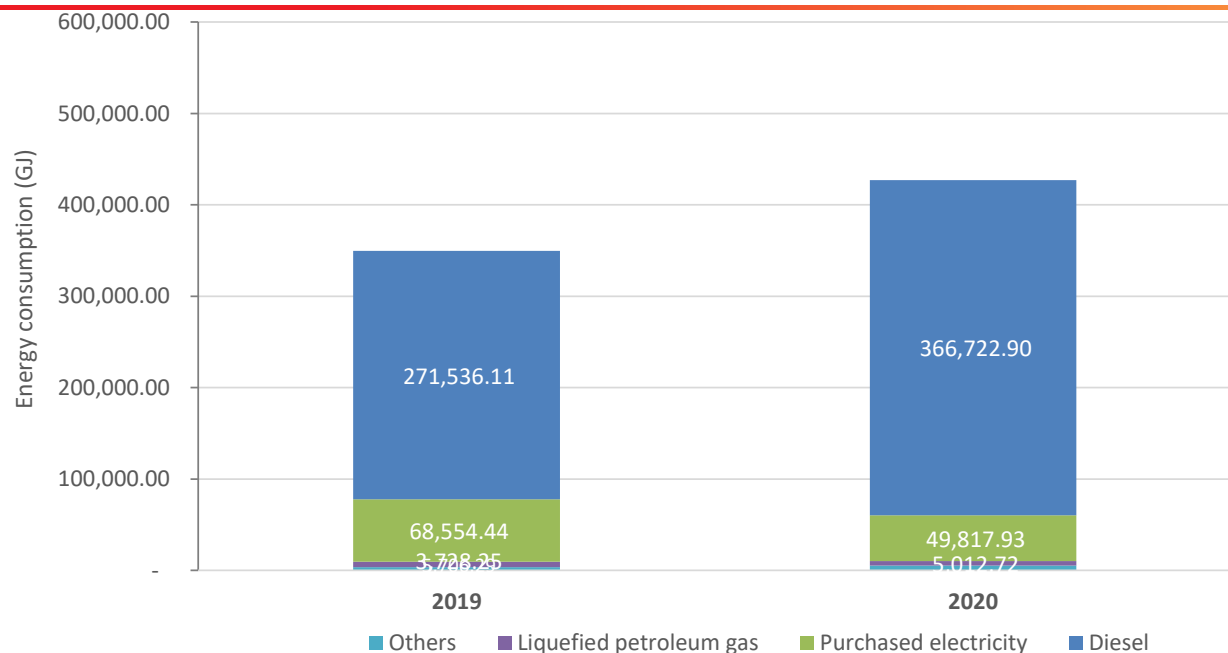
<i>Emission Sources</i>	<i>Change from previous year 2019</i>
Overall energy consumption	↑ 22.1%
Heavy machinery	↑ 20.9%
Transport	↑ 98.5%
Purchased electricity	↓ 27.3%
Others	↑ 22.3%

Facts:

- Overall energy consumption (absolute) increased by 22.1% compared to previous year 2019.
- Fuel usage for heavy machinery at the construction sites consumed the highest energy in 2020, with an increase of 20.9% from previous year 2019. This is due to extensive of infra works in Property Development in 2020.
- Energy consumption from purchased electricity reduced in 2020. The reduction in purchased electricity may be resulted from MCO and reduced no of events at Leisure.

4.0 Energy Profile

4.3 Analysis of energy consumption by fuel type



<i>Emission Sources</i>	<i>Change from previous year 2019</i>	
Overall energy consumption	↑	22.1%
Diesel	↑	35.1%
Purchased electricity	↓	27.3%
Liquefied petroleum gas	↓	12.2%
Others	↑	43.5%

Facts:

- Diesel remain as the highest fuel consumed in SDP by 97.5% of overall energy consumption. The higher diesel usage was mainly used by the heavy machinery in Townships and Integrated Development.
- Electricity usage decreased by 27.3%, contributing to lower electricity consumption during MCO as well as due to the implementation of energy efficiency projects within the operations.

Moving Forward



1. Investigate the relevant and need to include vegetation related clearance emissions into CFP (consult PWC).
2. Carbon reduction program will be focused on property development (Infra), the highest contributor for carbon emissions.
3. The other area of carbon emissions reduction focus moving forward will be Leisure.
4. The revised baseline applied is 43,097 tCO₂-e (absolute) per 2020 revision.
5. This report will outline whether or not and to what degree the carbon reduction target is achieved from our long term strategy - year by year. The target for 2020 was to revise the baseline.
6. Company are in the early stages of preparing a proposal to management to participate in SBTi.

Thank you



APPENDICES

1.2 Revised Baseline 2016

1. The rationale for the new baseline are due to guidance based on the GHG Protocol, where the baseline emissions shall be recalculated if there are significant changes to the structure of the organisation, changes in methodology, or improvements in accuracy. (Source : GHG Protocol guidelines, chapter 5:Tracking emission over time, page 35);

- a. Exclusion (E) /Divestment (D) of assets under Investment Management and Leisure & Hospitality from the 2019 inventory, where SDP does not have management control and/or no longer owned the assets.

Investment Management	Category	Leisure	Category
Wisma Sime Darby	E	Darby Park Executive Suites, Singapore	D
Sime Darby Pavillion	E	Darby Park Serviced Residences, Margaret River, Australia	D
160 Dundee Street, UK	E	Karri Valley Resort, Australia	D
		Darby Park Serviced Residence, Vung Tao, Vietnam	E

- a. Based on 2016, the total area size for Leisure & Hospitality (778,512.91m²) and 2019 (71,136.00m²). The difference is about 90.8% (707,376.91m²) due to divestment, exclusion and partly reported data is incorrect for area size (IGCC).
- b. Inclusion of Infra land area size into the total area (FY2017: 3,921,526.00m²; FY2018: 1,831,505.27m²; FY2019: 8,911,801.99m²).

2. Therefore, due to the above changes:

- a. SDP is considering to use single denominator for intensity (area size-m²) for all operational eco-efficiency targets.
- b. The current carbon intensity based on revenue denominator (tCO₂-e/RM Mil of Revenue) may not reflect actual operational carbon emissions, under certain economic situation. To further verify, SDP will continue monitor the revenue denominator (tCO₂-e/RM Mil of Revenue) for year 2020.
- c. Carbon and Energy
- The 2016 baseline of carbon intensity (19.57 tCO₂-e /RM Mil of Revenue) and energy intensity (189.22 GJ/RM Mil of Revenue) will be no longer valid starting FY2020.
 - The new SDP carbon and energy intensity baselines will be based on 2 denominators:
 - 15.15 tCO₂-e /RM million of revenue (carbon intensity)
 - 0.0074 tCO₂-e /m² (carbon intensity)
 - 152.18 GJ/RM million of revenue (energy intensity)
 - 0.0741 GJ/m² (energy intensity)

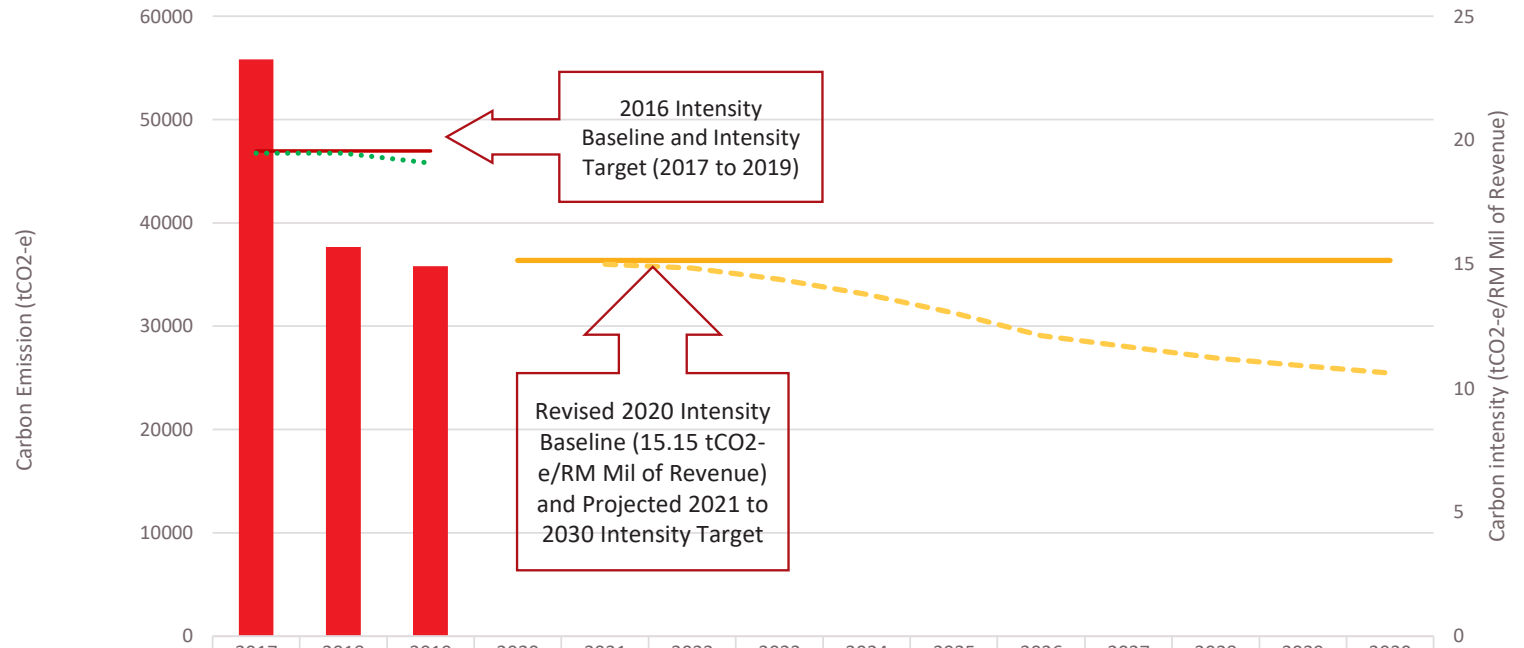
Note:

- The major changes in Carbon and Energy Restated Intensities compare to the 2016 Intensities is due to the Exclusion / Divestment of assets, and inclusion of Infra land area size, as per stated in 1(b) and 1(c) respectively.

REVISED CARBON INTENSITY BASELINE AND TARGET (tCO₂-e/RM MIL OF REVENUE)

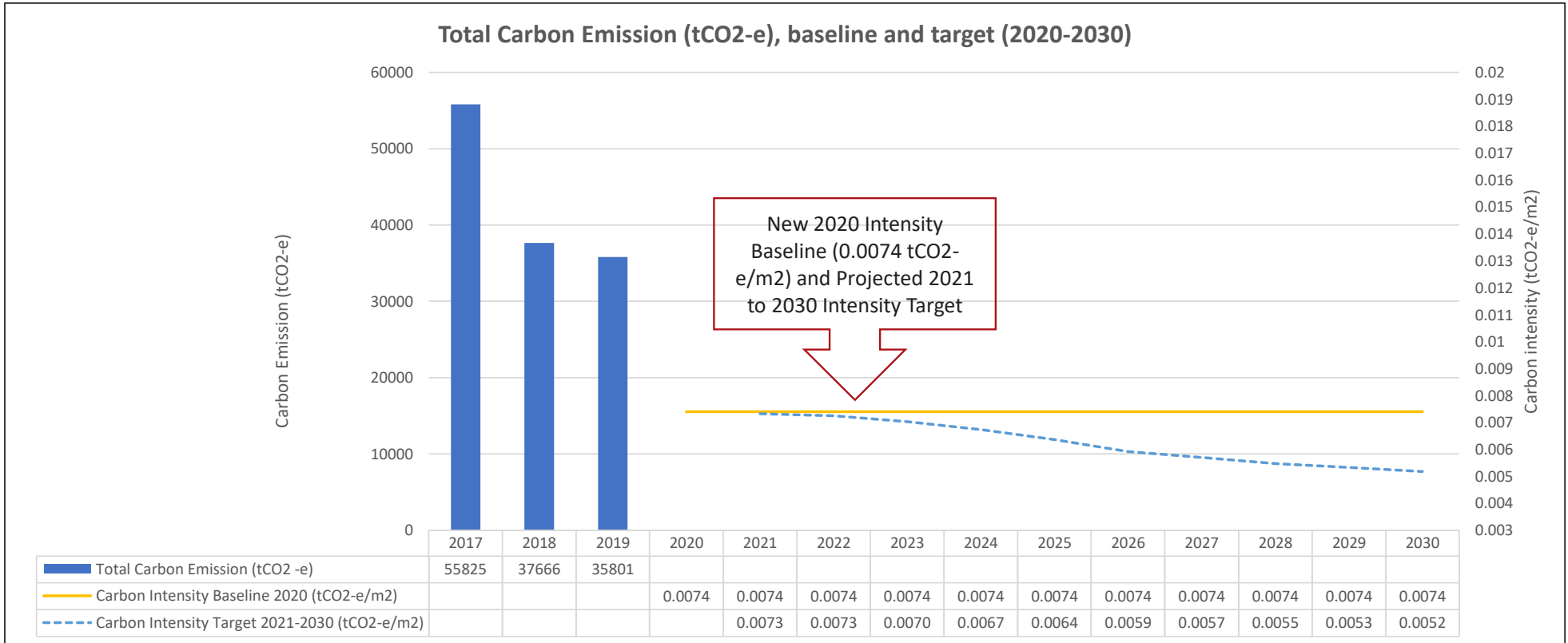


Total Carbon Emission (tCO₂-e), baseline and reduction target (2020-2030)



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Carbon Emission (tCO ₂ -e)	55825	37666	35801											
Carbon Intensity Baseline 2016 (tCO ₂ -e/RM Mil of Revenue)	19.57	19.57	19.57											
Carbon Intensity Target 2017-2019 (tCO ₂ -e/RM Mil of Revenue)	19.47	19.47	19.08											
Carbon Intensity Baseline 2020 (tCO ₂ -e/RM Mil of Revenue)				15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15	15.15
Carbon Intensity Target 2021-2030 (tCO ₂ -e/RM Mil of Revenue)					15.00	14.85	14.39	13.79	13.03	12.12	11.67	11.21	10.91	10.61

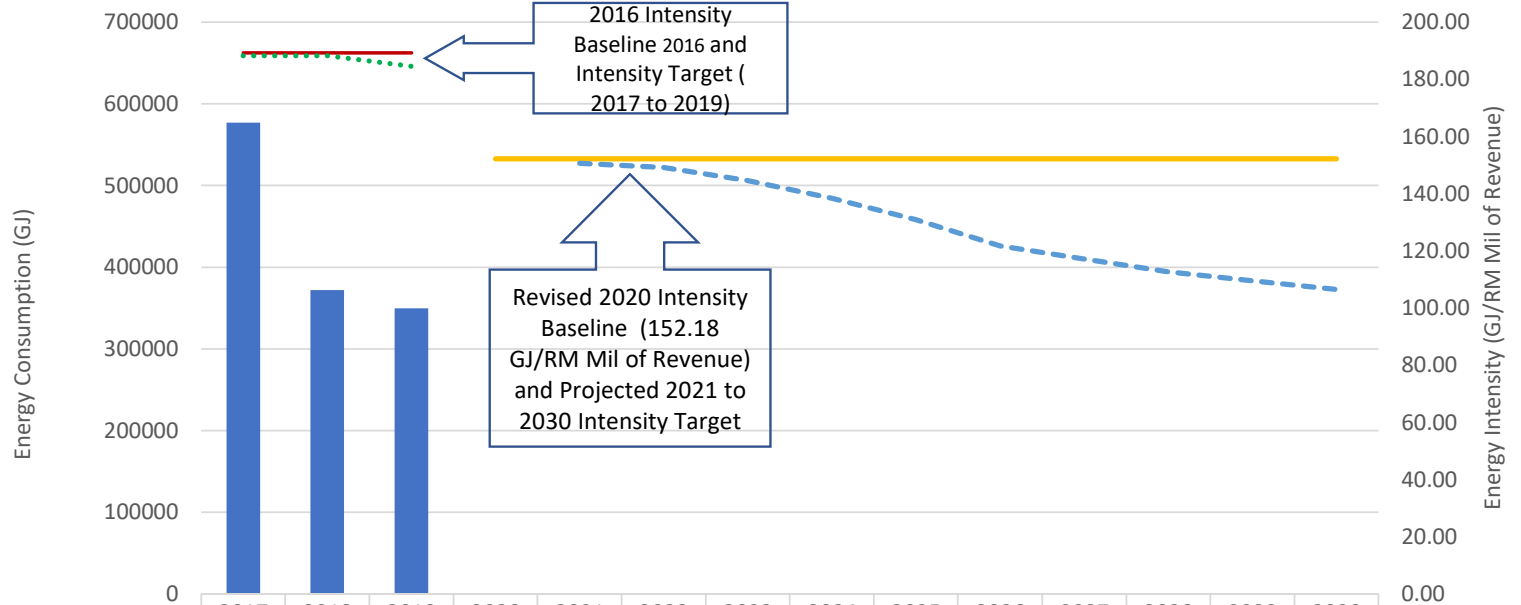
REVISED CARBON INTENSITY BASELINE AND TARGET (tCO2-e/M2)



REVISED ENERGY INTENSITY BASELINE AND TARGET (GJ/RM MIL OF REVENUE)

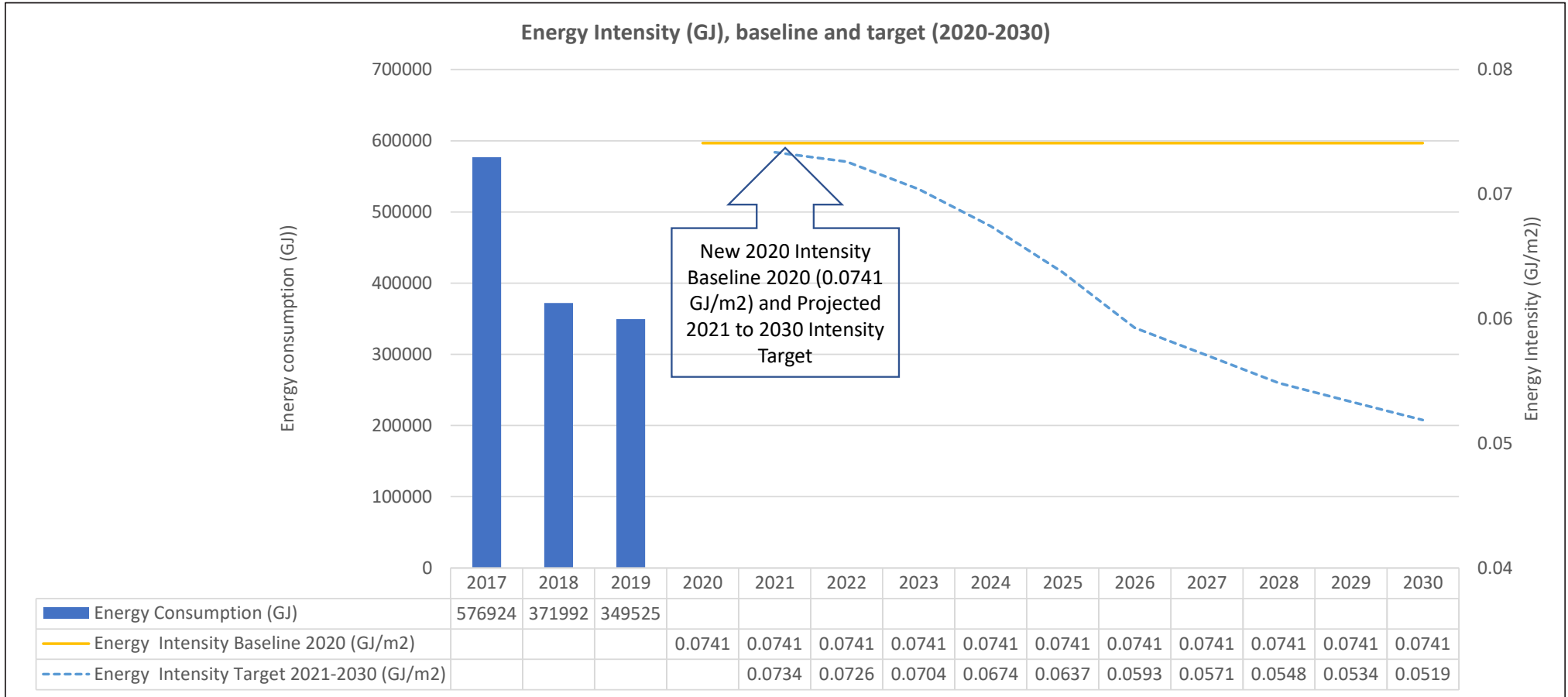


Energy consumption (GJ), baseline and target for 2016-2030



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Energy Consumption (GJ)	576924	371992	349525											
Energy Intensity Baseline 2016 (GJ/RM Mil of Revenue)	189.22	189.22	189.22											
Energy Intensity Target 2017-2019 (GJ/RM Mil of Revenue)	188.27	188.27	184.49											
Energy Intensity Baseline 2020 (GJ/RM Mil of Revenue)				152.18	152.18	152.18	152.18	152.18	152.18	152.18	152.18	152.18	152.18	152.18
Energy Intensity Target 2021-2030 (Gj/RM Mil of Revenue)					150.66	149.14	144.57	138.48	130.87	121.74	117.18	112.61	109.57	106.53

NEW ENERGY INTENSITY BASELINE AND TARGET (GJ/M2)



APPENDIX 1



Table 2: Site Data

<i>No.</i>	<i>OU Name</i>	<i>Site Data</i>	
		<i>Business Unit</i>	<i>Country</i>
1	Elmina East (BO)	Property Development (Building Oper	Malaysia
2	Elmina West (BO)	Property Development (Building Oper	Malaysia
3	Denai Alam (BO)	Property Development (Building Oper	Malaysia
4	Bandar Bukit Raja (BO)	Property Development (Building Oper	Malaysia
5	Bandar Ainsdale (BO)	Property Development (Building Oper	Malaysia
6	Nilai Impian (BO)	Property Development (Building Oper	Malaysia
7	Bandar Universiti Pagoh (BO)	Property Development (Building Oper	Malaysia
8	Serenia (BO)	Property Development (Building Oper	Malaysia
9	KLGC Resort (BO)	Property Development (Building Oper	Malaysia
10	Ara Damansara (BO)	Property Development (Building Oper	Malaysia
11	KL East (BO)	Property Development (Building Oper	Malaysia
12	Planters Haven (BO)	Property Development (Building Oper	Malaysia
13	Putra Heights (BO)	Property Development (Building Oper	Malaysia
14	Taman Pasir Putih (BO)	Property Development (Building Oper	Malaysia
15	Elmina East (B)	Property Development (Building)	Malaysia
16	Elmina West (B)	Property Development (Building)	Malaysia
17	Bukit Jelutong (B)	Property Development (Building)	Malaysia
18	Bandar Bukit Raja (B)	Property Development (Building)	Malaysia
19	Bandar Ainsdale (B)	Property Development (Building)	Malaysia
20	Nilai Impian (B)	Property Development (Building)	Malaysia
21	Bandar Universiti Pagoh (B)	Property Development (Building)	Malaysia
22	Serenia (B)	Property Development (Building)	Malaysia
23	Ara Damansara (B)	Property Development (Building)	Malaysia
24	Putra Heights (B)	Property Development (Building)	Malaysia
25	SJCC (B)	Property Development (Building)	Malaysia
26	Glades (B)	Property Development (Building)	Malaysia
27	Elmina West (I)	Property Development (Infra)	Malaysia
28	Bandar Bukit Raja (I)	Property Development (Infra)	Malaysia
29	Nilai Impian (I)	Property Development (Infra)	Malaysia
30	Bandar Universiti Pagoh (I)	Property Development (Infra)	Malaysia
31	Serenia (I)	Property Development (Infra)	Malaysia
32	Kota Elmina (I)	Property Development (Infra)	Malaysia
33	KL East (I)	Property Development (Infra)	Malaysia
34	SDCC	Hospitality & Leisure	Malaysia
35	TPC KL	Hospitality & Leisure	Malaysia
36	IGCC	Hospitality & Leisure	Malaysia
37	Bayuemas Sports Complex	Asset Management	Malaysia
38	Oasis,Block G	Asset Management	Malaysia
39	SJCC (BO)	Property Development (Building Oper	Malaysia



Will insert final PWC report findings 2020