SuruhanjayaTenaga
Energy Commission

COMPANY PROFILE	
Installation Name	**Universiti Sains Malaysia - Kampus Utama**
Address	**11800, USM Pulau Pinang, Pulau Pinang**
Licensee/Supply Authority	**Tenaga Nasional Berhad**
Licensee/Supply Authority Account Number	**220396974502, 220396974502 (NEM), Solar PV (Net)**
Installation Registration No.	
Person(s) in-charge	
Name:	**EN. MOHD SALMI BIN ISMAIL**
Designation:	**ELECTRICAL ENGINEER**
Telephone:	**04-653 2327**
Fax:	**04-658 7688**
Email:	**msalmi@usm.my**
Registered Electrical Energy Manager (REEM)	
Name:	**A.Aziz Bin Mat Ali**
Certificate:	**PTE-0076-2010**
Telephone:	**0351618495**
Email:	**energyautomation@eam.com.my**
Sector	**Government**
Subsector	**College and University**
Electricity tariff category	**C1 - Perdagangan OPTR (diskaun)**
Date of Report	**18/12/2024**

COMPANY INFORMATION	
Gross Floor Area [m²]	**365,482.300**
Percent of Gross Floor Area That is Air Conditioned [%]	
Server Area [%]	
Parking Area That is Enclosed [%]	**0.000**
Net Floor Area [m²]	**365,482.300**
Design Occupant Load Unit	
Design Occupant Load	
Actual Occupant Load [%]	

EFFICIENT ELECTRICAL ENERGY MANAGEMENT POLICY

1. Penggunaan tenaga sebagai kriteria pengiraan belanjawan
2. Bangunan bistari dan cekap tenaga
3. Tenaga diperbaharui sebagai satu opsyen.

EFFICIENT ELECTRICAL ENERGY MANAGEMENT OBJECTIVE

i. Mewujudkan satu sistem pengurusan tenaga dan membudayakan kesedaran penggunaan elemen cekap tenaga di peringkat USM

ii. Mencapai kecekapan tenaga dengan mempraktikkan penggunaan produk dan rekabentuk cekap tenaga Mempraktikkan penggunaan tenaga diperbaharui (RE) yang praktikal, ekonomik dan lestari.

iii. Melaksana program latihan dan kesedaran ke arah mewujudkan budaya penggunaan cekap tenaga di kalangan warga USM

iv. Memperkukuh tatacara dan prosespengurusan tenaga dalam sistem maklumat, tanda aras dan pemantauan tenaga.

v. Mencapai tahap Building Energy Index (BEI) piawai Malaysia MS1525 dan melaksanakan secara menyeluruh program pengurusan tenaga di semua bangunan/premis dikampus USM.

EFFICIENT ELECTRICAL ENERGY MANAGEMENT COMMITTEE

a. Prof. Dr. Azlan Amran - TNC BJIM
b. Encik Mohd Salmi Ismail - Menjalankan Fungsi Sebagai Pengarah dan Ketua USMET
c. Pengarah CGSS
d. Penyelaras CETREE
e. Pendaftar
f. Bendahari

BASELINE

Baseline Year	2023

Baseline - Electricity

Month	Account		
	220396974502 (NEM) [kWh]	Solar PV (Net) [kWh]	Total [kWh]
1	2,013,644.000	632,015.910	2,645,659.910
2	1,620,112.000	641,521.580	2,261,633.580
3	1,841,060.000	772,523.110	2,613,583.110
4	1,731,044.000	684,625.050	2,415,669.050
5	2,163,586.000	709,297.510	2,872,883.510
6	2,118,776.000	1,052,316.290	3,171,092.290
7	1,799,081.000	1,036,330.080	2,835,411.080
8	1,521,418.000	1,090,699.920	2,612,117.920
9	1,422,521.000	988,422.430	2,410,943.430
10	1,992,261.000	1,115,094.470	3,107,355.470
11	2,190,865.000	938,571.890	3,129,436.890
12	1,857,194.000	1,046,270.300	2,903,464.300
Total	22,271,562.000	10,707,688.540	32,979,250.540

Baseline - Variables

Month	Variable	
	No. of Calendar Public Holidays	No. of Semester Break
1	3.000	0.000
2	1.000	2.000
3	1.000	26.000
4	2.000	0.000
5	2.000	7.000
6	3.000	0.000
7	2.000	7.000
8	1.000	23.000
9	2.000	31.000
10	1.000	15.000

Month	Variable	
	No. of Calendar Public Holidays	No. of Semester Break
11	0.000	0.000
12	1.000	7.000

Baseline - Regression analysis result

Regression Function	
Function	y=-8,073.544 * [No. of Semester Break] + -43,888.715 * [No. of Calendar Public Holidays] + 2,897,151.198
R²	0.090
Adjusted R²	-0.113

* Regression analysis can only be considered if the R² (Coefficient of Determination) value is equal or greater than 0.75

CURRENT REPORTING PERIOD

Reporting durations [months]	6
Reporting period	06/2024 - 11/2024

Current Reporting Period - Electricity

Year	Month	Account 220396974502 (NEM) [kWh]	Account Solar PV (Net) [kWh]	Account Total [kWh]
2024	6	2,067,196.000	1,054,906.260	3,122,102.260
2024	7	2,026,603.000	1,119,524.990	3,146,127.990
2024	8	1,676,662.000	1,101,868.900	2,778,530.900
2024	9	1,432,163.000	1,018,229.640	2,450,392.640
2024	10	1,956,685.000	1,024,400.290	2,981,085.290
2024	11	2,119,321.000	970,744.270	3,090,065.270
Total		11,278,630.000	6,289,674.350	17,568,304.350

Current Reporting Period - Building Energy Intensity

Net Floor Area [m²]	365,482.300

Year	Month	BEI [kWh/m²]
2024	6	8.542
2024	7	8.608
2024	8	7.602
2024	9	6.705
2024	10	8.157
2024	11	8.455

Current Reporting Period - Variables

Year	Month	Variable No. of Calendar Public Holidays	Variable No. of Semester Break
2024	6	3.000	0.000
2024	7	2.000	10.000
2024	8	1.000	31.000
2024	9	1.000	30.000
2024	10	1.000	13.000

Year	Month	Variable	
		No. of Calendar Public Holidays	No. of Semester Break
2024	11	0.000	0.000

PERCENTAGE REDUCTION

Electricity consumption percentage reduction compared to BAU scenario

Description		Value	Unit
Total electricity consumption for current period reported	[a]	**17,568,304.350**	**kWh**
Total electricity consumption for current period reported in BAU Scenario based on baseline formula	[b]	**16,353,619.732**	**kWh**
Percentage electricity consumption reduction or increment [c]=[a]-[b] / [b] * 100 Note: Negative value – Reduction, Positive Value - Increment		**7.428**	**%**

Building Energy Intensity in the period reported

Value	Unit
48.069	**kWh/m²**

ENERGY SAVING MEASURES (ESM)

List of ESM

Summary of ESM

Proposed ESM