

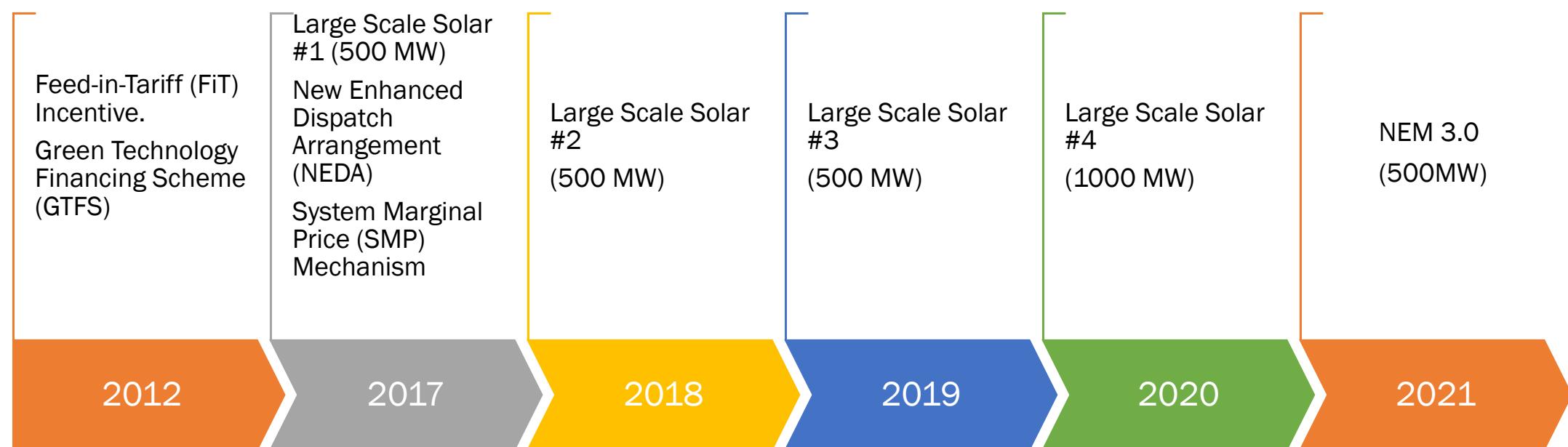


**PROPOSED SOLAR PV SYSTEM INSTALLATION FOR
MALAYSIA PRODUCTIVITY CORPORATION (MPC)
BUILDINGS IN SELANGOR, PENANG, JOHOR AND
SARAWAK**





“Malaysia aim to increase RE in power Capacity from the current 6% to 31% by 2025 and 45% by 2035 and Net Zero Carbon by 2050”



MALAYSIA SOLAR NET ENERGY METERING (NEM) 3.0

EMBARGO SEHINGGA 10.00AM 29 DISEMBER 2020



MEKANISME PELAKSANAAN *NET ENERGY METERING 3.0*

PERKARA	NEM 3.0						
	NEM RAKYAT	NEM GoMEn	NOVA				
	Domestik	Bangunan Kerajaan	Komersial & Industri				
Kuota ditawarkan (MW)	100	100	300				
Mekanisme (<i>roll-over</i>)	NEM 1:1 (12 bulan)	NEM 1:1 (12 bulan)	SELCO+ (1 bulan)				
Tarikh mula ditawarkan		1 Februari 2021	1 April 2021				
Tempoh tawaran		3 tahun					
Kadar <i>offset</i>	Tarif Semasa	Tarif Semasa	<i>System Marginal Price</i>				
Tempoh <i>offset</i>		10 tahun					
Ketetapan selepas 10 tahun	<i>Self-Consumption (SelCo)</i>	<i>Self-Consumption (SelCo)</i>	<i>Self-Consumption (SelCo)</i>				
Had Kapasiti Pepasangan	<i>Single Phase: 4kWac</i> <i>Three Phase: 10kWac</i>	1 MWac/ 1 Akaun	<table border="1"> <tr> <td><i>Nett offset</i></td> <td>1MWac</td> </tr> <tr> <td><i>Net offset +Virtual aggregation</i></td> <td>5MWac</td> </tr> </table>	<i>Nett offset</i>	1MWac	<i>Net offset +Virtual aggregation</i>	5MWac
<i>Nett offset</i>	1MWac						
<i>Net offset +Virtual aggregation</i>	5MWac						
Kelayakan	Pemegang Akaun Domestik	Jabatan/Agensi Kerajaan	Pemegang Akaun Bukan Domestik				



WHY INSTALL SOLAR PV?

ENERGY BILL SAVINGS

Energy bill savings come from reducing the amount of kWh by integrating the solar energy system.

“HEDGE VALUE” OF SOLAR ENERGY

Solar energy is free, the business is less exposed to price volatility of commodity fuels such as natural gas, and thus has a more stable energy bill.

Cost of solar energy from an installed system is fixed – it does not increase over time like costs of utility energy.

REDUCE CARBON FOOTPRINT

Solar energy is “green” partly because of its ability to generate power while giving off zero emissions.

Every kilowatt installed lowers carbon footprint by over 1.36 tonnes annually.

SOLAR EXCELLENCE CENTRE

MPC shall become a demo centre to showcase the application and benefits of Solar Net Energy Metering to the industry. All data can be shared via online web.



HOW IT WORKS?



Pasang Solar Secara Percuma Dan Jimat Bil Elektrik Sehingga 25%



1. Panel solar serap cahaya matahari dan jana tenaga elektrik.
2. Inverter tukar arus terus (DC) ke arus ulang-alik (AC).
3. Papan litar elektrik sedia ada dengan aliran dua arah dipasang.
4. Eksport tenaga elektrik ke grid apabila sistem solar menghasilkan tenaga elektrik melebihi daripada yang digunakan.
5. Ketika waktu puncak di sebelah malam, tenaga elektrik akan diimport dari grid bagi menampung keperluan.



FAEDAH SISTEM SOLAR PV

- 1. Penjimatan Bil Elektrik**
Kos tenaga solar adalah 31% lebih rendah berbanding tarif elektrik biasa.
- 2. Hedge Dari Kenaikan Tarif Elektrik**
Sumber tenaga solar adalah percuma dan kekal. Tiada kenaikan kos kepada sumber solar seperti sumber tenaga yang lain.
Harga tenaga solar adalah tetap dan kekal sepanjang kontrak. Tidak tertakluk kepada kenaikan tariff.
- 3. Kurangkan Jejak Karbon**
Tenaga solar merupakan 'tenaga boleh baharu' kerana kemampuannya menghasilkan tenaga tanpa pelepasan karbon.
Setiap kilowatt yang dipasang mengurangkan jejak karbon sebanyak 0.8 tan setahun.
- 4. Percuma Tanpa Modal**
Pelanggan yang berminat hanya perlu mendaftar dan menikmati penjimatan untuk sepanjang kontrak.
Hanya perlu sediakan Borang 8/9, geran tanah serta bil elektrik 3 bulan terkini yang sah.



ELECTRICITY BILL BEFORE & AFTER SOLAR PV INSTALLATION

BIL ELEKTRIK ANDA

No. Akaun	:	██████████
No. Kontrak	:	347469
Deposit	:	RM72.68
No. Invois	:	6166722609
██████████		

Jumlah Perlu Dibayar : RM 531.75 Tarikh Bil : 09.11.2020

Tunggakan	RM	Amaun	Bayar Sebelum	
Caj Semasa	RM	0.00	Terima Kasih	
Penggenapan	RM	531.77		
Jumlah Bil	RM	-0.02		
Bil Terdahulu	RM	531.75	09.12.2020	
(09.10.2020)	RM	1,429.00	Bayaran Akhir	
Jenis Bacaan	:	Bacaan Sebenar		
Tempoh Bil	:	10.10.2020 - 09.11.2020 (31 Hari)		
Tarif	:	A:Kediaman		
Blok Tarif (kWh)		Kegunaan (kWh)	Kadar(RM)	Amaun(RM)
200		200.00 (200 X 1.0000)	0.2180	43.60
100		100.00 (100 X 1.0000)	0.3340	33.40
300		300.00 (300 X 1.0000)	0.5160	154.80
300		300.00 (300 X 1.0000)	0.5460	163.80
>900		213.00	0.5710	121.62
Jumlah		1,113.00		517.22
Keterangan				
Kegunaan kWh	kWh	600.00	513.00	1,113.00
Kegunaan RM	RM	231.80	285.42	517.22
2% Diskaun Rangsangan Ekonomi	RM	-4.64	-5.70	-10.34
Kegunaan Bulan Semasa	RM	227.16	279.72	506.88
Service Tax (6%)	RM			16.78
KWTBB (1.6%)	RM			8.11
Caj Semasa	RM			531.77
No. Meter	Faktor Meter	Bacaan Meter		
		Dahulu	Semasa	
M 305433554	1.00000	128,265.00	129,378.00	1,113.00
				kWh



TERIMA KASIH
Kerana
Membayar Dalam
Tempoh 30 Hari

TNB Careline
1-300-88-5454

Jumlah Perlu Dibayar : RM 531.75 Tarikh Bil : 09.11.2020

Tunggakan	RM	Amaun	Bayar Sebelum	
Caj Semasa	RM	0.00	Terima Kasih	
Penggenapan	RM	531.77		
Jumlah Bil	RM	-0.02		
Bil Terdahulu	RM	531.75	09.12.2020	
(09.10.2020)	RM	1,429.00	Bayaran Akhir	
Jenis Bacaan	:	Bacaan Sebenar		
Tempoh Bil	:	10.10.2020 - 09.11.2020 (31 Hari)		
Tarif	:	A:Kediaman		
Blok Tarif (kWh)		Kegunaan (kWh)	Kadar(RM)	Amaun(RM)
200		200.00 (200 X 1.0000)	0.2180	43.60
100		100.00 (100 X 1.0000)	0.3340	33.40
300		300.00 (300 X 1.0000)	0.5160	154.80
300		300.00 (300 X 1.0000)	0.5460	163.80
>900		213.00	0.5710	121.62
Jumlah		1,113.00		517.22
Keterangan				
Kegunaan kWh	kWh	600.00	513.00	1,113.00
Kegunaan RM	RM	231.80	285.42	517.22
2% Diskaun Rangsangan Ekonomi	RM	-4.64	-5.70	-10.34
Kegunaan Bulan Semasa	RM	227.16	279.72	506.88
Service Tax (6%)	RM			16.78
KWTBB (1.6%)	RM			8.11
Caj Semasa	RM			531.77
No. Meter	Faktor Meter	Bacaan Meter		
		Dahulu	Semasa	
M 305433554	1.00000	128,265.00	129,378.00	1,113.00
				kWh

Before
Solar

BIL ELEKTRIK ANDA

No. Kontrak	:	347469		
Deposit	:	RM792.00		
No. Sijil NEM	:	██████████		
Jenis Bacaan	:	Bacaan Sebenar		
Tempoh Bil	:	10.12.2020 - 08.01.2021 (30 Hari)		
Tarif	:	A:Kediaman		
Blok Tarif (kWh)		Blok Prorata (kWh)	Kadar (RM)	Amaun (RM)
200		200.00 (200 X 1.0000)	0.2180	43.60
100		100.00 (100 X 1.0000)	0.3340	33.40
300		300.00 (300 X 1.0000)	0.5160	154.80
300		80.00	0.5460	43.68
Jumlah Import (kWh)			680.00	Jumlah Import (RM) 275.48
Blok Tarif (kWh)		Blok Prorata (kWh)	Kadar (RM)	Amaun (RM)
200		0.00	0.2180	0.00
100		0.00	0.3340	0.00
300		100.00	0.5160	51.60
300		80.00	0.5460	43.68
Jumlah Eksport (kWh)			180.00	Jumlah Eksport (RM) 95.28
Keterangan		Tidak Kena ST	Kena ST	Jumlah
Kegunaan (kWh Import)	kWh	600.00	80.00	680.00
Kegunaan RM	RM	231.80	43.68	275.48
Rebat ICPT (RM 0.02/kWh)	RM	-3.20	-0.42	-3.62
10% Diskaun Rangsangan Ekonomi	RM	-17.00	-3.22	-20.22
Kegunaan Bulan Semasa	RM	211.60	40.04	251.64
Service Tax (6%)	RM			2.40
KWTBB (1.6%)	RM			4.08
Caj Semasa (Import)	RM			258.12
KWh Eksport: 180.00	RM	-95.28		-95.28
Caj Semasa (Eksport)	RM			-95.28
Jumlah Caj Bersih	RM			162.84
No. Meter	Faktor Meter	Bacaan Meter		
		Dahulu	Semasa	
M HOL1031904000598	1.00000	0.00	180.00	180.00 (E)
M HOL1031904000598	1.00000	609.00	1,289.00	680.00 (I)
M HOL1031904000598	1.00000	0.00	9.00	9.00 (V)
M HOL1031904000598	1.00000	166.00	336.00	166.00 (W)



Bil Anda Bulan ini
Bayaran Penuh:
RM 491.81
Atau
Pel Bayaran Mudah:
RM 442.95

Bil: OPC NEM

Untuk maklumat bil dan bayaran terdahulu, sila layari -
<http://www.mytnb.com.my>
atau hubungi Hotline TNB
1 300 88 5454

Untuk pertanyaan, sila hubungi:
TNB BANGI
LOT 1, JLN 6C/13,BANDAR
BARU BANGI
43650 BANDAR BARU BANGI
SELANGOR
Tel: 03-89264990
Fax: 03-89264966

Maklumat Tambahan:
Angkadar Kuasa : 0.97

Bayaran melalui cek sah setelah
penjelasan cek oleh bank

Baki NEM: 0 kWh

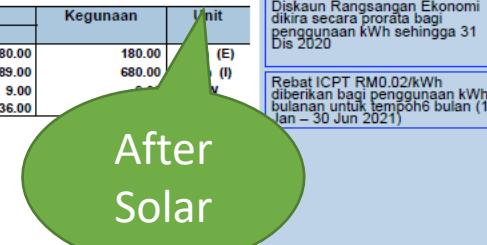
Baki NEM: 0.00

Tarikh Ijupus Baki NEM:
31/12/2021

Service Tax (ST) 6% bagi
penggunaan Domestik melebihi
600 kWh.

Diskaun Rangsangan Ekonomi
dikira secara prorata bagi
penggunaan kWh sehingga 31
Dis 2020

Rebat ICPT RM0.02/kWh
diturunkan bagi penggunaan kWh
bulan untuk tempoh bulan (1
Jan – 30 Jun 2021)



Comparison of electricity bill before and after solar with capacity of 4kWp



Packages from Solar PV System via NEM

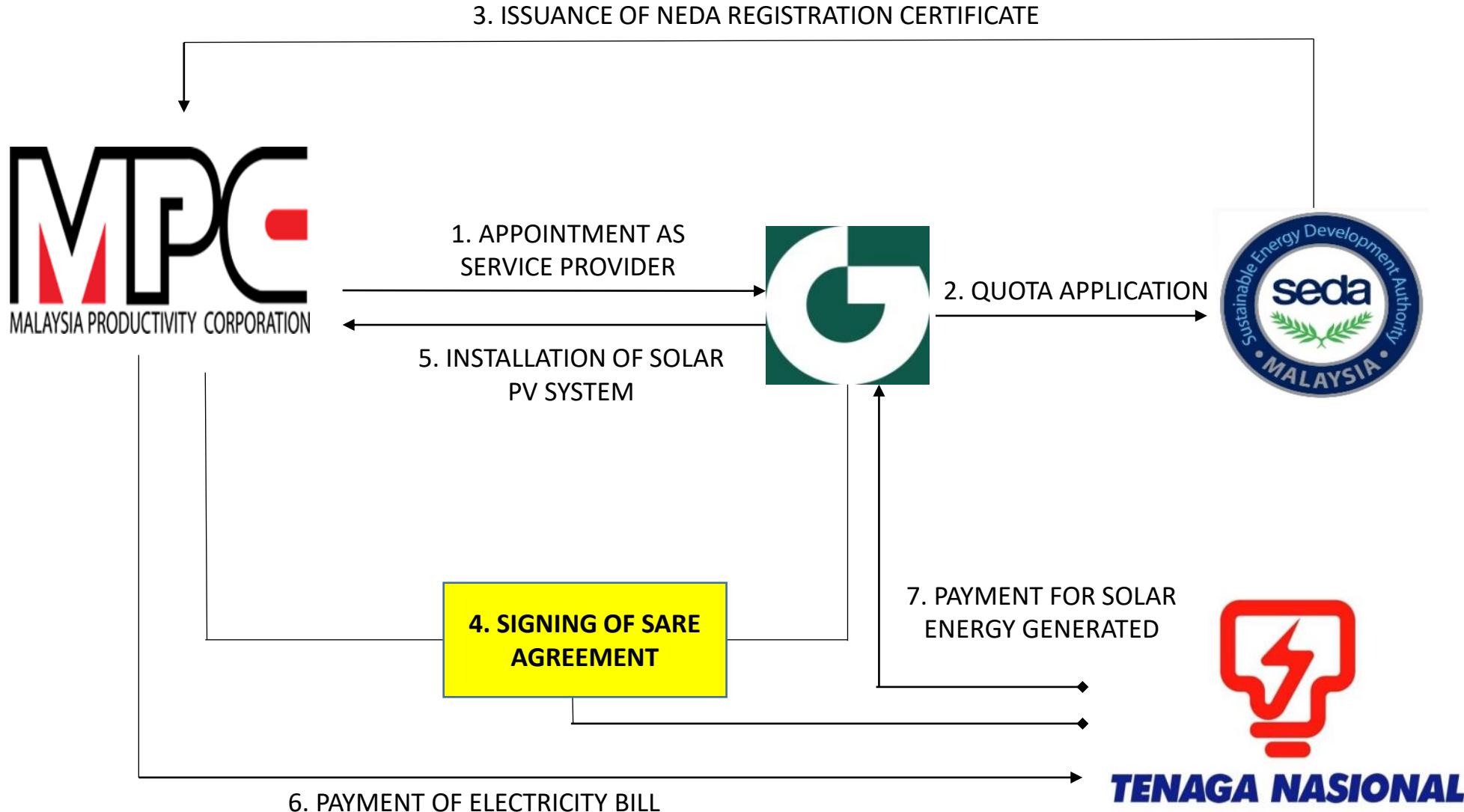
Outright Purchase

- Consumer pay for the Solar PV System installation and own the system
- Consumer get full benefit on the energy saving from solar energy generated
- GK would provide O&M support via service contract

Solar Energy Purchase (SEP)

- No upfront cost to Consumer
- GK will bare all cost for solar PV system installation and O&M during contract tenure
- Consumer to sign an agreement; **Solar Power Purchase Agreement** with the tenure of 21 years, to purchase energy generated from Solar PV System
- Consumer pay at lower and fixed tariff of **RM0.35 per kWh** during tenure period

SOLAR ENERGY PURCHASE USING SARE



BILL ANALYSIS UNDER SOLAR ENERGY PURCHASE

Location	Perbadanan Produktiviti Negara PTB 12330, Jln Padi Mehsuri Bandar Baru Uda 81200 Johor Bahru	Perbadanan Produktiviti Negara Jln Tun Hamdan Sheikh Tahir 13200 Kepala Batas Pulang Pinang	P.D.P.N P.O Box 64, 46904 Petaling Jaya 46200 Petaling Jaya Selangor	Pusat Daya Pengeluaran Negara P.O Box 64, Jln Sultan 46904 Petaling Jaya Selangor	Perbadanan Produktiviti Negara Wilayah S Lt 894 Blk 7 Ph 3 Jln Bako Sejingak Ind Park 93050 Kuching Sarawak
Proposed DC Capacity (kWdc)	66.0	66.0	N/A	48.4	66.0
Maximum AC Output Power (kVA)	55.0	55	N/A	44	55
Inverter Nominal AC Rating (kWac)	50.0 (SG50CX)	50.0 (SG50CX)	N/A	40.0 (SG40CX)	50.0 (SG50CX)
Mechanism for Interconnection	NOVA A	NOVA A	N/A	NOVA A	NEM - Sarawak Energy
Remarks			As the place has two accounts, we shall consider for accounts with higher billing. Also, the main building has shading from nearer high rise building, hence, the building as per in module layout is suitable for installation.		
Monthly Average Electricity Bill	RM 7,078.61	RM 9,968.04	RM 7,559.21	RM 21,507.22	RM 10,369.09
Current Electricity Tariff (RM/kWh)	RM0.5090/kWh	RM0.5090/kWh		RM0.5090/kWh	RM0.3100/kWh
Proposed Solar Tariff (RM/kWh)	RM0.3500/kWh	RM0.3500/kWh		RM0.3500/kWh	RM0.3500/kWh
Solar Installation Feasibility	Feasible	Feasible	Not Recommended due to regulation	Feasible	Not Recommended due to higher tariff

MPC JOHOR

NEM Calculator

Mode of Purchase: Power Purchase Agreement (PPA)

Solar Energy Rate in PPA (RM/kWh): 0.35

Category: Tariff B - Low Voltage Commercial Tariff [View Tariff](#)

Building Type: Factory/warehouse

Maximum Demand: 72.7kWac

Your Current Monthly Bill

RM7,078.61

Your Monthly Bill after NEM

RM6,030

Proposed Installed Capacity (adjustable)

66.00kWp

Your Monthly Saving

RM1,049

Space Required



Rooftop Area

396.0m²

1 kWp approximately 6m²

Environmental Impact **



Carbon Dioxide (CO₂)

Avoidance
1,374 tonne CO₂

=



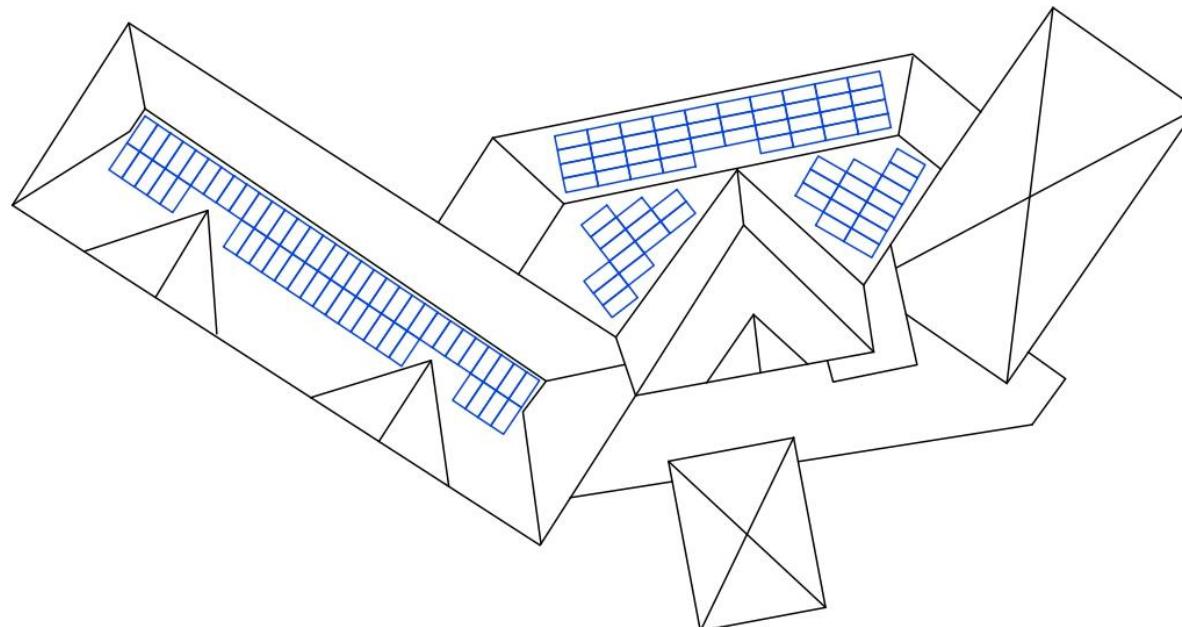
Distance travel
avoidance by car
(petrol)
5.3 million km



No. of tree seedlings grown for
10 years to absorb the CO₂
21,780 trees



PERBADANAN PRODUKTIVITI NEGARA, JOHOR BAHRU



FRONT

TOTAL : 120 NOS X 550W = 66.0kWdc

GPS COORDINATE : 1.4923001051224662, 103.72207201865726

THIS DRAWING IS COPYRIGHT PROTECTED
CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE.
DIMENSIONS ARE TO BE WORKED DISCREPANCIES MUST BE
REPORTED IMMEDIATELY TO THE S.O.s BEFORE PROCEEDING.

CLIENT :

PERBADANAN PRODUKTIVITI NEGARA
PTB 12330,
JLN PADI MAHSURI BANDAR BARU UDA
81200 JOHOR BAHRU

PROJECT CONSULTANT :

MAIN CONTRACTOR :



GADING KENCANA SDN. BHD.
2-06-2, PRESINT ALAMI, BLOK 2,
PUTER PERNIAGAAN WORLDWIDE 2,
PERSIARAN AKUATIK,
SEKSYEN 13, 40100 SHAH ALAM,
SELANGOR
TEL : 03-5513 9888
FAX : 03-5523 3661

SUB CONTRACTOR :

PROJECT TITLE :

DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 66.0kWdc PV SYSTEM ON
NET ENERGY METERING 3.0

DRAWING TITLE :

MODULE LAYOUT

SCALE : NOT TO SCALE

DATE : 19 JANUARY 2022

DESIGN BY : ADILAH

DRAWN BY : HAZIRAH

REVISED BY :

CHECKED BY : NURUL FADHILAH

DRAWING NO : GK/MPC JOHOR (SRO)/ML/01/00

PERBADANAN PRODUKTIVITI NEGARA, JOHOR BAHRU

THIS DRAWING IS COPYRIGHT PROTECTED
CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE.
DIMENSIONS ARE TO BE WORKED DISCREPANCIES MUST BE
REPORTED IMMEDIATELY TO THE S.O.s BEFORE PROCEEDING.

CLIENT :

PERBADANAN PRODUKTIVITI NEGARA
PTB 12330,
JLN PADI MAHSURI BANDAR BARU UDA
81200 JOHOR BAHRU

PROJECT CONSULTANT :

MAIN CONTRACTOR :

 GADING KENCANA SDN. BHD.
 2-06-2, PRESINT ALAMI, BLOK 2,
 PUSAT PERNIAGAAN WORLDWIDE 2,
 PERSIARAN AKUTIK,
 SEKSYEN 13, 40100 SHAH ALAM,
 SELANGOR
 TEL : 03-5513 9888
 FAX : 03-5523 3661

SUB CONTRACTOR :

PROJECT TITLE :
 DESIGN, SUPPLY, INSTALLATION, TESTING AND
 COMMISSIONING OF 66.0kWdc PV SYSTEM ON
 NET ENERGY METERING 3.0

DRAWING TITLE :
 SCHEMATIC DIAGRAM

SCALE : NOT TO SCALE

DATE : 19 JANUARY 2022

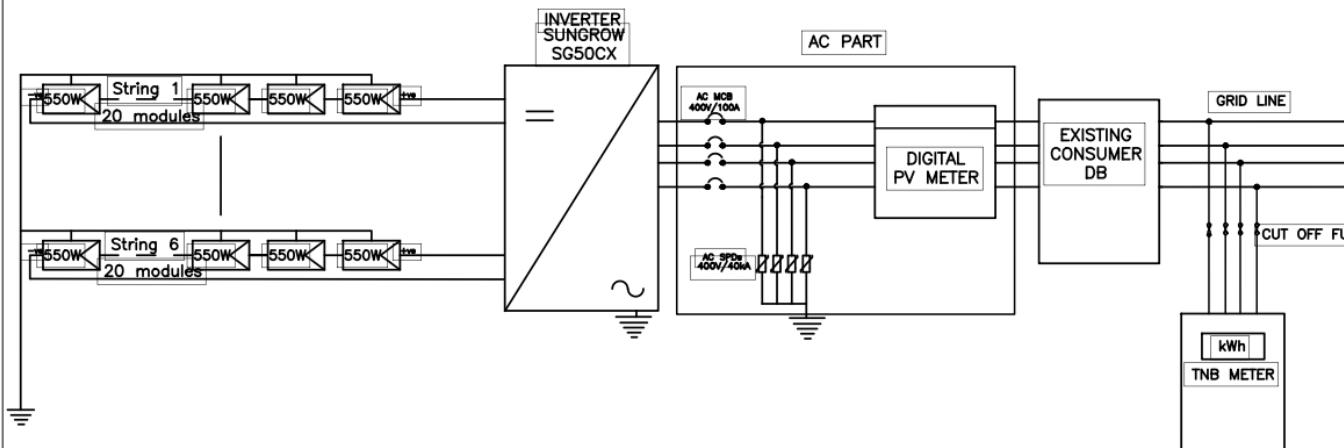
DESIGN BY : ADILAH

DRAWN BY : HAZIRAH

REVISED BY :

CHECKED BY : NURUL FADHILAH

DRAWING NO : GK/MPC JOHOR (SRO)/SD/01/00



ITEM	DESCRIPTION	QUANTITY
PV MODULE	TRINA SOLAR TSMDE19 550W	120 NOS
INVERTER	SUNGROW SG50CX	1 NOS
INSTALLED CAPACITY (DC)	: 66.0kWdc	
INSTALLED CAPACITY (AC)	: 50kWac	

MPC PULAU PINANG

NEM Calculator

Mode of Purchase: Power Purchase Agreement (PPA)

Solar Energy Rate in PPA (RM/kWh): 0.35

Category: Tariff B - Low Voltage Commercial Tariff [View Tariff](#)

Building Type: Factory/warehouse

Maximum Demand: 72.7kWac

Your Current Monthly Bill

RM9,968.04

Your Monthly Bill after NEM

RM8,919

Proposed Installed Capacity (adjustable)

66.00kWp

Your Monthly Saving

RM1,049

Space Required



Rooftop Area
396.0m²
1 kWp approximately 6m²



Carbon Dioxide (CO₂)
Avoidance
1,374 tonne CO₂

Environmental Impact **

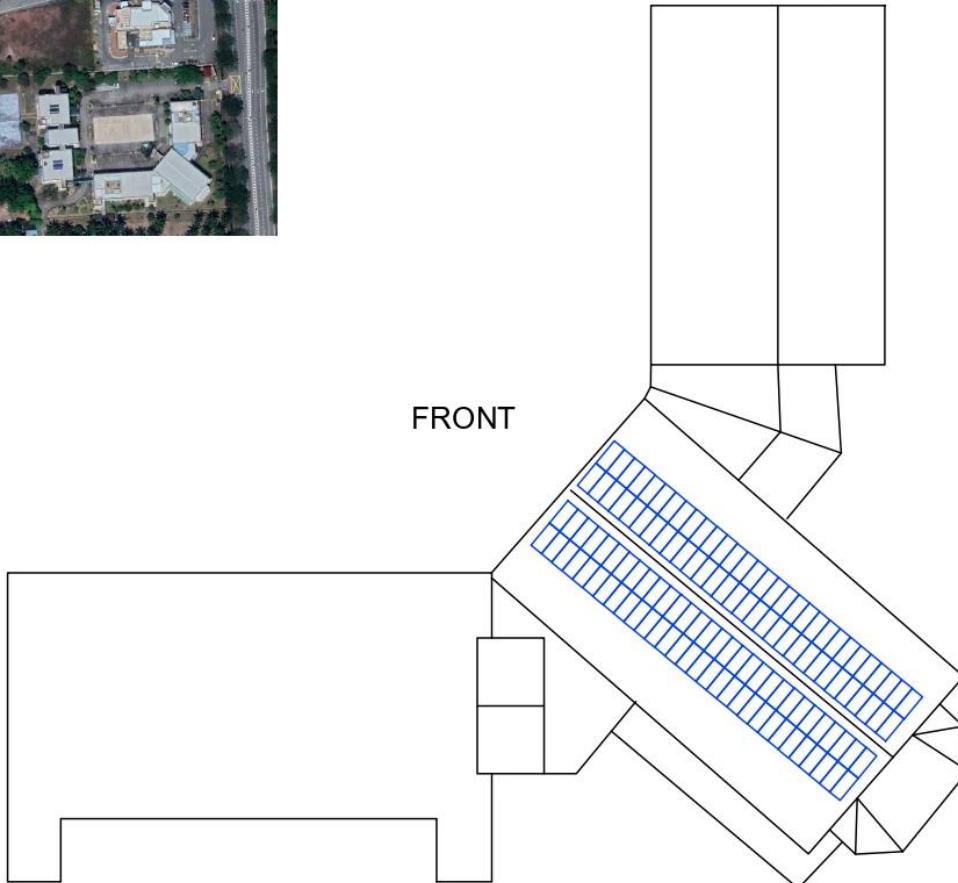


Distance travel
avoidance by car
(petrol)
5.3 million km



No. of tree seedlings grown for
10 years to absorb the CO₂
21,780 trees

PERBADANAN PRODUKTIVITI NEGARA, PULAU PINANG



TOTAL : 120 NOS X 550W = 66.0kWdc

GPS COORDINATE : 5.517416739547242, 100.44517765811146

THIS DRAWING IS COPYRIGHT PROTECTED

CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE.
DIMENSIONS ARE TO BE WORKED DISCREPANCIES MUST BE
REPORTED IMMEDIATELY TO THE S.O.s BEFORE PROCEEDING.

CLIENT :

PERBADANAN PRODUKTIVITI NEGARA
JLN TUN HAMDAN SHEIKH TAHIR
13200 KEPALA BATAS
PULAU PINANG

PROJECT CONSULTANT :

MAIN CONTRACTOR :

GADING KENCANA SDN BHD,
2-06-2, PRESINT ALAMI, BLOK 2,
PUTER PERNIAGAAN WORLDWIDE 2,
PERSIARAN AKUATIK,
SEKSYEN 13, 40100 SHAH ALAM,
SELANGOR
TEL : 03-5513 9888
FAX : 03-5523 3661

SUB CONTRACTOR :

PROJECT TITLE :
DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 66.0kWdc PV SYSTEM ON
NET ENERGY METERING 3.0

DRAWING TITLE :

MODULE LAYOUT

SCALE	: NOT TO SCALE
DATE	: 19 JANUARY 2022
DESIGN BY	: ADILAH
DRAWN BY	: HAZIRAH
REVISED BY	:
CHECKED BY	: NURUL FADHILAH
DRAWING NO	: GK/MPC PENANG(NRO)/ML/01/00

PERBADANAN PRODUKTIVITI NEGARA, PULAU PINANG

THIS DRAWING IS COPYRIGHT PROTECTED
CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE.
DIMENSIONS ARE TO BE WORKED DISCREPANCIES MUST BE
REPORTED IMMEDIATELY TO THE S.O.s BEFORE PROCEEDING.

CLIENT :

PERBADANAN PRODUKTIVITI NEGARA
JLN TUN HAMDAN SHEIKH TAHIR
13200 KEPALA BATAS
PULAU PINANG

PROJECT CONSULTANT :

MAIN CONTRACTOR :



GADING KENCANA SDN. BHD.
2-06-2, PRESINT ALAMI, BLOK 2,
PUSAT PERNIAGAAN WORLDWIDE 2,
PERSIARAN AKUATIK,
SEKSYEN 13, 40100 SHAH ALAM,
SELANGOR
TEL : 03-5513 9888
FAX : 03-5523 3661

SUB CONTRACTOR :

PROJECT TITLE :

DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 66.0kWdc PV SYSTEM ON
NET ENERGY METERING 3.0

DRAWING TITLE :

SCHEMATIC DIAGRAM

SCALE : NOT TO SCALE

DATE : 19 JANUARY 2022

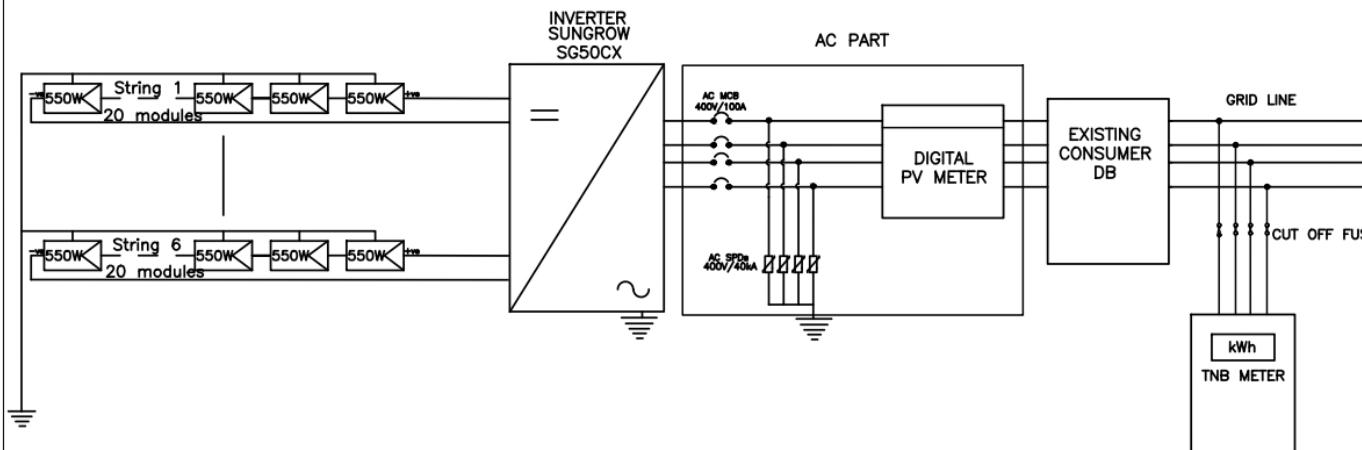
DESIGN BY : ADILAH

DRAWN BY : HAZIRAH

REVISED BY :

CHECKED BY : NURUL FADHILAH

DRAWING NO : GK/MPC PENANG(NRO)/SD/01/00



ITEM	DESCRIPTION	QUANTITY
PV MODULE	TRINA SOLAR TSMDE19 550W	120 NOS
INVERTER	SUNGROW SG50CX	1 NOS
INSTALLED CAPACITY (DC) : 66.0kWdc		
INSTALLED CAPACITY (AC) : 50kWac		

MPC SELANGOR (PC 46904)

NEM Calculator

Mode of Purchase: Power Purchase Agreement (PPA)

Solar Energy Rate in PPA (RM/kWh): 0.35

Category: Tariff B - Low Voltage Commercial Tariff [View Tariff](#)

Building Type: Factory/warehouse

Maximum Demand: 268.2kWac

Your Current Monthly Bill

RM21,507.22

Your Monthly Bill after NEM

RM20,744

Proposed Installed Capacity (adjustable)

48.00kWp

Your Monthly Saving

RM763

Space Required



Rooftop Area
288.0m²
1 kWp approximately 6m²



Carbon Dioxide (CO₂)
Avoidance
999 tonne CO₂

Environmental Impact **



Distance travel
avoidance by car
(petrol)
3.8 million km

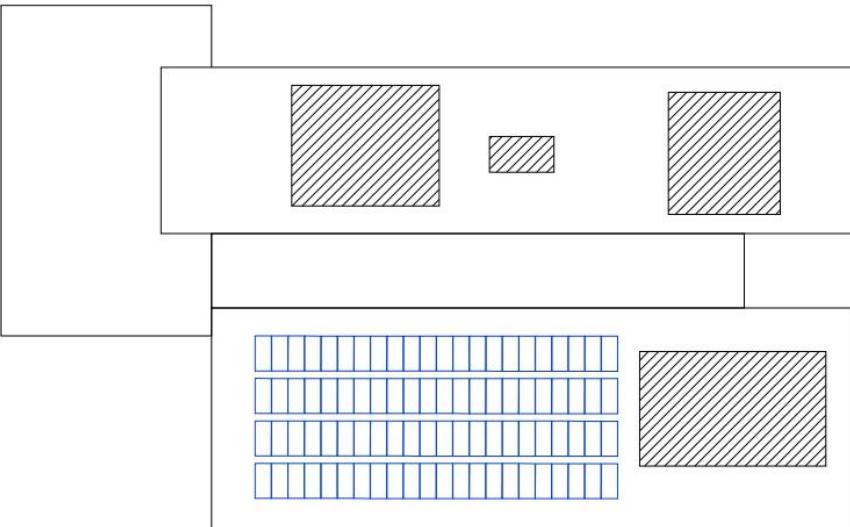


No. of tree seedlings grown for
10 years to absorb the CO₂
15,840 trees



PUSAT DAYA PENGETUARAN NEGARA, PETALING JAYA

N



GPS COORDINATE : 3.102634, 101.644498

TOTAL : 88 NOS X 550W =48.4kWdc

THIS DRAWING IS COPYRIGHT PROTECTED
CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE.
DIMENSIONS ARE TO BE WORKED DISCREPANCIES MUST BE
REPORTED IMMEDIATELY TO THE S.O.s BEFORE PROCEEDING.

CLIENT :

Pusat Daya Pengeluaran Negara

P.O Box 64, Jln Sultan
46904 Petaling Jaya
Selangor

PROJECT CONSULTANT :

MAIN CONTRACTOR :



GADING KENCANA SDN. BHD.
2-06-2, PRESINT ALAMI, BLOK 2,
PUTER PERNIAGAAN WORLDWIDE 2,
PERSIARAN AKUATIK,
SEKSYEN 13, 40100 SHAH ALAM,
SELANGOR
TEL : 03-5513 9888
FAX : 03-5523 3661

SUB CONTRACTOR :

PROJECT TITLE :

DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 48.4kWdc PV SYSTEM ON
NET ENERGY METERING 3.0

DRAWING TITLE :

MODULE LAYOUT

SCALE : NOT TO SCALE

DATE : 19 JANUARY 2022

DESIGN BY : ADILAH

DRAWN BY : HAZIRAH

REVISED BY :

CHECKED BY : NURUL FADHILAH

DRAWING NO : GK/MPC PJ/ML/01/00

PERBADANAN PRODUKTIVITI NEGARA, JOHOR BAHRU

THIS DRAWING IS COPYRIGHT PROTECTED
CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE.
DIMENSIONS ARE TO BE WORKED DISCREPANCIES MUST BE
REPORTED IMMEDIATELY TO THE S.O.s BEFORE PROCEEDING.

CLIENT :

Pusat Daya Pengeluaran Negara
P.O Box 64, Jln Sultan
46904 Petaling Jaya
Selangor

PROJECT CONSULTANT :

MAIN CONTRACTOR :


GADING KENCANA SDN. BHD.
2-06-2, PRESINT ALAMI, BLOK 2,
PUTAT PERNIAGAAN WORLDWIDE 2,
PERSARIAN AKUATIK,
SEKSYEN 13, 40100 SHAH ALAM,
SELANGOR
TEL : 03-5513 9888
FAX : 03-5523 3661

SUB CONTRACTOR :

PROJECT TITLE :
DESIGN, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF 48.4kWdc PV SYSTEM ON
NET ENERGY METERING 3.0

DRAWING TITLE :

SCHEMATIC DIAGRAM

SCALE : NOT TO SCALE

DATE : 19 JANUARY 2022

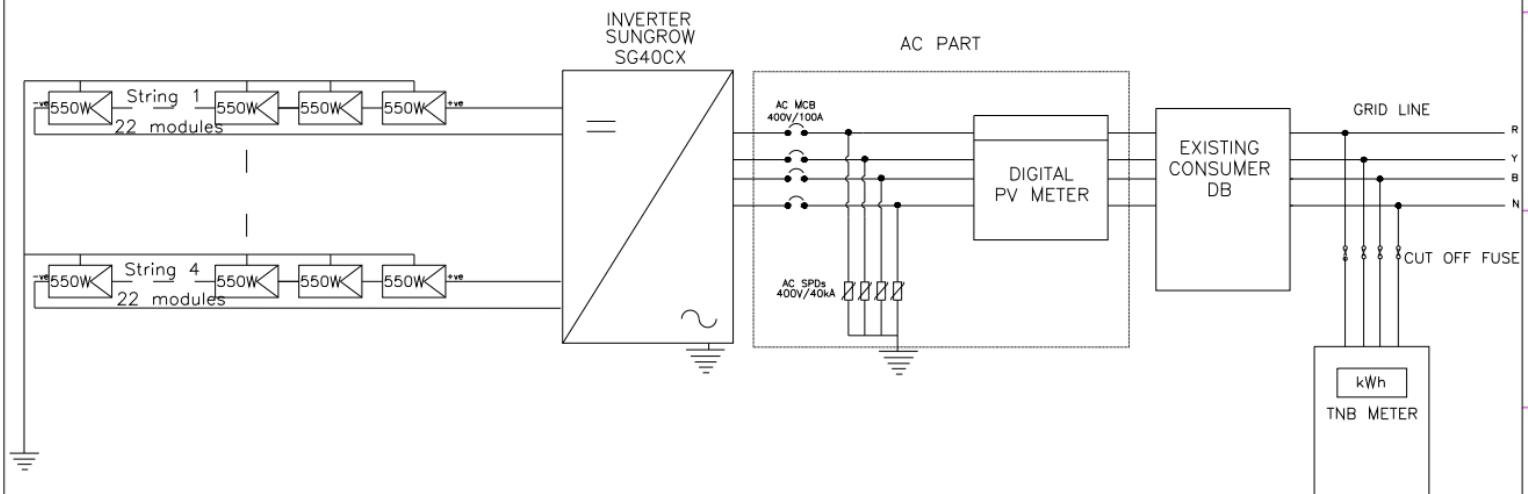
DESIGN BY : ADILAH

DRAWN BY : HAZIRAH

REVISED BY :

CHECKED BY : NURUL FADHILAH

DRAWING NO : GK/MPC PJ/SD/01/00



ITEM	DESCRIPTION	QUANTITY
PV MODULE	TRINA SOLAR TSMDE19 550W	88 NOS
INVERTER	SUNGROW SG40CX	1 NOS
INSTALLED CAPACITY (DC)	: 48.4kWdc	
INSTALLED CAPACITY (AC)	: 40kWac	

PROJECT SAVING TO MPC UNDER SEP

Year	MPC JB		MPC PENANG		MPC SELANGOR		TOTAL	
	kWh/year	Saving From Tariff (RM)						
1	82,965	13,191	82,965	13,191	62,988	10,015	228,918	36,398
2	82,384	13,099	82,384	13,099	62,547	9,945	227,316	36,143
3	81,808	13,007	81,808	13,007	62,109	9,875	225,724	35,890
4	81,235	12,916	81,235	12,916	61,674	9,806	224,144	35,639
5	80,666	12,826	80,666	12,826	61,243	9,738	222,575	35,389
6	80,102	12,736	80,102	12,736	60,814	9,669	221,017	35,142
7	79,541	12,647	79,541	12,647	60,388	9,602	219,470	34,896
8	78,984	12,558	78,984	12,558	59,966	9,535	217,934	34,651
9	78,431	12,471	78,431	12,471	59,546	9,468	216,408	34,409
10	77,882	12,383	77,882	12,383	59,129	9,402	214,893	34,168
11	77,337	12,297	77,337	12,297	58,715	9,336	213,389	33,929
12	76,796	12,211	76,796	12,211	58,304	9,270	211,895	33,691
13	76,258	12,125	76,258	12,125	57,896	9,205	210,412	33,456
14	75,724	12,040	75,724	12,040	57,491	9,141	208,939	33,221
15	75,194	11,956	75,194	11,956	57,088	9,077	207,477	32,989
16	74,668	11,872	74,668	11,872	56,689	9,014	206,024	32,758
17	74,145	11,789	74,145	11,789	56,292	8,950	204,582	32,529
18	73,626	11,707	73,626	11,707	55,898	8,888	203,150	32,301
19	73,111	11,625	73,111	11,625	55,507	8,826	201,728	32,075
20	72,599	11,543	72,599	11,543	55,118	8,764	200,316	31,850
21	72,091	11,462	72,091	11,462	54,732	8,702	198,914	31,627
Total	1,625,547	258,462	1,625,547	258,462	1,234,134	196,227	4,485,228	713,151

PROJECT IMPACTS TO ECONOMY

No	Economic Impact	Impact
1	Total Investments	RM631,400
2	Tonnes CO2 Reduction for 21 Years	3,112 tCO2
3	Human capital development : <ul style="list-style-type: none"> • New Job Creation • Training of installer • Vendor development 	500 jobs 22 person/year 10/year
4	Saving to MPC Under SEP	RM33,952/Year RM713,000/21 Years
5	Collaboration with	- TNB - SEDA
6	Potential Tax Income To The Government -Sales & Services Tax (SST) -Corporate Tax Income (25 Years)	RM1.60 Mill RM9.47 Mill



No.	Milestones	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022	Jul 2022
1	Proposed received letter of award						
2	Engineering Design						
3	Authority Approval						
4	Purchase of Material						
5	Construction Work						
6	Testing & Commissioning						
7	Commercial Operation Date (COD)						



4 Stars CIDB
G7 Contractor

70 Committed
Staff to ensure
Project
Success

Over RM500
Million Of
Asset

4 GCPV
Designers to
Lead Solar PV
Design Team

28 Years of
Experience
since 1993

Revenue of
RM1 Billion
over 21 Years

AWARDS & CERTIFICATIONS

- Renewable Energy & Energy Efficiency Company
- Certified Approved PV Service Provider (APVSP) by SEDA
- Registered Solar PV Investor (RPVI)
- Registered with:
 - CIDB – G7
 - Ministry of Finance
 - Energy Commission (Electrical Contractor) Class A
 - Energy Commission (ESCO)
 - ISO 9001:2015
 - OHSAS 18001:2007



CLF C LEVEL FOCUS
LEADERS THAT MATTER
10 BEST CFOs 2021

- **Amongst other award:**

- ASEAN Sustainable Energy Challenge 2021 – 1st Runner Up
- Top 10 Best CFOs From C Level Magazine 2021
- APVIA (Asia PV Industry Award) 2019
- IEM Award (Power & Energy) 2019
- ASEAN Energy Award (2018)
- National Energy Award (2018)
- Ernst & Young - Entrepreneur of the Year Award (2016 & 2017)
- Anugerah Tokoh Usahawan MARA 2017
- Frost & Sullivan (2016)
- European PV Magazine Award (2015)



OUR CUSTOMERS





DAIKIN (M) SDN BHD, SUNGAI BULOH, MALAYSIA

A green initiative by Daikin (M) Sdn Bhd . Malaysia's Largest Retrofitted Solar PV rooftop system was a design, supply, delivery, installation & commissioning. The retrofitted grid connected PV system produces **1MWp** using Panasonic Crystalline Modules.



PEPS-JV (M) SDN BHD, BATANG KALI, SELANGOR, MALAYSIA

Malaysia's Largest integrated Solar PV rooftop system was a design, supply, delivery, installation & commissioning turnkey project. The integrated grid connected PV system produces **2MWp** using 8,164 units of BOSCH Mono-crystalline 245 Wp solar modules.



ROBERT BOSCH, PENANG, MALAYSIA

One of the pioneering examples of successfully reducing energy bills – was at that time, Malaysia largest PV system installation. The design and build turnkey installation used 2,277 units of BOSCH mono-crystalline 240 Wp modules providing a system size of **546.48kWp**



DBKL KUALA LUMPUR, BOTANI PARK, MALAYSIA

DBKL started Green Initiative. First Botani Park in Malaysia install & commissioning Retrofitted Solar PV rooftop system. The retrofitted & integrated grid connected & Off grid PV system produces **20kWp** using Q-cell Crystalline Modules and Huawei String Inverter.



HOSPITAL TAMPIN, NEGERI SEMBILAN, MALAYSIA

Hospital Tampin started Green Initiative. Second Hospital in Malaysia install & commissioning Retrofitted Solar PV rooftop system. The retrofitted grid connected PV system produces **40kWp** using Q-cell Crystalline Modules.



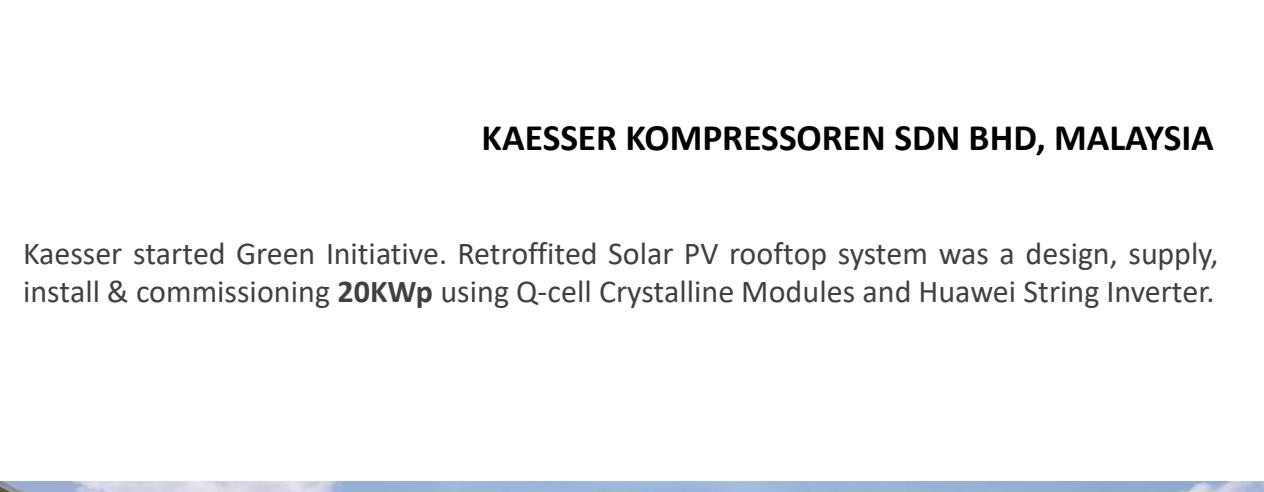
PETRONAS GAS BERHAD (PGB), SEREMBAN, MALAYSIA

A green initiative by PETRONAS Gas Berhad . Retrofitted Solar PV rooftop system was a design, supply, delivery, installation & commissioning. The retrofitted grid connected PV system produces **143.22kWp** using Mono Crystalline Modules.



PETRONAS JALAN KOLAM AYER LAMA, AMPANG, MALAYSIA

A green initiative by PETRONAS Dagangan Berhad (PDB). Retrofitted Solar PV rooftop system was a design, supply, delivery, installation & commissioning. The retrofitted grid connected PV system produces **83.88kWp** using Mono Crystalline Modules.



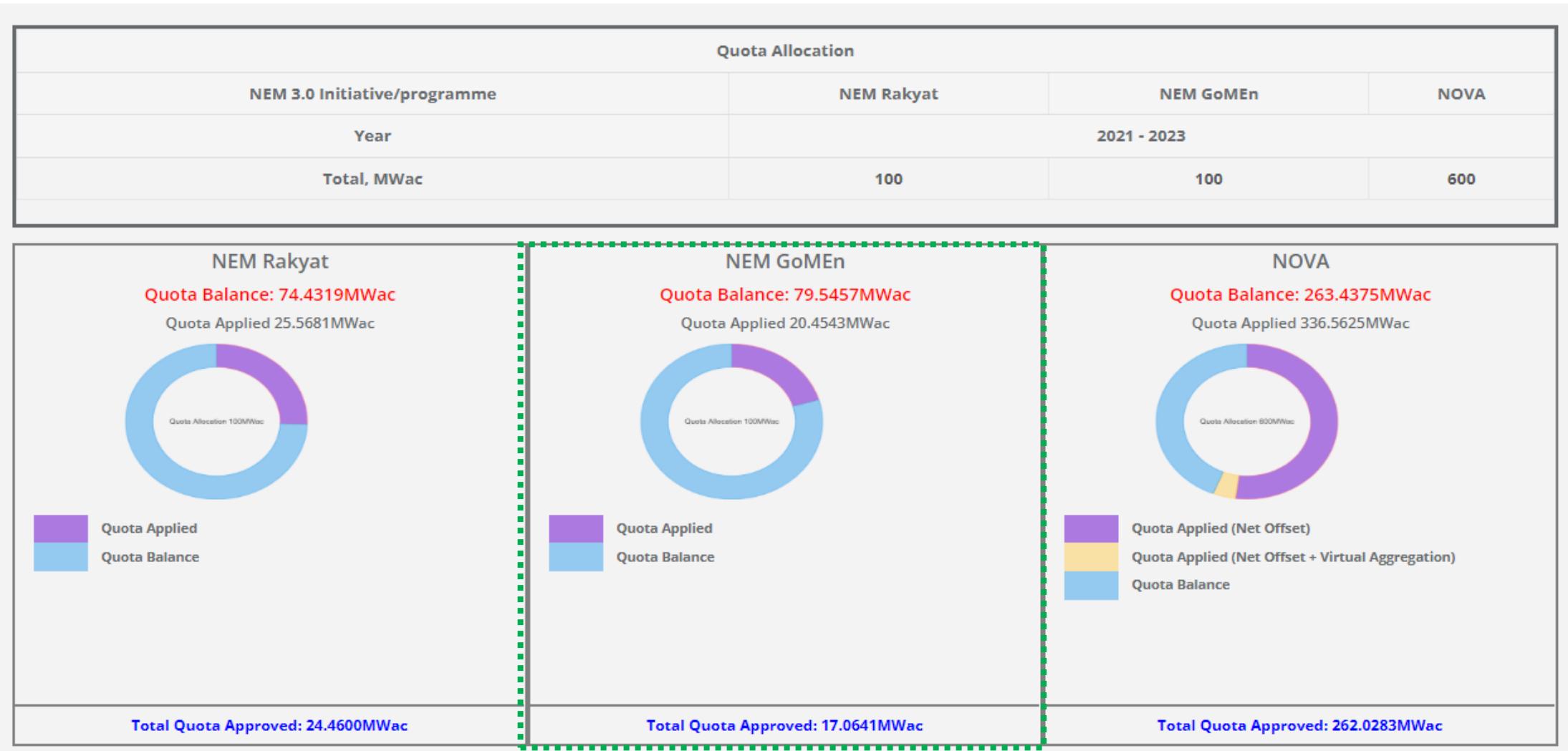
KAESSER KOMPRESSOREN SDN BHD, MALAYSIA

Kaesser started Green Initiative. Retrofitted Solar PV rooftop system was a design, supply, install & commissioning **20kWp** using Q-cell Crystalline Modules and Huawei String Inverter.



A green initiative by MGTC and PLUS Berhad. Integrated Solar PV rooftop integrate with EV Charging parking system was a design, supply, delivery, installation & commissioning. The retrofitted grid connected PV system produces **30kWp** using Poly Crystalline Modules.

ACT NOW!



<http://www.seda.gov.my/reportal/nem/>

Updated: 06/09/2021 @ 2pm





Gading Kencana



@gadingkencanasdnbhd



Gading Kencana Sdn Bhd