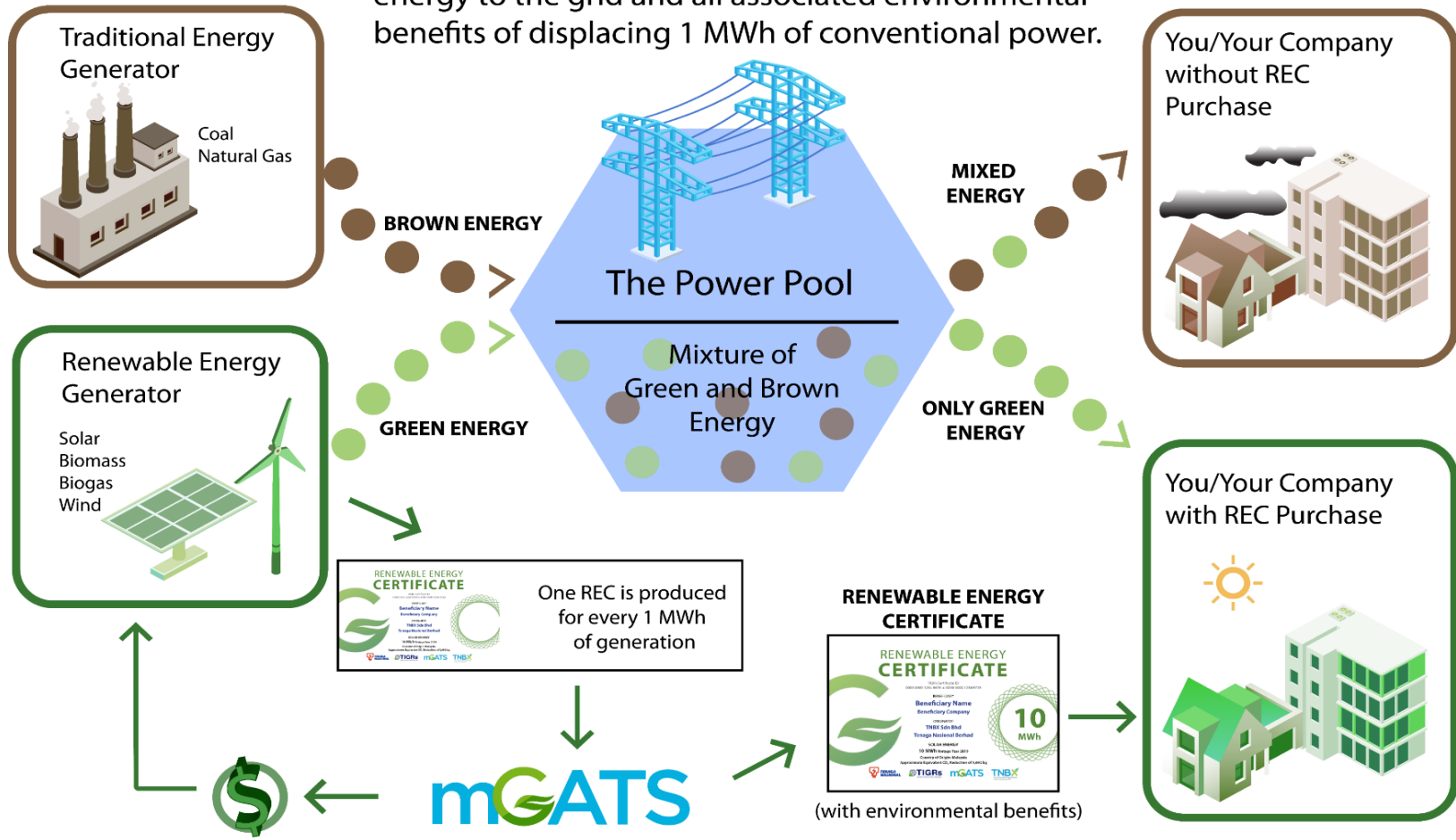


Renewable Energy Certificates (REC) in Malaysia

TNBX Sdn. Bhd.

What is Renewable Energy Certificate?

A REC represents delivery of 1 MWh of renewable energy to the grid and all associated environmental benefits of displacing 1 MWh of conventional power.



What is Renewable Energy Certificate?



Tradable, market-based instrument that represents renewable electricity generation



Only the owner of the REC can claim the environmental benefits of the clean energy production



Enable anyone, anywhere, switch to renewable energy



RECs provide green power options in areas that may not be suitable for renewable resources, allowing renewable facilities to be located where they are the most efficient

Through REC, we make it easy for companies to source for renewable energy

RE100

Global initiative, which is joined by businesses committed to 100% renewable electricity.



CDP supports thousands of companies, cities, states and regions to measure and manage their risks and opportunities on climate change, water security and deforestation.



Our certificate is registered with I-REC, in which the I-REC registry is approved by all major standards and campaigns (CDP, WRI, RE100)



SUSTAINABLE DEVELOPMENT GOALS

13 CLIMATE ACTION



Scope 2 Guidance

The Scope 2 Guidance standardizes how corporations measure emissions from purchased or acquired electricity, steam, heat and cooling (called “scope 2 emissions”).

The guidance includes:

- New requirements for accounting for emissions from energy contracts and instruments (such as renewable energy credits) in GHG inventories
- Eight Scope 2 Quality Criteria that all contractual instruments must meet in order to be a reliable data source for the scope 2 market-based method
- Recommendations for transparently disclosing information about energy purchases
- Eleven short case studies to illustrate the benefits of the new requirements

Malaysia Green Attribute Tracking System (mGATS)



Malaysia Green Attribute Tracking System

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Malaysia Green Attribute Tracking System (mGATS)

- **What is mGATS?**

- mGATS is a national marketplace for REC, managed by TNBX

- **What does mGATS do?**

- Educates on the mechanism of REC and how it helps corporations to achieve their sustainability goal
- Accepts inquiries from interested parties
- Showcases the number of RECs generated (updated monthly)
- Displays the RE plants enrolled in mGATS

www.mgats.com.my

Malaysia Green Attribute Tracking System (mGATS)



Malaysia Green Attribute Tracking System (mGATS)

POTENTIAL REC GENERATION

Data

Month	REC balance (MWh)	
	2020	2021
January	68,018	53,668
February	68,824	67,795
March	74,829	
April	66,804	
May	61,638	
June	56,463	
July	59,332	
August	64,673	
September	58,503	
October	61,588	
November	52,820	
December	55,451	
TOTAL	748,943	121,463



409MW of RE Plants Registered with mGATS



RE Gebeng Sdn Bhd

Size: 30 MW
Location: Pahang
Commissioning Year: 2020



Gading Kencana Development Sdn Bhd

Size: 50 MW
Location: Perak
Commissioning Year: 2018



Sinar Kamiri Sdn Bhd

Size: 49 MW
Location: Perak
Commissioning Year: 2018



UiTM Power Solar Sdn Bhd

Size: 50 MW
Location: Pahang
Commissioning Year: 2018



Solar Management Seremban Sdn Bhd

Size: 50 MW
Location: Negeri Sembilan
Commissioning Year: 2019



Quantum Solar Park (Terengganu) Sdn Bhd

Size: 50 MW
Location: Terengganu
Commissioning Year: 2019



TNB Sepang Solar Sdn Bhd

Size: 50 MW
Location: Selangor
Commissioning Year: 2018



Quantum Solar Park (Melaka) Sdn Bhd

Size: 50 MW
Location: Melaka
Commissioning Year: 2018



Quantum Solar Park (Kedah) Sdn Bhd

Size: 30 MW
Location: Kedah
Commissioning Year: 2018



Malaysia Green Attribute Tracking System (mGATS)

4C: 4 easy steps to acquire REC

1. CONSULT



- Both parties agree to:
1. Production technology (solar/biomass/biogas/hydro)
 2. Certificate quantity
 3. Certificate price

2. CONTRACT



TNBX will issue REC Transaction Agreement for Buyer to review and sign

3. CHARGE



TNBX will charge the Buyer via invoice for the certificates to be transferred into Buyer's account

4. CERTIFICATE REDEMPTION



TNBX will transfer & redeem the certificates for Buyer in I-REC Registry. TNBX will provide redemption certificate to Buyer.



General Overview on REC Flow



- 1 Purchasers sign the I-REC Sales & Purchase Agreement with TNBX for **X** no. of REC.
- 2 TNBX registers RE plants commissioned in Malaysia to supply **X** no. of MWh at I-REC registry. GCC audits the plant.
- 3 TNBX requests issuance of **X** no. of RECs at I-REC registry. GCC verifies this request.
- 4 GCC issues **X** no. of REC to TNBX's account after verification.
- 5 TNBX redeems/retires **X** no. of REC at I-REC registry to REC purchasers after payment is made.



Press Release by TNB on mGATS/REC in Oct 2019



PRESS STATEMENT

S.A. 2019/10/64 (HQ)

myGREEN+ AND mGATS TO BOOST MALAYSIA'S GREEN REVOLUTION

Tenaga Nasional Berhad (TNB) is introducing an innovative product called myGreen+ which provides consumers the option to subscribe to green energy and support the government's agenda of generating 20 percent of electricity via renewable energy sources by 2025.

TNB Chief Retail Officer, Ir. Megat Jalaluddin Megat Hassan said when a customer subscribes to myGreen+, TNB will match 100% of the subscription to electricity generated from renewable energy sources.

"With the introduction of myGreen+, customers can support green energy from RM8 per month. Customers can also opt to subscribe in blocks of 100 kWh at the rate of RM0.08 per kWh."

myGreen+ and Malaysia Green Attribute Tracking System (mGATS) was launched by Minister of Energy, Science, Technology, Environment & Climate Change (MESTECC), YB Yeo Bee Yin at the 10th International Greentech & Eco Products Exhibitions & Conference Malaysia (IGEM 2019) today.

Megat said, there is neither need for any major investment nor contract to subscribe to myGreen+. Customers can even cancel their subscription at any time.

I-REC Sales and Purchase Agreement

SALE AND PURCHASE AGREEMENT (INTERNATIONAL RENEWABLE ENERGY CERTIFICATES)

This Sale and Purchase Agreement (International Renewable Energy Certificates) (“**Agreement**”) is dated [•]

and is entered into by and between

- (1) **TNBX SDN. BHD. (Registration No. 201701040742 (1254915-P), a company incorporated in Malaysia with its registered office at Level 13, Wisma TNB No. 19, Jalan Timur 46200 Petaling Jaya, Selangor and its principal place of business at Level 13, Wisma TNB, No. 19 Jalan Timur, 46200 Petaling Jaya, Selangor (“Seller”);**

and

- (2) **COMPANY NAME [•] (Registration No. [•]), a company incorporated in Malaysia with its registered office at [•] and its principal place of business at (“Buyer”).**

I-REC Sales and Purchase Agreement

4 Trade Information

Vintage	Annual Amount of I-REC ("Quantity")	I-REC Price for every 1 MWh of I-REC	Transfer Date (latest by)
2020	7,000 MWh	USD	31 st January 2021

Title and risk in the I-REC(s) shall be transferred by the Seller to the Buyer when the I-REC(s) are credited into the Buyer's account.



I-REC Sales and Purchase Agreement

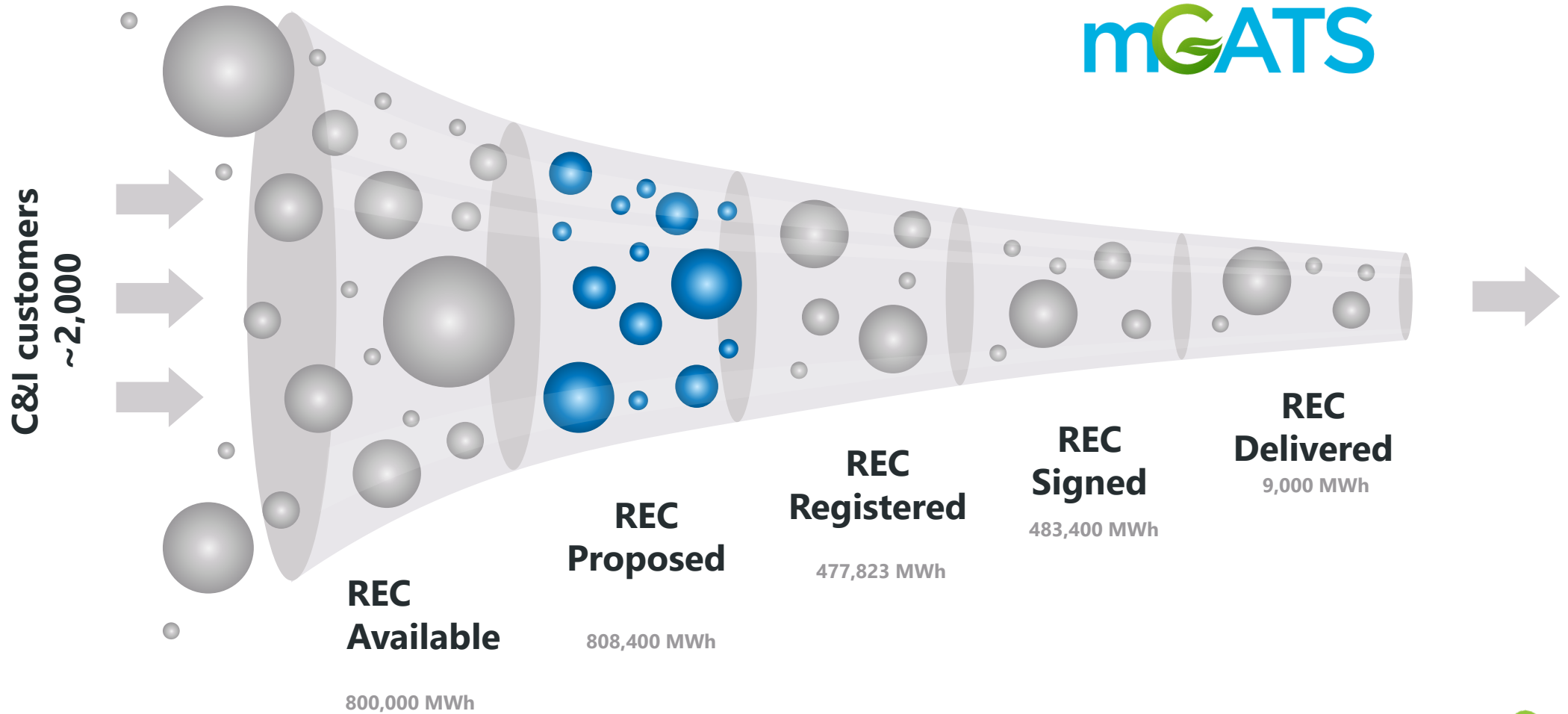
Adobe Sign

The process of signing the agreement will be done in Adobe Sign



RENEWABLE ENERGY CERTIFICATE YEAR 2020

mGATS



REC Redemption Statement



THE INTERNATIONAL
REC STANDARD

This Redemption Statement has been produced for

COMPANY NAME

by

TNBX SENDIRIAN BERHAD

confirming the Redemption of

XXXX

I-REC Certificates, representing xxxxx MWh of
electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

COMPANY ADDRESS

Malaysia

In respect of the reporting period

YYYY-MM-DD to YYYY-MM-DD

The stated Redemption Purpose is

To Offset XXXX tonnes of Carbon Dioxide Emission from Purchased Electricity




QR Code Verification

Verify the status of this Redemption Statement by scanning the QR code on the left and entering in the Verification Key below

Verification Key

X X X X X X X X

[Link to Statement](#)

Redeemed Certificates

Production Device Details						
Device	Country of Origin	Energy Source	Technology	Supported	Commissioning Date	Carbon (CO ₂ / MWh)
XXXX	Malaysia	Solar	PV Ground mounted	No	XXXX-XX-XX	0.000

Redeemed Certificates					
From Certificate ID	To Certificate ID	Number of Certificates	Offset Attributes	Period of Production	Issuer
XXXX-XXXX-XXXX-XXXX	XXXX-XXXX-XXXX-XXXX	XXXX	inc	XXXX-XX-XX - XXXX-XX-XX	←←←

Auditor Notes

This statement is proof of the secure and unique redemption of the I-RECs stated above for the named beneficiary to be reported against consumption in the country during the reporting year stated. I-RECs are assigned to a beneficiary at redemption and cannot be further assigned to a third party. No other use of these I-RECs is valid under the I-REC Standard.

Where offset attributes are 'inc' the device registrant, who exclusively holds the environmental attribute rights, has undertaken never to release carbon offsets in association with these MWh; 'exc' means carbon offsets relating to these MWh may be traded independently at some point in the future.

For labelling scheme information please refer to the scheme's website. Labelling scheme listing may not be exhaustive.

Thermal plant emit carbon as part of the combustion process. Whilst this is not zero carbon, it is generally recognised as carbon neutral where the source is recent biomass.



mGATS

TNBX
Your Trusted Energy Partner
A Wholly Owned Subsidiary of TNB

Thank You

