INNOPOWER

IOD DIRECTOR'S BRIEFING 12/2025



คุณอธิป ตันติวรวงศ์
กรรมการและประธานเจ้าหน้าที่บริหาร
บริษัท อินโนพาวเวอร์ จำกัด

INNOPOWER

CLIMATE CHANGE IS COSTING THE WORLD AND US ECONOMICALLY

฿145,200

PER SECOND

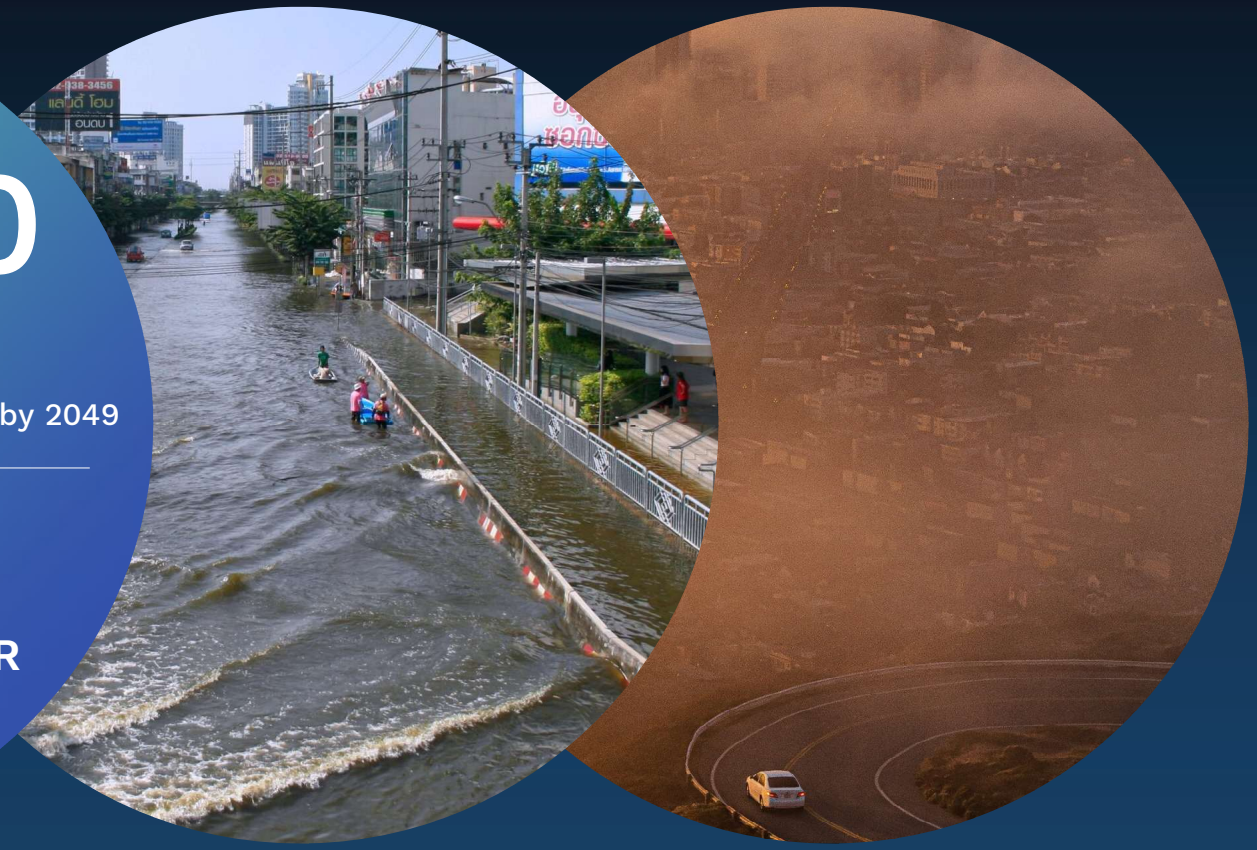
Cost damages from climate change a year by 2049

= ฿4.62 **TRILLION ANNUALLY**

OR

= ฿528 **MILLION PER HOUR**

WORLD ECONOMIC FORUM



INNOPOWER

THAILAND RANKS 9TH

IN GLOBAL EXTREME WEATHER IMPACT

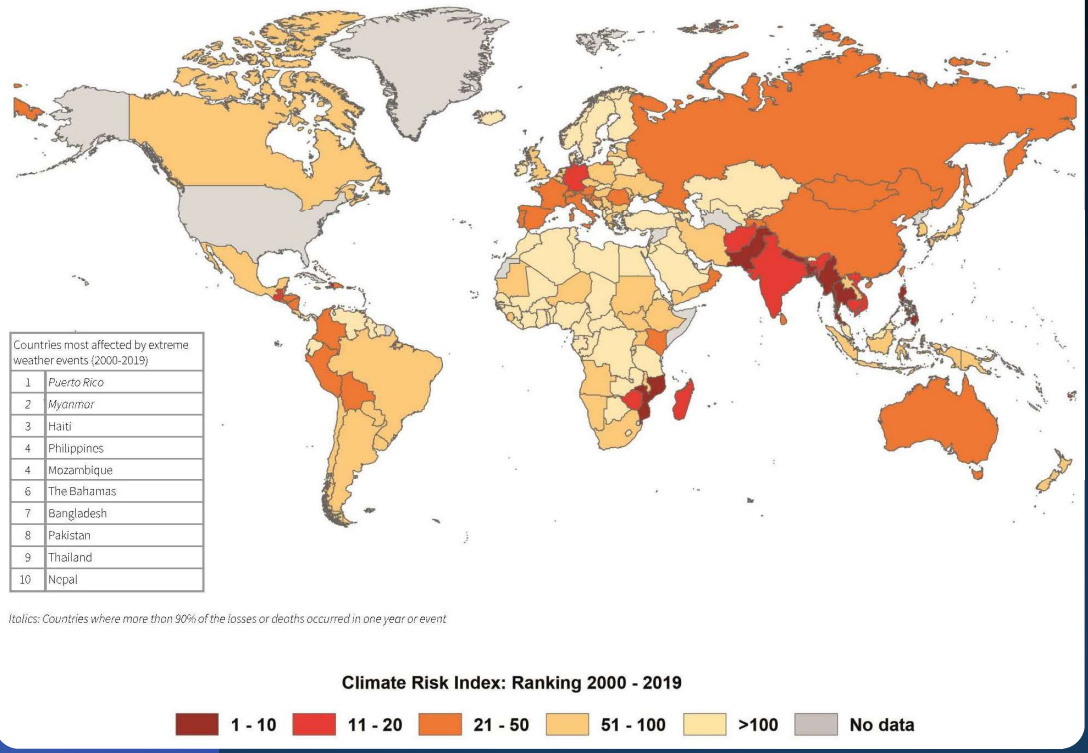
THAILAND'S COP26 COMMITMENT

2050 -> Carbon Neutrality

2065 -> Net Zero GHG Emissions

Figure 1: World Map of the Global Climate Risk Index 2000 – 2019

Source: Germanwatch and Munich Re NatCatSERVICE



INNOPOWER

DIGITAL TECHNOLOGIES CAN CUT GLOBAL EMISSIONS BY 20%

World Economic Forum and Accenture report that applying digital solutions in energy, materials, and mobility sectors could reduce greenhouse gas emissions by **up to 20% by 2050**

WORLD ECONOMIC FORUM

accenture

EGAT

STATE-OWNED ELECTRICITY
& UTILITY ENTERPRISE

EGCO GROUP

INDEPENDENT POWER PRODUCER
IN THAILAND

RATCH GROUP

INDEPENDENT POWER PRODUCER
IN THAILAND

+ +

INNOPOWER

INNOPOWER

Seek Innovation Opportunities



VENTURE CAPITAL

INNOPOWER

Seek Innovation Opportunities



VENTURE CAPITAL

Turn Ideas into Market-Ready & Scalable Businesses



VENTURE BUILDER

INNOPOWER

Seek Innovation Opportunities



VENTURE CAPITAL

Turn Ideas into Market-Ready & Scalable Businesses



VENTURE BUILDER

Deliver Solutions & Leverage Partner Ecosystem



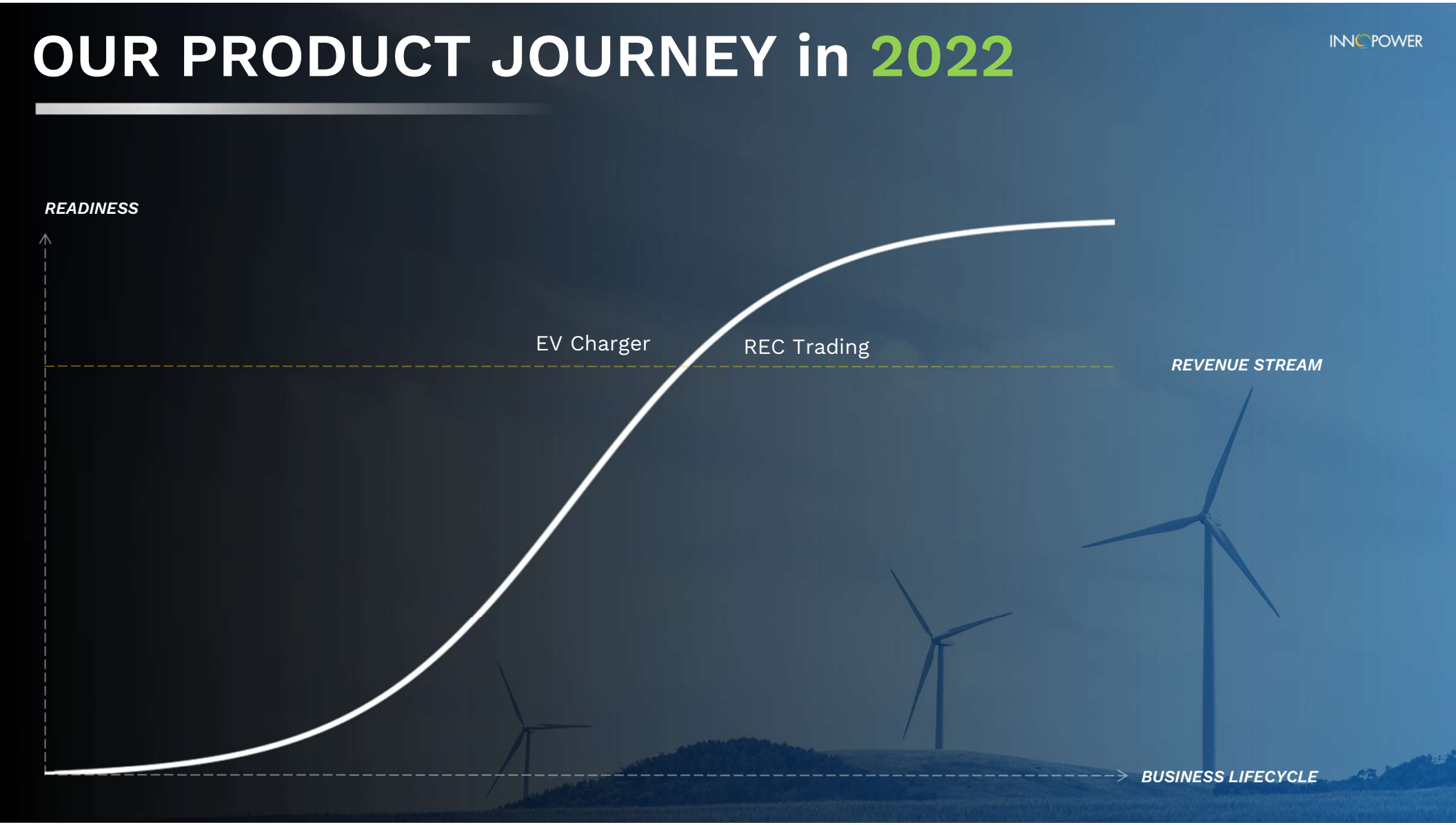
STRATEGIC PARTNERSHIP & FUTURE OF MOBILITY

INNOPOWER SOLUTIONS AND INVESTMENTS

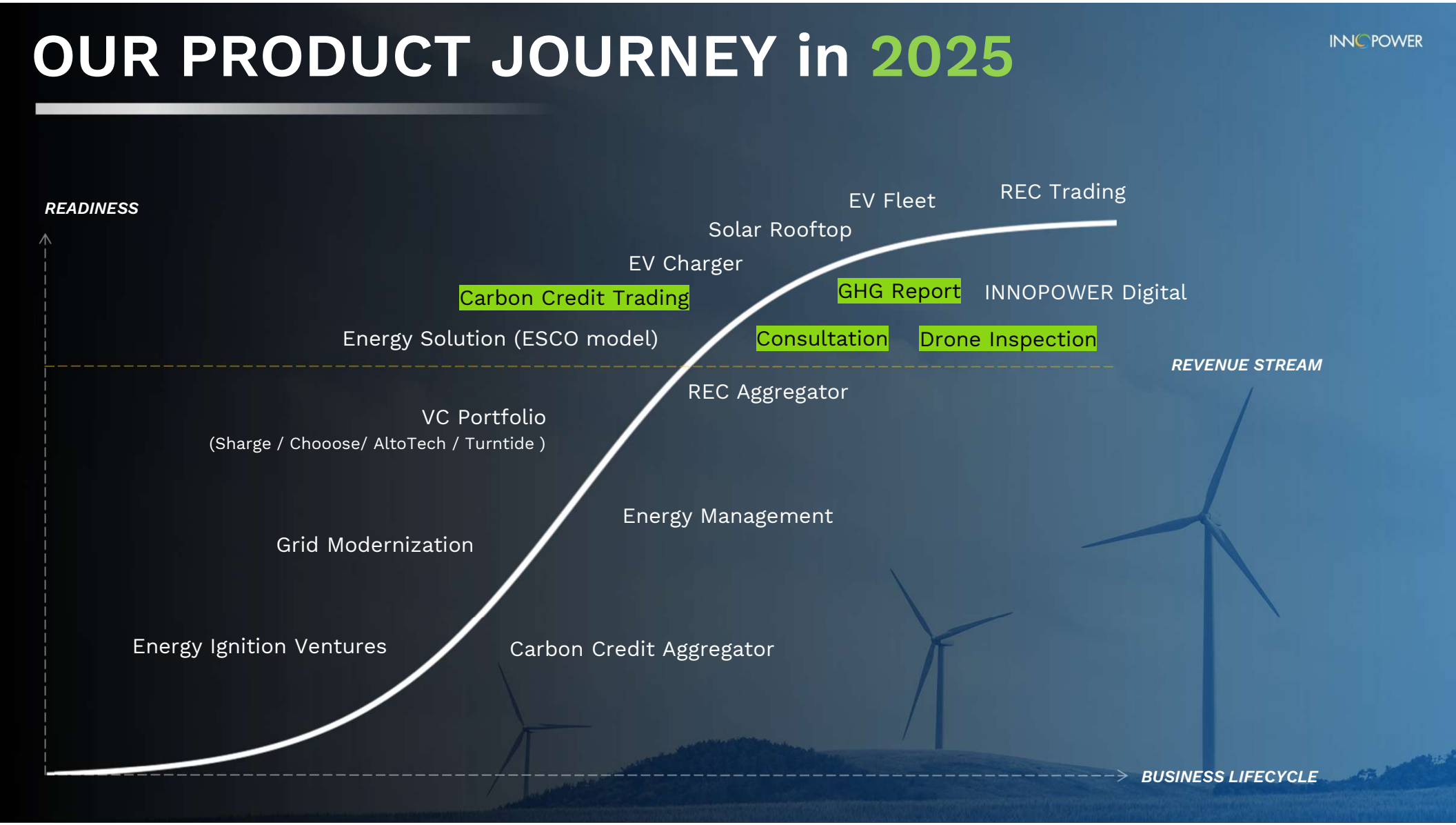
Energy Innovation Method / Key Topics	VENTURE CAPITAL		VENTURE BUILDER	STRATEGIC PARTNERSHIP	FUTURE OF MOBILITY
ENERGY	TURNTIDE AltoTech Global	Contrarian Ventures TRIREC	GRID MODERNIZATION (Drone Inspection, HTLS Conductor)	INTEGRATED ENERGY AS-A-SERVICE (SOLAR EPC/PPA)	EV CHARGING CREDIT
MOBILITY	SHARGE	CLEAN ENERGY VENTURES	EV STATION AS A SERVICE EV CHARGER wallbox exicom	INTEGRATED ENERGY AS-A-SERVICE (EV Solution)	MOBILITY AS A SERVICE 
ENVIRONMENT	CHOOOSE	energy ignition ventures	CARBON CREDIT from EV Charger	REC TRADING REC AGGREGATOR CONSULTATION GHG REPORT	EV CARBON CREDIT

ENABLER = INNOPOWER Digital

OUR PRODUCT JOURNEY in 2022



OUR PRODUCT JOURNEY in 2025



INNOPOWER

WE SERVES AS A DECARBONIZATION PARTNER



PATHWAY AS
DECARBONIZATION PARTNER

1

AWARE
ตรวจสุขภาพ

รายงานการปล่อย
ก๊าซเรือนกระจก
(GHG REPORTING)

NEW

บริการให้คำปรึกษา
(CONSULTANT)

2

REDUCE SYMPTOMS
ซ่อมแซม

ใบรับรองเครดิตการผลิตไฟฟ้า
จากพลังงานหมุนเวียน (REC)

NEW

คาร์บอนเครดิต

REC Aggregator

Carbon Credit Aggregator

3

FIX ROOT CAUSE
ปรับปรุง

ผลิตภัณฑ์ด้านพลังงาน
และยานพาหนะไฟฟ้า
(ENERGY & MOBILITY SOLUTIONS)

4

PROACTIVE
วางแผนการดูแล

การลงทุนเชิงกลยุทธ์
Strategic Investment Through Venture Capital

INNOPOWER

PATHWAY AS DECARBONIZATION PARTNER

1 AWARE
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1

AWARE
ตรวจสุขภาพ

KNOW YOUR BASELINE WITH
GHG REPORTING PLATFORM

GHG PLATFORM BENEFIT

- **Seamlessly sync** with daily working operation.
- **Data linkage** to enterprise software for auto-input.
- No limitation for data size.
- **Realtime value** for immediately tackle the emission problem.
- **Save consultant fee** due to well-organized emission data.
- Align GHG reporting system with supply chain and customer.

GHG TEAM

SCOPE 1 - 2

SAP iO

OPERATION / MAINTENANCE

ENVIRONMENT

LOGISTIC

FINANCE / ACCOUNT

SCOPE 3

- Purchased good & services
- Capital goods
- Fuel & energy related
- Transportation & Distribution
- Waste from operations
- Business travel
- Employee commute
- Leased assets
- Investments
- Franchises
- End-of-life treatment of sold products
- Use of sold products
- Processing of sold products



CUSTOMERS

100 SME +

ACTIVE CLIENTS IN THAILAND

A LARGE NUMBER OF CLIENTS IN JAPAN

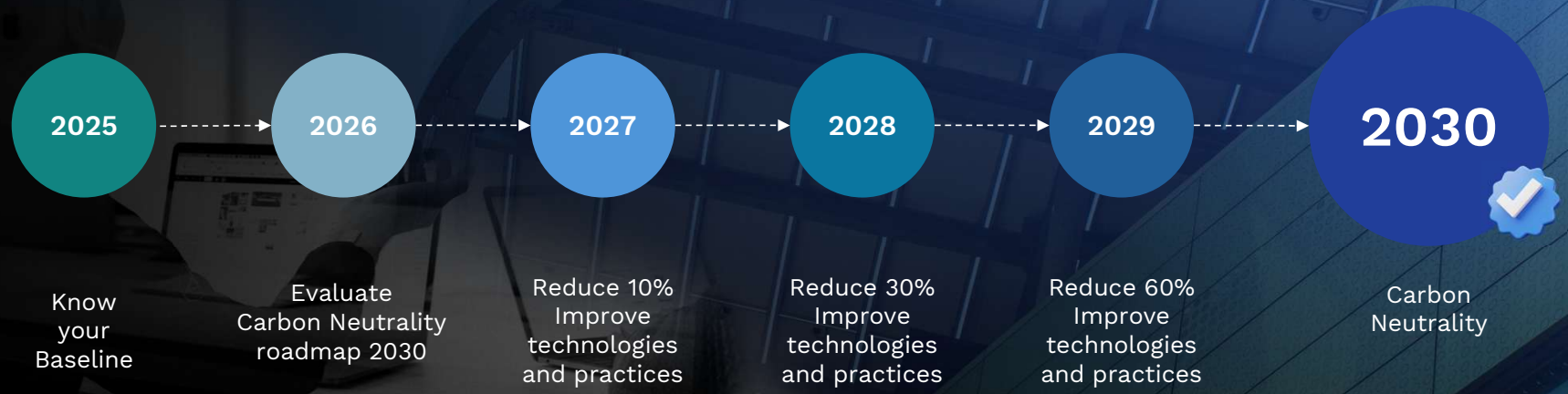
AWARE
ตรวจสุขภาพ

DECARBONIZATION CONSULTATION

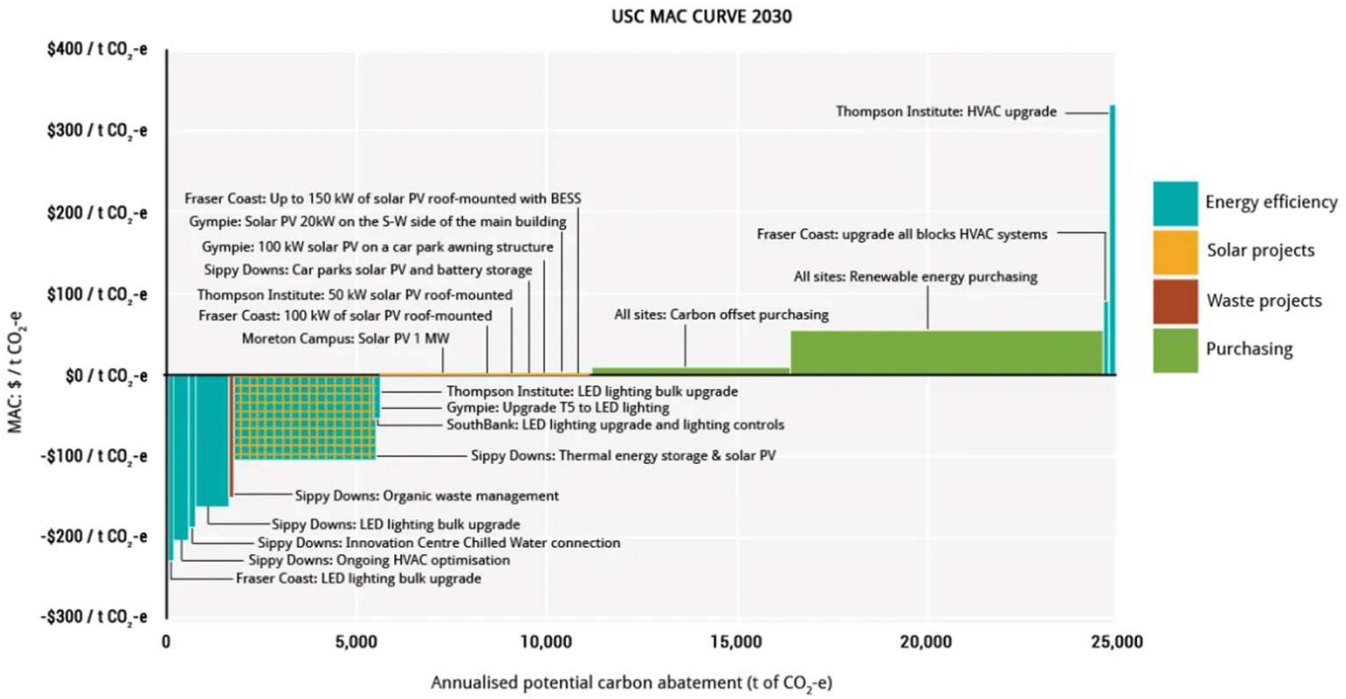
Identify decarbonization pathways – including strategic objectives and key milestones and initiatives

The business sector plays a pivotal role in advancing sustainability efforts. Your organization moves towards a Net Zero target but may feels uncertain about where to begin.

CARBON NEUTRALITY ROADMAP



DECARBONIZATION CONSULTATION



- **MAC analysis** quantifies the cost of reducing one unit of emissions for each technology, providing valuable insights for decision-making
- It helps decision-makers prioritize technologies based on their cost-effectiveness, allowing for efficient allocation of resources.

PATHWAY AS DECARBONIZATION PARTNER

1

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ผลิตภัณฑ์ด้านพลังงาน
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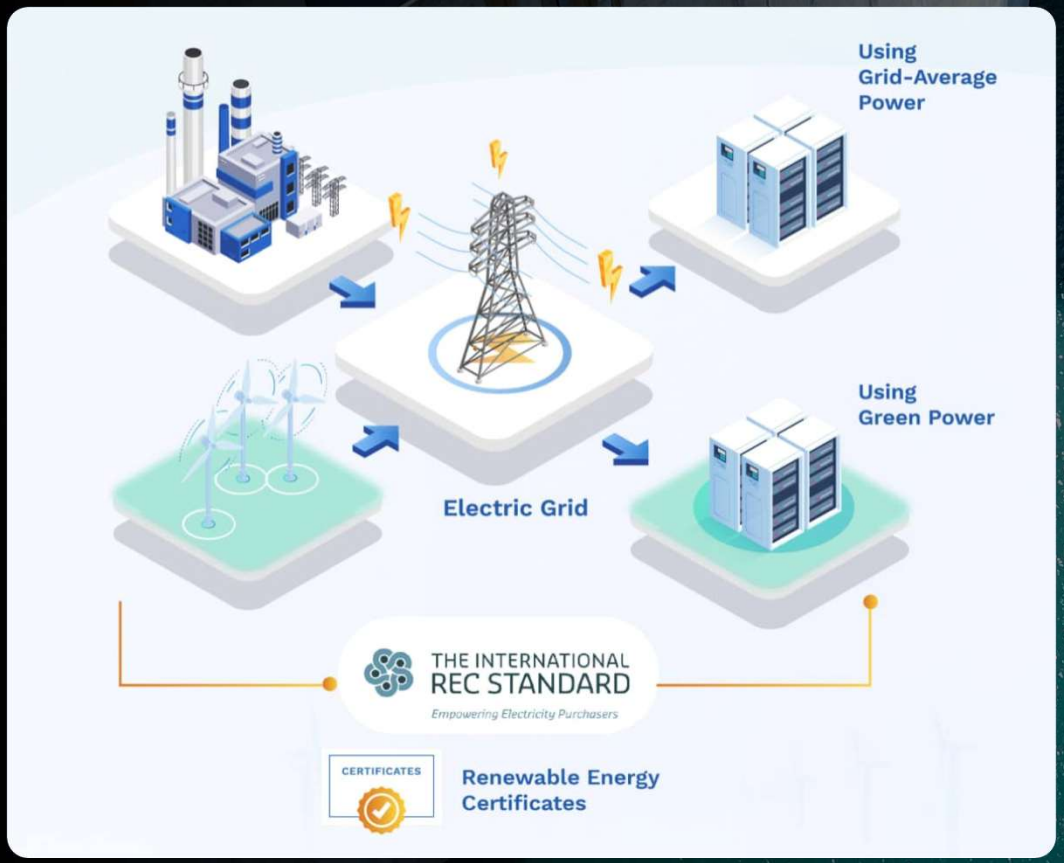
Strategic Investment Through Venture Capital

RENEWABLE ENERGY CERTIFICATE (REC)



RECs AS AN OFFSETTING SOLUTION

A rec (renewable energy certificate) is a type of energy attribute certificate (eac) that represents the environmental attributes of the generation of a one-megawatt hour (mwh) of energy produced by renewable sources.

BENEFIT OF REC

Reduce the impact of energy use, or Scope 2

Meet company sustainability goals and international reporting standard such as RE100, CDP, SBTi, LEED

RE 100 · CDP · SCIENCE BASED TARGETS · LEED

OUR REC SOURCES

HYDRO ENERGY · SOLAR ENERGY · WIND ENERGY · BIOMASS ENERGY



WE BECOMES
THE LARGEST REC PROVIDER
IN THAILAND

SIAM NISTRANS CO., LTD.
NISSIN CORPORATION

SEAGATE

Nestlé

Western Digital

>5M
RECs SOLD

>2.5M
TON CO2 REDUCTION

100+
ACTIVE CLIENTS

CARBON CREDITS TRADING SERVICES : A SHORTCUT TO NET ZERO

supporting corporate clients in achieving their Carbon Neutrality goals : By leveraging verified carbon credit : the project delivers measurable, verifiable emissions reductions through activities across different types of projects such as alternative energy, energy efficiency, and forest-based carbon sequestration.

T-VER

Gold Standard®

VERRA Standards for a Sustainable Future



EMPOWERING INDIVIDUALS TO REDUCE CARBON THROUGH REC AGGREGATOR



COLLABORATE WITH KBank AND EGAT

TARGET :

SMES

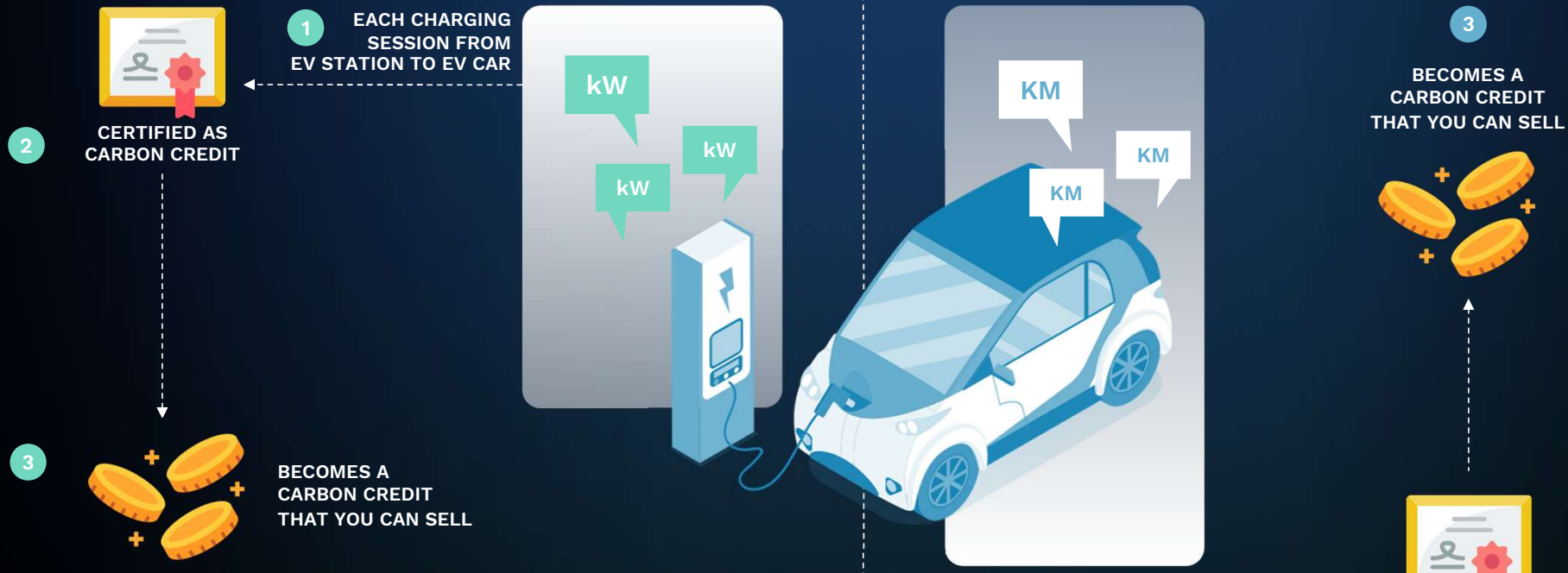


TARGET :

HOME SOLAR



CARBON CREDIT AGGREGATOR



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Strategic Investment Through Venture Capital

FUTURE OF ENERGY BUSINESS

SOLAR ROOFTOP





ACHIEVEMENT

1.4 MW
SOLAR ROOFTOP EPC,
Including BESS, Smart Street
Light and EV solution

1 MW
SOLAR ROOFTOP EPC
For GSB 100 Location
Nationwide (Phase 1)

ENERGY MANAGEMENT

ENZY
Easy way to save energy

AltoTech



FEATURE

ENERGY OVERVIEW
Display real-time and historical energy usage

ENERGY EFFICIENCY
Automatically control to achieve efficiency target

AI OPTIMIZED & ANALYTICS
Provide Suggestion for more energy savings by AI

REPORT
Alert and auto-reporting

NEW ENERGY TECHNOLOGY

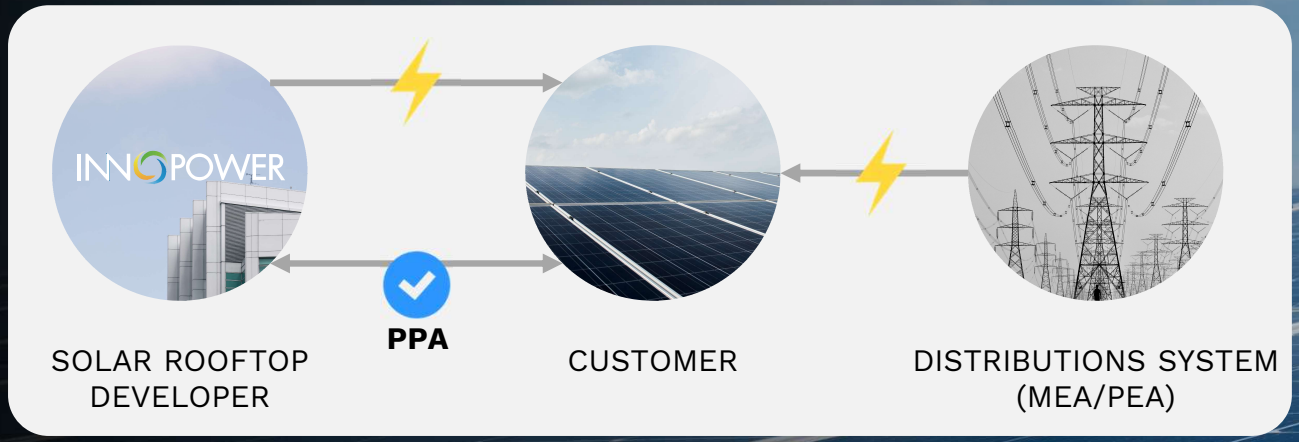
TURNTIDE



CUSTOMER

SOLAR ROOFTOP PPA

POWER PURCHASE AGREEMENT (PPA)



- NO INVESTMENT COST AND START SAVING SINCE COD.
- SEAMLESS OPERATION WITH EXISTING POWER SOURCE.
- O&M BY PROFESSIONAL TEAM THROUGHOUT THE SUPPLY TERM.

SOLAR ROOFTOP EPC

3

FIX ROOT CAUSE
ปรับปรุง

ENGINEERING PROCUREMENT AND CONSTRUCTION (EPC)

WORKING SCOPE

1 DESIGN
We provide customized solar designs to meet the specific needs of your property.

2 PERMITTING
We take care of all the necessary Permitting and paperwork for the Installation process.

3 INSTALLATION
Our experienced construction teams ensure that solar panel Installation is completed safely And on time.

4 COMMISIONING
We commission the solar energy system to ensure maximum performance and energy savings.

- Invest by customer to gain higher cost saving comparing to Private PPA
- No need to have liability under long term contract
- First 2 years free-O&M

EQUIPMENT SELECTION

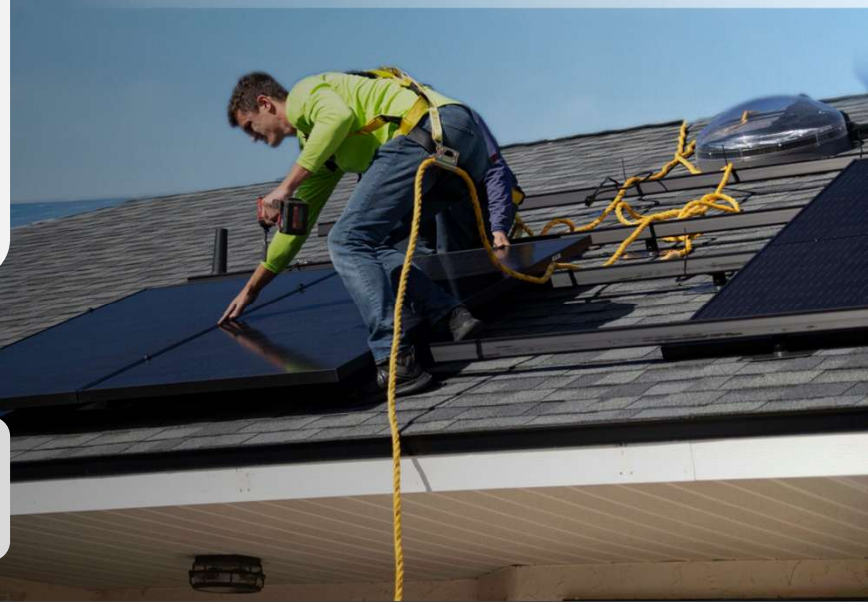
JinKO Solar, JA SOLAR, LONGi — Only Tier 1 PV Panel

HUAWEI, haymiles, solaredge — High-end Inverter

ACHIEVEMENT

1.4 MW
SOLAR ROOFTOP EPC, Including BESS, Smart Street Light and EV solution

1 MW
SOLAR ROOFTOP EPC For GSB 100 Location Nationwide (Phase 1)

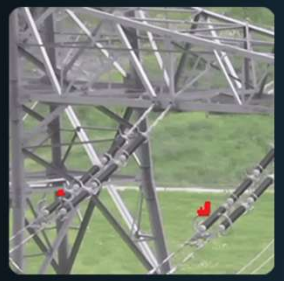


INNOGRID SOLUTIONS :

TRANSMISSION SYSTEM INSPECTION



3D MODELLING



CORONA INSPECTION



AI CLASSIFICATION



THERMAL SCAN



AUTONOMOUS FLIGHT

DELIVERY SOLUTION

1. Transmission Line Right of way Inspection
2. Visual Inspection for Critical Equipment to focus : Insulator, Spacer Damper, Conductor, Warning Sphere
3. Detailed Standardize and summary report
4. Standardize fault classifications method with recommendations action based on severity of the defects found

MORE UAV SOLUTIONS

- Drone Security and CCTV with AI Detection
- Drone Hub and Control Command Center
- Wind turbine Inspection
- Transmission line Preconstruction Survey
- Floating Solar & Solar Farm Inspection
- Fire fighting Solution
- Hydro Inspection by Underwater drone
- Survey Drone

INNOGRID SOLUTIONS :

UAV SERVICE FOR POWER PLANT INSPECTION AND CONFINED SPACE





- LIDAR SCAN
- THERMAL CAMERA
- DISTANCE SENSOR
- 4K CAMERA
- UT PAYLOAD PROBE
- CLEANING MODULE PROBE

DELIVERY VALUE FROM UAV INSPECTION

SAFETY

UAV Inspection eliminates or reduces the need for human entry into hazardous or inaccessible areas.

EFFICIENCY

UAV can quickly and efficiently cover large areas, reducing inspection time.

COST-EFFECTIVENESS

UAV are often more affordable compared to traditional methods.

ACCESSIBILITY

UAV can access difficult-to-reach locations, such as tall structures or small area that human cannot access.

DETAILED DATA COLLECTION

UAV can survey high-resolution images, video, 3D point cloud, 3D Model and Report providing accurate and comprehensive visual data.



DELIVERY SOLUTION

1. Visual Inspection
2. UT Inspection
3. Video and 3D Point Cloud every POI point failure
4. Detailed standardize and summary report
5. 3D Model of digital twin area from 3D Point Cloud
6. Benchmark health check data before and after Inspection
7. Maintenance Report and ISO Standard

FUTURE OF MOBILITY BUSINESS

EV FLEET OPERATOR


EV BUS FLEET


EV CAR FLEET

ACHIEVEMENT


EV BUS FLEET – EGAT MAE MOH

EV CHARGING BUSINESS


EV CHARGER AC & DC



CORPORATE EV CHARGING FACILITY

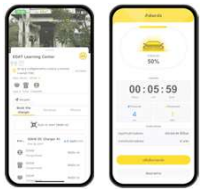

PUBLIC EV CHARGING STATION

EV BUSINESS OPERATION SERVICE



BackEN EV

EV CHARGING
NETWORK OPERATOR



elexa

APPLICATION
FOR EV USERS

NEXT STEP



CARBON CREDIT
FROM
EV CHARGING SESSION

DESIGNING & CREATING EV BUS FLEET SYSTEMS

WE OFFER LARGE EV BUSES TO COMPLEMENT YOUR ORGANIZATION'S TRANSPORTATION SYSTEM.

OUR EXPERTISE IN INTEGRATING EV FLEETS EXTENDS FROM OUR EXPERIENCE WORKING WITH THE ELECTRICITY GENERATING AUTHORITY OF THAILAND.



EGAT MAE MOH POWERPLANT



EGAT HEADQUATER

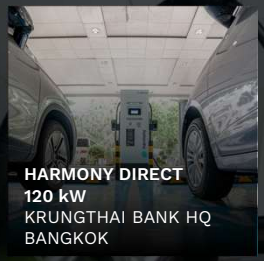
OUR EV CHARGING SOLUTIONS

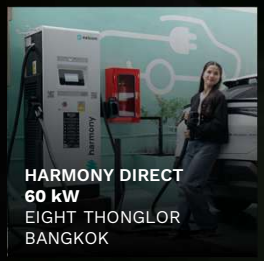
1. EV CHARGER THAILAND'S AUTHORIZED DISTRIBUTOR
2. EV STATION DESIGN & INSTALLATION
3. EV CHARGER LOCALIZATION, COMPLIANCE SERVICES

exicom

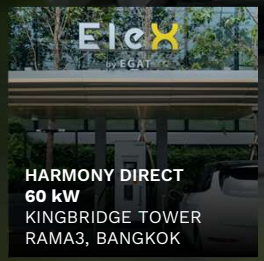

HARMONY DIRECT
240 kW
INNOPOWER MOBILITY STATION, BANGKOK


HARMONY DIRECT
120 kW
EGAT LEARNING CENTER BANGKOK


HARMONY DIRECT
120 kW
KRUNGTHAI BANK HQ BANGKOK

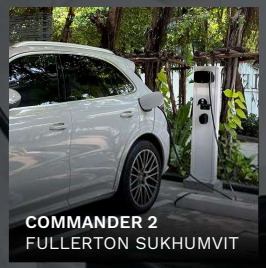

HARMONY DIRECT
60 kW
EIGHT THONGLOR BANGKOK


HARMONY DIRECT
120 kW
UNITY CONCORD INTERNATIONAL SCHOOL, CHIANGMAI



HARMONY DIRECT
60 kW
KINGBRIDGE TOWER RAMA3, BANGKOK

wallbox


COMMANDER 2
FULLERTON SUKHUMVIT


PULSAR PRO
CHIANG RAI



PULSAR PRO
GOVERNMENT SAVING BANK


COMMANDER 2
CK POWER, BANGKOK



COMMANDER 2
IMPACT NONTHABURI


COMMANDER 2
BANGKOK GLASS COMPANY

PATHWAY AS DECARBONIZATION PARTNER

INNOPOWER

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AWARE

ตรวจสุขภาพ

รายงานการปล่อย
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INVESTMENT THESIS

TYPE OF INVESTMENT

01 DIRECT INVESTMENT

- Stage : Series A+
- Mostly Follow-on, but Co-Lead on opportunistic basis
- Ticket Size between USD 1-3 mn.
- Expected Shareholding:
  - 5-10%+ for Series A
  - Less than 5% for Series B+
- Board Observer

02 FUND OF VENTURE CAPITAL FUND

- Stage: Seed to Series A
- Ticket Size between USD 3-5 mn.
- Industry: Solely Energy Tech and Clean Tech
- Strong Track record in previous funds

GEOGRAPHIC FOCUS



North America
Asia
Europe
Israel

Innopower focuses on where the **solutions** and the **problems** meet.

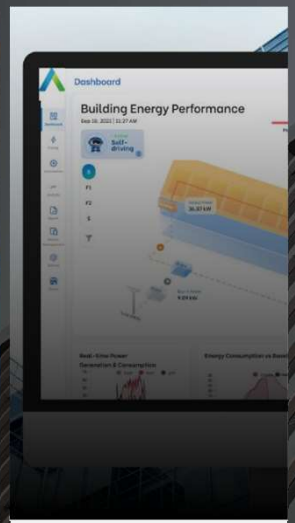
OTHER CRITERIA

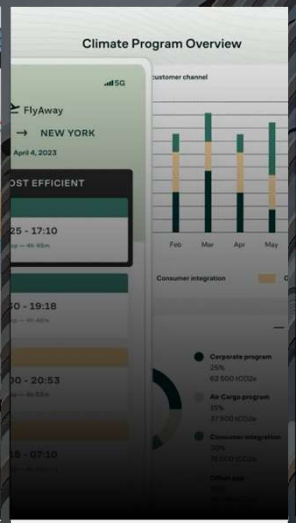
- Market Opportunity
- Ticket Size
- Diversification Policy
- Founders/ Fund Managers engagement
- Investment Period
- Co-investment right

KEY PORTFOLIO COMPANIES & INVESTMENT















DIRECT INVESTMENT

FUND OF VENTURE CAPITAL FUND

SUCCESS CASE

SOLUTIONS TOWARD WESTERN DIGITAL'S NET ZERO GOAL IN 2032



REC



EV BUS



SOLAR PANELS



INNOPOWER

SUCCESS CASE

UNIVERSITY'S SMART CAMPUS



STREETLIGHTS



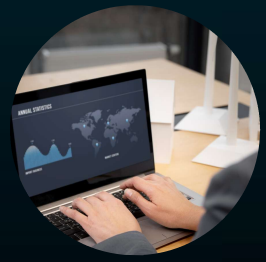
EV & CHARGER



ROOFTOP SOLAR PANELS



BATTERY ENERGY STORAGE SYSTEM



ENERGY MANAGEMENT SYSTEM



ENERGY REDUCTION

>2M

kWh / ANNUAL

CARBON REDUCTION OF

>15K

TON CO_2e / Project

*Estimates Values. Actual figures may vary due to building infrastructure, system efficiency, and other factors.

SUCCESS CASE

EV BUS FLEET AT MAE MOH POWER PLANT, LAMPANG

Fuel Cost Savings

Up to 750,000 THB Annually

2-Year Carbon Reduction

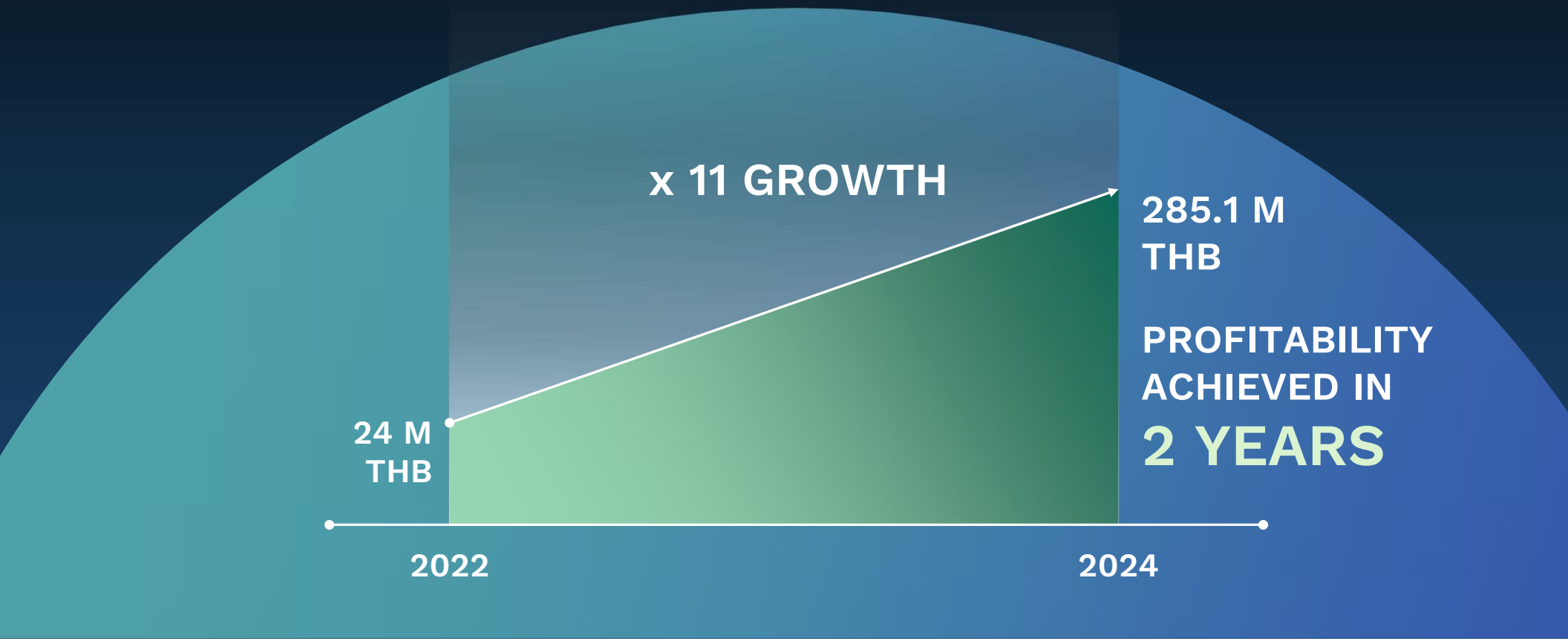
~1,406,804 kg CO_2e





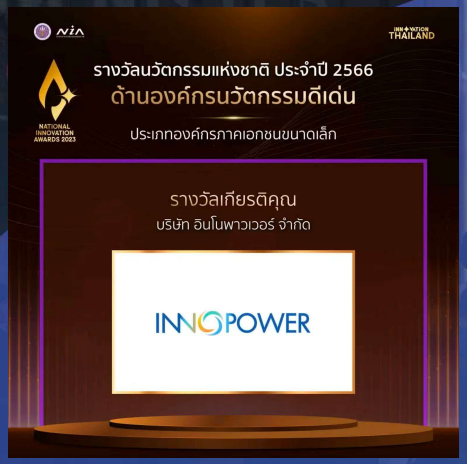
INNOPOWER

FINANCIAL PROGRESS FROM LAUNCH TO GROWTH



INNOPOWER

2023 RECOGNITION



สำนักงานนวัตกรรมแห่งชาติ

MERIT PRIZE

OUTSTANDING INNOVATION ORGANIZATION

2025 RECOGNITION



สำนักงานนวัตกรรมแห่งชาติ

NATIONAL INNOVATION AGENCY

PRIME MINISTER AWARD INNOVATION FOR SUSTAINABILITY

ENABLING CO_2 REDUCTION AS DECARBONIZATION PARTNER, 2022 -2024

2.46 M

Ton CO_2e

EQUAL TO



~112 MILLION TREES PLANTED



REMOVING ~534,000 CARS FROM THE ROAD


Post
Duncan Porter
@misterduncan
Follow
Fifteen years minus one day between these photos. Taken at the Rhone glacier in Switzerland today.
Not gonna lie, it made me cry.
01:42 · 5/8/2567 BE From Earth · 4.7M Views
10K Reposts 915 Quotes
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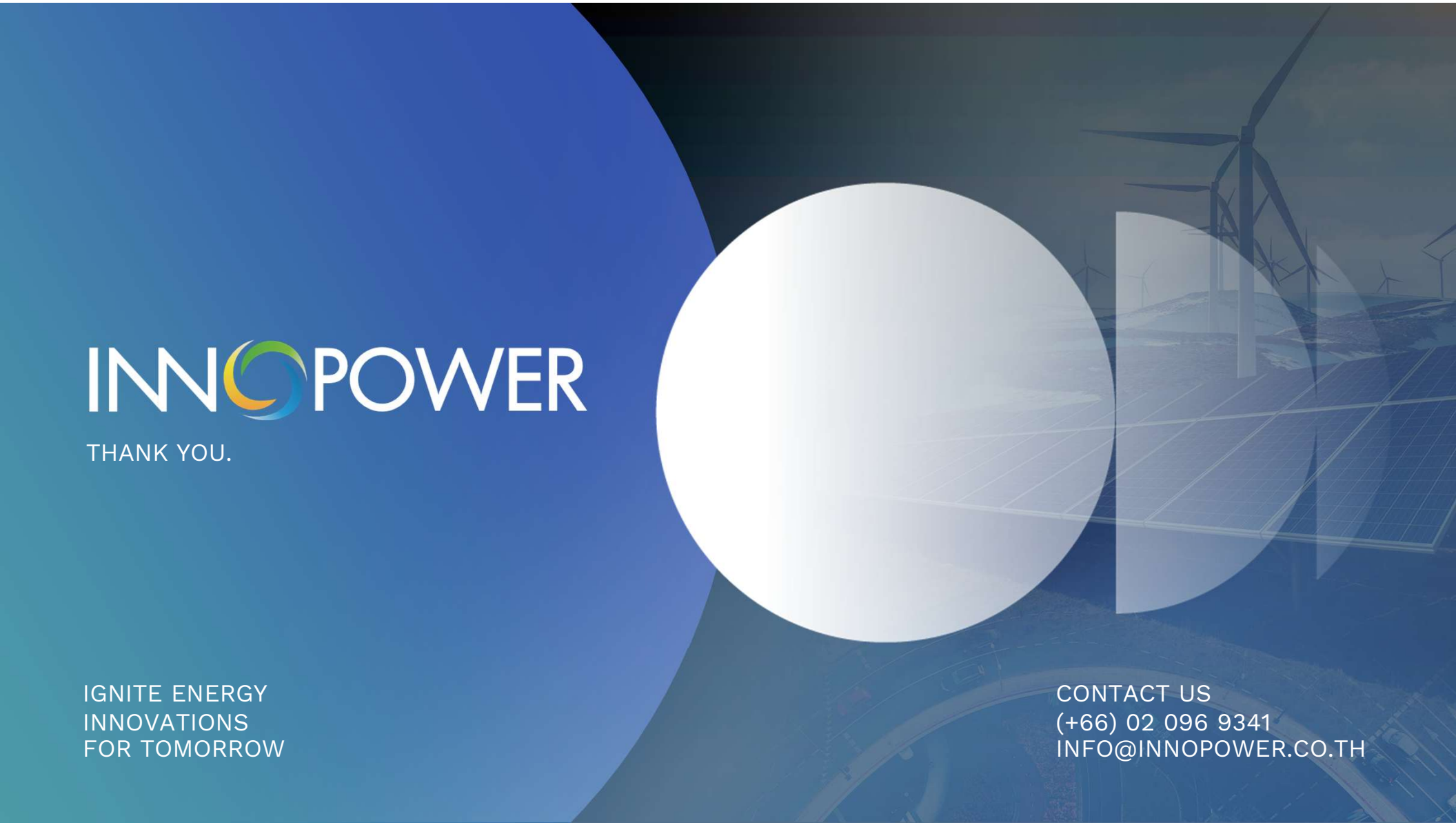
INNOPOWER
2009 VS 2024

INNOPOWER

THANK YOU.

IGNITE ENERGY
INNOVATIONS
FOR TOMORROW



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