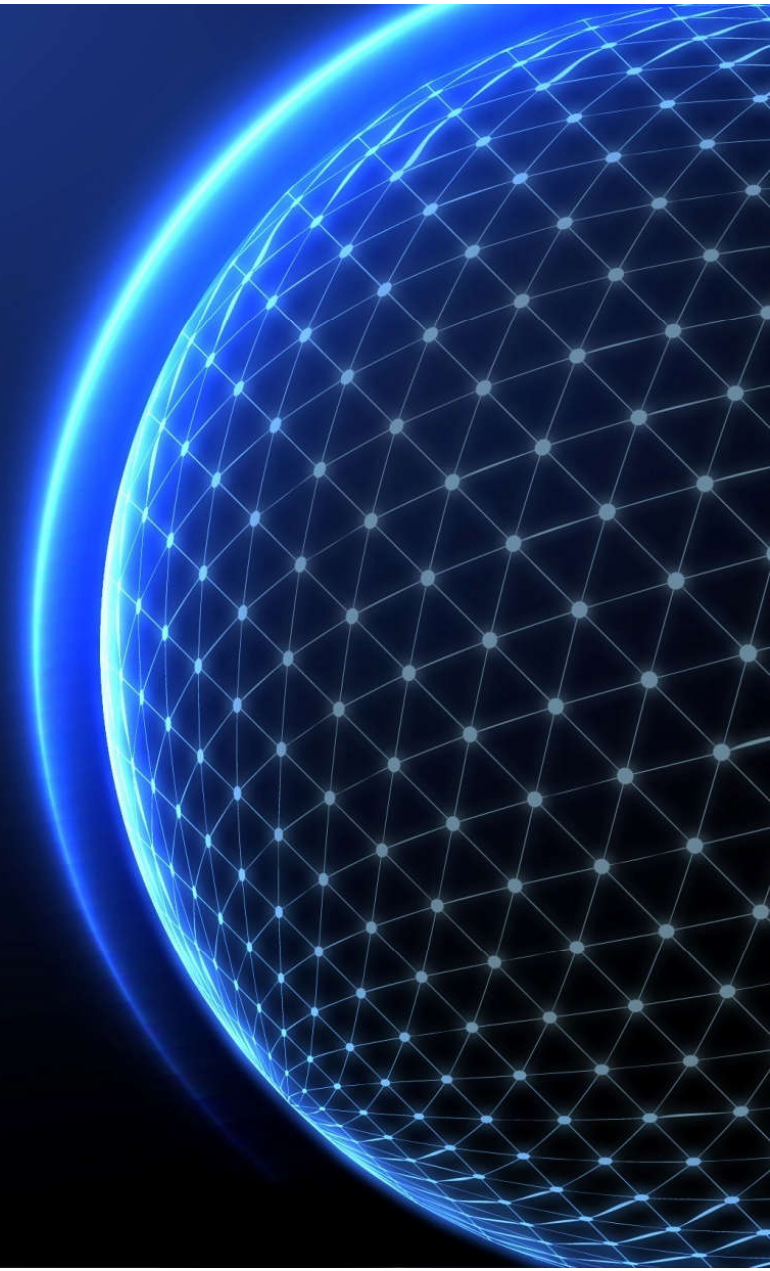


PANUS[®]

DISCOVER THE NEW ERA

Mr. Panus Watanachai
CEO, Panus Assembly Co., Ltd



ENVIRONMENTAL CONSCIOUSNESS AWAKENS

Countries that adopt ICE sales ban proposals



2030 (30%)

2018

Europe already has 130+ low emission zones and 70+ access regulation zones.



2020

China targets 2 million EVs (~8% market share) by 2020.



2025

Rome, Madrid, Mexico City, and Athens restrict diesel access.

The European Union sharpens its EV target to 20% of total sales by 2025.

Norway bans sales of gasoline and diesel cars.



2030

12 large cities¹, representing more than 32 million people, commit to no ICE vehicles in their streets via the Fossil-Fuel-Free Street Declaration

Germany, Ireland, Slovenia, the Netherlands, Israel, and Denmark plan to implement or consider 100% EV sales targets by 2030, while **India** is considering a 30% target.



2040

The UK, France, and Italy plan to target 100% EV sales, while **Sri Lanka** is aiming for a 100% EV fleet by 2040.



13 MILESTONE

Under the economic development plan and the national society (vol.13) 2023-2027

The third milestone: Thailand is an important production base for electric vehicles in the world.

GOAL

1

Create demand for electric vehicles, the proportion of using electric vehicles will increase to **26% by 2027**

2

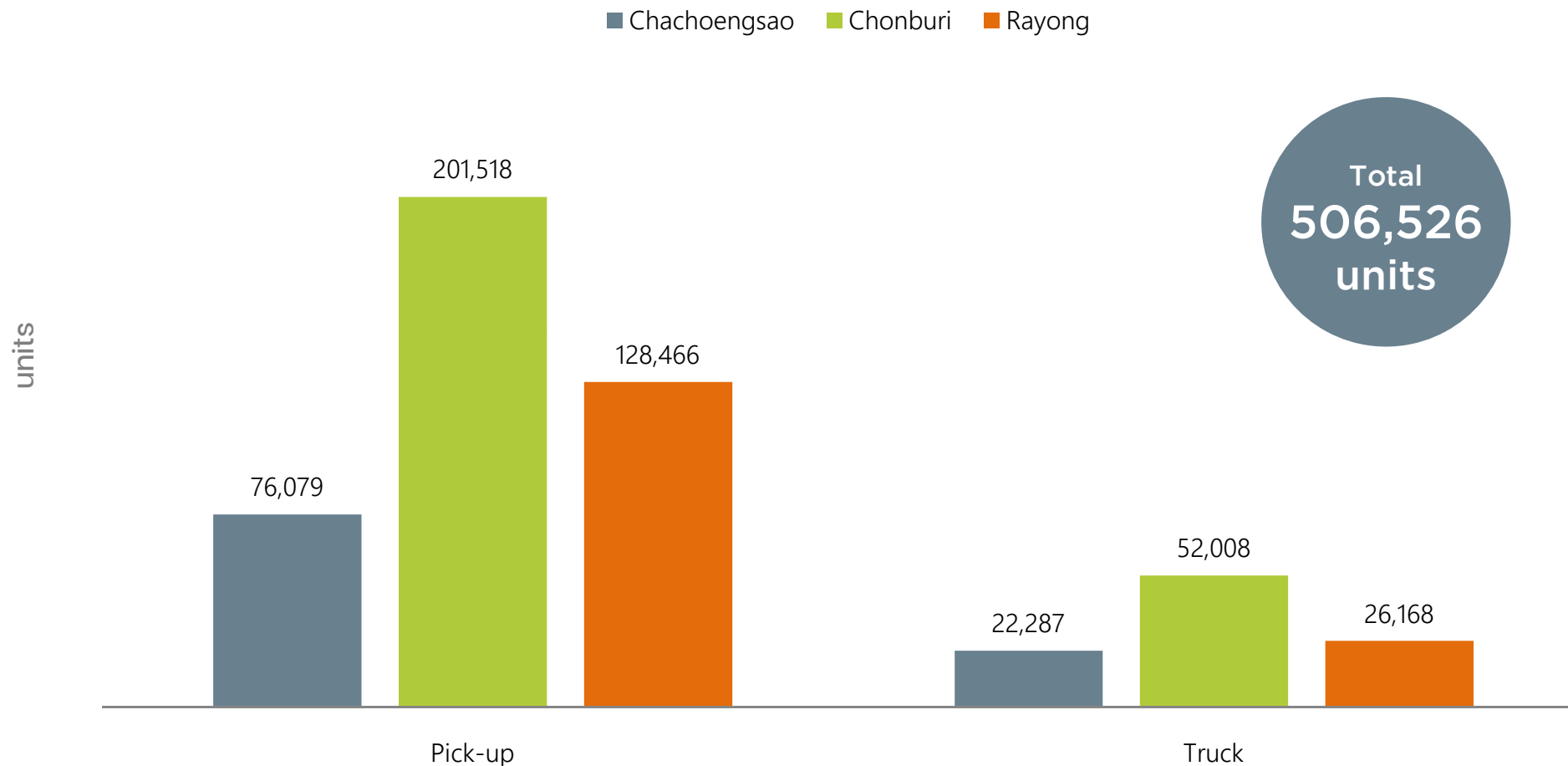
Support investment and adaptation of former entrepreneurs, Thailand is the **No. 1 production base in ASEAN**

3

create the availability of A systematic contributing factor to the charging station, an increase of **5,000 discharge heads. not less than 30,000 electric vehicle workers**

MARKET DEMAND IN EEC

Statistics of the number of Pick-up and Truck classified by vehicle age in EEC



Source: Number of Vehicle Registered in Thailand as of 31 December 2020

50

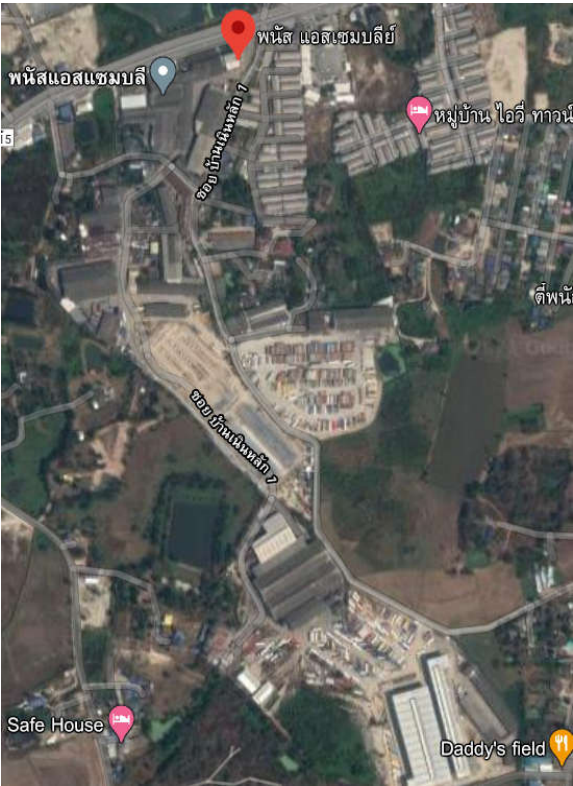
YEARS

LEADERSHIP

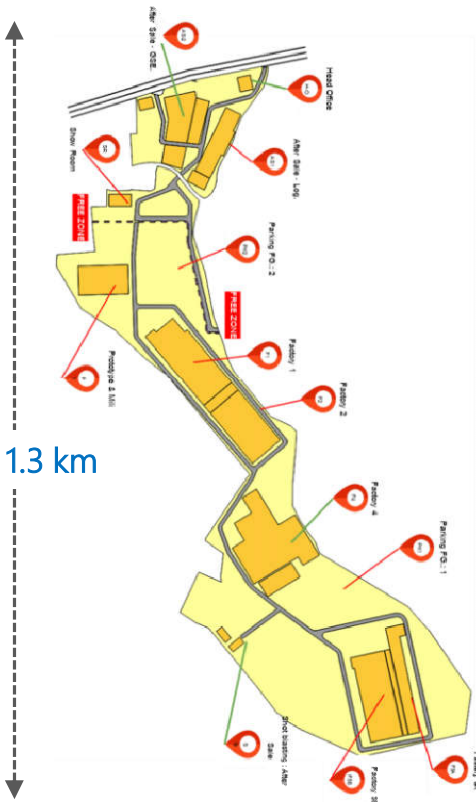
IN TRANSPORTATIONS

COMPANY INTRODUCTION

9 M.USD Capital with 310 M.THB



Satellite Photo



Area map and factory location



Head Office



New Factory



Factory for trailer assembly



The largest automatic painting factory in ASEAN

OUR BUSINESS



LOGISTICS

AVIATION

INTERNATIONAL

INNOVATION

LOGISTICS BUSINESS

EXISTING TRAILERS AND TRANSPORTATION BUSINESS

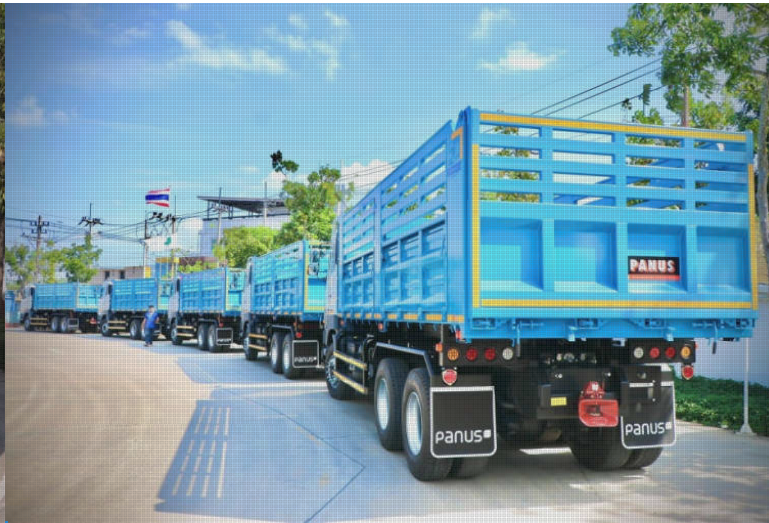
panus[®]



LOGISTICS BUSINESS

WE DELIVERED ON TIME

panus



AVIATION

GROUND SUPPORT EQUIPMENT

panus[®]



AVIATION

WE DELIVERED ON TIME

panus[®]



AVIATION

WE DELIVERED ON TIME

panus



INTERNATIONAL

EXISTING TRAILERS TO NEW MARKET

panus[®]



DEFENSE INNOVATION

Thailand-made all-designed Amore Vehicles

panus[®]



DEFENSE INNOVATION

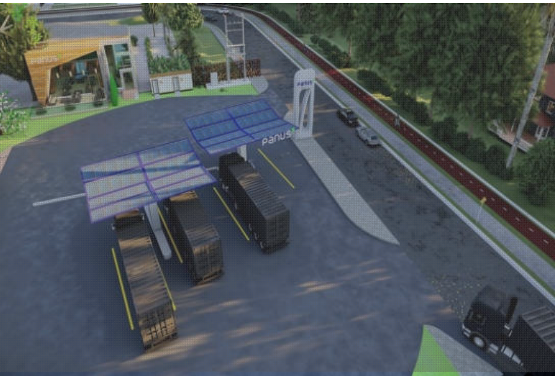
Thailand-made all-designed Amore Vehicles

panus



INNOVATION

Business Diversification



EVSE BUSINESS



CAV BUSINESS



RAIL BUSINESS



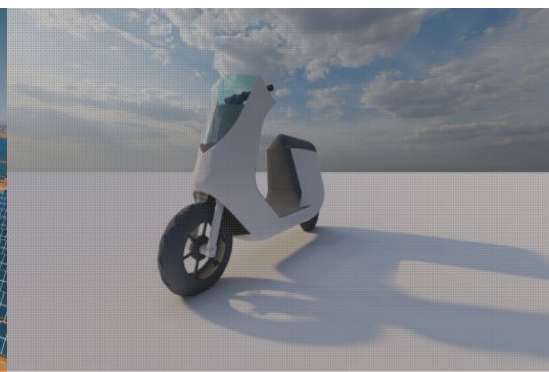
ELECTRIC TRUCK



BESS BUSINESS



ENERGY BUSINESS



E-SCOOTER BUSINESS



SMART FARM BUSINESS

eMOBILITY PLATFORM BUSINESS

MILESTONE OF PANUS EV



World 1st
Largest **Electric Pushback Tractor**
(F1-350)



"Electric Truck"



"Electric Scooter with Battery swapping"



EV Conversion Kit
By PanusDrive®

2017

2019

2020

2021
Q1

2021
Q2

2021
Q3

Electric Pushback Tractor
(F1-280)



"Autonomous feeders"



MoU with EGAT and NSTDA
For **BESS** (Battery Energy Storage System)



MoU with PEA for
Electricity Management and Charging platform

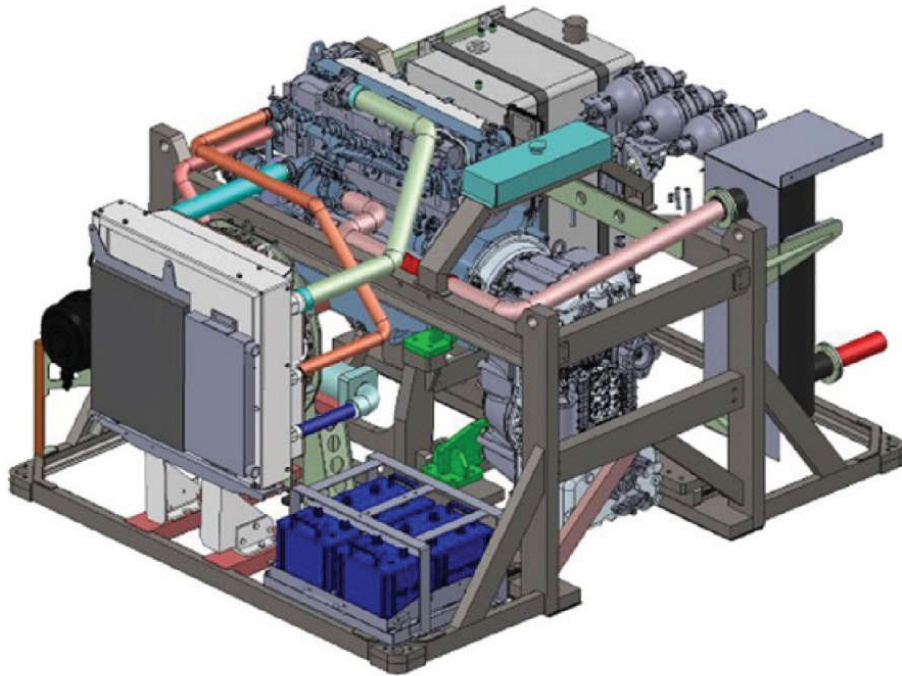


EV Conversion Platform

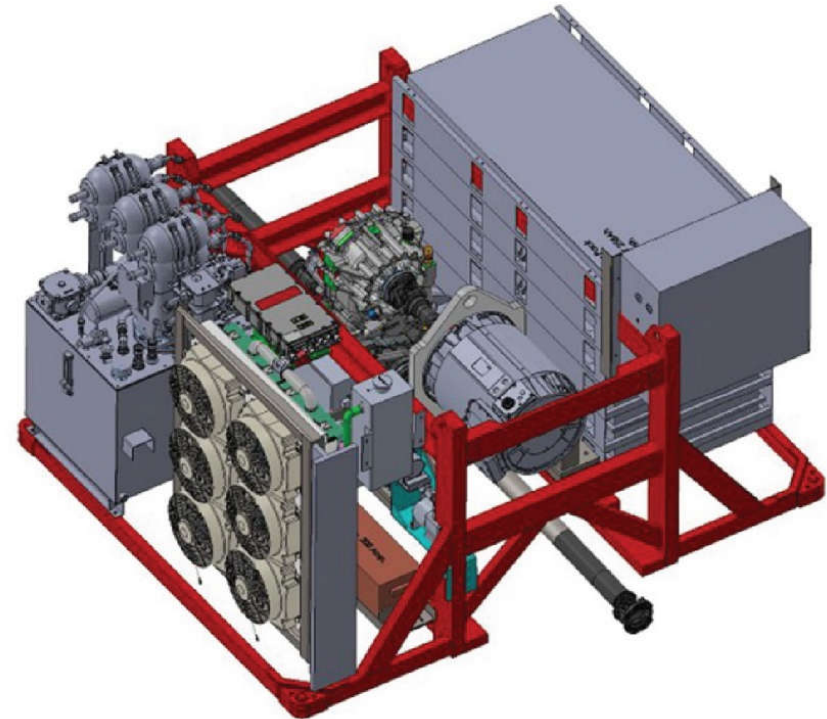


Our LATEST MODULAR INNOVATION

Adaptability Power Unit. Electric Pushback Tractor : Modulator Replacement from ICE to EV



Internal Combustion Engine



Electrical System

ELECTRIC PUSHBACK TRACTOR

F1-340E

panus[®]



Electric Motor

PMSM 350 kW

Drivetrain

4-Wheel Drive
4-Wheel Steering

Battery

Lithium-ion 161 kWh
2000 Cycles
Natural Air Cooled

Charging

GB/T Standard & CCS2 optional
DC Charging 60 kW@80A Input
20-100% SOC@60 kW: 160 min.

ELECTRIC PUSHBACK TRACTOR

F1-280E

panus[®]



Electric Motor

PMSM 200 kW

Drivetrain

4-Wheel Drive
4-Wheel Steering

Battery

Lithium-ion 161 kWh
2000 Cycles
Natural Air Cooled

Charging

GB/T Standard & CCS2 optional
DC Charging 60 kW@80A Input
20-100% SOC@60 kW: 150 min.



EV Conersion-PA 2021

00:00:31



10



30

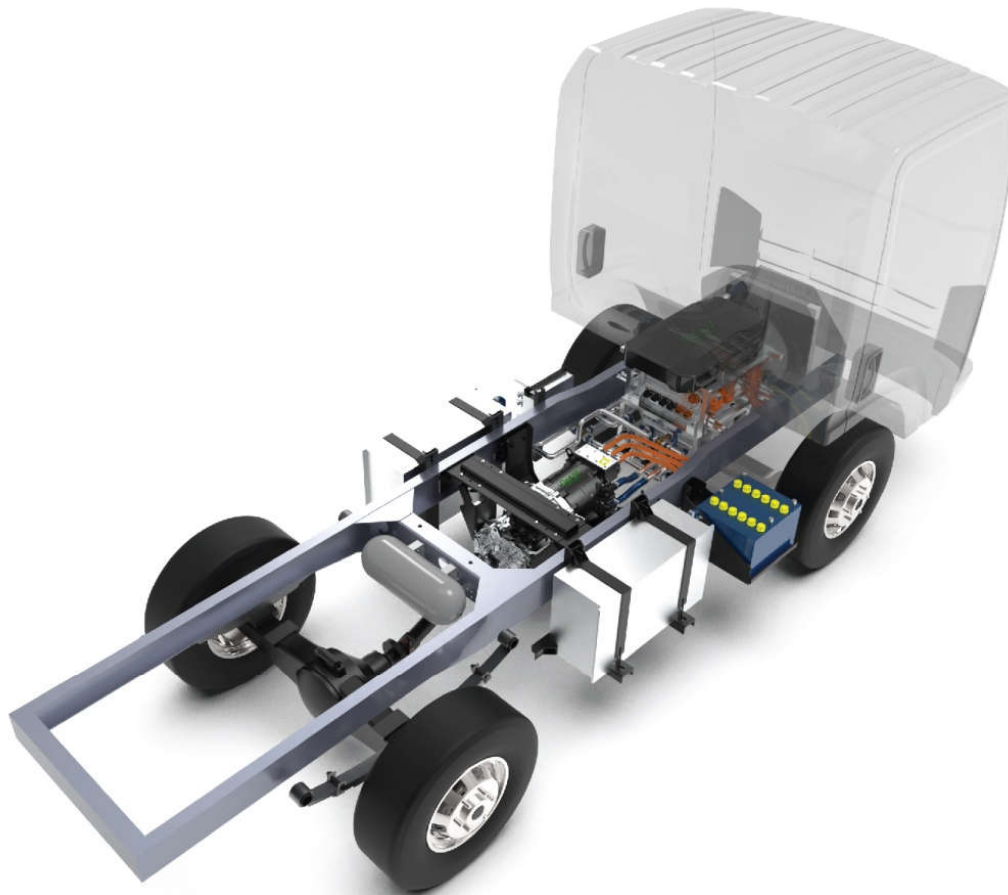
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EV CONVERSION AND SERVICES

Modular Platform

panus[®]



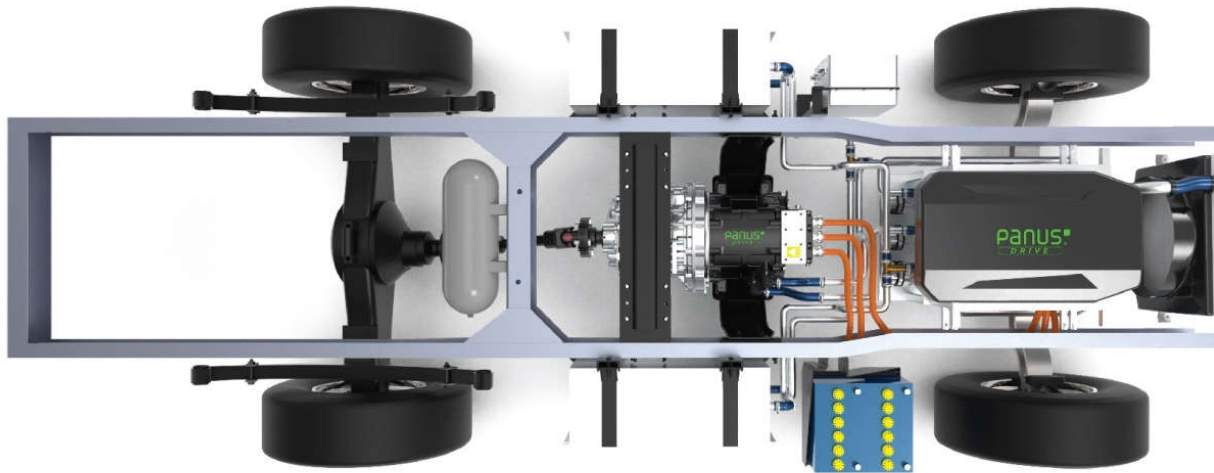
*Reduce cost of energy
consumption using
Electricity instead*

Reduce CO2 Emission

*Reduce maintenance
and repair cost*

EV CONVERSION KIT

panus[®]



panus[®]
D R I V E



Lithium-Ion Battery
Power Pack



Electric Air Condition
Compressor



Electric Air Brake
Compressor



Water Pump



VCU (Vehicle Control Unit)



AC/DC Onboard Charger

EV CONVERSION

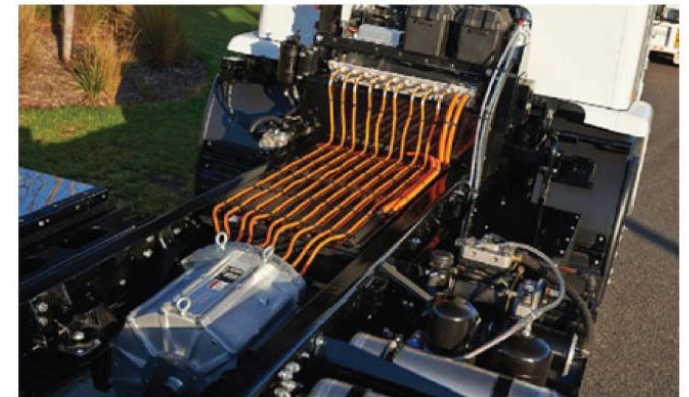
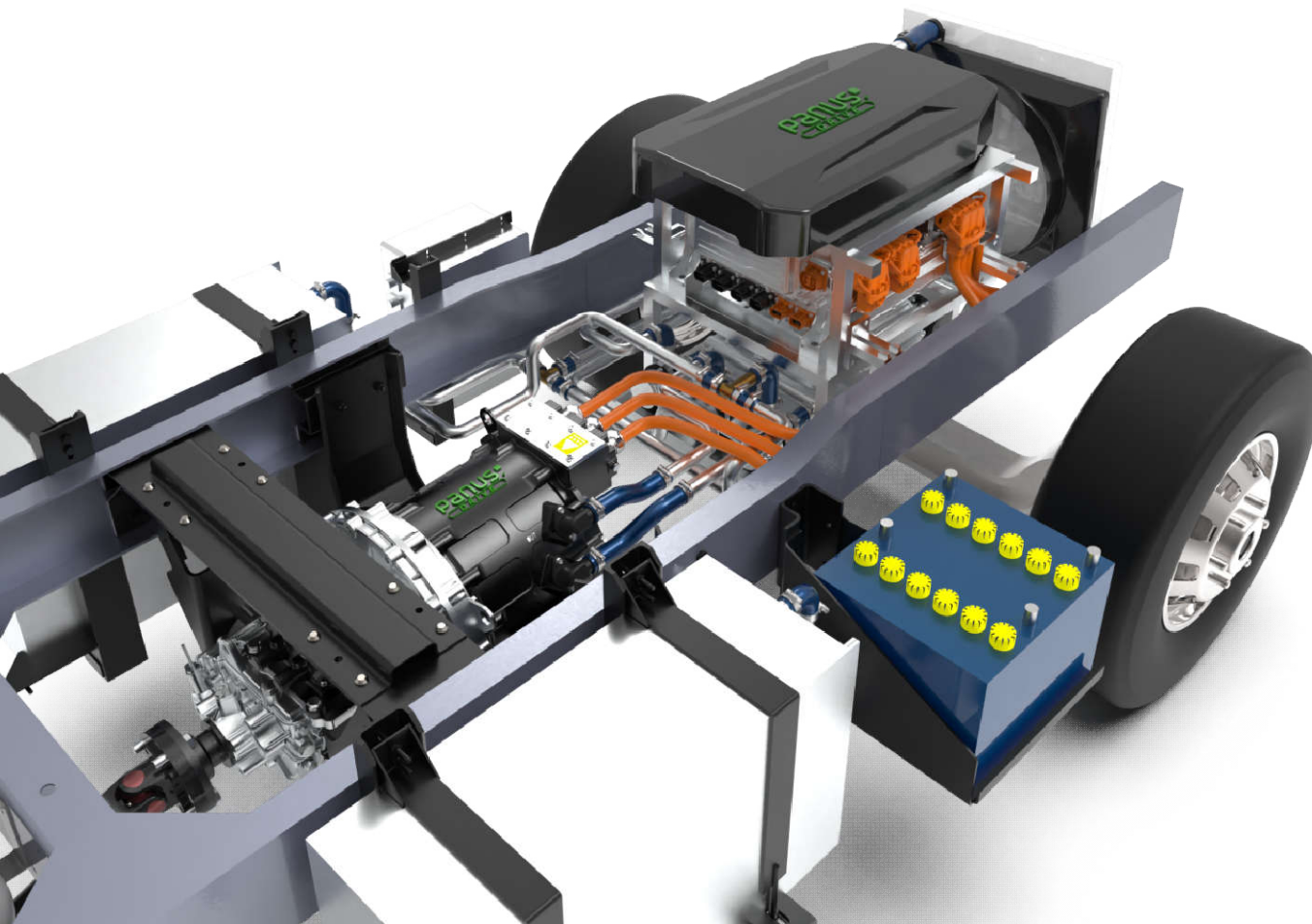
Pick-up, 4 wheel, 6 wheel, 10 wheel, Prime mover

panus[®]



Our EXPERTISES

Mechanical and Electrical System Integration



ปิดบึกดีล!“พนัส-CATL”เซ็น MOU ลุย พัฒนาแบตเตอรี่ยานยนต์ไฟฟ้าเพื่อการ พาณิชย์ในไทย-อาเซียน

โดย aek_writer - 13/07/2021

👁 2406 🗨 0



กฟภ.ร่วมกับ “พนัส แอสเซมบลีย์” พัฒนาโครงข่ายสถานี ประจุไฟฟ้ารองรับรถ EV

panus

เข้าร่วมธุรกิจ 07 ต.ค. 64 13:46น.



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RACE TO SUSTAINABILITY

At Panus, We are Charging ahead towards a Zero Emission Future.

