PEC Technology (Thailand)

Company Profile & Project References

About Us

1995-2014

Founded & Mastered VRLA Battery for Standby Applications

2015-2017

Initiate with First Li-ion Battery Project for UPS

2018-Present

Lead BESS, EPC, & RE System Integration

30 Years

Established in 1995. One of the very first Thailand battery vendor

30+

More than 30 staffs including battery specialists

~200

Average yearly revenue of 200 Million Thai Baht.

ISO 9001-2015

QA Certified as battery service provider

UPS References

- Suvarnabhumi Airport
- CS-LoxInfo
- DTAC-TRUE
- CAT (NT)

RE+BESS Integration

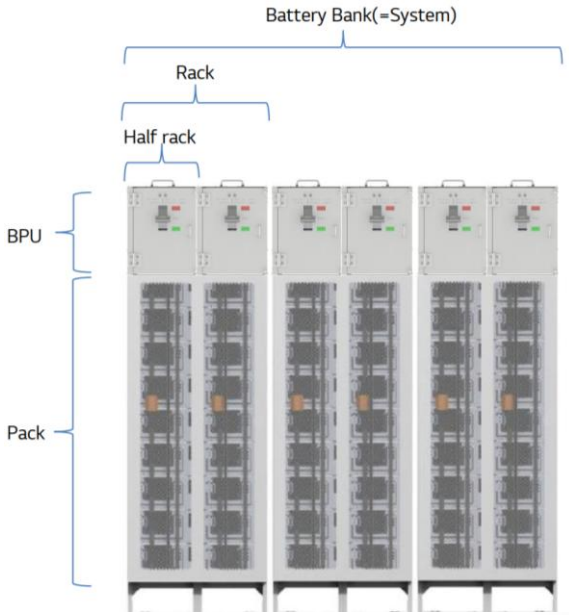
- โครงการนาลมลิกอร์
- โครงการ Microgrid เกาะพะลวย
- Mae Hong Sorn Smart Grid
- PTTEP S1
- Toyota Tsusho (Thailand)

Services & Products

Uninterruptible Power Supply (UPS)

ให้บริการครบวงจรสำหรับธุรกิจระบบไฟฟ้าสำรอง ทั้งแบตเตอรี่ VRLA และ Li-ion

C&D TECHNOLOGIES · TROJAN · LG CNS



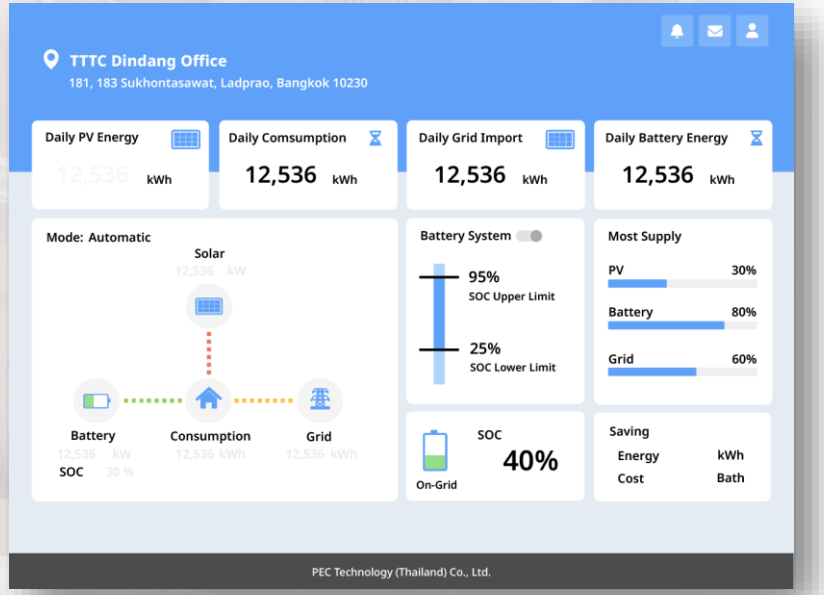
Battery Energy Storage System (BESS)

ออกแบบ ประเมินความคุ้มค่าการลงทุน และ ติดตั้งระบบกักเก็บพลังงานแบตเตอรี่สำหรับพลังงานทดแทน (RE Integration)

UL CERTIFIED	SEISMIC CERTIFIED	VDE-AR-N 4110 CERTIFIED
VDE-AR-N 4120 CERTIFIED	IEC CERTIFIED	IP65 CERTIFIED

Energy Management System (EMS)

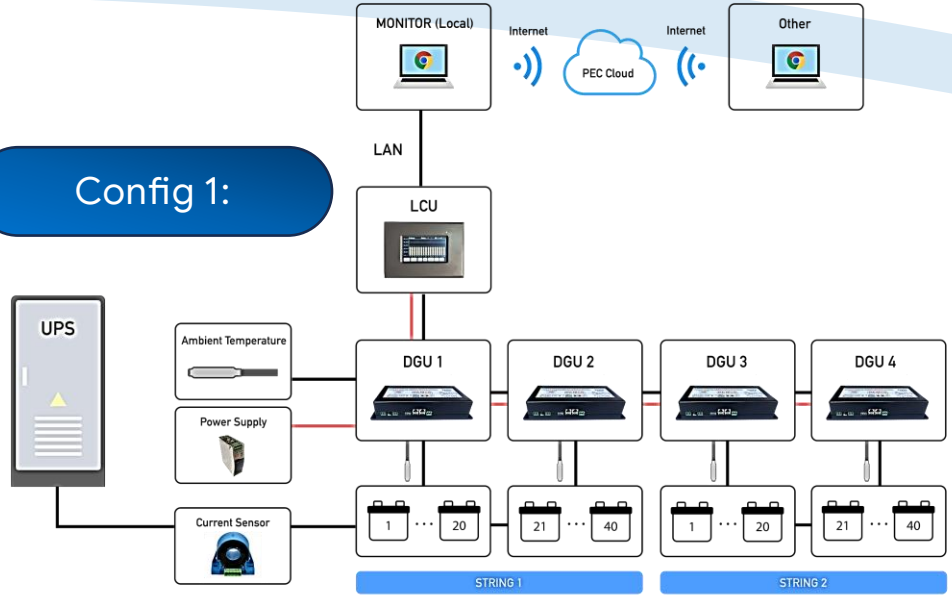
การพัฒนา Solution เพื่อการควบคุมการทำงานของ RE+BESS ให้ทำงานร่วมกันได้มีประสิทธิภาพและ ปลอดภัยกับผู้ใช้งาน



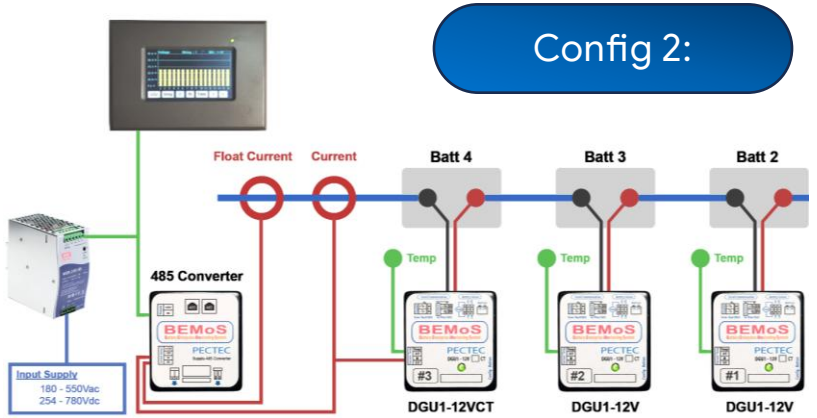
Service Improvements = Our Key Success

VRLA Battery Monitoring System (BEMoS)

Config 1:



Config 2:



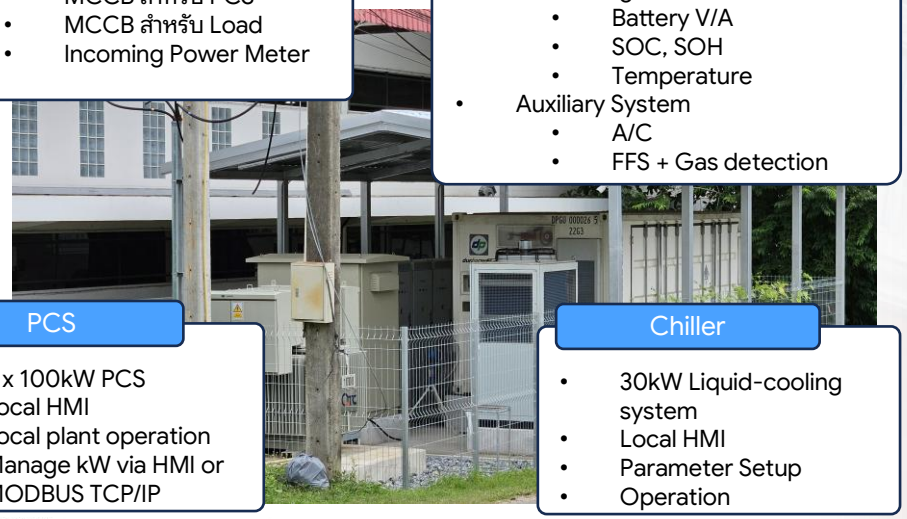
ขั้นตอนการปฏิบัติงานที่ถูกต้อง = ลดความผิดพลาด

ACMDB

- ACB
- MCCB สำหรับ PCS
- MCCB สำหรับ Load
- Incoming Power Meter

ระบบแบตเตอรี่ (Li-ion Battery System)

- Local HMI
  - Local plant operation
- Monitoring
  - Battery V/A
  - SOC, SOH
  - Temperature
- Auxiliary System
  - A/C
  - FFS + Gas detection

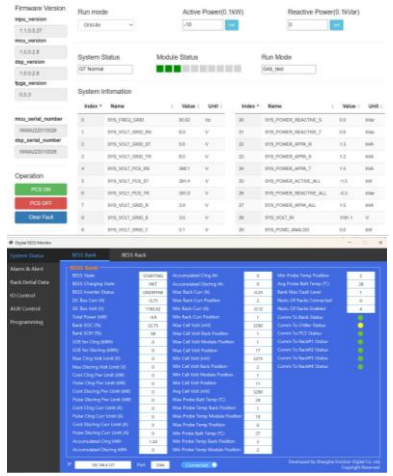


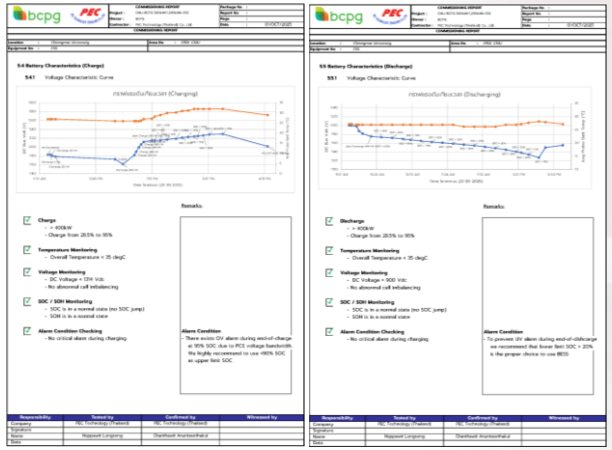
PCS

- 5 x 100kW PCS
- Local HMI
- Local plant operation
- Manage kW via HMI or MODBUS TCP/IP

Chiller

- 30kW Liquid-cooling system
- Local HMI
- Parameter Setup
- Operation





Visual Check

ตรวจสอบสภาพอุปกรณ์ต่าง ๆ ว่าอยู่ในสถานะพร้อมใช้งาน

EE Check

ตรวจสอบคุณสมบัติทางไฟฟ้า (กระแส แรงดัน ความต้านทานภายใน ฯลฯ)

CC Check

ตรวจสอบอุปกรณ์สื่อสารหลัก และ การสื่อสารระหว่างอุปกรณ์

Function Check

ตรวจสอบการทำงานของอุปกรณ์ (แยกตามความสามารถ) เช่น ความสามารถในการตัดวงจร หรือ ความสามารถการทำความเย็น

Operation Check

ตรวจสอบการทำงานของระบบในภาพรวม ทั้งภาคกำลังไฟฟ้า และ ภาคสื่อสาร เช่น การทดสอบ full charge/discharge หรือ การทดสอบประสิทธิภาพไปกลับ (Roundtrip Efficiency)

Meet Our MD & Founder

Kasiean Sukemoke (Managing Director)

- Education: M.Eng. in Electrical Engineering, Chulalongkorn University (Thailand)
- Experiences: 30 years experience in power electronics and battery business, including VRLA and Li-ion batteries.
- Professional Societies:
  - Expert in evaluating research products and development for ENTEC/NSTDA in Energy Storage.
- Active Involvement:
  - A general speaker of the IEEE Power & Energy Society, having the privilege of sharing insights in the field of BESS.
  - Key contributor to the battery system and subcommittee of the national standard for solar rooftops of The Engineering Institute of Thailand (EIT)
  - Dedicated member of the Thailand Energy Storage Technology Association (TESTA).

Engineering-driven Team Lead

Kasiean Sukemoke (EE)
Managing Director

Suksaksit
Limluecha (EE)
Engineering Manager

Chanthawit
Anuntasethakul (EE)
Product Manager

Nantiya
Limluecha (EE)
Technical Sales
Support

Warinthorn
Sirichotebowornpat (EE)
System Engineer

Phimnaphat
Phonthani (EE)
System Engineer

Project References

UPS & BESS

UPS References

- UPS
- Inverter/Rectifier

1. SUVARNABHUMI AIRPORT
2. CS-LOXINFO
3. DTAC
4. CAT Telecom

PROJECT REFERENCE

SUVARNABHUMI AIRPORT

- Current status: Active (COD: 2021)
- Scope of work: Long-term EPC contracts of 3,550 kWh VRLA UPS (total) under various requirements from AOT.

DESCRIPTION

Power backup for *Suvarnabhumi International Airport, the largest international airport in Thailand.*

PROJECT REFERENCE

CS-LOXINFO

One Stop ICT Service

- Current status: Active (COD: since 2015)
- Scope of work: PC contract of 500 kVA/30 minutes Li-ion UPS in 2016 and PC contract of 1,000 kVA/30 minutes Li-ion UPS in 2017.

DESCRIPTION

Power backup for a *data center of CS-Loxinfo*, joint venture company of CAT Telecommunication (CAT) and Thaicom (THCOM).

PROJECT REFERENCE

DTAC dtac

- Current status: Active (COD: since 2007)
- Scope of work: Long-term EPC contracts of 12,715 kWh VRLA UPS (total) under various requirements from DTAC.

DESCRIPTION

Power backup for headquarters and branches of *Total Access Communication (DTAC)*, the third-largest Thailand GSM network provider.

PROJECT REFERENCE

CAT Telecom

Sense of Communications

CAT Telecom Public Company Limited

- Current status: Active
- Scope of work: Long-term EPC contract of 1,305 kWh VRLA UPS (2020) under various requirements from CAT.

DESCRIPTION

Power backup for headquarters and branches of *CAT Telecom*, state-owned enterprise running international telecommunications infrastructure of Thailand.

Project References

- Energy Storage System
- Renewable Energy Integration

1. Microgrid at Phaluai Island
2. Mae Hong Sorn Smart Grid
3. PTTEP S1
4. Lomligor
5. Toyota Tsusho (Thailand)

PROJECT REFERENCE

Microgrid at Phaluai Island

- Current status: Active (COD: MAR 2024)
- Scope of work: EPC contract for 1.25MW PCS as a main equipment for islanding grid operation including virtual synchronous generator and grid stabilization

DESCRIPTION

Microgrid Project at Palhuai Island (MGPI) is under the operation of PEA. MGPI includes Diesel generator, and solar power plant. Key idea of the project is to use PV together with Battery Energy Storage (BESS) as a main power supply and diesel generator as a backup power supply to combine as off-grid microgrid to supply power to meet the 100% electrification target

PROJECT REFERENCE

Mae Hong Sorn Smart Grid

- Current status: Active (COD: NOV 2023)
- Scope of work: Working contract of BESS installation and EMS design for 5,175kW/6,192 kWh BESS (2022) under various requirements from EGAT.

DESCRIPTION

Generation-site peak shaving, PV smoothing, voltage control, and emergency power backup for Mae Hong Sorn Smart Grid (MSPP) - EGAT, state-owned enterprise running power generation.

PROJECT REFERENCE

PTTEP S1

- Current status: Active (COD: SEP 2023)
- Scope of work: EPC contract of 250kW/1740kWh BESS in 40ft all-in-one container solution (2022) under various requirements from Future Solar Technology (owned by PTTEP).

DESCRIPTION

Self-consumption and emergency power backup for PTTEP S1 office, state-owned enterprise running petroleum exploration and production.

PROJECT REFERENCE

LOMLIGOR bcpg

- Current status: Active (COD: Dec. 2019)
- Scope of work: EPC contract of 729.6 kWh Li-ion batteries and 1,152 kWh advanced lead-acid batteries. The main application of the BESS is “generation-side peak shaving”.

DESCRIPTION

Lomligor, owned by BCPG group, is a wind power plant with a size of 4x2.5 MW, located at Nakhon Si Thammarat, Thailand.

PROJECT REFERENCE

Toyota Tsusho (Thailand)

TOYOTA TSUSHO (THAILAND) CO., LTD.

- Current status: Active (COD: SEP 2024)
- Scope of work: EPC contract of 20kW/40kWh BESS indoor solution + Energy Management System (EMS) under various requirements from TTTC.

DESCRIPTION

20kW/40kWh BESS for an office building integrated with 250 kW existing PV system. The EMS is designed by PEC, aims to serve battery energy application with customizability

PROJECT REFERENCE

EDRI-CMU

- Current status: Active (COD: OCT 2023)
- Scope of work: EPC contract of 50kW/45kWh BESS indoor solution under various requirements from EDRI-CMU and CCT.

DESCRIPTION

Peak shaving and emergency power backup for Energy Research and Development Institute Nakornping - Chiang Mai University (EDRI-CMU) office.

PROJECT REFERENCE

EGCO SAI YAI1

- Current status: Active (COD: DEC 2021)
- Scope of work: EPC contract of 30 kW/64.8 kWh Li-ion BESS, coordinating with PV. The main application of the BESS is an “Net-zero operation”.

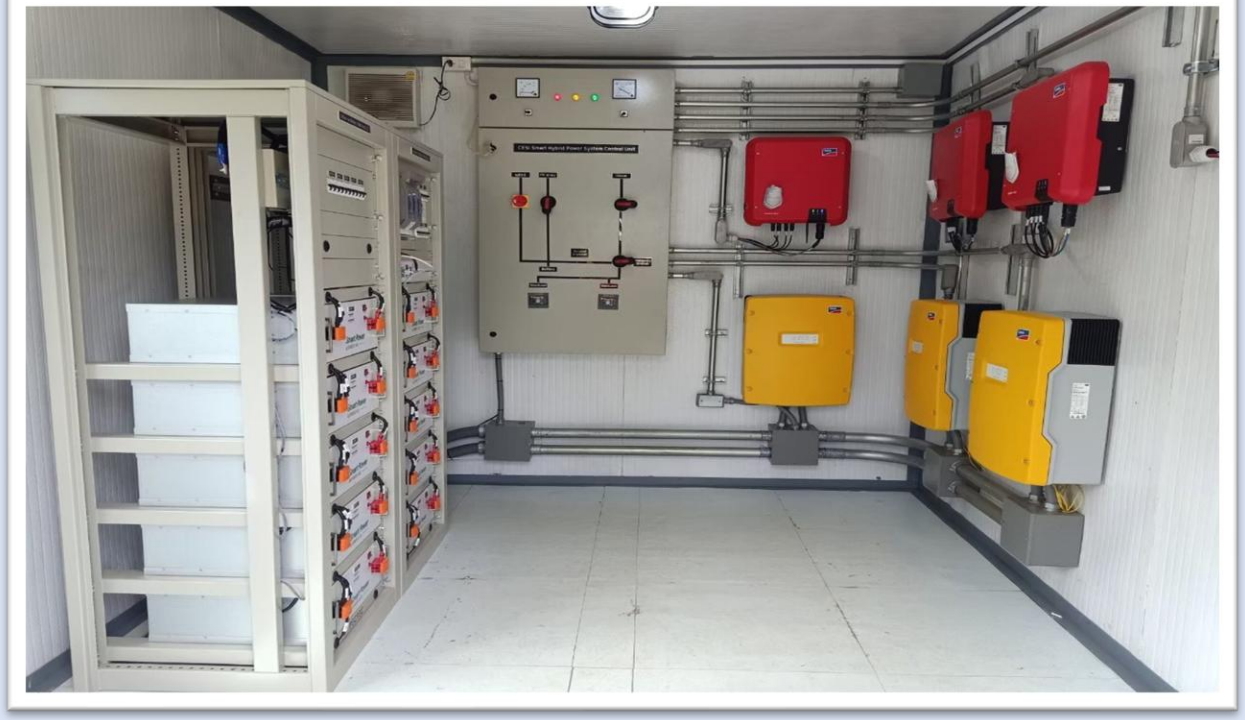
DESCRIPTION

EGCO Sai Yai 1 project is an illustrative case study of renewable power plant under the MOU between PECTEC and ITE for Solarco.

PROJECT REFERENCE

PHULANKA

- Current status: Active (COD: JUNE 2020)
- Scope of work: EPC contract of 18 kW/67 kWh Li-ion BESS, coordinating with PV, a diesel generator, and a wind turbine. The main application of the BESS is an "off-grid operation".



DESCRIPTION

Phulanka project is an illustrative case study of renewable power plant under the MOU between PECTEC and King Mongkut's Institute of Technology Ladkrabang (KMITL).

Contact us

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