

ELECTRIFICATION BUSINESS AREA

#### **Electrifying the World**

in a safe, smart and sustainable way



#### Who are we...

ABB is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. With a history of excellence stretching back more than 130 years, ABB's success is driven by about 110,000\* talented employees in over 100 countries.



#### **Electrification**

- Wide ranging portfolio of products, digital solutions and services
- Advanced digital and connected innovations



#### Industrial automation

- Solutions for process and hybrid industries
- Including control technologies and measurement & analytics



#### **Motion**

- World's largest supplier of drives and motors
- Comprehensive range of electrical motors, generators, drives and services



#### **Robotics & discrete automation**

- Value-added solutions in robotics and machine & factory automation
- Application expertise across a wide range of industries

Driving the digital transformation of industries





#### The megatrends shaping Electrification

The world is going digital, urban and electric whilst facing an increasingly rapid changing global environment

ADVANCEMENTS CLIMATE CHANGE **ENERGY** SHIFT TO **TRANSFORMATION ELECTRICITY** GLOBAL UNCERTAINTY SUSTAINABILITY INCREASING DEMAND FOR ENERGY TECHNOLOGY ADVANCEMENTS **DIGITALIZATION** URBANIZATION & CONNECTIVITY BIG DATA RISE IN LIVING STANDARDS GLOBAL ECONOMY TO EXPECTATIONS DOUBLE BY 2050 **NEW WAYS OF** POPULATION GROWTH WORKING



REGULATORY

#### **Electrifying the World**

#### in a safe, smart and sustainable way

#### SAFE

Where we protect our people, customers, society, assets, the environment and the world around us.

#### **SMART**

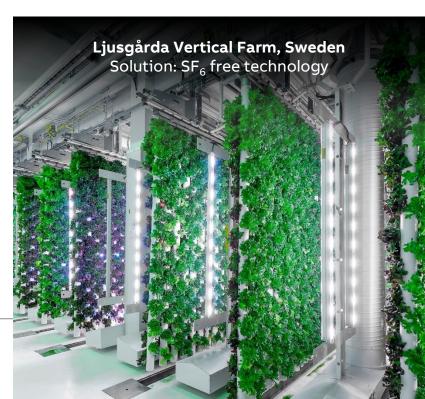
Where we power progress and energy efficiency with our digital solutions and intelligent technologies.

# Viettel Headquarters, Vietnam Solution: Energy efficient technologies

#### **SUSTAINABLE**

Where we protect our planet and empower people with technology to drive energy transformation, by innovating how we work and live.





#### **Electrification**

#### **Our Divisions**



#### Distribution Solutions

We improve electric power quality and reliability while strengthening grid resilience through automation. With ABB Ability™ enabled digital products and solutions our customers can unlock the full potential of their electrical systems.



#### **E-mobility**

ABB E-mobility is the world leader in EV charging solutions and the partner of choice for the world's biggest electric vehicle OEMs and nationwide EV charging network operators, building a zero-emission mobility future from home to highway.



#### Installation Products

Building on its 100-year history of innovation, Installation Products creates product solutions to safely connect and protect electrical systems that power businesses, cities, homes and transportation.



#### Power Conversion

We design, develop and manufacture solutions to power and safeguard life's everyday moments. Our customers are in industries where power reliability, efficiency and quality are essential, and they rely on us to solve their most difficult power challenges.



#### **Smart Buildings**

We ensure safe and reliable energy distribution, and we make buildings and homes smart and sustainable.



#### **Smart Power**

Our technologies enable buildings, factories and transportation to make energy management smarter, renewables more productive and operations more resilient.



#### **Service**

Through a range of innovative, scalable electrical service solutions, we bring peace of mind to the security, safety and reliability of electrical infrastructure, help customers to optimize their electrical assets, and partner with them as their future energy challenges evolve.

Developing innovative products, solutions and digital technologies that enable energy efficiency and a low-carbon society across all sectors

#### **Electrification**

#### Aligned to market needs



Distribution Solutions



**E-mobility** 



Installation Products



Power Conversion



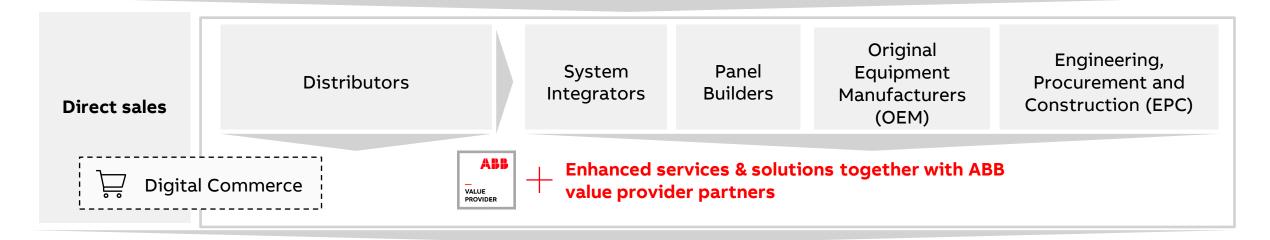
**Smart Buildings** 



**Smart Power** 



Service



#### Our products and solutions are all around us

Supporting some of the world's largest, highest, and most extreme projects

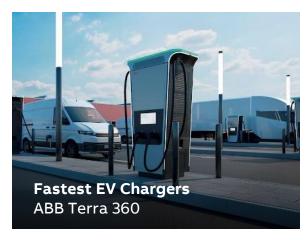
















#### **Committed to sustainability**

## Across our own operations and supporting our customers' sustainability goals

#### Enabling a low-carbon society



Reducing emissions in industries ABB Ludenscheid factory, Germany



**Eliminating harmful greenhouse gases** Ljusgarda Farm, Sweden



**Reducing emissions in mobility** Qbuzz, Netherlands

#### Preserving resource



**Zero-waste to landfill**ABB, Frosinone factory, Italy



Design for closing resource loops ABB MegaFlex™ DPA UPS systems

**Recycled plastic** 

Surface Mounted

**Junction Box** 

Used for manufacturing

#### Driving social progress



Jürgen Dormann Foundation for Engineering Education



ABB and ICRC helping those in need

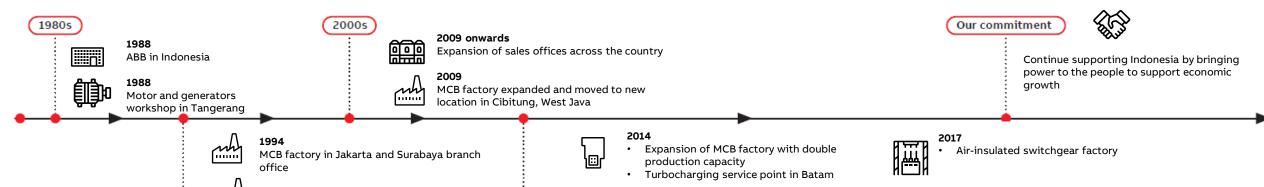


United Nations (UN)
Women's Empowerment
Principles
Committed towards
promoting gender
equality

# ABB in Indonesia

#### Let's write the future

#### ABB's vision



2016

• Medium voltage switchgear factory in

· Global software development center in Bali

\*Moved to PT. Hitachi Sakti Energy Indonesia

Tangerang

2010s

- More than 30 years strong local presence at 11 locations in 9 cities across the country
- 3 sales offices + 3 service workshops + 2 manufacturing facilities + 2 sales representatives

Medium voltage switchgear factory

- Approx. 460 employees

1990s



#### 2018

Gas-insulated switchgear factory \*Moved to PT. Hitachi Sakti Energy Indonesia

#### 2019

- Drives Service Station
- Robotics Service and Customer Showroom

#### 2020

· ABB completes the divestment of Power Grids to Hitachi

#### 2022

ABB completes the divestment of Turbocharging

#### **ABB Formula E**

#### Jakarta

The ABB FIA Formula E World Championship brings the thrill of electric racing to as many people as we can on city-center circuits worldwide. But more than that, it is a showcase for the world's most advanced e-mobility technologies, which are helping to drive progress towards a more sustainable future.

The race came for the first time in June 2022, with 22 drivers competing on a purpose-built 2.37-kilometer circuit set against the backdrop of Jakarta Bay. The Jakarta E-Prix also hosts multiple aspects of the motorsport industry through activities and workshops.

In 2023, ABB took on its new role as the Official Charging Partner in the series. With engineers from the motorsport governing body, the FIA, and Formula E, ABB has developed a compact, reliable, and safe solution for charging the new Gen3 cars before race day and between sessions.



### Electrification Indonesia

#### **Electrification in Indonesia**

Delivering safe, smart, and sustainable electrification across the country



~250 employees



#### 2 (two) manufacturing sites

- Cibitung : MCB factory

- Tangerang: MV switchgear



Ensuring reliable power for the tallest building in Indonesia and southern hemisphere



Supporting one of the first fast charging stations in Indonesia



Powering the world's largest data center located in the greater Jakarta



Protecting new airport rail systems for the new Soekarno-Hatta Airport Rail Link in Jakarta and LRT in Palembang.



Solutions and systems at Indonesia's second largest airport



Protecting power supply for the 2022 G20 summit in Indonesia



#### Committed to growing the local footprints

#### Two manufacturing facilities

#### MCB factory – Cibitung, West Java



- Serving domestic and export market (Asia, Europe, Africa, Australia and NZ)
- National certifications: SNI, SPLN and TKDN (local content) including quality, OHS and environment management assurance.
- State-of-the-art factory that has been designed for lean manufacturing operations with the capability to produce over 10 million poles per year

#### **MV** switchgear factory - Tangerang



- ABB's medium-voltage switchgear UniSec, SafePlus, Sectos, UniGear and UniGear Digital
- National certifications SNI 04-6507, quality, OHS and environment management assurance.
- State-of-the art factory that has been designed for lean manufacturing operations with the capability to produce thousands of panel per year

#### Working together with channel partners

A lasting relationship by making their success our success



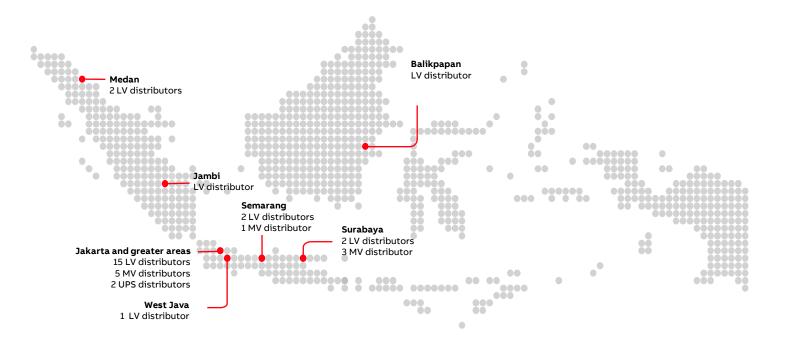
Significant growth with >100 % target achievement<sup>1)</sup>



Going into e-commerce for B2B and B2C



Strong **local network** to traditional markets



## Project References in Indonesia

#### Data center project references

#### Indonesia

#### Indonesia's first Tier IV Data Center



ABB provided the MV, LV, UPS and Building automation for the first tier IV accredited Data Center in Indonesia.

ABB equipment are supporting the phase 1 of this state-of-the art Data Center with an IT load of 1MW in a full 2N configuration

The project was delivered in 2018 and the Tier IV accreditation took in place at the end of 2018

#### One of world's largest e-commerce and cloud providers



ABB is providing the MV switchgear, e-house RMU and Tx infrastructure to one of world's largest e-commerce and cloud providers data centers in Indonesia

ABB equipment will support 3 data centers concurrently. This also include service support maintenance for 3 years

The project 1<sup>st</sup> stage has completed in 2020. The project 2<sup>nd</sup> and 3<sup>rd</sup> stage is progressing to complete in 2023

#### Providing power for one of the largest hyperscale data centers



ABB is providing the MV Switchgear, Modular UPS and Building Automation to one of the largest hyperscale data centers in Indonesia.

The project 1st phase has completed in 2020.

The project is progressing to 3<sup>rd</sup> phase in 2022 while 2<sup>nd</sup> phase will start anytime soon in 2023.



#### Data center project references

#### Indonesia

#### Powering the largest telecommunication data center



ABB is providing the MV & LV Switchgear and Megaflex UPS to the largest telecommunication data center in Indonesia

ABB Megaflex and Lithium Battery will be the first installation in Indonesia

The project is completed in 2022

#### Safeguarding power supply one of the world class data center provider



ABB is providing the MV Switchgear, Marshalling Panels, Remote Operating Panel, DC charger & battery

The project 1<sup>st</sup> phase has secured in 2022 and will be finished in 2023.

The project 2<sup>nd</sup> to 4<sup>th</sup> phase will start anytime soon in 2024.

#### Integrated eHouse solutions for a Hyperscale Data Center



ABB deploys Electrical House (eHouse) solutions which consist of 20kV MV POD, 11kV Primary MV POD, 11kV Secondary POD, 11kV Generator MV POD and Ring Main Unit (RMU).

The project 1st phase will be completed in 2023. When operational, the data center will have Uptime Institute Tier III and LEED Gold certified



#### Find more about our products and solutions with ABB Connect

The digital assistant for all your electrification needs



Find the **latest product** details



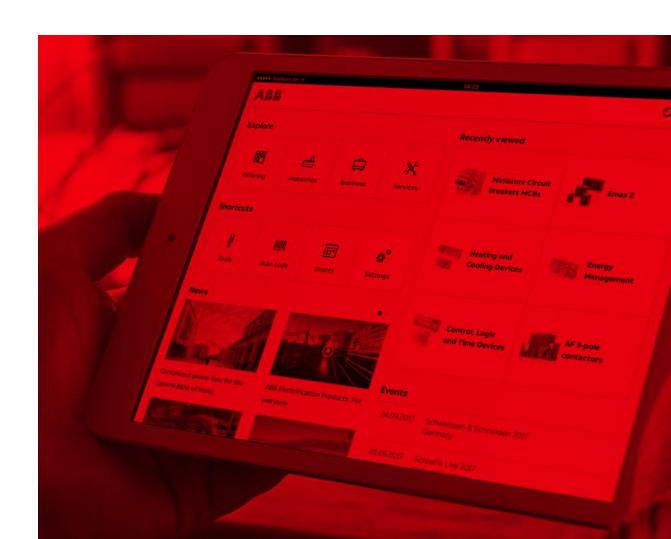
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