



GE Renewable Energy

# Tap & Scale Up the Huge Potential of Vietnamese Wind Market

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# GE Renewable Energy

Expanded portfolio gives us scale, scope, capability to fulfill our mission

\$15B revenue • 40,000 employees



## Broadest portfolio in the industry



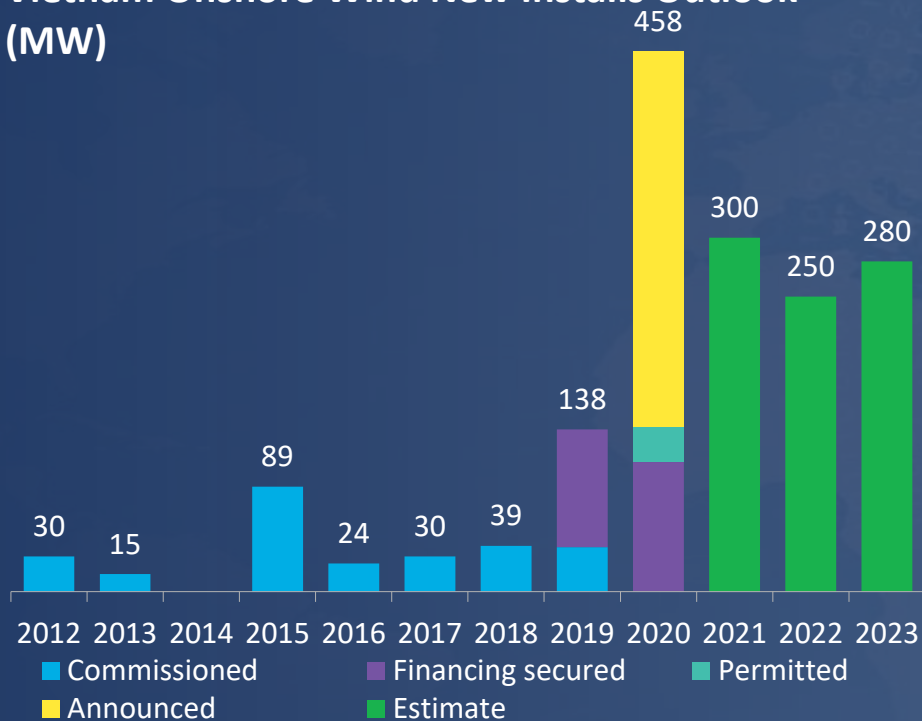
# GE's Long History in Vietnam... Growing together



GE is committed to bring the best technology and services to Vietnamese market

# Vietnam – Growth Engine for Wind in ASEAN

Vietnam Onshore Wind New Installs Outlook (MW)



## Drivers

- ✓ Demand growth confirmed needs for new capacity add-ons
- ✓ Relatively good wind resources across ASEAN
- ✓ Firm policy structure & support
- ✓ 4GW opportunities in plan/pre-work

## Challenges

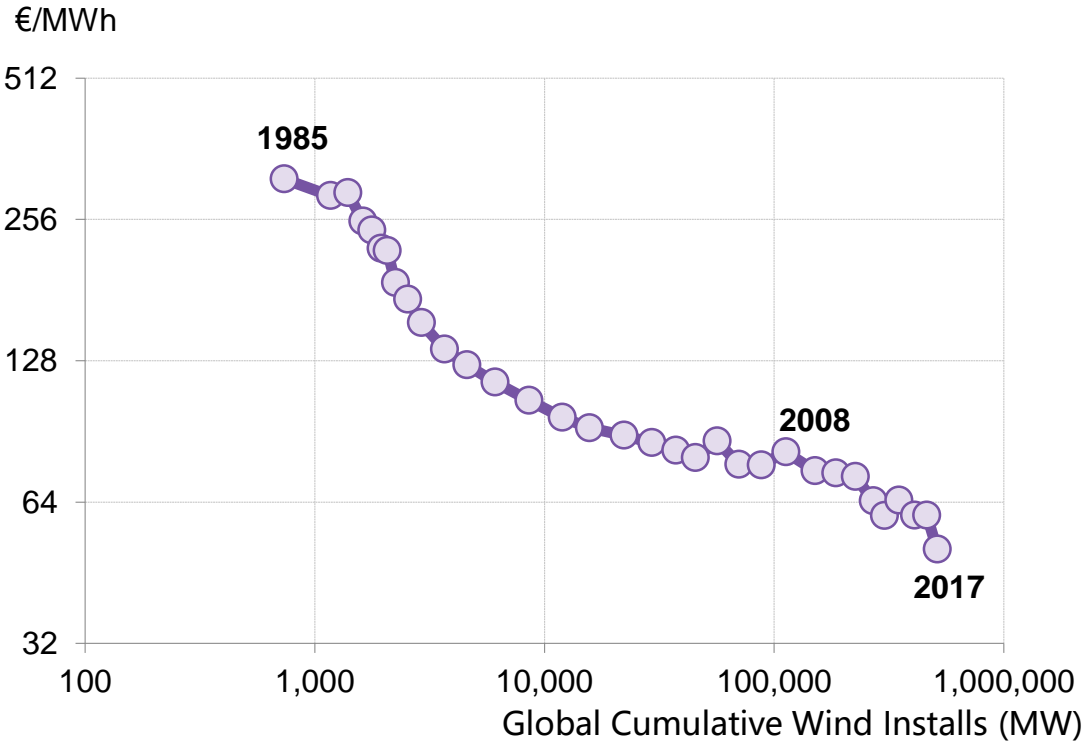
- ? PPA terms need further improvement
- ? Wind LCOE today still high with all embedded cost
- ? Limited end-to-end solution providers or domestic EPC capability to address complex project site conditions (typhoon, nearshore, complex terrain, etc)
- ? Vietnamese conglomerate's less passionate in wind than solar



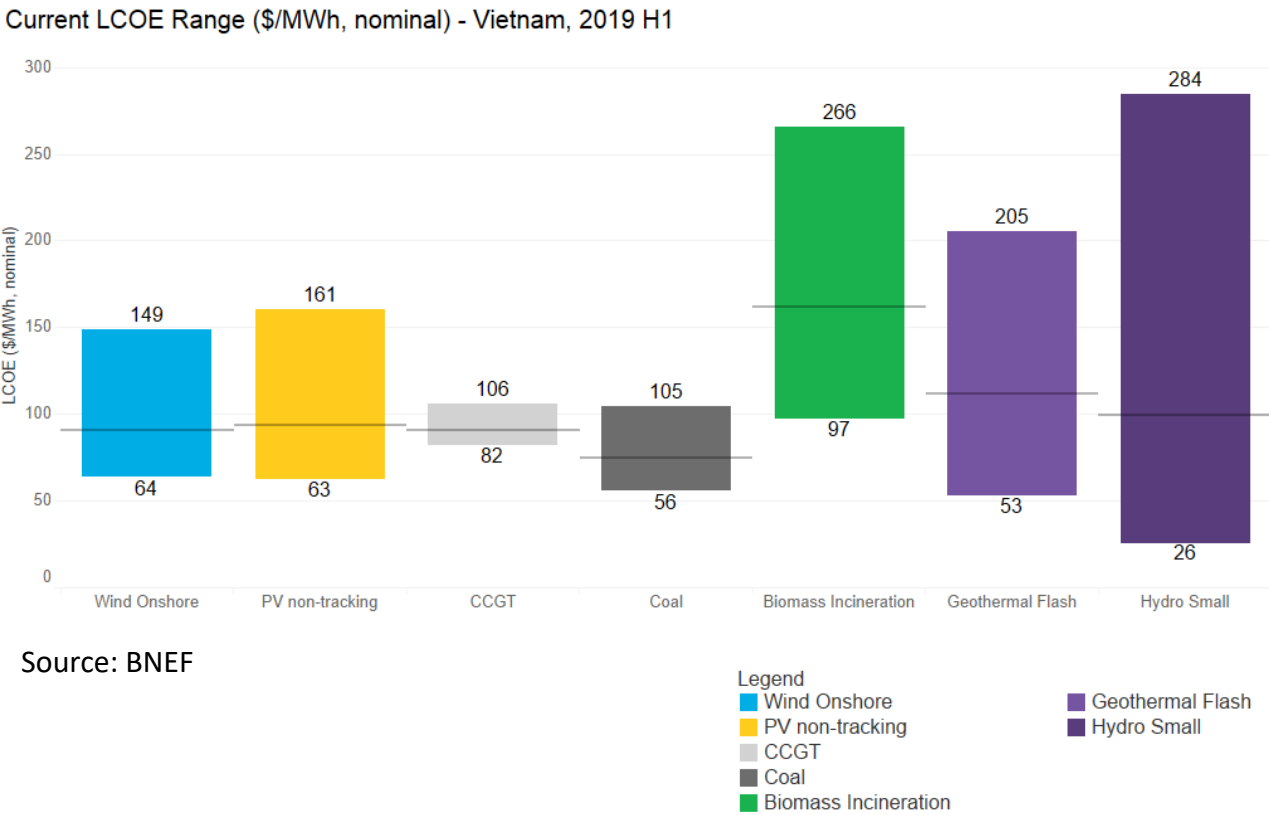
Unlock 1.4GW & more new wind capacity in next 5 years with  
scaling up local supply & expertise

# Improving Wind LCOE Highly Dependent on Scale

Every doubling of wind installation, LCOE dropped 15%



Wind in Vietnam is catching up its LCOE competitiveness



Top down commitment in development scale is crucial to attract investment on projects as well as maturing supply chain





# GE's Investing in Vietnamese Wind Supply Chain



## Generator

It converts mechanical energy to electrical energy



## DTA

Power electronics conversion and control system



## Pitch System

Controls angle of blades



## TopBox

Controls the ventilation for cooling the generators



## Pole Shoe

Sub-assembly of the biggest generator



## I-Frame A

Blade Transportation Fixture



# Our Vision and Commitment to Vietnam

- GE is the **leading wind OEM** in Vietnam with 100MW+ installed base
- Technology leader in **Low Wind Speed** turbine that suit Vietnamese resources, keep **lowering down LCOE** to make wind as mainstream energy
- Latest **Cypress Platform** turbine as competitive solution for projects sites with challenging land condition
- Unlock offshore potential with **Haliade-X** & GE's offshore expertise across EU, Americas & Asia
- Leverage **established track record** and experiences, bringing flexible solutions to customers (i.e. WTG, EPC, financing, co-development, etc.)
- Enable the growth of Vietnamese wind industry to the new era with **Digital Services** attached to every single unit of our turbine
- Continuous investment in **local talents and supply chain** that serve our customers, as well as fostering **stronger local partners network**



**Making wind the first choice of energy in Vietnam**