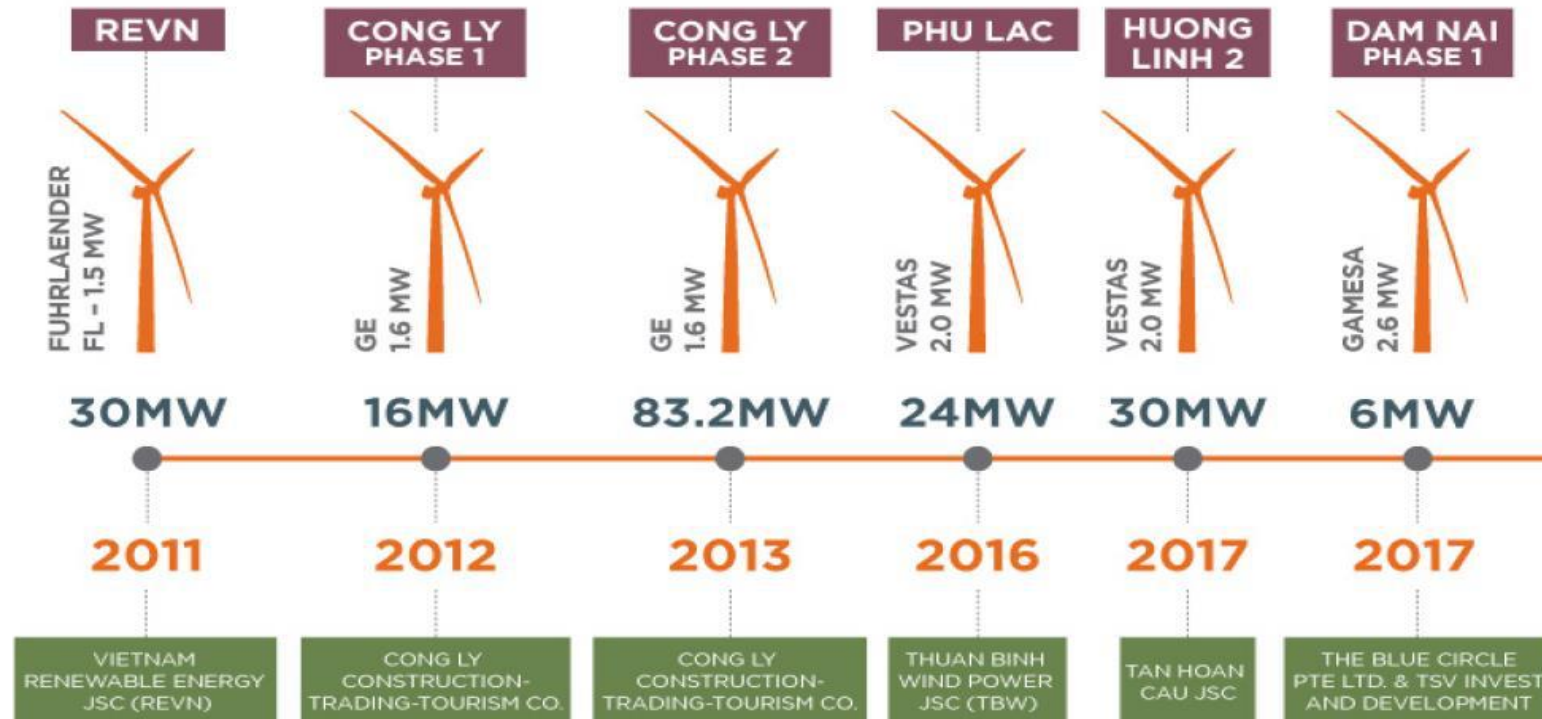


# The Blue Circle – GWEC Conference Alternate sources of financing Wind Projects

June 11<sup>th</sup> 2019 - Hanoi

## The Blue Circle’s pioneer Vietnam experience (Source: GIZ 2018)

### Summary of Wind Power Project in Vietnam up to 2017

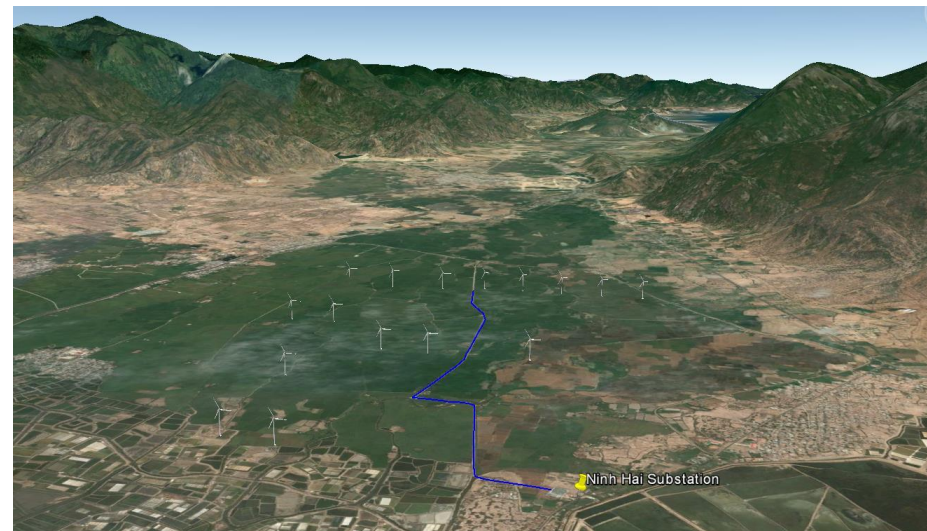
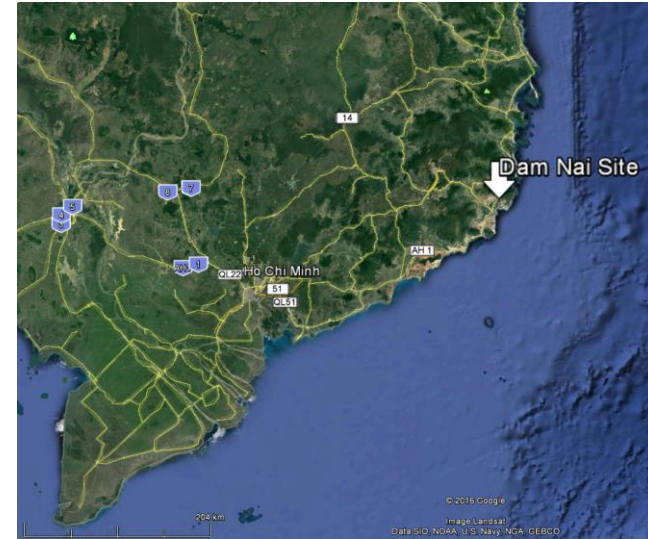


Dam Nai Phase 2 has been built in 2018 and is actually the largest onshore Vietnam wind power project. Dam Nai Phase 1 has been the first foreign owned wind project in Vietnam.



## Alternate source of Financing Wind Projects: the Dam Nai case

- Site identified by meso-scale modelling in 2014
- Site secured in Feb 2015 with a Wind Development Policy
- Ninh Thuan, province South Vietnam, along AH1 highway
- Project site in middle of rice fields
- Project developed with Local partner TSV
- 100m wind monitoring mast installed in May 2015
- Long term average wind speed of 6.89m/s at 100m
- 110kv grid connection line along the site
- Investment Certificate issued for 40MW in July 2016
- Construction of Phase 1 started in March 2017
- COD of Phase 1 (6MW) in Dec 2017
- Construction of Phase 2 started in Dec 2017
- COD of Phase 2 (34MW) in March 2019



## Alternate source of Financing Wind Projects: the Dam Nai case



### First decision: Building Phase 1 on Equity only

- Test case for all the permitting, contracting, importation, transportation, connection and operation of a wind farm in Vietnam
- Crucial to attract Phase 2 financing, to demonstrate The Blue Circle and Siemens Gamesa ability to deliver
- Building capabilities to be able to scale up with future projects
- Testing EVN on its procedures, requirements and timing
- Validating estimated wind resource with real production data

## Alternate source of Financing Wind Projects: the Dam Nai case



Dam Nai wind power plant - Vietnam

### Second decision: Select professional debt arranger

- To raise the first debt financing for a foreign wind project in Vietnam
- Split task with developer and construction manager

### Third decision: ECA financing will take too long

- Very little experience of Vietnam
- Will guarantee a Singapore Bank with very little experience of Vietnam
- Will need VN bank anyway for project securities
- VN bank with very little wind power project experience will need time
- Not offering an optimal gearing

## Alternate source of Financing Wind Projects: the Dam Nai case



### Fourth decision: Start very early local bank involvement

- No project finance experience, no non-recourse template, used to corporate financing only
- Not used to long tenure debt
- Personal liability for non-performing loans in state-owned VN banks
- No issue with EVN PPA and EVN risk, no currency conversion risk
- Needs mortgageable land lease

### Fifth decision: have a robust project financial model

- Long term assumptions on interest and FX rates must be linked
- Wind data must be world class to lower uncertainty

## Alternate source of Financing Wind Projects: the Dam Nai case



### Conclusion: First long-term non-recourse wind project finance by a VN bank

- In July 2018, Loan contract signed with BIDV for a 40M USD non recourse 17 years loan in VND
- Both project phases combined = 40MW

### But questions remain:

- Is it repeatable given the VN banks balance sheet size ?
- Is the target of 800MW installed in 2020 be realistic ?
- How much VN credit rating can attract ?

## Alternate source of Financing Wind Projects: the Dam Nai case



Dam Nai wind power plant - Vietnam

### Conclusion: Corporate financing as the answer

- Project development in VN requires proof of funding
- Administrative burden means equity financing
- FIT race means equity financing
- DFI and commercial banks heard mentality means corporate backing
- Corporate Green Bonds might be the answer longer term

# THANK YOU

## The Winds of Change



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