Attracting new construction finance to offshore wind projects, and the specific challenges facing the UK

TYPHOON OFFSHORE
INDEPENDENT ENERGY INNOVATORS

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Ian Taylor, 12 June 2013

Making sustainability bankable

Agenda

- Introduction Typhoon Offshore
- Gemini offshore wind farm
- Challenges facing the UK
- Looking Ahead – Delivering UK Targets

Introduction Typhoon Offshore

- HQ in Amsterdam. Offices in the UK, Germany and South Korea
- Project owner which funds and manages the post-consent development

Key project milestones

- Source and secure 100% of the capital required to construct, commission and operate the project (debt and equity)
- Contract and structure on the basis of non-recourse project financing
- Previous projects: Prinses Amaliawindpark, Belwind

Gemini offshore wind farm

- Consented 600MW project
- 85km from NL coast
- Water depth 25-35m
- Average wind speeds of 10m/s

- 150 × 4MW Siemens WTGs
- Monopile foundation type
- AC export cables; 2 OHVSs with interconnector

- Feed-in tariff ("SDE") granted by the Dutch government (€4.4bn)

- FC planned for end 2013
- Construction start Q3 2014

Attracting Investors – Pre-Construction

- Principle: identify, understand and then allocate risks to those best able to manage them.
- Construction:
  - Strong, experienced contractors
  - Proven technology (e.g. WTGs, AC vs DC)
  - Contract structure

Gemini offshore wind farm: Contracting Structure

Turbine Supplier

SIEMENS

Siemens Wind Power

Interface arrangement

Marine Contractor

Van Oord

Two party contracting strategy
• **One marine/BoP contractor for EPC, and** • **One WTG supplier with LTSA for O&M**
Each contractor will has its own responsibilities during construction: • agreements with an interface on the flange • the marine contractor will also be responsible for supply and installation of the electrical infrastructure
PrinsesAmalia and Belwind wind farms used a similar EPC contracting strategy

- Understand and integrate banking requirements into contracts from an early stage
- Financial drivers are part of decision making process
- Enhanced risk management
- Design / cost optimization

Attracting Investors – Pre-Construction

- Principle: identify, understand and then allocate risks to those best able to manage them.
- Construction:
  - Strong, experienced contractors
  - Proven technology (e.g. WTGs, AC vs DC)
  - Contract structure
- Insurance
  - Fully wrapped with contractor LDs
- Operation:
  - Long-term O&M / Performance warrantees
  - Regulatory support mechanism

Gemini offshore wind farm: SDE versus other FIT Systems

Gemini offshore wind farm: Financing

- Total capital requirement: €2.6bn
- Target 70% senior debt, plus some Junior debt
- Full, non-recourse financing
  - No recourse (e.g. PCGs) to shareholders
- Assets split into “PowerCo” and “GridCo” (like OFTO)
  - Not a Dutch requirement, but increases investor base
- Initial EIB board approval for €500m to Gemini in Dec '12
- Significant funding & cover expected from various ECAs
- Bank launch planned for Q3 2013

Challenges facing the UK (1)

- Transition to a new support mechanism (ROCs to CfD/FITs)
- Majority of MW in development owned by utilities with insufficient capital to meet UK targets
- Utilities currently focused on:
  - Pre-consent project development.
  - Re-cycling capital from operating assets
- Many new investors do not see an attractive (pre-construction) investment case for projects structured around balance sheet financing – exacerbated by Industry track record

Challenges facing the UK (2)

- Utilities reluctant to use project (bank) finance
  - Credit rating issues
  - Internal processes (management, procurement, insurance, KPIs) based on securing finance from balance sheet
  - Historically not required

- BUT, many external investors are looking for:
  - de-risked (PF-type) investment case and/or
  - want to leverage their equity returns through bank finance and/or
  - Require utilities to carry contingent liability on their balance sheets – NOT attractive to utilities

- Structures are being implemented to allow a mix of new financing/tax arrangements (e.g. UJVs) for R3 projects

Challenges - Financing structures

- Incorporated JV – typically used for project financing
  - Simplest approach for structuring and contracting.

- Alternatively, under an ***Unincorporated JV***, Energy Company would have the flexibility to finance its stake from its balance sheet:

  - This may address some of the credit rating concerns under an incorporated JV where complete project liability may sit on utility balance sheet even if only 50%, or less, stake is owned, BUT;
  - **BUT** potentially complex, and contracting, insurance still needs to be appropriately structured to create an attractive investment case

Challenges - Is Gemini PF approach transferrable to UK?

Risk	Gemini Risk Mitigation	Transferable to UK Projects?
Construction	2-Contractor Strategy. EPC BoP contractor	Yes, although Energy Company's procurement process tailored to balance sheet financing and capex reduction – recently leading to multi-contracting
Insurance	Integrated with contract LDs to ensure full, seamless cover through construction, commissioning and operation	Yes. Historically energy company insurance provisions tailored to balance sheet financing
Off-take support mechanism	SDE – Tender price, but with protection for low yield years	Yes. Proposed CfD mechanism.
Operation – Wind farm performance	Long-term (15yr) O&M with availability and performance guarantees	Yes

Looking Ahead – Delivering UK Targets

- EMR with support from GIB (as well as EIB, ECAs)
- Projects need to be structured appropriately from an early (consent) stage
- Attract institutional debt pre-construction
  - Loan Guarantee Scheme?
  - Support from GIB, EIB & ECAs
- What is the role of the utility under EMR?
  - Developer/Owner/Operator?
    - Corner-stone investor?
  - Off-taker?
  - To take construction risk (as EPC contractor)?

Thank You

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