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Role of Project Finance:

Debt and equity support for renewable projects and energy efficiency

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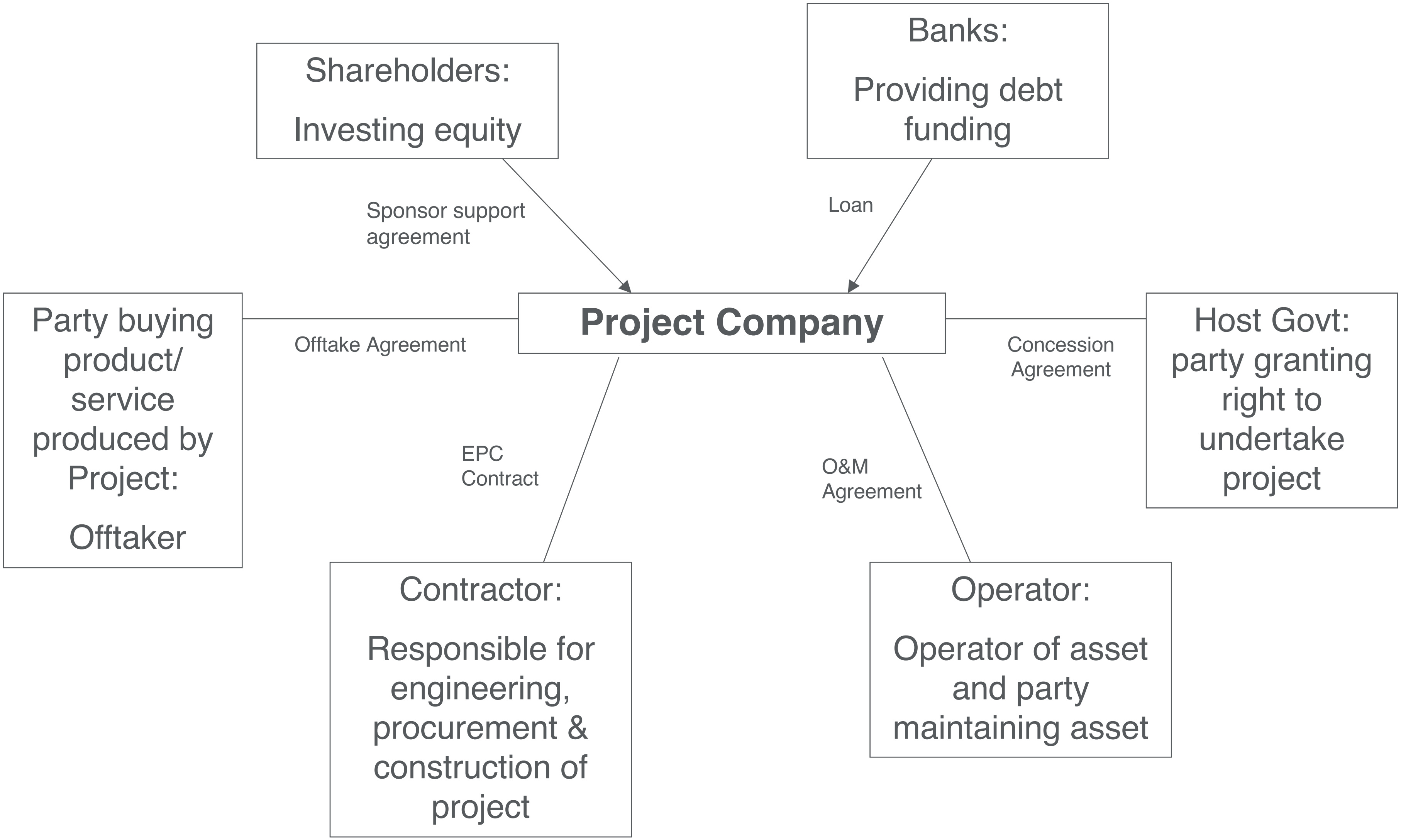
30 April 2018

What is project finance?

- Financing the development or exploitation of assets where:
  - the bulk of the financing is provided by debt;
  - remainder of financing is provided by equity
  - the borrower is generally a special purpose company with no other assets or business;
  - the lenders have no, or only limited recourse to the shareholders of the project company; and
  - the debt is primarily to be repaid from project revenues.

Typical project financing structure and key parties



Where do you find project financing used?

- Sectors where project financing techniques have been used:
  - Utilities (solar energy, wind energy, geothermal hydroelectricity, and power, power plants, water desalination plants, sewerage systems, etc.)
  - Transport (e.g. roads, railways airports, etc.)
  - Other types of public infrastructure, (e.g. prisons, schools, etc.)
  - Industrial projects (e.g. steel plants, petrochemicals)

Why is project finance attractive (1)?

- To Host Governments:-
  - Develop infrastructure
  - Reduce need for Government funding
  - Transfer risk to private sector & limit public sector responsibility
  - Benefit from private sector competence/efficiencies
  - Move off Government's balance sheet
  - Long term arrangement that facilitates Technology and Skills Transfer

Why is project finance attractive (2)?

- To Sponsors:-
  - Limits risk and recourse
  - Carry out the project off balance sheet
  - Use debt to finance most of the project cost, reduces Sponsor funding requirements and increase Sponsor return

Why is project finance attractive (3)?

- To Lenders/bondholders:-
  - risks are carefully analysed, limited and priced
  - full security package
  - can take control if project gets in trouble
  - financing infrastructure means an assured, stable, long-term revenue stream
  - relatively low risk (margins on project finance loans lower than many other types of lending) and non-cyclical (i.e less dependent on asset valuations)

Project financing - the huge potential in the Middle East region

- Solar is now cost competitive with conventional power
- In the GCC, land for projects readily available
- Peak electricity demand coincides with solar energy peak (midday)
- GCC and broader Middle East ambitious renewables targets
- Globally largest area of electricity investment remains in new renewables-based power capacity (IEA)
- Reportedly, capital investment of around USD30-40bn to meet Middle East's 2035 renewable energy targets

Greater project financing due to increase in renewables tenders and investments in the UAE

Regional and global trends

- Dubai's ambitious tenders stimulating development of solar projects in GCC which need to be financed
  - mega sized solar projects
  - record breaking tariffs
  - absence of subsidies (no feed in - tarrif)
- Abu Dhabi ramping up - Sweihan (1,177 MW) reached financial close last year, and expansion project planned for later this year

Energy Efficiency

ESCOs - Energy Service Company

- Energy Efficiency Projects: ESCO model being adopted - ESCO contractor guarantees a level of energy savings over a period of time in return for periodic payments from the employer.
- Financing for the capital investment can come from the ESCO, customer or a third party financing (debt funding is on a project finance basis, with lenders take security over plant/equipment)
- AFZA retro-fit project (largest energy rehabilitation project in the Middle East) was funded by National Bonds Corporation. Target is to reduce energy consumption by 30%.
- Etihad Esco (a subsidiary of DEWA) implemented the above project and has signed several agreements/MoUs for similar retro-fitting projects (e.g. Dubai airports).
- Foreign ESCO contractors operating in Dubai are accredited by RSB

Pipeline includes:

- GCC
  - Dubai: Phase V solar PV due 2018
  - Oman: OPWP and PDO solar PV projects being tendered 2018
  - Saudi:
    - REPDO to close Sakaka solar PV and Dumat Al Jandal wind
    - tender of 3.25GW of solar power and 800MW of wind through 8 projects in two rounds due 2018
  - Kuwait: possible retender of Al Abdaliyah ISCC (?)
- Jordan: round 3 ongoing
- Egypt:
  - 600MW of BOO solar capacity in the West Nile region
  - 500MW solar PV project at Kom Ombo due 2018

Who is Lending for Middle East Projects?

- Traditional project finance lenders (European and Japanese lenders, export credit agencies, etc.)
- Increasing role of Chinese banks:
  - manufacturers and Chinese companies (especially big state owned enterprises) taking equity positions in projects
  - Non-traditional lenders and investors - infrastructure funds etc., becoming interested as the market matures and project developers look to free up capital for new projects or hit market share constraints

Challenges for Project Financing

- How does the financing of renewables differ from conventional?
  - Upfront capex is greater proportion of overall cost (no fuel costs)
  - Hence, renewables projects are more sensitive to the discount rate used
  - Availability of concessional financing/tax credits a significant factor in developed markets. Less so in Middle East, Africa where competitive bidding is the norm and no fiscal support available
  - Technology risk for certain types of renewables projects
  - Many developers/technology providers are in difficult financial situation (Abengoa, Sun Edison, etc.)
  - Hyper-aggressiveness bidding based on optimistic predictions about future costs has led to many developers' balance sheets being put under strain
  - Basel III increases regulatory costs of long-term debt
  - Large budget deficits in some countries give rise to offtaker credit risk concerns (e.g. Oman sovereign down-grade)

Long term trend - upsurge in renewables tenders and investments

Environmental concerns

- International commitments
- Environmental targets

Demand

- GCC populations growing
- Industrial base developing

Financing

- Technology maturation
- Up-scaling of projects

Any Questions?

Thank you

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