

Crash Course

Financing of Geothermal Projects



stek



geothermie
nederland



do your thing

31 October 2023

Program

- 14.00 Walk-in
- 14.30 Presentation ING: key elements of financing geothermal projects
- 15.15 Presentation EBN: project finance and the geothermal sector
- 15.30 Break
- 15.45 Presentation Stek Advocaten: Financing documentation – Why is geothermal different?
- 16.15 Drinks & bites
- 17.00 End



An aerial photograph showing a vast industrial and agricultural complex. The foreground and middle ground are dominated by rows of large, white-roofed greenhouses. Interspersed among these are several industrial buildings, including a large white warehouse with a grey roof, a smaller building with a dark roof, and a large cylindrical storage tank. A central canal or waterway winds through the site, bordered by green grass and trees. In the background, a city skyline is visible under a clear sky.

ING

Key elements of financing geothermal projects



Agenda

1. Introduction ING Sustainable Structured Finance
2. Project finance basics
3. Project finance zoom-in on geothermal projects
4. Key take aways

Who is looking for financing for a geothermal project?

Who is familiar with project finance?

Who has financed a geothermal project before?

What do you see as the main risks of a geothermal project?

1.

Introduction to ING Sustainable Structured Finance

Sustainable Structured Finance (SSF) focus themes

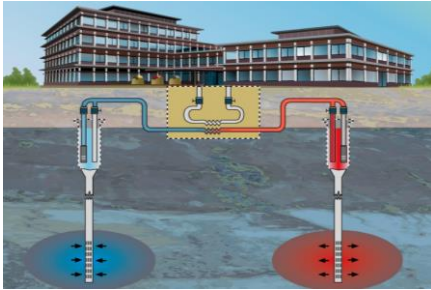
Circular plastics



Carbon reduction



Sustainable heating



KPI Financing



Geothermal



Energy storage



Wind onshore

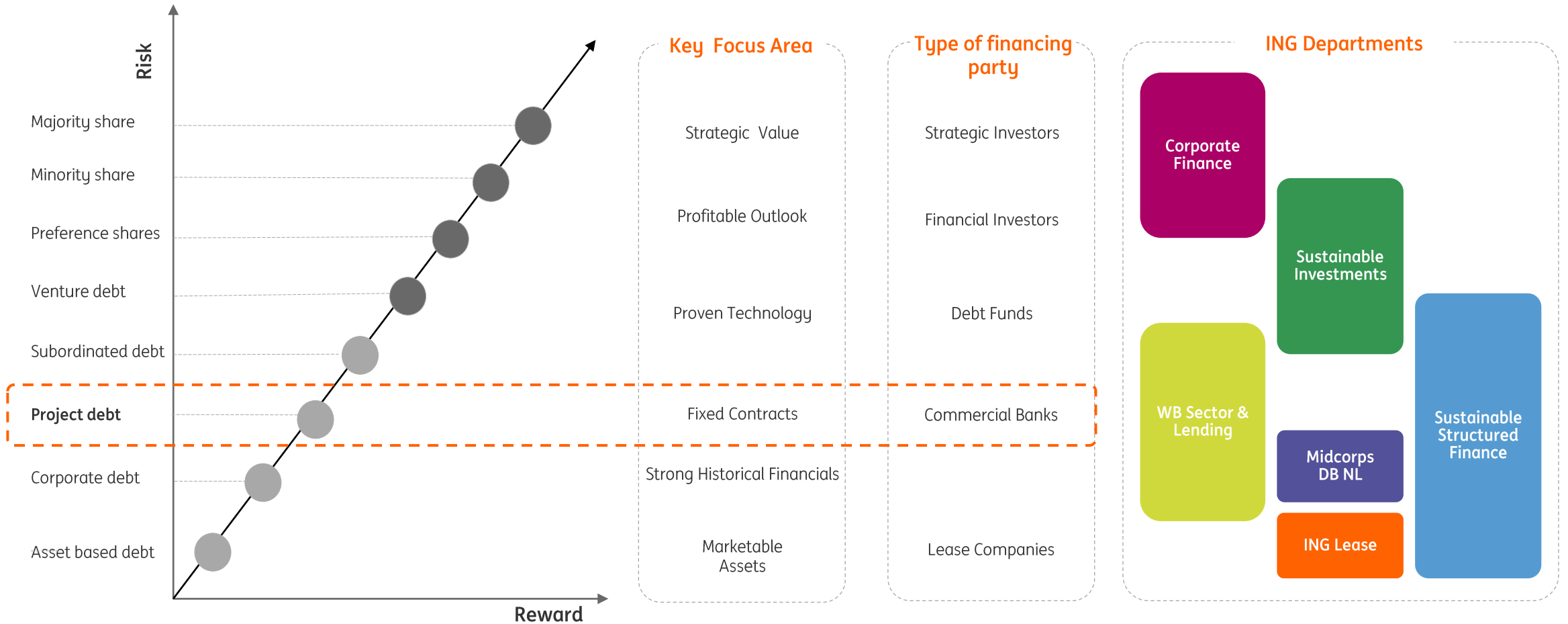


Solar specials



Funding the gap: introducing the role of SSF

ING offers a wide range of tailor-made financial solutions for sustainable business initiatives













Where does your project fit?

2.

Project finance basics

Benefits of non-recourse financing compared to corporate financing

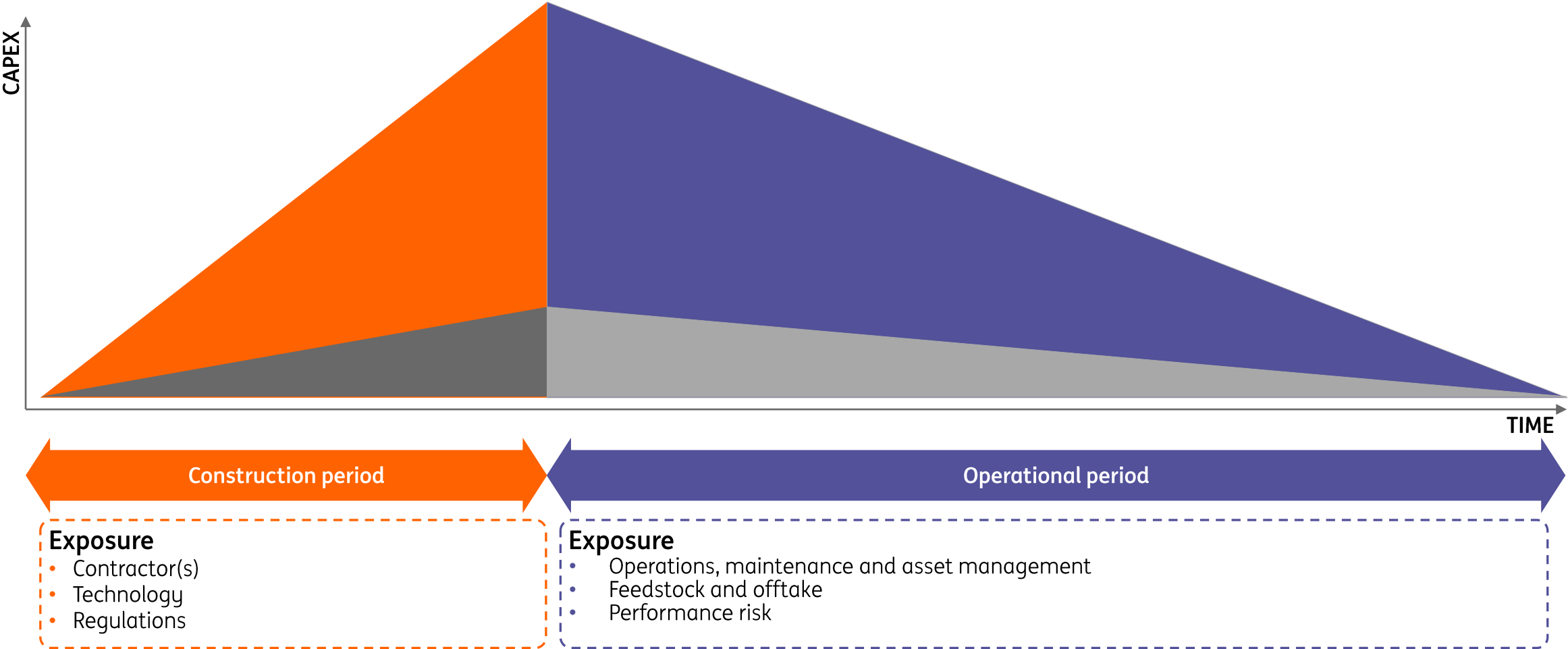
- ✓ Allows for **risk allocation** of new technologies and new business models to a SPV, Joint Venture or 3rd party
- ✓ Limited or **no impact on balance sheet** and outside debt restrictions in corporate facility
- ✓ Possibility of **longer tenors** of financing depending on the contracts
- ✓ Requires **limited equity contribution** due to higher gearing and possibly equity sharing with JV partners

| Consideration | Non-recourse Financing | Corporate Financing | Comments on Non-recourse financing |
|-----------------------------|---|---|--|
| Risk & Balance sheet impact |  |  | <ul style="list-style-type: none"> ✓ Risk allocation of new technologies and new business models ✓ No consolidation into financial statements in case of JV or 3rd party |
| Equity return |  |  | <ul style="list-style-type: none"> ✓ Limited equity contribution ✓ Longer financing tenors ✗ May require the sharing of return with JV partners or 3d parties |
| Credit base |  |  | <ul style="list-style-type: none"> ✓ No historical performance and financials needed ✗ Requires contracted cash flows |
| Flexibility |  |  | <ul style="list-style-type: none"> ✓ No lender consent needed under corporate facility ✓ Smaller scale transactions possible (>€5m) ✗ Extensive documentation and conditions for financing |
| Transaction cost |  |  | <ul style="list-style-type: none"> ✓ Eligible for green discount (depending on the project – Dutch Market) ✗ Additional banking and due diligence fees |

 More favourable  Less favourable

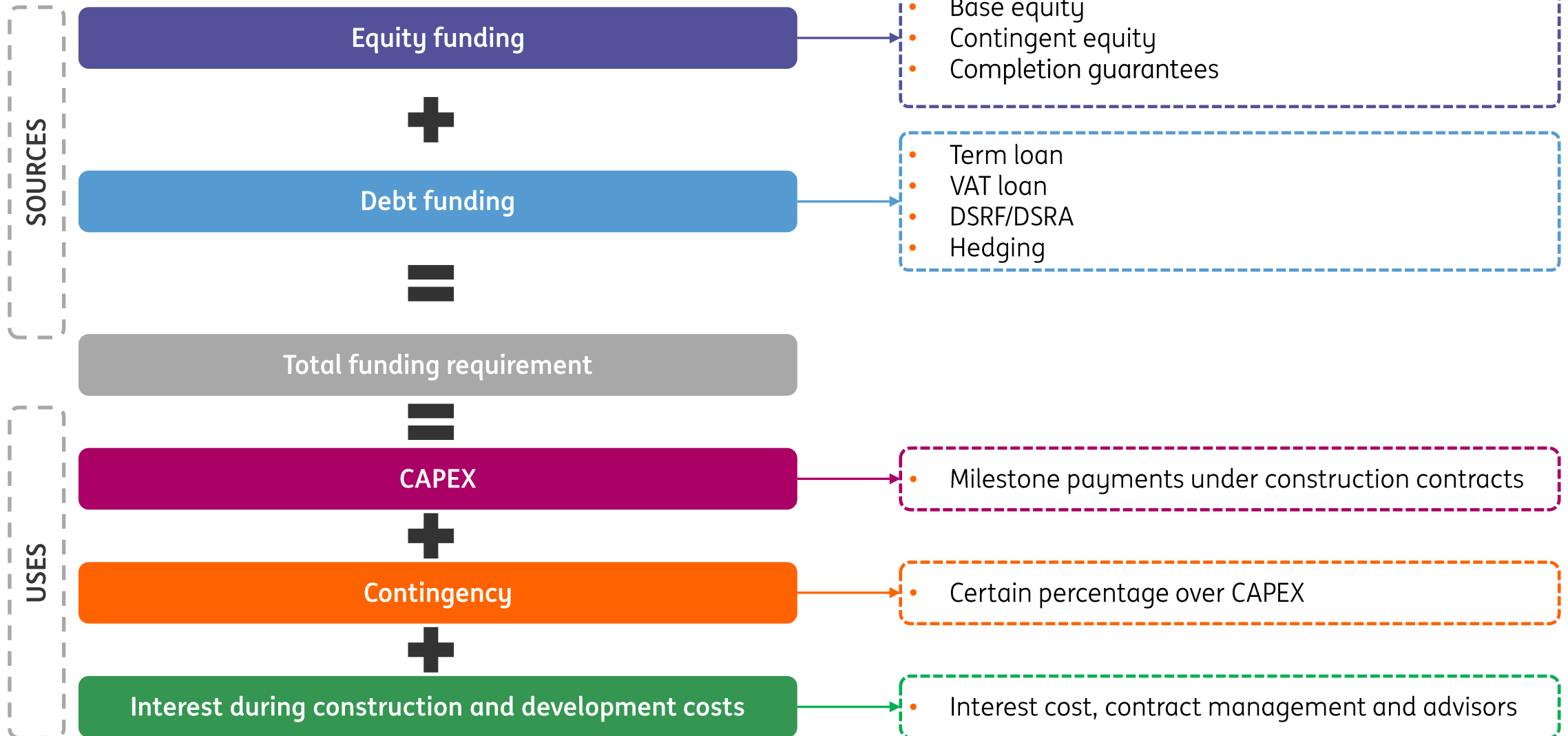
Asset creation and amortisation

Key building blocks project finance



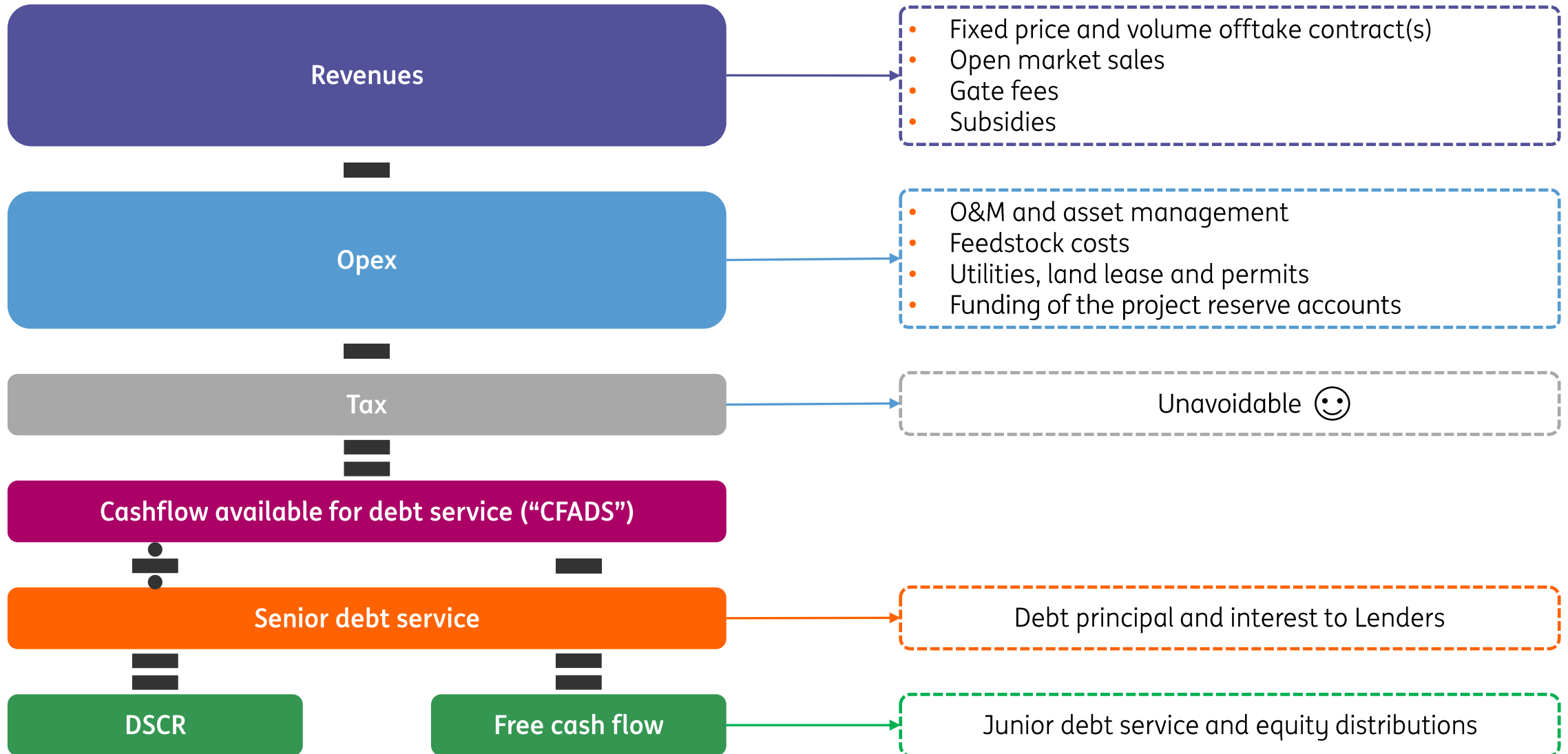
“Game of contracts” - construction

Key building blocks project finance



“Game of contracts” - Operational

Key building blocks project finance

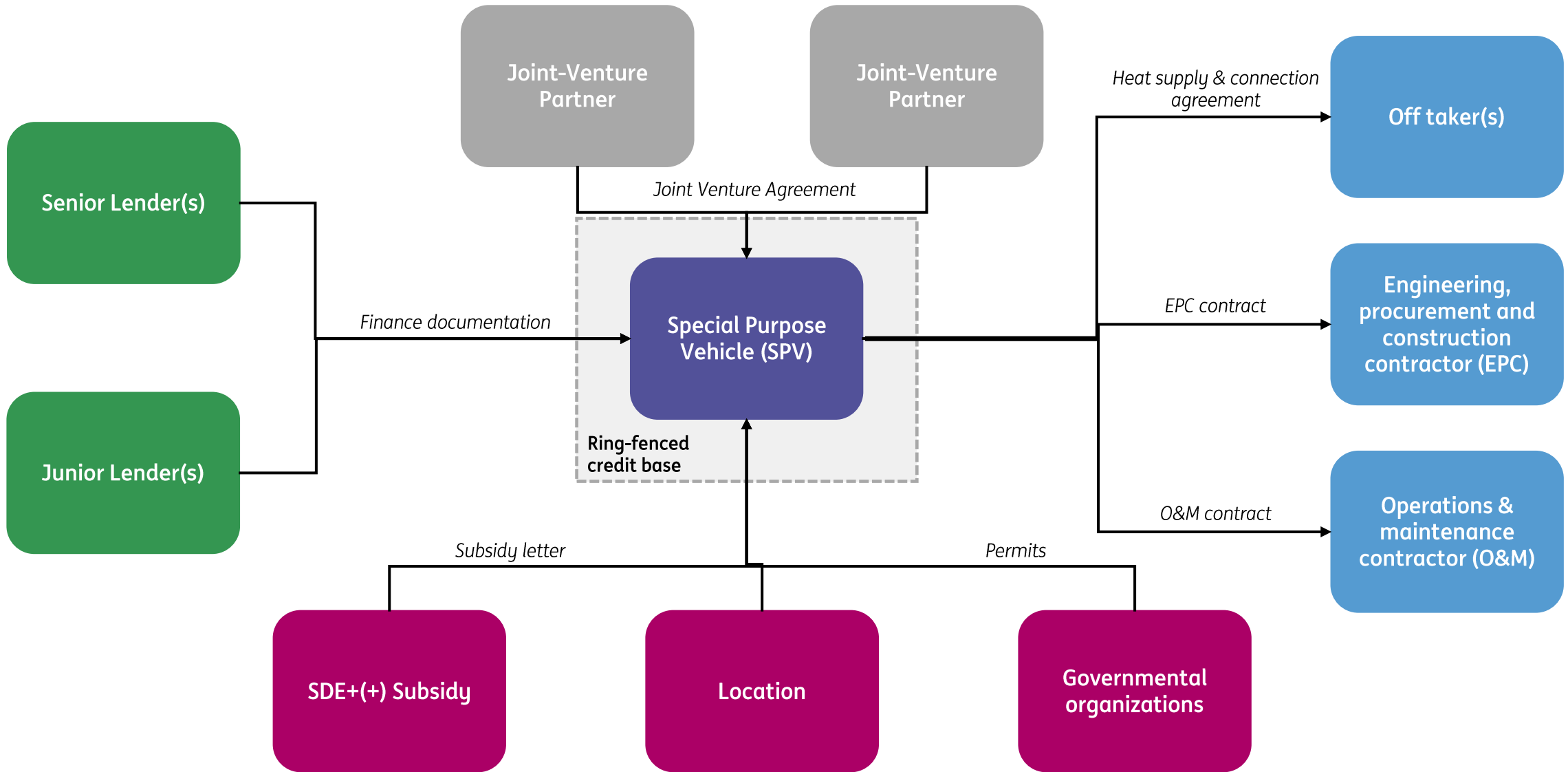


3.

Project finance zoom-in on geothermal projects

Typical project financing structure for geothermal projects

Geothermal source and heat distribution network in one SPV



Key focus areas of a geothermal project finance solution

- 1 Agreements
- 2 Sponsor & Borrower
- 3 Financial Projections
- 4 Construction & Operation
- 5 Stakeholder management
- 6 Due diligence

1

Agreements

- Off take contract(s) with a large pool and/or financially strong off takers.
- Long term contracts for a longer period than the tenor of the loan.
- Very limited termination grounds.
- Step-in rights senior lender(s) in major project contracts.
- No or limited risk on price, volume and quality.
- Agreements between the “source” and the “network”.
- SDE+(+) should be obtained (lender might help with a support letter).

- Financially strong sponsor.
- Investment takes place in a SPV dedicated to the project.
- Depending on the transaction structure sponsor guarantees might be required.
- All assets, material contracts and shares of the SPV should be pledged to the lenders.
- Joint venture agreement when more than one sponsor.
- For Dutch projects: involvement of Energie Beheer Nederland (EBN).

3

Financial Projections

- Debt sizing based on minimum debt service coverage ratio (DSCR) and debt to equity ratio's.
- Tenor up to 15 years depending on the terms and conditions of agreements.
- Stress tests on aspects like: higher capex, inflation, delay, standstill, higher opex, lower production volume.
- Maintenance and general reserve accounts for expected and unexpected (re)investments.
- Sufficient contingency budget.

4

Construction & Operation

- Construction preferably based on fixed price turnkey EPC contracts and/or completion support from the sponsor(s).
- Drilling risk should be covered by the sponsor (i.e. equity), insurance (RNES) or EPC contract.
- Sufficient coverage that the demand for heat doesn't lag behind the expected sales (in Dutch "vollooprisico") on the day of the investment decision and/or financial close.
- Long term O&M and technical service agreements including performance undertakings and/or guarantees.
- Sufficient insurance in place (construction all risk and corporate liability).

5

Stakeholder management

- Permits that can already be obtained should be irrevocable at financial close.
- Large geothermal projects might involve more than 1 bank as senior lender.
- Involvement of senior lender(s) in negotiation with agreements helps for bankability.
- Agreements with united off takers (cooperatives).
- Agreements with the municipality and involvement of locals.

6

Due diligence

| Advisors | For the Borrower | For the Lenders | Can be the same advisor? |
|-------------------------------------|------------------|---|--|
| ▪ Financial Advisor | Yes | Not required (unless ECA financing is targeted) | No |
| ▪ Legal Counsel / Advisor | Yes | Yes, Lenders' Legal Advisor / Lenders' Legal Counsel, these roles can be carried out by one party | No |
| ▪ Insurance Broker | Yes | Not applicable | Not applicable |
| Advisors producing a DD report | For the Borrower | For the Lenders | Can be the same advisor? |
| ▪ Technical | Yes | Lenders' Technical Advisor | Usually yes |
| ▪ Commercial | Yes | Not required | Yes |
| ▪ Market | Yes | Not always required | Yes |
| ▪ Feedstock/supply | Yes | Not required | Yes |
| ▪ Insurance Advisor | Can be shared | Lenders' Insurance Advisor | No |
| ▪ Tax and Accounting | Yes | Yes | Yes, Lenders could potentially rely on T&A advisor acting for the Borrower |
| ▪ Model (Auditor) | Yes | Lenders' Model Auditor | Yes, only one independent Model Auditor acting for the Lenders |
| ▪ Environmental & Social | Yes | Depends on country and project size | No |

4.

Key take aways

Key take aways

- 1 Geothermal projects are bankable and early involvement of lender helps the project
- 2 Agreements are key for project finance: long term contracts, no price/volume risk and limited termination grounds
- 3 Drilling risk should be covered by the sponsor (i.e. equity), insurance or the EPC contractor
- 4 Major benefits of project finance are risk allocation, no or limited impact on balance sheet and longer tenors
- 5 Financial projections should be robust, predictable, have sufficient contingencies and reserve accounts



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