

ARTHUR COX

**IRBEA**

# **Financing Bioenergy Projects Workshop**

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# Topics

1. Irish Project Finance Market
2. Bioenergy - the asset class
3. Compatibility with Project Finance
4. Opportunities & challenges

# Irish Project Finance Market

1. Refit 2/3
2. PPP & Wind
3. Competitive Market
4. Non Bank Lenders
5. Capital Markets/Project Bonds

# Bioenergy – the asset class

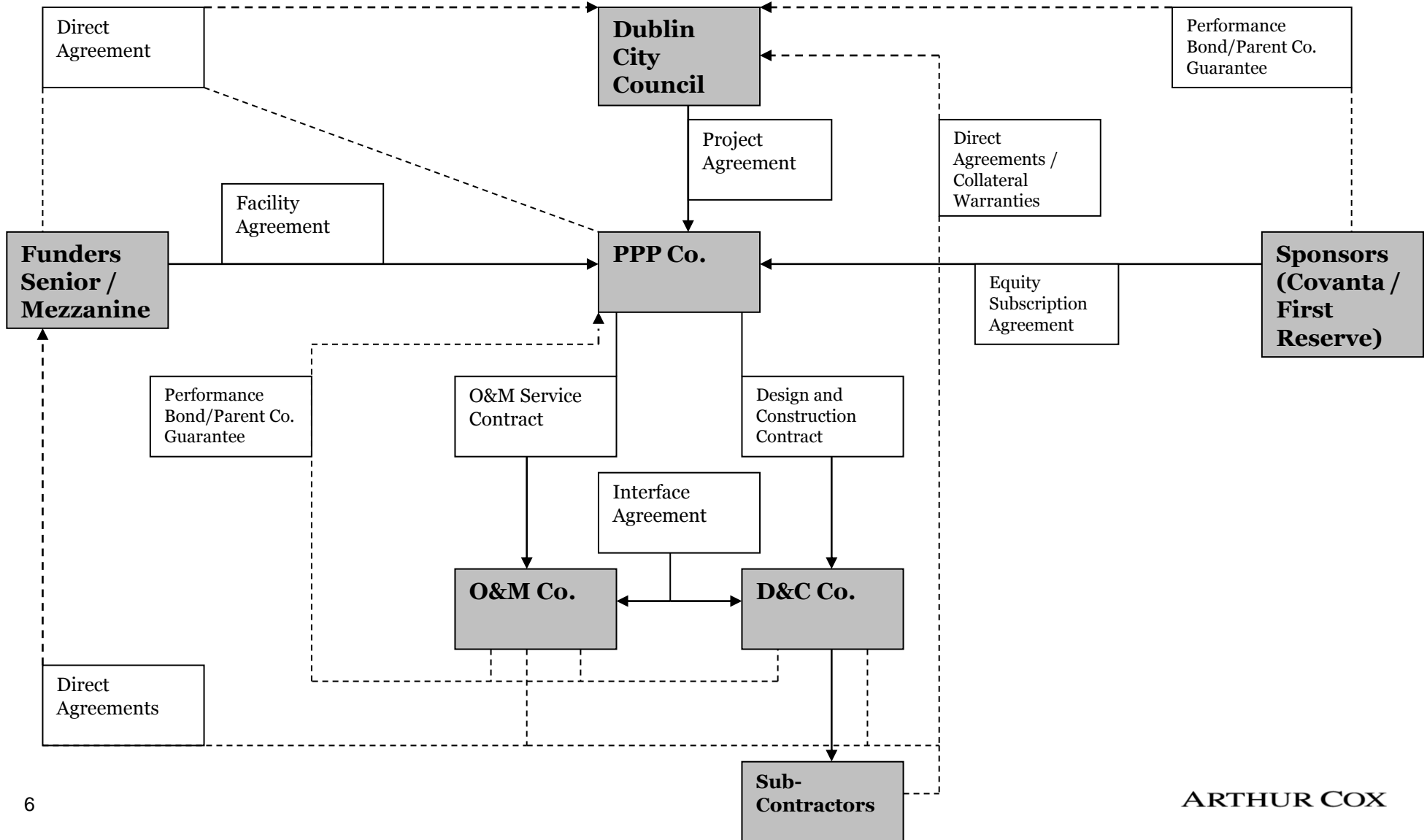
1. Licensing / planning / emissions consenting
2. Putting a value on heat
3. Technical challenges
4. Reference projects:
  - Dublin Water to Energy (gate fees + power)
  - Mayo Renewable Power (power + pellets)
  - Embedded generation (heat and power)
  - Smaller scale projects (heat + power)
  - Non Refit projects?

# Compatibility with Project Finance

Funders will ask ...how similar to wind?

1. Equity providers / sponsors
2. Revenue streams / offtake
3. Access to Refit 3
4. Construction risk
  - Equipment supply
  - Split turbine / boiler contracts
  - Managing interface
  - Warranty / wrap cover
  - Refit connection deadline
5. Fuel supply
6. Operation and maintenance

# Project Finance Contract Structure



# Opportunities & challenges

1. Size of the market?
2. Larger projects less likely?
3. Renewable Heat Incentive likely?
4. Low technology risk
5. Opportunities to scale up
6. EPC contract structures not yet rolled out
7. Insurance products / warranty cover
8. Planning risk (O' Grianna)

# Questions?

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