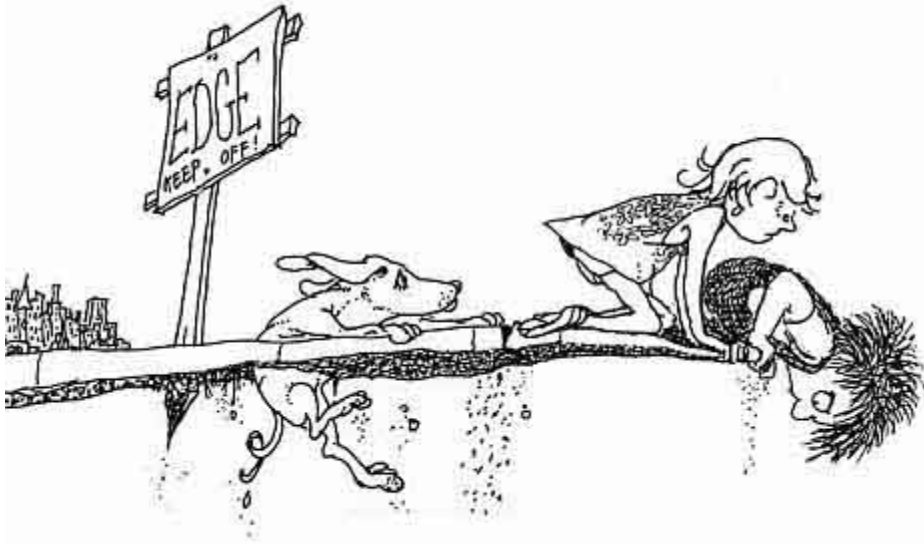


# Financing Nuclear Power

# A Road to Nowhere?



# Capital Sources

## Equity

- ▶ Developer
- ▶ Strategic Partners
- ▶ Private Equity

## Debt

- ▶ Commercial Banks
- ▶ Hedge Funds
- ▶ Multilateral Agencies
- ▶ Export Credit Agencies
- ▶ Capital Markets

# Show Me the Money

- ▶ A key financing hurdle to new development of nuclear power projects is the allocation of risk in a manner needed to attract debt capital.
- ▶ Corporate boards are unlikely to “bet the company”
- ▶ Non-recourse or limited recourse financing is paramount - we look to the Project Finance model, under which lenders look to cash flows from operation rather than creditworthy sponsors for repayment
- ▶ When we talk about risk allocation and mitigation, we assume the costs associated with risk mitigation are politically acceptable



# Project Finance Applied

- ▶ Project finance allocates risk by creating robust contractual relationships with creditworthy counterparties to create credit where there otherwise is none :
  - ▶ Engineering, procurement & construction contracts
  - ▶ Power purchase agreements
  - ▶ Supply contracts
  - ▶ O&M agreement
- ▶ Certainty of costs/project completion is the key, with appropriate contingencies for limited and understood risks.



# Risks Come in Different Shapes and Sizes

- ▶ Risks associated with constructing nuclear power plants include:
  - ▶ Cost overruns
  - ▶ Construction schedule
  - ▶ Litigation
  - ▶ Regulatory/ licensing
- ▶ These are symptoms of the real risk - insufficient cash flows available to repay debt.

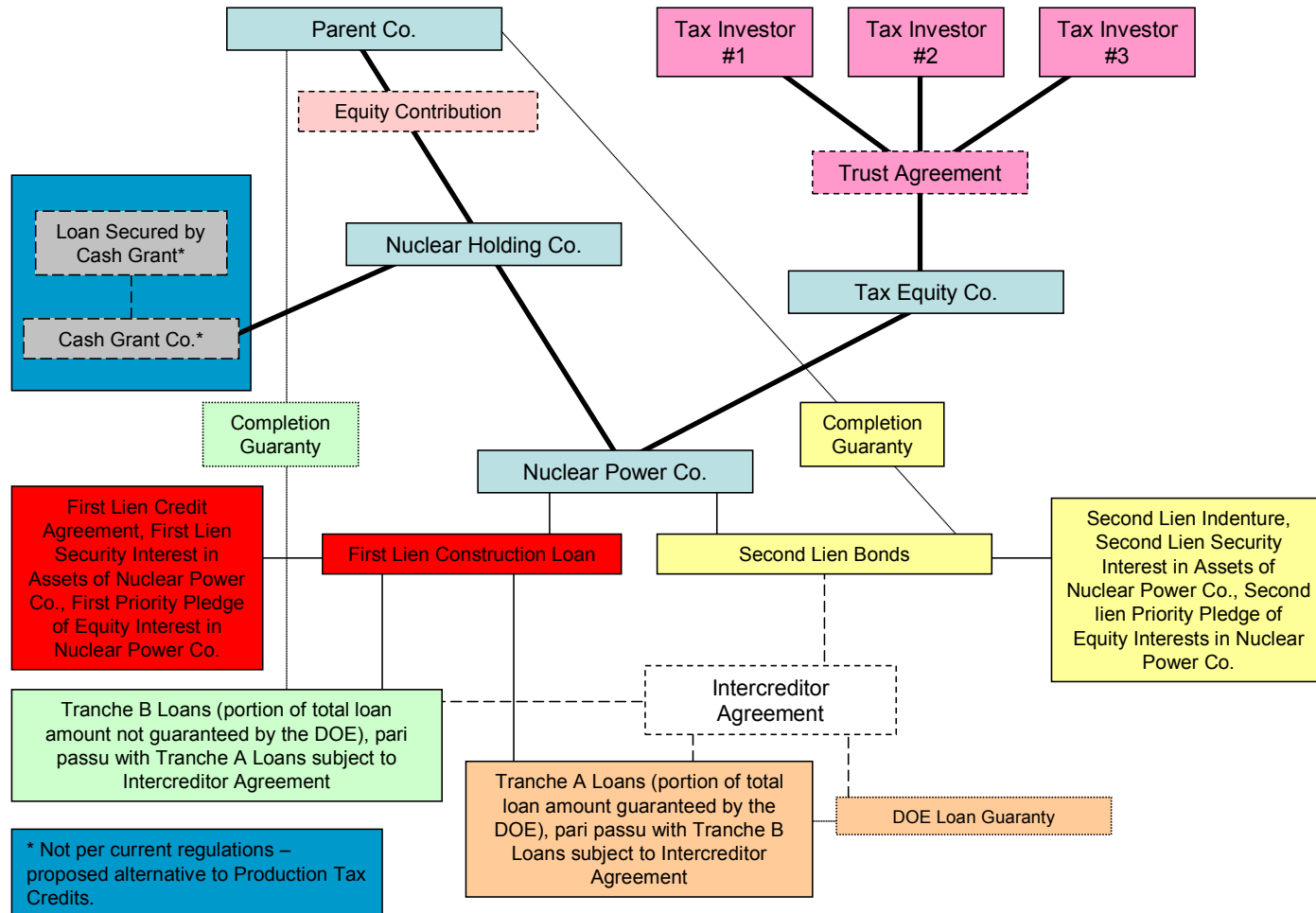


# Different Subsidies Have Different Objectives

- ▶ Cost subsidies relate to competitiveness of power production on a unit of output basis.
  - ▶ *Example:* Production Tax Credits (PTCs) provide a cost competitive advantage by reducing the tax liability associated with producing a unit of energy.
- ▶ Other “subsidies” are designed to mitigate risks - as risks are understood more private parties may be willing to take on those risks.
  - ▶ *Example:* DOE Loan Guaranties enable capital providers to invest in the face of perceived unfinanceable risks - as time elapses, those perceptions may change



# Financing Sources; Complexity





# How Can States Help?

- ▶ Rate recovery legislation, or something like it in rate-restructured jurisdictions, can be a proxy for contractual risk mitigation.
- ▶ How else can states reduce risk?
  - ▶ Streamlining regulatory processes
  - ▶ Lowering the cost of entry
  - ▶ Filing in gaps in federal programs
- ▶ States that want nuclear power development need to find ways to reduce risk as opposed to thinking solely in terms of “subsidizing” nuclear power.