

The logo for Teollisuuden Voima Oyj (TVO) is displayed in white, bold, sans-serif capital letters within a dark blue circular graphic element on the left side of the slide.

TVO

IFNEC FINANCE WORKSHOP

London 9 May 2012



Lauri Piekkari
SVP, Treasury



CONTENT

- **TVO in general**
- **Financing of commercial nuclear investments**
 - risk allocation?
 - financing model?
- **TVO's financing model**

TEOLLISUUDEN VOIMA OYJ (TVO) IN A NUTSHELL

Company

- Electricity generator owned mainly by leading Finnish utility companies
- Sells electricity to its shareholders at cost
- Produced 16% of electricity consumed in Finland in 2011

Existing Nuclear Power Plant Units (Olkiluoto 1 and 2)

- 2 x 880 MW, BWR, Westinghouse Atom
- Among the world's best in terms of availability and stability

Nuclear Power Plant Unit (OL3) under construction

- 1 x 1,600 MW, PWR, under construction by Areva-Siemens consortium
- According to turnkey plant supplier, commercial operation is expected to start in 2014

OL4 under planning

Coal Condensing Power Plant Unit (Meri-Pori)

- 257 MW stake in 565 MW coal condensing unit

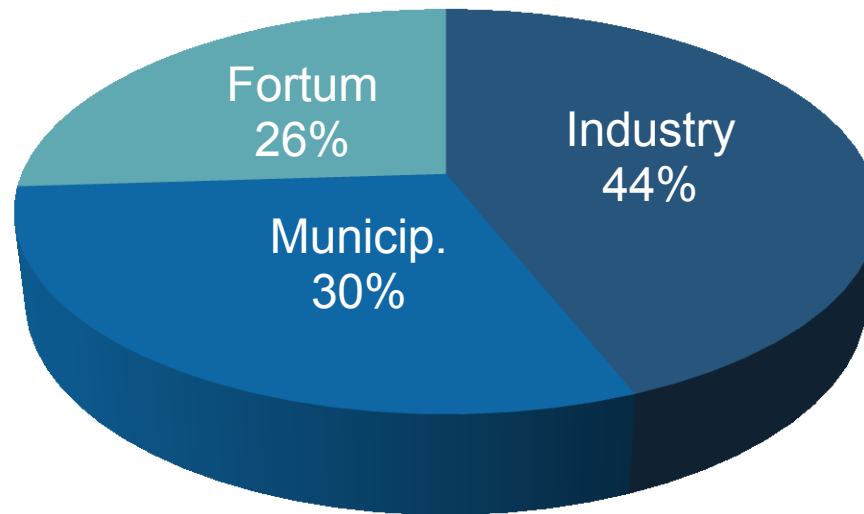
Posiva, a joint venture company with TVO (60%) and Fortum (40%)

- responsible for the final disposal of spent fuel and nuclear waste



TVO'S UNDERLYING OWNERS

(ABOUT 60 OFF-TAKERS)



RISK ALLOCATION

- Risk/return profile for equity and debt investors
- Pure debt holders do not generally like risks
- However, there are financial instruments between debt and equity that may change risk/return profile
- Who is best positioned to carry various risks?
- Who will get the benefits?
- How are risks shared in construction phase vs. operational phase?

FINANCING CONCERNS REGARDING NUCLEAR INVESTMENTS IN GENERAL

Political risks

- **what if political climate changes?**

Licensing procedure

- **how transparent is the licensing procedure?**

Nuclear waste management

- **is there a political and technical solution?**
- **how viable is the funding plan?**

Project economics

- **commercial viability?**

Construction and completion risks

- **who will cover the completion risk?**

Technology

- **proven technology?**

Insurances

WHICH FINANCING MODEL TO CHOOSE?

Base analysis

- country/case specific?
- infrastructure/commercial investment?
- risk/return sharing?

Corporate model

- large corporates using their balance sheet

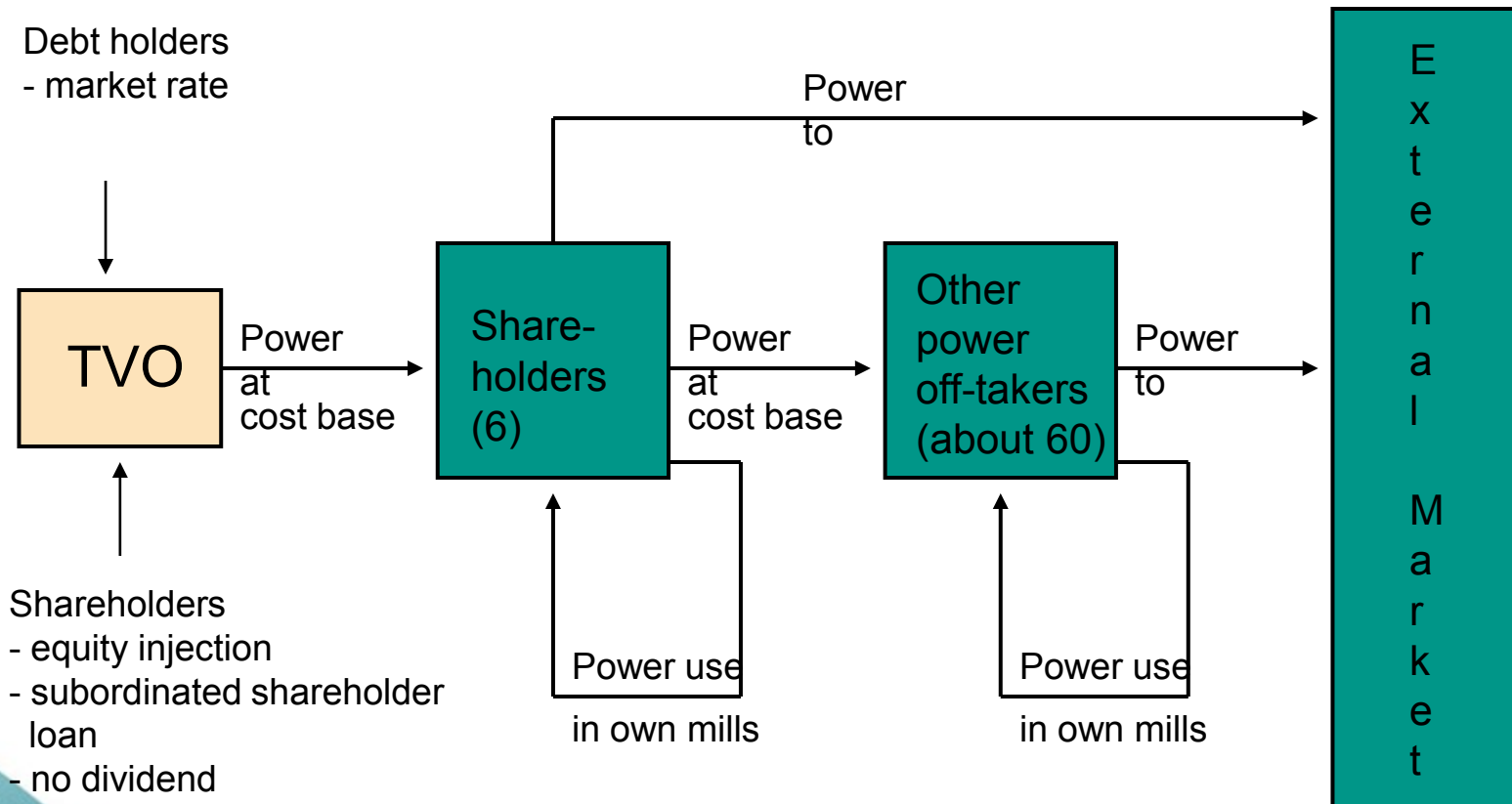
Project Finance

- "Independent Power Project"

Co-operative model

- for example Finnish TVO, US Co-Op's

TVO'S OPERATING PRINCIPLE



FINANCING ALTERNATIVES FOR NUCLEAR INVESTMENTS

TVO's model

- also smaller companies and utilities can invest
- benefits of large scale production can be shared with more players → risk is also shared
- benefits of lower cost of nuclear power will be shared with large number of end-users
- "Public Private Partnership"
- due to risk sharing structure and excellent track record on the existing operating units relatively low equity component is required for the investment



FINANCING THE OLKILUOTO 3 PROJECT

TVO SPECIFIC CONCERNS AT THE TIME OF INVESTMENT DECISION

- Large amount to finance
- No examples of privately funded nuclear projects lately
- Weak financial key ratios owing to TVO's non-profit, cost cover structure
- Concentrated assets and dependence on nuclear generation
- Possible exposure to construction risks

WHY OL3 INVESTMENT HAS BEEN A STRONG PACKAGE FOR THE FINANCING WORLD? (1/2)

Stable political environment in Finland

- favourable public opinion

Waste Management solution agreed

- political decision
- site selected
- technology available
- fully funded State Nuclear Waste Management Fund

WHY OL3 INVESTMENT HAS BEEN A STRONG PACKAGE FOR THE FINANCING WORLD? (2/2)

- Financing on balance sheet (not project financing)
- Excellent operational performance of the two existing nuclear reactors
- High credit quality owners severally liable for annual costs → committed life time off-take by the owners
- Substantial equity injection committed by the shareholders
- Full turnkey delivery by high credit quality suppliers
- Joint and several liability by the suppliers
- Project economics

→ High investment grade credit rating (Fitch A-)

The logo consists of the letters 'TVO' in a white, bold, sans-serif font, positioned inside a dark blue circular shape. This circle is part of a larger graphic design on the left side of the slide, which includes overlapping circles in shades of blue and teal, and a series of thin, curved lines that create a sense of motion or a stylized arrow pointing towards the right.

TVO

THANK YOU