

The cost and benefit of ownership unbundling the distribution grid

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seo economisch onderzoek



Structure of the talk

- **Unbundling**
- **Set-up of the CBA**
- **Outcome**
- **Main benefits and cost**
- **Conclusion**

Unbundling

- Dutch proposal
 - Ownership unbundling of the distribution companies
 - Plus increasing TSO (now ≥ 220 kV; will be ≥ 110 kV)
- EU requires legal unbundling for DSO's
- The legal controversy:
 1. Current regulation not enough for LPF (?)
 2. Free traffic of capital
 3. Unbundling: telling an owner of a company what he can or cannot do with his possession.

Policy proposal

- Heavily debated
- March 2004 Minister of EA launched the unbundling plan
- August 2005 Draft bill presented to Parliament
- Members of Parliament were not convinced about cost and benefit of the proposal, the employment effects and the effects on the Cross Border Leases. The minister therefore commissioned a validation commission, which reported on 20 March 2006 (included sort of a CBA by CPB). Parliament approved the same month
- Alternatives are not debated
- Surprising outcome: Senate agreed with the unbundling proposal, conditional on the fact that unbundling is not realized (unless Brussels requires it or if independent network operation is threatened, this *can* be the case...)

Policy options

Effects of policy: an alternative compared to a counterfactual.

Counterfactual: only fine tuning

A. Fat distributor	110 kV not to TenneT	no privatisation
B. No fat distributor	110 kV to TenneT	no privatisation
C. Fat distributor	110 kV to TenneT	no privatisation
D. Agreement	110 kV to TenneT	no privatisation
E. Agreement	110 kV to TenneT	minority privatisation
F. Unbundling	110 kV not to TenneT	no privatisation
G. Unbundling	110 kV to TenneT	no privatisation
H. Unbundling	110 kV not to TenneT	privatisation
I. Unbundling	110 kV to TenneT	privatisation

Policy: alternative G/I (started to enable priv., but now no privatisation)

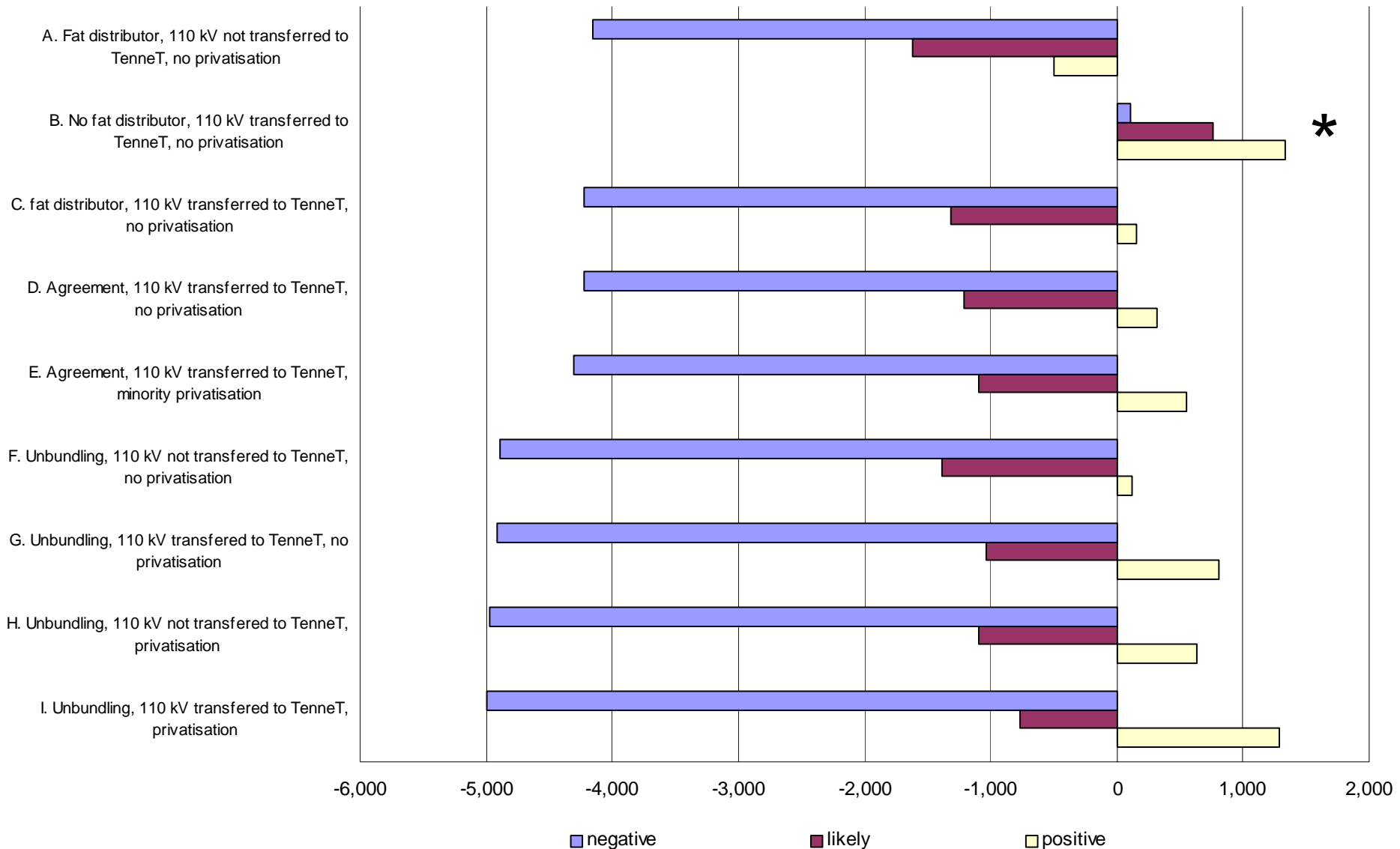
Results in terms of

Outcome: net present value

Three scenarios: negative, likely and positive

Sensitivity analysis not discussed here

Outcome



Cost-benefit analysis likely scenario

	A. Fat distributor, 110 kV not transferred to TenneT, no privatisation	B. No fat distributor, 110 kV transferred to TenneT, no privatisation	C. Fat distributor, 110 kV transferred to TenneT, no privatisation	D. Agreement, 110 kV transferred to TenneT, no privatisation	E. Agreement, 110 kV transferred to TenneT, minority privatisation	F. Unbundling, 110 kV not transferred to TenneT, no privatisation	G. Unbundling, 110 kV transferred to TenneT, no privatisation	H. Unbundling, 110 kV not transferred to TenneT, privatisation	I. Unbundling, 110 kV transferred to TenneT, privatisation
Less hindering of competition: more efficiency in supply	21	21	21	43	74	64	64	128	128
Less hindering of competition: more efficiency in generation	91	91	91	182	318	272	272	545	545
More competition and thus efficiency through more distributed generation	0	0	0	0	0	0	0	0	0
Cheaper regulatory oversight	59	0	59	59	59	119	119	119	119
Better focussed and thus more efficient distribution companies	346	346	346	346	346	691	691	691	691
Security of supply	16	25	41	41	41	16	56	31	56
One of reorganisation cost	-80	-20	-100	-100	-150	-100	-120	-150	-170
Permanent reorganisation cost	-2,073	319	-1,754	-1,754	-1,754	-2,392	-2,073	-2,392	-2,073
Legal cost adjusting the Cross Border Leases	0	-25	-25	-25	-25	-50	-50	-50	-50
Damages on the Cross Border Leases	0	(-PM?)	(-PM?)	(-PM?)	(-PM?)	-PM?	-PM?	-PM?	-PM?
Total (benefits net of cost)	-1,623	762 (-PM?)	-1,318 (-PM?)	-1,210 (-PM?)	-1,091 (-PM?)	-1,264	-922 -PM?	-970	-644 -PM?

Benefits: More competition (i)

More competition → efficiency supply and generation ↑

By preventing integrated companies to favor the own supply company hampering competition, by (e.g.)

- Setting network tariffs too high
 - Passing commercially information to the own supplier
 - Cross-subsidies from the network company
 - Suggestion of the above
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- Valuation:
 - Benefit of competition in other sectors / countries?
 - How much competition is created by unbundling?
 - Effect of distributed generation?

Benefits: Valuing more competition (ii)

- **Newbery and Pollitt (1997) competition reduced cost by 5 % in the UK. Here the change is much smaller**
- **Pollitt (1999) same study for Scotland: no effect**
- **Jamasb and Pollitt (2005): in the UK legal unbundling (almost) completely stopped cross-subsidies**
- **UK and Scandinavia did not require ownership unbundling, but are considered more mature markets anyway**
- **Relevant market: Netherlands or Europe?**
- **Favouring only possible if network regulation is too soft**
- **Regulation prevents most favouring behaviour**
- **Clark (1940) workable competition, market in which several conditions for competition are violated, does not always get better when one is improved**
- **Is distributed generation at independent producers stimulated? And if so is this going to stimulate competition and thus efficiency further?**
- **...**

Benefits: simplicity

Simplification of market structure and company structure

- **Cost for the regulator and the companies ↓**
- **Each separate companies can better focus at the core activity**
 - **1 percent lower cost with a fat distributor (€30 million)**
 - **2 percent after unbundling (€60 million)**

Other benefits

- **Lower governments can sell there shares, and at a higher price?**
 - **Commercial energy activities are too risky**
 - **Privatization vetoed by the minister**
 - **Increase in value mostly a transfer**
- **Security of supply**
 - **No underinvestment in the network, better focus**
 - **From 30 to 27.75 minutes of outage: annual benefit of € 3.4 million**
- **Lower cost of adjusting the law**
 - **Saves costly time**
 - **€ 1.5 million annually**
 - **Adjusting the current law costs € 28 million**

Cost of reorganizing

In the first year

- **Creating two companies, lawyers, building, IT, etc.**
- **€ 20 million for transfer of the grid**
- **€ 80 million for fat distributor, € 100 m. for unbundling**
- **€ 50 million for privatizing**

Annual cost:

- **Deloitte: € 455 million**
- **Roland Berger: € 280 – 400 million after 5 years because of mergers and acquisitions**
- **MEA: max 150 million. Huge savings by changing the billing system. Roland Berger disagrees**
- **CPB: € 100 million**
- **SEO: € 150 for unbundling, and € 130 for fat distributors**
 - **Follow the minister?**

Other cost

- **Cross Border Leases**
 - **Sale and lease back constructions at the cost of US government**
 - **Cost of re-negotiating + damage faced by the American investor**
- **Reputation of the government**
 - **Unbundling goes beyond European obligation**
 - **Violation of property rights**
- **Loss of synergy: higher cost of attracting money**
 - **Minister claims this cost up to 100 million in the beginning**
 - **Theoretically strange**
 - **Negative scenario: first 10 years, each year 10 percent lower**
- **Legal claims**
 - **10 DSO's, each with 20 lawyers, during 2 year, 200,000 euro per lawyer: 40 million. + 50 percent for cost of government**
 - **Likely scenario: 50 percent. Negative scenario: 100 percent**

Other effects?

- **Employment**
 - **General equilibrium effects**
- **Environment**
 - **Possibility for national environmental policy?**
- **Competitive position energy intensive industry**
- **Dutch national energy companies easier prey for foreign take-over?**
- **Redistribution**
 - **Newbery and Pollitt (1997): total cost – 5 %, producers gained while consumers and the government lost**
 - **NL: two main groups: citizens in jurisdiction with shares versus those without.**
 - **Companies are not allowed to pass on higher cost (reorganization or CBL) to their consumers**
 - **Credible / legal / enforceable?**
 - **The first five years**

Political decision

- **No unbundling, unless:**
 - **Companies want to privatize**
 - Networks will remain public
 - **Companies abuse their position**
 - Hinder domestic competition
 - Risky investments abroad
 - **If Europe requires unbundling**
- **Ministry of Economic Affairs: knowledge center for lower governments that own the energy companies**
- **Mergers in the Netherlands only possible with (large) divestures**

Conclusion

- **Cost are likely to exceed benefits**
- **Possible problems with EU law and treaty**
 - **Measure necessary and proportional?**
- **Motivation of unbundling?**
 - **Public interest theory (Posner, 1974)**
 - **Private interest theory (Stigler, 1971/4): Regulatory capture**
 - **Both theories unable to explain unbundling proposal**
 - **Inversely explained by the private interest theory??**
 - **Tit-for-tat strategy (revenge) for forceful and successful proceeding of energy companies against cpi-x regulation?**