

AN EXAMPLE:
Baltic regional electricity market

by

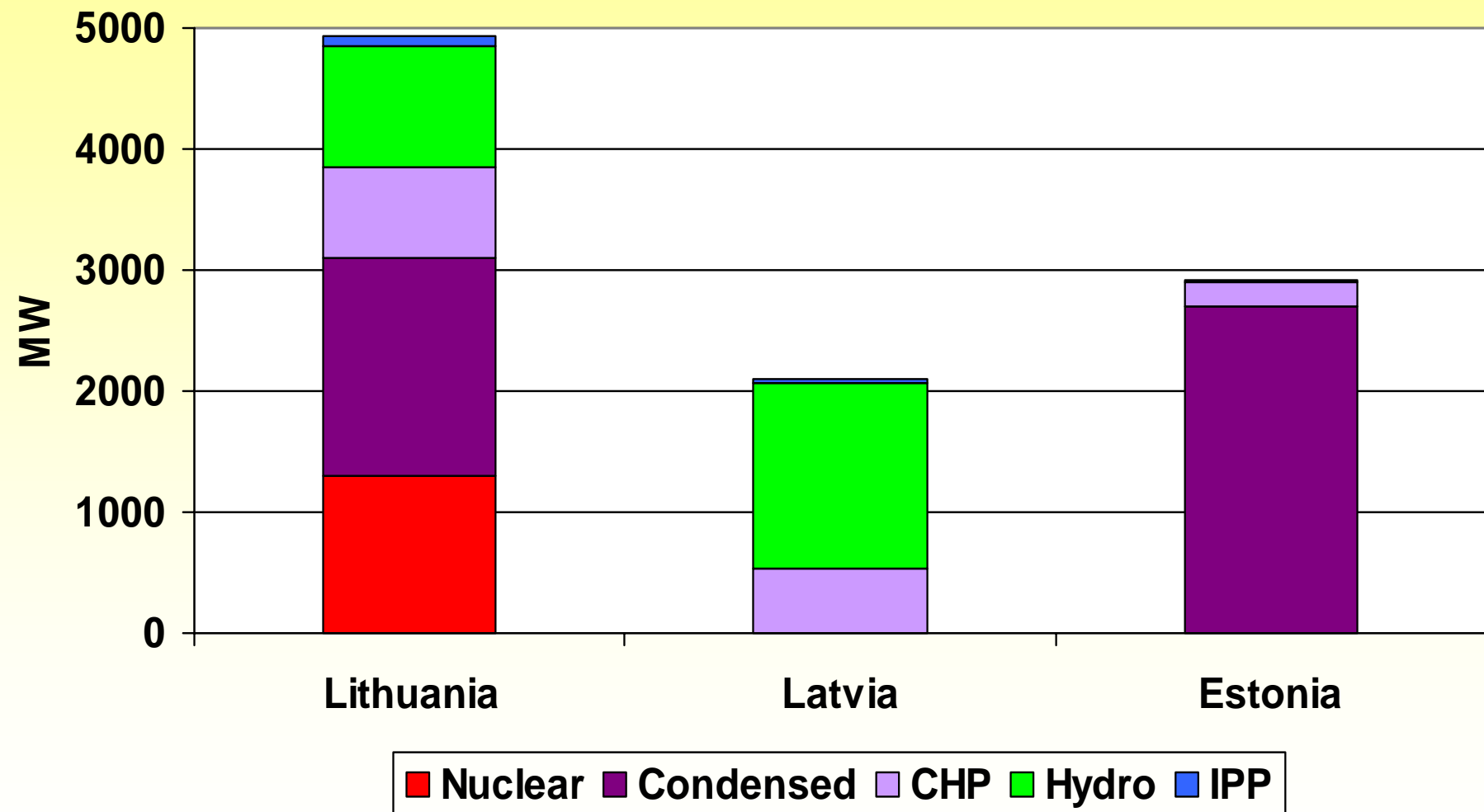
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Baltic electricity market



- Installed capacities in 2005, GW:
 - Estonia – 2.9
 - Latvia – 2.1
 - Lithuania – 4.9
- Electricity consumption in 2005, TWh:
 - Estonia – 6.0
 - Latvia – 6.8
 - Lithuania – 8.1

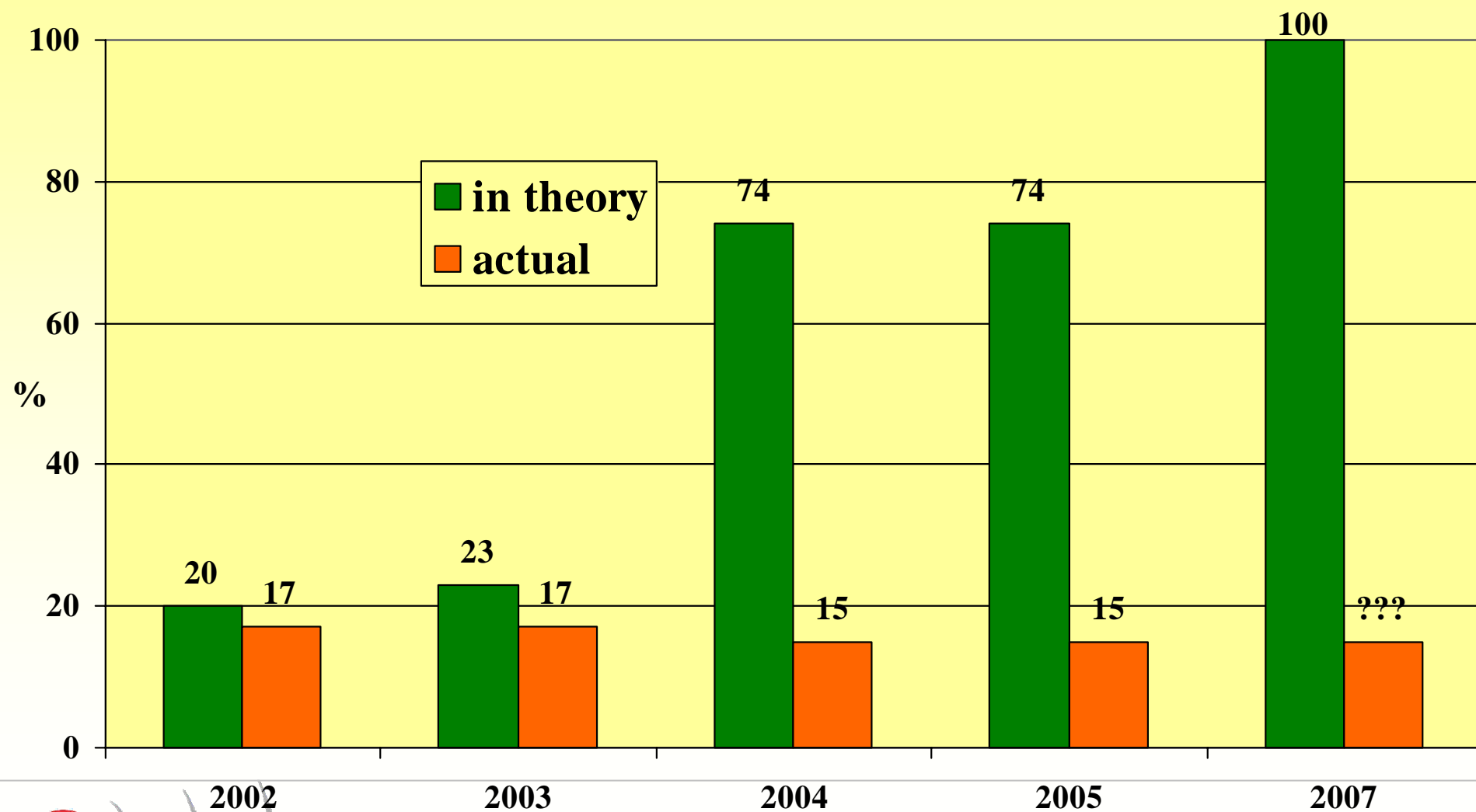
Structure of generating capacities in 2005, MW



Electricity market liberalization - Lithuania

- **market opening started in 2002, now all commercial consumers are eligible**
- **legally separate transmission, 2 distribution and several generation companies**
- **Ignalina NPP heavily dominates in the market (about 70% of the demand), plus CHPs, plus green electricity – free market is very small**
- **few switches**

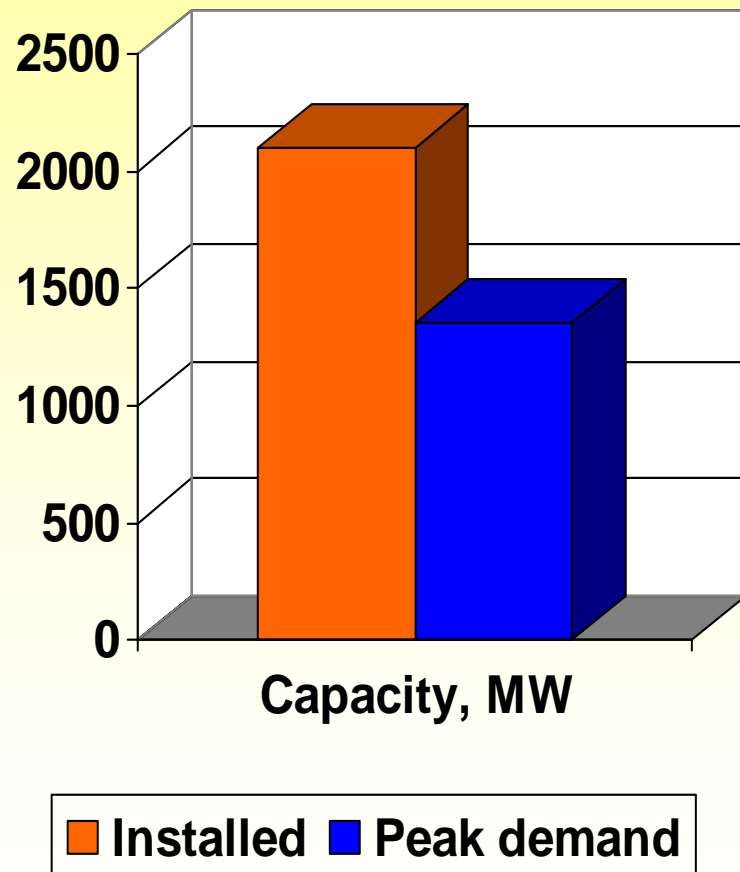
Market opening in Lithuania



Electricity market liberalization - Latvia

- TSO legally separated in 2005, transmission license issued in 2004
- Electricity Market Law passed in 2005
- formally market is open for all commercial customers
- in practice – market does not work: no one eligible consumer has switched,
- vertically integrated monopoly *Latvenergo* owns all the grid and most of generation

Latvia: *Latvenergo*

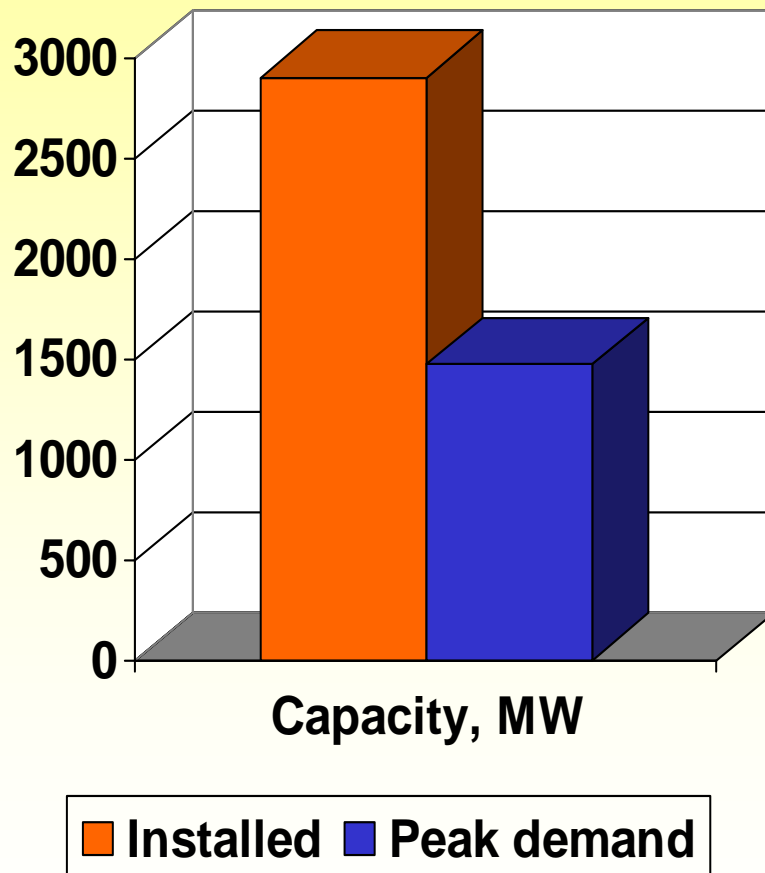


- *Latvenergo* is state-owned, vertically integrated monopoly
- *Latvenergo* production share is 93%
- *Latvenergo* distribution share is 99%

Estonia : electricity market liberalization

- **market opening 12% now, 35% in 2009 and full opening in 2013**
- **oil shale generated electricity takes 90% of the market**
- **DSOs are obliged to buy from Narva PP and CHPs**
- **National Grid company was set up as an independent company in 2004 – legal unbundling**
- **one eligible consumer is supplied by a competitive supplier Narva Elektrivõrk which imports electricity from Ignalina NPP**

Estonia: *Eesti energia*



- *Eesti energia* is 100% state-owned, vertically integrated monopoly
- *Eesti energia* owns more than 95% of power production
- *Eesti energia* has 90% of the distribution market

Electricity market in the Baltics

Source: National Reports, 2005

	Wholesale market		Retail market	
	No. of producers with > 5% share of the market	Share of the largest producer, %	No. of suppliers with > 5% share of the market	No. of fully independent suppliers
Estonia	1	95	1	0
Latvia	1	93	1	0
Lithuania	3	50	3	5

Transfer capacities in normal conditions (*DC Baltija*)

<i>Link</i>	<i>MW</i>
<i>St.Petersburg - Estonia</i>	$1000 < > 1000$
<i>Estonia – Pskov (Russia) - Latvia</i>	$1200 < > 1500 - (0,4 P_{INPP} - 300)$
<i>Latvia - Lithuania</i>	$1000 < > 1600$
<i>Lithuania – Kaliningrad (Russia)</i>	> 700
<i>Lithuania - Belarus</i>	$1400 < > 2200$
<i>Belarus – Smolensk (Russia)</i>	$1300 < > 1000$

Usage of cross-border capacities in Lithuania, January 2005

Source: National Report 2005

Lines	Usage, %
Lithuania-Latvia	15
Latvia-Lithuania	37
Lithuania-Belarus	14
Belarus-Lithuania	33
Lithuania-Kaliningrad	82

Opportunities for the common Baltic market

- **very strong interconnections among the Baltic States**
- **overcapacities in the transmission grid**
- **electricity generation mix is far from optimal in a single country, much better if taken together**
- **experience of technical cooperation and control (DC Baltija)**

Decisions taken

- **Baltic Council of Ministers in 1998 made a commitment to develop CBEM**
- **Baltic Prime Ministers resolutions (latest - June 2002) supported the CBEM**
- **Ministers of Economy agreed on the basic principles in 2001**
- **regulators signed the Agreement among the regulators on November 4, 2002**

Obstacles in development of the CBEM

- market opening is postponed in Estonia, legal framework just have been set in Latvia
- legal and administrative barriers (licenses, permits)
- dominant market players in every country
- lack of interconnections with the EU countries
- no common decision as for the trade with Russia and Russia's role in the CBEM
- every country develops its own energy strategy and only recently has been decided to have a common energy strategy

New interconnections

Expected future interconnections:

- **Estonia – Finland (two stage project);**
- **Poland – Lithuania;**
- **Sweden – Lithuania or Latvia - Sweden.**

Main objectives and benefits:

- **Integration of the Baltic power systems into the EU integrated energy market;**
- **Ensuring security of supply in the Baltic region.**

Future vision: possible electricity trade in 2010

(BCEM study, 2003)

