Energy policy in Sweden and France

What could we learn from each other?

Bo Diczfalusy
Consultant, former Director
There are many similarities...

- High per capita consumption of energy and electricity
- Well-integrated systems
- Ambitious energy policy programs
- Important role for nuclear
- Major political agreements have been made recently
...but also dissimilarities

- Sweden has a higher degree of interconnection
- Nuclear’s share is higher in France
- Sweden has a higher degree of renewables
- The market dominance is stronger in France
- Different forms of subsidies and taxes have been chosen
The Energy Policy Commission (May, 2015)
The background

- Stalling electricity demand
- Ageing nuclear
- Strong and subsidized growth of renewables
- Highly integrated market
- Market-based electricity certificate system

=> Persistently low electricity prices, low certificate prices, low profitability, low investment rate
The political situation in the Parliament

- Red-green minority Government (since 2014)
- 8 Parties, three political blocks
- Nuclear issue contentious (also within blocks)
The terms of reference

Task:
• Propose the basis for a broad agreement on long term energy policy, with particular emphasis on the electricity sector.
• Time horizon: 2025/2030 and beyond.

Work divided into three phases:
• Knowledge phase
• Analytical work
• Negotiations

Timeline: 1st of January 2017
The role of nuclear

- 10 existing reactors, accounting for some 40 per cent of electricity production
- New Post-Fukushima safety standards calling for major investments
- Owners decided that four reactors will be closed before 2020
- Tax on nuclear capacity
- Investments in new nuclear?
Broad process, including “all” stakeholders
The June 2016 Agreement
Production cost for new electricity

LCOE for existing production plants. Euro/MWh.

<table>
<thead>
<tr>
<th>Energy Type</th>
<th>Spot price</th>
<th>Spot price + green certificates</th>
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The June 2016 Agreement

- Agreement between five Parties, representing 70% of Parliament
- 2040: 100% renewable electricity production (but no ban on nuclear)
- Tax cuts on nuclear and hydro
- Prolongation and raised ambition of green certificate system until 2030
- New goal for energy efficiency (half energy-intensity 2005-2030)
- Market design to be further considered

No net emission of greenhouse gases after 2045, decline thereafter
The implications

• Broad agreement – gives certainty to actors
• Orderly transition – security of electricity supply not jeopardized
• Reasonable prospects for nuclear
• Continued support to renewables - low electricity prices to be expected
• Strong signal to further interconnection
• No (additional) intervention in the electricity market
Matters for discussion

• Both countries have ambitious approaches:
  • Ambitious goals for GHG reduction
  • Ambitious goals for energy efficiency
  • Strong programs for renewables
  • A reluctant attitude towards (new) nuclear
  
  • What is the future of nuclear?
  • Will renewables become self-sustained?
  • How do we combine competitiveness, security of supply and low emissions?
  • How do we set up a good political process?
Thank you!