

Common Swedish Norwegian certificate market for renewable electricity

Eva Centeno López, Ministry of Enterprise, Energy and Communications, Sweden

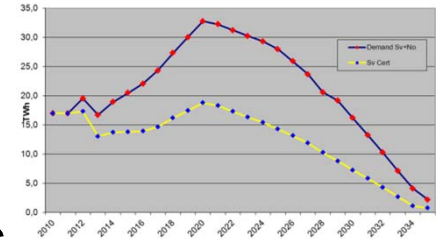
Workshop on Review Environmental State Aid Guidelines 12 April 2013

Background

- **The certificate scheme for green electricity was introduced in Sweden May 2003.**
- **According to Commission decision C(2003)382fin issuing green certificates to producers →no state aid.**
- **However, guaranteed price for certificates during first 5 years→state aid→compatible with Art. 87.3 c EC Treaty (now Art. 107.3 TFEU) (necessary, low level, limited to short period...)**
- **Guaranteed price for certificate expired 2008→no such element in the current system**
- **Common certificate market for green electricity with Norway from January 1st 2012**

Why a certificate scheme?

- **Delivery – not more not less than target**
- **Long term predictability for investors**
 - Most decisions by the market not politicians. Investors handle investment risk.
 - Not financed over state budget
 - Pre-defined dates for progress reviews
- **Low costs for consumers**
 - Technology neutral -> cheapest first & competition drives costs down
 - Support level automatically adjusted to cost developments
- **Expansion of market possible**



Why a joint support scheme?



- **Better market functioning**
 - higher liquidity, better price formation
 - bigger market more attractive for investors
- **Increased cost-efficiency**
 - Access to larger production base
- **Increased long term predictability for investors through politically stable system**

Timeline

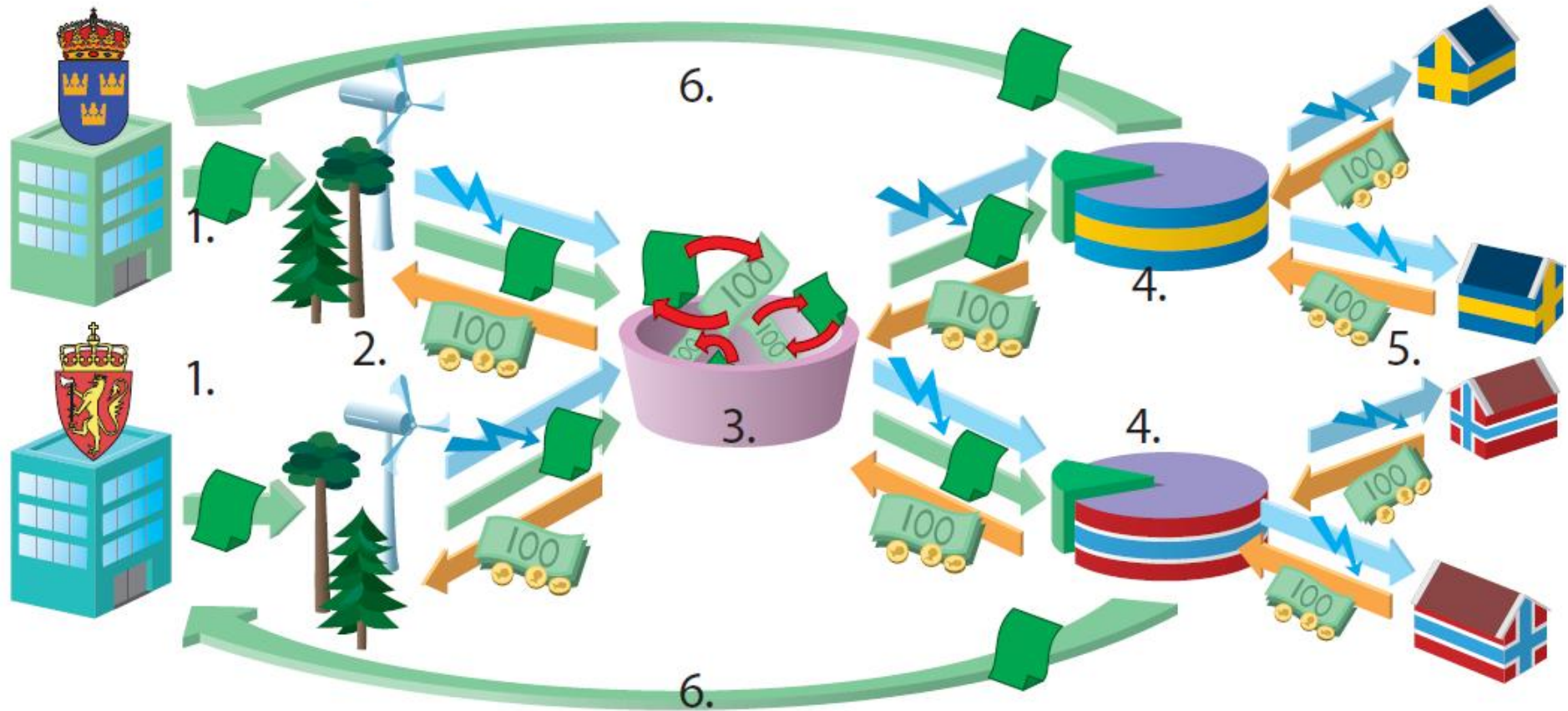
- 2003** SE elcert system starts
- 2004** First bilateral discussions
- 2006** Discussions paused
- 2009** Governments agree on principles
- 2011** { National legislations passed through parliaments
Governments/parliaments agree on Treaty
NO implements RES Directive
- 2012** Common SE-NO market starts
- 2020** Target 26.4 TWh
- 2035** End of cooperation



The treaty on the common elcert market



How the common certificate market works



1. Issuing of certificates RES-E:
1 certificate/MWh
2. Producers sell certificates & electricity
3. Certificates traded bilaterally/brokers

4. Electricity suppliers buy certificates
5. Costs passed on to end users
6. New RES-E shared 50/50 between NO-SE

Market prices for RES-E since 2003



Performance of the Swedish certificate market during the period 2003-2011

- **Renewable electricity production increase by 240%, corresponding to 13% of total Swedish electricity production in 2011**
- **Quota fulfilment nearly 100% (77% 1st year)**
- **End-use consumer average certificate cost amounts to approximately 3-5% of total electricity price**

Main advantages with quota-based certificate scheme

- **Cost-effective instrument to fulfil renewable electricity target**
 - Competition drives production costs down
- **Compatible with EU state aid rules**
 - Non-discriminatory (i.e. not technology specific)
- **Market-based instrument**
 - Full exposure to market signals
- **Off state budget financing**

Key challenges

Going from national to bilateral RES-E policy is a political challenge

- **The production target for the common market**
- **Burden sharing**
- Location of new production is decided by the market
- Changes to the system becomes a bilateral question
- With market in place - many issues require regular contacts, in particular concerning information that can affect the market

Key lessons learned

- **Without political will – no success**
- **What facilitated the agreement**
 - **Integrated electricity markets**
 - Roughly same RES-E potential
 - Separate national certificate legislation still gives some flexibility
 - For SE: to keep existing design/target and no substantial change in certificate prices
- **It's possible!**

Thank you for your attention!
eva.centeno-lopez@gov.se