

DRIVING CLIMATE CHANGE ACTION THROUGH OPEN MARKETS

MR OLUF ULSETH, SENIOR VICE PRESIDENT EUROPEAN AFFAIRS
NEREC, LILLESTRØM, 7 OCTOBER 2009



Statkraft
PURE ENERGY

A MARKET BASED SOLUTION?

Fundamental issues:



Market based solutions enables a split of physical and financial obligations

An aerial photograph of a coastline with mountains and water. The text is overlaid on the image.

REDUCING EMISSIONS

INCREASING RENEWABLES

**GIVING CONSUMERS
A GREEN CHOICE**

THE KYOTO MECHANISMS

- > Under Kyoto, countries must meet their targets **primarily through national measures.**

- > Additional options:
 - **Emission trading (ETS)**, or *cap-and-trade*
 - *European Union most prominent example*

 - **Clean development mechanism (CDM)**
 - *Booming industry in China and India*

 - **Joint Implementation (JI)**

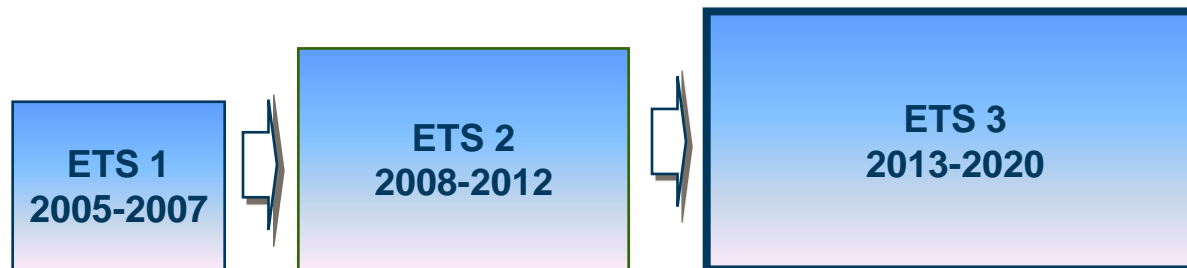


EU: EMISSION TRADING SCHEME..

Experience from EU ETS I and II:
Need to improve economic efficiency

*” experience so far has shown that **greater harmonisation** within the EU ETS is imperative”*

”widely different national methods for allocating allowances to installations threatens fair competition”



...ETS PHASE III (2013-2020)

- > ...extended to more sectors and gases, including industrial sectors
- > ...no national allocation plans
- > ... power sector to cover emission costs through buying allowances
- > ... emissions in 2020 reduced with 21% compared to 2005
- > ...introduces 71% emission reduction in 2050 from the sectors covered compared to 1990



US: WAXMAN-MARKEY BILL

US House of Representatives in June 2009 passed American Clean Energy and Security Act (ACES):

By 2020:

...cut 17% of US emissions from 2005 levels

...national cap-and trade system

...12 % of power from renewable sources and 8 percent in energy efficiency savings

...performance standards on new-built coal fired power, including \$ 1 bn/y in CCS funding

BOXER-KERRY BILL (US SENATE)

...cap-and-trade, cutting 20% by 2020

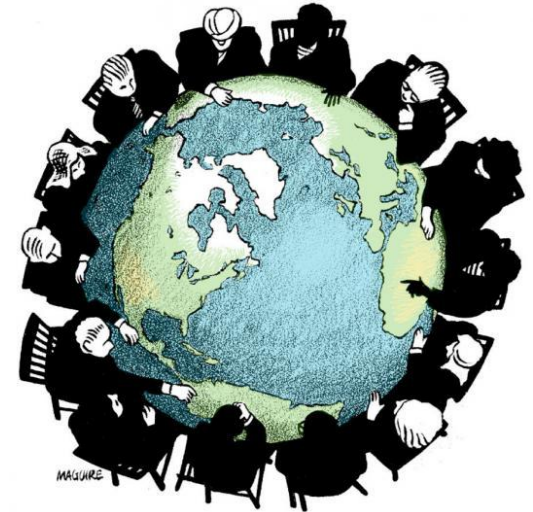
...(even) more focus on domestic offsets



**Reducing
83% of US
emissions
by 2050**

REFLECTIONS ON CAP-AND-TRADE

- > Caps delivers targets
 - ...but requires proper monitoring, reporting and verification processes
- > All "special circumstances" distorts economic efficiency
 - National Allocation Plans in EU
 - Duty to pass on "free allowances" to end consumer in US
 - Regional vs global: Industrial policy
- > "Polluter pays principle" turns into huge revenues
 - EU ETS will give governments annual revenues of >20 bn euros



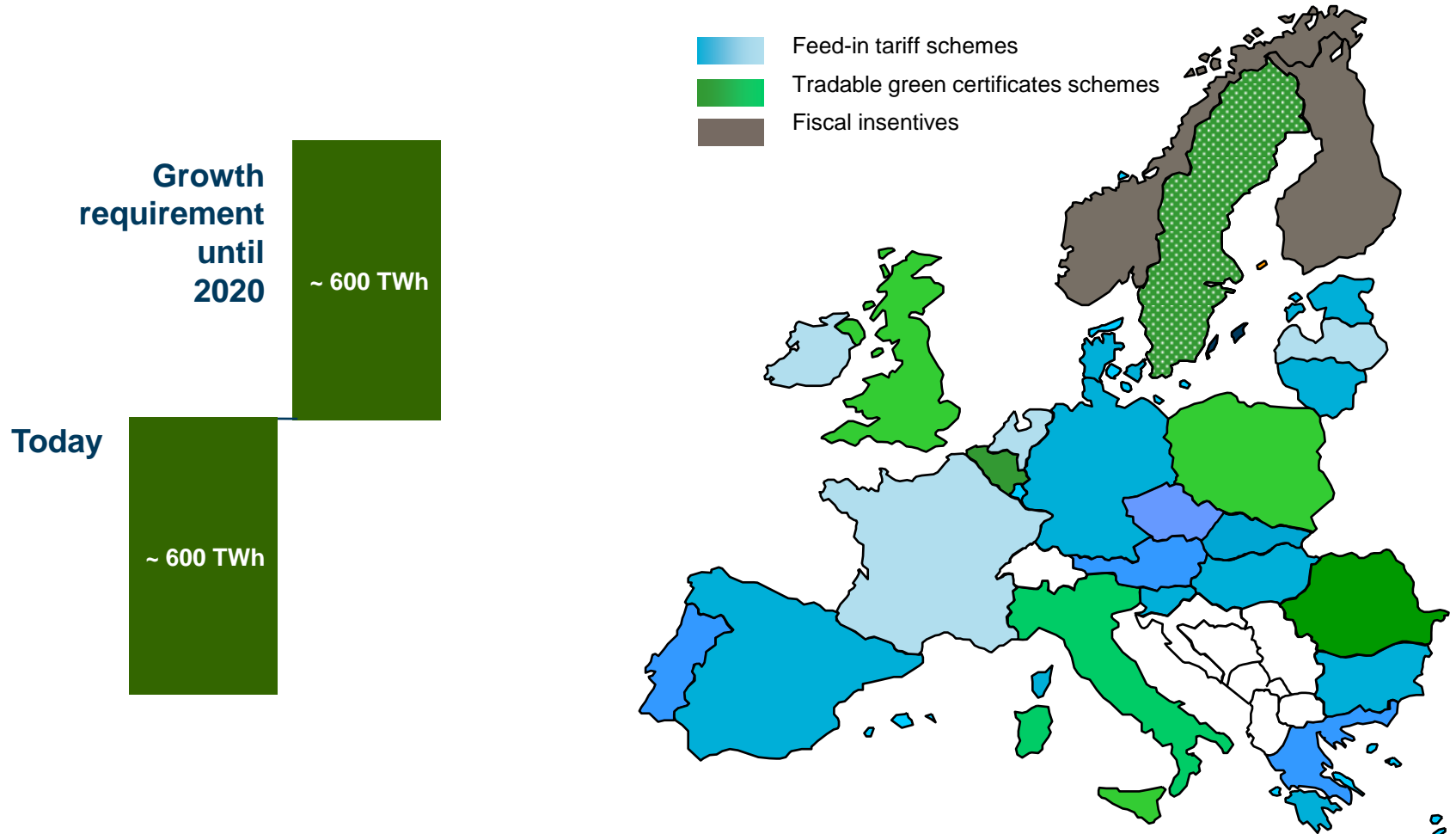
An aerial photograph of a coastline with mountains and water. The water is a deep blue, and the mountains are a lighter blue-grey. The sky is a pale, hazy blue. The text is overlaid on the image.

REDUCING EMISSIONS

INCREASING RENEWABLES

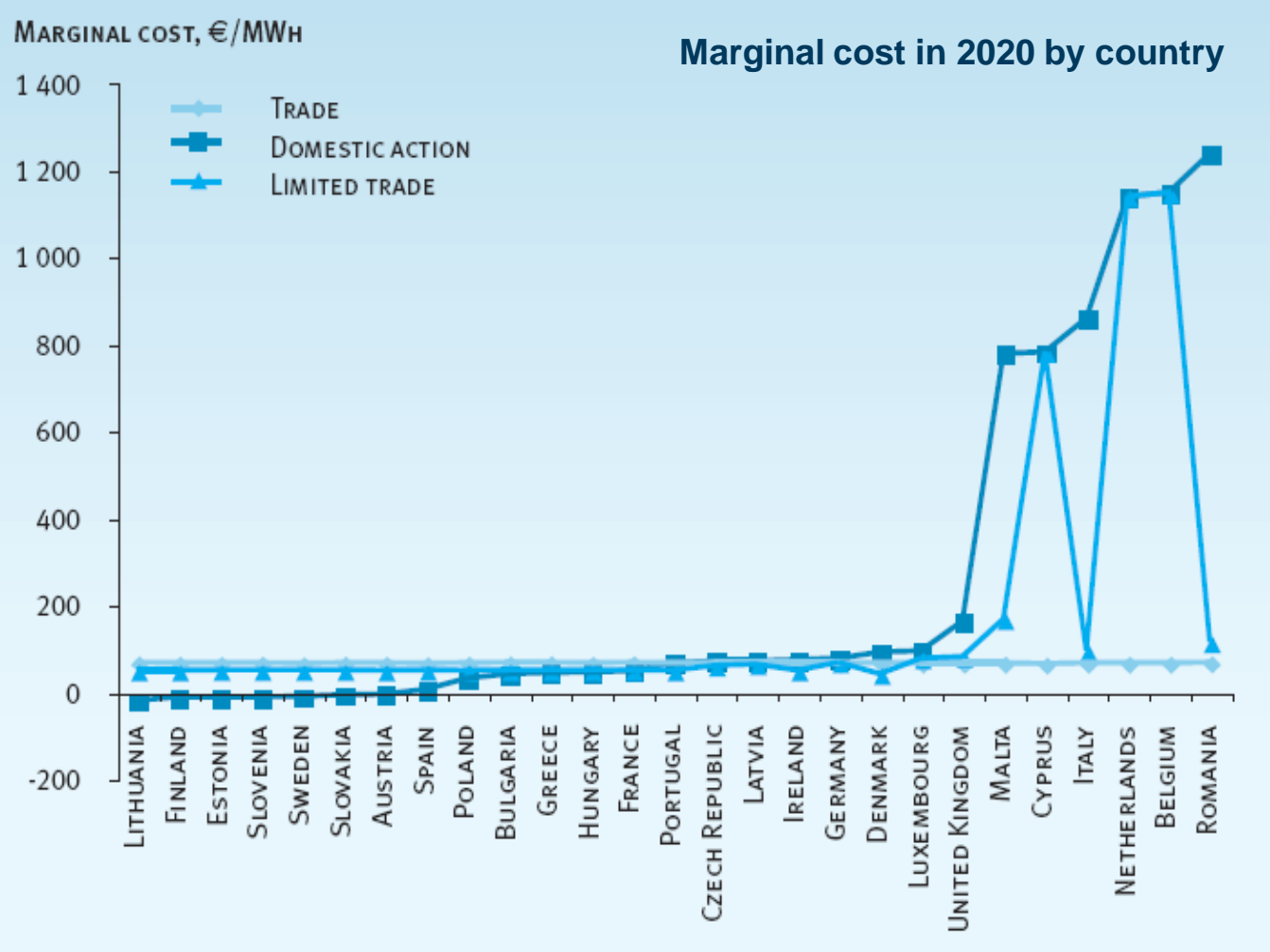
**GIVING CONSUMERS
A GREEN CHOICE**

30 DIFFERENT SUPPORT SCHEMES



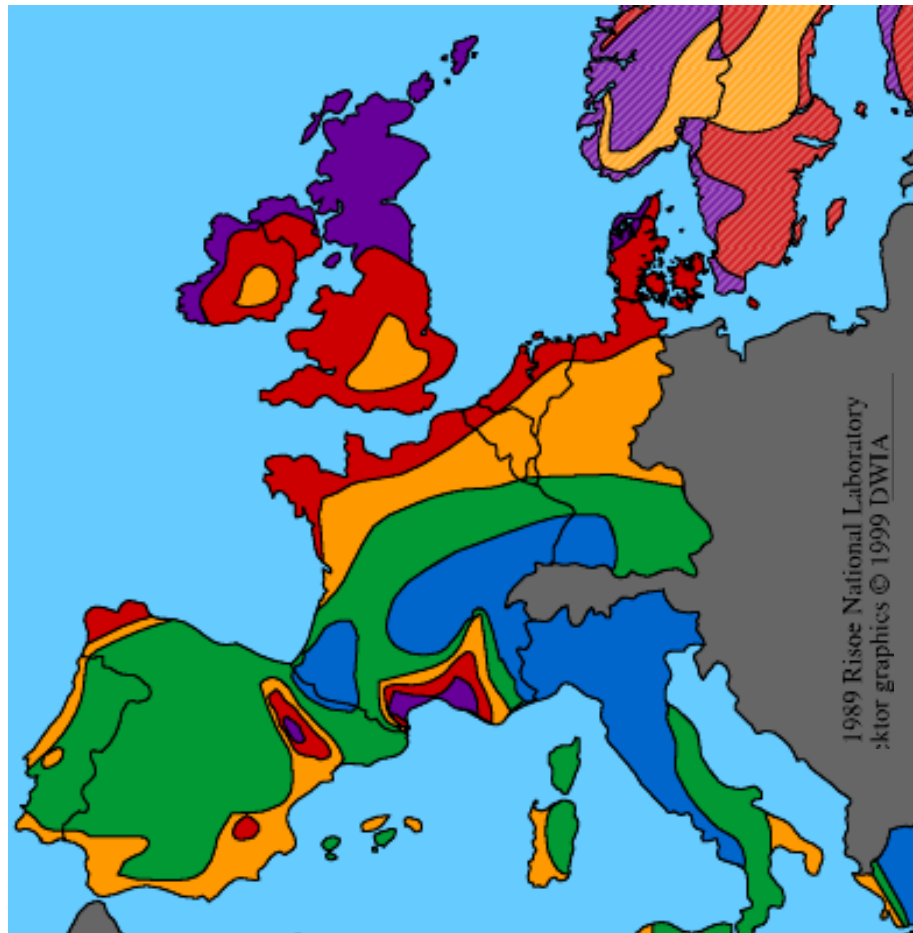
Is this the best foundation for many hundred billion euros of investments in renewable power over the next 11 years?

SEVERAL COUNTRIES ARE SHORT



SUPPORTING WIND POWER WHERE THE WIND BLOWS?

Wind resourcesand installed capacity



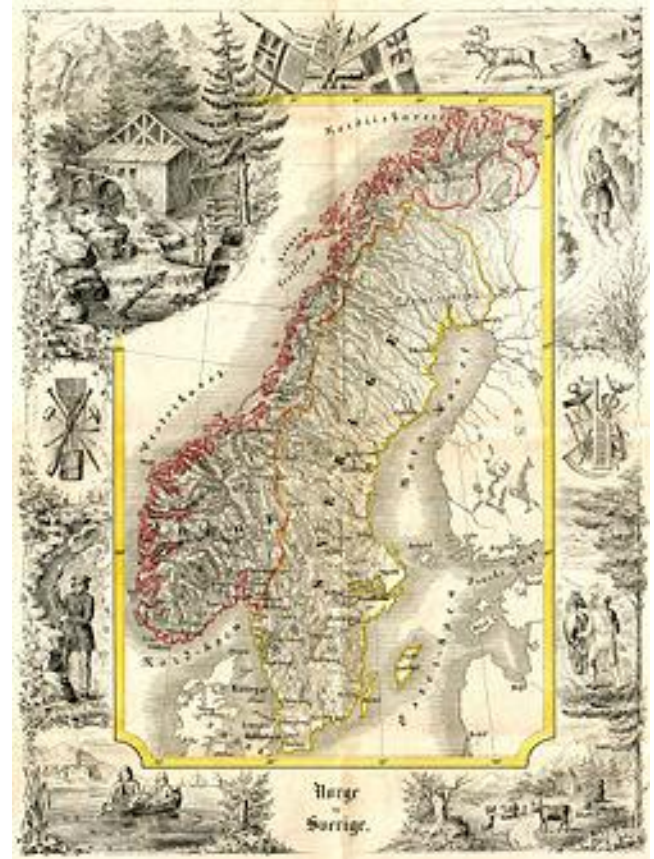
Source: www.gei.org: Risoe Nat Lab/DWIA



Source: EWEA

A SWEDISH-NORWEGIAN JOINT CERTIFICATE MARKET

- > Agreement in principle of establishing a common Norwegian-Swedish certificate market from 2012
- > Will be governed by framework in The Renewables Directive
- > Technology-neutral approach, implying hydropower of all sizes
- > Agreement on equal burden sharing in TWh obligation per country, approx 25 TWh in total
- > Huge uncertainty on transition rules until 2012 in Norway
- > A common certificate market would be the first in Europe between two countries bound by the RES Directive



An aerial photograph of a coastline with mountains and water. The text is overlaid on the image.

REDUCING EMISSIONS

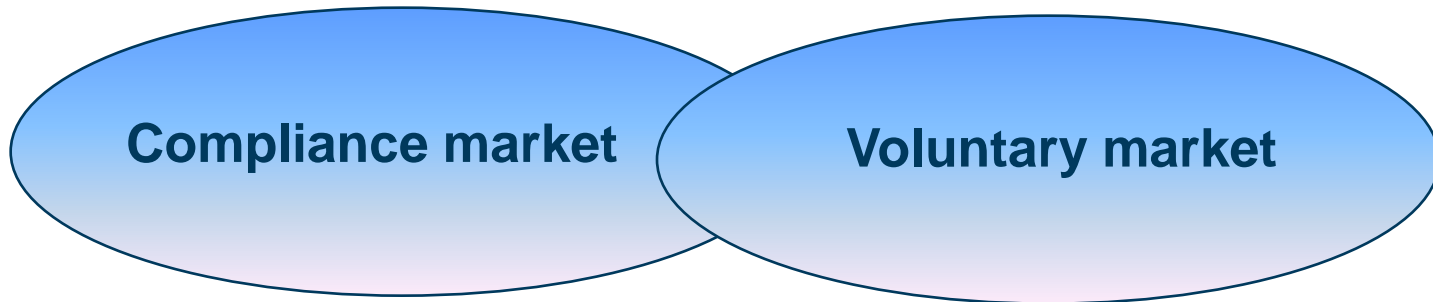
INCREASING RENEWABLES

**GIVING CONSUMERS
A GREEN CHOICE**

CONSUMER CHOICE: CARBON

**Nations through
Kyoto Protocol**

**Consumer
and businesses**



CONSUMER CHOICE: GREEN POWER

Guarantees of Origin (GoO)
separate from renewable obligation:

- > Challenge to improve fuel mix disclosure calculations
- > Need for European platform to handle import and exports between countries
- > Member States with option to include additionality criterias



STATKRAFT CAPABILITIES

REDUCING EMISSIONS

- Carbon compliance management
- Sourcing of primary CERs through support of renewables CDM projects in developing countries
- Trading partner in EUAs, CERs, ERUs and other traded emission allowances.

INCREASING RENEWABLES

- Trading partner in green certificates and other traded renewables products

GIVING CONSUMERS A GREEN CHOICE

- Guarantees of Origin
- Voluntary offsets to consumer market

**Strong
commercial
teams
in Oslo and
Amsterdam**

DRIVING CLIMATE CHANGE ACTION THROUGH OPEN MARKETS

**Market based instruments well suited
to meet global challenge of climate
change – it fits well with how
business do their business**

**Important to maintain and develop
flexible mechanisms both in
European and global carbon trading
and renewables policies**



PURE
ENERGY

