



Report on the flexibility mechanisms

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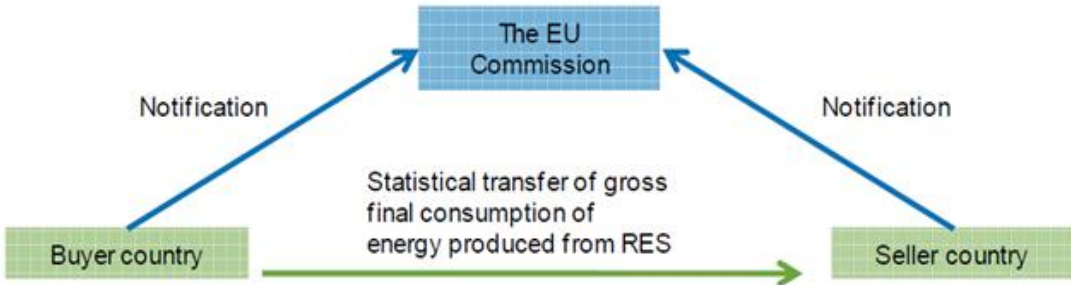
Presentation outline

- ▶ Flexibility Mechanism classifications
- ▶ Potential in Danube Region countries
- ▶ Potential in Danube Region Non-EU countries
- ▶ Italy-Serbia case
- ▶ Key messages

Flexibility Mechanism classifications

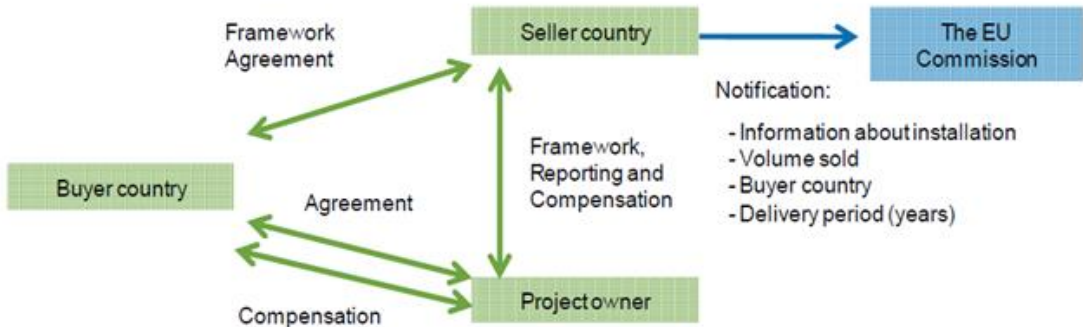


Statistical transfers



- ▶ Between Member states only!
- ▶ Initiator: government
- ▶ Private participation is not foreseen
- ▶ Limited number of examples
- ▶ Norway–Sweden Joint Support Scheme since 2012 – based on Green certificate scheme
- ▶ Statistical transfer is not recorded – expected to operate closer to 2020

Joint support schemes

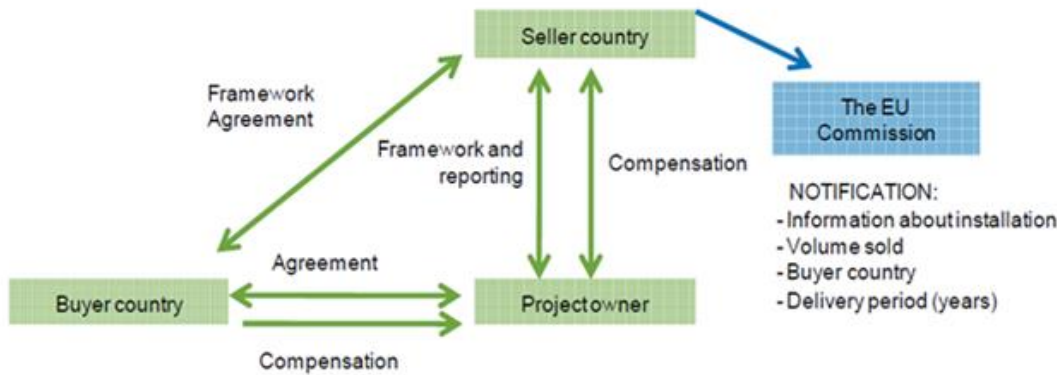


Source: GreenStream Report (2010)

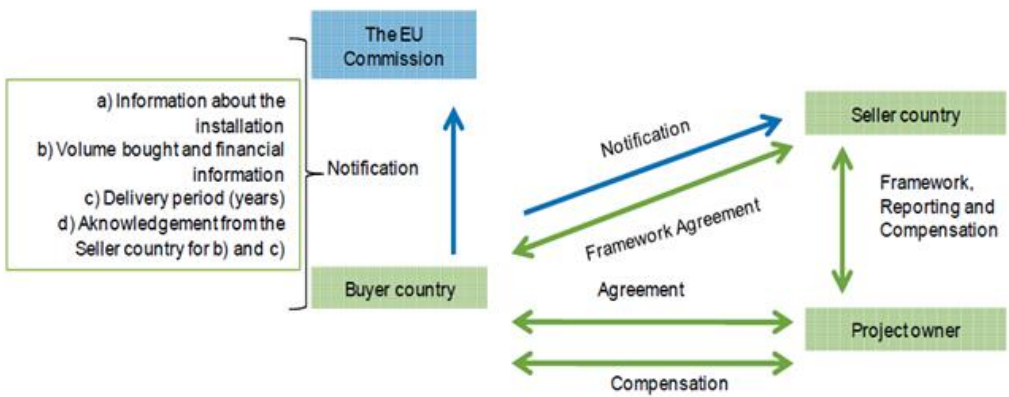
Flexibility Mechanism classifications



Joint Projects between MS



Joint Projects with 3rd countries



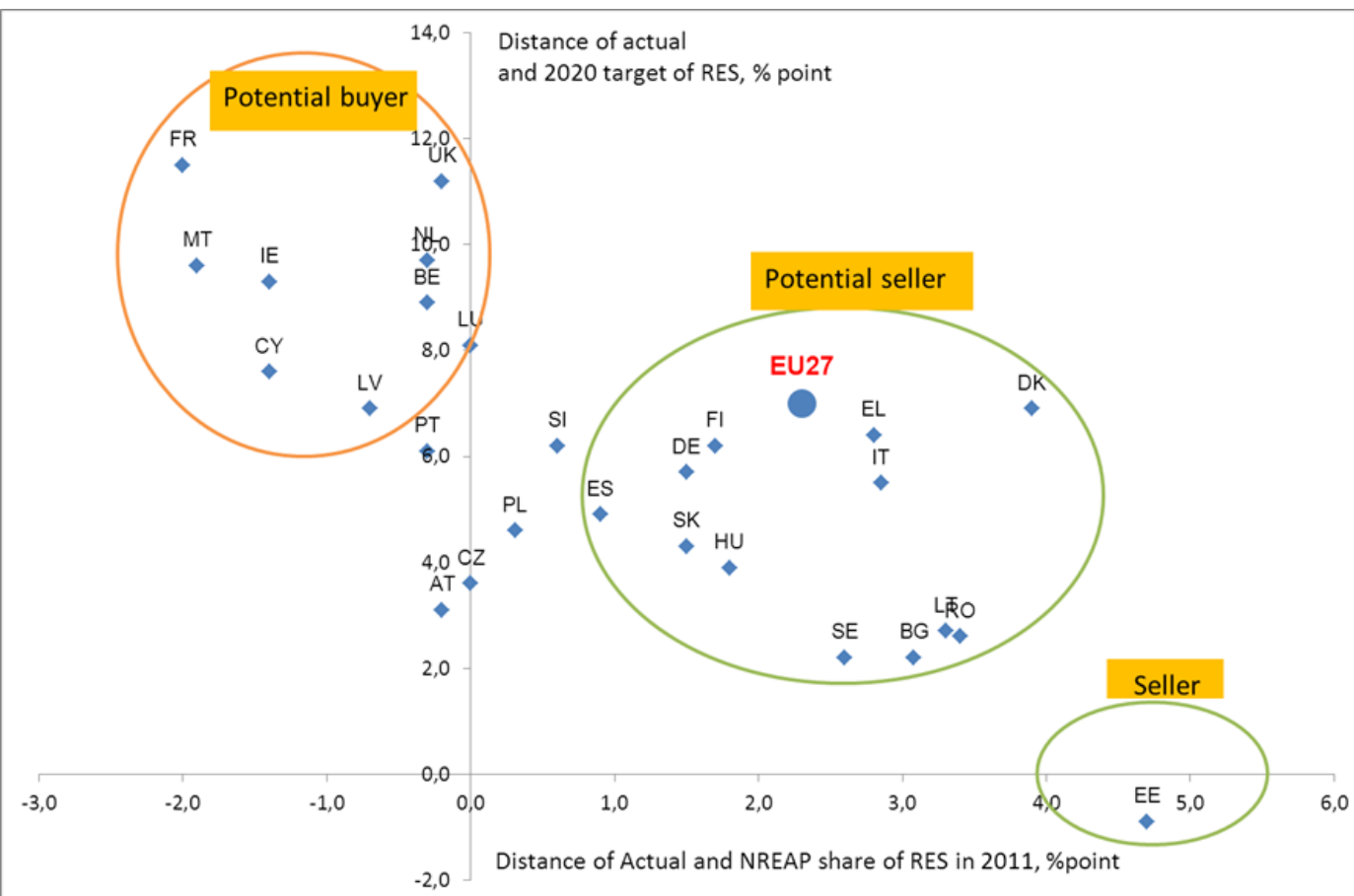
- ▶ 3rd countries could be involved
 - In this case physical transfer of RES-E electricity is compulsory
- ▶ Governmental initiation, but with active private participation
- ▶ Private investors selection: either as strategic partners or through tendering
- ▶ Some working examples exist in the region as well (Serbia – Italy)

Source: GreenStream Report (2010)

Potential use of Flexibility Mechanism between Members States

► Classification

- according to their present achievements (2011)
- and according to the distance to MS 2020 targets



Potential use of Flexibility Mechanism with third countries

- ▶ Assumption in assessment:
 - Assuming that present FIT support levels reflect willingness to pay (WTP) of third countries for RES-E technologies
 - Focus on 4 technologies: solar, wind, biomass and hydro
 - Based on a LCOE calculation:

$$LCOE = \frac{\sum_{t=1}^n \frac{I_t + Fuel_t + OM_t}{(1 + r_t)^t}}{\sum_{t=1}^n \frac{E_t}{(1 + r_t)^t}}$$

n: project lifetime

I_t : Investment cost in year t

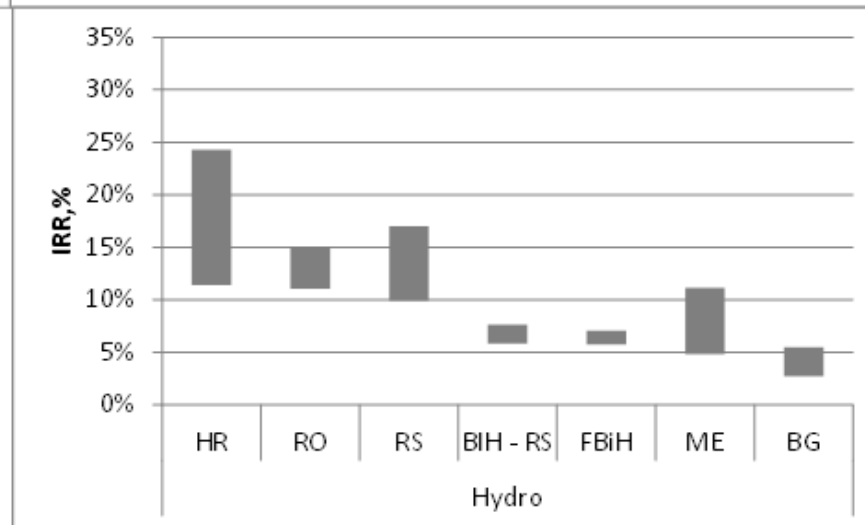
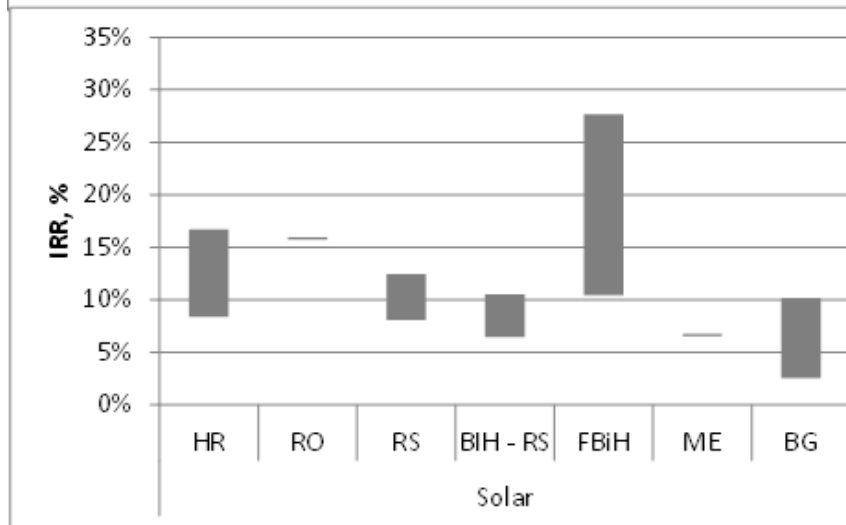
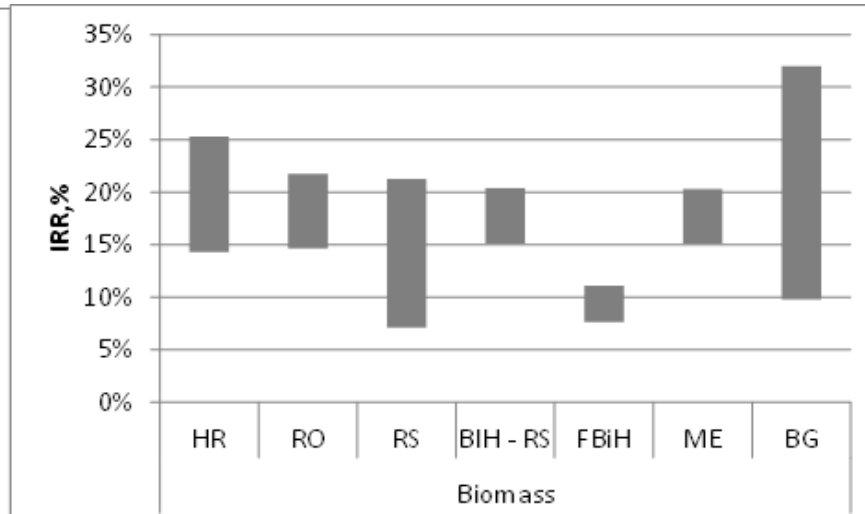
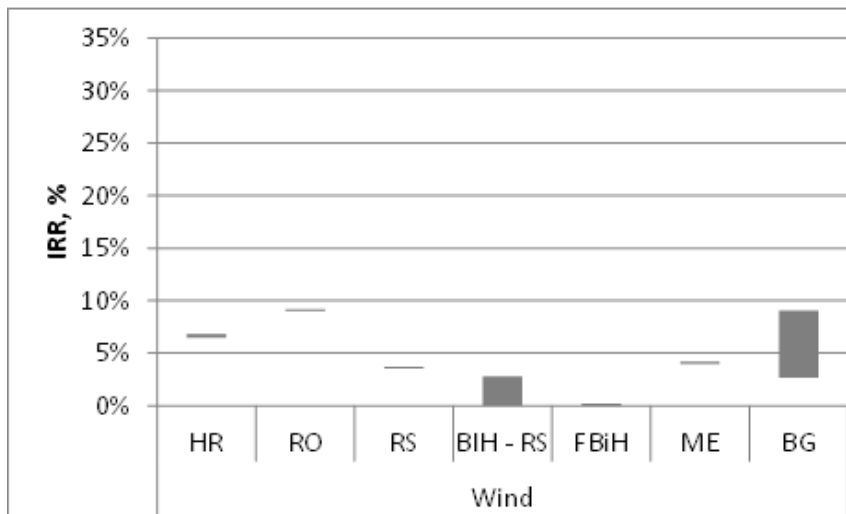
$Fuel_t$: Fuel cost in year t

OM_t : Operation and Maintenance cost in year t

r_t : discount factor in year t

E_t : Electricity generation in year t

Potential use of Flexibility Mechanism with third countries



Potential use of Flexibility Mechanism with third countries

- ▶ Close to zero potential with MS in coming years, in spite most DR are potentially selling countries
 - Change in situation could be expected in years closer to 2020
 - Latest two years performance of many DR countries in RES-E is deteriorating (slightly under target)
- ▶ Higher potential with third countries:
 - Due to lower production cost, higher utilisation rates and unused potential (PV, wind, hydro)
 - Energy Community (EnC) allows use of flexibility mechanisms – but physical transfer is needed – close neighbours are potential partners
 - Still, governmental initialisation is a precondition
 - Existing examples (Italy– Serbia Hydro project)

Highlights of the Italy–Serbia project

- ▶ Hydro project on Ibar river: 103 MW (10 small hydro plant) – 418 Gwh/year planned production
- ▶ Intergovernmental agreement between Italy and Serbia (by Ratification Law) – more than two years of negotiation
- ▶ Italian partner SECI Energia (project developer) – is a ‚strategic‘ partner in Italy
- ▶ Terna (Italy) also owns part of the Montenegrin TSO CGES (22%)
- ▶ Important network development is needed:
 - IT–Montenegro submarine cable (dedicated share of capacity is reserved to the project)
 - upgrading Montenegro–Serbia interconnector
- ▶ Agreement term is for 15 years
- ▶ Serbia receives the Italian FIT level: 155 €/MWh (Serbian FIT between 78–97 €/MWh for hydro)

Key messages

- ▶ For private investors Joint Projects with third countries would be the most promising options to plan participation in Joint projects
- ▶ Non-EU members of the South East Europe (SEE) region is the most promising region for DR as a potential partner, as it offers higher unused potential in RES-E, and it is well connected to DR (physical transfer)
- ▶ But: first step must be taken by the government to initialise such mechanism
- ▶ Either 'strategic' partnership, or tendering procedure is a precondition for the selection of private investors
- ▶ Already working example (IT-SR) demonstrates viability of such approach