



- Renewable energy

## Financing renewable energy in the EU and in the Energy Community

DG Energy  
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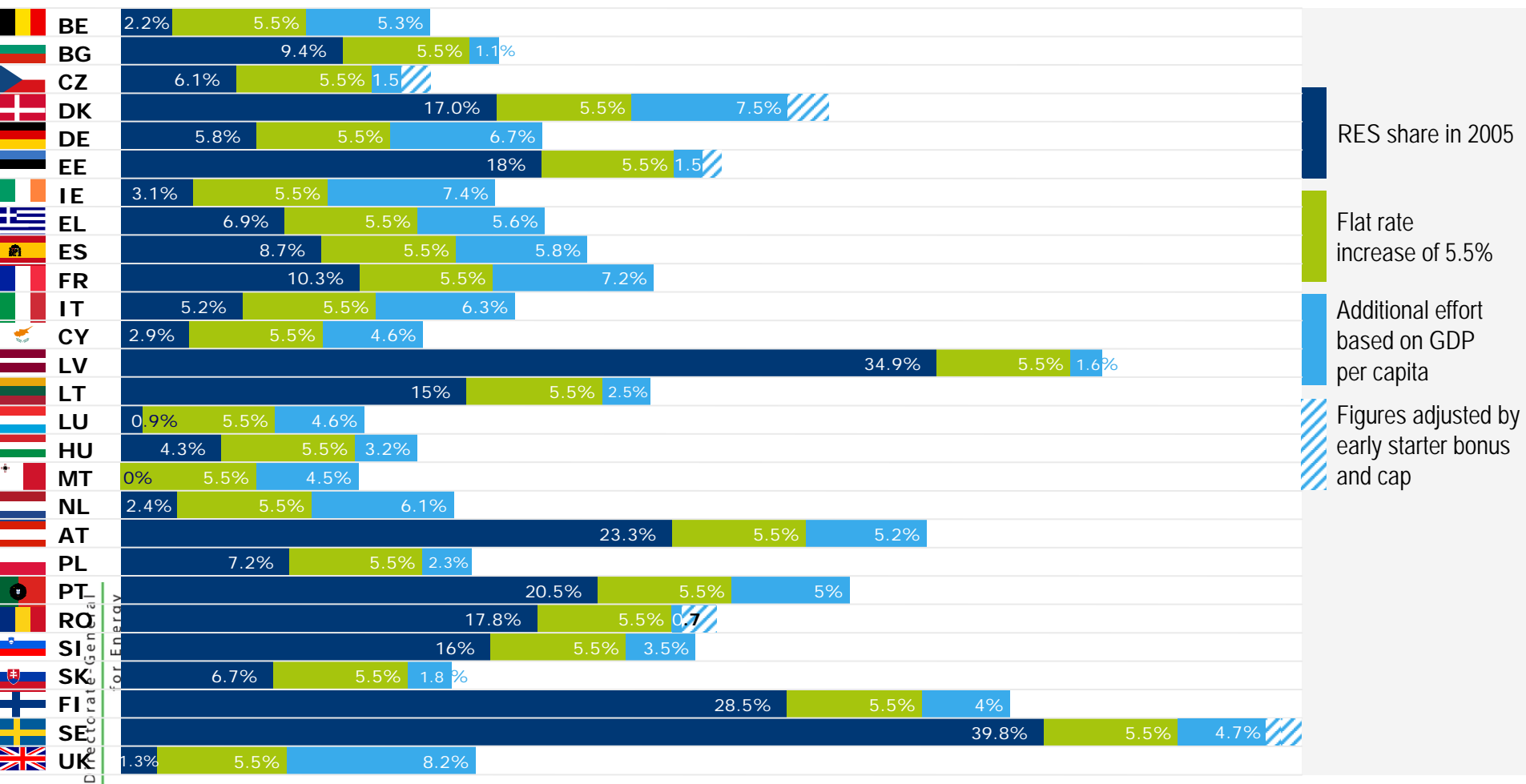
11/03/2010

# ● Promotion of Renewable Energy in the EU

- ❖ Renewable electricity Directive 2001/77/EC
- ❖ Renewable transport (biofuels) Directive 2003/30/EC
- ❖ Renewable Energy Directive: 2009/28/EC
  - ❖ 20% EU target - mandatory national targets
  - ❖ Electricity, transport (10% target) and heating
  - ❖ national action plans
  - ❖ reduction of administrative and regulatory barriers
  - ❖ access to the electricity grid
  - ❖ sustainability regime for biofuels
  - ❖ “cooperation mechanisms”

# EU Member States targets

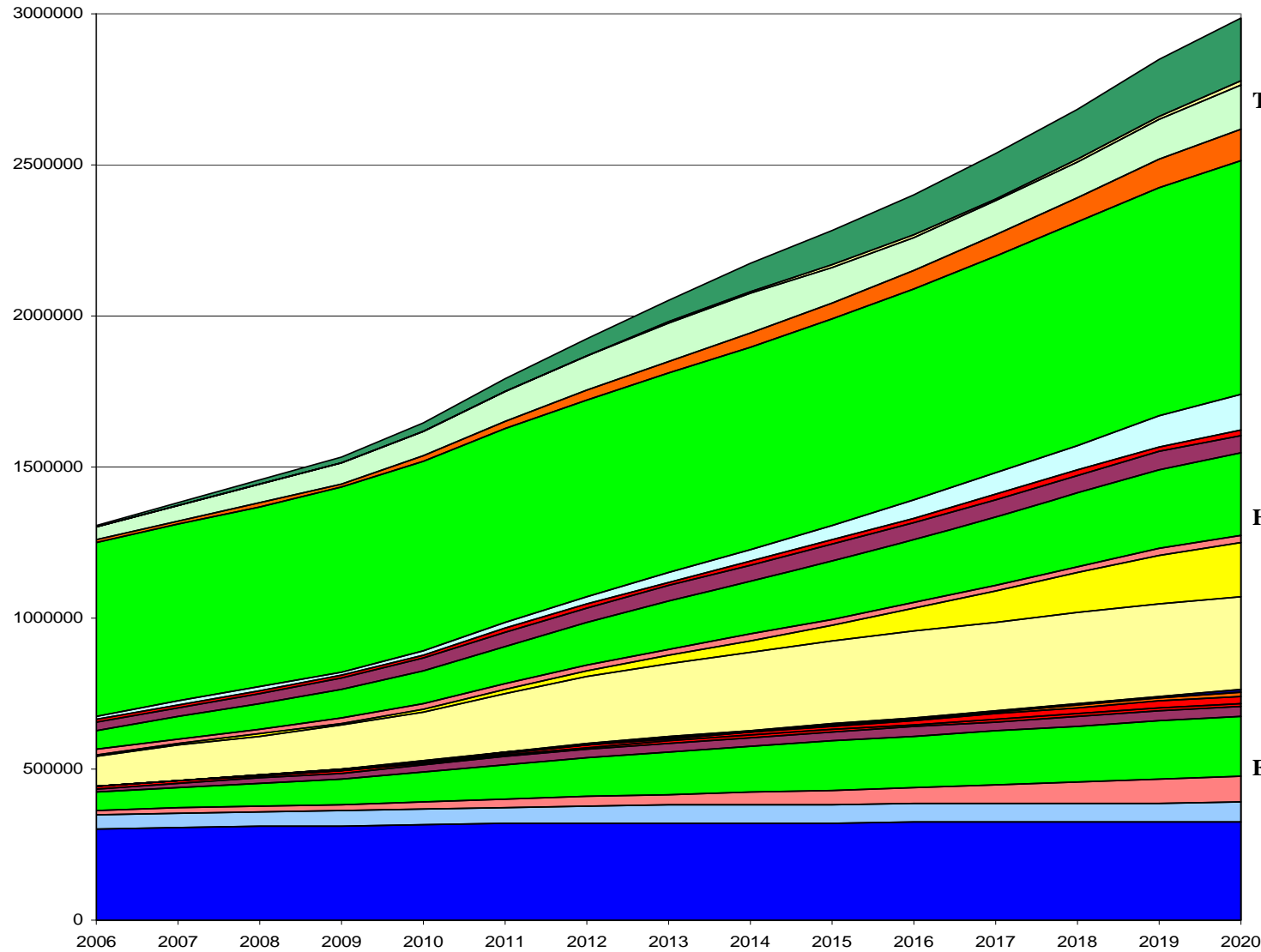
Energy for a Changing World





# Technologies to get there...

GWh



- Biofuel import
- Advanced biofuels
- Traditional biofuels
- Heating - Solar thermal and hot water
- Heating - Solid biomass (non-grid)
- Heat pumps
- Heating - Geothermal (grid)
- Heating - Biowaste (grid)
- Heating - Solid biomass (grid)
- Heating - Biogas (grid)
- Wind offshore
- Wind onshore
- Tide & wave
- Electricity - Solar thermal
- Photovoltaics
- Electricity - Geothermal
- Electricity - Biowaste
- Electricity - Solid biomass
- Electricity - Biogas
- Hydro small-scale
- Hydro large-scale

# ● Cost and Financing in the EU

- Renewable Energy Roadmap 2007
  - » €10-18 billion /year
- Direct EU funding
  - » ETS 300M “New Entrants Reserve” from 2013
  - » R&D/SET-PLAN
  - » structural and cohesion funds
  - » EIB €2-3bn / year
  - » European recovery package
- Flexibility mechanisms
- GO market revenues
- National support
- Private financing

# ● Renewable Energy in the Energy Community Partner Countries (CPs)

- Study on implementation of RES Policy in the Energy Community – IPA
  - » No dedicated renewable energy policy in most CPs
  - » Indicative targets (mostly sectoral – lacking renewable heat policy)
  - » Delays in licensing, complex and costly
  - » No priority grid access and grid code limitations due to system stability requirements
  - » GO system not in place

# ● Implications on Energy Community

Implementing Directive 2009/28/EC requires mandatory targets - calculated according to 2005 data for renewables, GDP and future energy consumption.

Energy Community energy consumption:

2005: 25 Mtoe

2020: 38 Mtoe energy consumption

IPA calculated TOTAL Cost (accumulative costs):

€4.7 – 5.4 billion  
(base scenario)

€3.1 - 3.7 billion (low demand scenario)

Costs could increase if biomass potentials not realised

# ● EU assistance for Energy Community PCs

- Instrument for Pre-Accession (IPA)
  - » institution building measures with accompanying investment;
  - » cross-border cooperation;
  - » regional development;
  - » human resources development;
  - » rural development.
- Special IPA multi-beneficiary assistance
- Project Preparation Facility for Infrastructural Investments - support the preparation of bankable investment projects

## ● Other potential EU assistance

- Western Balkans Investment Framework enhance co-operation in investments for socio-economic development
  - » Joint Grant facility e.g. Infrastructure Project Facility to accelerate investments in infrastructure – technical assistance for pre-investment, feasibility study, but also implementation.
- The current EU research programme, FP7 (2007-2013), CPs can participate
- TAIEX – technical assistance to governments for application and enforcement of legislation.
- GEEREF – Patient Capital

# ● Flexibility mechanism between Member States and non-EU countries

- ❖ Joint projects between Member States and 3rd countries (RES-E) – only if electricity consumed in the Community
  - ❖ Firmly nominated to the interconnection capacity by all TSOs
  - ❖ Equivalent amount firmly registered in the schedule of balance of responsible TSO in the Community
  - ❖ Electricity production and nominated capacity relates to the same time
  - ❖ New installation and no operational support in country of origin

## ● **Virtual trade with 3<sup>rd</sup> country in case of planned inter-connector**

- ❖ Member States may ask to count renewable electricity consumed in 3<sup>rd</sup> country towards their national target
- ❖ Precondition: inter-connector is planned:
  - » Building started before 2017
  - » Operational between 2020 – 2022
  - » After operational used for exporting renewables into EU: virtual trading volume is limited to capacity during future operation

# ● Key factors for financing

- Economic downturn, but global investment for renewables grew from \$22 bn in 2002 to \$155 bn in 2008.
- Financial investors look at RISK of investment!
  - » Country Risk: government and regulatory stability, legal system, transparency and currency risks
  - » Economic risks: inflation, local regulation
  - » Security risks: ownership, right of revenue
  - » Technical and operational risks: operating conditions, construction and maintenance, feedstock supply
  - » Environmental risks: EIA
  - » Market risks: prices and subsidies, competitors
- Renewable Energy is attractive in policy driven markets

# Implications for Energy Community

- Energy Community Treaty countries (Contracting Parties) can **adopt Directive** under *acquis* Energy Community.
  - including **binding national targets reflecting same level of ambition** as EU Member States
  - Helps create stable policy framework – important for financing!



# Thank you for your attention

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