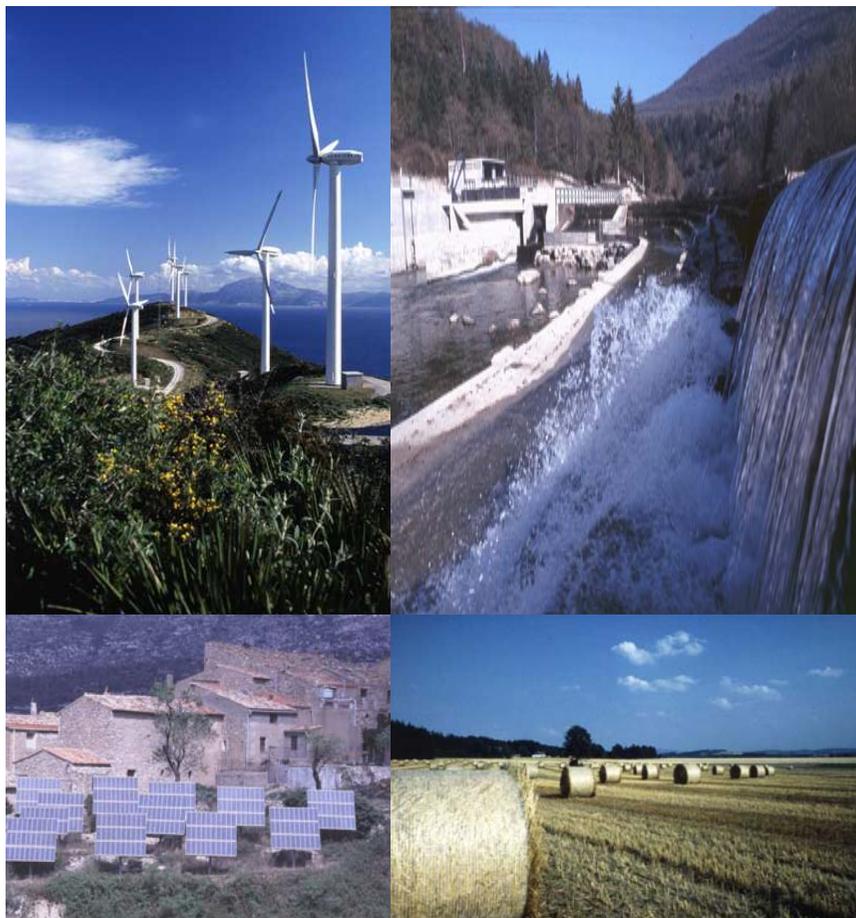


European Commission



**“The support of electricity
from renewable energy
sources”**

William Gillett

Head of Unit

European Commission

Intelligent Energy Executive Agency

IEEA-ALTENER

William.gillett@ec.europa.eu

Renewable electricity directive 2001/77/EC

Promotion of electricity from renewable energy sources through:



- Quantified national targets for % **consumption** of electricity from renewable sources of energy
- National support schemes plus, if necessary, a harmonised support system
- Simplification of national administrative procedures for authorisation
- Guaranteed access to transmission and distribution of electricity from renewable energy sources

Setting Targets

Setting of national targets

- ✓ All EU15 Member States have adopted national targets, in line with the reference values listed in Annex I of Directive 2001/77/EC.
- ✓ The New EU10 have set up national targets published in the Accession Treaty in April 2003.
- ✓ 2010 Targets have been agreed with Bulgaria and Romania.

The 2010 target

- ✓ If EU-25 Member States meet these national targets, the 2010 target of 21% will be achieved.



Reporting on progress

Commission assessment reports:

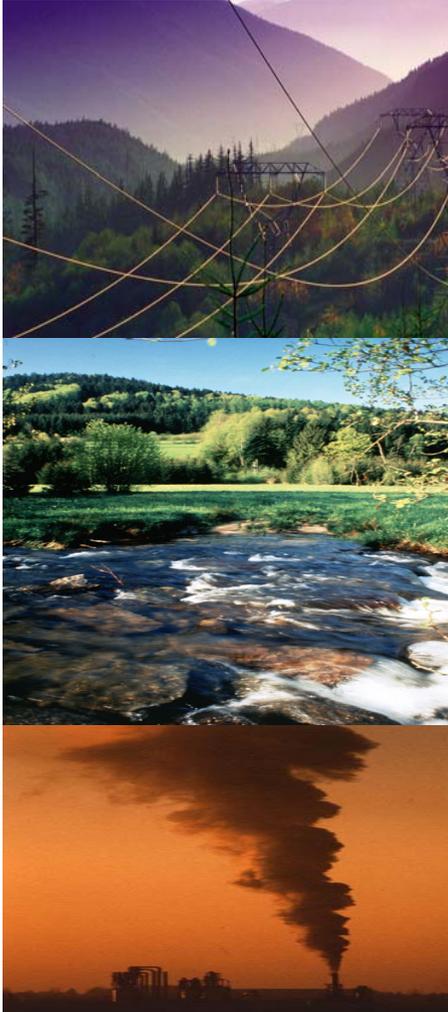
- ✓ Commission has approved COM(2004) 366 final “The share of renewable energy in the EU”.
- ✓ Commission Staff Working Document SEC(2004) 547: EU-25 country reports

Commission will report on the share again soon and every two years in accordance with the requirements of the Directive

- ✓ Commission has approved COM (2005) 627 final “The support of electricity from renewable energy source



COM (2004) 366 : The share of renewable energy in the EU



- ✓ Progress in achieving the national targets differs strongly between the Member States
- ✓ Not all Member States have adopted complementary proactive measures
- ✓ Success of wind energy is not outweighing the slow growth of biomass electricity
- ✓ Biomass is lagging behind

COM (2005) 627: Evaluation of support schemes

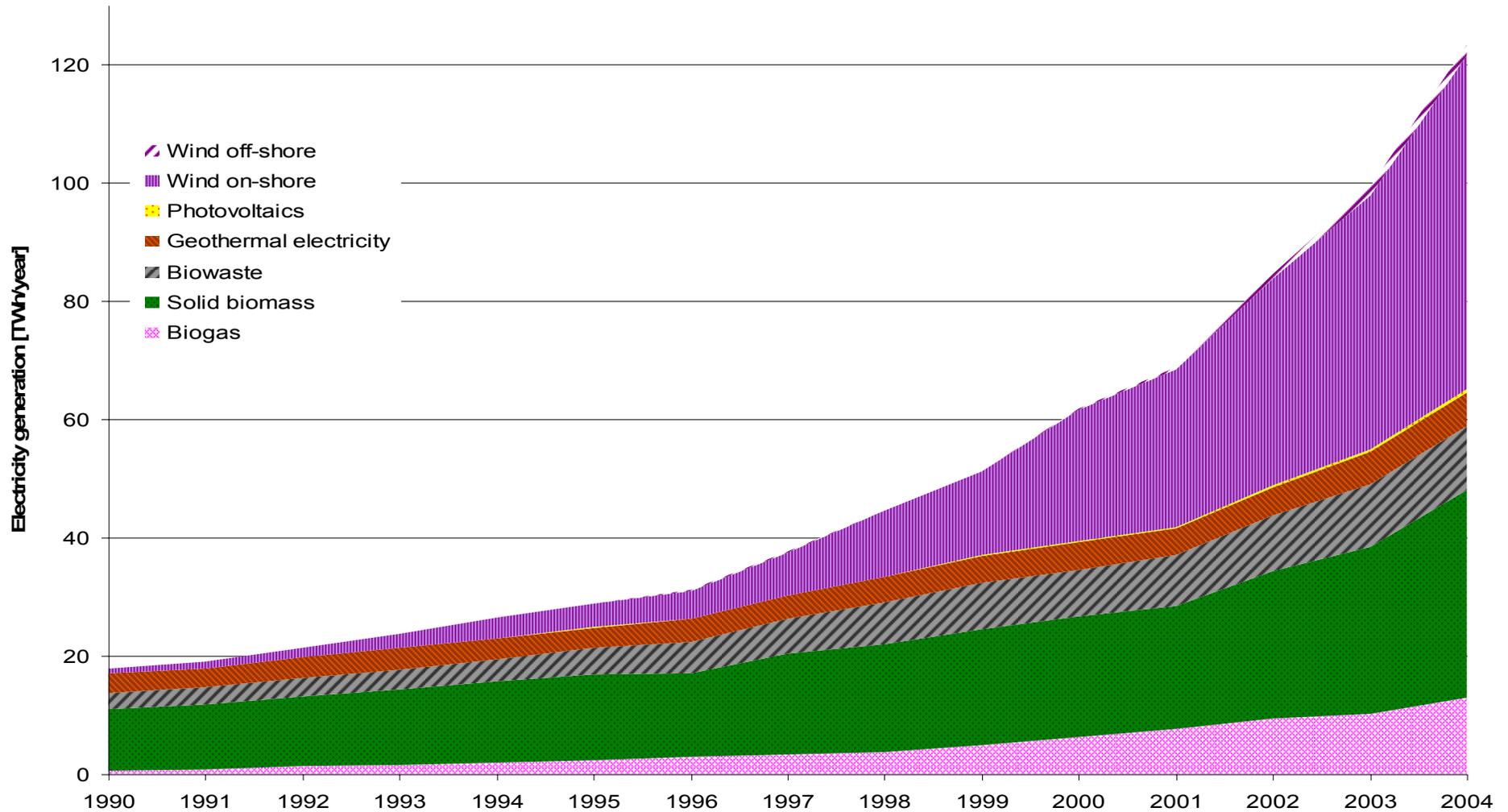
Based on analysis of schemes and impacts



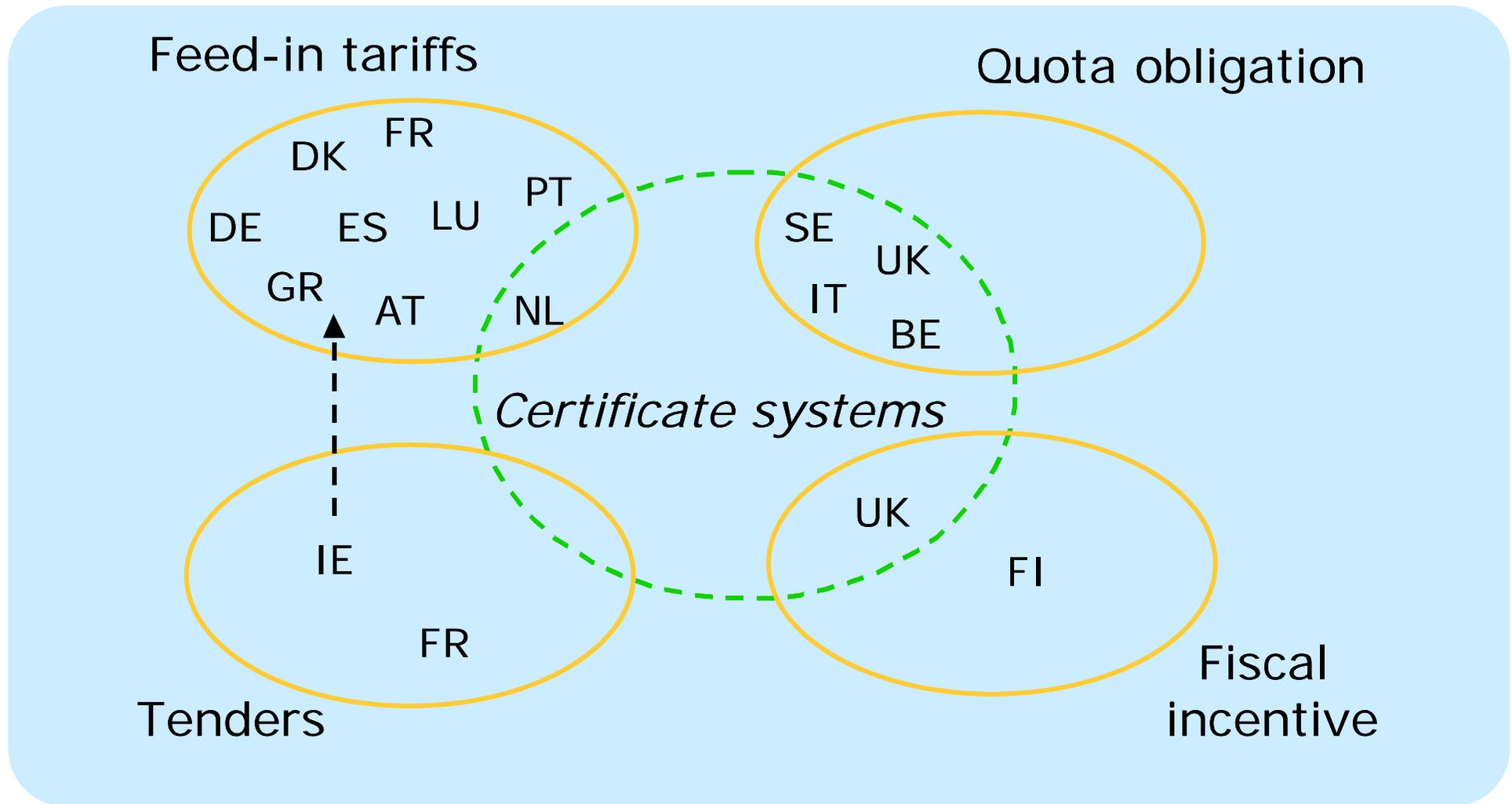
- Type of support scheme in each country
- Market growth by country and technology
- Prices by technology in each country
- Remaining administrative and grid barriers

EU-15 production of 'new' RES-E (without hydropower)

(was more in 2004 than the combined total electricity production in Portugal, Denmark and Slovenia)

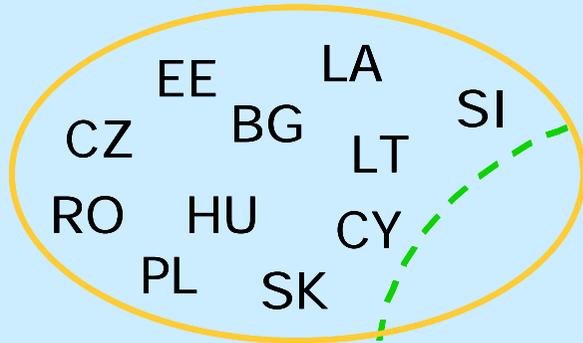


Status of support schemes for RES in EU15

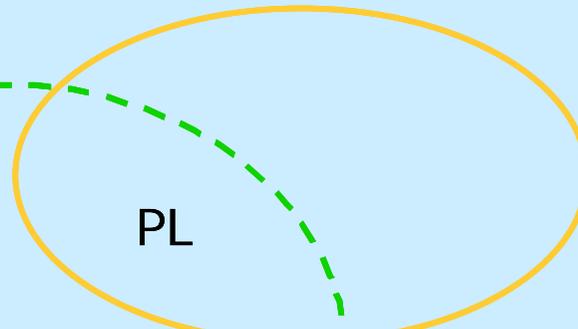


Status of support schemes for RES in EU10 + (2)

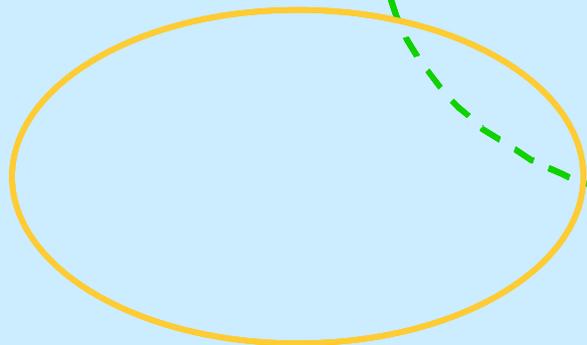
Feed-in tariffs



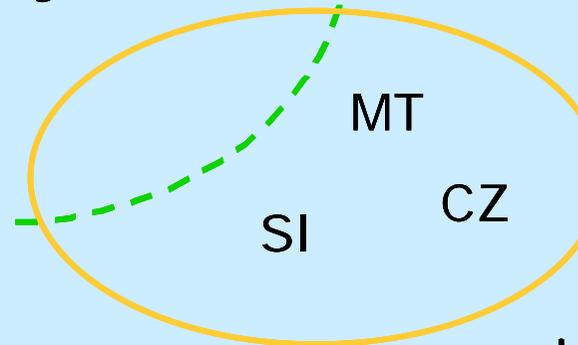
Quota obligation



Certificate systems

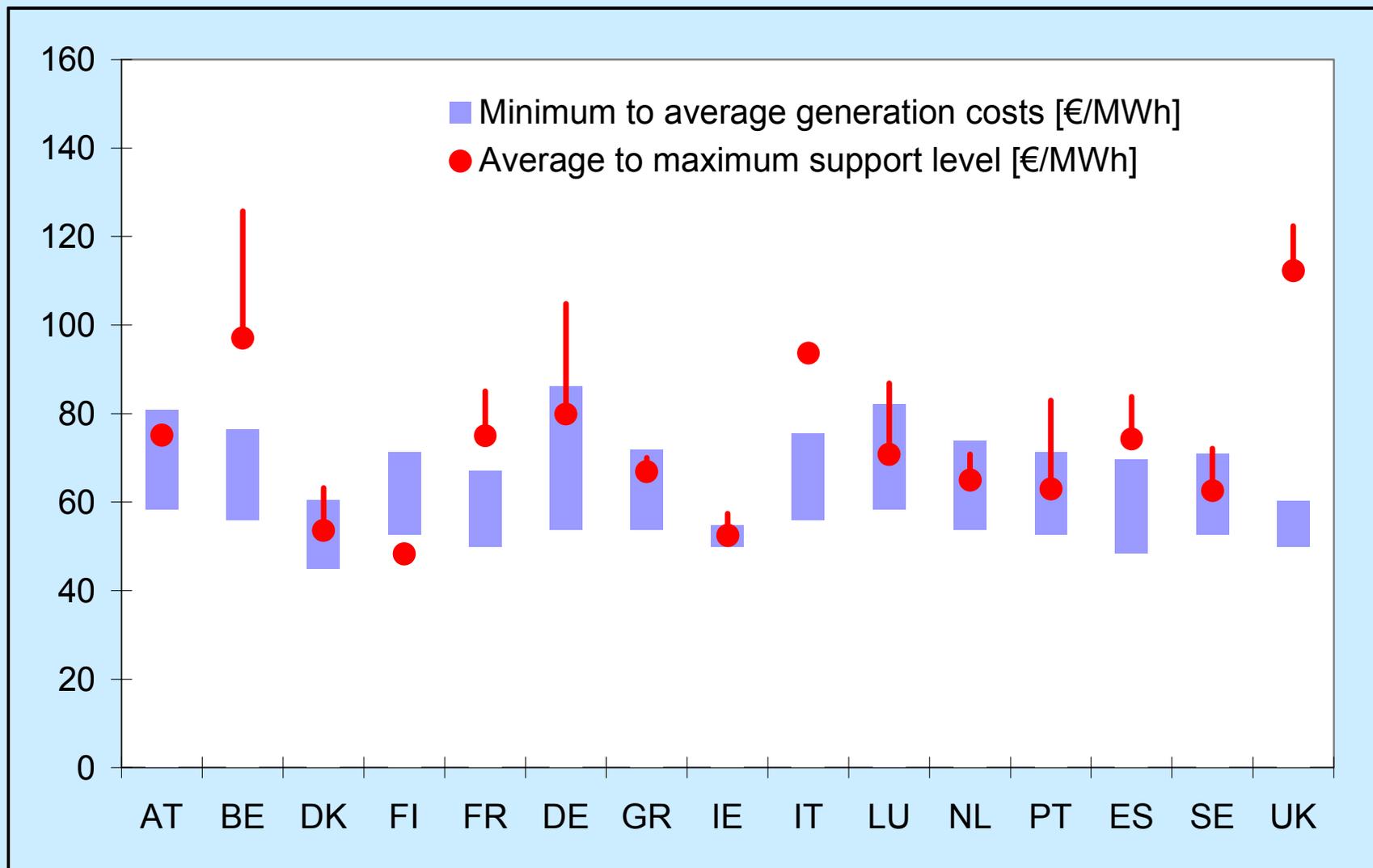


Tenders



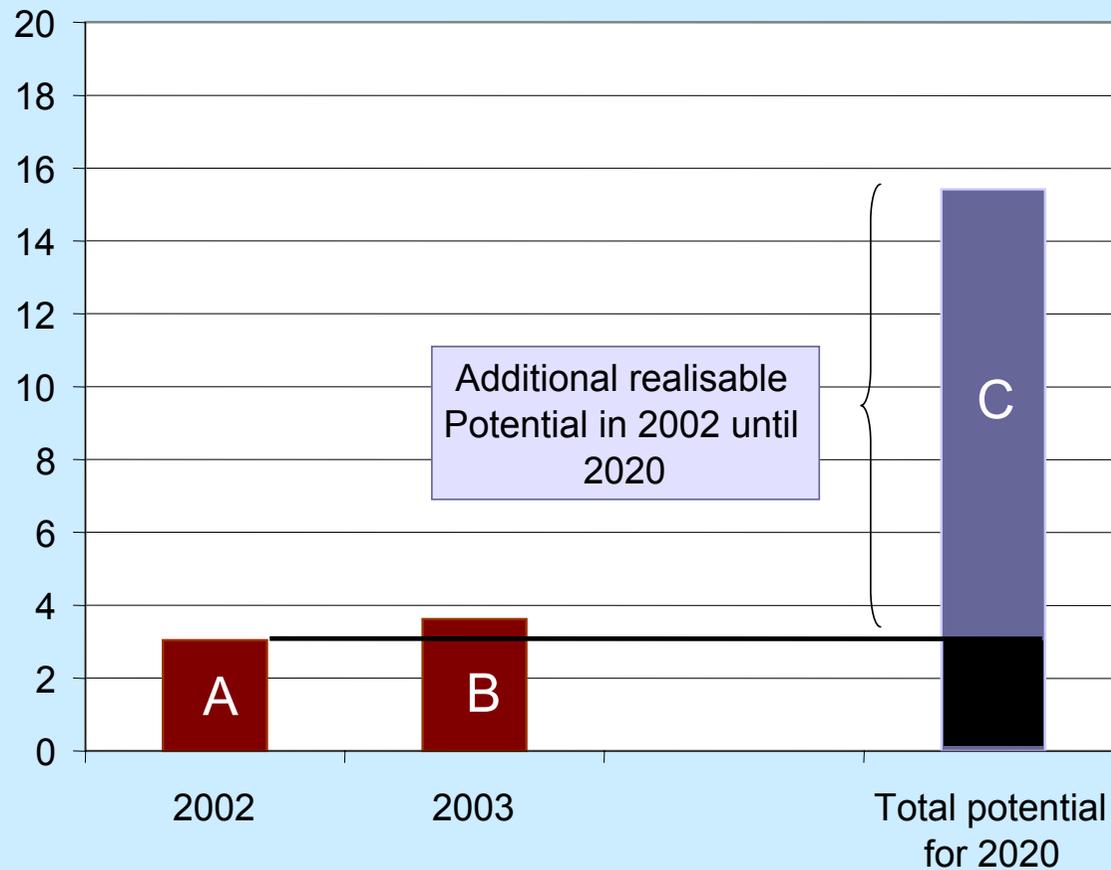
Fiscal
incentive

Price ranges for direct support of wind onshore in EU-15 compared to long term marginal generation costs



Definition of effectiveness indicator “E”

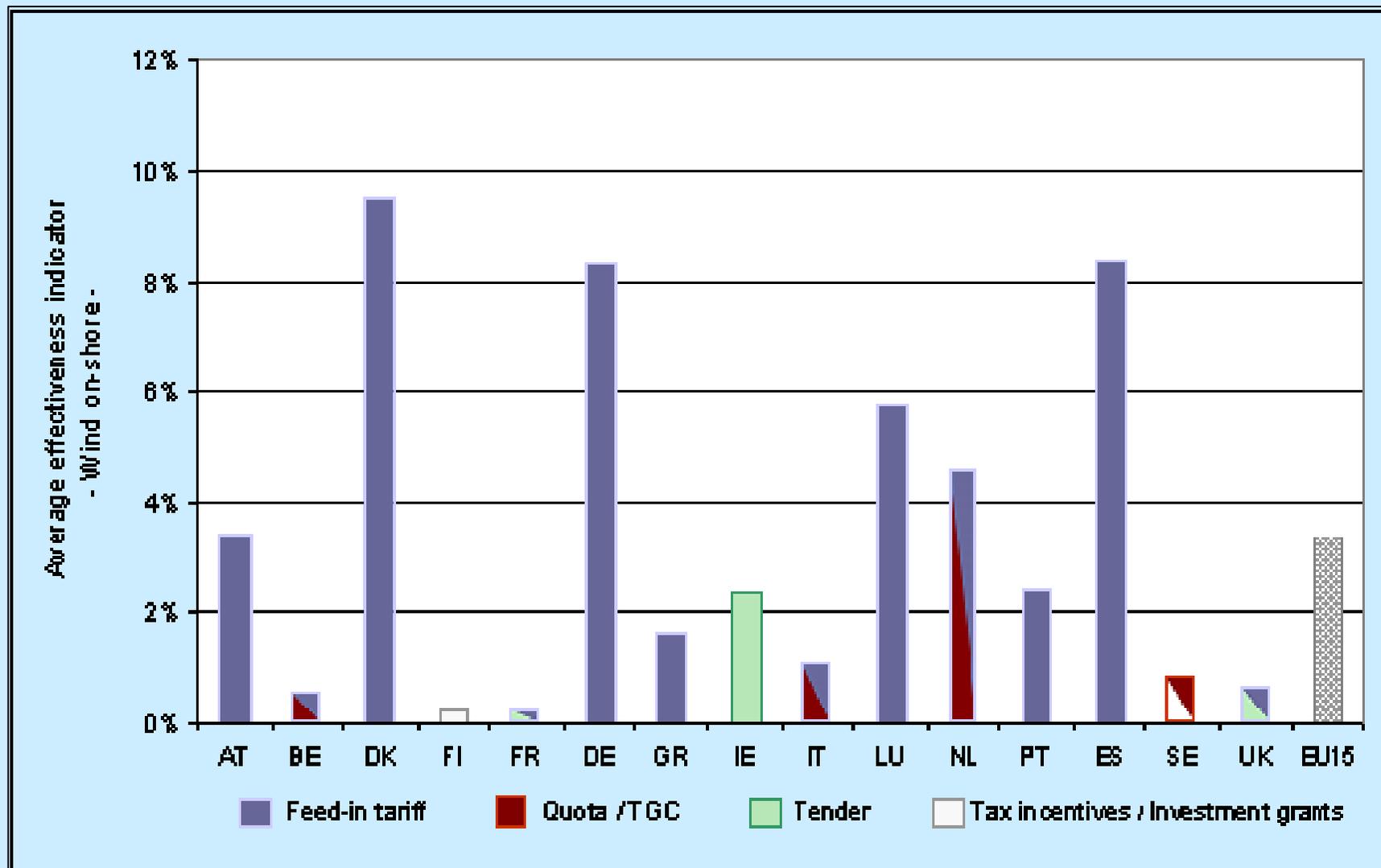
E = ratio of Growth to remaining Potential



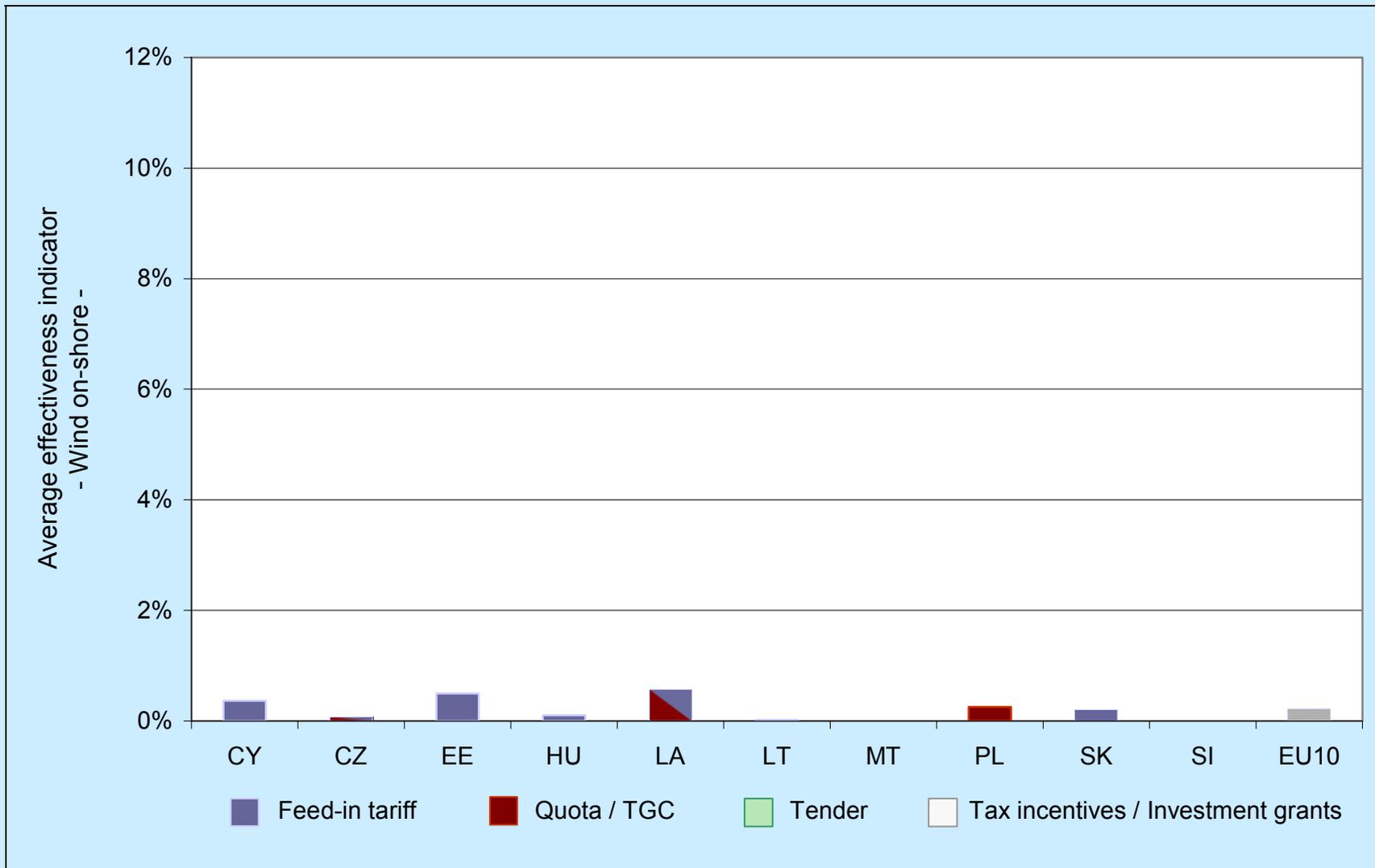
Effectiveness Indicator represents the RES-E produced compared to the remaining potential

$$E = (B-A)/C$$

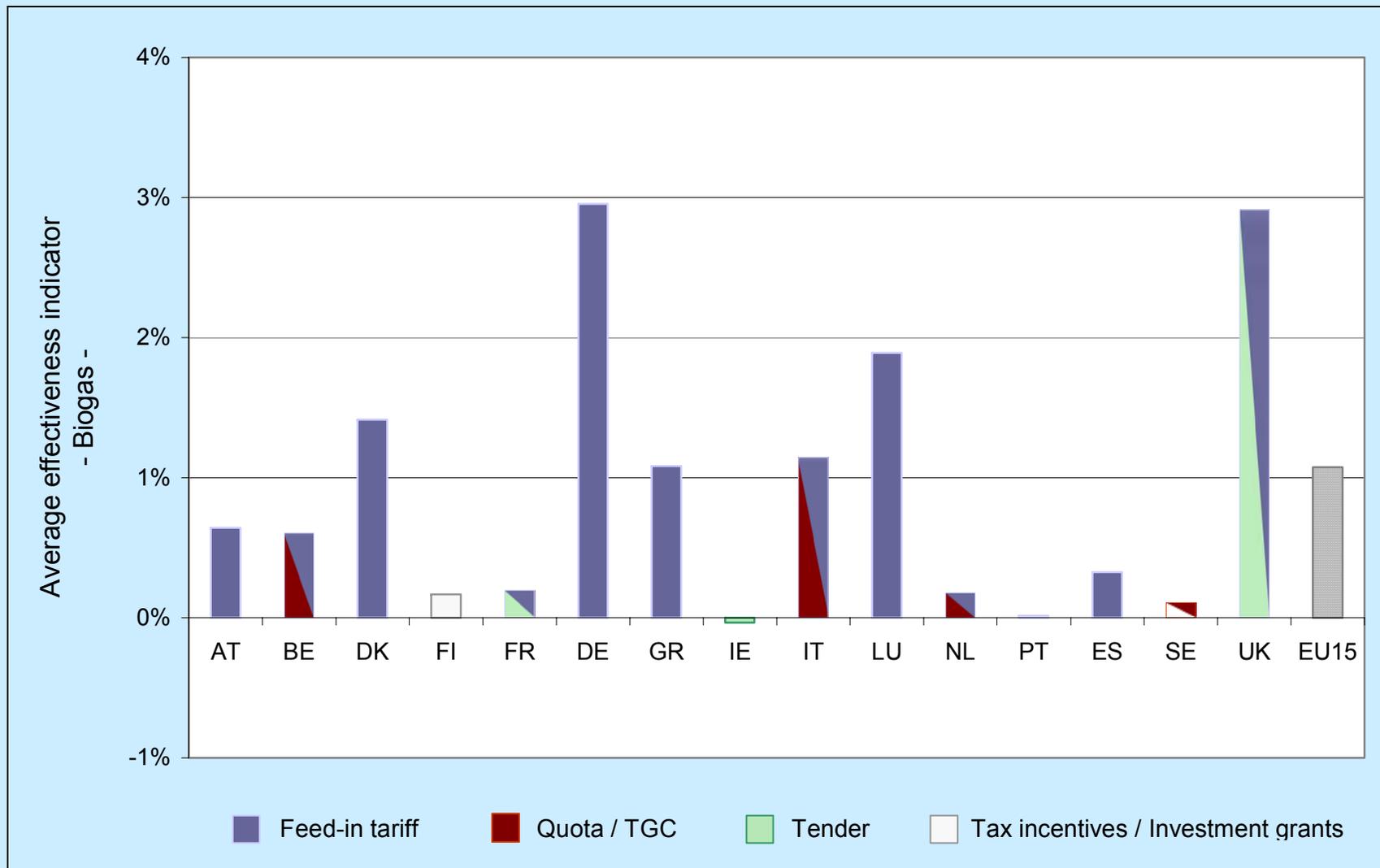
Effectiveness indicator for onshore wind electricity (1998-2004) EU-15



Effectiveness indicator for onshore wind electricity (1998-2004) EU-10



Effectiveness indicator for biogas electricity (1998-2003) EU 15



COM (2005) 627: Evaluation of support schemes

Main conclusions



- Feed-in tariffs have been more effective and more efficient than quota systems in wind energy.
- Other sectors are more complex
- High prices for tradable green certificates due to higher risk cost and immature certificate markets?
- Harmonisation would be premature, more experience needs to be gained, especially with quota systems.
- Administrative and grid barriers need to be addressed.

Time for coordination

1. Optimise the support scheme



- Adapt the support level to the generation costs
 - Half of the Member States give not enough support to ensure deployment of RES-E
- Increase stability
 - Instability increases risk costs
 - Avoid stop-and-go nature of the support
- Reduce investment risk
 - Especially green certificate markets need confidence
- Allow for technology specific support
 - Not all technology markets are equally mature

Time for coordination

RE support scheme in context



- enable compatibility with internal electricity market
 - disclosure, GoO, trading ...
- promote employment, and other local and regional benefits
- coordinate with actions on energy efficiency and demand management

Time for coordination

Reduce administrative barriers



- one-step authorisation agencies
- clear guidelines for authorisation procedures with a clear attribution of responsibilities.
- pre-planning mechanisms requiring regions and municipalities to assign locations for RES
- Lighter procedures for small projects
- Guidance on related EU environmental legislation, such as water directive, habitat, etc

Time for coordination

Ensure fair grid access



- Grid connection, grid use conditions as well as cost bearing and sharing must be transparent and non-discriminatory.
- Grid infrastructure enforcement and development needs to be planned and developed in advance
- Associated costs should normally be covered by grid operators
- Pricing of electricity throughout the network should be fair and transparent and take into account the benefits of embedded generation



EUROPEAN COMMISSION: March 2006



GREEN PAPER ON A EUROPEAN STRATEGY FOR SUSTAINABLE, COMPETITIVE & SECURE ENERGY

WHAT IS AT STAKE – BACKGROUND
DOCUMENT





Green Paper: six priority areas for common action

1. Internal market → completing the internal EU electricity and gas market
2. Internal market and Security of Supply → solidarity between Member States
3. **A more diverse, efficient & sustainable energy mix**
 - Renewable Energy Roadmap
 - Energy Efficiency Action Plan
 -
4. Environment → integrated approach to climate change
5. Innovation → a strategic European Energy Technology Plan
6. Towards a coherent external energy policy



ACTION PLAN FOR ENERGY EFFICIENCY: Realising the potential - Saving 20% by 2020



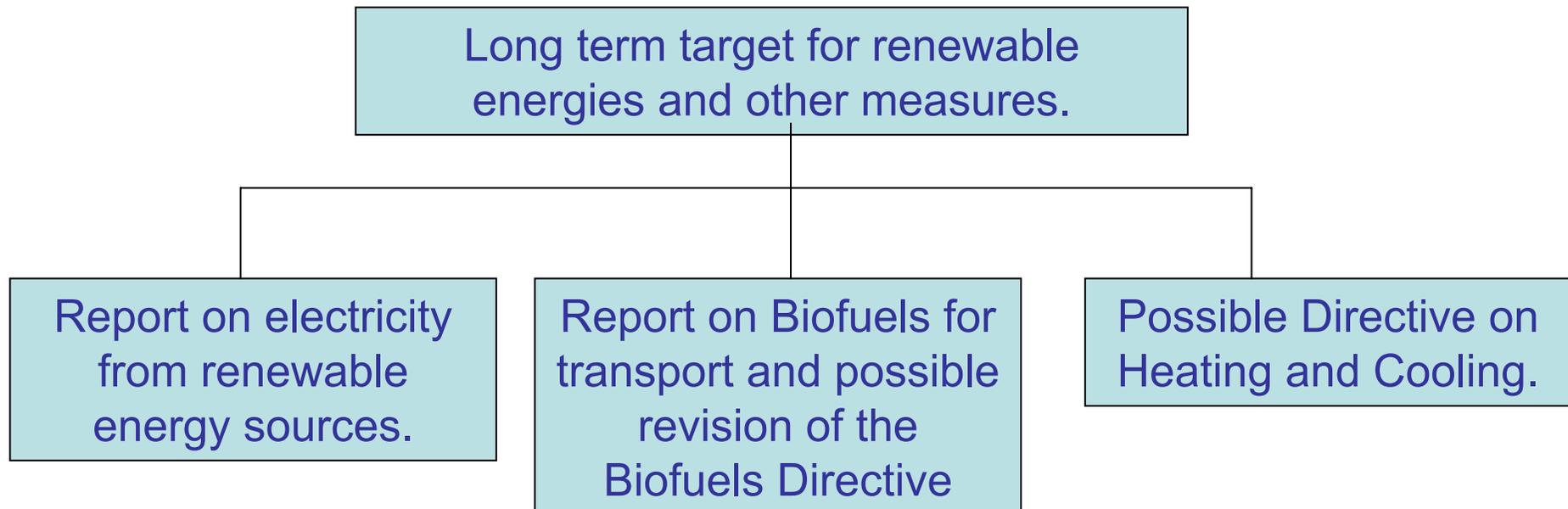
19th October 2006

Note: Targets for % consumption of electricity from RES can be more easily achieved if total consumption is reduced !!

Renewable Energy Road Map

European Council (Presidency Conclusions, March 2006)
refers to EU leadership on RES,
Renewable Road Map, long term perspective

Commission is currently preparing Renewable Road Map





European Commission

intelligent energy
ieea
executive agency

EU programmes : Converting Policy to Action

Directives / Legislation

Regulation

Rights, requirements, duties, obligations, objectives



Research / Demo Programme

Technological innovation & "hardware"

Material, equipment, technologies, product development, R&D



Intelligent Energy – Europe Programme

Social & institutional innovation

Skills, tools, methods, education, training, best practice, standards, studies, monitoring, evaluation



Communication

Exchange, learning, networking, promotion, coordination, feedback to EU and national policy makers

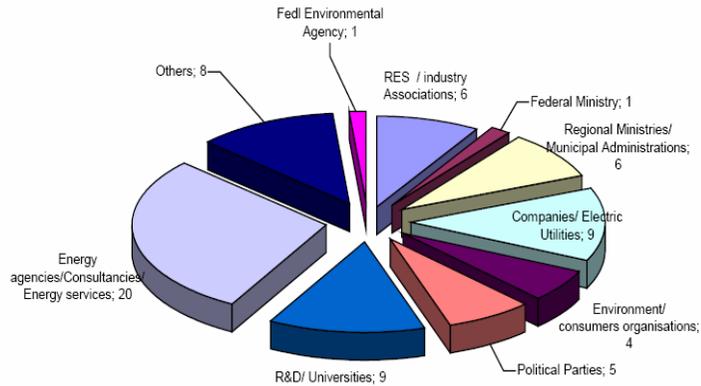


Renewable Electricity – Objectives

- address the objectives and priorities of the Directive 77/2001 and support its implementation
- address the non-technological issues in order to accelerate market introduction of RES-E technologies
- analyse related policy initiatives : e.g. agriculture, forestry and wood sectors, environment and fiscal policies, problems of remote regions



IEE RES-E Projects

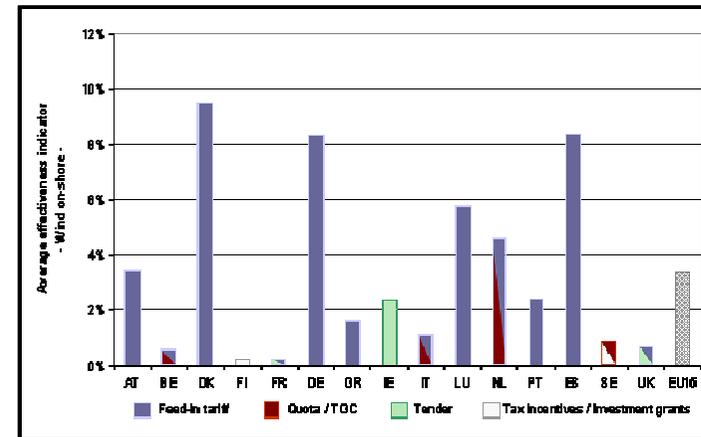


REALISE FORUM

-> aims to establish a coherent basis for national policies in view of a coordinated RES-policy at EU level; analyses experience gained with feed-in tariffs + tradable green certificates.

OPTRES

-> assesses the effectiveness and efficiency of support mechanisms; identifies barriers + investigates optimisation

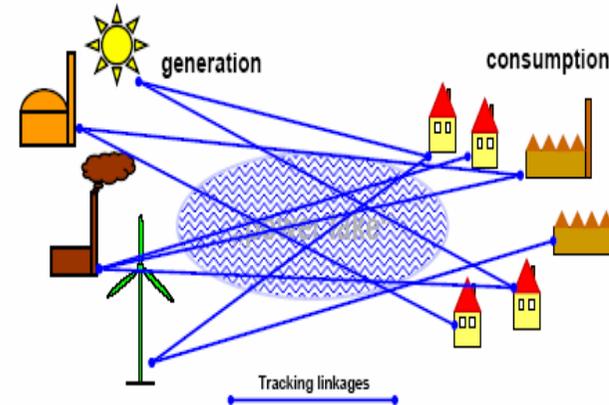


PV Policy Group

-> establishes a Core Group of „solar nations“ to define common actions for improving national regulatory frameworks, support schemes and monitoring systems for PV

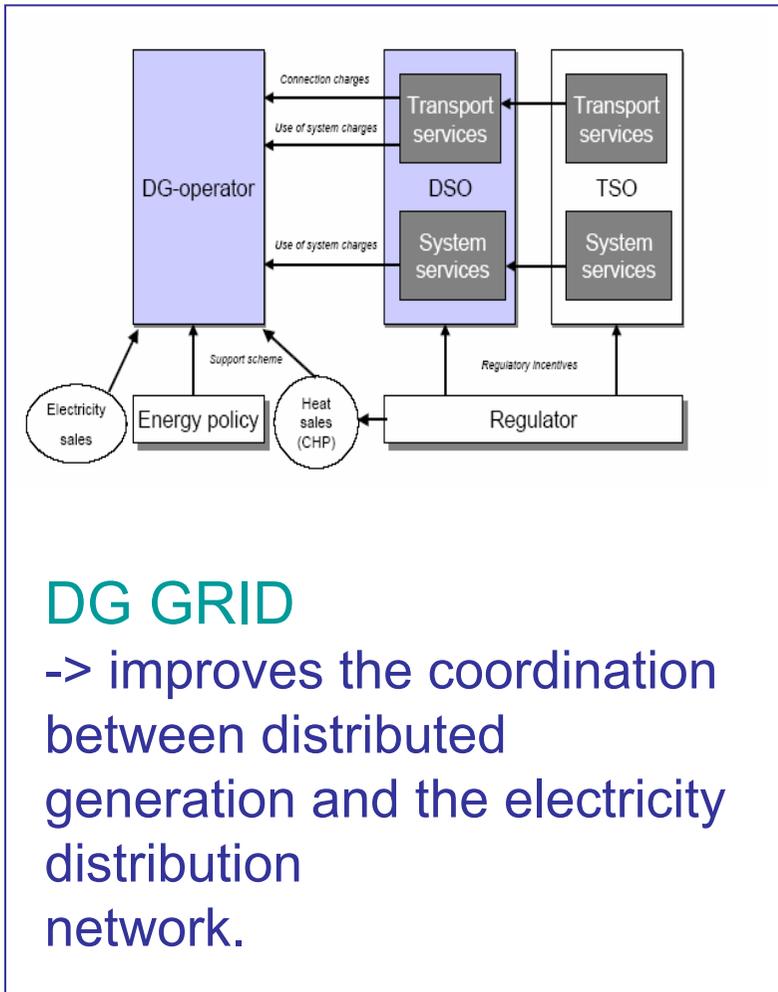
Eur'Observ'ER

→ monitors up-to-date the progress in RES sectors as wind, PV, biofuels, biogas, wood, solar thermal, small hydro and geothermal



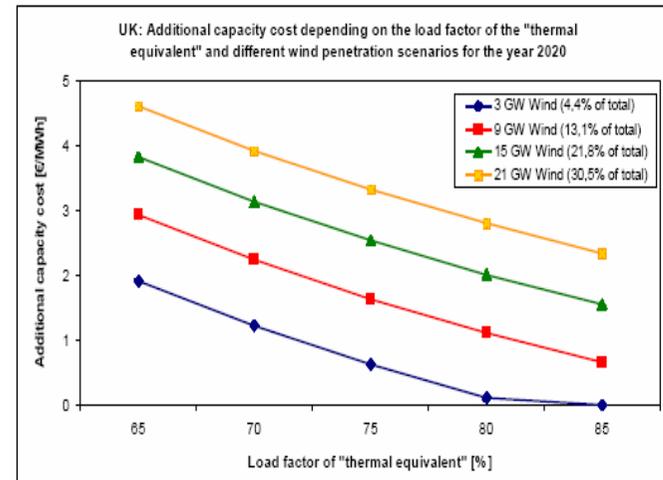
E-TRACK

-> investigates the feasibility of a harmonised standard for tracking electricity in Europe



GreenNet EU 27

-> derives least cost strategies for integration of RES-E into European electricity grids



Future IEE projects (to start late 2006)

Support Schemes & Targets:

- **Futures-e**
- **RES2020**

Distributed Generation & Grid issues

- **Tradewind**
- **Respond**
- **GreenNet-Incentives**
- **SMART-A**

Technology-specific projects:

- **Windskill**
- **Gasification Guide**
- **Sherpa**

CIP Structure: 3 pillars

**Entrepreneurship &
Innovation
(EIP)**

EIP committee

€ 2.170 million incl.
€ 430 for eco-innovation

**Intelligent
Energy
Europe
(IEE)**

IEE committee

€ 720 million

**ICT
Policy
(ICT)**

ICT committee

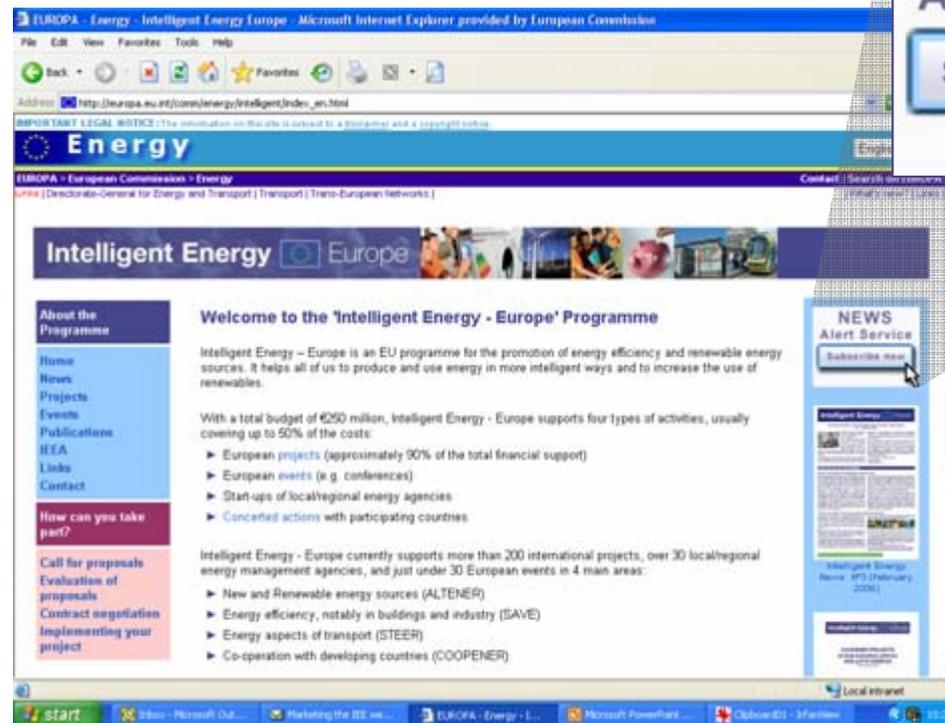
€ 730 million

Timescale for IEE-II

- CIP adopted by EP and Council (June)
- Setting up of the “new” IEE-2 Committee
- Informal meeting of IEE-2 Committee in November, and vote on 2007 WP (January)
- Formal adoption of 2007 WP by EC (March)
- Launch of Call for Proposals (spring 2007)
AS SOON AS POSSIBLE !

IEE WEBPAGE: A GOOD SOURCE OF INFORMATION

- Call for proposals 2006
- Details of ongoing projects
- List of supported events
- Intelligent Energy News
- Support for project partners
- Contacts & help



http://ec.europa.eu/energy/intelligent/index_en.html