

**Support to interested political actors
through the IFIC**

**International Feed-In Cooperation –
Mitigation through deploying renewables
Side-Event at the 15th Conference of the Parties to the
UNFCCC, Copenhagen**

Copenhagen, 08.12.2009

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Questions being assessed by studies available through IFIC

- Assessment and evaluation of present support schemes for renewables
- Potentials and costs of renewable energy sources
- Scenarios of future RES deployment – costs and benefits
- Implementation of cooperation mechanisms of RES Directive
- Consequences for the development of national support schemes
- Assessment of options to reduce non-economic barriers

Scientific advice provided through IFIC

Knowledge provided for the International Feed-in Cooperation

- Web-Site:
 - Research
 - Events
 - Legislative documents
 - Links

<http://www.feed-in-cooperation.org/>

The screenshot shows the homepage of the International Feed-in Cooperation website. The header features logos for the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the Spanish Ministry of Industry, Tourism and Commerce, and the Slovenian Ministry of the Economy. A navigation menu on the left includes links for Home, Research, Events, Founding Declarations, EU Documents, National Documents, Links, and Contact. The main content area is titled 'INTERNATIONAL FEED-IN COOPERATION' and contains a paragraph explaining the project's purpose, a map of Europe highlighting Germany, Spain, and Slovenia, and a section titled 'WHERE AND WHEN WAS THE COOPERATION FOUNDED?' detailing the project's history. A sidebar on the right provides a search function and lists recent news items from September 2009, May 2009, and November 2008.

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Regular international workshops

- Workshops carried out approx. twice a year
- Expert and policy maker discussion on the implementation and design of feed-in tariffs



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Research done by the International Feed-in Cooperation

IFIC research example: Best practice paper

- Describes all major design options for feed-in tariffs
- Covers all EU-27 countries applying FITs
- Analyses the advantages and disadvantages of the different options



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Comparison of the main implantation characteristics of the Spanish, the German and the Slovenian feed-in tariff system



Fraunhofer Institute Systems and Innovation Research

APE

Energy Economics Group

Feed-In Systems in Germany, Spain and Slovenia

- A comparison -

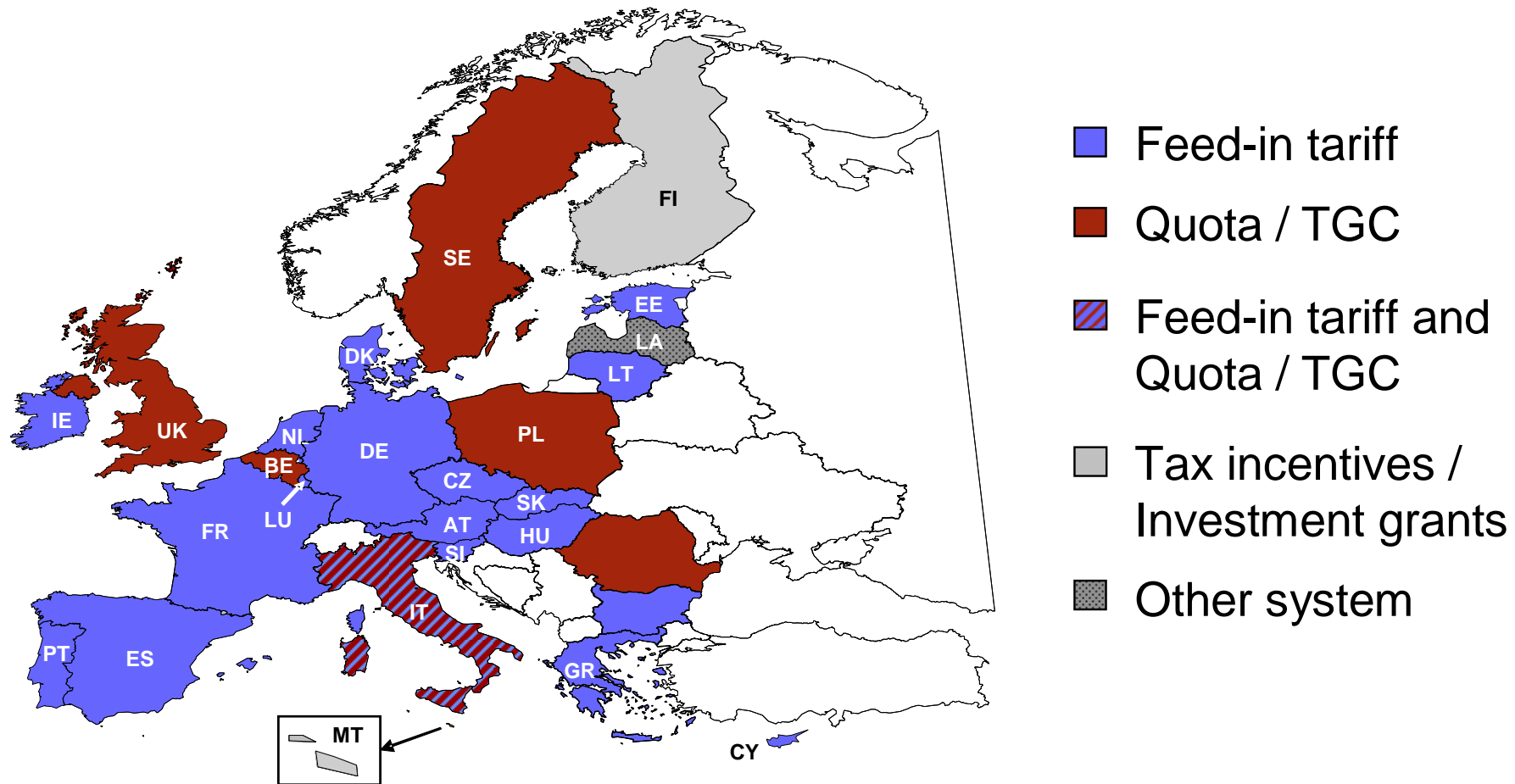
Comparison of the main implantation characteristics of the Spanish, the German and the Slovenian feed-in tariff system

Criterion	Spain	Germany	Slovenia
Guaranteed duration of tariff level	1 year ¹¹	generally 20 years ¹²	1 year
General duration of support	during the whole lifetime	generally 20 years	10 years guaranteed
Are the tariffs stepped (regarding time, local conditions, etc)?	yes	yes	yes
Degression of tariffs for new installations	set in a flexible way	predefined (2-6.5% per year)	no
Implementation of burden sharing	through system operator OMEL - leads to equal distribution among all electricity consumers	equal distribution among all electricity consumers with exceptions for energy-intensive industries	equal distribution among electricity consumers
Premium tariff possible?	yes	no	yes
Direct access to the spot market in combination with FIT possible	yes	no	yes
Supplemented by what kind of main additional support mechanisms	ICO-IDAE funding line, which provides with special conditions to investments in RE and RUE investments. In general, investment incentives, soft loans and tax incentives	Soft loans and investment incentives by the market incentive programme for biomass CHP, small hydro-power, PV in schools.	Soft loans and investment incentives
Grid access	guaranteed by the act	guaranteed by the act	guaranteed by the act
Costs of balancing power	not to be covered by RES generator	not to be covered by RES generator	not to be covered by RES generator
Demand orientation	yes, for selected technologies under the fixed price option	no	yes, for selected technologies
Forecast obligation	yes	no	yes
Do specific tariffs for the following (sub)-technologies exist?			
Biogas	yes	yes	yes
Off-shore wind	yes ¹³	yes	-
PV	yes	yes	yes, Solar
Building integration of PV	no (only size dependent) ¹⁴	yes	no
Geothermal electricity	yes	yes	yes
Solar-thermal electricity	yes	no	yes, Solar
Ocean technologies	yes	no	no
Refurbishment large hydro	no	yes	no
Biomass-CHP ¹⁵	yes	yes	no
Renewable biomass resources	yes	yes	yes
Inno. techn. incl. fuel cells, microturbines, etc	no	yes	no

Analysis of European renewable energy policy

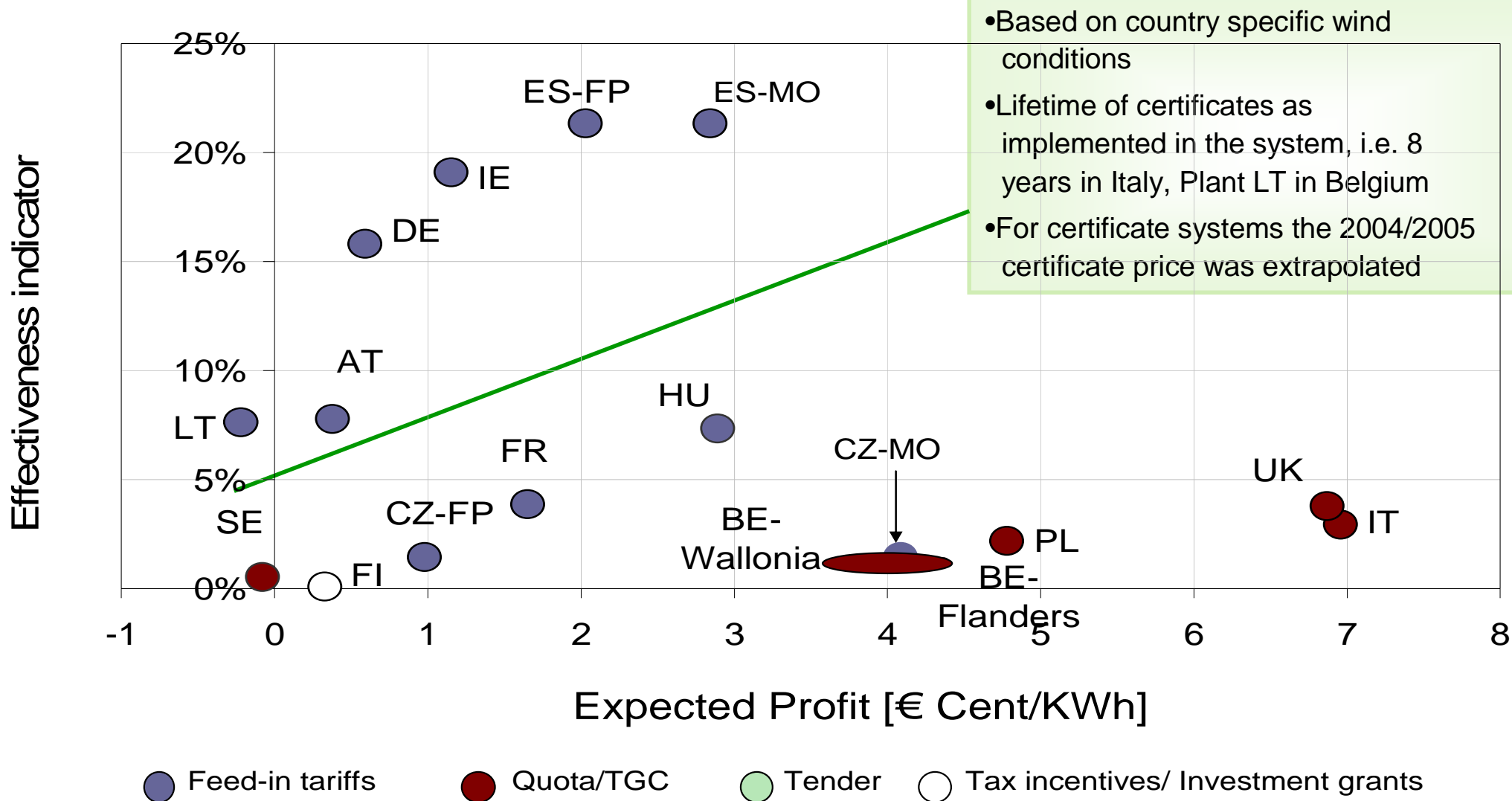
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Monitor support schemes for RES in the EU

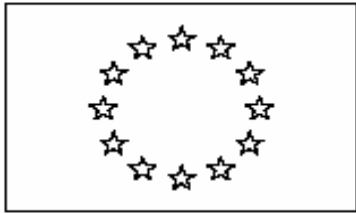


A clear majority of EU countries uses feed-in tariffs as main instrument
6 countries have implemented a quota obligation with TGCs

Analyse the effectiveness and efficiency of support schemes



Example of wind onshore in 2006
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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 23.1.2008
SEC(2008) 57

COMMISSION STAFF WORKING DOCUMENT

The support of electricity from renewable energy sources

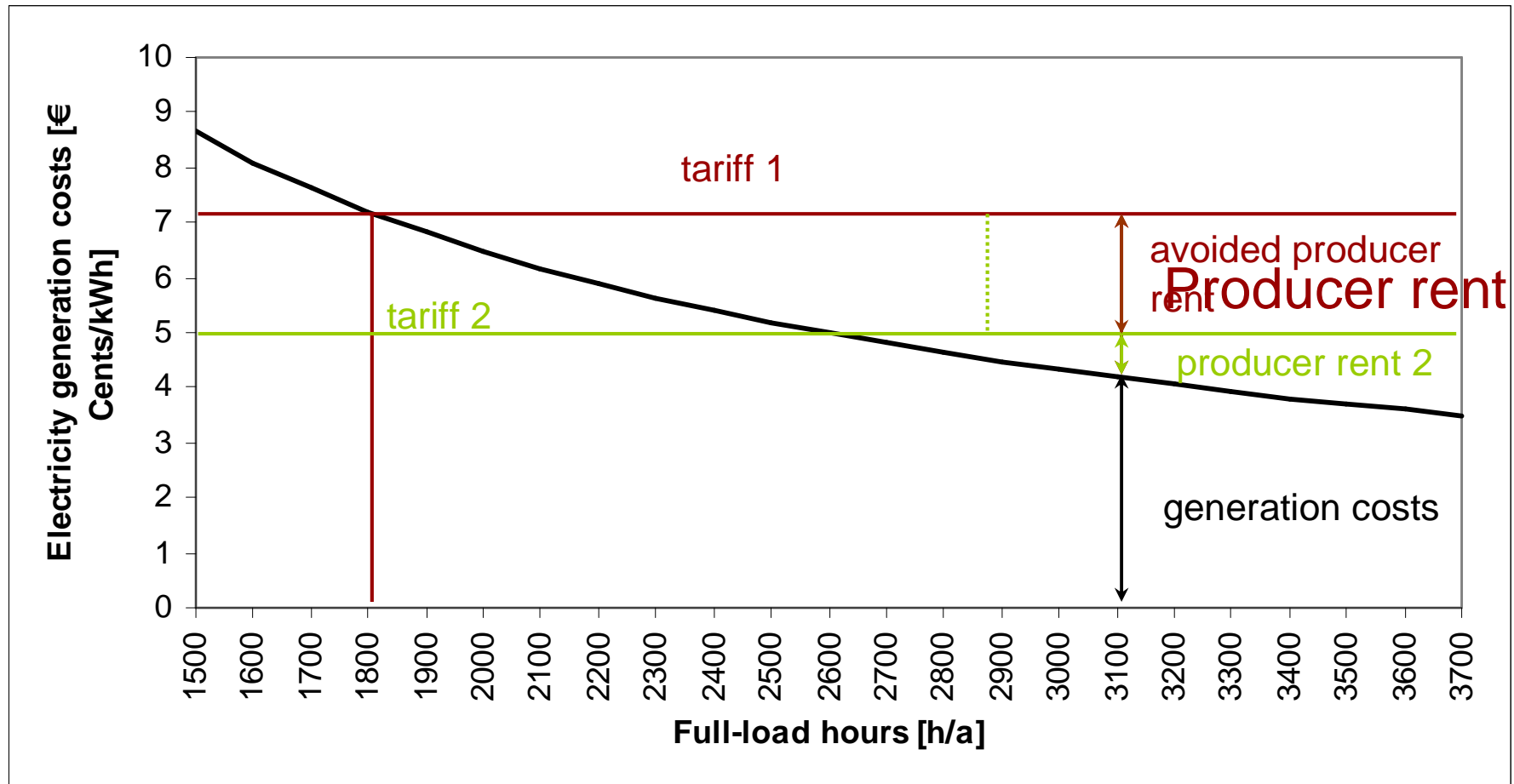
"This report presents an updated review of the performance of support schemes using the same indicators presented in the 2005 report. It finds that, as in 2005, well-adapted feed in tariff regimes are generally the most efficient and effective support schemes for promoting renewable electricity."

IL

Analysis of Feed-in tariff design options

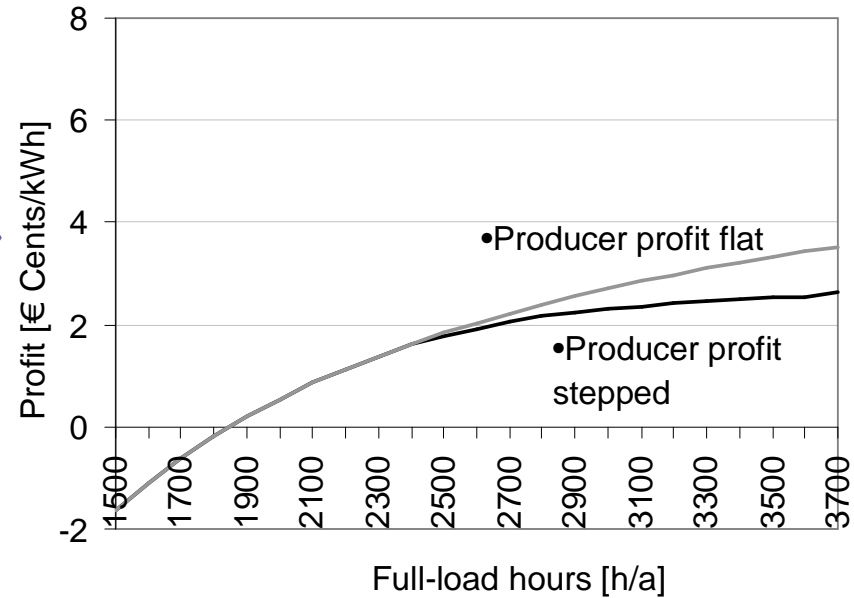
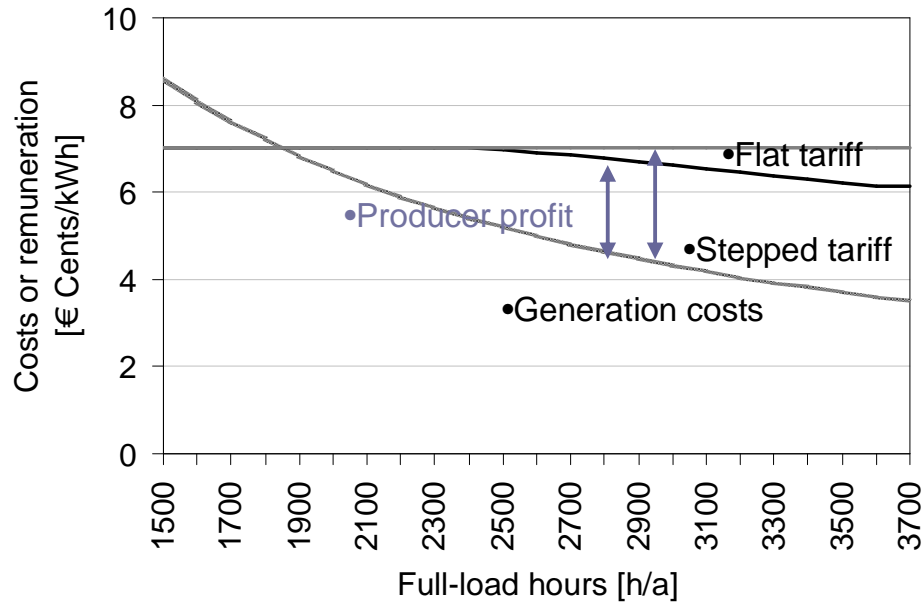
Feed-in tariff design options

- Example: Stepped tariff design for wind energy



Monitor support schemes for RES in the EU

- Example: Stepped tariff design



Support for onshore wind energy in France:

- 8.2 € Cents/kWh for 10 years
- Between 2.8 and 8.2 € Cents/kWh for the remaining 5 years (depending on the electricity yield during the first 10 years)

Feed-in tariff design options

Stepped tariff design

Advantages:

- Differences in power generation costs can be taken into account
- Risk of over-compensating very efficient plants is minimized
- Policy costs for RES-E support are reduced
- Additional policy objectives can be taken into account, e.g. environmental concerns in the field of biomass combustion

Disadvantages:

- May lead to higher administrative complexity and to reduced transparency
- If not properly designed overall efficiency of the system may be decreased (if tariffs for small plants are significantly higher than for larger plants, it could be profitable to construct two small plants instead of a large one)

What's next?

Provision of:

- Updated information on best practice feed-in systems
- Updated national legislation
- Regular workshops on current topics
- Detailed assessment of legislation in IFIC member countries

- Participation in the discussion of EU legislation
- Assistance to interested countries in the implementation of feed-in systems

Thank you for your attention!

Questions?

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