World Future Council

Dirk Hendricks | Director, EU Liaison Office

Networking for Renewables

The World Future Council

„…an international green think tank“ Economist.com

英文中國郵報 The China Post “…a non-governmental organization with the goal to work for a sustainable future in the fields of environment, peace and human rights.

„the Club of Rome with a campaign department“

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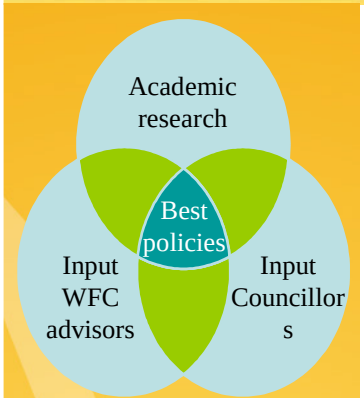
Providing Policy Solutions



The Council

- works closely with policy-makers and civil societies
- identifies, develops and helps to implement “Best Policies”
- provides concrete solutions to key environmental, social and economic issues
- turns the focus towards climate change as an overarching issue

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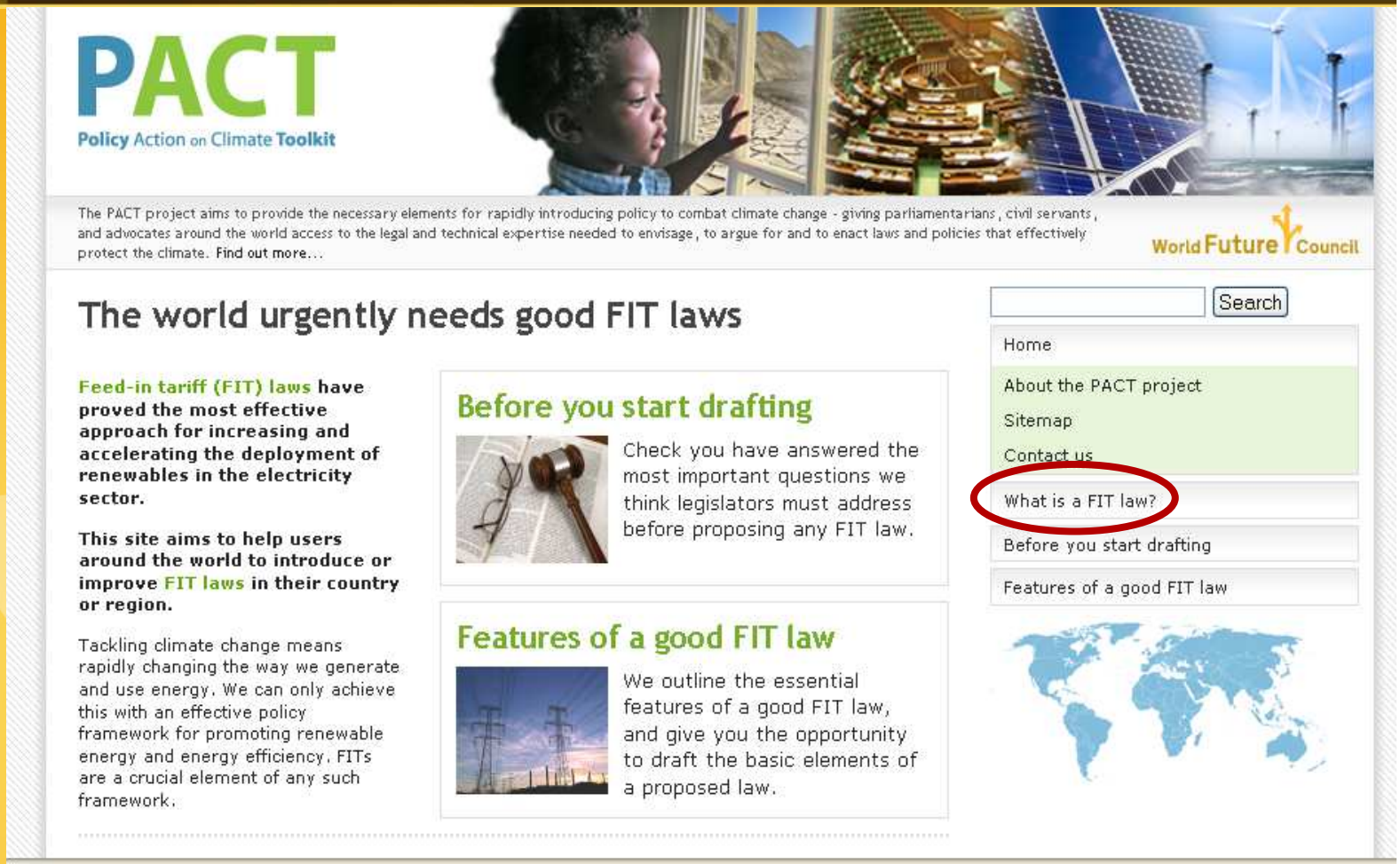
www.onlinepact.org



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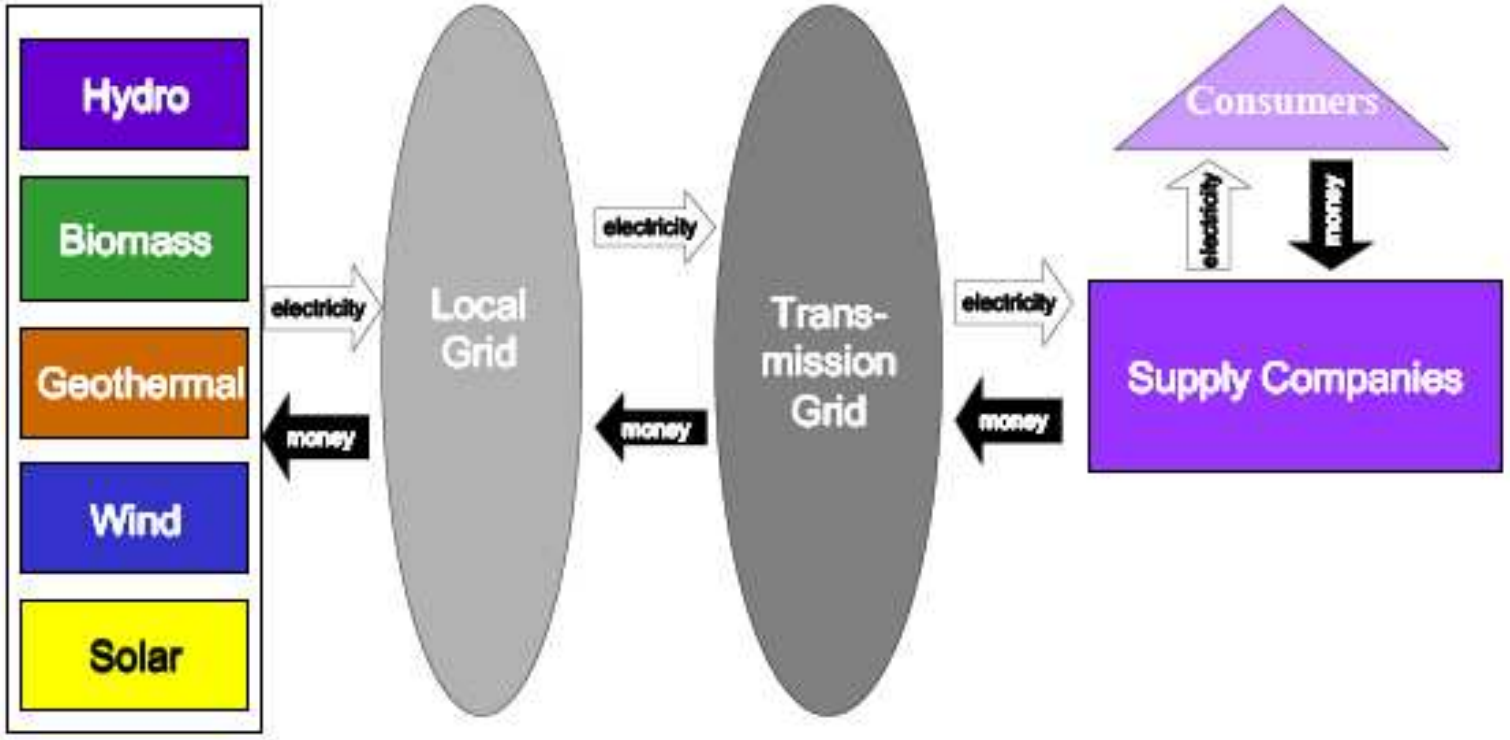
Characteristics of a Feed-in Tariff

- Gives RE priority access to the grid
- Obliges grid operators to purchase electricity from RES
- Sets the price for RE electricity for fixed periods
- Sets no limit to amount of RE feeding into the grid

Promoting Renewables: Concept of Feed-in Tariffs



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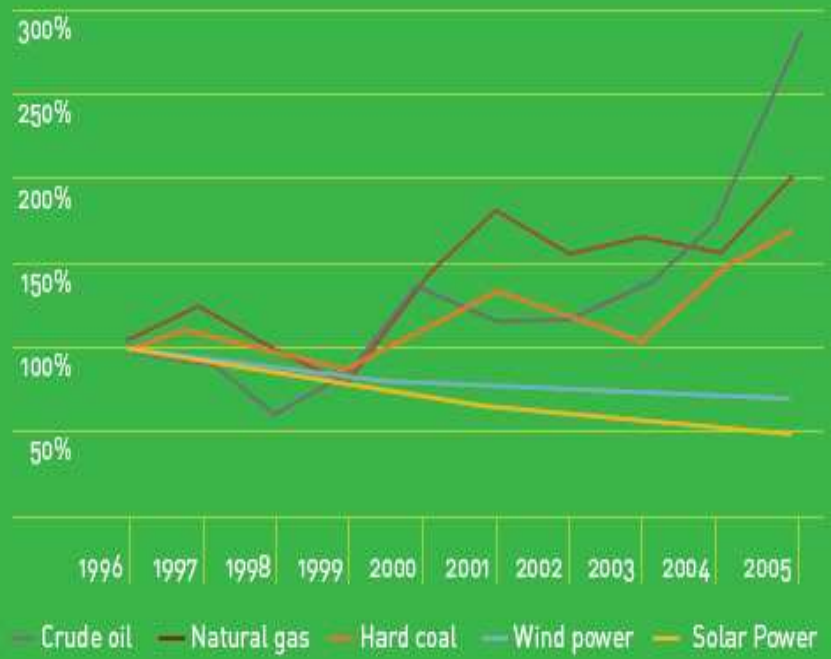
Costs of Feed-in Tariffs

Price development for different energy sources



Sources: Federal Office of Economics and Export Control, Tecson, German WindEnergy Association, German Solar Industry Federation

Renewable energy is affordable

For a price of
19.6 Euro cent
per kilowatt-hour
electricity

only 0.5 cents
are due to renewable energies

6.0 ct network utilisation
4.3 ct power generation
2.7 ct VAT
2.1 ct power tax
2.0 ct licence fee
1.0 ct marketing
1.0 ct measurement costs
0.3 ct allocation for cogeneration

The average household pays 1.50 Euros per month for noticeable ecological relief by renewable energies

Source: German Renewable Energy Federation

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Achievements in Germany within only Six Years

- 250,000 jobs created
- 40 million tonnes of CO2 saved directly from EEG
- 11.8% share of final electricity consumption from RES achieved
- €21.6bn turnover for German RE companies (2006)
- €8.7bn investment per year
- All this for a monthly cost of €1 per household

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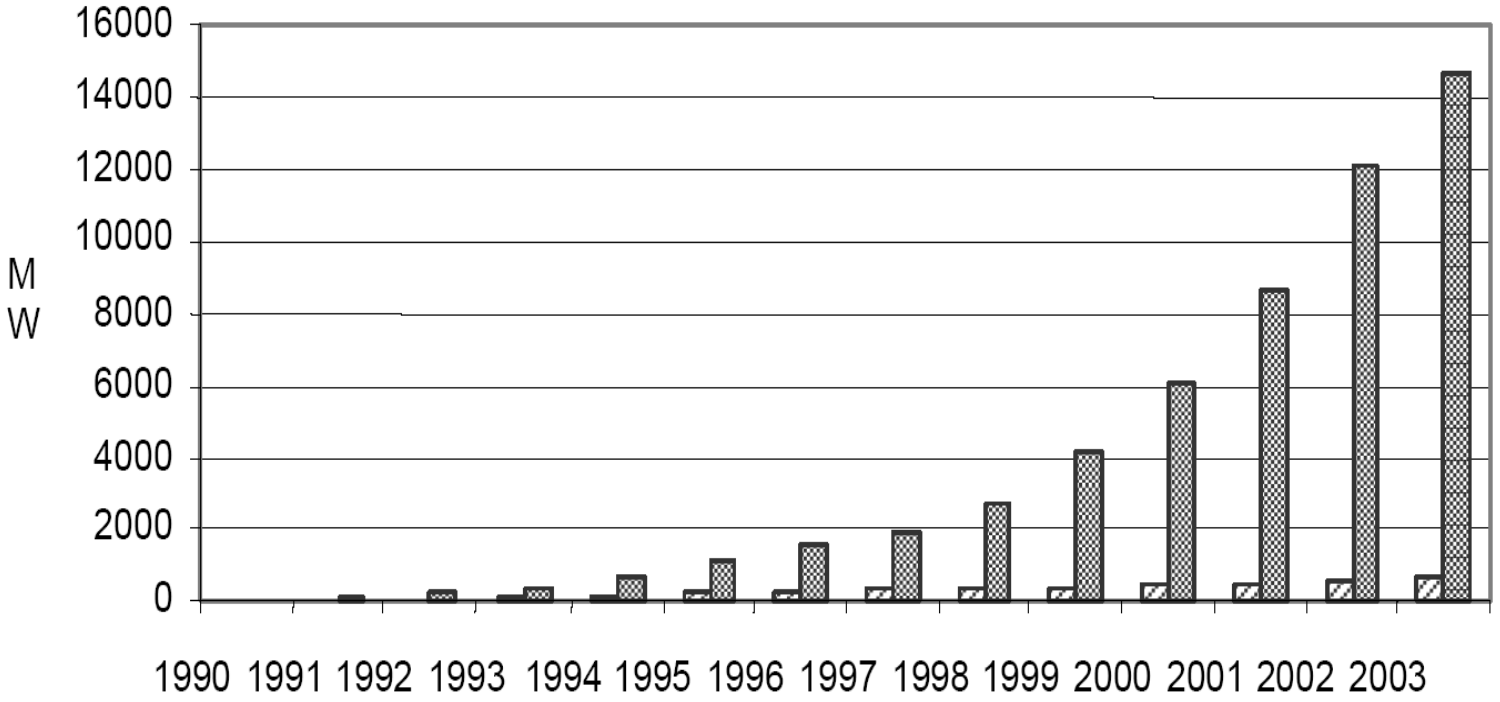
Comparison of Quota-System vs. Feed- in system



Germany – Feed-In system

UK – Quota-System- and Auction-based system

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Renewables on the Rise

- 2008 Renewable Energy Directive (20-20-20)
- Potential EU goal of 30% CO_2 emissions reductions if post-Kyoto Agreement
- EU vision for 2050: 80% renewables
- Post-Lisbon Strategy
- 3rd Strategic Energy Review
- National Action Plans under 2008 RE Directive

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Getting the Priorities Right

- Grid enhancement and enlargement as prerequisite for a large share of renewables in EU energy mix after 2020

2 major tasks for Europe's network

- linking remote RE production areas with consumer centres
- handle greatly increased local production

Technical and legal network updates to allow

- secured and constant electricity supply
- balanced cross-border electricity flow
- local feed-ins to city distribution networks
- guaranteed access for all levels of renewable energies

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Inter-connecting Networks and Renewables

- Grid enhancement and enlargement as prerequisite for a large share of renewables in EU energy mix

- WFC supports a combination of supergrid and smart grid technologies.

Concept:

- Smart grids on local and regional level
- HVDC power lines for efficient energy transfer to high demand areas
- Decentralized multinational production sources to minimize renewable energy's variability

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Non-technical Suggestions for Grid Enhancement

- Guaranteed grid access to renewables
- Increased numbers of cross-borders interconnections to address production variability & electricity wastage
- Enforced cooperation on EU level by EU regulators
- Proper separation between generating & transmission affiliates (un-bundling)
- Promote private investment through stable legal and financial frameworks

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Thank you!

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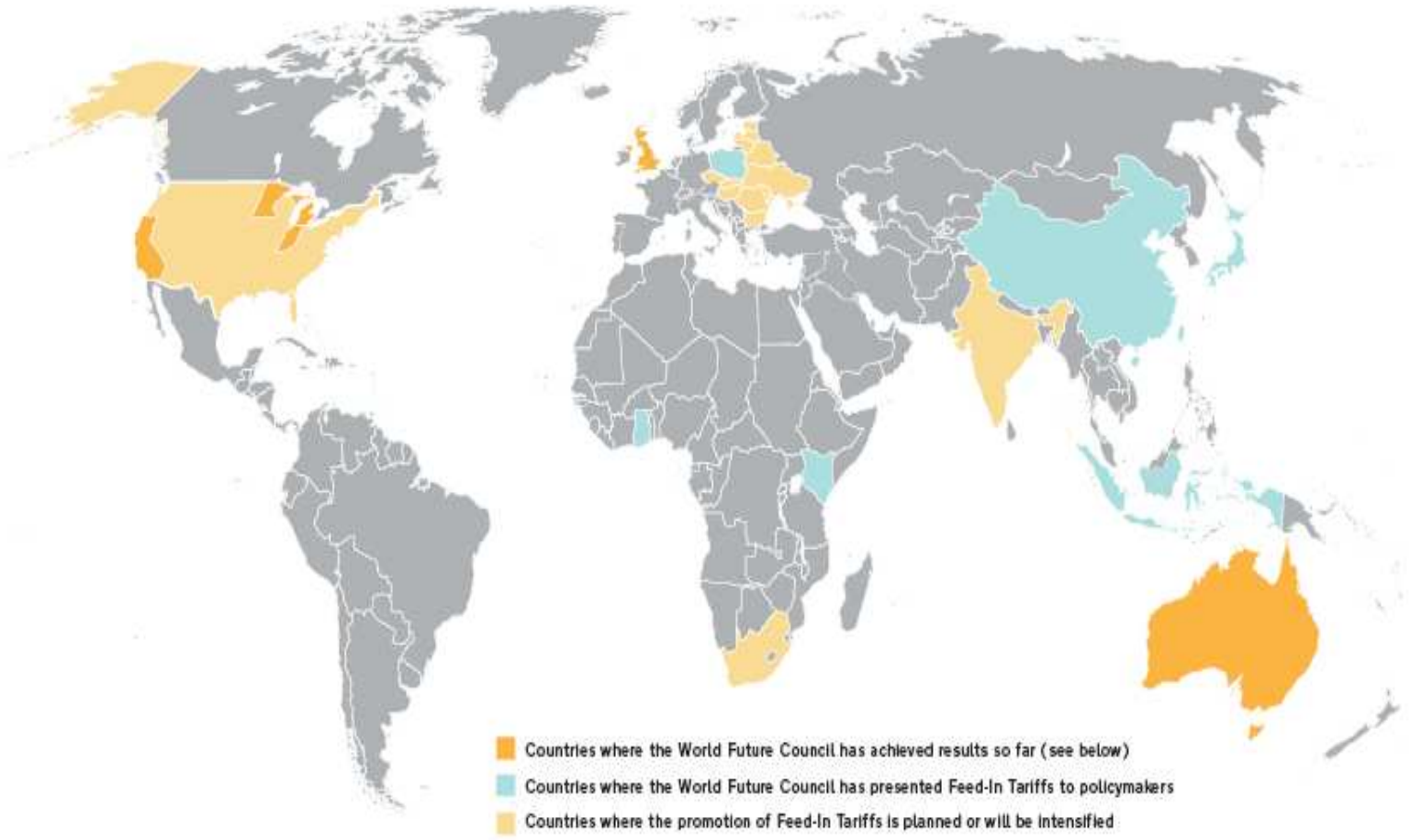
WFC Impact of the Renewable Energy Work



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