

# Support Policies for Renewable Energies

Dr. Bernhard Graeber  
EnBW Energie Baden-Württemberg AG  
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# Support schemes for renewables

## Policy background



### › **Feed-in tariffs**

- › Guaranteed tariff for a determined period of time
- › Low investment risk
- › Low compatibility with electricity markets
- › Feed-in tariffs may also consist of premium tariffs paid in addition to market price (e.g. in Spain) → stronger market orientation

### › **Tender procedures**

- › Predefined target for additional capacity
- › Projects with lowest generation costs obtain financial support

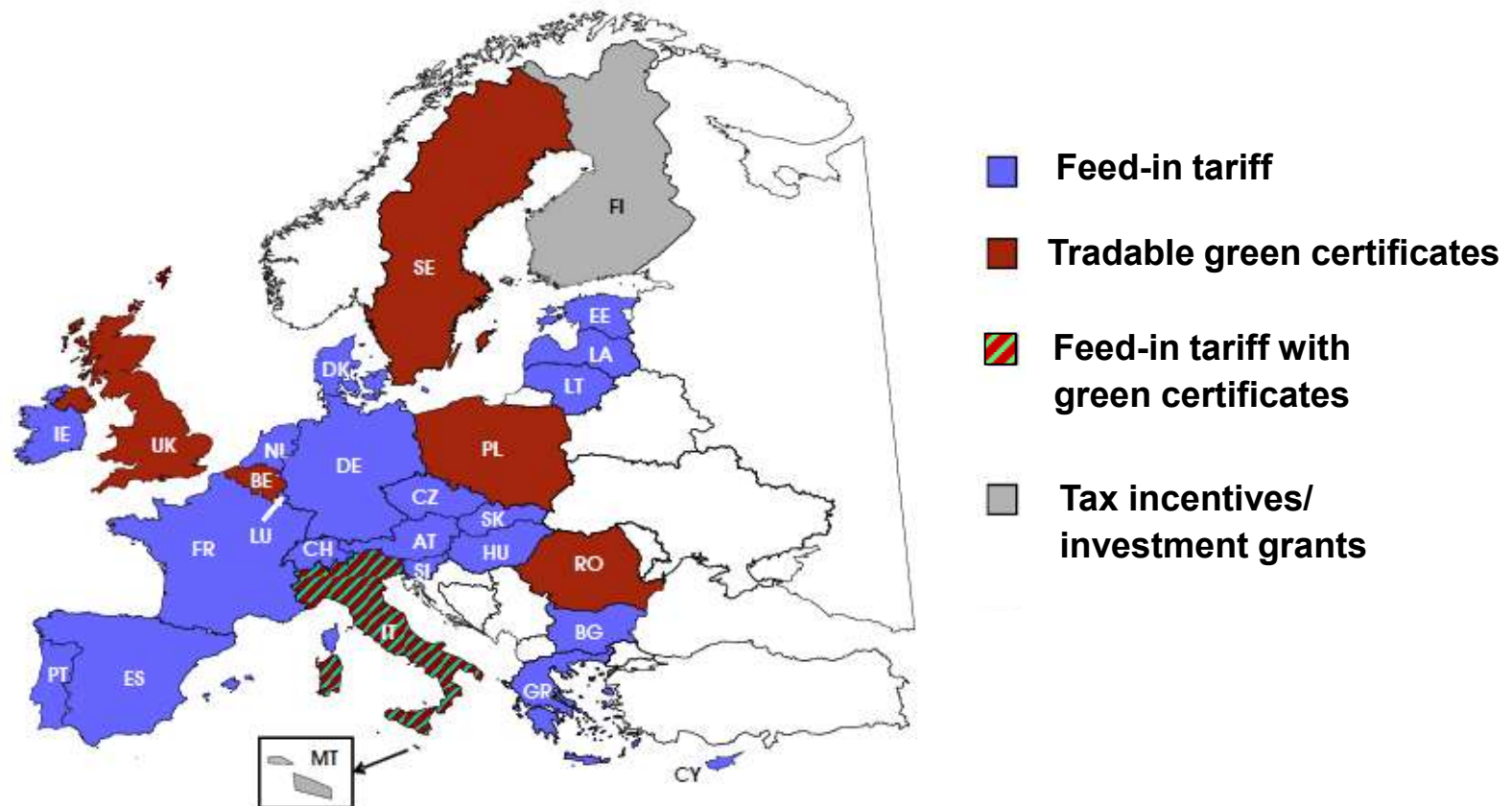
### › **Quota obligation with tradable green certificates**

- › Determination of quota target
- › Renewable energy sold at market price
- › Additional revenue from selling tradable green certificates

### › **Tax incentives/investment grants**

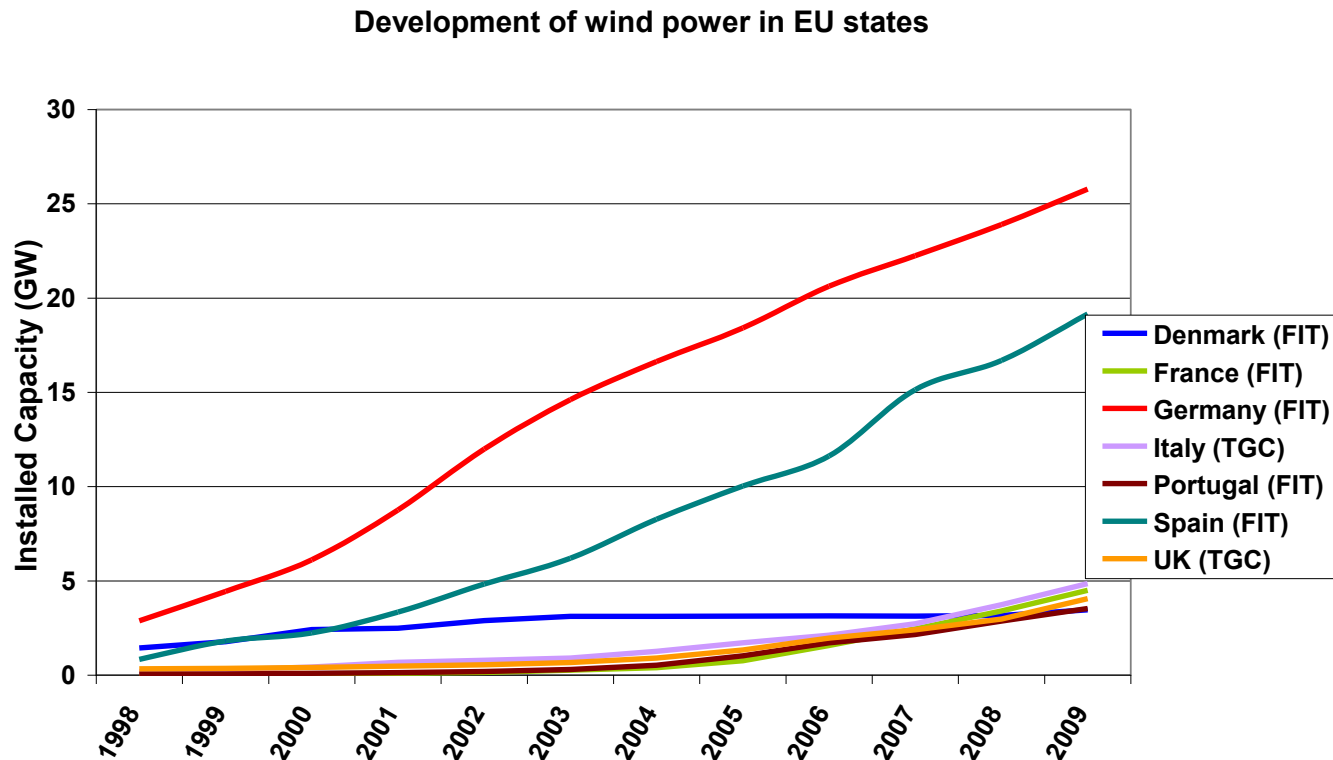
- › Tax incentive: reduction or exemption of tax payment
- › Investment grants: reduction of capital cost

# Majority of EU countries uses feed-in tariffs 6 EU-countries have tradable green certificates



Source: Fraunhofer ISI, 2010

# Feed-in tariffs provide incentive for substantial development of wind power in Germany and Spain



› Levels of feed-in tariffs determined to generate sufficient return

Technology- and site-specific support is preferable to reduce costs and incentivise deployment of less advanced technologies

- › **In order to achieve an ambitious target, a portfolio of renewable technologies is required**
- › **According to Turkey's electricity energy market and supply security strategy paper a target of at least 30% share of renewable sources in electricity generation shall be achieved by 2023 by making use of hydro, wind, geothermal and solar energy resources**
- › **Different renewable technologies have different generation costs**
  - **technology-neutral support leads to high windfall profits for cheaper technologies**
- › **Energy output of a renewable energy plants is in general site-dependent**
  - **site-specific support reduces windfall profits**
- › **Technology learning yields substantial decreases in costs, particularly for less advanced technologies**
  - **support levels for new plants should decrease over time**

- › **Need for a long term, stable, risk mitigating support policy**
- › **Technology- and site-specific support levels to reduce support cost**
- › **Non-economic barriers, such as grid constraints and administrative barriers, can have a significant impact on the deployment of renewables**

Thank you for your attention



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