



# FITs in the European electricity market

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The European Union, renewable energy policies,  
and economic expertise, 1980s-2015

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# Introduction

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- The EU as a driving force in the development of renewable energy policies
- Feed-in tariffs as a major instrument of the deployment of renewable electricity

What can the evolution of FITs tell us of the tensions and frictions at play in European electricity policy?

- FITs at the interface between promotion of RE and market integration
- Interweaving of theoretical and practical concerns

# Milestones

<b>1980s</b>	First European documents on renewable energy policy	First FIT-like mechanisms in Germany and Denmark (voluntary)
		FIT legislation in Germany StrEG (1990), Denmark (1992)
<b>1996</b>	Directive on the internal electricity market	
		FIT schemes introduced in several Member States: Spain (1997), France (2001), German EEG (2000)
<b>2001</b>	Directive on the promotion of electricity from renewable sources	<i>PreussenElektra v. Schleswag</i> : StrEG compatible with EU law
<b>2004</b>		Revision of German EEG
<b>2008</b>	European Energy-Climate Package	FIT schemes reformed or revoked throughout Europe
<b>2014</b>	New guidelines on RE support	Reform of the German EEG

# Unpacking debates around FITs in the EU

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- Three types of material
  - EU policy documents
  - Documentation on renewable energy policy in Member States
  - Grey and academic literature on renewable energy support
- A “Callonian” take on the European electricity market
  - Viewed as a “reflexively designed device and ongoing scale-one experiment” (Callon, 2009:536)
  - RE policy instruments as competing sociotechnical *agencements* relying on institutional arrangements, theories of the economy, and things valued
  - Unpacking the notion of “market-based” instrument

# The FIT vs. TGC debate

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- Late 1990s
- RE policy to contribute to market integration by “leveling the playing field”
- Commission calls for common rules to avoid “distortions of trade and competition”
- Debates polarize around 2 options

## FITs

“Price-based”

Widely adopted

Viewed by Commission as disconnected from market dynamics

Shield **investment** from competition

## Tradable Green Certificates

“Quantity-based”

Theoretically elegant but hardly tested

Presented by Commission as the most “market-compatible” solution

Meant to foster **competition**

# FITs in favour...

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## 2008

The European Commission “finds that, as in 2005, well-adapted feed in tariff regimes are generally the most efficient and effective support schemes for promoting renewable energy.”

(Commission of the European Communities, 2008)

“reviewing the relationship between **project risk and instrument choice**, the **empirical evidence** suggests that the **more reliable revenue stream** provided by feed-in tariffs is **generally more effective** in driving renewable energy growth, particularly for a broad range of technologies”

(European Commission, 2011)

# A result of an ongoing scale-one experiment

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- 2001 Directive: Commission to monitor and assess RE policies
- Environmental objectives supersede market integration
- Theoretical and practical refinements of FITs
  - German EEG: technology-specific FITs, dynamic evolution to follow declining costs
  - Sophistication also in theoretical works

“While gaining significant experience in the EU with renewables support schemes, competing national schemes could be seen as healthy at least over a transitional period. Competition among schemes should lead to a greater variety of solutions and also to benefits...” (European Commission, 2005)

“The use of multiple instruments or the adaptation of instruments also reflect Member States’ efforts to improve the efficacy of the instruments in a gradual manner without causing too much disruption to the market.”  
(European Commission, 2011)

# FITs reconsidered...

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- Success of FITs in driving growth in RE capacity...
  - ... But series of reforms: Spain (2008), Germany (regularly), France (2010), UK (2011)
  - ... And adequacy/effectiveness of FITs questioned in the literature (Finon, 2008; Frondel et al., 2008, 2010; Schmalensee, 2012; Dinica, 2008)
- Re-politisation
  - Feed-in rates and design as political-economic compromises
  - The issue of collective costs
  - Managing market “overflows” and dynamic effects
- 2014: new guidelines, auctions and premiums to take over FITs



“The difficulty was that we thought of it as an **extremely simple problem of economic theory** with an **extremely limited number of solutions**, and then we kept on refining it by turning a few screws so as to get something that **combined too many objectives**: we want to promote all technologies, we don’t want the tax to increase too much, we want a risk structure that is acceptable for investors, otherwise they will legitimately ask for better capital remuneration...

There was this whole series of compromises, so we kept on patching innovations together.”

Interview, utility, 2012.

# Conclusions

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- European RE policy intimately tied to the project of liberalisation of electricity market
- Ambiguous relationship of FITs to EU policy principles
- Shaped by interactions of Member States policy-making, EU-level expertise and principle, and academic research
- So-called “market-based” instruments, but shifting conception of markets...
  - Competition or investment?
  - Tension between “market devices” and “capitalization devices” (Muniesa et al, 2017) ?