

Feed-in Tariffs for Photovoltaics

Florian Leuthold

T.Magnac IDEI and Toulouse School of Economics

January 2010

Motivation

Germany: world's largest market for installed photovoltaics

Photovoltaics not competitive, large subsidies through feed-in tariffs.

What is the optimal policy maximising welfare?

Results: in all scenarios, the current feed-in tariff for small scale photovoltaics is too large.

Model

Dynamic model of consumer welfare & costs

Ingredients:

- learning effects
- environmental benefits
- adoption of technology according to Net present Value and Diffusion
- cost functions

and different scenarios: prices of electricity, specific technologies, ...

Questions

- Long run benefits and costs evaluated using scenarios in the long run about prices, demand and technology.
- Robustness? Horizon of prediction?
- Wouldn't it be less demanding (in terms of information) to assess the optimal subsidy (or the change of it) to use the trade off between the immediate future and the present (i.e. Euler equations)?
- Substitutes to photovoltaics instead of comparison to coal?
- Social discount rate?
- Costs of public funds?
- Adoption: net present value or diffusion?