Feed-in Tariffs in NZ?

Observations by

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Implementation of FiTs in NZ could be quite simple……

Step 1:- Renationalise the electricity supply industry

Step 2: - Just do it!

However – That radical change is not going to happen in the near future. Therefore we need to explore how FiTs might work in the current regulatory context

Electricity free market

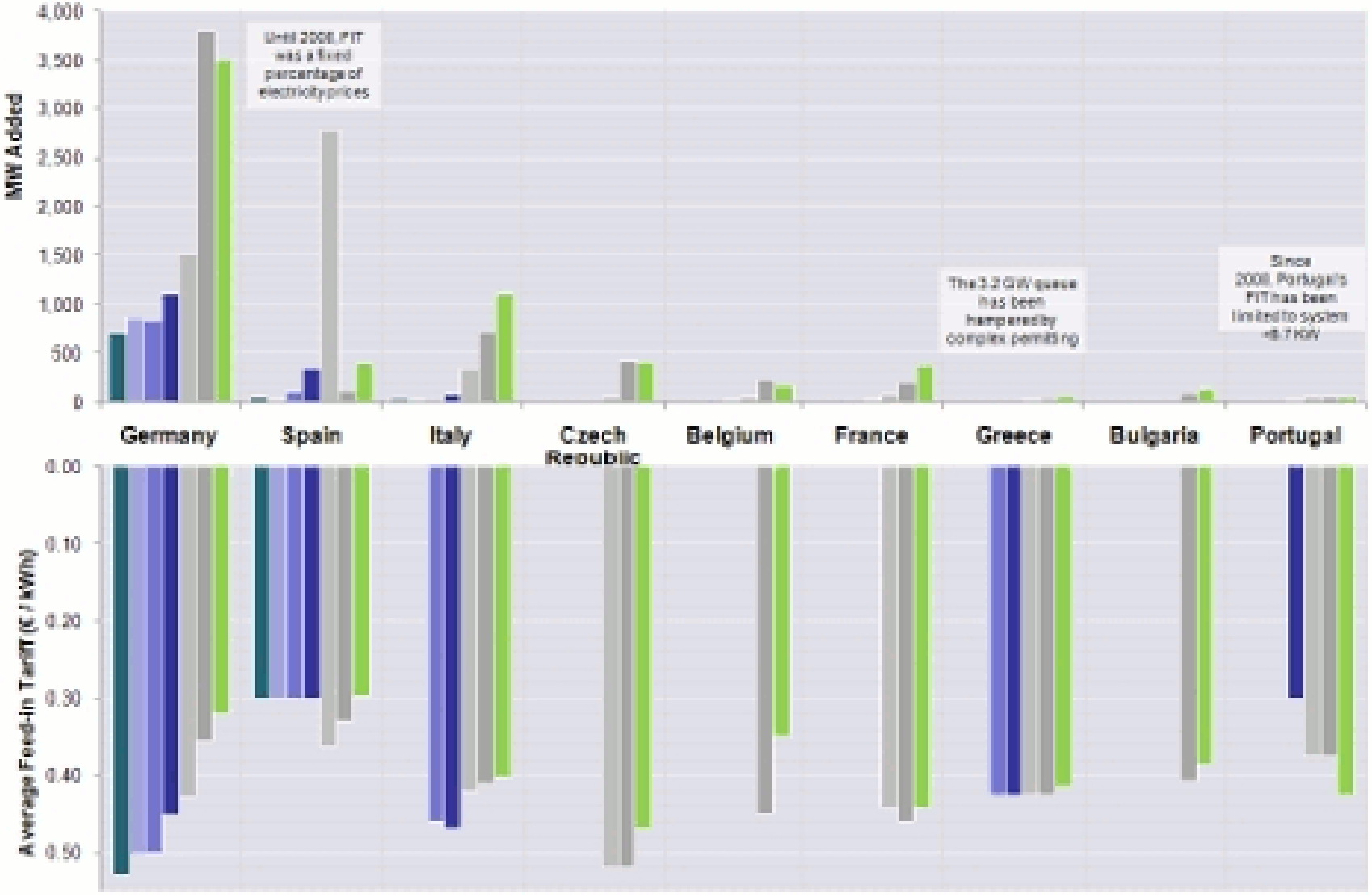
- All generation technologies are considered equivalent
- All generation is dispatched in half hour intervals by the system operator
- Electricity wholesale price changes every half hour
- Variation of electricity price by location between GXPs
- Guaranteed supply into grid by dispatched generators

Feed-in Tariffs system

- Renewable generation technologies are treated differently from fossil fuel technologies
- Timing of FiT generation is uncontrolled
- Feed-in Tariff is constant for 20 years
- Constant Feed-in-Tariff for each generation technology at any time
- No guaranteed supply at any point in time from FiT generators

Therefore there are significant institutional barriers to be overcome before FiT implementation in NZ

European FiT history



Europe

- **Predominantly coal and gas generation**
- **Nuclear base load contribution** (France)
- **Many jurisdictions**
- **Transboundary transmission**
- **Strong political drive for climate change legislation**

New Zealand

- **Predominantly hydro generation**
- **No nuclear generation**
- **Single jurisdiction**
- **No transboundary transmission**
- **Weak political drive for climate change legislation**

Therefore NZ cannot simply copy the European model

NZ Electricity data 2009 (EDF)

	GWh	
Gross generation	43,380	
Own use in power stations	1370	3.2%
Net input to grid	42,010	
Transmission losses	1,477	3.4%
Distribution losses	1,658	3.8%
Calculated consumption	38,875	
Statistical difference	604	1.4%
Observed consumption	38,271	88.2%

Where might FiTs fit ?

- A – **At the Transpower level** ?
  - Small scale inconsistent with high voltage
  - Conflict with bidding/dispatch system
  - Conflict with centralised control
  - What problem is being solved ?

- B – **At the Lines Company level** ?
  - Small scale compatible with low voltage
  - Appears as negative demand at GXP
  - May help improve resilience of network
  - Local autonomy in provision of services

Therefore FiT arrangements need to focus on application at the electricity distribution stage of the electricity supply chain.