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## Comparison of feed-in premium (FIP) systems in UK, DE, NL, DK and ES

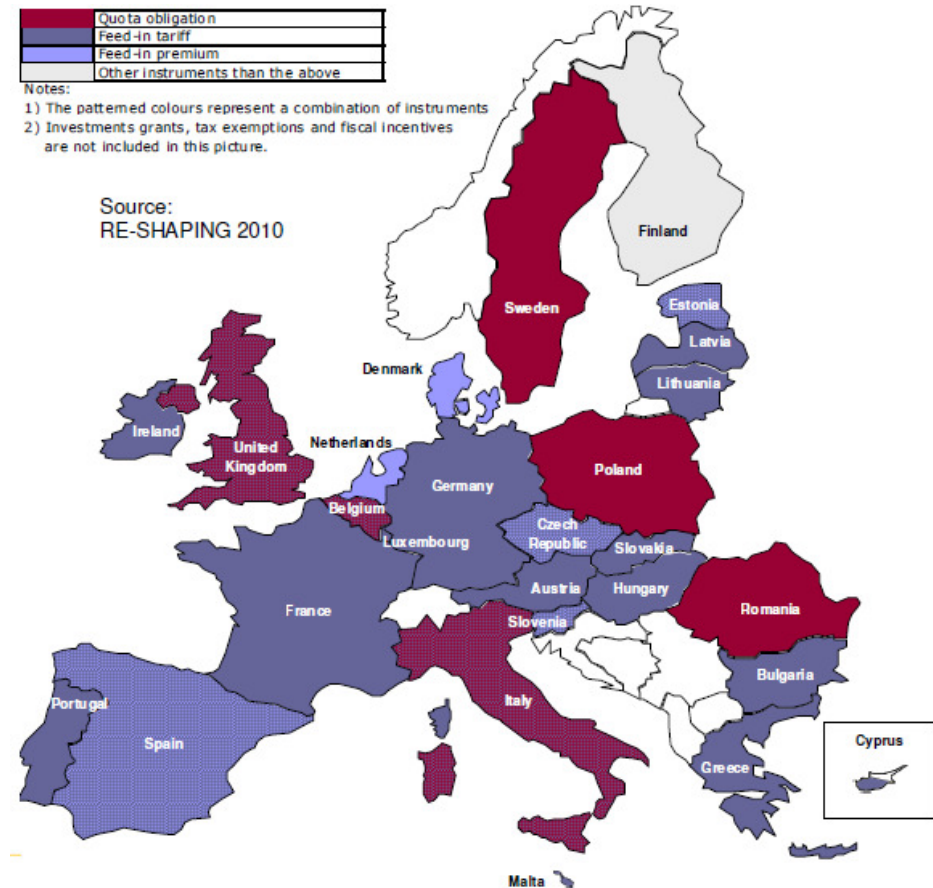
RE-Shaping workshop, London, 9<sup>th</sup> November 2011

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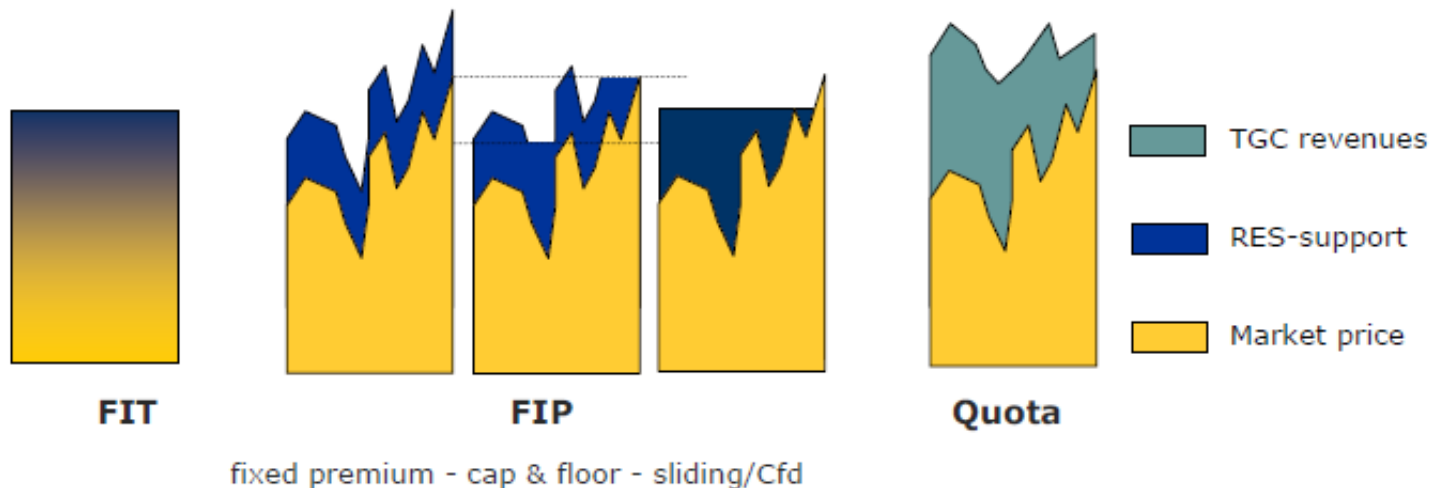
# RES-E support in the MS – recent trends (1)

- Traditionally diversity of national support schemes in Europe
- In recent years, a gradual convergence towards best practice design elements can be observed in the more successful MS
  - Technology specification to avoid windfall profits and incentivise new technologies
  - Risk reduction through increasing predictability of revenues
    - From quota to FIP
    - From fixed to sliding premiums
  - Increased focus on market integration of RES-E
    - From FIT to FIP



## RES-E support in the MS – recent trends (2)

- Nevertheless design specifications differ in countries with similar schemes (e.g. FIP)



# Discussion on European coordination of RES-E support

## Forced harmonisation?

- EC pushes for stronger cooperation/harmonisation
- Next EC report on RES support schemes announced for 1<sup>st</sup> half 2012

## Voluntary coordination between MS?

- Some design elements already converge
- What can be learned from the differences?
- Explicit coordination of certain elements?
- Potential benefits: stronger position in cooperation discussion, alignment of RES-E market conditions

# Rationale of FIP systems

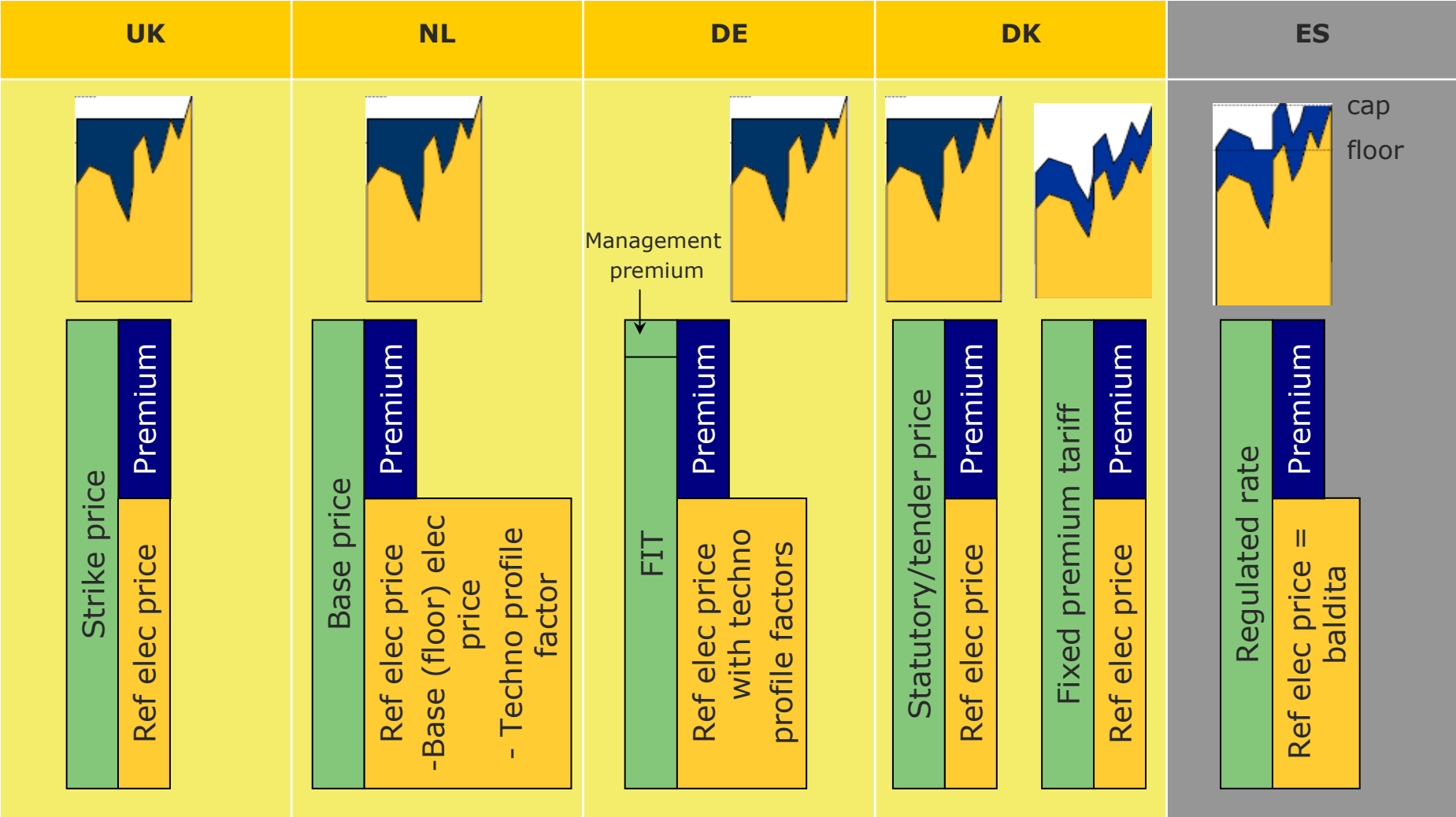
Main reasons why MS have introduced FIP systems:

- Ensure efficient market integration of RES-E
  - Production should react to market price signals - incentive to match generation to demand and to avoid very negative market prices
  - Efficient forecasting and balancing of RES-E generation
- Limit revenue risks and provide stable income to RES-E generators
- Minimise cost of RES-E to consumers

# FIP systems - Main features

	UK	NL	DE	DK	ES
<b>Starting</b>	2013 - 2014?	2009 SDE 2011 SDE+	2012	2009	2007 2009 change
<b>Eligibility</b>	All techno >5MW 20 years?	All techno 12-15 years	All techno 20 years	All techno 10-20 years	All techno except wind offshore 25 years
<b>FIP only or choice</b>	Until 2017 new installations choice RO or CfD	FIP only	Monthly choice FIP- FIT	FIP only for new installations	Choice FIP- FIT annual

# FIP systems – elements & terminology



# FIP systems - Critical design elements

	UK	NL	DE	DK	ES
<b>Premium setting process</b>	<p>FIT with CfD</p> <p>Strike price set up in long term contract</p> <p>RES-E receive FIT or pay back depending on ref price</p>	<p>Premium is set annually specifically for next application round</p> <p>Ministry sets support level</p>	<p>FIT is adjusted every 3-4 years + automatic annual digression (2x/a based on growth for PV)</p> <p>Ministry sets support level</p>	<p>Max stat price or premium set in RE Act or tenders (wind offshore)</p> <p>Wind onshore and biomass no cap, fixed premium</p>	<p>TSO calculate Baldita monthly</p> <p>CNE calculates premium monthly based on Baldita</p>
<b>Reference electricity market price &amp; period</b>	<p>Short term (daily) or long term (annual) reference electricity market price depending on techno (intermittent or baseload)</p>	<p>Annually</p> <p>Ref elec price</p> <ul style="list-style-type: none"> <li>➤ Base (floor) electricity price</li> <li>➤ Techno profile factor in law but not yet (transparently) applied</li> </ul>	<p>Monthly, corrected for technology profile (profile factor applied)</p>	<p>?</p>	<p>Hourly, basis for CNE calculation of premium</p>
<b>Institution in charge</b>	<p>?</p>	<p>Ministry agency</p>	<p>TSO for support payments</p>	<p>Danish Energy Agency (tenders), TSO (premiums)</p>	<p>CNE, TSO, DNOs, representating agents</p>





# Questions to MS representatives

- What are the key design elements of your FIP system and what is at stake?
- What elements of the FIP system are challenging?
- What experience from other MS do you want to discuss?

# Discussion topics (suggestion)

- Mutual learning
  - Comparison of institutional frameworks between countries
  - Critical design elements determining investment risk, e.g. ex-post vs. ex-ante premium determination
- Coordination
  - What elements of sliding FIP could be considered for coordination and would be beneficial from the MS perspective?
  - Within what structure is such coordination imaginable?
  - Could MS imagine bringing such ideas into the EU discussion? How?