

## Electricity Market Price Convergence: an econometric analysis of the BritNed interconnector

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#### INTRODUCTION

- The question of market liberalisation in the energy sector has become a prominent feature among policy makers. One of the main goals of the European Commission is to create a single market for energy exchange.
- On the 1st of April 2011 the British and Netherlands electricity markets were brought together with the introduction of the BritNed interconnector.

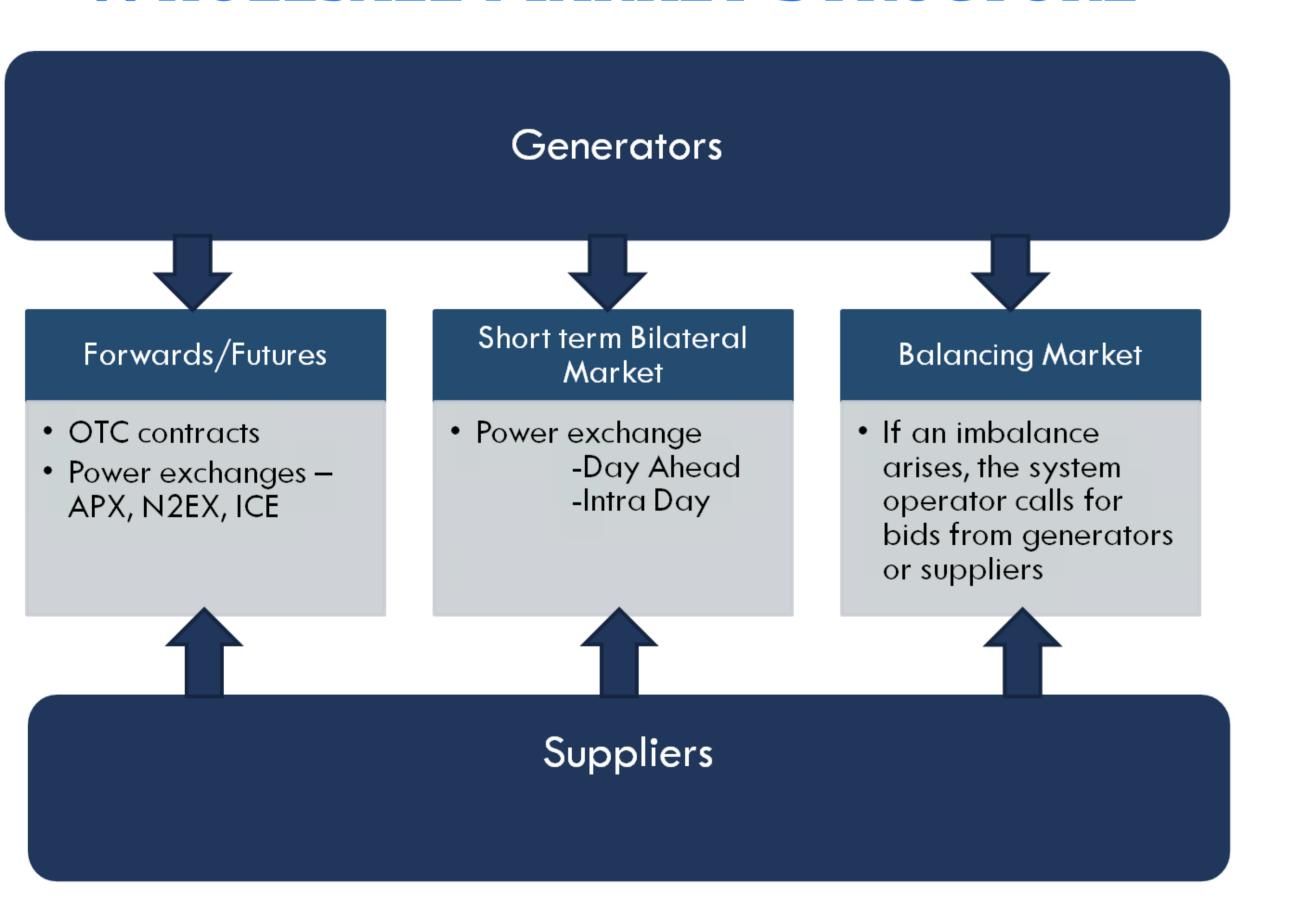
### Objectives:

- > To examine whether wholesale electricity prices in the UK and NL have converged between 2009-2012.
- > If so, is this due to increased interconnection?
- > Identify potential factors causing price differential.

#### **THEORY**

The Law of One Price (Jevon's 1888) states that in an efficient market, identical goods should have same price.

### WHOLESALE MARKET STRUCTURE



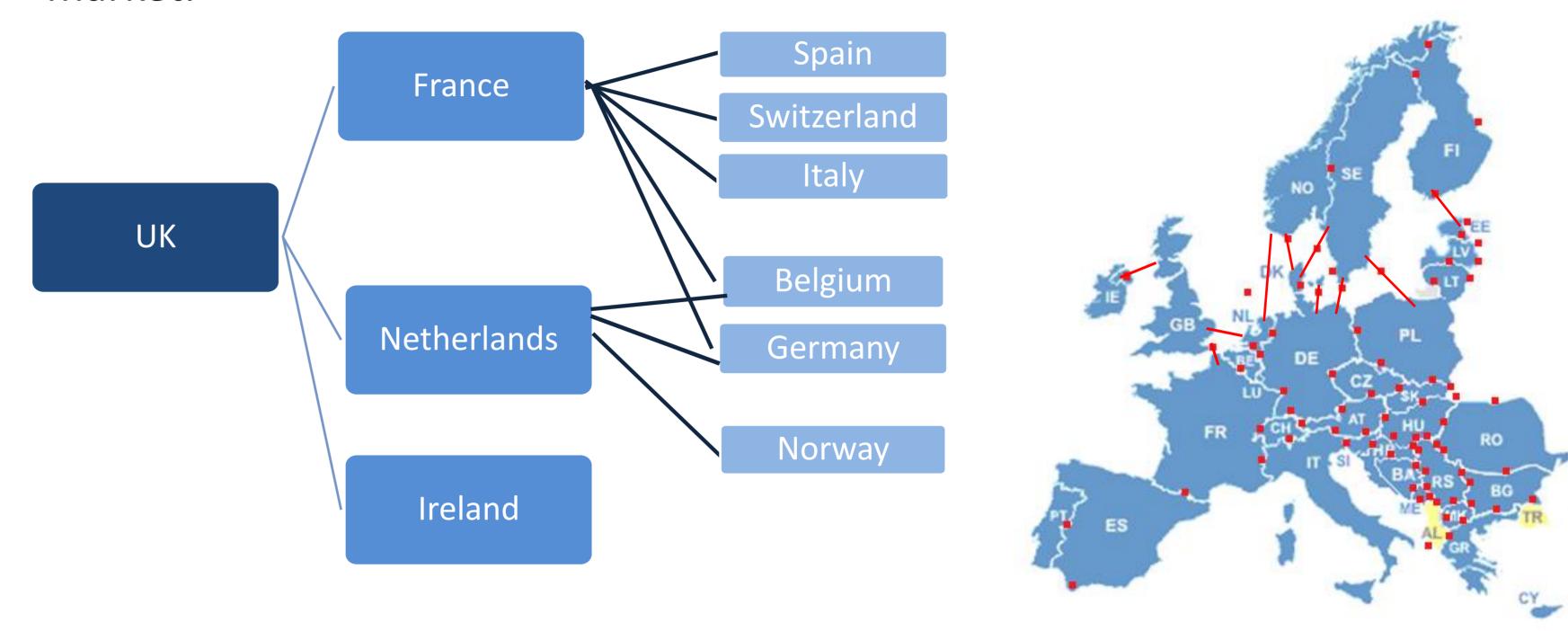
### TRADING ON THE BRITNED INTERCONNECTOR

Trading on the BritNed interconnector can occur in two ways:

- Explicit auctions, where participants purchase capacity rights over the interconnector.
- Implicit auctions, where participants bid into their local markets and trades are matched automatically across borders by a power exchange.

### **Existing Interconnectors in the UK**

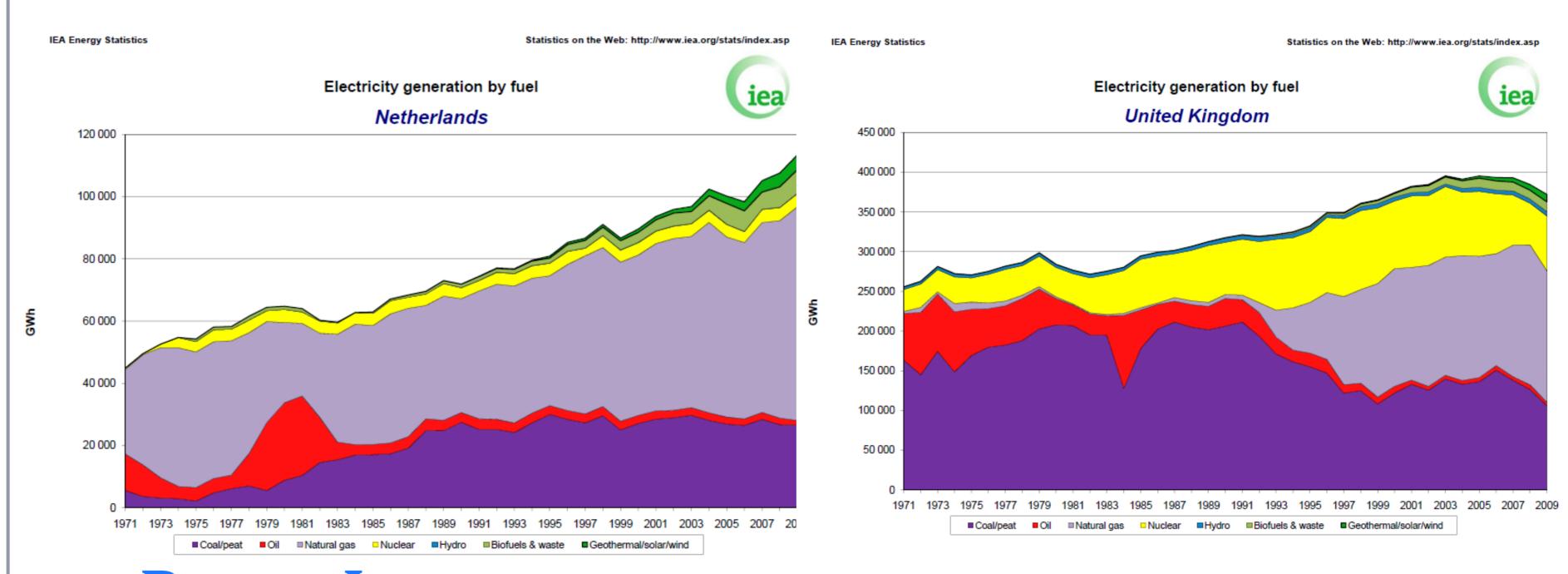
The Netherlands is a good route for UK interconnection to the EU market. The UK is currently interconnected to France, the Netherlands and Ireland. The Netherlands is interconnected to Belgium, Germany and the NordPool market.





# **Expected Results**

- There should be a degree of convergence on wholesale prices from what economic theory suggests.
- However, there are several reasons why a price differential may exist between the two countries. Market design, generation style and capacity constraints will all prevent the prices from converging.



### POLICY IMPLICATIONS

- Should Ireland interconnect further to the UK or is France a better option?
- There may be implications for the EU target model if there is an aspect of market design impeding price convergence.

#### ACKNOWLEDGEMENT

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Graphs: <a href="http://www.iea.org/stats/index.asp">http://www.iea.org/stats/index.asp</a>

Map: based on https://www.entsoe.eu/resources/ntc-values/ntc-map/