

Title: The Implications of Scottish Independence on Scottish Electricity Markets and Renewables (An Econometric Approach).

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Introduction

- ❖ The collaboration between Scotland and the rest of the United Kingdom has resulted in a robust integration across the area of Electricity.
- ❖ In the event of a yes vote in the referendum for independence, Scotland would become a new totally independent state, while the remaining UK members (England, Northern Ireland, and Wales) would continue to exist as before.

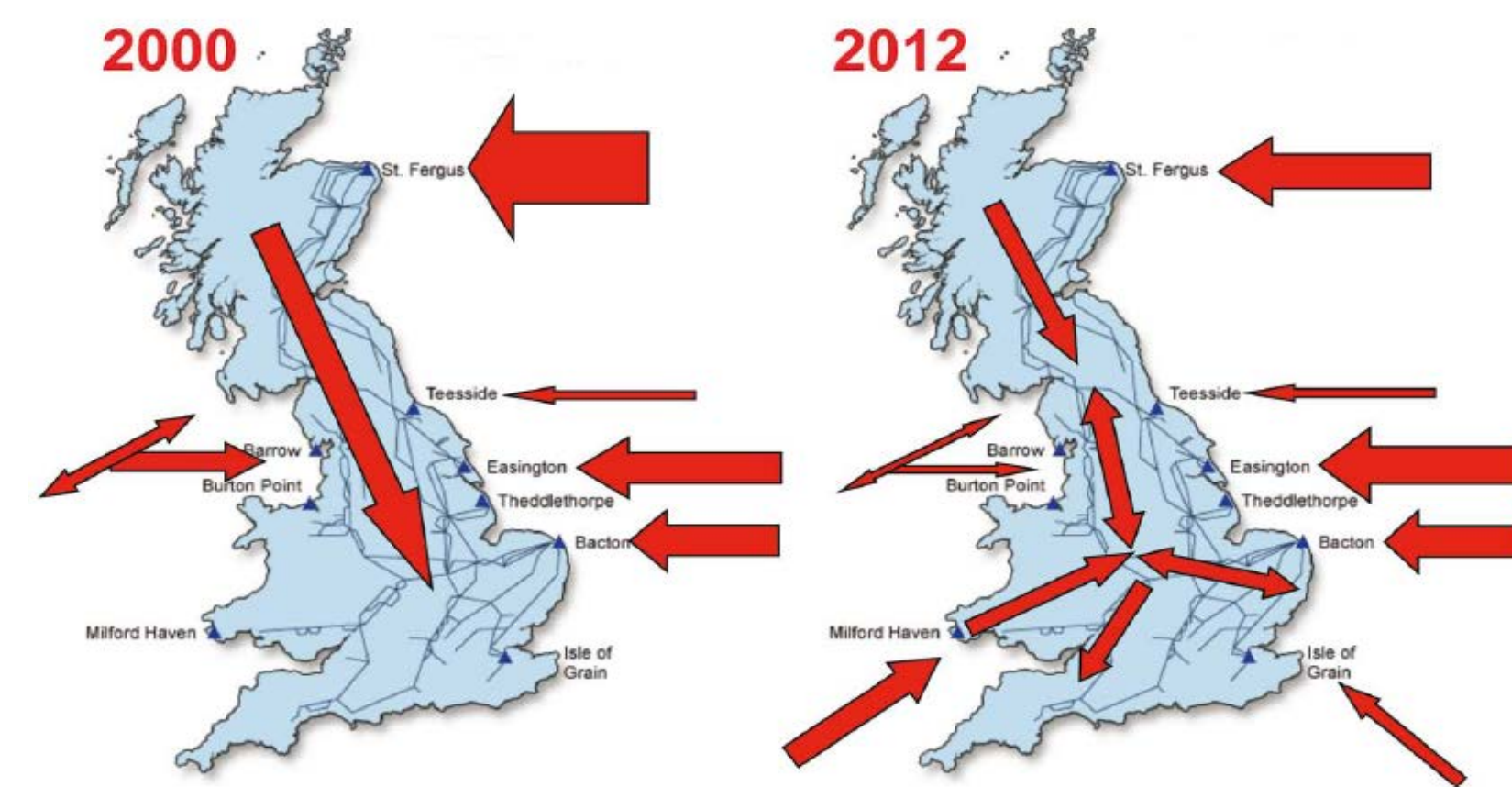


Figure 1. Energy Flow Patterns in the NTS

Research Objectives

- ❖ Investigate the Possible Effects of Independence on the Electricity prices, ROCs prices, and consumer choice.
- ❖ Evaluating the issue of Independence, in terms of its progressive and adverse implications of the electricity and renewable markets in Scotland.

Methodology

- ❖ Construct a VAR (vector auto-regressive model) for the UK electricity market, and a second model for the Scottish market.
- ❖ Carry out unit-root, granger causality tests.
- ❖ Create Impulse Response functions, to deduce how variables are interacting with each other.

Results

- ❖ The portion of electricity produced by renewables is closely related to the buy-out prices of ROCs.
- ❖ Scottish independence will have substantial effects on the average consumer electricity Bill, and will cause extra burdens on the Scottish Consumer.

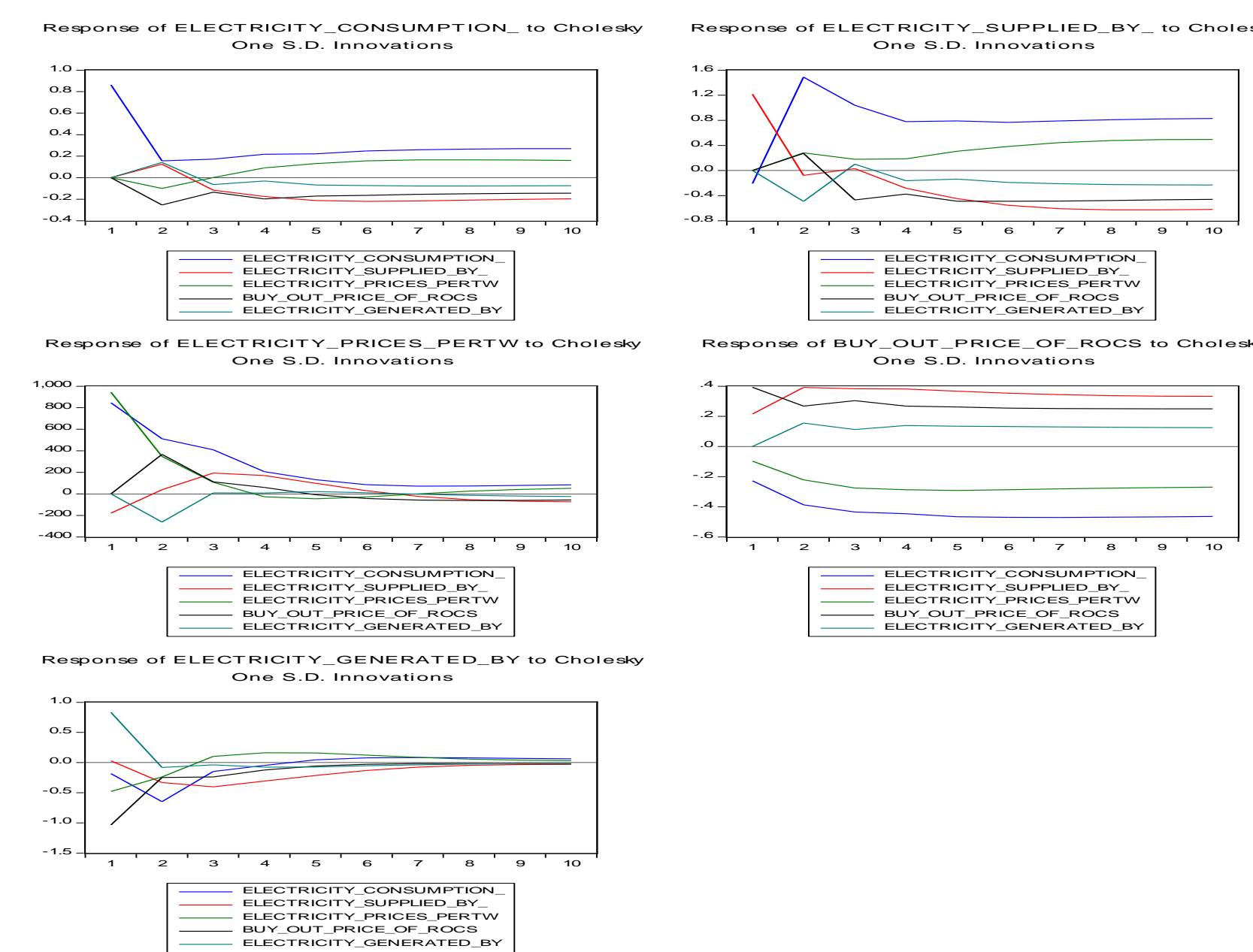


Figure 2. Impulse Response Function of the Scottish Electricity Market (Model 2).

Conclusion & Recommendations

- ❖ Results obtained in this dissertation demonstrate that Electricity prices, Electricity Supply, ROC buy-out prices, portion of Energy produced by renewables, and household consumption are greatly interconnected in the UK electricity market.
- ❖ In case of independence, Scotland must find a strong Energy partners as an alternative for the existing partnership if they are keen to disintegrate from the UK for political reasons.
- ❖ A similar potential endeavor for Scotland would be a new “Energy Integration System for the North Sea Regions”, were it can collaborate with Norway, Netherlands, and Germany.

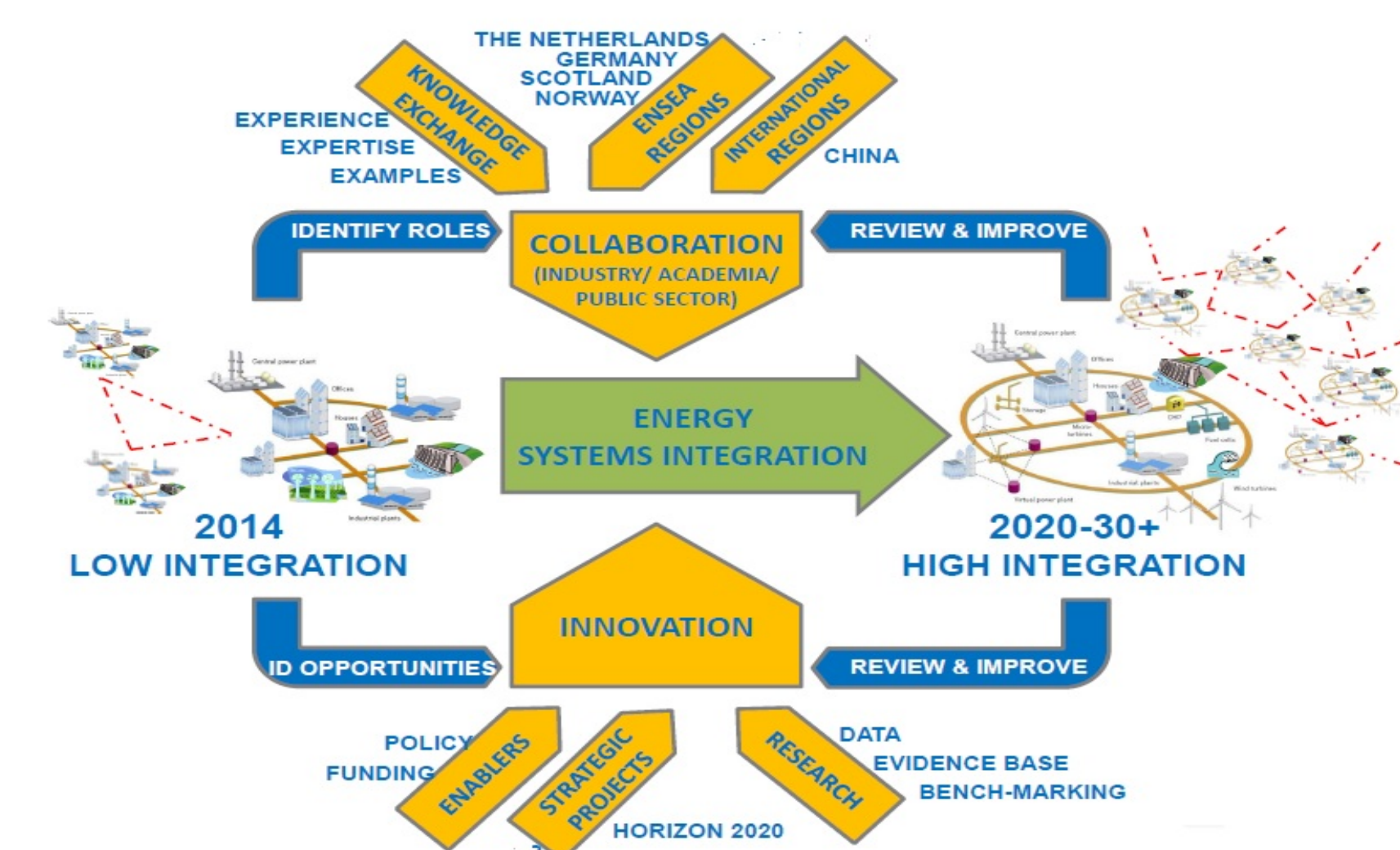


Figure 3. An overview of a collaborative Energy Integration scheme