PhD Student Maj Dang Trong

Consumer engagement in energy markets: its role, development, and impact on network tariffs and customer service

Electricity markets around the world were re-structured and liberalised in the 1990s and 2000s, with the hope of lowering consumer prices. In the EU, this transformation was formally implemented by three successive waves of EU liberalisation directives – from national markets with vertical integrated monopolies to more competitive markets with separation between regulated (transmission and distribution) and competitive segments (production and retail). Concerns remain about the functioning of the restructured electricity markets in EU-countries – the main issue being that consumer prices and tariffs­ have not decreased as expected.

Much attention has been given to the deregulated competitive segments (such as wholesale and retail electric power markets). Less attention has been paid to the performance of the regulated network segments, which often represent a significant fraction of the total price paid by consumers. The expectation is that the incentives lead to a reduction in cost, but experience has shown that implementing appropriate incentives is more complex and more challenging than first expected.

The main purpose of this PhD thesis is to examine if customer engagement/empowerment affects consumer prices in energy markets. This can be broken down into two sub-purposes. The first is to look at how policies that have been implemented in the past across European countries have affected prices in local electricity distribution markets. The second one is to design a regulatory mechanism based on customer complaints and to evaluate how it causes prices to change. This second sub-purpose will be applied to local electricity distribution market or the district heating market in Denmark and/or Sweden.

Collectively, these purposes can be formulated as the following research question: Will stronger customer engagement/empowerment reduce prices and tariffs and increase customer service of the local energy companies?