

# Measuring Switching Costs in the Italian Residential Electricity Market

Marco Magnani,<sup>a</sup> Fabio M. Manenti,<sup>b</sup> Paola Valbonesi<sup>c</sup>

---

The European Union has long advocated full liberalization of retail electricity markets to achieve greater integration in and between national markets. The unbundling of vertically integrated electricity utilities at the national level has facilitated entry by firms competing at the generation, wholesale and retail levels. Introducing competition in different segments of the electricity system allows to achieve more competitive downstream pricing in the short run and create incentives to provide consumers with novel value-added services in the medium/long run. However, the resulting liberalized retail electricity markets in European countries are almost everywhere characterized by strong consumer inertia. One of the main reasons for this inertia is the presence of switching costs, namely the costs a consumer pays due to switching providers. These costs can be monetary, but are often psychological, effort-based and time-based, or they might be due to the fear of ending up with an unreliable provider or a provider with an unsatisfactory customer service. Faced with such costs, consumers may prefer to stay with their current provider, even though cheaper alternatives are available on the market, thus nullifying the advantages of liberalization.

In this paper we investigate the existence and magnitude of switching costs in the residential electricity market in Italy. By adapting the theoretical framework on switching costs proposed in the literature, we use an original dataset provided by the Italian Regulatory Authority for Energy, Networks and the Environment on 2015-2018 electricity prices, augmented with the number of residential customers, to evaluate consumer switching costs in the liberalized market. In Italy, as well as in other European countries, the liberalization process has created a hybrid system. A regulated market—served by an incumbent operator—and a liberalized market—characterized by a significant degree of competition—coexist. Interestingly for our scopes, the regulated incumbent, via a subsidiary, is also active in the liberalized market, a fact that will play a decisive role in the interpretation of our results. Microbusinesses and residential consumers can choose a regulated contract with the incumbent supplier (the so-called *Servizio di Maggior Tutela*, i.e., enhanced protection service) or to switch to the liberalized market.<sup>d</sup>

Our findings highlight that switching from the incumbent operator involves high costs – almost as high as the yearly energy expenditure – while switching from competitors is less expensive. We also use our methodological framework to carry out two counterfactuals. First, we measure switching costs if the market structure is more balanced. In Italy, similarly to other European countries, the process of liberalizing electricity markets has resulted in the entry of many small operators with little brand recognition and lower perceived reliability. The liberalization process has led to the creation of a market characterized by one or a few dominant firms (the subsidiary of the national incumbent in the liberalized market) and a fringe of medium, small and very small operators. Hence,

a Department of Economics and Management, University of Padova, Italy and Italian Regulatory Authority for Energy, Networks and the Environment (ARERA). E-mail: marco.magnani@unipd.it.

b Department of Economics and Management, University of Padova, Italy. E-mail: fabio.manenti@unipd.it.

c Corresponding author, Department of Economics and Management, University of Padova, Italy and Higher School of Economics, National Research University, (HSE-NRU), Moscow. E-mail: paola.valbonesi@unipd.it.

d Following Directive (EU) 2019/944, regulated prices will end by January 2023 for micro businesses and by January 2024 for households.

we assume the presence of a tight duopoly, with the incumbent firm competing with a rival firm with a similar market share. Our exercise reveals that a more balanced market structure could have led to an overall reduction in switching costs. In the second counterfactual, we measure switching costs when the market is fully liberalized and the SMT ceases to exist, as planned for 2024. Interestingly, we find that full liberalization will reduce customers switching costs.