



BUSINESS IMPACTS OF SMART GRIDS FOR DIFFERENT MARKET PLAYERS

Background

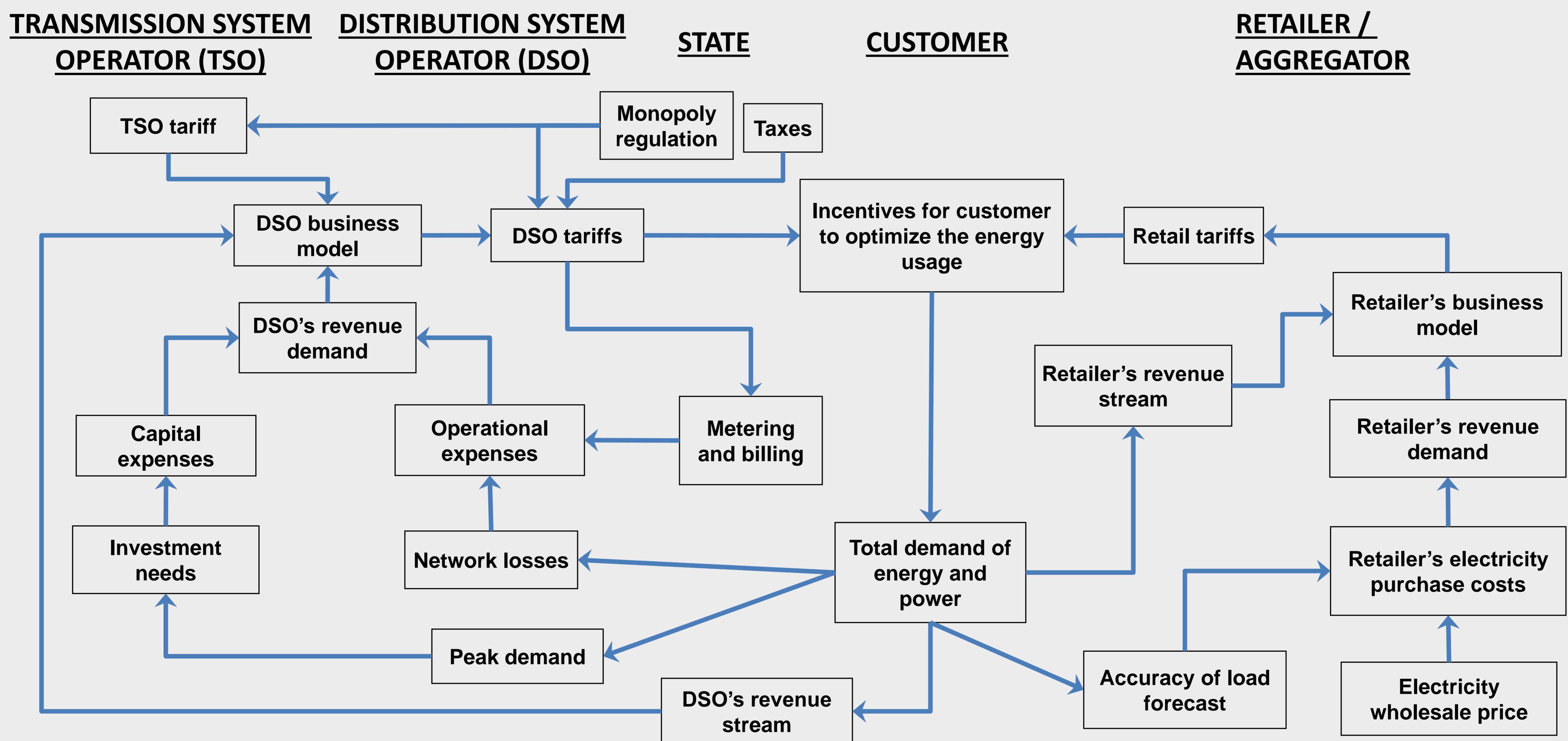
The increasing smartness of the distribution system will change the business concept of the energy market players thoroughly. There will be **novel business opportunities** for market actors, and **business models and pricing schemes** can be developed towards more optimal ones. Furthermore, there may be more **conflict of interests** between stakeholders. These issues give rise to our research question:

What kinds of business, pricing, and market models provide the highest benefits of the smart grid technology for different stakeholders?

Solution description

One of the key elements in these analyses, which combine the technical and business research, is the big picture concerning the holistic impacts of market player actions. In (simplified) picture below, there is illustrated these actions and impacts. Studied issues include:

- The business and pricing models of the DSO, retailer, and aggregator
- Conflict of interest between the market players
- Demand response and customer behavior
- Smart metering and energy management services



Collaboration and continuation

The research concerning business impacts is being carried out in the WP 7 of the SGEM research program. However, business impacts cannot be analyzed without considering the technological development and practical implications. Thus, the cooperation between the different WPs inside the SGEM, as well as collaboration between research and industrial organizations, is utmost important for this research work. For instance, impacts and possibilities of the demand response is being researched from technological, economical, and societal perspective in WP 4 and WP 7. This is done by laboratory demonstrations, piloting, analyzing the real-life data, and by conducting customer surveys and interviews. This kind of research work could not be done without SGEM collaboration.

More Information

This research work is being carried out in WP 7 of the SGEM research program by the following organizations:

- Lappeenranta University of Technology
- Tampere University of Technology
- University of Vaasa
- VTT Technical Research Centre of Finland
- ABB
- Empower
- Fortum

Contact person for further questions:

Samuli Honkapuro, Lappeenranta University of Technology (samuli.honkapuro@lut.fi)