

Getting industrial flexibility monetized

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A more flexible electricity consumption of industrial plants in return for financial benefits can tackle two major challenges at the same time: the integration of variable renewable energy systems on the grid, and the rising electricity cost for industry. This requires successful Business Models that create actual win-win situations. The IndustRE workshop of 27 October 2015 in Brussels surveyed the standpoints of various stakeholders on the topic.

The IndustRE project is sponsored by the European Union's Horizon 2020 research and innovation programme. It brings together the industry with the [renewable energy](#) community in order to find common ground on flexible demand response in energy intensive industries. It aims to develop Business Models, quantify the potential benefits and formulate policy recommendations. Their recent workshop in Brussels at the premises of the European Copper Institute was attended by 49 participants from the renewable energy sector, the energy intensive industry, regulators (including the European Commission), grid operators and research institutes.

Through the discussions on the workshop it became clear that technically spoken, there is a large potential for flexible industrial demand. All [business models](#) come down to two basic principles. Either the industrial plant uses its flexibility to react to electricity price variations, or it sells its flexibility for ancillary services. The central question of the workshop was to which extend those solutions can be made cost-effective. The energy intensive industry is reluctant to invest in flexibility because the market and regulatory circumstances are still far from ideal. They

expressed their concern to keep the system cost in mind, since they have to compete on a global market with countries that do not go that far in the [energy](#) transition.

According to Mister Hendrik Dam of DG Energy from the European Commission, the regulatory circumstances will change for the better in the near future. He confirmed that the forthcoming legislative package on electricity market design (end of 2016) aims to include all possible means to support industrial flexibility – starting with the most cost-effective ones.

The decarbonization of the EU economy is expected to continue, meaning that we will have to integrate a large penetration of variable renewable generation on the grid. To do so, the first priority should be to optimize the existing generation assets, the second priority to level out variability through European interconnection, while establishing a well-functioning market for flexible industrial demand. The electricity grid will probably have to evolve towards a different management concept, with decentralized "flexibility mapping" rather than centralized "capacity planning".

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