

SE-20.2 Existing and Future PV Prosumer Concepts in Europe (S)

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Solar generation is one of the key technologies in decarbonizing and decentralizing the energy system. Hence, to address the energy-climate challenge innovative solutions have to be developed to make better use of distributed energy resources (DERs) and Photovoltaic (PV) in particular, in urban locations.

In our work, we will introduce different PV Prosumer Concepts used in European countries. Therefore, we will introduce three possibilities of self-consumption: (i) private local (on-site) self-consumption where only one actor aims at consuming PV electricity at one place, (ii) collective self-consumption where a group of actors aims at consuming electricity from a shared PV system and (iii) virtual self-consumption where generation and consumption of PV happens at the same time but different locations. We will elaborate on the potential of the European PV prosumer. Additionally, we developed multiple modeling tools. The applied methods allow us to take individual perspectives and preferences into account.