1. Record Nr. UNINA9910220052003321 Autore David Sander Titolo Understanding the Human Factor of the Energy Transition: Mechanisms Underlying Energy-Relevant Decisions and Behaviors Frontiers Media SA, 2016 Pubbl/distr/stampa Descrizione fisica 1 electronic resource (138 p.) Collana Frontiers Research Topics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Sommario/riassunto

An increasing number of countries are shifting toward sustainable energy economies, emphasizing the use of renewable energy sources, increases in energy efficiency and the abatement of greenhouse gas emissions. The success of such an energy transition will depend not only on the development of new energy technologies, but also on major changes in the patterns of individual energy-related decisions and behaviors resulting in substantial reductions in energy demand. Consequently, the behavioral sciences can make important contributions to the energy transition by increasing our understanding of the multiple factors and mechanisms that underlie individual as well as group-based decisions and behaviors in the energy domain and by creating a basis for systematic interventions that reduce energy usage. Many different types of relevant behaviors and decisions need to be considered in this context, including decisions to invest in energyefficient household equipment, adjustments of energy-critical habits related to heating, eating, or mode of transportation, and participation in the political discourse related to questions of energy. An integration of the expertise of the different disciplines of the behavioral sciences is thus needed to comprehensively investigate the impact of the different drivers and barriers that may determine energy-related decisions and behaviors, including economic factors such as price level, social factors such as norms, communication patterns and social learning processes, and individual factors such as values, attitudes, beliefs, heuristics,

affective biases and emotions. The potential impact of these factors on the success of the energy transition is considerable: for example, a recent projection of the energy demand in Switzerland until 2050 has estimated the reduction potential related to psychological and sociological factors between 0% and 30%, depending on which behavioral changes will be implemented in society. Increased research efforts from the behavioral sciences are required to ensure that the full reduction potential can be achieved. This Research Topic brings together contributions from different disciplines such as psychology, affective science, behavioral economics, economics, sociology, consumer behavior, business science, sociology, and political science, that improve our understanding of the many factors underlying decision-making and behavior in the energy domain, and contribute to the development of targeted interventions that aim at reducing energy demand based on these factors.