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Sommario/riassunto

Based on the best international and national statistical sources, the second edition of Energy Transitions: Global and National Perspectives supplies an in-depth evaluation of how economies and nations around the world are striving to move away from traditional energy sources, the unfolding decarbonization process, and problems with intermittent energies and national transition plans. It supplies readers with a clear introduction to the basic properties of energy systems and key concepts of their appraisal, puts energy transition patterns in long-term historical perspective, and looks at the energy transition in eight of the world's leading economies. The last chapters focus on the advances in the decarbonization of the global energy supply and consider how the energy transition will continue in the coming decades. This fully updated and substantially expanded edition addresses the many new developments affecting energy supply, such as the recent expansion of hydraulic fracturing, oil price fluctuations, the Fukushima nuclear power plant catastrophe, advances in solar and wind generation, adoption of combined cycle gas turbines, and increased availability of electric cars. The coverage highlights the differences in the pace of transitions in various countries, thereby providing a complete and accurate picture of the current state of energy development in different parts of the world. The book serves as an invaluable resource for students as well as for anyone interested in a realistic appraisal of the current state of energy transitions in various nations and regions and the likely future development of the global energy supply.