This Special Issue seeks to contribute to the Sustainable Development Agenda through enhanced scientific and multi-disciplinary knowledge for identifying an efficient, economical and effective approach that also promotes environmental goals as well as social equity. We, therefore, invite papers on novel technical developments, reviews, case studies, and analytical as well as assessment papers from different disciplines, which could potentially hasten the progress in sustainability, especially in the energy sector, transportation sector and industrial sector in the context of sustainable energy. Further considerations of the SDG 7 assessment, strategical analysis and policy implications to support energy sustainability will be substantial.