1. Record Nr. UNINA9910838356303321 Autore National Academies of Sciences Engineering, and Medicine Titolo Bringing Fusion to the U.S. Grid Pubbl/distr/stampa Washington, D.C.:,: National Academies Press,, 2021 ©2021 **ISBN** 0-309-68541-9 0-309-68539-7 1 online resource (125 pages) Descrizione fisica Altri autori (Persone) EngineeringNational Academy of StudiesDivision on Earth and Life SciencesDivision on Engineering and Physical BoardNuclear and Radiation Studies SystemsBoard on Energy and Environmental AstronomyBoard on Physics and PlantCommittee on the Key Goals and Innovation Needed for a U.S. **Fusion Pilot** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Fusion energy offers the prospect of addressing the nation's energy needs and contributing to the transition to a low-carbon emission electrical generation infrastructure. Technology and research results from U.S. investments in the major fusion burning plasma experiment known as ITER, coupled with a strong foundation of research funded by the Department of Energy (DOE), position the United States to begin planning for its first fusion pilot plant. Strong interest from the private sector is an additional motivating factor, as the process of decarbonizing and modernizing the nation's electric infrastructure

accelerates and companies seek to lead the way. At the request of DOE,

Bringing Fusion to the U.S. Grid builds upon the work of the 2019 report Final Report of the Committee on a Strategic Plan for U.S. Burning Plasma Research to identify the key goals and innovations -

independent of confinement concept - that are needed to support the development of a U.S. fusion pilot plant that can serve as a model for producing electricity at the lowest possible capital cost.