The Steel Upgrading Partnerships and Emissions Reduction (SUPER) Act of 2021 strengthens the competitiveness of American manufacturing by developing technologies to reduce emissions of conventional steelmaking.

**Summary:**

Technological innovation is key to strengthening America’s domestic manufacturing competitiveness, particularly in trade-exposed industries such as steel. While the domestic steel industry is the backbone of the U.S. economy, American steel producers face stiff competition from foreign adversaries such as China. The SUPER Act establishes DOE’s first research and development (R&D) program focused on low-emission steel production to strengthen American manufacturing. These efforts include applied R&D on new production methods and public-private partnerships to scale up and commercialize new low-emissions technologies.

**History:**

In recent years, the U.S. Department of Energy (DOE) has started funding early-stage R&D to improve the energy efficiency of heavy industrial sectors, including steel manufacturing. The Energy Act of 2020 established new R&D programs, including the Clean Industrial Technology Act, which authorized DOE to expand its research, development, and demonstration (RD&D) programs across industrial sectors. New, goal-oriented RD&D for steel manufacturing is needed to build on this foundation and accelerate emerging steel technologies.

**Specifics:**

The SUPER Act establishes new, crosscutting steel manufacturing programs and initiatives at DOE, including:

- **Research, Development, and Demonstration (RD&D) Program:** Establishes DOE’s first crosscutting RD&D program for advanced, low-emission steel technologies. Requires DOE to establish long-term cost, performance, and demonstration targets for different types of low-emission steel manufacturing.
- **Strategic Plan:** Directs DOE to develop a 5-year strategic plan to support RD&D activities, establish technological and programmatic goals, and timelines to accomplish goals developed under the plan.
- **Low-Carbon Steel Manufacturing Institute:** Authorizes DOE to leverage existing Manufacturing USA Institutes or establish a new low-emission steel manufacturing institute.
institute for commercial applications of later-stage R&D and develop partnerships with private sector partners. The institute will develop long-term targets to increase domestic production and employment in steel manufacturing.

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