

(C) identifies opportunities for potential savings for small- and medium-size manufacturer plant sites from energy efficiency improvements, waste minimization, pollution prevention, and productivity improvement.

**(3) Information and communication technology**

The term “information and communication technology” means any electronic system or equipment (including the content contained in the system or equipment) used to create, convert, communicate, or duplicate data or information, including computer hardware, firmware, software, communication protocols, networks, and data interfaces.

**(4) Institution of higher education**

The term “institution of higher education” has the meaning given the term in section 1001(a) of title 20.

**(5) North American Industry Classification System**

The term “North American Industry Classification System” means the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data relating to the business economy of the United States.

**(6) Small and medium manufacturers**

The term “small and medium manufacturers” means manufacturing firms—

(A) classified in the North American Industry Classification System as any of sectors 31 through 33;

(B) with gross annual sales of less than \$100,000,000;

(C) with fewer than 500 employees at the plant site; and

(D) with annual energy bills totaling more than \$100,000 and less than \$3,500,000.

**(7) Smart manufacturing**

The term “smart manufacturing” means advanced technologies in information, automation, monitoring, computation, sensing, modeling, artificial intelligence, analytics, and networking that—

(A) digitally—

(i) simulate manufacturing production lines;

(ii) operate computer-controlled manufacturing equipment;

(iii) monitor and communicate production line status; and

(iv) manage and optimize energy productivity and cost throughout production;

(B) model, simulate, and optimize the energy efficiency of a factory building;

(C) monitor and optimize building energy performance;

(D) model, simulate, and optimize the design of energy efficient and sustainable products, including the use of digital prototyping and additive manufacturing to enhance product design;

(E) connect manufactured products in networks to monitor and optimize the performance of the networks, including automated network operations; and

(F) digitally connect the supply chain network.

(Pub. L. 117-58, div. D, title V, §40531, Nov. 15, 2021, 135 Stat. 1068.)

**Statutory Notes and Related Subsidiaries**

**WAGE RATE REQUIREMENTS**

For provisions relating to rates of wages to be paid to laborers and mechanics on projects for construction, alteration, or repair work funded under div. D or an amendment by div. D of Pub. L. 117-58, including authority of Secretary of Labor, see section 18851 of this title.

**§ 18812. Leveraging existing agency programs to assist small and medium manufacturers**

The Secretary shall expand the scope of technologies covered by the industrial research and assessment centers of the Department—

(1) to include smart manufacturing technologies and practices; and

(2) to equip the directors of the industrial research and assessment centers with the training and tools necessary to provide technical assistance in smart manufacturing technologies and practices, including energy management systems, to manufacturers.

(Pub. L. 117-58, div. D, title V, §40532, Nov. 15, 2021, 135 Stat. 1069.)

**Statutory Notes and Related Subsidiaries**

**WAGE RATE REQUIREMENTS**

For provisions relating to rates of wages to be paid to laborers and mechanics on projects for construction, alteration, or repair work funded under div. D or an amendment by div. D of Pub. L. 117-58, including authority of Secretary of Labor, see section 18851 of this title.

**§ 18813. Leveraging smart manufacturing infrastructure at National Laboratories**

**(a) Study**

**(1) In general**

Not later than 180 days after November 15, 2021, the Secretary shall conduct a study on how the Department can increase access to existing high-performance computing resources in the National Laboratories, particularly for small and medium manufacturers.

**(2) Inclusions**

In identifying ways to increase access to National Laboratories under paragraph (1), the Secretary shall—

(A) focus on increasing access to the computing facilities of the National Laboratories; and

(B) ensure that—

(i) the information from the manufacturer is protected; and

(ii) the security of the National Laboratory facility is maintained.

**(3) Report**

Not later than 1 year after November 15, 2021, the Secretary shall submit to Congress a report describing the results of the study.

**(b) Actions for increased access**

The Secretary shall facilitate access to the National Laboratories studied under subsection