

Date of Hearing: April 28, 2025

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

AB 1095 (Papan) – As Amended April 21, 2025

SUBJECT: Data centers: waste heat energy

SUMMARY: Makes projects that capture and convert data centers' waste heat eligible for the Climate Catalyst program administered by the Infrastructure and Economic Development Bank (I-Bank).

EXISTING LAW establishes the Climate Catalyst Revolving Loan Fund Program at the I-Bank and prescribes which projects are eligible for funding within the program. (Government Code 63048.91 *et seq.*)

THIS BILL adds to the Climate Catalyst Fund projects that enable the capture and conversion of data centers' waste heat.

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Background.** Thermal energy storage is a technology that stores thermal energy, or heat, for use at a later time. There are several ways that thermal energy can be stored for later use, including changing temperature of a specific material like steel slag or volcanic rock that retains the heat, or by performing a chemical reaction that can release energy at a later time. These types of technology can enable industrial waste heat recovery. Thermal energy storage technologies have the possibility to be implemented across multiple industries.

Data centers are facilities that house large volumes of high-performance computers, storage systems, and computing infrastructure. They are crucial for maintaining internet-based communications and providing certain services, including virtually all cloud-based computing. These systems require continuous power and cooling, which requires a substantial amount of electricity. According to the U.S. Department of Energy, data centers consume 10 to 50 times more energy than similarly sized commercial office buildings. The California Energy Commission estimated that data centers accounted for 2% of California's electricity demand in 2019. Since then, the technology sector has seen a boom in artificial intelligence (AI) and a corresponding growth in load. As a result, grid planners expect electricity consumption by data centers to accelerate more rapidly over the next five years and beyond.

The Climate Catalyst Program was established by AB 78 (Chapter 10, Statutes of 2020), a budget trailer bill. The program authorizes the I-Bank to provide financial support for infrastructure projects that work toward the state's climate goals. The Climate Catalyst fund is available to a variety of projects that further the state's climate goals.

- 2) **Author's statement:**

AB 1095 is a pivotal step toward enhancing California's clean energy innovation. This bill will make data centers that pursue waste heat conversion technologies eligible for

financing under the state's Climate Catalyst Program. With data centers accounting for a significant portion of the state's energy consumption and their waste heat largely going untapped, AB 1095 provides an innovative solution by encouraging the recycling of this otherwise wasted energy. By supporting investment in projects where data center operators repurpose their waste heat, this bill not only incentivizes energy efficiency but also aligns with California's broader climate goals of decarbonization and reducing greenhouse gas emissions. The proposal is timely, as it aligns with the growing demand for cloud services and regenerative AI technologies, ensuring that California remains at the forefront of clean energy advancement while effectively addressing the energy needs of the future.

- 3) **Double referral.** This was heard in the Utilities and Energy Committee on April 23 and passed by a vote of 18-0.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file

Opposition

None on file

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /