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(54) **POWER ELECTRONICS INTELLIGENCE AT THE NETWORK EDGE (PINE)**

(71) Applicant: **The Texas A&M University System**, College Station, TX (US)

(72) Inventors: **Panganamala R. KUMAR**, College Station, TX (US); **Le XIE**, College Station, TX (US); **Prasad N. ENJETI**, College Station, TX (US)

(73) Assignee: **The Texas A&M University System**, College Station, TX (US)

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(57) **ABSTRACT**

A device includes an input converter, an output converter, and a controller. The input converter is electrically coupled to an electrical meter and an energy production array. The output converter is electrically coupled to the energy production array and a load. The controller is communicatively coupled to the input converter, the output converter, the energy production array, and the load. The input converter and the output converter are positioned between the electrical meter and the load.