Johney Green

Johney Green, Jr. serves as the Associate Laboratory Director for Mechanical and Thermal Engineering Sciences at the National Renewable Energy Laboratory. He oversees NREL's transportation, buildings, wind, water, geothermal, advanced manufacturing, concentrating solar power, and Arctic research programs (a portfolio of more than $245 million and a workforce of about 700). The directorate conducts research and development to enable technology innovations in the areas of energy efficiency, sustainable transportation, and renewable power. Additionally, Green transformed NREL's Wind Site into the Flatirons Campus and transitioned the campus from a single-program wind research site to a multi-program research campus, the foundational experimental platform for the U.S. Department of Energy's Advanced Research on Integrated Energy Systems (ARIES) initiative. Green holds a bachelor's degree in mechanical engineering from the University of Memphis and a master's and doctorate in mechanical engineering from the Georgia Institute of Technology.

Prior to assuming his current position, Green held leadership roles at Oak Ridge National Laboratory (ORNL) as Director of the Energy and Transportation Science Division and Group Leader for Fuels, Engines, and Emissions Research. Green managed a broad science and technology portfolio and user facilities that made significant science and engineering advances in building technologies; sustainable industrial and manufacturing processes; fuels, engines, emissions, and transportation analysis; and vehicle systems integration. During his tenure as a division director, ORNL developed the Additive Manufacturing Integrated Energy (AMIE) demonstration project, a model of innovative vehicle-to-grid integration technologies and next-generation manufacturing processes.

Early in his career, Green conducted research on stabilizing gasoline engine operation under extreme conditions and later, with Ford Motor Co., sought ways to simultaneously extend exhaust gas recirculation limits in diesel engines and reduce nitrogen oxide and particulate matter emissions. As a visiting scientist at Ford's Scientific Research Laboratory, he conducted modeling and experimental research for advanced diesel engines designed for light-duty vehicles. On assignment to the U.S. Department of Energy's Vehicle Technologies Office, Green also served as technical coordinator for the 21st Century Truck Partnership. During his tenure at ORNL, Dr. Green contributed to a dozen of ORNL’s 150+ top scientific discoveries.

Green is a fellow of the American Association for the Advancement of Science and an SAE International fellow. He serves on the Defense Science Board and other advisory boards, including the Georgia Institute of Technology, the University of Tennessee, and the University of Memphis. Green currently serves as chairman of the board for the National GEM Consortium. He has been an invited participant in several National Academy of Engineering programs and has received several awards during his career. He holds two U.S. patents in combustion science, has an h-index of 33 with over 3600 citations, as the lead or co-author of several technical publications, and has given many invited, keynote, and plenary presentations.