

Blue Wave AI Labs and Constellation strike long-term strategic agreement for nuclear AI tool suite

Blue Wave will help Constellation reduce nuclear operating and fuel costs far into the future

February 10, 2022

West Lafayette, IN. – Today, Blue Wave AI Labs is proud to announce its agreement with Constellation—the nation’s largest producer of carbon-free energy—to supply its products in support of Constellation’s fuel reload design and cycle management processes for the company’s entire fleet of boiling water reactors. The long-term agreement covers Blue Wave’s cloud-based *Nuclear-AI Platform* components: Eigenvalue and MCO.ai forecasting products.

These services will enable Constellation to design and operate more energy-efficient and cost-effective nuclear fuel cycles with potential savings of millions of dollars in fuel costs annually. Additional benefits such as asset protection (e.g., turbine blades) and improved efficiency of electric output can be realized.

“Constellation has worked with Blue Wave over the last four years to unlock powerful new capabilities with Machine Learning which allows us to reach new levels in nuclear fuel cycle planning and efficiency,” said Jason Murphy, Vice President for Nuclear Fuels at Constellation. “This can lead to reduced fuel costs and insights into core design and cycle management as new fuel strategies are introduced. This AI-based solution allows new levels of design and operational control, enabling increased clean energy availability for our customers and the communities where we operate.”

The agreement between Blue Wave and Constellation marks the start of a new era of AI integration in nuclear fuel design and management. Blue Wave AI Labs and their services will help Constellation meet the demands of an efficient and affordable clean-energy future.

At the recent NEI 2021 Annual Meeting, the Nuclear Energy Institute (NEI) jointly recognized Constellation and Blue Wave AI Labs with a Top Innovation Practice (TIP) award for “Moisture Carryover (MCO) Predictions through Neural Networks.” The prestigious award in the nuclear fuel category recognizes creative ideas that have substantial impact on improving the safety and reliability of nuclear energy.

Previously known as Exelon Generation, Constellation is the nation’s largest producer of carbon-free energy and leading supplier of sustainable solutions to millions of residential, public sector and business customers, including three fourths of Fortune 100 companies. Its generation fleet powers more than 20 million homes and businesses and is helping to accelerate the nation’s transition to clean energy with more than 32,400 megawatts of capacity and annual output that is nearly 90 percent carbon-free.

Blue Wave AI Labs

Founded in 2016 and located in West Lafayette, Indiana, Blue Wave AI Labs is an AI-centric but industry-focused technology company that employs innovative AI-based techniques to identify, analyze, and solve problems within the energy, aerospace, and defense industries. We combine the insight of exceptional scientific technical talent with the latest advancements in AI and Machine Learning to transform data into solutions for the world’s most difficult problems. Blue Wave’s cloud-based *Nuclear-AI* platforms and product pipeline include MCO.ai, eigenvalue.ai, nfluence.ai (neutronics software suite), and CoreOptimizer.ai (core optimization software suite).

For more information on Blue Wave’s Nuclear-AI Suite, visit www.bluewaveailabs.com or contact

Thomas Gruenwald, Chief Operating Officer +1 630-699-4124

Jonathan Nistor, Chief Science Officer: jonathan@bwailabs.com