



Shell, C3 AI, Baker Hughes, and Microsoft Launch the Open AI Energy Initiative, an Ecosystem of AI Solutions to Help Transform the Energy Industry

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Initial Offerings Include AI-Based Reliability Applications to Improve Operational Efficiency for the Energy and Process Industries

THE HAGUE, Netherlands & REDWOOD CITY, Calif. & HOUSTON & REDMOND, Wash.--(BUSINESS WIRE)--Feb. 1, 2021-- Shell (NYSE:RDS), [C3 AI](#) (NYSE:AI), Baker Hughes (NYSE:BKR), and Microsoft (NASDAQ:MSFT) today announced the launch of the Open AI Energy Initiative™ (OAI), a first-of-its-kind open ecosystem of artificial intelligence (AI)-based solutions for the energy and process industries. The OAI provides a framework for energy operators, service providers, equipment providers, and independent software vendors for energy services to offer interoperable solutions, including AI and physics-based models, monitoring, diagnostics, prescriptive actions, and services, powered by the [BHC3™ AI Suite](#) and Microsoft Azure.

"This initiative is about combining the efforts of global leaders to accelerate the digital transformation of the energy industry to new, safe, and secure energy and to ensure climate security," said C3 AI CEO Thomas M. Siebel.

The first set of OAI solutions provided by Shell and Baker Hughes are focused on reliability and designed to improve uptime and performance of energy assets and processes. These reliability solutions will serve as extensions to the current BHC3 Reliability application, an AI-based application that provides reliability, process, and maintenance engineers with AI-enabled insights to predict process and equipment performance risks for the energy industry. The application leverages the BHC3 AI Suite's ability to integrate enterprise-scale data from disparate data sources and train AI reliability models that cover full plant operations while taking full advantage of Azure, Microsoft's scalable, enterprise-class cloud infrastructure.

The OAI augments BHC3 Applications with partner-led, domain-specific solutions that accelerate deployment of AI-based reliability solutions to unlock significant economic value across the energy industry while helping to make energy production cleaner, safer, and more efficient. The initial OAI reliability solutions offered by Shell and Baker Hughes enable interoperability between BHC3 Reliability, OAI modules, and existing industry solutions for such applications. Solutions available today include proven and tested equipment- and process-specific modules with pre-trained AI models, codified subject matter expertise, low-latency data connectors, thermodynamic and operating parameter libraries, global health monitoring services, deep diagnostics, failure prevention recommendations, and prescriptive actions.

Shell is making modules available through the OAI, including:

- Shell Predictive Maintenance for Control Valves
- Shell Predictive Maintenance for Rotating Equipment
- Shell Predictive Maintenance for Subsea Electrical Submersible Pumps

Baker Hughes will offer OAI interoperability with a range of existing technologies in the energy industry, including:

- iCenter – Turbomachinery Advanced Digital Services
- Bently Nevada System 1 Condition Monitoring Software
- Baker Hughes Valve Lifecycle Management

The Open AI Energy Initiative will augment Baker Hughes and C3 AI Applications, including:

- BHC3 Reliability
- BHC3 Production Optimization
- BHC3 Inventory Optimization
- C3 AI CRM

"Digital technologies and AI are helping us improve our core business today and build the energy businesses of the future. Over the last few years, we have been working with C3 AI to scale our AI-based predictive maintenance solutions to reduce costs and improve the productivity, reliability, and performance of our assets," said Shell Chief Technology Officer Yuri Sebregts. "We are monitoring more than 5,200 pieces of equipment using machine learning across upstream and downstream manufacturing as well as integrated gas assets. We are excited to take this capability to market and want to develop an open ecosystem where others can offer AI solutions to help improve reliability across the industry."

"Taking energy forward requires new approaches to technology that leverage collaboration, open data standards, and cutting-edge AI capabilities," said Uwem Ukpog, executive vice president of regions, alliances & enterprise sales at Baker Hughes. "Working alongside our alliance partners at C3 AI and together with industry leaders at Shell and Microsoft, the OAI will help address the persistent industry challenge of nonproductive downtime. This new ecosystem will leverage our strong existing BHC3 portfolio and is a promising step in the digital transformation of energy."

"Microsoft is committed to the transformation of the energy sector and supporting solutions like the Open AI Energy Initiative, which are contributing to the realization of these transformation goals," said Microsoft Vice President of Energy Darryl Willis. "Digital technology is helping key industry areas such as plant reliability and maintenance, and Microsoft's participation in the Open AI Energy Initiative will further advance the transition to a net-zero emissions future."

"The Open AI Energy Initiative is an early but clear reflection of the direction the market is heading," said Kevin Prouty, IDC group vice president, energy and manufacturing insights. "With this already-established alliance of leading organizations, including C3 AI, Shell, Baker Hughes, and Microsoft, the OAI is poised to single-handedly establish the ecosystem of enterprise AI for the energy industry."

Learn more about the Open AI Energy Initiative and its reliability solutions at <https://bakerhughesc3.ai/products/bhc3-oai/>

About C3.ai, Inc.

C3.ai, Inc. (NYSE:AI) is a leading provider of enterprise AI software for accelerating digital transformation. C3 AI delivers a family of fully integrated products: C3 AI® Suite, an end-to-end platform for developing, deploying, and operating large-scale AI applications; C3 AI Applications, a portfolio of industry-specific SaaS AI applications; C3 AI CRM, a suite of industry-specific CRM applications designed for AI and machine learning; and C3 AI Ex Machina, a no-code AI solution to apply data science to everyday business problems. The core of the C3 AI offering is an open, model-driven AI architecture that dramatically simplifies data science and application development. Learn more at: www.c3.ai

About Royal Dutch Shell plc

Royal Dutch Shell plc is incorporated in England and Wales, has its headquarters in The Hague and is listed on the London, Amsterdam, and New York stock exchanges. Shell companies have operations in more than 70 countries and territories with businesses including oil and gas exploration and production; production and marketing of liquefied natural gas and gas to liquids; manufacturing, marketing and shipping of oil products and chemicals and renewable energy projects. For further information, visit www.shell.com.

About Baker Hughes

Baker Hughes (NYSE: BKR) is an energy technology company that provides solutions to energy and industrial customers worldwide. Built on a century of experience and with operations in over 120 countries, our innovative technologies and services are taking energy forward – making it safer, cleaner and more efficient for people and the planet. Visit us at bakerhughes.com.

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