



April 28, 2026  
Cosmo Oil Co., Ltd.  
Baker Hughes Energy Japan K.K.

Signed a strategic memorandum of understanding to digitally transform refineries and improve equipment reliability

Cosmo Oil Co., Ltd. (President, Representative Director and CEO: Katsushi Nishi, hereafter "Cosmo Oil") and Baker Hughes Energy Japan Co., Ltd. (Representative: Takao Horibe, hereafter "Baker Hughes"), the Japanese subsidiary of Baker Hughes, a global energy technology company, are cooperating with Cosmo On April 17, we signed a strategic memorandum of understanding (MOU) to jointly consider strengthening and improving equipment performance and reliability at all of our oil refineries (Chiba, Yokkaichi, and Sakai), as well as enhancing digital capabilities



The signing ceremony held on April 17  
(From left: KH Hor of Baker Hughes; Satoshi Iwase, Director,  
Senior Executive Officer of Cosmo Oil Co., Ltd.)

In order to continue to operate aging equipment safely and stably, refineries require more advanced maintenance strategies and operational decisions than ever before. In order to address these issues, Cosmo Oil is promoting digital plant initiatives to improve efficiency.

The MOU leverages Baker Hughes's broad technology portfolio, including AI-powered digital solutions, predictive maintenance, asset strategy optimization, and sustainable technologies. Through this, we aim to promote Cosmo Oil's long-term strategy of

improving equipment reliability and operational sophistication, optimizing operational efficiency, and developing human resources.

Both companies have been working to improve reliability. As part of this effort, Cosmo Oil expects certain cost reductions by introducing reliability-centered maintenance (RCM)<sup>1</sup> using Baker Hughes's Cordant™ Asset Strategy<sup>2</sup>. This initiative has led to the optimization of maintenance strategies for critical equipment and the creation of new methods for improving reliability based on data.

This MOU reaffirms our shared commitment to driving innovation and digital transformation across the energy value chain. Baker Hughes will create further value by applying the technologies that support digitalization, reliability enhancement, and the creation of low-carbon and sustainable energy systems to Cosmo Oil's refinery operations.

### **[Main scope of collaboration]**

#### Digital Advancement and Predictive Maintenance Solutions

- AI/ML (Machine Learning) based Anomaly Detection and Physics-Based Failure Mode Analysis
- Enhancing predictive maintenance workflows to improve equipment reliability and reduce unplanned outages
- Application of model-based scenario analysis and maintenance optimization approaches demonstrated in existing RCM projects

#### Asset Strategy & Consulting

- Co-evaluation and optimization of asset strategies at all Cosmo Oil refineries.
- Applying systematic failure mode analysis employed by Cordant™ Asset Strategy to support the transition from time-based to risk-based maintenance
- Knowledge sharing to maximize the utilization value of existing systems

#### Training and Capacity Development

- Baker Hughes's Global Refinery and Rotary Technology Talent Development Program
- Holding workshops and annual technical seminars to enhance operational excellence

#### User feedback and co-innovation

- Strengthening solutions by providing on-site knowledge and user experience by Cosmo Oil

**About the Cosmo Energy Group:**

The Cosmo Energy Group handles a wide range of energy sources that are essential to society, including petrochemicals and wind power generation, as well as from oil development to oil refining and sales of petroleum products. Cosmo Oil, which is responsible for the oil refining business, operates three refineries in Chiba, Yokkaichi, and Sakai, and its mission is to contribute to society by realizing a safe and stable energy supply. As a company that handles limited global energy, we are considerate of the environment and society and aim for sustainable development.

**1. Reliability-Centered Maintenance (RCM)**

A maintenance method that systematically analyzes the functions and failure modes of equipment to determine the optimal maintenance method to maintain and improve reliability and safety.

**2. Cordant™ Asset Strategy**

A Baker Hughes' digital asset strategy solution that leverages equipment and operational data to help plan optimal maintenance and renewal strategies for each facility. Data-driven decision-making enables improved equipment reliability and optimization of lifecycle costs.

(End)

(The official language for Cosmo Energy Group's filings with the Tokyo Stock Exchange and Japanese authorities, and for communications with our shareholders, is Japanese. We have posted English versions of some of this information on this website. While these English versions have been prepared in good faith, Cosmo Energy Group does not accept responsibility for the accuracy of the translations, and reference should be made to the original Japanese language materials.)