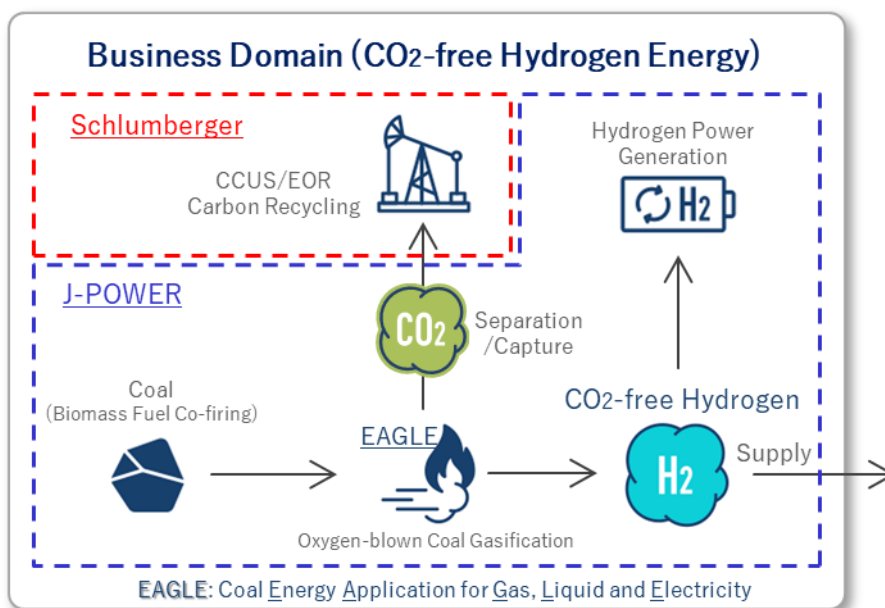


Coal Gasification + CCUS Commercialization through CO<sub>2</sub>EOR with Schlumberger

-Toward the realization of a carbon-neutral and hydrogen society as part of J-POWER "BLUE MISSION 2050" -

In collaboration with Schlumberger Limited (hereafter referred to as Schlumberger), the world largest oilfield service company, we have started to study the feasibility of commercializing an integrated hydrogen production and CCUS process (CO<sub>2</sub> capture, utilization & storage) plant overseas by combining our coal gasification and CO<sub>2</sub> capture/recovery technologies with Schlumberger's CO<sub>2</sub>EOR\*1 technology.

This is a part of our action plan to realize a carbon-neutral and hydrogen society, which is the goal of J-POWER "BLUE MISSION 2050" (announced on February 26, 2021, hereinafter referred to as BM2050).



Coal Gasification CO <sub>2</sub> -free Hydrogen Energy Business	CO <sub>2</sub> EOR Technology

Schlumberger has extensive experience in EOR technology and provided various advanced technical services to numerous projects globally. Based on publicly available data from sedimentary basins and reservoirs around the world, we conducted a study of the potential CO<sub>2</sub> demand for EOR applications using a smart digital system developed by Schlumberger. By combining the technologies for hydrogen production, power generation and CO<sub>2</sub>

separation/ recovery that we have developed over the years through the EAGLE Project (from 2002 to 2013) and the Osaki CoolGen Project (from 2016), we will be able to produce CO<sub>2</sub>-free hydrogen/ generate electricity and increase oil production simultaneously with using CO<sub>2</sub> as a resource

In addition, as joint studies with oil field owners will be essential for the final commercialization of the project, we participated in the SPE<sup>\*2</sup> Virtual Work Shop held in February this year to introduce our efforts in the CCUS project using our coal gasification technology and the future prospects of the CO<sub>2</sub>-free hydrogen energy business at large to the oil and gas industry.

In line with the action plan set forth in BM2050, we will continue to contribute to the stable supply of energy and the decarbonization of the world by globally developing initiatives for the commercialization of CO<sub>2</sub>-free hydrogen based on the combination of our coal gasification and CO<sub>2</sub> separation/recovery technologies that we have cultivated to date, and CCUS technology.

\*1: EOR = Enhanced Oil Recovery

A method of extracting oil from non-self-flooding oil fields with the aim of achieving higher replacement efficiency than can be obtained by conventional gas injection or water attack methods. CO<sub>2</sub>EOR refers to EOR by CO<sub>2</sub> injection.

\*2: SPE = Society of Petroleum Engineers

An international community for sharing various information on technology, knowledge, and development related to oil and gas resources.