

April 24, 2019
Electric Power Development Co., Ltd.

Review of Yamaguchi Ube Power Project

Yamaguchi-Ube Power Generation Co., Ltd. (hereafter “YUP”), of which stake is held by Electric Power Development Co., Ltd. (hereafter “J-POWER”), Osaka Gas Co., Ltd. (hereafter “Osaka Gas”) and Ube Industries, Ltd. (hereafter “Ube”), has decided to review the plan to build a new power station in Ube city, Yamaguchi prefecture and to pause the environmental impact assessment procedure.

Since its establishment in March 2015, YUP has been examining and preparing a power generation business for this plan, and has carried out an environmental impact assessment procedure.

However, as Osaka Gas has decided to withdraw from YUP, YUP has decided to review the plan and to ask the government to pause the environmental impact assessment procedure.

As J-POWER and Ube has agreed to continue study on building a cutting-edge and most efficient coal-fired thermal power station through YUP, YUP is going to formulate a best suited alternative power station plan including scale down to a single 600MW-class USC plant or commercialization of an oxygen-blown IGCC*¹

In the 5th Basic Energy Plan (formulated in July 2018 by Japanese government), coal continues to be positioned as an important fuel for baseload power owing to its stability in supply and economy. The Japanese government is engaged in research and development of carbon recycling aiming for innovation of technology in separation, capture, storage and use of CO₂. J-POWER continues to reduce carbon emissions utilizing cutting-edge and most efficient coal-fired thermal power plants and to promote research and initiatives for future decarbonization*² in order to harmonize our business with environment.

*1 Oxygen-blown IGCC (Integrated Coal Gasification Combined Cycle): Particle of coal is gasified using oxygen to produce hydrogen, and flammable gas which is mainly composed of the produced hydrogen and CO drives a gas turbine for power generation. Simultaneously a steam turbine is driven by exhausted heat for power generation. Oxygen-blown type is superior to air-blown type in terms of efficiency of CO₂ separation and capture. CO₂ intensity is lower than USC (Ultra-supercritical) which is currently popular. J-POWER, jointly with Chugoku Electric Power Company, conducted a large scale demonstration test of oxygen-blown IGCC for approximately two years in the Osaki CoolGen Project which was subsidized by New Energy and Industrial Technology Development Organization (NEDO). The demonstration test completed in February 2019, achieving targets in all testing items regarding basic performance, controllability, operability and other aspects.

*2 J-POWER is enhancing initiatives aiming for decarbonization of coal use including;

- ✓ Early commercialization of oxygen-blown IGCC which excels in CO₂ separation and capture
- ✓ Research and technological development in CCUS, including initiatives for carbon recycling
 - CO₂ separation, capture and use in Osaki CoolGen Project
 - Technological development in manufacturing carbon recycle fuel and chemical using marine microalga
 - Development of coal ash heavy block material which is effective for creation of seaweed and fishing grounds
- ✓ Research and technological development in manufacturing by-products such as hydrogen by lignite gasification

Overview of Yamaguchi Ube Power Project

Capacity	1,200MW (600MW x 2 units)
Generation type	Ultra-supercritical (USC) coal-fired thermal power
Location	Nishi-Okinoyama district, Ube city, Yamaguchi prefecture
Start of operation	April 2026 (Unit No.1), October 2026 (Unit No.2)

Overview of YUP

Company name	Yamaguchi-Ube Power Generation Co., Ltd.
Location	Ube city, Yamaguchi prefecture
Establishment	March 2015
Representative	Shigeru Morimoto, Representative Director (Department Director, Power Business Planning & Development Dept., J-POWER)
Shareholders	J-POWER 45%, Osaka Gas 45%, Ube 10%
Business	Power supply, etc.