## News Release



March 10, 2021

# Installation of binary power generation equipment in Hishikari Mine

Sumitomo Metal Mining Co., Ltd. (Head office: Minato-ku, Tokyo; President & Representative Director: Akira Nozaki) has installed captive consumption binary power generation equipment at the Hishikari Mine that utilizes hot-spring heat. In February of this year, we began operation of this equipment. This is a captive consumption system, where the power generation equipment utilizes heat from the hot-springs that spout underground at the Hishikari Mine to generate electric power that is then used within the Hishikari Mine. Through generating power using naturally occurring hot-spring heat, we're able to reduce our greenhouse gas emissions.

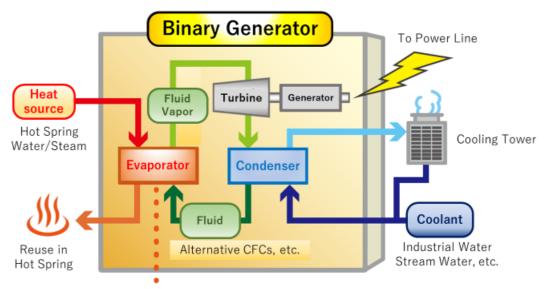
We're using a pump to draw, at a rate of 9,000 liters per minute, hot-spring water that spouts underground at the Hishikari Mine. About two-thirds of that water is cooled, processed and discharged into rivers, and the remaining one-third is supplied to local hot spring inns and other recipients through a public-private joint venture. At present, the orebody development going on at a deeper level at the Hishikari Mine is bringing changes to the locations of the hot springs, and this is raising the temperature of the water. This requires that we cool the water so that we are able to supply it at the same temperature as it has been in the past. We looked into ways to cool the water, and we decided to install binary power generation equipment that could effectively utilize the hot-spring heat. The generated power is 570,000 kwh a year, equal to about 2% of the overall power consumption at the Hishikari Mine.

For the installation of this equipment, we entered into a lease contract with Sumitomo Mitsui Finance and Leasing Company, Limited (Head office: Chiyoda-ku, Tokyo; President: Masaki Tachibana), and their cooperation allowed us to secure a business grant under the "Subsidy for Carbon Dioxide Emission Control Measures Project Cost" program of the Japan Environment Association, reducing installation costs. The engineering and construction of this equipment was conducted by Daiichi Jitsugyo Co., Ltd. (Head office: Chiyoda-ku, Tokyo; President: Ichiro Uno). Through the introduction of this equipment, we're engaging in initiatives towards becoming a company that actively undertakes climate change countermeasures, by reducing emissions and stably supplying products contributing to a low-carbon society, to achieve zero emissions of greenhouse gases (GHGs), as laid out in one of the material issues, climate change, in our Vision for 2030.

#### **%**Binary power generation equipment



\*Mechanism of binary generator



The heat from the hot spring is used to heat and vaporize the fluid, and the vapor pressure rotates a turbine that generates electricity.

#### \*Reference





### Vision for 2030: 11 Material Issues and our Vision

	Material issues	Vision
1	Effective Use of Non-Ferrous Metal Resources	<ul> <li>A company that generates resources through high technological capabilities</li> <li>1. A company that stably provides non-ferrous metals to society</li> <li>2. A company that contributes to society by effectively using impurities through collaborative, open technological development among industry, academia, and government</li> <li>3. A company that contributes to the construction and maintenance of recycling systems for non-ferrous metals</li> <li>4. A company that develops and supplies highly advanced materials that contribute to the resolution of social issues</li> </ul>
2	Climate Change	A company that actively undertakes climate change countermeasures, by reducing emissions and stably supplying products contributing to a low-carbon society, to achieve zero emissions of greenhouse gases GHGs
3	Significant Environmental Accidents	A company that values water resources and biodiversity, and protects the richness of the sea and land
4	Biodiversity	
	Material issues	Vision
5	Material issues Employees' Occupational Health and Safety	Vision A company where all employees put safety first in work, with comfortable workplace environments, safe equipment, and operations
5	Employees' Occupational Health	A company where all employees put safety first in work, with comfortable workplace environments, safe equipment, and operations A company where all employees can take a vibrant and active part 1. A company that respects the humanity of each and every employee, and where
5 6 7	Employees' Occupational Health and Safety	A company where all employees put safety first in work, with comfortable workplace environments, safe equipment, and operations A company where all employees can take a vibrant and active part
5 6 7 8	Employees' Occupational Health and Safety Diverse Human Resources Development and Participation of	<ul> <li>A company where all employees put safety first in work, with comfortable workplace environments, safe equipment, and operations</li> <li>A company where all employees can take a vibrant and active part</li> <li>1. A company that respects the humanity of each and every employee, and where employees feel pride, motivation, and joy in work</li> <li>2. A company that provides each and every employee with opportunities to improve</li> </ul>
7	Employees' Occupational Health and Safety Diverse Human Resources Development and Participation of Human Resources	<ul> <li>A company where all employees put safety first in work, with comfortable workplace environments, safe equipment, and operations</li> <li>A company where all employees can take a vibrant and active part</li> <li>1. A company that respects the humanity of each and every employee, and where employees feel pride, motivation, and joy in work</li> <li>2. A company that provides each and every employee with opportunities to improve his/her capabilities, and grows together with employees</li> <li>A company that is appreciated and understood to be the world leader in non-ferrous</li> </ul>
7 8	Employees' Occupational Health and Safety Diverse Human Resources Development and Participation of Human Resources Engagement with Stakeholders Co-Existence and Mutual Prosperity with Local Communities	<ul> <li>A company where all employees put safety first in work, with comfortable workplace environments, safe equipment, and operations</li> <li>A company where all employees can take a vibrant and active part</li> <li>1. A company that respects the humanity of each and every employee, and where employees feel pride, motivation, and joy in work</li> <li>2. A company that provides each and every employee with opportunities to improve his/her capabilities, and grows together with employees</li> <li>A company that is appreciated and understood to be the world leader in non-ferrous metals</li> <li>A company that contributes to regional development and earns trust as a member of</li> </ul>

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