

Seminar Renewable Energy and Energy Efficient Building at the ICU

Time: February 13th 2015 (Friday) 12:50-13:50
Place: Room H362 (ICU University Hall, 3rd Floor)
Title: Recent movements for geothermal development in Japan
Speaker: (独)産業技術総合研究所 福島再生可能エネルギー研究所、再生可能エネルギー研究センター 総括研究主幹 安川 香澄先生 / Prof. Kasumi YASUKAWA, Ph.D, Principal Research Manager, Renewable Energy Research Center, National Institute of AIST

The estimated theoretical potential of geothermal energy in Japan to a depth of 3 km is 20 GWe or larger. However the present total capacity of geothermal power plants is merely 517.8 MWe and there have been opened no new geothermal power plants for more than a decade. It is mainly due to the lack of economic competitiveness with other power sources, and due to social systems which limit geothermal development. However after the nuclear accident in March 2011, the government re-started giving incentives for geothermal development, such as financial support for exploration drilling and PA activities, cost incentives by feed in tariffs, and mitigation of constraints in national parks. A guideline for geothermal drilling licenses was also newly authorized, which may shorten the period necessary for obtaining drilling permissions. Such support by the government encouraged new geothermal exploration activities from the private sector, as well as the quick installation of small binary systems. As of 2014, over 40 prospects are under exploration or development: 19 prospects over 10MW, seven prospects from 1 - 10 MW, and 18 prospects under 1 MW. Seven small binary systems (0.003 - 2 MWe) have been installed in 2013 and 2014. Although the expansion of ground source heat pump (GSHP) systems is rather slow, the number of installations is multiplying in recent years. The total installation number in Japan in 2014 was around 1,000. On the other hand, conventional direct use in Japan is rather stable, allowing the dominant part to be bathing.

In my presentation, such recent movements for new geothermal development will be summarized and research studies in AIST will be introduced.

Anybody, especially students, are welcome. Please bring along your lunchbox.

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Access: <http://www.icu.ac.jp/about/access/>, **Campus Map (Bldg. No. 1!):**

<http://www.icu.ac.jp/about/campus/>

To students: All students are welcome to attend the seminar. But please note that different from the NS Forum or Funct. Science seminars, the seminar will not give you any ICU course credits.

Geothermal potential map of Japan (GSJ, 2009)

