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Research into cold energy from LNG among beneficiaries of S$27m govt grants

Two other projects seek to use the generated energy for seawater desalination; in all, 13 projects get funding

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MOMENTUM could gather in Singapore for the push to harvest and use the cold energy released in the process of regasifying liquefied natural gas (LNG), with the government awarding on Friday S$27 million in research grants to 13 projects looking into this and other areas.

For example, two separate projects led by National University of Singapore professors Neal Chung Tai-Shung and Praveen Linga will conduct research into using the generated energy for seawater desalination.

LNG is stored at a temperature of minus 163 deg C. When converted back into a gaseous state, it releases cold energy that in most places around the world goes untapped. Singapore has, from as early as 2010, been looking into making use of this energy source; this was when the Singapore LNG (SLNG) terminal was still under development.

In 2014, the Economic Development Board had put out a request for information on the plan to produce cold energy. *The Business Times* understands that it is still studying the possibilities.

SLNG Corporation, which runs the LNG terminal, is also eyeing the provision of cold energy as a potential new business, said its website. This is envisaged as a load-cooling service to industrial customers, but plans have hit a snag due to the difficulty of transporting cold energy over long distances, BT understands.

SLNG is not listed as a collaborator for the two cold energy projects, as the experiments do not require its facilities and data as yet, said the Energy Market Authority (EMA).

But the firm is involved in two other projects awarded the research grants. One looks into ways to reduce energy consumption, and the other, to set up a real-time monitoring system to detect anomalies in gas facilities and pipelines at the terminal.

Four other projects receiving the research grants will focus on gas technology, such as monitoring gas pipelines in real time for damage.

The remaining five projects will delve into ways of enhancing the security of Singapore's electricity grid against cyber-attacks, managing the impact of intermittent solar-energy gene

ration on the stability of the grid, and developing smarter energy systems.

Said EMA chief executive Ng Wai Choong: "EMA works closely with the industry and research community to catalyse innovations in the energy sector. The 13 projects have the potential to make a real difference in enhancing the efficiency and reliability of our electricity and gas systems."

John Ng, chief executive of SLNG Corporation, said: "R&D is an important enabler to catalyse new-industry capabilities. We are happy to be able to play a part in such efforts, and we hope that these will lead to practical and implementable applications."