

## Awareness Workshop on Japanese Low Carbon Technology (Steam System Optimization Program)

8<sup>th</sup> January 2021 | Webinar

TERI and IGES organised an awareness workshop (webinar) on the opportunities of adoption of Japanese Low Carbon Technologies (LCT) and best practices in steam system on 8<sup>th</sup> January 2021. The key objectives were:

- To generate awareness about energy efficient steam management system
- To strengthen Indo-Japan cooperation on energy efficiency improvement through JITMAP.



The workshop was jointly organised with the following JITMAP partners:

- Gujarat Energy Development Agency (GEDA)
- Maharashtra Energy Development Agency (MEDA)

A total of 121 participants attended the webinar, which included representatives from leading Indian firms like Reliance Industries, Adani Power, Deepak Fertilizer and Petrochemicals, BILT Graphic Paper, Pudumjee Paper Products, GSFC, RCF, HPCL, GHCL among others.



Mr Girish Sethi, Senior Director, TERI welcomed the participants and explained the objectives of the webinar. He mentioned that Japan is a pioneer in energy efficient technologies for industry and expressed his satisfaction that a speaker from TLV, Japan – a leader in steam system technologies – would share his views in the webinar. He thanked GEDA and MEDA for their support to organizing

the event.

Mr Rajesh Kansara, Senior Project Executive, GEDA mentioned that there is a lot of potential to save steam among large and medium scale industries in India, and added that Gujarat is one of the most industrialized states in the country. He extended all necessary support to the project activities.





Mr Milind Deore, Director, Bureau of Energy Efficiency (BEE) spoke on the Perform, Achieve and Trade (PAT) program of Ministry of Power. The program presently covers about 1000 large industries from 13 sub-sectors. The PAT program has helped move energy conservation to be an agenda at the top management level in these companies. Energy conservation

has an added advantage in some sectors like textiles where the consumer is demanding sustainable products. BEE is keen to provide handholding support to industries. It has formulated Energy Conservation (EC) guideline for industries with support from the Energy Conservation Centre, Japan (ECCJ) and TERI. Best practices in steam management system have been included in the EC guidelines. Noting that JITMAP is a good platform established by TERI and IGES, he said that the platform's activities including awareness raising will also help in better implementation of the EC guidelines among Indian industries. Thus, BEE is happy to extend its support to the initiative.

Mr Toshinori Hamaguchi, Program Manager, IGES made a presentation about JITMAP and its activities. He mentioned that IGES was established in 1998 and is working on a number of areas like green economy, climate change and so on. The Kansai Research Centre (KRC) has been promoting energy conservation among Indian industries for the past 10 years. The JITMAP initiative was launched in 2016, with support of the Ministry of Environment Japan (MoEJ), to match Japanese manufacturers to Indian companies. He explained how the technology matchmaking works. So far, the platform has helped to facilitate more than 75 interactions between Indian and Japanese businesses. He presented two successful case-studies of energy savings realized by Indian industry as a result of the platform's activities.



Mr Peush Jaitly, General Manager-Country Head (India Operations), TLV PTE LTD. India Liaison Office made a background presentation about TLV and its mission. He mentioned that steam system optimization program has several benefits apart from energy efficiency like safety, reliability and profitability. A proof of TLV's product

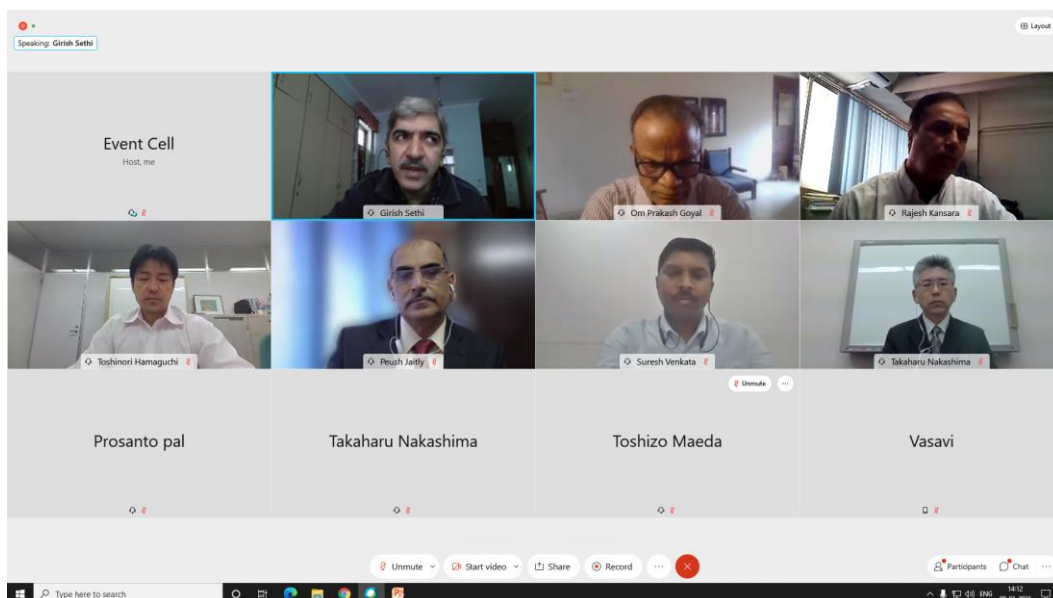
reliability is that some Indian customers continue to use their product for more than 20 years. The company believes in value added system solutions and continuous implementation of best practices. The steam system optimization software (SSOP) of TLV leads to actual reduction/savings in steam, increased profitability and reduction in CO<sub>2</sub> emissions. TLV is looking to bring the Japanese experience to the Indian market, especially the disciplined approach to optimize steam system which can reduce the energy consumption substantially.

The unique long life of TLV technology and its solution-based approach can be of benefit to India industry.

Mr Takaharu Nakashima, General Manager for India, Latin America, South Africa, Middle East, TLV International, Inc. Japan made a detailed technical presentation on steam systems. In his presentation he highlighted the steam system optimization study undertaken by TLV at a refinery in Muroran, Hokaido, Japan. Under the study, 35 tph of steam saving was identified. Subsequently the recommended measures were implemented by the company which resulted in steam savings of 31 tph. He gave several examples of steam savings such as optimization of condensate discharge locations (CDLs), replacement of non-working steam traps, setting changes, insulation of steam traps, disc trap issues and solutions, reboiler trouble shooting, gas compressor and plant shutdown problem, condensate raining during flaring event and so on. He emphasized that apart from energy savings, reliability and safety were important considerations in adoption of TLV products. He also gave an example of a sample survey at one Indian refinery conducted by TLV. During the survey 14% steam saving was identified. He gave a number of examples of steam savings from other industries like corrugated box, face mask, sanitary paper, vegetable oil, tyre, brewery, food, pharmaceuticals and textile. He also gave an example of cascade type of machine control.



The presentation was followed by panel discussion. Mr O P Goyal representing Indian Chemical Council (ICC) mentioned about their industry association which has many leading chemical industries as members. ICC also gives award on energy conservation to deserving industries. Mr Suresh Kalla, Energy Cell, UPL mentioned that steam is a major cost head for their industry and thus they are interested in saving it. He mentioned various energy conservation activities implemented by them such as condensing of flue gas to recover heat, proper selection of steam traps and reducing the use of steam in process.



### **Key takeaways**

- Awareness programs like these are useful to disseminate knowledge on LCTs and best operating practices (BOP) among industrial units and to keep them abreast with latest technological developments in Japan.
- Such events also provide an opportunity to Japanese companies to directly communicate with a large number of potential customers, which could lead to expansion of the market for their products in India.

### **Way forward/Follow-up**

- There is a well-felt need to have more of such awareness programs for building capacities and disseminating LCTs among Indian industries in the future.
- There is a vast opportunity to have more awareness programs on other LCTs like chillers, fuel cells, steam energy survey and so on in future programs.