India Bioenergy Workshop

Deploying biogas and MSW-to-energy

July 13th, 2021

14:00-17:00 IST / 10:30-13:30 CET

Virtual webinar

Partners:

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY

CEEW
THE COUNCIL | 10 YEARS

International Energy Agency

iea

Draft Program for the Bioenergy Workshop

Modern bioenergy, such as biogas and MSW-to-energy, brings many benefits such as enhancing energy security, generating revenue and reducing greenhouse gas emissions when substituting for fossil fuels or replacing inefficient waste management practices. In the IEA sustainable development scenario modern bioenergy grows by 75% in India over the next decade with biogas and biomethane growing nearly 20 times to provide heat, generate electricity and fuel vehicles.

This workshop aims to draw learnings from international experiences in innovative policymaking and technology developments for accelerating the deployment of biogas and MSW-to-energy. It will explore how they can be applied to overcome the challenges in the Indian bioenergy sector.

The workshop will bring together international and Indian bioenergy experts to answer questions such as:

1. What is the current status of biogas and MSW-to-energy in India in terms of deployment, challenges to date and policies?
2. What is the potential role of biogas and MSW-to-energy in India in terms of energy potential, deployment potential and future policies?
3. What government actions, such as policies, technology support and regulations, have been most successful at accelerating the deployment of biogas and MSW-to-energy in leading countries?
4. What biogas and MSW-to-energy technologies have proved most successful in countries with high-levels of biogas and MSW-to-energy deployment?
5. What international examples are most relevant to helping accelerate biogas and MSW-to-waste technologies in India?

Program for the Bioenergy Workshop 2021

July 13th, 2021

14h00 – 14h20 IST	**Opening and High-level Context** **Keisuke Sadamori** – Director Energy Markets and Security IEA, Introduction **Dr Arunabha Ghosh** – CEO CEEW, Opportunities and challenges for biogas and MSW-to-energy in India **Dr S. Dasappa** – Professor, Centre for Sustainable Technologies, Indian Institute of Science, Technology development imperatives for India (5 min) **Sh. Indu Shekhar Chaturvedi** - Secretary MNRE – Policy vision for bioenergy in India

14h20 – 15h20 IST	**Session 1: Biogas and Bio-CNG - successful deployment policies and technologies (60 mins)** **India –** Sh. Subodh Kumar, Advisor, IOCL • What is the current status of biogas and bio-CNG use and policies in India? • What are the current successes and challenges in biogas and bio-CNG across India? • What is the potential for biogas and bio-CNG over the next decade? **Industry –** Charlotte Morton, World Biogas Association Chief Executive • Global overview of biogas and biomethane, technologies, feedstocks and policies • What are the key policy building blocks necessary to support biogas and biomethane? • Which biogas and biomethane technologies have been most successful globally? **Sweden –** Mats Eklund, Director, Biogas Research Centre, Linköping University • How did Sweden achieve 95% biogas in its gas vehicle fleet? • What policy implementation lessons did Sweden learn? **Italy –** Alessandro Pellini, Senior Energy Expert, Statistics and Sustainability, Gestore Servizi Energetici • What policies has Italy used to support biogas use for electricity, transport and heat?

	• What has been the result in Italy in terms of uptake, technologies used and feedstocks used? • What lessons has Italy learned? **Thailand –** Prof. Pruk Aggarangsi, Director of the Energy Research and Development Institute, Chiang Mai University (7 mins) • How did Thailand use declining capital cost incentives to support biogas development for both livestock and the agri-food sector? • How did Thailand's biogas industry adapt European technology to work effectively in Thailand's climate? • What role do current environmental regulations play in driving biogas development? **Observations -** Sh. Shantanu Gupta, Chief General Manager I/C (Alternate Energy & Sustainable Development), IOCL **Moderated discussion –** Jeremy Moorhouse, Bioenergy Analyst, IEA

15h20 – 16h20 IST	**Session 2 – MSW-to-energy – successful deployment policies and technologies (60 mins)** **India –** Dr. Shyamala Mani, Senior Advisor, Centre for Environmental Health, Public Health Foundation of India • What is the current status of MSW-to-energy use and policies in India? • What are the current successes and challenges of MSW-to-energy across India? • What is the potential for MSW-to-energy over the next decade? **Industry perspective** – Jussi Orhanen, Business Development Manager, Valmet • What are the global trends in new waste-to-energy technologies globally? • What are the potential technical solutions for thermal treatment of MSW in emerging economies? **Spain –** Nagore Peñalva Bengoa, Program Director, GHK • What policies have supported the development of waste-to-energy in Spain?

	• Why did the Gipuzkoa facility choose both organic and thermal treatment in one facility? **Chile** – Gerardo Canales Gonzalez, Implementa Sur • How did the energy and environment ministries coordinate efforts to develop biogas facilities, specifically from landfills? • What value did international collaboration via the clean development mechanism and carbon credits bring to expanding biogas from landfills? **Observations –** Dr. D.K. Khare, Former Advisor, Ministry of New and Renewable Energy **Moderated discussion** – Disha Agarwal, Programme Lead, Council on Energy, Environment and Water

16h20 – 16h35 IST	**Wrap up and take aways:** **Dr. Sangita Kasture**, Department of Biotechnology, Bioenergy technologies and the Biofutures Platform – links to India's international collaboration efforts **Paolo Frankl**, Head of Renewable Energy Division IEA – key takeaways **Aseem Kumar,** Director MNRE on behalf of **Sh. Dinesh**, Joint Secretary MNRE – key takeaways and next steps