



IEA Bioenergy
Technology Collaboration Programme

WEBINAR SERIES

Integration of Biogas Systems into the Energy System

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4:00 pm - 5:00 pm Central European Time
10:00 am - 11:00 am North American Eastern Standard Time
3:00 pm - 4:00 pm Greenwich Mean Time



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Introduction

Biogas is a versatile energy carrier which can be used to produce electricity, heat and after upgrading serve all functions of natural gas, including transport. Biogas systems are highly scalable in their energy output according to the demand from the particular energy sector. The flexibility of biogas systems can facilitate electricity production at a dynamic schedule to match an electricity demand profile, while facilitating voltage and grid stability. As a decentralised component of the overall energy system biogas systems can function as an infrastructure hub for local energy consumers in rural areas. Biogas can play an essential role (together with PV and wind) as part of a virtual power plant in local distribution energy grids. Biogas systems can operate as a biological battery in coupling the electricity and gas grids using surplus electricity to produce hydrogen to react with biogenic CO₂ in biogas producing biomethane and increasing the output of biomethane (typically by 70 %). Innovation and ingenuity will be required of biogas operators in future energy systems. IEA Bioenergy Task 37 recently published a new report highlighting how to match biogas supply and demand for energy as electricity, heat or transport biofuel across the larger future energy system. This webinar will present the main conclusions.

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