

Power Gas

Copenhagen, Denmark, 20-21 November 2019

*European Conference On BioGas,
BioGas Upgrading & P2G*

EXCLUSIVE SITE VISITS

A limited number of conference participants will receive opportunity to visit Biogas Park in Avedøre, Solrød Biogas facility near Copenhagen, on the 19 November 2019, a day prior the main event.



KEY TOPICS

Market Developments in a Global Perspective
 Regulations and Policies for the European Industry
 Financing and Investing strategies
 Economics and Sustainability challenges
 Transportation and Storage Enhancements
 Actual Case Studies to biogas and Power 2 Gas
 Technological Advancements in the Biogas Industry and
 Paving the way for the future to the gas mobility
 Climate Neutral Mobility and Power 2 Gas Solutions
 Bio resources Optimization in Anaerobic Digestion
 New Materials and Latest Technology Trends
 Commercialization – opportunities, growth challenges,
 funding, partnerships

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General information

The summit will take place on the 20/21 November 2019, Copenhagen, Denmark. The two days event will give you an extensive view on the European biogas and power to gas market. A wide display of anaerobic digestion technologies.

Discuss biogas case studies, successful power to gas partnerships, new P2G technologies. Meet Industry representatives and companies involved in the industry.

Who should attend ?

Power Companies, Oil & Gas Companies, Trading & Distribution Companies, Producers Of Feedstock, Renewable Energy Consultancies, EPC Contractors And OEM's, Regulatory & Research Experts, Government Organizations And Municipalities, Biotechnology companies and biotech developers, business analytics, anaerobic digestion technology providers and renewable energy business consultants.

Why you should attend the Power ON Gas 2019 Conference ?

Gain a comprehensive overview of the gas to power and power to gas on this 2 day event filled with presentations from industry end-users and running projects case studies.

Hear experts focus on new regulatory framework, fast paced market situation and more. Network and exchange ideas with colleagues from the industry.

Conference Venue:
Imperial Hotel
Vester Farimagsgade 9,
1606 Copenhagen
Denmark

*For preferential rate of accommodation,
Please contact cimp@arp-hansen.dk
att. Joan Ludvig



There's no doubt that Imperial Hotel is much more than a tastefully decorated, modern four-star hotel in the heart of Copenhagen. That's because for more than 50 years, the hotel's vibrant international atmosphere has attracted both Danish and international guests with a passion for good food and drink. Whether your business schedule is packed tight or you have ample time for sightseeing, Imperial Hotel is the perfect base conveniently located just steps from Tivoli Gardens, Strøget, City Hall Square and Copenhagen Central Station. If you are planning a meeting or conference, you can leave it to us to create the ideal environment with professional staff in one of our six conference rooms of various sizes. In our newly refurbished restaurant, Ristorante L'Appetito, we indulge our guests with authentic Italian delicacies made from excellent seasonal ingredients, lovingly created by our talented chef and his Italian team.

Site Visit

The day before the main event, on the 19 November 2019, a limited number of conference participants will receive a unique opportunity to visit state of the art site Solrød Biogas A/S. Tour will take place between 9.30-13.00, transport will be provided by the organizers. Spaces are allocated on first come first served basis. It is recommended to book your place early to avoid disappointment.



Visit Solrød Biogas A/S Solrød Biogas A/S is established in close cooperation with CP Kelco, VEKS, Chr. Hansen, Roskilde University, Bigadan and the agricultural sector. The biomass consists partially of seaweed from the Bay of Køge and Solrød Beach improving the quality of the bathing water and reducing the greenhouse gas emissions of the municipality. The plant is the first of its kind in Denmark to produce green energy out of seaweed.



The BioCat Project is commercial-scale upgrading biogas plant that is a part of the Avedøre Wastewater Treatment Plant. It connects the wastewater treatment plant's biogas production with a natural gas grid. The company Electrochaea, which has designed and constructed the upgrading plant, has developed a process that uses microorganisms to convert CO₂ into methane. It takes place via an electrolysis plant that converts electricity into hydrogen, i.e. via power-to-gas technology. The commercial scale facility has flexible operational modes and responds rapidly to available energy, so it can also provide frequency regulation services to Danish power grid while injecting renewable natural gas into Copenhagen's energy grid.



At the Biogas Park in Avedøre, Copenhagen the sewage sludge from Copenhagen is treated at Biofos' waste water treatment plant and processed through anaerobic digestion to produce biogas. The biogas produced from sewage sludge is then cleaned in HOFOR's biogas upgrading plant supplied by Ammongas, where the CO₂ is separated from the CH₄, creating clean biomethane ready for grid injection. Meanwhile, using excess wind energy an electrolyser creates hydrogen for Electrochaea's methanation plant. By combining the now separated CO₂ from the upgrading plant, with the hydrogen created from excess wind energy, Electrochaea's methanation plant creates additional biomethane, which together with the biomethane from upgrading, is injected into the natural gas grid, thereby replacing natural gas with green biomethane for the Copenhagen households, transport, factories, and heat and power. Thus, Copenhagen supply their own gas via the Avedøre Biogas Park.

08:00 REGISTRATION & COFFEE
 09:00 ORGANISER'S WELCOME MESSAGE
 09:05 CHAIRMAN'S OPENING SPEECH

Chairman: Morten Jacobsen, Independent Consultant Biogas

09:15 European markets outlook

- General market overview in European and global context
- Uncertainties and opportunities in biogas market
- Role of biogas in renewable energy
- Regional policy review, analysis on regulatory framework

Speaker: Harm Grobrügge, President, EBA European Biogas Association



09:45 Swedish biomethane market

- Rapid demand growth but ceased production
- The policy landscape - drivers and barriers
- Vision & roadmap beyond 2030 and Proposal for a National Biogas Strategy

Speaker: Linus Klackenbergh, Production Co-ordinator, Swedish Gas Association



10:15 The Global Potential of Biogas

- Anaerobic digestion has the potential to reduce global GHG emissions by 10-13% of the world's current greenhouse gas emissions
- The potential of anaerobic digestion to help meet the climate change targets under the Paris Agreement

Speaker: Charlotte Morton, Chief Executive, World Biogas Association



10:45 MORNING REFRESHMENTS & NETWORKING BREAK

11:15 Power-to-X and the role of biogas

- A system perspective on P-to-X
- The economics of biogas
- Biogas and energy system synergies

Speaker: Peter Bjerregaard, Market Regulation Manager, E.ON



11.45 Biomethane for Europe

- Biomethane vast potential as a fuel
- Cross boarder trading certification is of utmost importance
- Multi-level regulation leads to complex regulation EU Member States

Speaker: John Cosmo Dwelle, Legal, Sustainability & Politics, LANDWÄRME GMBH



12:15 Financing Biogas & Power 2 Gas Projects

- Financial framework for the implementation of biogas plants
- Current approach of funding infrastructures of biogas in Europe
- Overview of public and private financing sources & other financing tools

Speaker: Rune Ledgaard Sørensen, CEO, (LEF) Langfristet ErhvervsFinansiering A/S



12:45 NETWORKING LUNCH

13:45 Gas production potential from forest- and forest industry residues

- The big picture: What is needed and what can be made available by 2045
- How can we reach the goal
- What are the most important steps

Speaker: Henric Dernegard, CEO, Södra Vind



14:15 Development and expansion of biogas plants in Denmark

- Local energy leadership
- Timeline of establishment of the biogas facility
- Project development assistance, financing the development of the facility
- Local benefit from the biogas plant, farmers, industry, heat consumers, etc.

Speaker: Tyge Kjær, People and Technology Department, Roskilde University


14:45 AFTERNOON REFRESHMENTS – NETWORKING BREAK
15:15 Gasum's perspective on the Nordic biogas market

- Our strategy in the Nordic gas market
- Review of the Biogas Agenda drivers and status within the countries
- How we see the opportunities and challenges within the Nordic gas ecosystem

Speaker: Johan Grön, Vice President Biogas, Gasum


16:00 PANEL DISCUSSION + Q & A

Is biogas a key driver to reach climate and energy goals for Europe?

What are the benefits of biogas? How can biogas contribute to fossil fuel and energy dependence?

- Further developments in biogas market
- Future challenges in EU energy approach
- R&D advancing biogas potential

Speakers: TBC


16:45 Chairman's closing remarks day one
09:00 CHAIRMAN'S WELCOME MESSAGE & OPENING OF THE DAY TWO

Chairman: Morten Jacobsen, Independent Consultant Biogas

09:05 Technological advancements in the anaerobic digestion/P2G Industrial Scale Biological Methanation – learnings and insights

- Latest data & case studies of biogas plants
- Success stories from the Nordics

Speaker: Thomas Sakshaug, Controller, Biokraft


09:45 The Necessary next steps for development of biomethane and methanised gas

Speaker: Jonas C. Svendsen, Head of Trading & Strategic Innovation, Nature Energy


10:15 MORNING REFRESHMENTS & NETWORKING BREAK
10:45 Innovative biotechnology for direct biomethane production from wastewater

Speaker: Kirsten Zagt, Director, Bateau Group


11:45 Conference Presentation
Climate Neutral Mobility & Power 2 gas solutions

- Overview of recent developments in transport sector
- Role of biomethane and biohydrogen as an economic climate solution
- Biogas filling stations as a future business model

Speaker: Laurent Lardon, Process Engineer, Electrochaea



12:30 NETWORKING LUNCH
13:30 Growth challenges, funding, partnerships

- Paving the way to the future of gas mobility
- Developing favorable conditions for wide adaptation of biomethane production for transport
- What are practical conditions of developing biomethane as a fuel?
- Removing road blocks in political & regulatory framework conditions and further potential in Europe

Speaker: Morgen Enzo Gyllenberg, Development Director, Solum

14:00 Conference Presentation
Methane pyrolysis for P2G

Speaker: TBC

14:30 Power-to-X: Possibilities for producing electrofuels in Denmark

- Why is Power-to-X so frequently debated and why do we consider this to be relevant in Denmark?
- What are the potentials for using large amounts of renewable power for Power-to-X and what is the potential in terms of reducing emissions?
- How will Power-to-X affect the energy system?
- Which technology solutions are considered and what will they cost?

Speaker: Jacob Hjerrild Zeuthen, Chief Advisor, Danish Energy Agency

15:00 In situ biomethanation: Development of injector technology for converting H₂ and CO₂ to methane in a full-scale biogas reactor

- Biological methanation of H₂ and CO₂ to CH₄
- Full scale in *situ* biomethanation
- Development of H₂ injector technology

Speaker: Michael Vedel Wegener Kofoed, PhD, Project Director & Researcher, Aarhus University

15:30 AFTERNOON REFRESHMENTS & NETWORKING BREAK
15:45 The role of biogas and hydrogen driven CHP plants to prevent climate change & support COP21 decisions

Speaker Dominic Frodeno, 2G Energy AG

16:15 Hydrogen: green and sustainable?

- Definition of green hydrogen according to different systems
- Sustainability criteria for green hydrogen
- Definition of blue hydrogen
- Certification systems for green hydrogen
- International marketing/transfer of green/blue hydrogen (certificates)

Speaker: Michael Landspersky, Auditor energy certification renewable energies, Product manager Bio-methane, TÜV SÜD Industrie Service GmbH

17.15 CHAIRMAN'S CLOSING REMARKS & END OF CONFERENCE

Chairman: Morten Jacobsen, Independent Consultant Biogas



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