



A WEBINAR SERIES

PADDY STRAW BURNING: TRANSFORMING POLLUTION TO POWER

In an effort to continue exploring the best possible solution for the paddy burning issue of India, the European Union-India Technical Cooperation Project: Energy will be hosting a series of webinars on the various “aspects of paddy straw burning in already available facilities”. This series has been carefully planned with the expert panelists to understand the benefits of the co-firing technology, management techniques, value-chain, risks and challenges etc. for effectively utilizing paddy waste as biomass. The outcome of the discussions of this series can later be compared and analyzed in the Indian context for management of paddy waste as biomass, clean energy production, creation and regulation of market, etc.

Who should attend: decision makers, policy thinkers, waste management professionals, researchers, investment banks

Why to attend: any technology has pros and cons and success and failures. This series will not only present and discuss the technical aspects related to biomass co-firing, but will also present case studies. These case studies will be effective while doing comparative analysis of this technology in the Indian context.

WEBINAR 1

Theme: The development of biomass combustion and co-combustion in Poland: from “nothing” to highly organized systems

 22 May, 2020 |  2:30pm – 4:00 pm

Outline:

- Reasons why biomass co-firing was implemented in Poland. Motivation and some legislative and formal issues including Green energy share as well as AGRO biomass share obligation
- The phases of co-firing implementation
 - 1st phase: simple technical solutions
 - 2nd phase: dedicated co-firing installations
 - 3rd phase: 100% biomass boilers
 - 4th phase: the response of technology upon the change of biomass type change due to legislative and market requirements
- Examples of boiler retrofitting
- Energy from biomass in Poland – development over time
- Identification of pros and cons of co-firing
- Biomass market and logistics – selected issues
- Torrefaction as a remedy against co-firing challenges

WEBINAR 2

Theme: Technical aspects of biomass co-firing – Part I: Properties of biomass

📅 29 May, 2020 | 🕒 2:30pm – 4:00 pm *

Outline:

- Most common co-fired biomass types – key fuel properties, PS current status of this biomass energy application and research (PS properties; potential as feedstock in energy system; benefits and challenges of PS energy applications)
 - The impact of specific parameters (e.g. Vdaf, LHV, ash, bulk density) on the specific technological application of biomass in power plant
 - “Simple and forgotten properties” – a crucial role of bulk density and impurities
 - Basics of combustion and co-combustion in power plant (types of combustion chamber, main equipment – with special regard to pulverized combustion)
 - The description of specific chains of biomass application (biomass transportation, on-site handling and storage, potential biomass processing before combustion (fragmentation, milling, etc.))
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WEBINAR 3

Theme: Technical aspects of biomass co-firing – Part II: Technological bottlenecks of co-firing biomass

📅 05 June, 2020 | 🕒 2:30pm – 4:00 pm *

Outline:

- Ash-related issues (ash properties vs biomass share), possible undesired effects: slagging, fouling and agglomeration, types of remedies, characteristic process parameters influencing ash-related issues
 - Corrosiveness – the mechanism and how to handle the problem (mechanism of the corrosion, the role of Cl, KCl-induced alkali chromate formation (K₂CrO₄), chemical and mechanical remedies – the role of sulphur, mechanical (steam nozzles) remedies applied in a boiler
 - Indexes of ash-related issues – predicting the danger of corrosion, slagging and fouling depending on the biomass share in co-fired fuels blend
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WEBINAR 4

Theme: Technical aspects of biomass co-combustion with special regard of paddy straw, PS-like fuels – Part III

📅 12 June, 2020 | 🕒 2:30pm – 4:00 pm *

Outline:

- The impact of biomass co-firing ratio on combustion performance and boiler efficiency (flame propagation, efficiency increase/decrease in terms of main fuel properties, emission of gaseous pollutants and particulates,)
- Technological bottlenecks of co-firing biomass in existing utilities
- Detailed identification of technological bottlenecks in a power plant process chain

*Date & time to be confirmed a week in prior