



## TO4-TO6 Online discussion

### Financing & business models for biogas plants

#### Concept note

<i>Date:</i>	<i>15 June 2020</i>
<i>Duration:</i>	<i>90 minutes</i>
<i>Rationale and objectives:</i>	<p>The objective of this online discussion is to follow-up on the questions about financing and business models that have been asked in the recent webinar on “Biogas from Bio-Waste” and that could not be addressed during the webinar due to lack of time and a poor audio connection of the speaker who was expected to elaborate on these points.</p> <p>How to finance a biogas plant?</p> <p>Three scenarios must be distinguished:</p> <ul style="list-style-type: none"> <li>- Scenario A: a ‘traditional’ biogas plant running on agricultural wastes,</li> <li>- Scenario B: a biogas plant that is part of the municipal waste management in the sense that it treats the bio-waste from households,</li> <li>- Scenario C: a community-level biogas plant connected to district heating for own energy production and consumption in rural villages</li> </ul> <p>Scenario A is usually cheaper than B. this is due to the fact that the feedstock in scenario A is usually much cleaner than in Scenario B. Bio-waste from households is often contaminated up to 15% with non-organic matter, such as plastics. Sometimes, bio-waste from companies is also still wrapped, as in case of perished food. Since AD plants do not tolerate non-organic matter, de-packaging, separation and cleaning machines must be installed in addition to the actual AD plant. This increases both CAPEX and OPEX.</p> <p>On the other hand, both scenarios differ in terms of potential revenues and operating costs: while agricultural feedstocks must be bought and come at a cost, it is typical for household waste to come with a negative price tag: AD plants would get paid to take the problem waste off the municipalities and receive a so-called gate-fee for it.</p> <p>Scenario C can either be built around a traditional agricultural biogas plant, or around a plant that manages bio-waste. On top, it includes the district heating in its business case and sells directly heat to households, which fetches higher prices than selling to an intermediary.</p> <p><b>Regions and municipalities interested in in biogas plants of type B an C should understand the key financing features and the possible business models in order to properly plan how to support either type of development.</b></p> <p>The online discussion will be less formal and give room to explore and discuss the different scenarios.</p>

	<p>The specific objectives are:</p> <ul style="list-style-type: none"> <li>• To make a clear distinction between the features of different types of biogas plants (scenario A, B, C) and what it means for their cost structure (CAPEX and OPEX)</li> <li>• To provide concrete examples of how the different types of plants are being financing</li> <li>• To give room for spontaneous reactions and discussion</li> </ul>
<i>No. and type of participants targeted:</i>	Closed online discussion for those who expressed interest, 15-20 participants

### ***Draft Agenda***

<i>5m</i>	<p>Welcome and introduction</p> <ul style="list-style-type: none"> <li>• Welcome, technical aspects of webinar software, how to interact</li> <li>• Objectives of the online discussion and context</li> </ul>
<i>10m</i>	<p>Framing the discussion:</p> <p>Presentation of different types of scenarios for biogas plants</p> <ul style="list-style-type: none"> <li>• Scenario A: a 'traditional' biogas plant running on agricultural wastes,</li> <li>• Scenario B: a biogas plant that is part of the municipal waste management in the sense that it treats the bio-waste from households,</li> <li>• Scenario C: a community-level biogas plant connected to district heating for own energy production and consumption in rural villages</li> </ul> <p>What the different scenarios means for their cost structure (CAPEX and OPEX)</p> <p>Overview of the typical income streams for each type of plant (energy, gate-fee, fertiliser)</p>
<i>10m</i>	Cost structure and business model of the LABIO biogas plant for bio-waste in Lahti. How did the tender look like?
<i>15m</i>	Reactions from the audience, discussion
<i>10m</i>	Cost structure and business model of a bioenergy village biogas plant with district heating. How was it financed?
<i>15m</i>	Reactions from the audience, discussion
<i>5m</i>	How can the European Investment Bank help?
<i>5m</i>	How can the Structural funds help?
<i>15m</i>	Reactions from the audience, discussion
	Closing words - end of online discussion