

ENERGY BARGE

Newsletter #12



Welcome to the 12th newsletter of the ENERGY BARGE project!

In this issue, the expected developments of the heat and electricity generation from biomass as well as the demand for liquid biofuels in the ENERGY BARGE partner countries until 2030 are presented. The potential developments have been analysed under three different scenarios (Business-as-Usual (BAU), Best Case and Worst Case Scenario).

Without acting on those factors that can be modified (e.g. policy support mechanisms, CO₂ reduction measures), the scenario analysis suggests that the overall demand for bioenergy in the Danube region will decrease. Recommendations to improve the framework conditions for the bioenergy market are also included in this newsletter.

We hope you enjoy reading!
The team of ENERGY BARGE



The partners

There are 15 partners involved in the project from 7 countries:

7 partners from the biomass/bioenergy sector

6 partners from the logistics sector including 5 ports

3 partners from the field of research that provide either special knowledge needed for the implementation of the project (spatial modelling) or who have special knowledge and networks in their regions (biofuels and biomass).



Transnational scenarios for biomass demand

To estimate the potential development of the demand for biomass feedstock in the Danube region, the ENERGY BARGE team elaborated transnational scenarios until 2030. The scenarios are based on Eurostat data from 2006 to 2015. The Business-as-Usual (BAU) Scenarios are based on the assumption that the economic, technical and legal framework conditions in the partner countries will largely remain the same until 2030. For the Best Case Scenarios, the growth rate until 2030 is predicted on the respective growth levels rate as between 2006 and 2015.

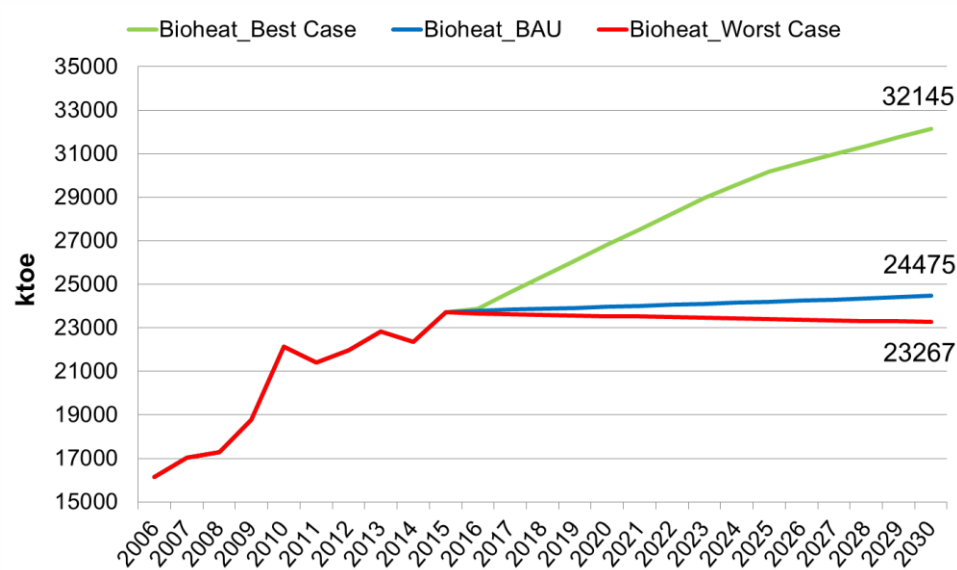


Figure 1: Projections of bioheat until 2030 in the partner countries (own calculations).

The same decrease rates until 2030 as between 2006 and 2015, or a reversal of the growth rates, are assumed for setting up the Worst Case Scenarios.

The demand for bioheat will remain on the current level, even taking the Worst Case perspective (Figure 1). Under the Best Case Scenario, a significant increase in current levels by about 25% can be assumed.

The demand for bioelectricity will drop below current levels both in the case that framework conditions remain as currently in place (BAU) as well as under Worst Case assumptions (Figure 2). Worst Case Scenario framework conditions would lead to demand levels as in 2010/2011. A slight increase between 10 and 15% compared to current demand levels could be achieved, given the Best Case assumptions would apply.

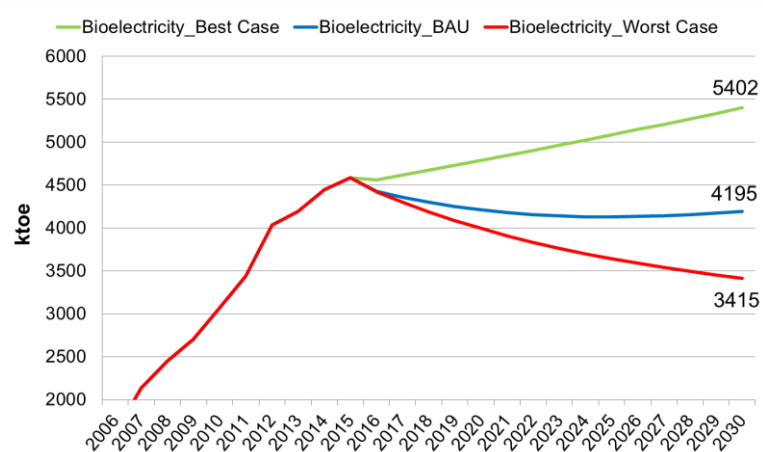


Figure 2: Projections of bioelectricity until 2030 in the partner countries (own calculations).

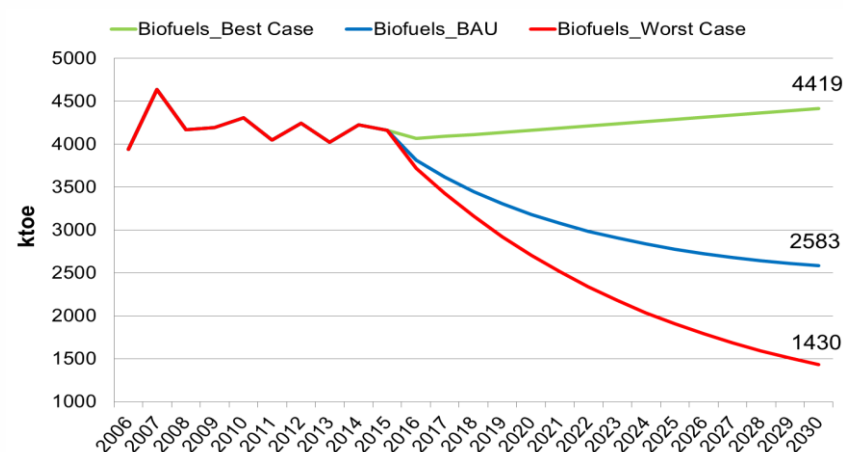


Figure 3: Projections of liquid biofuels until 2030 in the partner countries (own calculations).

Demand for biofuels will significantly drop under current levels if the conditions that are in place today remain the same (BAU) and even more significantly when Worst Case conditions are assumed (Figure 3). In the event of Best Case conditions, the demand might rise again, but it will not meet past demand levels in peak times as recorded for the year 2007.

Hence, it is assumed that the utilisation of biomass to generate heat will remain the main source of bioenergy in the Danube region. Regarding electricity derived from biomass, only the efficient combined production in CHP plants will remain on the market in all scenarios and the increase from current levels will only be minor even in the Best Case. In all scenarios, biofuels will not play an overall decisive role for the road transport sector in the Danube region.

Despite the positive developments in the past and the significant biomass potential (JRC, 2014)¹, the further expansion of bioenergy in the Danube region cannot be taken for granted as shown in the scenario analysis. Administrative, legal, technical and various market-related factors have a decisive influence on the demand, and the bioenergy market remains a volatile one. Even maintaining the current demand levels will require active support from policy stakeholders, researchers and market actors, both on the supply and the demand side.



Given the Danube region as a whole is aiming to maintain or even increase the demand for sustainable bioenergy in order to reach and/or keep the National Renewable Energy Action Plan targets, make use of the domestic biomass potential and avoid harming the bioenergy market actors, this scenario analysis suggests that irrespective of how the oil and gas markets will develop, actions must be taken in order to keep and improve favourable legal, technical and market-related framework conditions for sustainable bioenergy demand. The following recommendations for EU-level and national policy makers are formulated based on the present report in combination with the results of the other [ENERGY BARGE deliverables of Work Package 3, 4 & 6](#):

- Soundly evaluate the effects of current policy changes on EU and national levels in the renewable energy sector on the demand for bioenergy, especially with regard to types of measures applied (e.g. incentives, quotas);
- Provide consistent frameworks for sustainability criteria of bioenergy and feedstock;
- Consider abolition of subsidies for non-renewable energy sources in order to support competitiveness of low-emission renewable energy technologies and subsequent willingness to invest;
- Support further development of low-emission technologies and their applications, especially in Southern Danube countries with a currently high share of traditional wood burning in private households;
- Foster the development of infrastructure as well as updating of existing housing stock for improved energy efficiency;
- Enhance the information basis and approval procedures for industrial applications/ commercial use of bioenergy;
- Set up a functioning transnational monitoring system for sustainable biomass feedstock availability.

¹ Joint Research Centre (JRC), (2014). Bioenergy in the Danube Region. [online] Available at: http://iet.jrc.ec.europa.eu/remea/sites/remea/files/files/documents/events/3_manjola_banja_jrc.pdf

Get to know the ENERGY BARGE partners!



Nostra Silva is the main organisation of forest owners in Romania and comprises forest owners managing over 800,000 ha as well as owners of grasslands. The organisation has extensive expertise on forest administration in Romania, wooden biomass resources, and has a vast network of contacts to stakeholders related to the wood industry.

Nostra Silva was involved in the elaboration and approval of the new Forest Code and its subsequent legislation as the new regulation to value wood resources. Nostra Silva is represented in the National Monitoring Committee for the Rural Development Program, the main financing source for rural development, afforestation and biomass plantations in Romania.

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Contact Persons:

Thies Fellenberg
T.Fellenberg@fnr.de
(Project Coordinator)

Franziska Nych
F.Nych@fnr.de

www.interreg-danube.eu/energy-barge



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Danube Transnational Programme

ENERGY BARGE

Building a Green Energy & Logistics Belt

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