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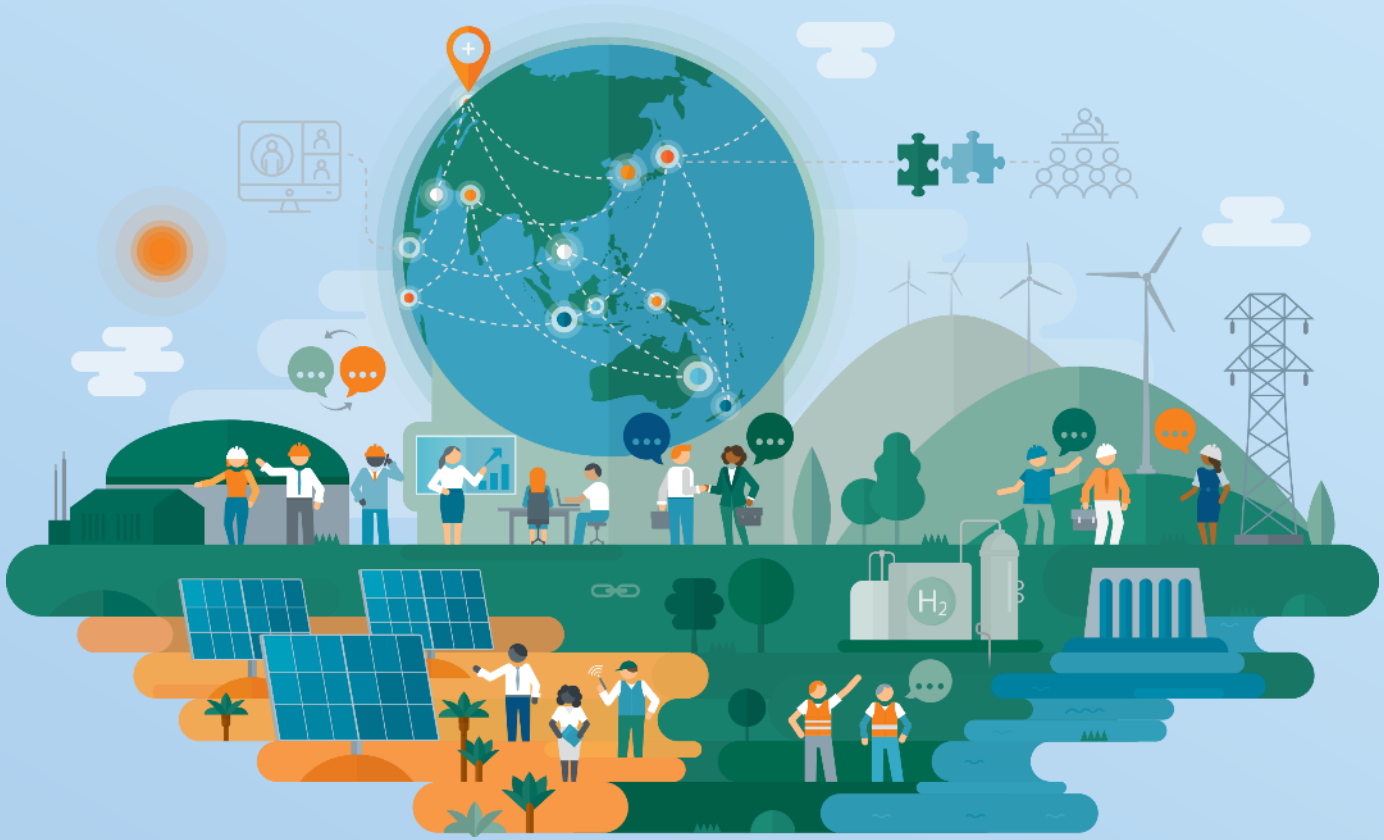
Energy Partnership
Ukraine - Germany

UAG : Energy

Berlin Economics
Economic Consultancy

Obstacles to importing Ukrainian biomethane to Germany

Key Findings and Recommendations



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Florian Willershausen, UAG Energy GmbH
Robert Kirchner, Berlin Economics GmbH

Biomethane: A new market for Ukraine emerges

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European biomethane targets

- REPowerEU set out biomethane target (35 bcm of biomethane to be used by 2030) requires imports from third countries.
- “FuelEU Maritime Regulation” will create an additional premium Bio-LNG market, which is currently not regulated at the German national level.
- EU ETS* drives industry to replace fossil gas in order to meet emission reduction targets.

Demand from Germany

- Biomethane is a way to decarbonize industries as long as hydrogen capacities are unavailable.
- Most German plants produce electricity on subsidy schemes and do not compete with imports.
- Effective natural gas substitution incentives, but the volume lacks, especially for industry/heating.

Potential role of Ukraine

- Ukraine has the potential to process large volumes of untouched organic feedstocks into biofuels.
- Estimated export capacities: 1 bcm by 2030, 7 bcm by 2050
- Export potential could help to close the expected gap in the German heating and industrial markets.
- The pipeline system and capacity are available, but mass balancing lacks harmonisation with the EU.
- Biogas could strengthen domestic energy security, while biomethane could create an export product leading to employment and economic growth.

Potential: German market segments relevant for Ukraine

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Market segment >	**Transport**	**Heating**	**Industry**
Examples	„Petrol“ stations, LNG-Trucks, Fuel and heating oil dealers via quota transfer agreement	Heating systems for buildings, district heating	Metallurgical- and Chemical industries
Regulation	BImSchG, BImSchV, RED-II/RED-III	GEG, indirectly BEHG	EU-ETS, BEHG, TEHG pushed by CSRD
GHG-quoting?	Yes	No	No
Feedstock criteria	Mainly manure for significantly negative CI scores	Waste, renewable resources limited amount of energy crops, CH4 slip to be avoided	Renewable Resources, limited amount of energy crops
Proof	PoS (Nabisy), GoO could be demanded by German customs	PoS (Nabisy), later UDB	PoS or GoO (depends on form of usage)
Pricing	Gas + PoS + Premium lately ca. 100 € / MWh	Gas + PoS, lately ca. 75 €	Gas + ETS lately ca. 65 €, but competition with subsidized volumes
Import from Ukraine?	Theoretically yes, practically no	Possible	Possible, market acceptance unclear
Recommendation	**No**	**Yes**	**Yes**

Key Findings (I): Experience from market participants

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Industrial customers / EU-ETS-released – Import POSSIBLE

- Biomethane can be used as a substitute for fossil natural gas in industrial production (e.g., the metal industry) or in direct processing (e.g., chemicals): exempted from the purchase of emission rights under the EU ETS.
- There is a high-demand for this product in the mass market, but also a supply shortage due to EU producers lacking competitiveness. Ukraine could fill this gap due to its low gas production costs.
- Documentation of physical gas flow (like GoO) is required to avoid double counting. Transfer of certificates via Nabisy accepted in practice.
- End-customers fear that certificates won't be acknowledged by customs and/or EU regulatory bodies requiring sophisticated sustainability reporting (CSRD/ESRS)

Heating market – Import POSSIBLE

- Purchase of biomethane for use in heating systems, district heat and CHPs in Germany, regulated through GEG.
- Mass balance documentation must also be ensured in the exporting third country.
- Transfer of sustainability certificates via Nabisy works in practice. Official confirmation is missing.

Transport segment – Import currently NOT POSSIBLE

- Lack of legal and planning certainty regarding GHG quotas, German customs does not accept imported biomethane from Ukraine for GHG-quota
- Oversupply in Germany: little willingness to import from third countries at the moment.

Key Findings (II): Unclear documentation and limited respective understanding of harmonization requirements

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- Non-acknowledgement of biomethane imports from Ukraine as eligible to GHG-quota accounting is legally possible, since imports from EU-third countries are accepted.
- A full-scale opening of the EU markets for biomethane imports from Ukraine requires a system to ensure the traceability of physical gas volumes. Currently, the documentation on the Ukrainian side is insufficient. This poses a risk that volumes from Ukraine will not be accepted as “bio”.
- Intercultural difficulties and a lack of mutual regulatory understanding are impeding progress on the creation of a transparent and mutually acknowledged mass balance system in Ukraine, aligned with EU standards.
- Transfer of Proof of Sustainability (PoS) into EU or yet its member countries’ GoO systems misses clear directive from respective authorities (i.e. Umweltbundesamt UBA) to Dena
- EU bodies to confirm that imported biomethane can be excluded from EU-ETS even without GoO system available, if sustainability criteria fulfilled.
- EEG-market for biogas-based electricity supplies will remain closed for imports, unless legislative will change significantly.
- Ukrainian Bio-LNG successfully accessed the transportation segment per truck, betting on legal unclearness. However, the road transport of Bio-LNG over long distances remains questionable from economical and ecological point of view.

Recommendations

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1. **Establish interim conformity certifications in Germany / EU**

- Confirm that Nabisy will remain the official PoS database for all market segments, until the UDB and GoO databases are operational.
- Confirm the conformity of biomethane imports with EU-ETS and EU sustainability accounting rules.

2. **Developing a harmonised mass balancing system with GoO in Ukraine**

- Align the principles of traceability of physical gas flows with the EU system.
- Establish a body to issue GoO that are accepted by the EU and will be integrated into the UDB.

3. **Decrease complexity of tracing systems overall**

- Implement the UDB rapidly, including Ukraine.
- Combine GoO and PoS into one database and consider unifying the certification systems.

4. **Regulatory adjustment and legal clarity in Germany**

- We propose amending BiokraftNachV in Sections 12 and 15 to confirm mechanisms that avoid double counting in Ukraine and Energy Community countries.
- Recognise pipeline-bound imports from Energy Community members as eligible for GHG-quota accounting, if sustainability criteria are met and gas flows as documented in national mass balancing.

5. **Guarantee mechanisms for green gas deliveries from Ukraine**

- Use guarantee mechanisms (e.g., investment guarantees) to biomethane projects to minimise fears of delivery interruptions among wholesalers and customers.

ANNEX: LIST OF ABBREVIATIONS

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bcm – billion cubic meters

BEHG - Brennstoffemissionshandelsgesetz

BImschG / BImschV – Bundesimmissionsschutzgesetz bzw. –verordnung

CSRD- Corporate Sustainability Reporting Directive (CSRD)

EEG – Enerneuerbare-Energie Gesetz

ErGaR - European Renewable Gas Registry

ETS – Emission Trading System

GEG – Gebäudeenergiegesetz (Building's heating law)

GoO – Guarantee of Origin

LNG – Liquefied Natural Gas

MWh – Megawatt hour

PoS – Proof of Sustainability

UDB – Union Database for Biofuels

TEHG – Treibhausgasemissionshandelsgesetz

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About the authors

Berlin Economics is a research-oriented company that has specialised in government consultancy in matters of economic policy. In our work, we combine sound methodology with practical solutions to foster economic development.

UAG Energy is a German development company that realises renewable gas projects in Eastern Europe. Biomethane volumes are dedicated to off-takers in the European Union. We also advise on topics related to the circular economy and sustainable value chains.

Views and opinions expressed are those of the author(s) only.

Berlin Economics
Economic Consultancy

UAG : Energy

German-Ukrainian Energy Partnership

Helen Naser: helen.naser@giz.de
Oleksandra Zaika: oleksandra.zaika@giz.de
Theo Kraus: theo.kraus@giz.de
Yeva Borovyk: yeva.borovyk@giz.de

ep.ukraine@giz.de
https://energypartnership-ukraine.org/

Energy partners

Federal Ministry for Economic Affairs and Energy

Ministry of Energy of Ukraine

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Implementing organisations

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH