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"Natural gas is a cleaner alternative and a requisite in the transition to a green energy future"

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"Natural gas is a cleaner alternative and a requisite in the transition to a green energy future" is a mis-disinformation, asserting that adopting natural gas (NG) as a cleaner fossil fuel is essential in the green transition, and suggesting it has a critical role in ensuring stability until renewable energy sources (RES) like wind and solar become more reliable. Meanwhile, with their governments promoting NG projects<sup>1</sup>, the Western Balkans countries (WB6) are becoming a hotspot for this issue.

The narrative is spread by the European Union (EU)<sup>2</sup> <sup>3</sup>, United States (US)<sup>4</sup>, WB6's governments<sup>5</sup> <sup>6</sup> <sup>7</sup> and large fossil fuel corporations.<sup>8</sup> Notably, the goal of this narrative is to justify investments in NG infrastructure and its utilization in the WB6, directly benefiting these players' interests. It primarily targets local citizens, decision-makers, and social organizations, in various forms and through different media<sup>5</sup> <sup>9</sup> <sup>10</sup> <sup>11</sup> <sup>12</sup>, often using persuasive visuals to influence public opinion<sup>6</sup>. Techniques like fear mongering are employed, presenting NG as essential for stable energy supplies <sup>13</sup> to prevent electricity and heating shortages.<sup>9</sup> The narrative is embedded in all of the WB6's national energy and climate plans.<sup>14</sup>

NG is marketed as a solution for reducing air pollution, creating jobs, and driving economic growth.<sup>49</sup> <sup>12</sup> <sup>13</sup> In developing countries as WB6, such promises highly affect the public support, without full disclosure of broader implications and granted side effects.<sup>15</sup> Moreover, cases where the public is excluded from decision-making exist<sup>16</sup>, risking uninformed choices.

This narrative has diverse consequences – environmental and health risks, significant economic dependency, financial misallocation and opportunity costs; it stems from the self-interest of donors,

<sup>&</sup>lt;sup>1</sup> Table: Planned gas pipeline projects in the Western Balkans and US/EU support; Source: Global gas infrastructure tracker, with additions and updates by Bankwatch. Accessed 19 October 2024

<sup>&</sup>lt;sup>2</sup> Youtube video: Press conference of the President of Montenegro Jakov Milatovic and the President of the European Comission Ursula fon Der Leyen(53:25). Accessed 19 October 2024.

<sup>3</sup> Official communication: Energy Union Package: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy; Source: European Commission. Accessed 19 October 2024.

<sup>&</sup>lt;sup>4</sup> <u>Blog post</u>: BiH is missing its chance to end dependence on Russian gas, create jobs, and grow its economy; Source: U.S. Embassy in Bosnia and Herzegovina. Accessed 24 October

<sup>&</sup>lt;sup>5</sup> Blog post: Edi Rama: Azerbaijani gas is crucial for the future of Europe; Source: Albanian Daily News. Accessed 15 October 2024.

<sup>&</sup>lt;sup>6</sup> Blog post: President of Serbia has comissioned "Turkish pipeline"; Source: Radio Slobodna Evropa. Accessed 24 October 2024.

<sup>7</sup> Blog post: Zaev: With the Prespa Agreement, we achieved collaboration in the energy sector with Greece, with which we become a country leading by investments of green energy in the region

<sup>&</sup>lt;sup>8</sup> Blog post: Profile and ranking of Gazprom; Source: World Benchmarking Alliance. Accessed on 25 October 2024.

Blog post; Perunovic: Gas is necessary for the green transition of the thermal power plant Pljevlja; Source: Radio Televizija Pljevlja. Accessed 24 October 2024.
 Facebook post; Thanks to our committeent in the green energy transition, 80.5 milion euros are available for investments in clean energy. Source: State-owned joint-stock company

<sup>&</sup>quot;Power Plants of North Macedonia" (ESM). Accessed 25 October 2024.

<sup>11</sup> Blog post. Qatar and UAE: The world will need natural gas even longer; Source: Euro News Serbia. Accessed 24 October 2024.

Blognost: TAP to deliver the first gas exit point in Fier, Albania; Source: World Pipelines. Accessed 24 October 2024.
 Blognost: Bozinovska: The complete gasification of the country is a pillar in the energy transition strategy; Source: A1 on. Accessed 24 October 2024.

Republic of Serbia; Republic of North Macedonia; Republic of Albania; Republic of Kosovo; Montenegro; Bosnia and Herzegovina;
 Blognost: Prime Minister Edi Rama addresses 10th Southern Gas Corridor Advisory Council Ministerial Meeting in Baku, Azerbaijan; Source: Ministry of Internal Affairs of the Republic of Albania Accessed 15 October 2024

<sup>16</sup> Blog post: 'It's like installing a fixed-line telephone' - Why is North Macedonia planning an oversized gas pipeline without any public debate?; Source: Bankwatch. Accessed 15 October 2024.

governments, and geopolitical dynamics that prioritize continued implementation of the investments.<sup>17</sup> Additionally, the WB's role in NG transport to the EU is geopolitically important for both the EU and US, who aim to weaken the region's energy dependence on Russia. These donors provide economic and political assistance to diversify energy sources and integrate the region into the European market while emphasizing decarbonization. However, their interests – such as the US's liquified NG export opportunities – are leading to increased NG reliance, creating dependency and economic vulnerability in a region that wasn't previously NG-dependent, which ultimately delays decarbonization efforts. 18 Furthermore, investments such as the Greece-North Macedonia gas pipeline, are portrayed as necessary for economic growth and diversification, but in reality, they are leading to increased prices for gas and obstacles to any further shifts toward renewable energy. 19 For instance, North Macedonia's government spent €369 million non-transparently on fossil fuel imports, worsening pollution and causing environmental damage, despite the country's commitment to phasing out coal by 2027.<sup>20</sup> Similarly, the governments of Montenegro and Albania continue to approve gas projects too, including new facilities in Bar and Vlora, thereby threatening biodiversity and environmental sustainability.21 22 Furthermore, the significant lack of transparency in the selection of energy projects<sup>23</sup>, raise questions about the accountability and sustainability of these investments.

Blog post. New Gas Supplies For the Western Balkans Facilitates a Geopolitical Game Rather Than the Green Energy Transition; Source: Visegrad Insight. Accessed 15 October 2024.

Blog post: Factsheet: New gas supplies for the Western Balkans; Source: AMO.CZ. Accessed 17 October 2024.
 Blog post: Legal challenges hit Greece – North Macedonia gas pipeline plans; Source: Bankwatch Network. Accessed 15 October 2024.

Blog post; 369 million euros of North Macedonia's public money going up in smoke; Source: Bankwatch Network. Accessed 16 October 2024.
 Blog post; Citizens of Bar reject LNG terminal and gas power plant projects, local officials criticize Government; Source: Montenegro Business. Accessed 19 October 2024.

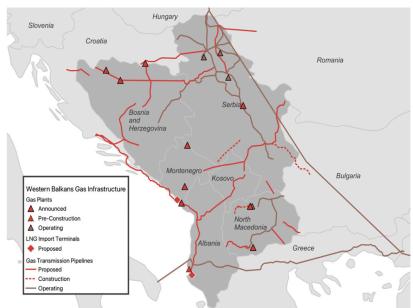
Blog post: Excelerate Energy and Overgas sign Vlora LNG deal; Source: Offshore Energy. Accessed 19 October 2024.
 Blog post: Western Balkans: Chaotic, opaque selection process for EU infrastructure funding needs major improvements; Source: Bankwatch Network. Accessed 15 October 2024.

Figure 1. Operating Gas Infrastructure in the Western Balkans



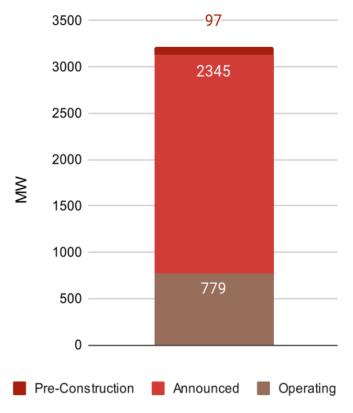
Source: Global Energy Monitor, Global Gas Infrastructure Tracker and Global Gas Plant Tracker. From Global Energy Monitor (2023).

 ${\bf Figure~2.~Gas~Infrastructure~in~Development~in~the~Western~Balkans}$ 



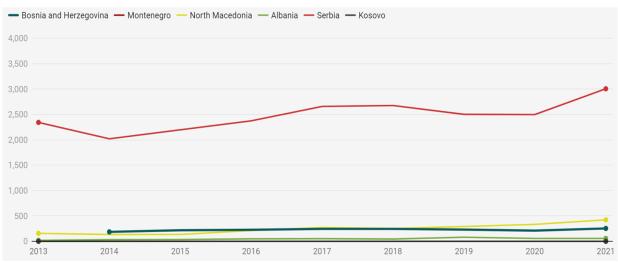
Source: Global Energy Monitor, Global Gas Infrastructure Tracker and Global Gas Plant Tracker. From Global Energy Monitor (2023).

Figure 3. Gas-Fired Power Capacity Operating and In Development in the Western Balkans



Source: Global Energy Monitor, Global Gas Plant Tracker. From Global Energy Monitor (2023).

Figure 4. Gas Consumption in the Western Balkans, 2013-2021, million cubic metres



Source: Bankwatch, Eurostat. (Last update: 17/07/2024 23:00 CET)

Table 1. Planned gas pipeline projects in the Western Balkans and US/EU support

Project	Project promoter	Status	Countries	Capacity (bcm)	EU/US support?
Vlora - Fier	Albgaz Sha	Proposed	Albania	1	WBIF grant for preparation, potential EBRD support
Ionian - Adriatic	Plinacro, Montenegro Bonus, Albpetrol, BH-Gas	Proposed	Albania, Montenegro, Croatia	5	WBIF grant for preparation, potential EBRD support
North Macedonia – Albania	Albgaz Sha	Proposed	Albania, North Macedonia	2.06	EBRD supported feasibility study
Albania – Kosovo	Albgaz Sha	Shelved	Albania, Kosovo	Unknown	WBIF funded Kosovo gasification study
Bosnia and Herzegovina – Croatia North Interconnector	BH-Gas d.o.o.; Plinacro	Proposed	Bosnia and Herzegovina, Croatia	5.96	2020 Project of Mutual Interest between EU/Energy Community
Bosnia and Herzegovina – Croatia South Interconnector	BH-Gas d.o.o.; Plinacro	Proposed	Bosnia and Herzegovina, Croatia	1.5	USAID technical assistance and overt US lobbying for the project
Licka Jesenica – Trzac-Bosanska Krupa	BH-Gas d.o.o.; Plinacro	Proposed	Bosnia and Herzegovina, Croatia	2.98	2020 Project of Mutual Interest between EU/Energy Community
Serbia – Bosnia Interconnector	Gas RES, Srbijagas	Proposed	Bosnia and Herzegovina, Serbia	1.2	No - Russian gas
Serbia - Kosovo - Montenegro	Srbijagas	Unclear	Serbia, Kosovo, Montenegro	Unknown	Not known
Kosovo - North Macedonia	Unknown	Shelved	Kosovo, North Macedonia	1.62	US Millenium Challenge Corp. was ready to fund.
North Macedonia – Bulgaria	Bulgarian Energy Holding; NOMAGAS JSC Skopje	Proposed	North Macedonia, Bulgaria	2.06	Not known
Skopje - Tetovo - Gostivar	NOMAGAS JSC Skopje	Construction	North Macedonia	Unknown	Not known
Sveti Nikole - Veles	NOMAGAS JSC Skopje	Proposed	North Macedonia	Unknown	Planned EBRI financing
Kichevo - Ohrid	NOMAGAS JSC Skopje	Proposed	North Macedonia	Unknown	Potential EBRD financing
Serbia - North Macedonia Interconnector	NOMAGAS JSC Skopje	Proposed	North Macedonia, Serbia	1.56	WBIF grant for preparation, potential EBRD suppor
North Macedonia – Greece Interconnector	DESFA SA, NOMAGAS JSC Skopje	Proposed	North Macedonia, Greece	1.5-2.81	EIB, WBIF and proposed EBRD financing
Bulgaria - Serbia Interconnector	Bulgartransgaz, Gastrans	Construction	Serbia, Bulgaria	1.8	IPA, WBIF, EIE and CEF funding
Prahovo - Rgotina - Paraćin	Srbijagas	Proposed	Serbia	Unknown	Not known
Croatia - Serbia	NIS; Plinacro	Proposed	Serbia, Croatia	7	2020 Project of Mutual Interest between EU/Energy Community
Aleksandrovac - Novi Pazar - Tutin	Srbijagas	Construction	Serbia	Unknown	Not known
Romania - Serbia Interconnector	Srbijagas; Transgaz	Proposed	Serbia, Romania	Unknown	2020 Project of Mutual Interest between EU/Energy Community

The continued reliance and disinformation surrounding NG's role as a "clean" energy source not only jeopardizes energy security, but also undermines commitments to fighting climate change. Although CO<sub>2</sub> is the main emission by volume during combustion of NG<sup>24</sup>, there is something far more alarming when it comes to its influence on the environment. Methane – its primary component, emitted in related processes<sup>25</sup>, responsible for ≈30% of warming we experience today <sup>26</sup>– has a much higher impact per molecule due to its higher global warming potential (GWP) - 27.9 times that of CO<sub>2</sub> over a 100-year period (GWP<sub>100</sub>).<sup>27 28</sup> Nitrous oxide (N<sub>2</sub>O) is least emitted in terms of volume during combustion, but has a much higher GWP than both mentioned— its GWP<sub>100</sub> is 273 times that of CO2.ibid

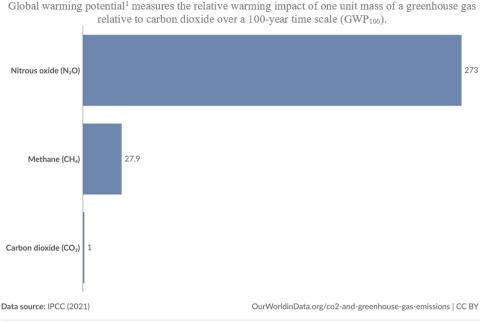


Figure 5. Global Warming Potential of Greenhouse Gases relative to carbon dioxide

1. Global warming potential: Global warming potential (GWP) measures the amount of heat absorbed by a greenhouse gas relative to the same mass of carbon dioxide (CO<sub>2</sub>). It measures the amount of warming a gas creates compared to CO<sub>2</sub>. Carbon dioxide is given a GWP value of one. If a gas had a GWP of 10 then one kilogram of that gas would generate ten times the warming effect as one kilogram of CO<sub>2</sub>. Since greenhouse gases spend different amounts of time in the atmosphere, their global warming potential depends on the length of time that it's measured over. For example, GWP can be measured as the warming effect over 20 years, 50 years, or 100 years. Potent but short-lived greenhouse gases – like methane, for example – will have a higher GWP when measured over 20 years than over 100 years. The GWP value for methane over 100 years (GWP100) is 28. This means one kilogram of methane would cause 28 times the warming of one kilogram of CO<sub>2</sub>.

Since the average 'lifetime' of methane is shorter<sup>29</sup>, tackling methane emissions is an effective and rapid way to mitigate some impacts of climate change on the decades timeframe. 30 31 32 If we analyze the GWP over a 20-year period (GWP<sub>20</sub>), the liquified NG always has a larger greenhouse gas (GHG) footprint than coal<sup>33</sup>, offsetting its perceived benefits.<sup>34</sup>

Building NG infrastructure requires substantial investments, creating a long-term dependency that delays the green transition. Moreover, it's not easily convertible or compatible with renewables<sup>35</sup>, prolonging reliance on fossil fuels and GHG emissions. Policymakers focus on short-term energy needs through NG projects, but this can distract from long-term planning for a zero-emission systems.

<sup>&</sup>lt;sup>24</sup> U.S. Environmental Protection Agency (EPA). (2021). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019.

Environmental riotection Agency (Er.A), (2021), inventory of 0.3. Greatment and statistics and statistics and statistics and policy paper. The Future of Gas; Source: European Academies: Science Advisory Council. Accessed 15 October 2024.
 Blog post: Facts about Methane; Source: The United Nations' Environment Programme. Accessed 24 October 2024.

Blog post: Methane emissions detected over offshore platform in the Gulf of Mexico; Source: The European Space Agency. Accessed 24 October 2024.

Interactive chart within blog post. Greenhouse gas emissions - Which countries emit the most greenhouse gases each year? How do they compare per person?; Source: Our World in Data. Accessed 24 October 2024.

Lin: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment d Natural Radiative Forcin Report of the Intergovernmental Panel on Climate Change [Stocker, T.F. et. al.]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Blognost: How secreteve methane leaks are driving climate change; Source: The United Nations' Environment Programme. Accessed 24 October 2024.

Blognost: International Methane Emissions Observatory; Source: The United Nations' Environment Programme. Accessed 24 October 2024

Shindell, D. et.al., 2012: Simultaneously Mitigating Near-Term Climate Change and Improving Hu
 Howarth W., R., 2024: The greenhouse gas footprint of liquefied natural gas. Energy Sci. Eng. 1-17.

<sup>&</sup>lt;sup>34</sup> Alvarez, R. A., et al., 2018: <u>Assessment of methane emissions from the US oil and gas supply chain</u>, Science <sup>35</sup> Gondal, I., & Sahir, M., 2012: <u>Prospects of natural gas pipeline infrastructure in hydrogen transportation</u>. *International Journal of Energy Research*, 36.

With €3.5 billion in investments anticipated for NG infrastructure in the WB6<sup>36</sup>, these funds could be allocated to more impactful RES projects, representing a substantial opportunity cost. Perhaps, NG deserved to be called a "bridge" fuel in the past, but as technology has improved and costs for renewable energy have decreased<sup>37</sup>, the argument for NG as a transitional fuel and is increasingly being questioned.

Total installed cost Capacity factor Levelised cost of electricity 5 500 0.50 0.45 4 621 0.37 30% 4 000 0.35 3 500 0.30 0.25 factor 2018 USD/KW 3 000 2 933 Capacity 20% **5018** 0.20 2 500 2 000 0.17 1 825 0.12 10% 0.09 0.05

Figure 6. Global weighted average total installed costs, capacity factors and LCOE, for solar photovoltaics, 2010-2018

Source: International Renewable Energy Agency (2019).

Table 2. Wind turbine price trends

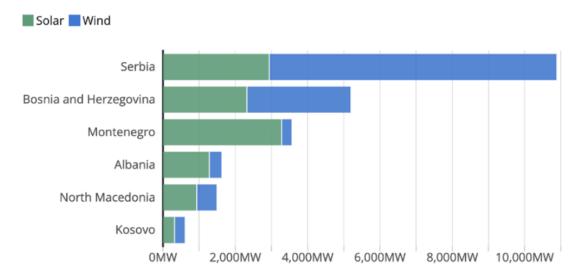
	Period	Decrease
United States of America 5-100 MW	2010-2015	44%
United States of America >100 MW	2008-2016	56%
Bloomberg New Energy Finance (BNEF) Wind Turbine Price Index (WTPI)	2009-2019	64%
Chinese turbine prices	1998-2017	78%
Vestas average selling price	2008-2017	50%

Source: Based on Wiser and Bollinger, 2018; BNEF, 2018a; IEA Wind, 2019; Vestas Wind Systems, 2005–2017; Global Data, 2018a; and the IRENA Renewable Cost Database. International Renewable Energy Agency (2019).

<sup>36</sup> Bankwatch Network. 2023. "Western Balkans: EUR 3.5 billion gas build-out poses economic, energy security risks and threatens green transition." 
https://bankwatch.org/press\_release/western-balkans-e3-5-billion-gas-build-out-poses-economic-energy-security-risks-and-threatens-green-transition. Accessed 16 October 2024.

37 Publication: Renewable Power Generation Costs in 2020; Source: International Renewable Energy Agency (IRENA). Accessed 20 October 2024.

Figure 7. Total Prospective Utility-Scale Solar and Wind Power Capacity of the WB6, in Megawatts (MW)



Source: Global Solar Power Tracker, Global Wind Power Tracker. Note: Data includes only solar project phases with a capacity of 20 MW or more and wind project phases with a capacity of 10 MW or more.

Treating NG as a transitional solution can complicate the regulatory framework for future renewable energy projects, as long-term gas contracts and subsidies may not align with the needs of renewables. In fact, by advancements in energy storage technologies and smart power systems (system flexibility)<sup>38</sup>, renewables can be deployed at scale without the need for fossil fuel backup<sup>37</sup>. Additionally, upgrading the grid infrastructure enhances flexibility and reliability by managing the intermittent character of the renewables<sup>39</sup>, and if the need of energy efficiency is addressed on a local level – our battle with energy supply needs would be much easier. Emerging research demonstrates that a sophisticated, entirely renewable energy system—driven by wind and solar power—is not only attainable, but also possesses the capacity to reliably fulfill energy demands, eliminating the need for fossil fuels 40

Promoting the NG as a 'bridge fuel' creates a false sense of progress and reduces the sense of urgency for RES deployment. Furthermore, this narrative not only harms the environment, but also limits the potential for new green jobs and economic opportunities, especially for young people. By diverting the focus away from sustainable alternatives, given that the next few years are critical<sup>41</sup>, this narrative weakens the promise of a healthier, sustainable future for the next generation.

Blog post: Making green power flexy; Source: EMBER. Accessed 24 October 2024

International Energy Agency (IEA), 2023: Electricity Grids and Secure Energy Transitions - Enhancing the foundations of resilient, sustainable and affordable p
 Bogdanov, D., et al., 2019: Radical transformation pathways towards sustainable electricity via evolutionary steps. Renewable and Sustainable Energy Reviews.

<sup>41</sup> Blog post: The evidence is clear: the time for action is now, we can halve emissions by 2030; Source: The Intergovernmental Panel on Climate Change (IPCC). Accessed 24 October