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# G20 GOVERNMENT FINANCE ENABLED 82% OF LNG EXPORT INFRASTRUCTURE EXPANSION, BREAKING CLIMATE PROMISES

GOVERNMENT-BACKED PROJECTS ARE EXPOSING THE PUBLIC TO STRANDED ASSET RISKS AND CAUSING EMISSIONS NEARLY TWICE THE ANNUAL EMISSIONS OF CANADA.



**OILCHANGE**  
INTERNATIONAL



This briefing investigates the role international public finance has played in enabling the dramatic expansion of Liquefied Natural Gas (LNG) export capacity over the last decade. **Oil Change International (OCI) finds that G20 government institutions were involved in financing 82% of new Liquefied Natural Gas (LNG) export terminal capacity built from 2012-2022.** These institutions provided at least USD 78 billion in loans, guarantees, and equity investments for new LNG export terminal capacity projects. The loan portion of this alone made up 24% of all capital investment in new LNG export terminals during this period.

OCI analysis also shows that:

- Japan, China, Korea, and the US were the biggest public financiers of new LNG export capacity.
- These publicly-backed projects are causing 928 megatonnes of CO<sub>2</sub> equivalent per year, nearly twice the annual emissions of Canada.
- Government support is continuing to enable future LNG expansion. At the start of 2023, 83% of under-development LNG export terminal capacity expected to be completed by 2026 has public finance behind it, amounting to USD 33 billion in financing.
- If completed, these new projects will drive the addition of a further 654 megatonnes of CO<sub>2</sub> equivalent each year.

This new data bolsters previous case studies and industry reports showing that with government backing and often below-market terms, international public finance has been playing an outsized role in getting these large, risky fossil infrastructure projects built<sup>1, 2</sup>. But, this role may be shifting. If momentum continues behind the [Glasgow Statement initiative](#) to end international public financing for LNG and other fossil fuels from the start of 2023, LNG terminals will be more difficult to finance and complete, and this money can instead be used to catalyze a just energy transition.

One threat to this transformative and increasingly likely shift in public energy financing is fossil fuel industry pressure for governments to support new gas resources to replace Russian supply. However, the International Energy Agency (IEA) is clear that an immediate halt to public finance for new LNG infrastructure is key to meeting our climate goals and securing a livable future, and that expanding clean energy and energy efficiency are far more effective and affordable means of achieving energy security. In addition to being incompatible with countries' climate commitments, these investments have also left the public on the hook for substantial stranded assets risks.

<sup>1</sup> Institute of Chartered Accountants in England & Wales, 'The Role of UK Export Finance,' - "Without UK Export Finance support, many export deals simply would not go ahead." <https://www.icaew.com/-/media/corporate/files/technical/business-and-financial-management/smes/export-advice-8.ashx?la=en>

<sup>2</sup> The Oxford Institute for Energy Studies notes that the PNG LNG project raised US \$8.3 billion of its total debt raising of \$10.5 billion from six government-backed export credit agencies, and the financing "could not have been done without them." (Pg19) <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/11/Insight-78-LNG-Finance-will-lenders-accommodate-the-changing-environment.pdf>

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**Adam McGibbon, Public Finance Strategist at Oil Change International, said:**

*“These shocking figures show that major governments need to catch up with leading governments and urgently change course to stop pumping taxpayer’s money into gas projects that are wrecking our climate, leave the energy crisis unsolved and will end up as stranded assets.*”

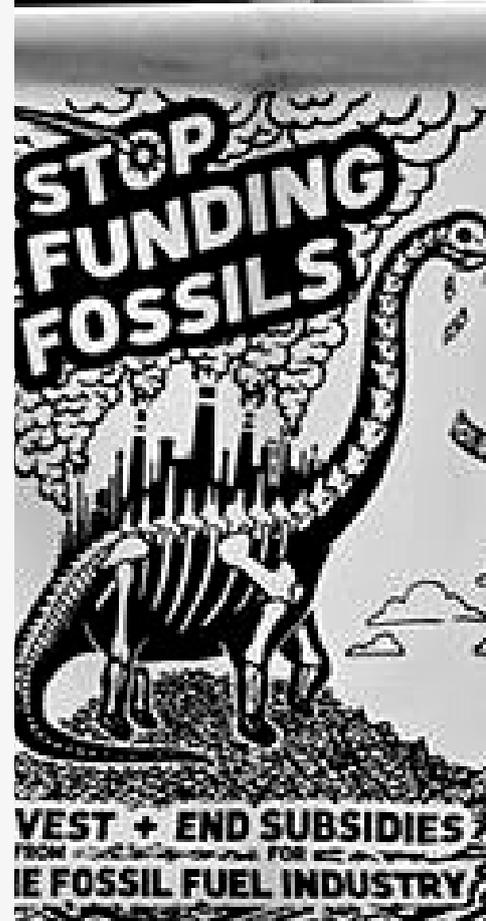
*Governments who haven’t already done so must join the Glasgow Statement on Public Finance to show they are serious about solving the climate and energy security crises. Anything less is just hot air.”*

**Anabela Lemos, Director of Justica Ambiental! / Friends of the Earth Mozambique, said:**

*“While northern countries, the culprits creating the climate crisis, benefit from this gas, it is Mozambique and other southern countries, like Pakistan and South Africa, who will suffer - Mozambique has been hit by four cyclones within three years that have displaced over 1 million people.*”

*The gas industry in Mozambique is devastating the country’s climate, people, environment and economy. Even though gas has been produced in Mozambique for decades, still only 30% of people have electricity access and in Inhambane Province, where Sasol has been extracting gas for 20 years, displaced communities have seen no benefits.*

*Northern governments and their companies involved in the Mozambique LNG Project in Cabo Delgado Province are complicit in forcing the already debt-ridden country into a fossil fuel lock in, and pushing people into further poverty, by taking away their livelihoods and fueling a war that has created one million refugees.”*



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## NO LNG INFRASTRUCTURE EXPANSION IN A 1.5°C, ENERGY-SECURE WORLD

Like other forms of fossil gas, LNG is incredibly damaging for the climate. LNG leaks methane throughout the supply chain, which is 87 times more potent than carbon dioxide in the first 20 years after it is emitted<sup>3</sup>. But, LNG also requires extra energy-intensive processing, adding a significant amount to the full lifecycle emissions of producing and using gas<sup>4</sup>. LNG is fossil gas that is cooled to -162°C in order to reduce its volume and allow it to be shipped across oceans to new markets, where it is regasified. This process makes gas more widely available geographically; creating new markets, creating more fossil fuel demand, and enabling more upstream gas development.

Recognizing these impacts, the IEA net-zero scenario that maintains a 50% chance to limit global warming to 1.5°C, has no investments in new oil and gas fields, nor in new LNG infrastructure<sup>5</sup>. New LNG terminals take at least 3-5 years to build even after financing and permits have been approved, and are designed to operate for decades. This means an immediate halt to public finance for new LNG infrastructure is key to meeting climate goals.

This analysis is focused on LNG export terminals given they are typically more expensive, larger capacity, often include significant upstream extraction infrastructure within their project scope, and are more likely to run at full capacity than LNG import terminals. This means they are particularly important infrastructure for enabling the expansion of the gas industry, and also more likely to be reliant on public financing to be built.

Renewable energy and efficiency can be deployed faster, better serve development and energy access needs, and does not come with the stranded assets and financial stability risks of fossil gas<sup>6</sup>. The long-term and dramatic declines in the costs of these technologies pose a fundamental threat to industry's LNG plans.

In the 2022 World Energy Outlook (WEO), the IEA states that: "the rapid fall in LNG after 2030 in the Net Zero Emissions (NZE) Scenario implies no need for additional capacity beyond what is existing or under construction; any new LNG projects approved after 2022 are at risk of not recovering their invested capital in the NZE Scenario<sup>7</sup>. Given these marginal and volatile profit outlooks, any continued public finance will play a more decisive role than ever for whether an LNG export terminal secures enough financing to be built.

3 Lorne Stockman, Burning the Gas 'Bridge Fuel' Myth, OCI, 2019, [https://priceofoil.org/content/uploads/2019/05/gasBridgeMyth\\_web-FINAL.pdf](https://priceofoil.org/content/uploads/2019/05/gasBridgeMyth_web-FINAL.pdf)

4 Lorne Stockman, Burning the Gas 'Bridge Fuel' Myth, OCI, 2019, [https://priceofoil.org/content/uploads/2019/05/gasBridgeMyth\\_web-FINAL.pdf](https://priceofoil.org/content/uploads/2019/05/gasBridgeMyth_web-FINAL.pdf)

5 International Energy Agency, World Energy Outlook 2022, IEA, 2022, Pg383, <https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf>

6 Ember & E3G, 'EU can stop Russian gas imports by 2025,' 2022, <https://ember-climate.org/insights/research/eu-can-stop-russian-gasimports-by-2025/>

7 International Energy Agency, World Energy Outlook 2022, IEA, 2022, p.393, <https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf>



# ANALYSIS

## PUBLIC FINANCE MAKES UP ALMOST A QUARTER OF LNG EXPORT TERMINAL INVESTMENT

Of the USD 234.6 billion of total capital expenditure for the LNG export terminals built in the last decade, loans from international public finance institutions made up at least 24% of the total (USD 55.2 billion). On top of this, these institutions provided USD 22.4 billion in equity investments and loan guarantees to insure against potential losses for other financiers involved in the project deals.

This financing has made these multibillion-dollar infrastructure projects a sufficiently attractive investment for private banks. As LNG export terminals have become larger and more expensive, public finance institutions have shifted from typically only providing guarantees, to also issuing loans and equity stakes to make them sufficiently low risk for private financiers to participate. Reflecting this key role, the project finance for LNG export terminals is also typically first negotiated with export credit agencies before wider outreach to commercial banks begins<sup>8</sup>.

The role and extent of international public finance varies between the LNG export projects. The 18% of LNG terminal capacity built in the last decade without international public finance was through projects that were either small (under 4 megatonnes per annum), had support from domestic state-owned enterprises, or used a narrower and more market-based project finance scope that has recently emerged in the United States<sup>9</sup>. For the latter, there is considerable uncertainty whether this model will be viable in other countries or continue to be viable in the US, especially given falling costs of renewable energy and growing decarbonization efforts.

## TWO TIMES CANADA'S ANNUAL EMISSIONS

OCI researchers find that the 17 projects that were built in the last decade and received international public finance have locked in 928 megatonnes of CO<sub>2</sub> equivalent each year. This is equivalent to the annual emissions of 423 coal-fired power plants, nearly two times the annual emissions of Canada, or over three times the annual emissions of France<sup>10 11</sup>.

82% of new LNG export terminal capacity under construction now or expected to be built by 2026 has international public finance backing from G20 governments, and would cause annual carbon dioxide pollution of 654 megatonnes, roughly equivalent to the entire annual emissions of Germany. This illustrates that public support is playing a key role in driving the current dash for gas.

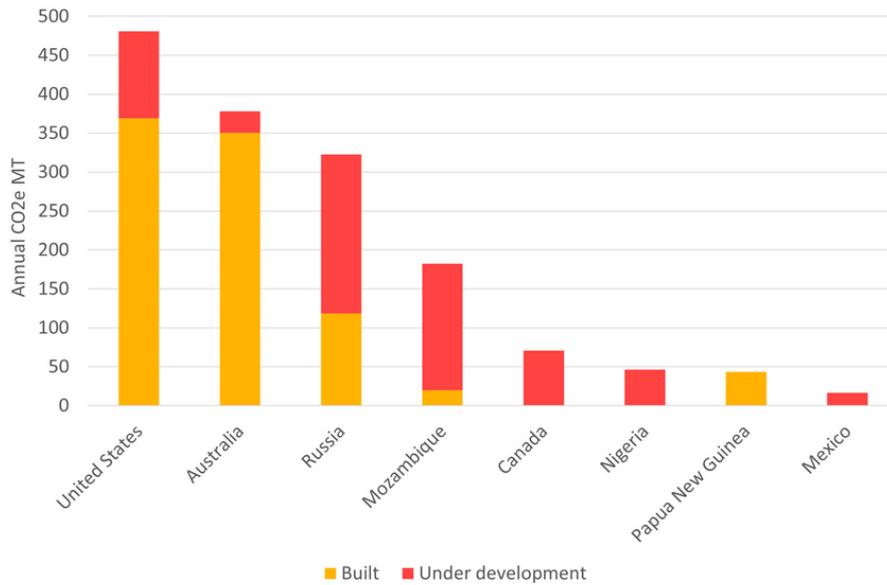
<sup>8</sup> "LNG Finance - will lenders accommodate the changing environment?" The Oxford Institute for Energy Studies, 2020, p. 20.

<sup>9</sup> <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/11/Insight-78-LNG-Finance-will-lenders-accommodate-the-changing-environment.pdf>  
<sup>9</sup> The recent US LNG export terminals that have proceeded without public finance backing are due to the emergence of a few factors. First, project design that has more often separated extraction from the LNG export terminal, drawing fossil gas instead from the US pipeline network. This means expensive extraction infrastructure is part of a different project, where it also often benefits from significant domestic US subsidies. A second factor is the earlier emergence of "portfolio players" in the US that buy LNG to sell it to a variety of buyers rather than through contracts made with specific utilities associated with a set country. This has meant public finance institutions in LNG-purchasing countries have no direct incentive to support a new terminal. To fill this gap, proponent companies have instead created diversified packages of project debt to attract sufficiently large consortiums of private banks. It is unclear if this model would work for projects outside of the United States where financial markets tend to have stronger regulations and where gas distribution networks are not as widely built out. "See: LNG Finance - will lenders accommodate the changing environment?" The Oxford Institute for Energy Studies, 2020, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/11/Insight-78-LNG-Finance-will-lenders-accommodate-the-changing-environment.pdf>; "The Emerging Price Offerings From Second Wave U.S. LNG Projects: Perspectives From Sellers and Buyers," King and Spalding Law, 2019, [https://www.kslaw.com/attachments/000/007/214/original/The\\_Emerging\\_Price\\_Offerings\\_From\\_Second\\_Wave\\_U.S.\\_LNG\\_Projects\\_Perspectives\\_From\\_Sellers\\_and\\_Buyers.pdf?1568751879](https://www.kslaw.com/attachments/000/007/214/original/The_Emerging_Price_Offerings_From_Second_Wave_U.S._LNG_Projects_Perspectives_From_Sellers_and_Buyers.pdf?1568751879), Kelly Trout et al., "Dirty Energy Dominance: Dependent on Denial - How the U.S. Fossil Fuel Industry Depends on Subsidies and Climate Denial," 2017, <https://priceofoil.org/2017/10/03/dirty-energy-dominance-us-subsidies/>.

<sup>10</sup> Territorial CO<sub>2</sub> figures are from 2021 taken from the Global Carbon Project's Carbon Atlas: <http://www.globalcarbonatlas.org/en/content/welcome-carbon-atlas>

<sup>11</sup> Emissions comparison data is taken from the US EPA's Greenhouse Gas Equivalencies Calculator: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

**Figure 1: Top 8 countries by annual CO<sub>2</sub>e megatonnes emissions of built (2012-2022) and under development (2023-2026) LNG projects receiving public finance from G20 public finance institutions**

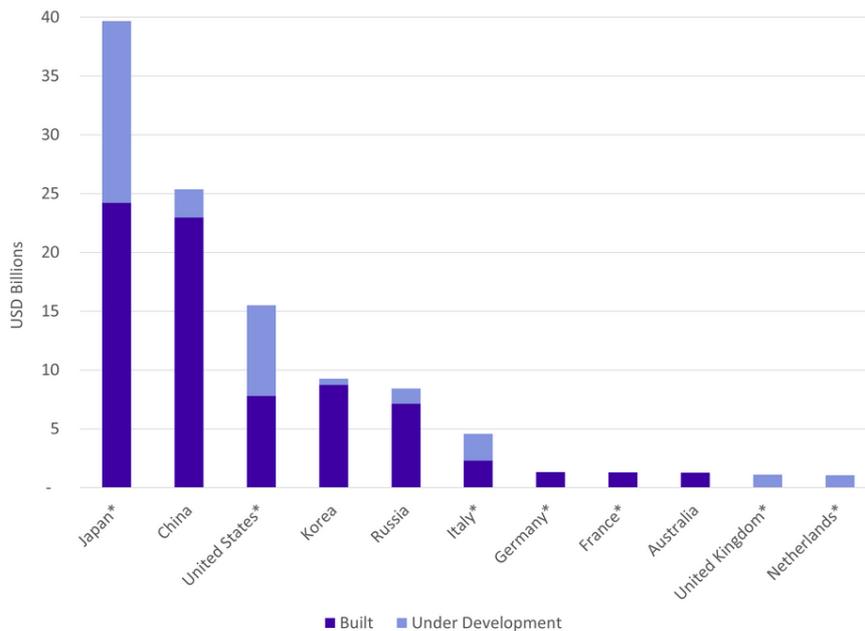


Source: Oil Change International analysis based on data from Public Finance for Energy Database (energyfinance.org), Rystad Energy’s UCube, and the International Gas Union.

## THE WORST OFFENDERS

At USD 39.7 billion, Japan tops the list of countries funding LNG export capacity projects built from 2012 - 2022, as well as projects under construction or expected to be built by 2026, despite its G7 commitment to end international finance for fossil fuels. China (USD 25.4 billion) and the United States (USD 15.5 billion) are the second and third largest backers of LNG export capacity projects. The top three recipients of international financing for LNG export capacity were Russia, Australia, and Mozambique.

**Figure 2: Top 10 countries funding LNG export capacity, 2012-2026, USD billions**



\*notes countries that have signed the Glasgow and/or G7 pledge to stop all direct international finance to fossil fuels

Source: Oil Change International analysis based on data from Public Finance for Energy Database (energyfinance.org), Rystad Energy’s UCube, and the International Gas Union.



## BROKEN PROMISES?

At the UN COP26 Climate Summit in Glasgow, 39 governments and institutions, including many G20 governments, signed the Glasgow Statement, under which they agreed to implement policies to "end new direct public support for the international unabated fossil fuel energy sector by the end of 2022, except in limited and clearly defined circumstances that are consistent with a 1.5°C warming limit and the goals of the Paris Agreement".

The Glasgow Statement is having a real-world impact, with compliant signatories already shifting an estimated USD 5.7 billion per year out of fossil fuels. If all signatories meet the Glasgow Statement, the 5.7 billion public finance shift from fossil fuels to clean energy can increase to 37 billion per year, accelerating the energy transition<sup>12</sup>. At the 2022 G7 Summit, a near-identical commitment was adopted<sup>13</sup>. This brings Japan on board, the world's largest provider of international public finance, and further increases the potential finance shift to USD 39 billion a year.

Oil Change International is tracking implementation of the Glasgow Statement here. Of the 16 high-income signatories that provide international public finance for energy, eight have existing or new policies aligned or nearly aligned with the Glasgow Statement (The United Kingdom, Canada, France, Denmark, Finland, Sweden, New Zealand, and the European Investment Bank) and five have new policies that further restrict fossil fuel support but leave major loopholes (Belgium, Switzerland, Spain, Italy, and the Netherlands).

The details of the eight strong policies that have been published thus far vary from country to country, but all eight policies that are aligned or nearly aligned with the Glasgow Statement put a complete halt to investments in new oil and gas extraction and LNG infrastructure.

Three high-income signatories (Germany, Portugal, and the United States) have yet to publish policies to deliver on their Glasgow promise. The United States has reportedly adopted a policy, but is refusing to publish it<sup>14</sup>. The lack of policies from these countries leaves room for LNG to continue to be funded via public finance.

## UNDERMINING ENERGY SECURITY AND AFFORDABILITY

Russia's unprovoked war in Ukraine and the energy crisis has shown the need for a rapid transition away from fossil fuel dependence. However, every dollar in public finance to LNG is a dollar taken away from the clean energy and energy efficiency solutions that are most effective in addressing energy security needs, and sends the wrong signals to the private sector.

Public finance plays an enormous role in shaping energy systems, helping leverage additional investment. Public finance, and where it is directed, is therefore essential for the accelerated deployment of

<sup>12</sup> Oil Change International, 'Promise Breakers,' March 2022, <https://priceofoil.org/2023/03/15/promise-breakers-assessing-the-impact-of-compliance-with-the-glasgow-statement-commitment-to-end-international-public-finance-for-fossil-fuels/>

<sup>13</sup> The Guardian, 'G7 countries to stop funding fossil fuel development overseas,' May 2022, [https://www.theguardian.com/environment/2022/may/30/g7-countries-to-stop-funding-fossil-fuel-development-overseas?CMP=share\\_btn\\_tw](https://www.theguardian.com/environment/2022/may/30/g7-countries-to-stop-funding-fossil-fuel-development-overseas?CMP=share_btn_tw)

<sup>14</sup> Oil Change International & Friends of the Earth U.S., 'Release the Guidance: Backgrounder on U.S. International Energy Finance ahead of COP27 Deadline,' October 2022, <https://priceofoil.org/2022/10/07/release-guidance-us-public-finance-backgrounder-cop27/>

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clean energy and efficiency measures. According to the head of the IEA, “[m]ore low-carbon energy would have helped ease the crisis – and a faster transition from fossil fuels towards clean energy represents the best way out of it”<sup>15</sup>. For example, the EU could end Russian gas imports by 2025 with a package of clean energy, energy efficiency measures, and procuring gas from existing sources<sup>16</sup>.

Because LNG export infrastructure takes years to come online, this plan could be completed before new LNG terminals are operational. Analysis by Global Energy Monitor has found that in the United States, LNG export terminals take 3-5 years to come online, showing how they are “not a viable solution” to near-term energy supply needs<sup>17</sup>. By the time new capacity would come online, they would be “competing with new and cheaper sources of gas from suppliers such as Qatar, and new and cheaper renewables”, further underlining the financial risk involved and that LNG is not an answer to energy security.

While the analysis presented in this briefing shows the longstanding and continuing role major governments’ international public finance institutions have played in enabling LNG export infrastructure build-out, there has also been a recent surge in public finance for LNG import terminals. These import terminals for LNG regasification and connections to distribution networks are typically lower capacity and cheaper, and so have usually required less public finance to be built. Where they have received public support it has more often been through domestic public finance institutions and utilities. However, analysis from Ember and Global Energy Monitor finds that in the wake of industry lobbying on the energy crisis, the European Union will spend over €50 billion in the 2022/23 winter on new and expanded fossil fuel infrastructure and supplies, including €10 billion for floating LNG terminals, further increasing the risks described in this briefing<sup>18</sup>.

## UNDERMINING DEVELOPMENT GOALS

Fossil gas companies and governments financing them will frequently argue that fossil gas is needed for development as their justification for providing support. However, in practice the vast majority of international public finance continues to flow from wealthy countries to wealthy countries. 70% of the public finance for LNG export terminals covered in this analysis went to G20 countries. Where fossil fuel finance has gone to lower income countries, it has consistently over-promised and under-delivered on development benefits<sup>19</sup>, and has disproportionately benefited corporations and governments in the Global North. Further investment in gas infrastructure for export risks ‘locking in’ an increasingly-expensive fossil fuel energy system in the Global South, while failing to address energy access needs, all at the expense of a livable climate and with great economic instabilities.

In most Global South countries, wind and solar power have become cheaper than gas power generation, and the falling cost of batteries is likely to make renewable and storage technologies cost-competitive compared to gas power plants<sup>20</sup>.

Many African civil society networks – including the Don’t Gas Africa campaign – have criticised European countries for feigning concern for energy access in Africa while taking part in a scramble for Africa’s resources due to the war in Ukraine<sup>21</sup>. They point out the danger of fossil fuel lock-in and how a dash for fossil fuel infrastructure in Africa will misdirect investments away from clean, accessible, renewable energy.

15 Fatih Birol, ‘Three myths about the global energy crisis,’ September 2022, [https://www.linkedin.com/pulse/three-myths-global-energy-crisis-fatih-birol/?utm\\_content=bufferad096&utm\\_medium=social&utm\\_source=twitter.com&utm\\_campaign=buffer](https://www.linkedin.com/pulse/three-myths-global-energy-crisis-fatih-birol/?utm_content=bufferad096&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer)

16 Ember & E3G, ‘EU can stop Russian gas imports by 2025,’ 2022, <https://ember-climate.org/insights/research/eu-can-stop-russian-gasimports-by-2025/>

17 Global Energy Monitor, ‘How Long Does it Take to Build an LNG Export Terminal in the United States?,’ April 2022,

<https://globalenergymonitor.org/wp-content/uploads/2022/04/GEM-Briefing-LNG-Terminal-Development-Timelines.pdf>

18 Financial Times, ‘Europe’s new dirty energy: the ‘unavoidable evil’ of wartime fossil fuels,’ September 2022, <https://www.ft.com/content/b209933f-d77f-49ae-8f82-edc32ed622a6>

19 Oil Change International, ‘The Sky’s Limit Africa,’ October 2021, <https://priceofoil.org/content/uploads/2021/10/Skys-Limit-Africa-Report-2021.pdf>

20 International Institute for Sustainable Development, ‘Step Off the Gas: International public finance, natural gas and clean alternatives in the Global South,’ June 2021, <https://www.iisd.org/system/files/2021-06/natural-gas-finance-clean-alternatives-global-south-summary-en.pdf>

21 Don’t Gas Africa campaign: <https://dont-gas-africa.org/>

## DISASTROUS LNG PROJECTS

Beyond their international climate impacts, there is also a long record of LNG export terminals harming local communities. The Mozambique LNG project (supported by public finance from major governments such as the USA, UK, Japan, the Netherlands and Italy<sup>22</sup>) has helped fuel a violent insurgency in Mozambique's Cabo Delgado region<sup>23</sup>. The United Nations reported 420,000 people in Cabo Delgado were forced out of their homes in 2020, as insurgents fought government troops<sup>24</sup>. The UN has blamed not just the insurgency for the chaos in Cabo Delgado, but also the behaviour of 'extractive firms,' including companies exploiting gas<sup>25</sup>. These companies are ultimately providing targets for the insurgency and fuelling the chaos in the area.

To make matters worse, there is little benefit for Mozambique from projects like this. Oil Change International data shows that in Mozambique, the second-largest recipient of public finance for fossil fuels for 2018 to 2020, 98.5% of the \$18.5 billion in public finance committed has gone to facilities linked to the extraction and export of the country's offshore gas rather than domestic consumption or energy access<sup>26</sup>.

Elsewhere, a June 2022 explosion at the Freeport LNG project in Texas, the second-largest export terminal in the United States, underlines the huge danger for communities on the fenceline of LNG projects. Regulators blamed the explosion on inadequate safety procedures and human error, and noted that some equipment was constantly out of service for years<sup>27</sup>.

Local residents say they are living in fear and that officials rarely disclose the contents of the tanks that explode, leaving residents to wonder whether or not they are in danger of contamination<sup>28</sup>.

Meanwhile, the Greater Tortue Ahmeyim (GTA) LNG project off the coast of Mauritania and Senegal poses grave risks to the livelihoods of local communities. As well as potentially using up 1% of the entire world's remaining 1.5°C carbon budget, the project threatens marine protected areas vital to small-scale fisherfolk in the area<sup>29</sup>. An exclusion zone around the project significantly reduces the area open to fishing, and a condensate spill following a well eruption could affect the maritime areas of eight or nine countries in the region<sup>30</sup>. Even before the project is completed, the fate of the economy and health of millions in the region hangs in the balance.

22 Banktrack, 'Mozambique LNG Project,' 2022, [https://www.banktrack.org/project/mozambique\\_lng#financiers](https://www.banktrack.org/project/mozambique_lng#financiers)

23 The Guardian, 'UK support for Mozambique gas plant fuelling conflict - Friends of the Earth,' April 2021, <https://www.theguardian.com/global-development/2021/apr/15/uk-support-mozambique-gas-project-cabo-delgado-fuelling-isis-conflict-foe>

24 BBC News, 'Mozambique's Islamist insurgency: UN warns of rising violence in Cabo Delgado,' December 2020, <https://www.bbc.co.uk/news/world-africa-55348896>

25 BBC News, 'Mozambique's Islamist insurgency: UN warns of rising violence in Cabo Delgado,' December 2020, <https://www.bbc.co.uk/news/world-africa-55348896>

26 Oil Change International, 'Past Last Call,' October 2021, <http://priceofoil.org/content/uploads/2021/10/Past-Last-Call-G20-Public-Finance-Report.pdf>

27 Reuters, 'U.S. regulator releases report blaming Freeport LNG blast on inadequate processes,' November 2022, <https://www.reuters.com/business/energy/freeport-lng-provides-no-timeline-texas-export-plant-restart-2022-11-15/>

28 Common Dreams, 'This Is Terrifying': Explosion at Texas Gas Plant Spotlights Threat of LNG Industry,' June 2022, <https://www.commondreams.org/news/2022/06/09/terrifying-explosion-texas-gas-plant-spotlights-threat-lng-industry>

29 Unearthed, 'BP's big new gas plans in West Africa pose climate and biodiversity threats,' June 2021, <https://unearthed.greenpeace.org/2021/06/21/bp-gas-west-africa-senegal-mauritania-coral-reef/>

30 African Business, 'BP's Mauritania LNG scheme raises environmental concerns,' August 2021, <https://african.business/2021/08/energy-resources/bps-mauritania-lng-scheme-raises-environmental-concerns/>



## RECOMMENDATIONS



- Countries that have already implemented their Glasgow Statement pledge and have put a complete halt to new finance for LNG infrastructure must use their diplomatic power to encourage other signatories and non-signatories to follow suit, including at the OECD level and at the G7.
- Countries that have not yet implemented their Glasgow Statement commitment must keep their promise and implement their policies ending fossil fuel public finance, with no loopholes for gas.
- Countries who have not already done so must join the countries and institutions that have signed the Glasgow Statement<sup>31</sup>. This applies in particular to Japan, which signed up to the near-identical G7 commitment to end international public finance for fossil fuels by the end of 2022<sup>32</sup>, but signalled last year that it does not plan to end upstream oil and gas finance despite the G7 pledge<sup>33</sup>.
- Expand international fossil fuel exclusions to domestic finance. Countries must also halt all direct domestic production subsidies to fossil fuels as well as indirect subsidies through their domestic public finance institutions like national development banks, public pension funds, and sovereign wealth funds.
- Governments in oil- and gas-producing countries halt new licensing and permitting of fossil fuel extraction projects and commit to phasing out production on a timeline that aligns with equitably limiting warming to 1.5°C.
  - In particular, wealthy producer governments in the Global North must plan for the fastest phase-outs of production and hold oil and gas companies headquartered in their jurisdictions accountable for human rights violations, environmental damages, and just transition costs associated with their projects around the world.
- Redirect and scale up finance for clean energy and support for a globally just energy transition. They should prioritize clean energy funding in low-income regions as well as support for transformative solutions like distributed renewable energy to reach universal energy access, energy efficiency, and worker and community-led just transition plans in the most fossil fuel dependent regions.
- Wealthy governments must provide their fair share of debt cancellation, climate finance, and loss and damage support to countries in the Global South. This will allow for the rapid scale-up of affordable clean energy access and other climate solutions.

31 UK Government. 'Statement on International Public Support for the Clean Energy Transition.' November 2021. <https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/>

32 Japan Times. 'Japan joins G7 peers with vow to stop fossil-fuel financing abroad by end of 2022.' May 2022. <https://www.japantimes.co.jp/news/2022/05/27/business/g7-fossil-fuel-financing/>

33 S&P Global. 'Japan remains committed with public support for upstream developments after G7 pledge' May 2022. <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/energy-transition/053022-japan-remains-committed-with-public-support-for-upstream-developments-after-g7-pledge>

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## NOTES

- International public finance is largely still behind fossil fuels despite the climate emergency. G20 country and multilateral development bank (MDB) international public finance for fossil fuels from 2019-2021 is at least USD 55 billion per year, almost twice the support provided for clean energy, which averaged only USD 29 billion per year<sup>34</sup>.
- A legal opinion commissioned by Oil Change International last year demonstrated that governments could be in violation of their international legal obligations if they do not take action to reduce their financing of fossil fuel-related activities imminently<sup>35</sup>.

## METHODOLOGY

### Energyfinance.org

This report uses OCI's Public Finance for Energy Database, an open access database released in April 2022. The database includes 15,000+ energy transactions – with a total value of USD 2 trillion – of G20 ECAs, DFIs, and the nine major MDBs. In addition to reviewing the information made publicly available by the financial institutions and other public sources of information, this database draws information from the Infrastructure Journal (IJ) Global database and Boston University Global Development Policy Center's China's Global Energy Finance (CGEF) Database.

We also cross-checked our original data sources for participation from non-G20 governments' public finance institutions but did not find any – however, due to poor transparency there may still be significant LNG export financing from these actors.

### Project list and total capital expenditure

To determine the full list of LNG export terminals built 2012-2022 as well as those expected by 2026 we cross-referenced project start-up dates from the International Gas Union and Rystad Energy's UCube<sup>36</sup>. Capital expenditure at the project level comes from Rystad Energy's UCube database – we found that a total of USD 234.6 billion was spent to build all new LNG export terminals that came online between 2012 and 2022, and compared this with the USD 55.2 billion in G20 public finance institutions' loans for the same project to find that they provided at least 24% of the overall investment. This figure does not count a further USD 22.3 billion in guarantees and equity investments.

### Lifecycle emissions

Calculated lifecycle emissions include upstream extraction, processing, domestic pipeline transport, liquefaction, tanker transport, regasification, and combustion. Estimates are based on the full facility capacity. Calculations were derived based on lifecycle LNG export estimates from the National Energy Technology Laboratory, using 20 year global warming potentials for methane, and conversion efficiency of gas-fired electricity generation from the U.S. Energy Information Administration<sup>37</sup>.

Our estimates are based on projections that these projects would be additional, meaning we assume the volume of fossil fuels specified would not otherwise be extracted, transported, or combusted if these projects are not built. This assumption is based on several factors, including: 1) many of the fossil fuels analyzed lack other economically viable routes to market; 2) these projects reduce the exploitation cost of oil and gas extraction, incentivizing greater extraction; and 3) even as the market for these fossil fuels declines, the upfront capital cost to build the infrastructure remains greater than the cost to operate it, leading owners to continue to operate the projects to recover their investments while tariffs exceed operating costs.

34 Oil Change International & Friends of the Earth U.S., 'At a Crossroads: Assessing G20 and MDB international energy finance ahead of stop funding fossils pledge deadline,' November 2022, <https://priceofoil.org/2022/11/01/g20-at-a-crossroads/>

35 Oil Change International, 'International Obligations Governing the Activities of Export Credit Agencies in Connection With the Continued Financing of Fossil Fuel-Related Projects and Activities,' May 2021, <https://priceofoil.org/2021/05/04/eca-legal-opinion/>

36 Rystad Energy UCube, January 2023; International Gas Union, "World LNG Report 2022," July 2022, <https://www.igu.org/resources/world-lng-report-2022/>

37 "Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States," National Energy Technology Laboratory, September 2019 <https://www.energy.gov/sites/prod/files/2019/09/f66/2019%20NETL%20LCA-GHG%20Report.pdf>; "Natural gas-fired electricity conversion efficiency grows as coal remains stable," U.S. Energy Information Administration, August 2017, <https://www.eia.gov/todayinenergy/detail.php?id=32572>

## LNG Export Terminals With International Public Financing – Built 2012-2022

<b>Project Name</b>	<b>Country</b>	<b>MTPA Capacity</b>	<b>Annual CO<sub>2</sub>e megatonnes</b>	<b>Public Finance 2012-2021 USD Millions</b>
Australia Pacific LNG	Australia	9	49.6	6,936
Cameron LNG	United States	12	60.4	4,739
Coral South	Mozambique	3.4	19.7	5,142
Corpus Christi	United States	13.5	67.9	194
Donggi-Senoro	Indonesia	2	12.6	1,937
Elba Island	United States	2.5	12.6	57
Freeport LNG	United states	15.3	77	4,341
Gladstone	Australia	7.8	43	664
Golar Gimi FLNG	Cameroon	2.5	14.2	58
Gorgon	Australia	15.6	85.9	823
Ichthys LNG	Australia	8.9	49	9,803
Papua New Guinea LNG Project	Papua New Guinea	6.9	43.5	9,463
Pluto LNG T1	Australia	4.9	27	141
Queensland Curtis	Australia	8.5	46.8	2,360
Sabine Pass	United States	30	151	3,750
Wheatstone LNG	Australia	8.9	49	4,226
Yamal	Russia	17.4	118.5	23,133
<b>Totals</b>		<b>169</b>	<b>927.7</b>	<b>77,594</b>

## LNG Export Terminals without known international public financing – Built 2012-2022:

Arzew GL3Z LNG, Angola LNG, Prelude FLNG, Golar Cameroon FLNG, Sengkang LNG, Petronas FLNG Rotan and Satu, MLNG T9, Vysotsk LNG, Maxville LNG, Calcasieu Pass, Cove Point LNG, Tango FLNG.

## LNG Export Terminals With International Public Financing – Under development and expected to be completed by 2026:

<b>Project Name</b>	<b>Country</b>	<b>MTPA Capacity</b>	<b>Annual CO<sub>2</sub>e megatonnes</b>	<b>Committed Public Finance 2012-2021 USD Millions</b>
Arctic LNG 2 T1-T2	Russia	19.8	134.7	10,180
Energía Costa Azul T1	Mexico	3.3	16.4	No public finance committed to date.
Golden Pass LNG T1-T2	United States	10.4	52.3	No public finance committed to date.
Golden Pass LNG T3	United States	5.2	26.2	No public finance committed to date.
LNG Canada	Canada	14	70.5	850
Mozambique LNG	Mozambique	12.9	74.7	14,581
Nigeria LNG	Nigeria	8	46.4	1,125
Pluto LNG T2	Australia	5	27.5	141
Rovuma LNG	Mozambique	15.2	88.1	3,000
Tangguh LNG	Russia	3.8	25.9	2,400
Tortue / Ahmeyim FLNG	Senegal	2.5	14.5	No public finance committed to date.
Ust Luga LNG	Russia	13	88.5	741
<b>Totals</b>		<b>113</b>	<b>654</b>	<b>33,018</b>

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This briefing was researched and written by Adam McGibbon with contributions from Laurie van der Burg, Bronwen Tucker, Nicole Rodel, and Claire O'Manique. All are with Oil Change International.

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Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the ongoing transition towards clean energy.

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