

Gas business made in Baden-Württemberg Dirty contracts from LBBW and EnBW

Sierra Club and Deutsche Umwelthilfe e.V.

Although climate heating is already causing damage worldwide - and also in Germany - Landesbank Baden-Württemberg (LBBW) is investing in fossil fuel projects that are harmful to the climate. One of these projects is the LNG export terminal "Plaquemines" in Louisiana in the United States, which is being built by the Venture Global LNG group. This will be used to export liquefied fracked natural gas. One customer for the gas is Energie Baden-Württemberg AG (EnBW). While LBBW is providing financial security for Venture Global LNG's investments in Louisiana, EnBW is supporting the dirty project with an off-take agreement. Starting in 2026, 2.7 billion cubic meters per year are to be shipped to Germany for 20 years. Not only does the project contradict the Paris climate agreement, it is also causing immense environmental damage locally: its emissions will further exacerbate the climate emergency in a region that is particularly vulnerable to global warming. This includes, among other things, an increase in the intensity of hurricanes. Large wetlands that can act as a buffer against hurricanes will be additionally destroyed by the project. The risk for the local population and the local environment will thus be increased enormously. The participation of German companies in such a fossil project is a scandal!

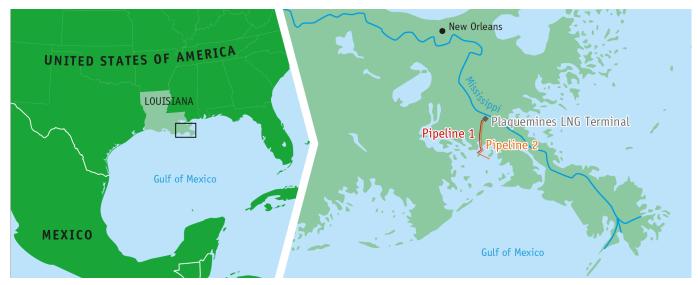


Figure 1: The export terminal for liquefied gas "Plaquemines LNG" of the US company Venture Global LNG is to be established on the coast of the Gulf of Mexico, in southern Louisiana, and export LNG to Germany from 2026. Source: Deutsche Umwelthilfe, 2023.

What is planned in the USA?

On the coast of the Gulf of Mexico, in southern Louisiana, the U.S. corporation Venture Global LNG plans to build an LNG export terminal called "Plaquemines" that will have an export capacity of at least 20 million metric tons per year (Mtpa, equivalent to 27.2 billion cubic meters per year)¹ from 2025.² Plaquemines LNG is expected to become one of the largest export terminals for fracked gas in the United States.³ It is to be built in "Plaquemines Parish," a majority Black, Indigenous and People of Color area that is about three feet above sea level and extremely vulnerable to climate change and natural disasters.⁴ The project is envisioned in two parts, with the first phase creating an export capacity of 18.1 billion cubic meters per year and the second (still unconfirmed) creating a capacity of another 9.1 (to as much as 13.6) billion cubic meters per year.^{5,6} The terminal received all the necessary permits in 2019.⁷ Construction work on the first phase of the project is already underway.⁸

1 For LNG: 1 Mtpa is equivalent to 1.36 billion cubic meters/year: 1 Mtpa = 0.131584156 billion cubic feet per day/Mtpa x 365 days/year x 0.0283168466 cubic meters/cubic feet. Figures from: Government of Canada, 2020, "Conversion factors and common units to be used for North American Cooperation on Energy Information," available on 12/1/2023 at https://www.nrcan.gc.ca/energy/international/nacei/18057 Note: LNG conversion factors may vary depending on reference conditions and composition of feed gas.

2 Venture Global, 2023, "Plaquemines," available on 14/2/2022 at https://venturegloballng.com/project-plaquemines/plaquemines-lng-facility/.

3 Sierra Club, 2022, "New Report On Plaquemines LNG Highlight Multiple Intersecting Environmental and Community Risks," available on 14/2/2022 at https://www.sierraclub.org/press-releases/2022/06/new-report-plaquemines-lng-highlight-multiple-intersecting-environmental-and.

4 Sierra Club, 2021, "Venture Global's CP2 Fracked Gas Terminal Threatens Gulf Coast Environment and Livelihoods," available on 14/2/2022 at https://www.sierraclub.org/press-releases/2021/12/venture-global-s-cp2-fracked-gas-terminal-threatens-gulf-coast-environment.

5 Venture Global, 2022, "Venture Global announces final investment decision and financial close for Plaquemines LNG," available on 14/2/2022 at https://venturegloballng.com/press/venture-global-announces-final-investment-decision-and-financial-close-for-plaquemines-lng/.

8 Poten, 2023, "U.S. Export Projects in Pole Position for FIDs," available on 14/2/2022 at https://www.poten.com/lng-in-world-markets-us-export-projects-in-pole-position-for-fids/.

⁶ LNGPrime, 2022, "Chart nets order for 2nd phase of Venture Global's Plaquemines LNG project," available on 14/2/2022 at https://lngprime.com/americas/chart-nets-order-for-2nd-phase-of-venture-globals-plaquemines-lng-project/47188/.

⁷ See Venture Global, 2022.

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The terminal site is located on a 255-hectare plot of land with a 2-kilometer deep-water connection. The site is just under 1.5 meters above sea level in an area prone to hurricanes.⁹ The terminal is to include the following facilities:

- up to 36 liquefaction plants and up to six pretreatment plants (through which the gas flows to remove acid gases and dehydrate it before it enters the liquefaction plants),
- up to three berths for LNG vessels with a capacity of up to 185,000 cubic meters each,
- up to four storage tanks with a capacity of 200,000 cubic meters,
- two 720 MW gas turbine combined cycle power plants including additional 25 MW gas-fired aeroderivative turbines,
- two 1-meter-diameter pipelines, 24 and 19 km long, respectively, that will connect to existing interstate natural gas pipelines, each delivering about 19.2 billion cubic meters per year,
- a supply dock on the Mississippi River for delivery of equipment and materials by water during both construction and project operations; and¹⁰
- a carbon capture and storage facility that is expected to be capable to compress and permanently store up to 250,000 tons of CO₂ per year in underground saline aquifers.^{11,12}

Venture Global LNG

A U.S. company headquartered in Virginia that has recently focused on exporting LNG from the United States. In addition to the Plaquemines LNG terminal, it is building at least three other export terminals in Louisiana with a capacity of 73.4 billion cubic meters per year: Calcasieu Pass with 13.6, Delta with 27.2 and Calcasieu Pass 2 or CP2 with 32.6 billion cubic meters per year)¹³.

What are the climate impacts of the project?

Venture Global LNG cites a maximum export capacity of 27.2 billion cubic meters of fracked gas for the Plaquemines Terminal per year. Burning that quantity of gas would be equivalent to emitting 56 million tons of CO_2 each year, not counting methane emissions from extraction, transportation and processing. Direct emissions from operating the terminal are equivalent to approximately 8.1 million metric tons of CO_2 equivalent emissions per year.¹⁴

The project would also generate 3,546 tons of air pollutants annually (including particulate matter, nitrogen oxides, sulfur dioxide and carbon monoxide).¹⁵ Venture Global LNG is currently even applying to increase its approved liquefaction capacity to 37 billion cubic meters per year.¹⁶ Similar LNG export facilities in Louisiana flare constantly and often under-report their emissions¹⁷, and the Plaquemines terminal is also not free from the risk of explosions, as occurred at the Freeport terminal in 2022 with huge costs for employees and the environment.¹⁸

⁹ See Sierra Club, 2022.

¹⁰ See Venture Global, 2023.

¹¹ Venture Global, 2021, "Venture Global Launches Carbon Capture and Sequestration Project," available on 14/2/2022 at https://venturegloballng.com/press/venture-global-launches-carbon-capture-and-sequestration-project/.

¹² Guardian, 2023, "Carbon capture project is 'Band-Aid' to greenwash \$10bn LNG plant, locals say," available on 14/2/2022 at https://www.theguardian.com/environment/2023/feb/03/carbon-capture-gas-exports-rio-grande-lng-nextdecade.

¹³ Venture Global, 2023b, homepage, available on 14/2/2022 at https://venturegloballng.com/.

¹⁴ Environmental Integrity Project, 2022, "Boom in LNG Could Add More Than 90 Million Tons of Greenhouse Gases a Year," available on 14/2/2022 at https://environmentalintegrity.org/news/boom-in-lng-could-add-more-than-90-million-tons-of-greenhouse-gases-a-year/.

¹⁵ Oil & Gas Watch, 2023, "Plaquemines LNG Terminal," available on 14/2/2022 at https://oilandgaswatch.org/facility/1012.

¹⁶ Oil & Gas Watch, 2023.

¹⁷ Gas outlook, 2023, "Louisiana LNG terminals spread pollution on local districts," available on 14/2/2022 at https://gasoutlook.com/analysis/louisiana-lng-terminals-spread-pollution-on-local-communities/.

¹⁸ Truthout, 2022, "Texas Explosion Shows Danger of Liquefied Natural Gas Industry, Activists Say," available on 14/2/2022 at https://truthout.org/articles/texas-explosion-shows-danger-of-liquefied-natural-gas-industry-activists-say/.

What are the consequences for people and nature on site?

The risks of the Plaquemines LNG terminal are enormous, both to the surrounding natural environment and to local residents. The latter are often Black, Indigenous, and People of Color, who are often already underprivileged. The terminal is close to what is known as "Cancer Alley" (formerly known as "Plantation Country"), where enslaved Africans were forced to work. Further industrialization of this area, with nearly 150 oil refineries, plastics plants and chemical plants, should be stopped, according to a large group of independent UN human rights experts who see it as a form of "environmental racism."¹⁹ Also significant is that the terminal is being built in an active hurricane area prone to severe flooding. In any case, emissions from the project will fuel the climate and increase the risk of hurricanes further.²⁰

Construction of the terminal will also destroy nearly 162 acres of wetlands that provide a natural buffer against storms and protect against flooding for surrounding communities, including the city of New Orleans. This will worsen the average land loss in south Louisiana of one soccer field every 100 minutes since the 1930s. Healthy Gulf, a U.S.-based network, says that if officials do not stop the project, 55% of the land in Plaquemines Parish will disappear in less than 30 years. The plant will also have a significant impact on coastal waters, which is why the U.S. non-governmental organization Sierra Club believes it is inconsistent with the state's Coastal Zone Master Plan. In fact, the site where Plaquemines LNG will be built was flooded for more than a month after Hurricane Ida in 2021 and Hurricane Katrina in 2004. Studies show that the site will continue to flood during severe storms.²¹ Plaquemines LNG claims that a system of nearly 8-foot-high levees and storm walls will protect the site from potential storms and flooding, but at least one model by Ivor Van Heerden (head of the official Louisiana state team studying levee failure after Hurricane Katrina) concludes that these barriers cannot withstand even a Category 3 hurricane.²²

The people of Louisiana are at risk from a triple disaster: rising sea levels, storms made worse by climate change, and dangers from the release of industrial toxic substances. Flooding, hurricanes, land loss, and inequitable disaster relief are displacing people who have lived in south Louisiana for generations, especially black and indigenous communities. Many have still not returned home after Hurricane Ida.²³ Those who chose to remain in southern Louisiana riverside communities (e.g. Plaquemines and Terrebonne Parishes) are still suffering from the devastation caused by Ida. Despite the enormous funds that have flowed to Plaquemines Parish for the construction of the LNG terminal, no assistance is being provided to rebuild local communities or reinforce levees to protect them. In addition, emergencies at Plaquemines LNG could result in the closure of Highway 23 - the only evacuation route in the area - putting surrounding communities at serious risk. Moreover, if the terminal construction site is flooded, there is a high likelihood that the contents of the landfill and toxic chemicals from Plaquemines will spill into homes, businesses, agricultural lands, and surrounding sensitive coastal wetlands.²⁴ Ultimately, communities will likely be left to deal with the pollution, disease, and poverty caused by the facility.

¹⁹ United Nations, 2021, "Environmental racism in Louisiana's 'Cancer Alley', must end, say UN human rights experts," available on 14/2/2022 at https://news.un.org/en/story/2021/03/1086172.

²⁰ See Sierra Club, 2022b.

²¹ See Sierra Club, 2022b.

²² See Sierra Club, 2022b.

²³ See Sierra Club, 2022b.

²⁴ See Sierra Club, 2022.

Who finances the project?

JPMorgan Chase, Morgan Stanley, Bank of America, and Mizuho provided Venture Global LNG with an initial loan of 460 million euros in February 2021 to partially finance the construction of the Plaquemines LNG terminal, followed by a bridge loan of 0.94 billion euros in November from a consortium of international banks.^{25,26} The first phase of the terminal, including associated pipelines, will cost approximately €2.2 billion and was sanctioned in early 2022.²⁷ Venture Global LNG received another loan from a consortium of banks led by Bank of America, Goldman Sachs, ING, JP Morgan, Mizuho, Morgan Stanley and RBC for the development of the first phase. This was the world's largest LNG project financing in 2022 completed to that date.²⁸ The lenders also included two German financial institutions: Deutsche Bank (the New York branch) with 662 million euros and Landesbank Baden-Württemberg (LBBW) with 568 million euros. In July 2022, Venture Global received a loan package of 377 million euros from a group of international lenders, including Deutsche Bank and LBBW again, for the second phase of the project.²⁹

Landesbank Baden-Württemberg (LBBW)

LBBW is the largest German regional bank and one of the ten largest credit institutions in Germany. Headquartered in Stuttgart, LBBW is a public institution with legal capacity. The following owners hold shares in its capital stock:

- the state of Baden-Württemberg (40.534 %: direct interest of 24.988 % and indirect interest of 15.546 % via the state of Baden-Württemberg Holdings Landesbeteiligungen Baden-Württemberg GmbH),
- the Savings Banks Association of Baden-Württemberg (Sparkassenverband Baden-Württemberg: 40.534%), and
- the city of Stuttgart (18.932%).

LBBW makes money with fossil fuels. It is involved in at least the following LNG plants through its so-called "Project Finance Americas Credentials":

- Calcasieu Pass in Louisiana (in operation), also from Venture Global LNG;
- Sabine Pass LNG in Louisiana (in operation);
- Corpus Christ in Texas (in planning);
- Gulf LNG in Mississippi (in planning); and

Saint John LNG terminal (formerly known as Canaport LNG L.P.) in New Brunswick, Canada.^{30,31,32,33,34,35}

²⁵ Reuters, 2021, "Venture Global gets loan for Louisiana Plaquemines LNG construction," available on 14/2/2022 at https://www.reuters.com/article/us-ventu-re-global-gets-loan-for-louisiana-plaquemines-lng-construction-idUSKBN2AB2CV.

²⁶ IJGlobal, 2021, "Plaquemines LNG export facility phase 1 bridge facility 2021", available on 14/2/2022 at https://www.ijglobal.com/data/transac-tion/52057/plaquemines-lng-export-facility-phase-1-bridge-facility-2021.

²⁷ RystadEnergy, 2022, "Spurred by the energy crisis, global LNG investments will now peak at \$42 billion in 2024, a 50% jump from current spending," available on 14/2/2022 at https://www.rystadenergy.com/news/spurred-by-the-energy-crisis-global-lng-investments-will-now-peak-at-42-billion-i.

²⁸ See Venture Global, 2022.

²⁹ IJGlobal, 2022, "Plaquemines LNG export facility phase 2 additional facility 2022", available on 14/2/2022 at https://www.ijglobal.com/data/transac-tion/62695/plaquemines-lng-export-facility-phase-2-additional-facility-2022.

³⁰ Landesbank Baden-Württemberg, 2023, "About Us," available on 14/2/2022 at https://www.lbbw.de/konzern/landesbank-baden-wuerttemberg/ueber-uns/ ueber-uns 7v4kzduc3 d.html.

³¹ Global Monitor Energy Wiki, 2023, "Calcasieu Pass LNG Terminal," available on 14/2/2022 at https://www.gem.wiki/Calcasieu Pass LNG Terminal.

³² Global Monitor Energy Wiki, 2023, "Sabine Pass LNG Terminal," available on 14/2/2022 at https://www.gem.wiki/Sabine Pass LNG Terminal.

³³ Global Monitor Energy Wiki, 2023, "Corpus Christi LNG Terminal," available on 14/2/2022 at https://www.gem.wiki/Corpus Christi LNG Terminal.

³⁴ Global Monitor Energy Wiki, 2023, "Gulf LNG Terminal," available on 14/2/2022 at https://www.gem.wiki/Gulf_LNG_Terminal.

³⁵ Global Monitor Energy Wiki, 2023, "Saint John LNG Terminal," available on 14/2/2022 at https://www.gem.wiki/Saint John LNG Terminal.

Who will buy the LNG?

Venture Global LNG has signed 20-year sales and purchase agreements for 80% of the total 27.2 billion cubic meters per year. Firstphase customers include PGNiG (Poland), Sinopec (China), CNOOC Gas & Power Group (China), Shell (UK) and Electricite de France. Second phase customers announced so far include ExxonMobil LNG Asia Pacific (Singapore), Malaysian state-owned PETRONAS and New Fortress Energy (USA).³⁶ Other European customers include BP, Repsol, Edison and GALP. From Germany, Energie Baden-Württemberg (EnBW) is the only company that has already signed an off-take agreement with Venture Global LNG. Initially, an offtake agreement was signed in June 2022 with a total volume of 2 billion cubic meters per year, half of which is to be sourced from Venture Global LNG's Plaquemines and half from its CP2 facilities, starting in 2026. This is the first direct binding offtake agreement for liquefied gas from the USA signed by a German company.³⁷ The volume was increased by 0.7 billion cubic meters per year later in October 2022.³⁸ The total of 2.7 billion cubic meters per year represents 3.1% of Germany's natural gas consumption in 2022. Additionally, EnBW has signed to supply up to 3 billion cubic meters of USA liquefied gas per year via the planned Hanseatic Energy Hub (HEH) LNG terminal in Stade, which is also scheduled to come online in 2026.³⁹

Energie Baden-Württemberg (EnBW)

EnBW is the third-largest energy company in Germany in terms of sales. It supplies around 5.5 million customers with electricity, gas, water as well as services and products in the areas of infrastructure and energy. EnBW is a listed company headquartered in Karlsruhe, whose shares are almost entirely in public hands (46.75% held by the state of Baden-Württemberg and 46.75% by local authorities). It is interesting to note that, despite the recent financing of LNG projects, the company is pursuing the goal of providing more than half of its portfolio from renewables by the end of 2025 and being carbon neutral by 2035.^{40,41}

³⁶ See Venture Global, 2022.

³⁷ EnBW, 2022, "Venture Global and EnBW announce LNG sales and purchase agreements," available on 14/2/2022 at https://www.enbw.com/company/inve-stors/news-and-publications/enbw-venture-global-lng.html.

³⁸ LNGPrime, 2022, "Germany's EnBW to buy more LNG from Venture Global," available on 14/2/2022 at https://lngprime.com/americas/germanys-enbw-tobuy-more-lng-from-venture-global/63159/.

³⁹ LNGPrime, 2022, "Germany's EnBW books long-term capacity at HEH's Stade LNG terminal," available on 14/2/2022 at https://lngprime.com/europe/germa-nys-enbw-books-long-term-capacity-at-hehs-stade-lng-terminal/68334/.

⁴⁰ EnBW, 2023, "Aktie", available on 14/2/2022 at https://www.enbw.com/unternehmen/investoren/aktie/.

⁴¹ EnBW, 2023b, "Unternehmensportrait", available on 14/2/2022 at https://www.enbw.com/unternehmen/konzern/ueber-uns/unternehmensportrait/

What do Sierra Club and DUH demand from LBBW and EnBW?

- LBBW must withdraw its financial support of the Plaquemines LNG terminal and refrain from any new fossil fuel projects in the future.
- EnBW must immediately cancel its contracts with Venture Global LNG and must not enter into any fossil projects in the future.
- Instead, both LBBW and EnBW should quickly decarbonize their businesses, for example through energy partnerships with the US and other countries to expand renewable energy systems.



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