

EUROPEAN MIDSTREAM UPDATE



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Pipeline &
Gas Journal

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Pipeline & Gas Journal



Pipeline & Gas Journal and Global Energy Infrastructure overview

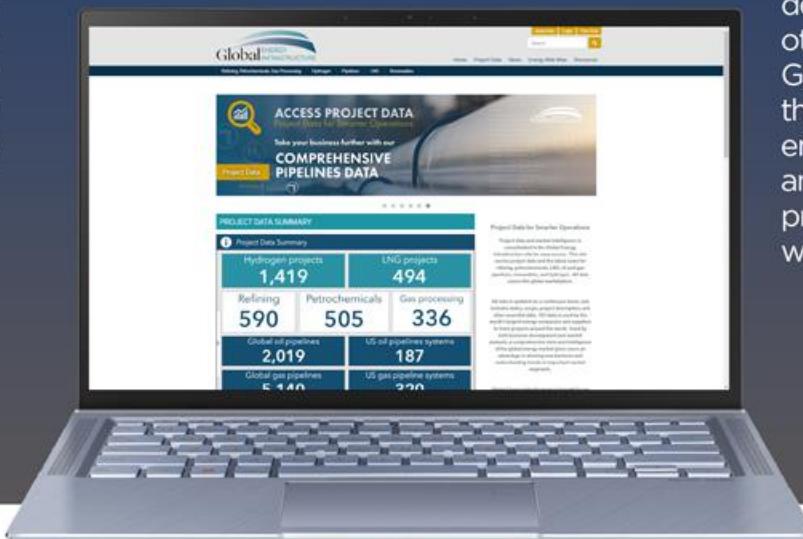
Pipeline & Gas Journal

Since 1859, Pipeline & Gas Journal is the essential resource for technology and trends in the midstream industry; written and edited to be of service to those involved in moving, marketing and managing hydrocarbons from the wellhead to the ultimate consumer. Properly built, maintained and operated pipelines are the safest, most efficient method of transporting energy. Our intention is to assist our subscribers in performing their jobs to the utmost of their abilities and knowledge by providing information required in the day-to-day operation of energy pipelines.



Project data and market intelligence is consolidated in the Global Energy Infrastructure (GEI) site for easy access. This site carries project data and the latest news for refining, petrochemicals, LNG, oil and gas pipelines, renewables, and hydrogen. All data covers the global marketplace. All data is updated on a continuous basis, and includes status, scope, project

description, and other essential data. GEI data is used by the world's largest energy companies and suppliers to track projects around the world.



Key International reports

- January - International construction outlook
- Owner/Operator editorial contacts plus filings to FERC in the U.S.
- National Energy Board in Canada
- Research of various governmental entities
- Company websites, annual reports, press releases and social media
- P&GJ's annual Top 500 Pipeline Reports of the U.S. and Europe
- Global Energy Infrastructure database



Key International reports

- January - International construction outlook
- July - Mid-year international update



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MID-YEAR OUTLOOK:
Midstream Adjusts
To Europe's Needs

HELP WANTED:
Oil Patch Requires
Quality Workers

STEPPING DOWN:
EnLink's Davis Recounts
Decades of Change

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Midyear International Update

Midstream Steps Up as Europe Pivots from Russian Energy

By Jeff Aweh, Executive Editor

Six months into Russia's war on Ukraine, a global oil and gas supply squeeze has been further tightened by sanctions on the world's largest energy exporter, sending power and fuel prices soaring. A weakening economic outlook has done little to alleviate a global energy crisis driven by a shortage of supply and a post-pandemic demand rebound.

Low inventories, cautious capital spending by Western energy companies, and limited spare capacity among OPEC+ producers has deepened the impact of oil supply constraints via sanctions on Russia.

Europe, which relied on Russia for 45% of its natural gas supply in 2021, was on the verge of power rationing in July as European leaders accused Russia of drawing out maintenance and reducing natural gas deliveries via the Nord Stream 1 pipeline as retaliation for sanctions, with a goal of preventing critical storage builds ahead of peak winter demand.

"The world has never witnessed such a major energy crisis in terms of its depth and complexity," said International Energy Agency Executive Director Fatih Birol, describing Europe's situation at the epicenter of the market turmoil as especially perilous. "I'm particularly concerned about the months ahead."

Since the Ukraine invasion, Western Europe's intensive focus on climate-driven energy transition has been eclipsed by the more urgent pursuit of energy security. The pace at which the continent can replace Russian oil and gas with more reliable supplies will be largely determined by its ability to develop midstream infrastructure to deliver it.

Similar challenges face other regions of the world for both natural gas and oil, exacerbated by Middle East producers to boost output much beyond current levels, as President Joe Biden was reminded during

Natural gas prices in Europe, Asia and the United States, Jan 2020–February 2022

TTF-Europe gas price

Asian spot LNG

Henry Hub US gas price

(Source: IMA)

The image displays a line graph comparing natural gas prices over time across three regions: TTF-Europe (blue line), Asian spot LNG (red line), and Henry Hub US gas price (green line). The x-axis represents time from January 2020 to February 2022. The y-axis represents price in dollars per million British Thermal Units (MMBtu). All three series show significant volatility, with major spikes occurring around the start of the Ukraine conflict in early 2022. The Asian spot LNG price is generally the highest, followed by the TTF-Europe price, and the Henry Hub US gas price is the lowest.

International pipeline construction



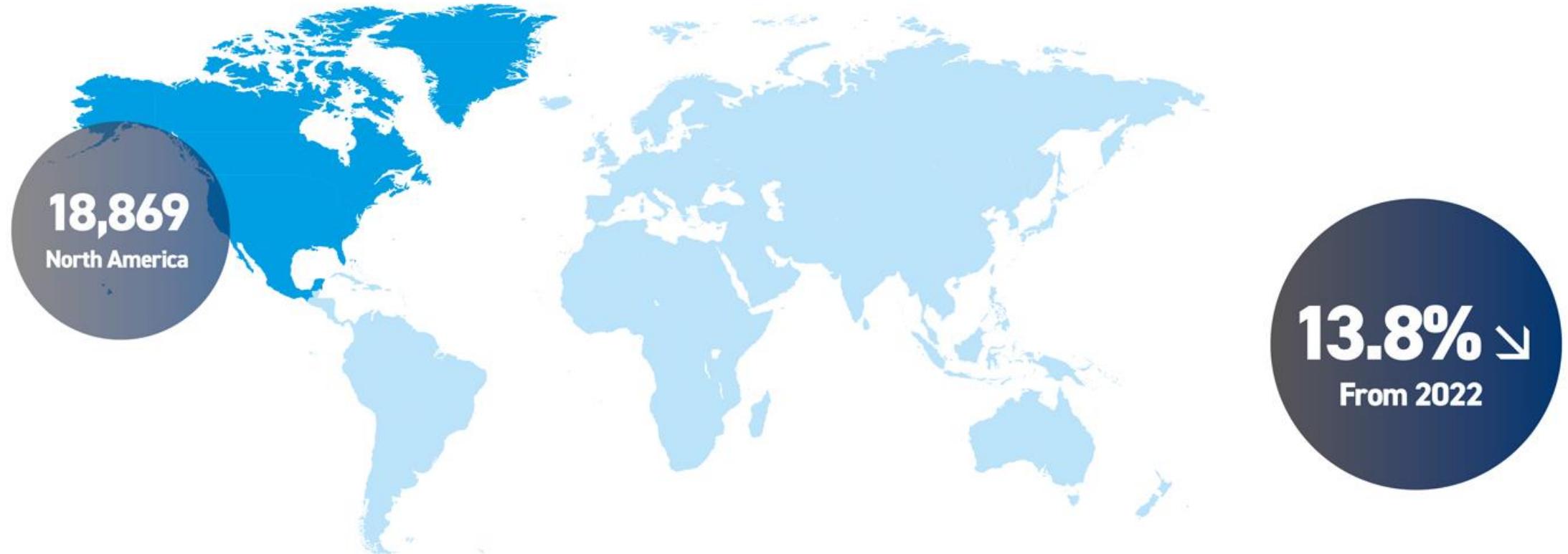
- 39,021 under construction

- 75,322 planned

- 114,453 worldwide total

Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - North America



Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - Africa



- **2,774 under construction**

- **12,252 planned**

- **15,026 total**



Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - Middle East



- **1,226 under construction**

- **5,714 planned**

- **6,940 total**



Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - Russia & CIS



- **5,722 under construction**

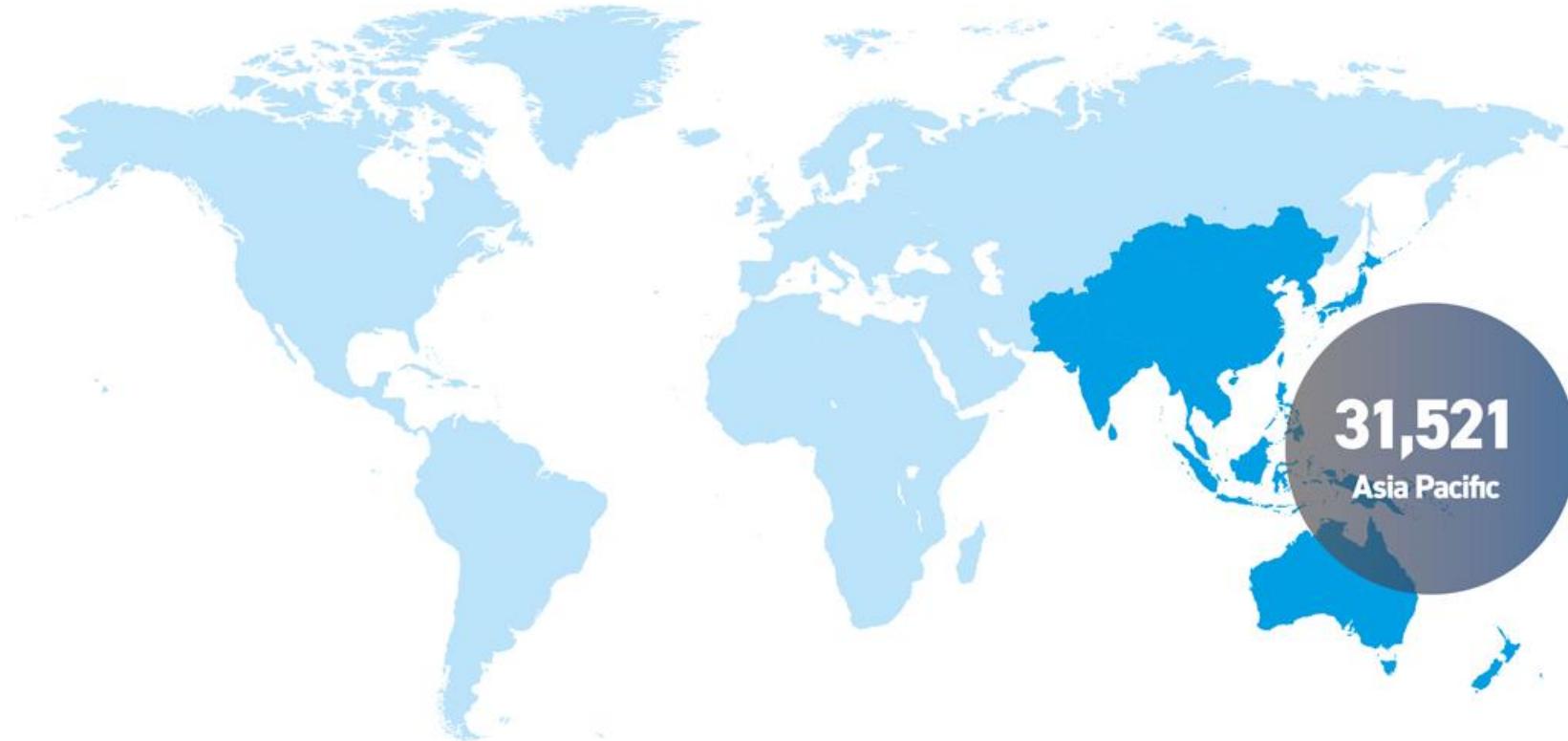
- **10,912 planned**

- **16,634 total**



Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - Asia Pacific



- 12,010 under construction
- 19,511 planned
- 31,521 total



Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - South / Central America



- **4,429 under construction**

- **8,852 planned**

- **13,281 total**



Figures in miles. Includes oil and gas pipelines

Regional pipeline construction - Western Europe



- **4,312 under construction**

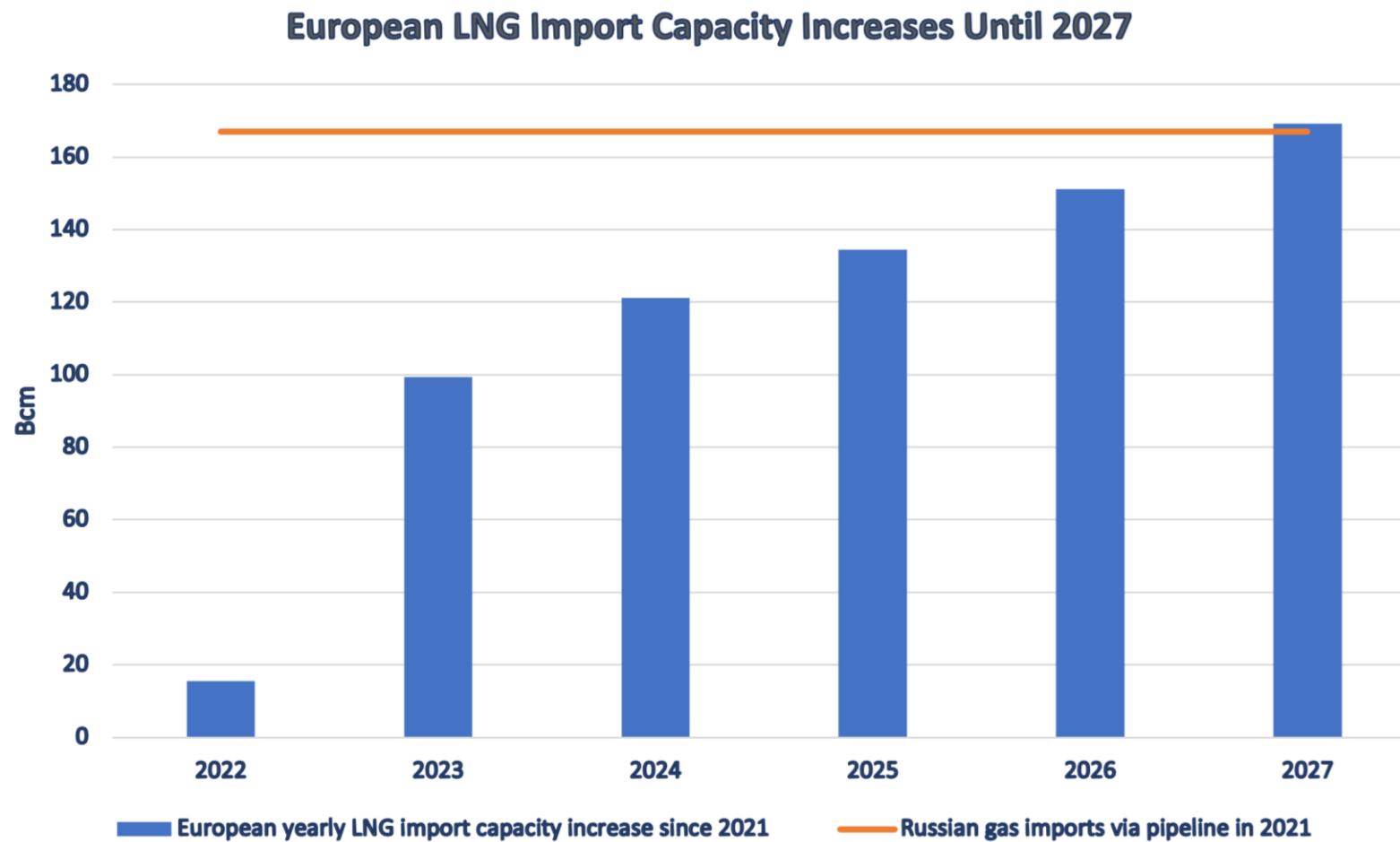
- **7,770 planned**

- **12,082 total**



Figures in miles. Includes oil and gas pipelines

Supplying Europe – LNG Imports



Source: Global Energy Infrastructure

Supplying Europe – LNG Regasification Terminals to 2030

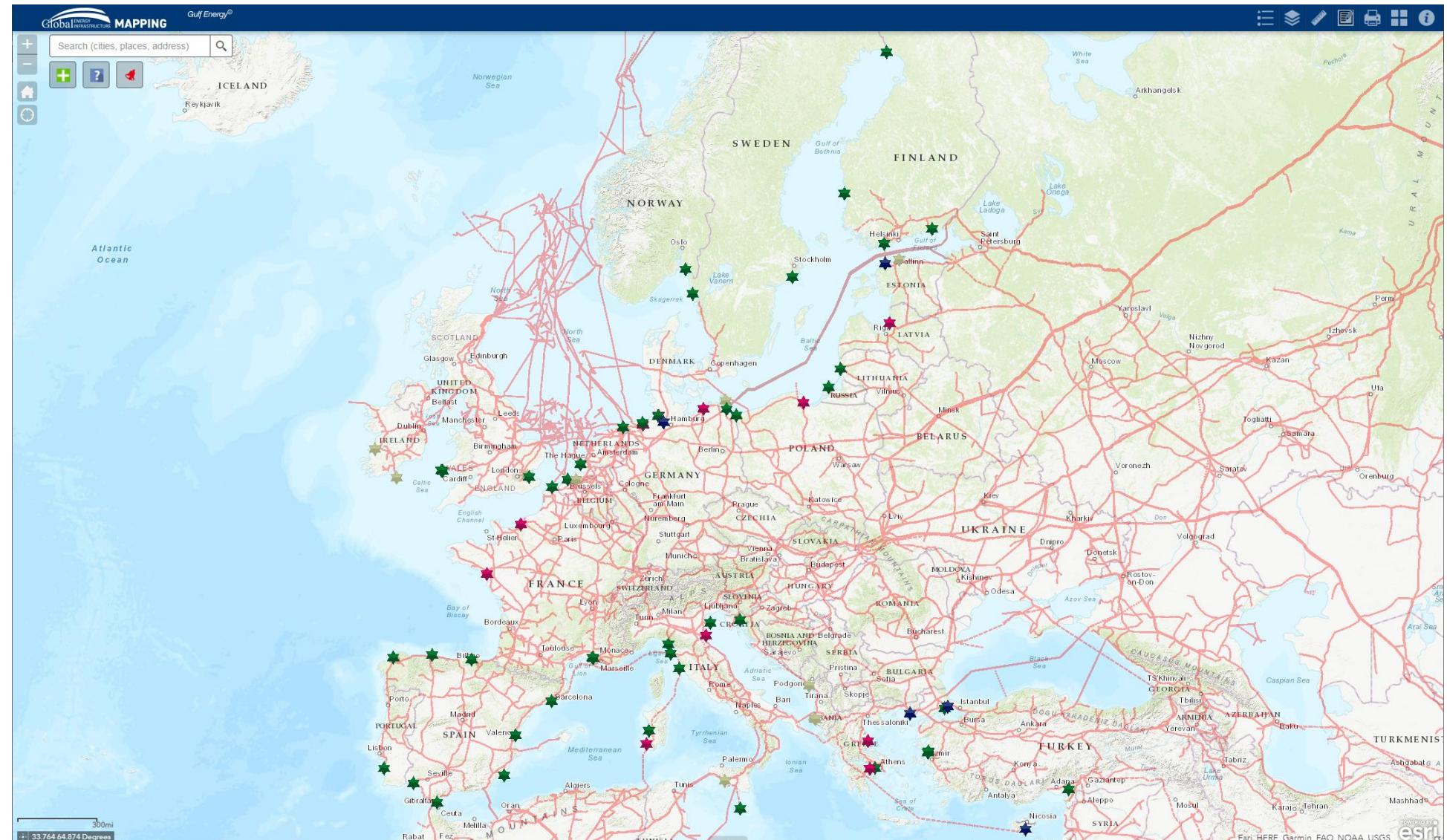
LNG projects by status

 Operating

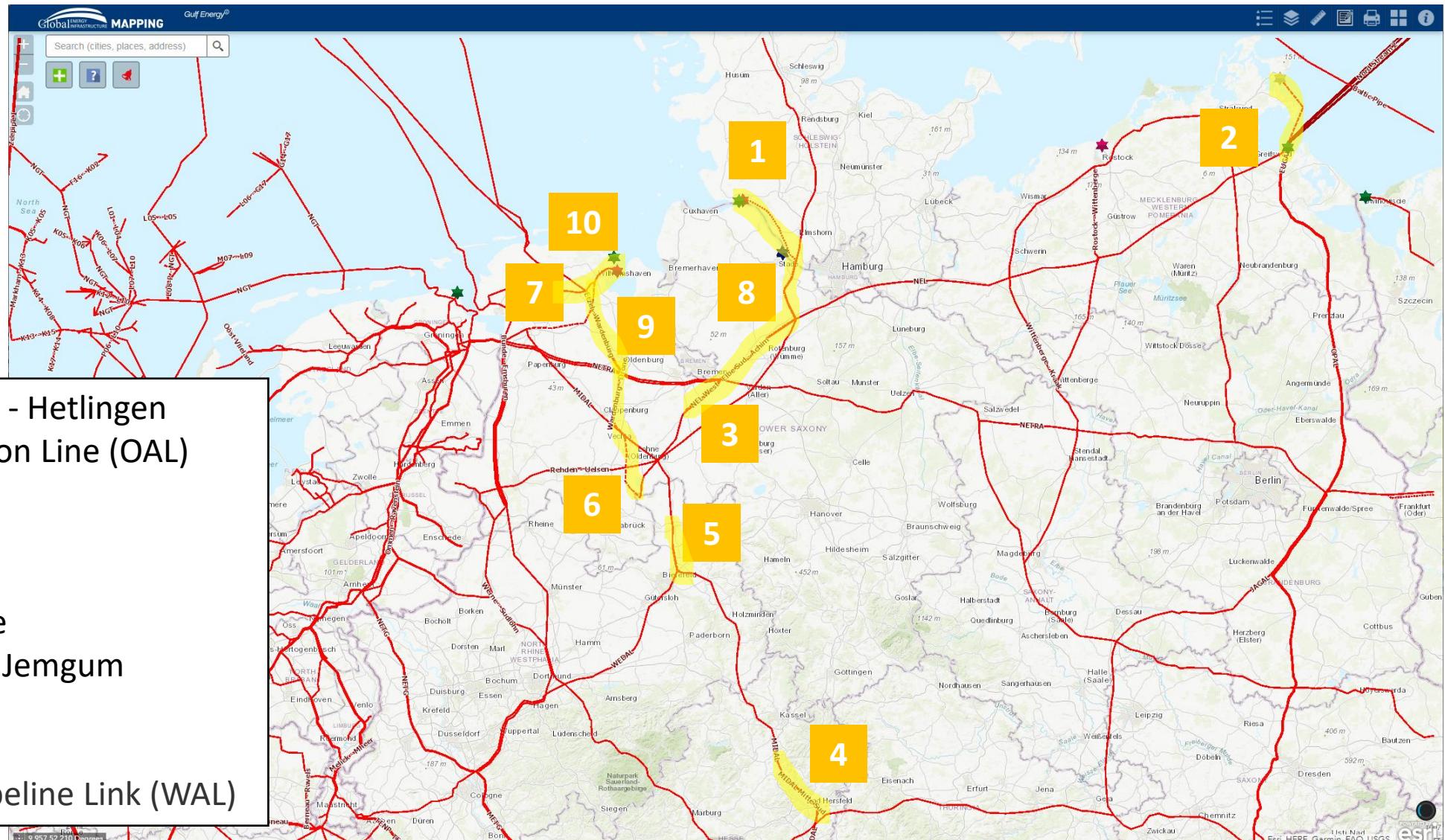
 Under construction

 Planned

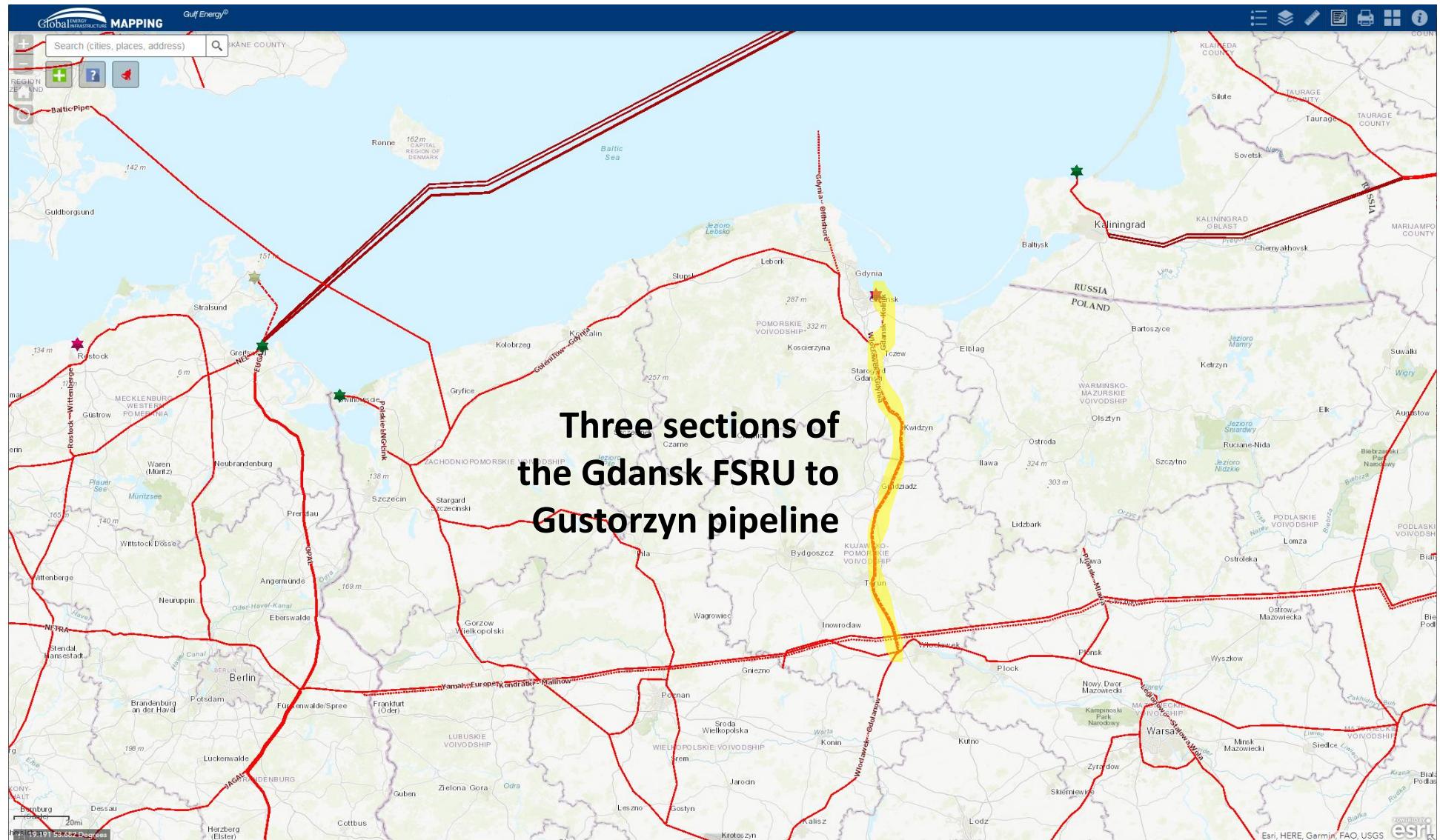
 Proposed



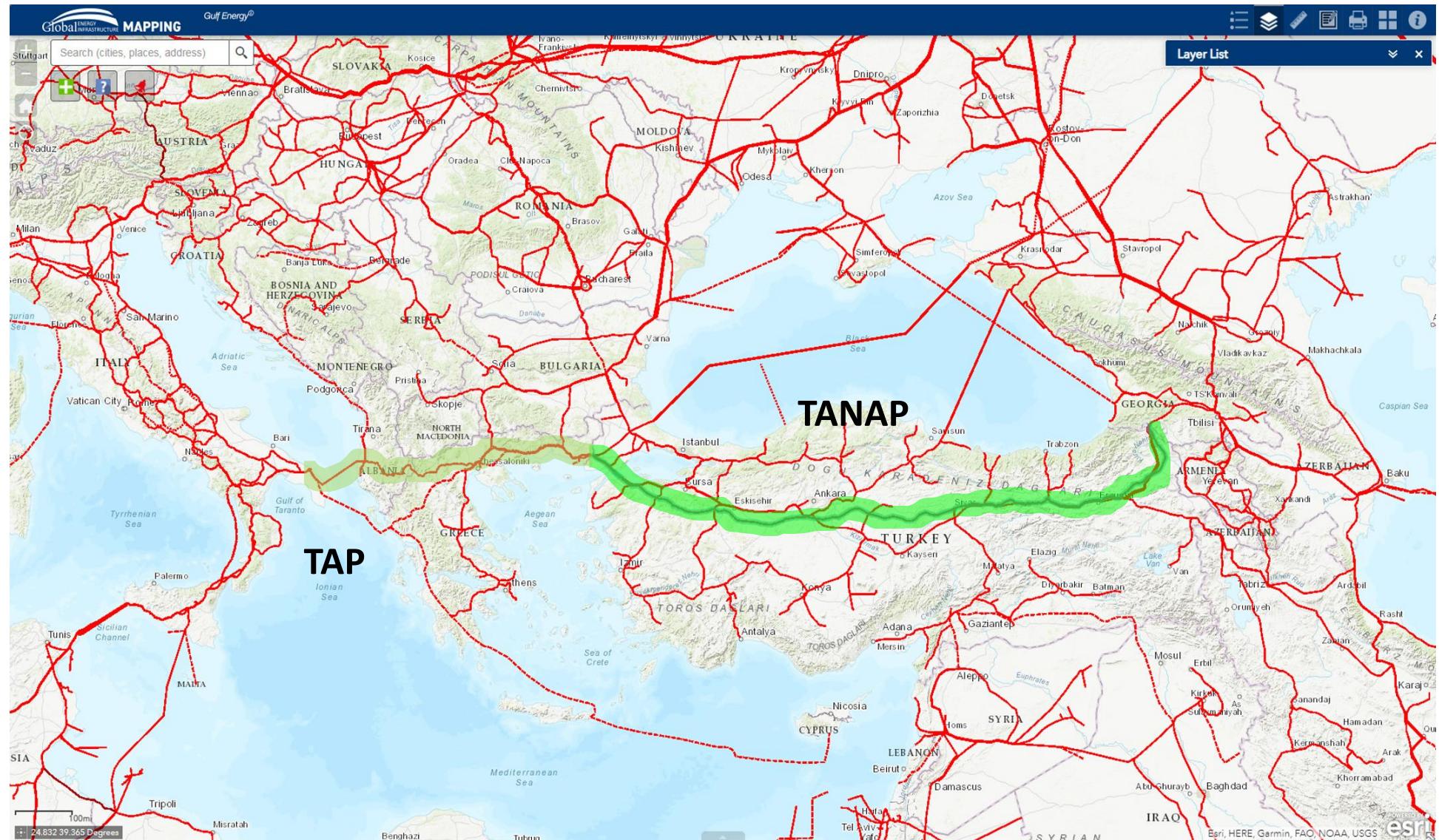
Supplying Europe – German pipeline enhancements



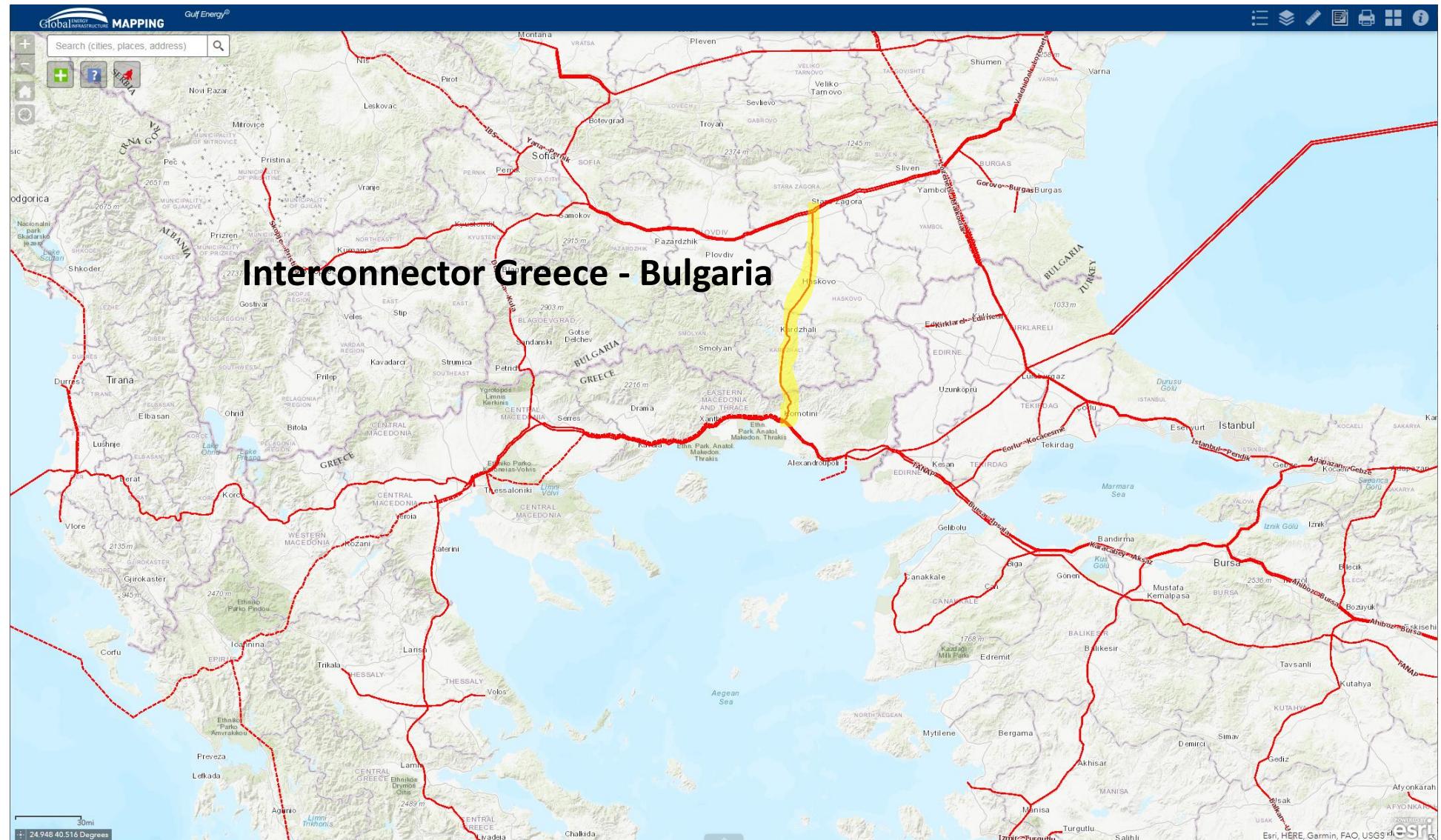
Supplying Europe – Poland LNG pipeline enhancements



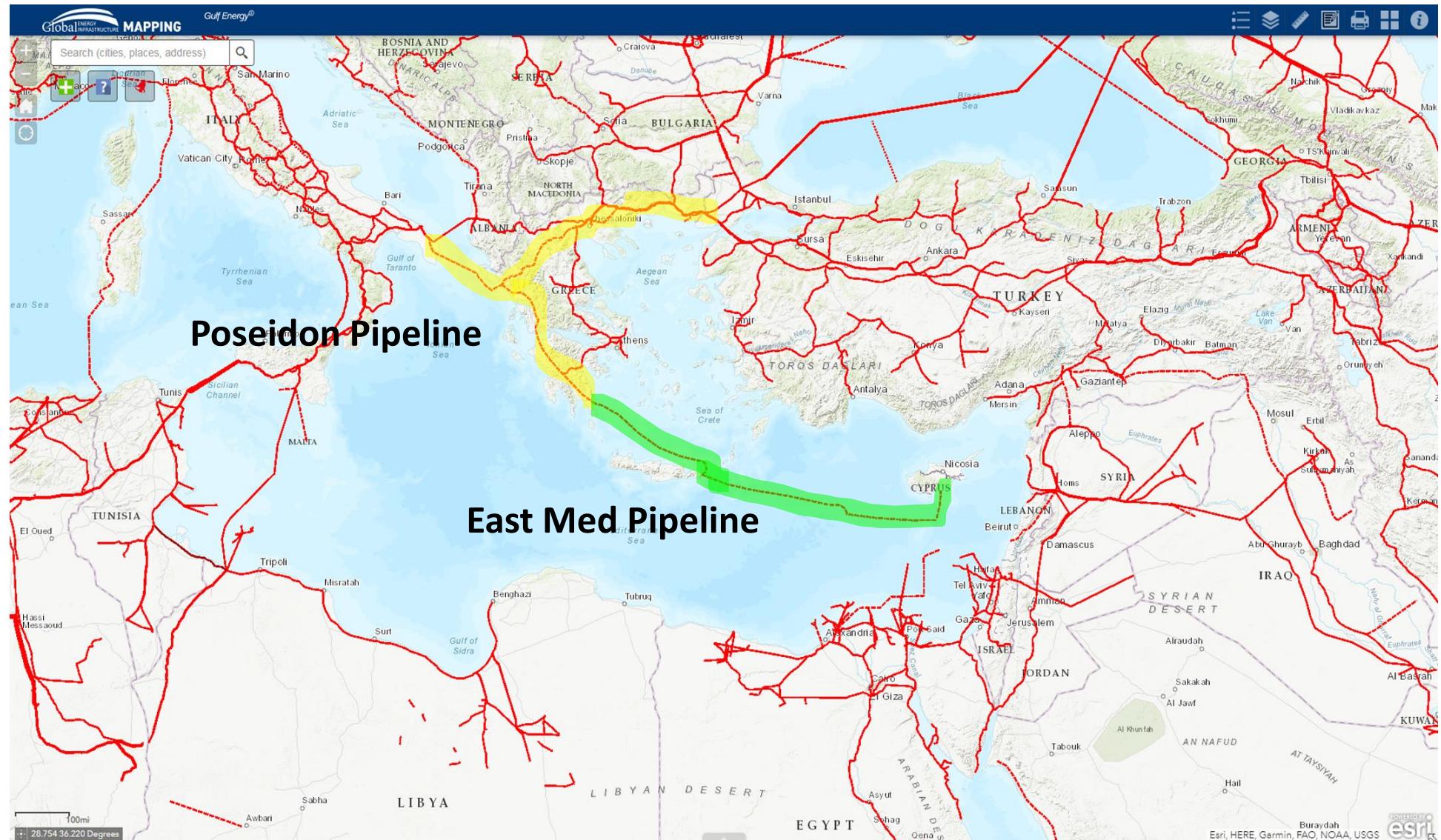
Supplying Europe – TAP and TANAP



Supplying Europe – Greece to Bulgaria



Supplying Europe – East Mediterranean



Q&A



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