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Nord Stream 2 Seeking Alternate Route

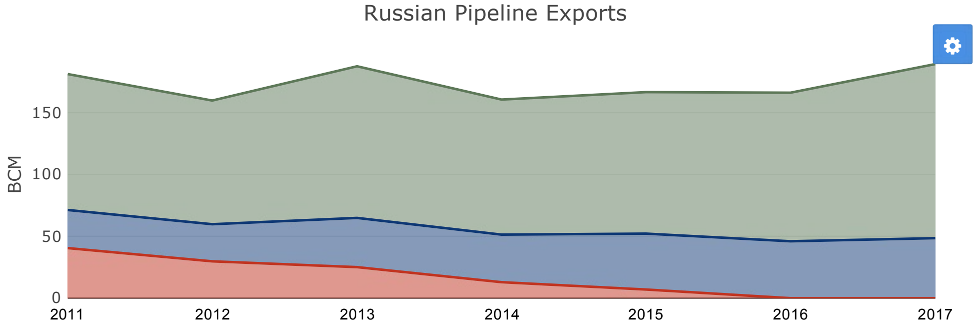
Stratas Advisors

Denmark's months-long position between a rock and a hard place in the standoff over Nord Stream 2 could soon be relieved as the Gazprom-led consortium begins to evaluate other options for its pipeline. The final existing hurdle for the pipeline is approval of the Danish government, which has the option to veto the portion that is to be built in its territorial water based on security concerns.

Understandably, the Russian and German governments have lobbied Denmark relentlessly in favor of approval while the U.S. and western European allies have opposed it strongly on the grounds that the pipeline would significantly impair efforts to grant Europe greater energy independence from Russia.

Going on 9 months of deliberations in Copenhagen, the Nord Stream 2 consortium announced recently that it would look for routes outside of Danish territorial waters. Additionally the consortium announced that it still sees no reason to expect significant delays to the pipeline and that the Danish portion would be installed in late 2019 as operation is planned for 2020. Given the relatively compact timeline, further delays at the Danish Foreign Affairs Ministry may force Gazprom into moving ahead with the alternative plan.

Russian Pipeline Exports



	2011	2012	2013	2014	2015	2016	2017
Ukraine	40.50	29.80	25.10	12.93	7.00	0.00	0.00
Germany	30.80	30.00	39.80	38.46	45.20	46.02	48.54
Rest of Europe	109.90	100.00	122.60	109.20	114.40	120.12	140.74

Edit View

Russia currently supplies one-third of Europe's natural gas, and the Nord Stream 2 line would double the capacity of the pipelines going into Germany. While Russian volumes to Europe have not materially changed in the last 7 years since Nord Stream 1 came online, it is the distribution of those volumes that is concerning to a large portion of Europe. Russia's exports to Ukraine have been zero for several years now, as Germany's have increased by more than 60% since 2011. Ukraine was formerly the thoroughfare for Russian gas to Europe; in 2011, it consumed more than 22% of Russian pipeline gas to Europe. Russia's ability to shut out countries with which it has poor relations has caused worry throughout Europe leading to the exploration of LNG alternatives, particularly for Eastern and Southeastern Europe.

Terminal	**Country**	**Status**	**Capacity**
Klaipedos Nafta LNG	Lithuania	Operational (2014)	380 MMSCFD
Revithoussa LNG	Greece	Operational (1999)	480 MMSCFD
Challenger FSRU	Turkey	Operational (2018)	540 MMSCFD
Neptune FSRU	Turkey	Operational (2017)	480 MMSCFD
Aliaga LNG	Turkey	Operational (2006)	580 MMSCFD
Marmara Ereglisi LNG	Turkey	Operational (1994)	600 MMSCFD
Alexandroupolis LNG	Greece	In Development	590 MMSCFD
Krk LNG	Croatia	In Development	190 MMSCFD
Odessa LNG	Ukraine	Conceptual	N/A

The EU is continuing to support efforts to diversify the continent's gas supply, including the continued push for an FSRU in Croatia and the Trans-Anatolian Natural Gas Pipeline through Turkey, which allows for the flow of Azeri gas through Turkey into Europe. By the time all parts come online in 2020, the pipeline system will allow for up to 20 billion cubic meters of gas annually into Europe after Turkey. While that amount is still significantly smaller than the 110 billion cubic meters than the two phases the Nord Stream pipeline will supply to Germany, it is an effort towards the securing the continent's gas supply in the future.