

Natural Gas: From **Russia** to the **Rockies**, **Putin** to **Polis**

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Politics & Markets for Natural Gas: From Russia to the Rocky Mountains

Presentation to:
Twelfth Annual Wyoming Natural Gas Fair
Jackson Hole, Wyoming

September 18, 2008

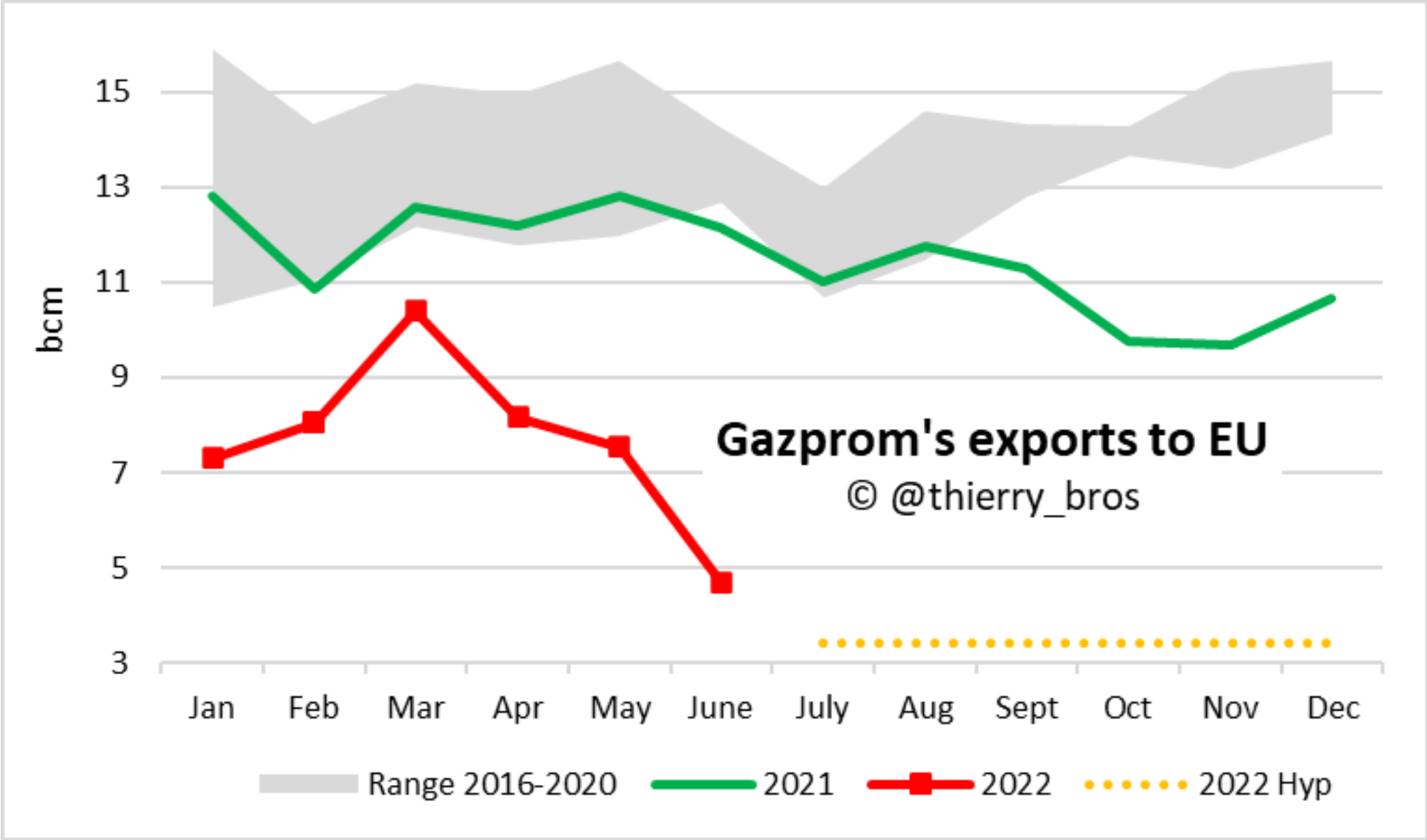
By:
John A. Harpole



- **Over reliance on renewables**
- **Retired coal and nuclear plants too early**
- **Under reliance on fossil fuels**

Is Colorado on the same path as the EU?

Russia, A Reliable Supplier?



Source: Thierry Bros

One-Year Forward Strip

NYMEX Henry Hub	\$ 7.450
LNG Delivered Price to Asia	\$44.456
LNG Delivered Price to Europe	\$54.895

Three-Year Forward Strip

NYMEX Henry Hub	\$ 5.701
LNG Delivered Price to Asia	\$30.770
LNG Delivered Price to Europe	\$37.339

* Settled price as of July 26, 2022

- Step 1: Appropriate, consolidate, seize power
- Step 2: Crush your challenger, your rival, your adversary
- Step 3: Control the Public Narrative
- Step 4: Reign through terror, intimidation and uncertainty
- Step 5: Create a new society
- Step 6: Rule forever

Appropriate

Consolidate

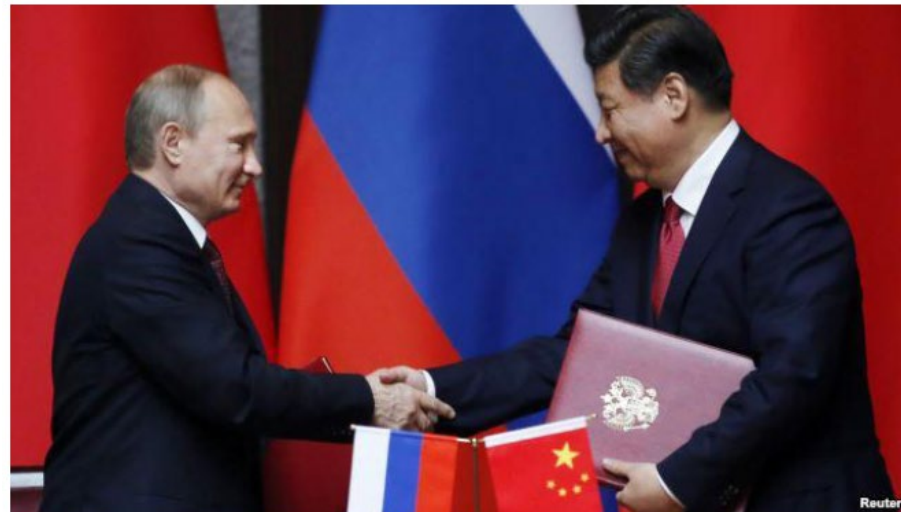
Seize Power

History of Kovykta Gas Field (70 TCF of Natural Gas Reserves)

- **1987** – Kovykta Gas Field discovered (enough natural gas to power Asia for 10 years)
- **1987** – License to develop held by Russia Petroleum (Majority of RP owned by TNK-BP)
- **2003 – 2005** TNK-BP denied access to critical Gazprom pipeline
- **June 2006** – Top TNK-BP Engineer **Enver Ziganshin murdered** three days after meeting with Russia's EPA equivalent, Rospirodnadzor on compliance issues
- **June 2007** – TNK-BP offered to sell stake for \$700-\$900 million to Gazprom, but deal never materialized
- **June 2010** – Russia Petroleum filed for bankruptcy

History of Kovykta

- TNK-BP attempted to sell field to state owned Rosneft but failed
- **March 2011** – Gazprom bought Russia Petroleum's assets, including Kovykta, for \$711 million
- May 2014 – Russia and China sign **\$400 billion 30-year gas supply agreement**, Kovykta natural gas will be delivered to China via the Power of Siberia Gas Pipeline



Step 1: Appropriate, Consolidate, Seize Power

Gazprom kicks off extension of huge gas export pipeline to China

- Upstream Energy
November 2020

Power of Siberia Gas Pipeline Map



Russia and LNG

- When the Sakhalin II project is fully on stream, it will supply around 5% of the world's LNG and make a significant contribution to strengthening global energy security." (February 18, 2009)
- Sakhalin, formerly owned by Shell Exploration, was "***nationalized***" by Gazprom. Gazprom currently owns 51% of the project.

April 4, 2009

Russia and LNG

Russia seizes control of Sakhalin gas project, raises stakes with West

Reuters, July 1, 2022

“... a move that could force out Shell and Japanese investors [Mitsui and Mitsubishi].”



“Polis may prove Colorado is for sale after all.”*

- **130 X** - Polis spent \$1.3 million on a State Board of Education race his opponent spent \$10,000 (margin of victory 90 votes out of 1.3 million total votes cast).
- **3 X** - Polis spent \$5.3 million in his primary race vs. Joan Fitz-Gerald (spent \$1.8 million)

*Denver Post, Vincent Carroll

“Polis may prove Colorado is for sale after all.”*

- **\$12 million** - amount Polis spent on Democratic primary race for governor.
- **17 X** - amount Polis spent in governor race against Walker Stapleton (\$23.4 million)
- **97.9%** - the percentage amount Polis contributed to his first governor’s race out of his own pocket (\$23.4 million in total)

*Denver Post, Vincent Carroll

June 4, 2019

Colorado withdraws support for natural gas exports for international markets

-Denver Business Journal

- 7-year effort to link Colorado's Piceance Basin* to Asian gas buyers to create international markets for Colorado natural gas is discontinued by Polis Administration

“We are no longer actively involved in this energy project,” said Will Toor, executive director of the Colorado Energy Office

*USGS concluded in 2016 that Colorado's Piceance Basin holds 66 TCF of recoverable natural gas

Polis “would prefer Colorado move away from commodity-priced fuels in favor of more stable renewable energy...”

Polis established a goal of having Colorado’s economy free of fossil fuels and rely 100% on renewable energy by 2040.

“From our perspective, the move that needs to be made is **toward renewable energy generation,**” he said, in an interview with the Denver Business Journal. “The cuts that are needed are far deeper than moving from one fossil fuel to another. You need near-zero emissions to get there.”

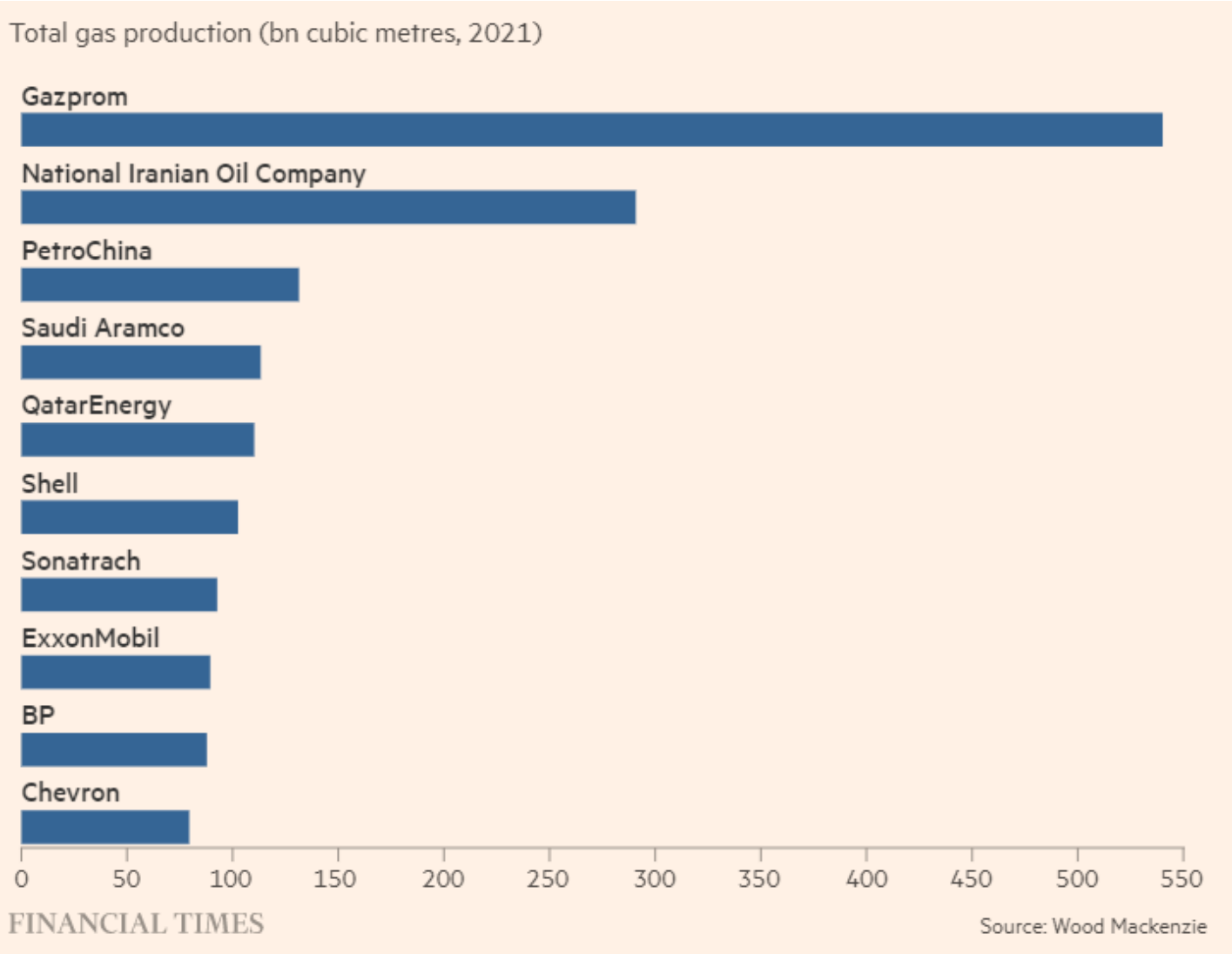
Crush: Your Challenger

Your Rival

Your Adversary

Step 2: Crush Your Challenger, Your Rival, Your Adversary

The 10 largest gas companies



Why trust Russia? History should have been the lesson.

Slide from
my 2009
PowerPoint
presentation

Russia's Energy Muscle

- Energy Used Over 55 times Against Former Soviet Nations Since 1990



Source: *Europe Doubles Down on Russian Gas to Feed its Energy Appetite*, by Andrew Haney, Ricardo Bracho, Nick Wolfe and Max Faith

Merkel's Major Mistake – Trusting Putin, but she was not alone



Angela Merkel, Chancellor of Germany from 2005 to 2021

Step 2: Crush Your Challenger, Your Rival, Your Adversary



The Former Chancellor Who Became Putin's Man in Germany – NY Times, April 23, 2022

Gerhard Schroeder, Chancellor of Germany from 1998 to 2005

Gerhard Schröder Bio

Title	Term	Income
Chancellor of Germany	1998 – 2005	\$9,000/mo. stipend
Nord Stream I Chairman	2005 – 2022	\$270,000/year
Nord Stream II Board Member	2011 - 2022	?
Rosneft Board President	2017 – 2022	\$600,000/year
Gazprom Board Member	2022 - 2022	?

Gerhard Schroder served on the boards of two Russian companies, Rosneft and Gazprom, that represented 25%-40% of Russia's budget



How Important is Russian Natural Gas to Western Europe?

The SWIFT Bank Exceptions

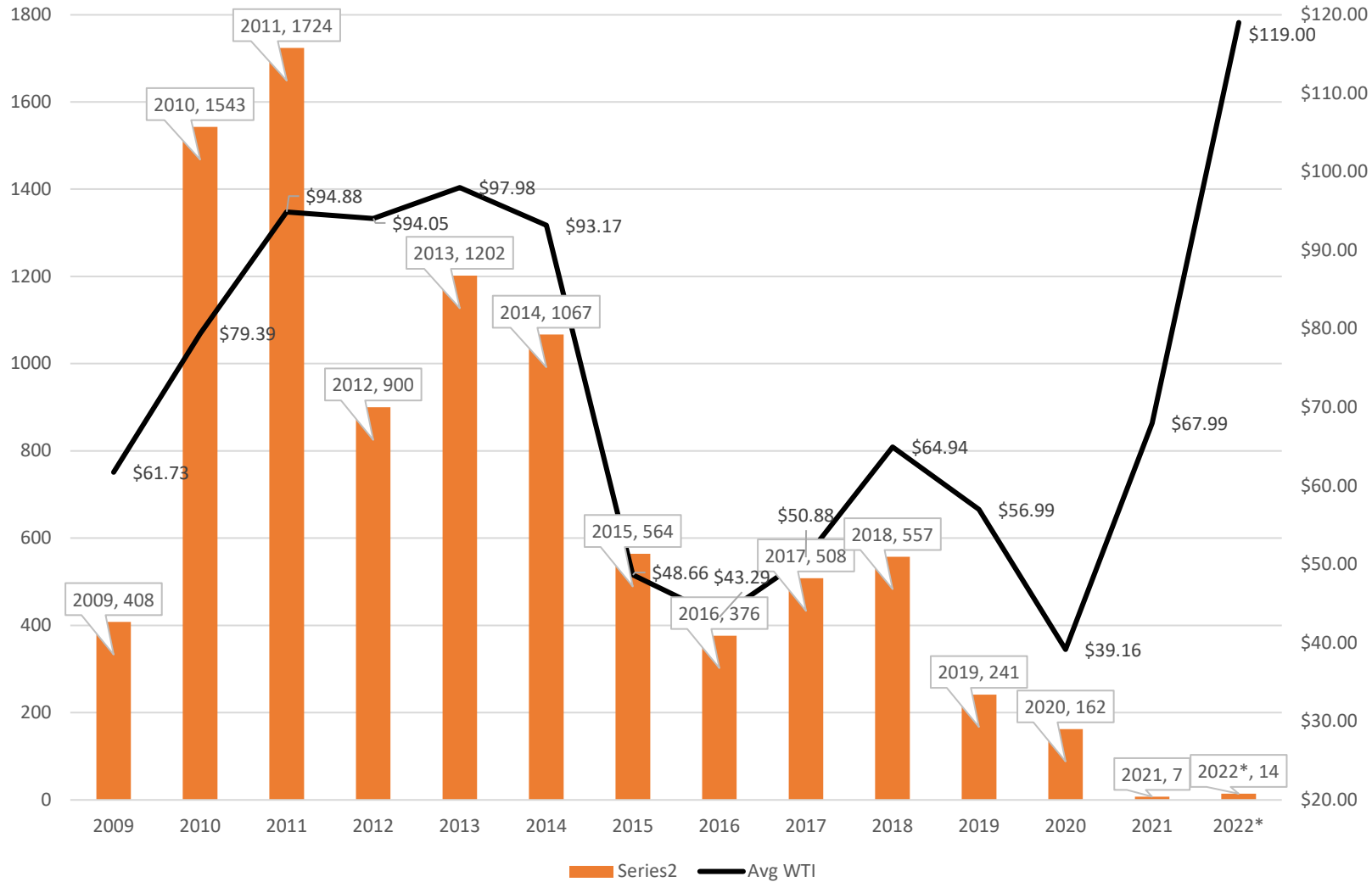
Only two banks were exempted from SWIFT bank sanctions:



- **As European Leaders Visit Kyiv, Putin Cuts Their Gas Supply***



Colorado Approved Location Permits by Year



Source: COGCC

Step 2: Crush Your Challenger, Your Rival, Your Adversary

- Adopted and began to implement a zero CO2 emissions by 2040 policy
- In 2014, as a Colorado Congressman, Polis paid for and **sponsored two anti-Oil and Gas ballot initiatives** (Coloradans for Safe and Clean Energy).
- Appointed Boulder Attorney Jeff Robbins (**an anti-oil and gas activist**) to be Chairman of the Colorado Oil and Gas Conservation Commission.
- Refused to send “**Exception Letter**” to EPA on ozone non-attainment standard, **triggering significant regulatory and mandated control** over Oil and Gas Industry.

- **Senate Bill 181** sponsored and signed into law by Governor Polis
(Does it effectively ratchet Colorado's Oil and gas industry into non-existence?)

SB181 Impact:

- Oil and Gas Industry estimates its economic impact at \$30 billion.
- 33,024 direct employee job losses in 2019
- Added \$200 million dollars/year in new regulatory direct costs.
- Oil and Gas production is down 20% in Colorado since Polis took office

Control the Public Narrative

U.S. Shale Revolution?



US LNG exports are a priority concern for Putin. US LNG bound for Europe undercuts Russia's domination of the European Gas Market.

Putin spends \$95 million on fracking disinformation campaign

Former NATO Secretary General Anders Fogh Rasmussen backs up the Romanian claim. He said in London recently,

“Russia, as part of their sophisticated information and disinformation operations, engaged actively with so-called nongovernmental organizations – environmental organizations working against shale gas – to maintain [Europe’s] dependence on imported Russian gas.”

- Former NATO Secretary General Anders Fogh Rasmussen

- Russia Today television ran endless anti-fracking stories, including one that said,

“Frackers are the moral equivalent of pedophiles.”



EU Fracking Bans/Moratoriums Still in Place



Polis Spin

- After his 1st successful run for governor, he was asked if his race was, ***“An election or auction?”***
- ***“The other side will always have more money than the democrats, that’s just a reality”***- Jared Polis
- 98% of his gubernatorial campaign dollars raised (\$23.4 million) came from his own checkbook.

According to the Denver Post:

- ***“The Democratic congressman **does not want to ban all drilling with hydraulic fracturing, he insisted-** and even compared those who do to fringe groups seeking to outlaw fluoride in water.”***

Step 3: Control the Public Narrative



Congressman Polis appears with Josh Fox the Producer of the Ban-Fracking movie “***Gasland***”

Polis Spin Circa 2014

- In a July 16th, 2014 statement, Rep. Polis said these initiatives will not harm the oil and gas industry, and even claimed they ***“will allow our state to continue to benefit from the oil and gas boom that brings jobs and increased energy security.”*** In June, Rep. Polis said: ***“I think that like myself most Coloradans support fracking and the all-of-the above approach.”***

Reign through:
Terror

Intimidation

Uncertainty

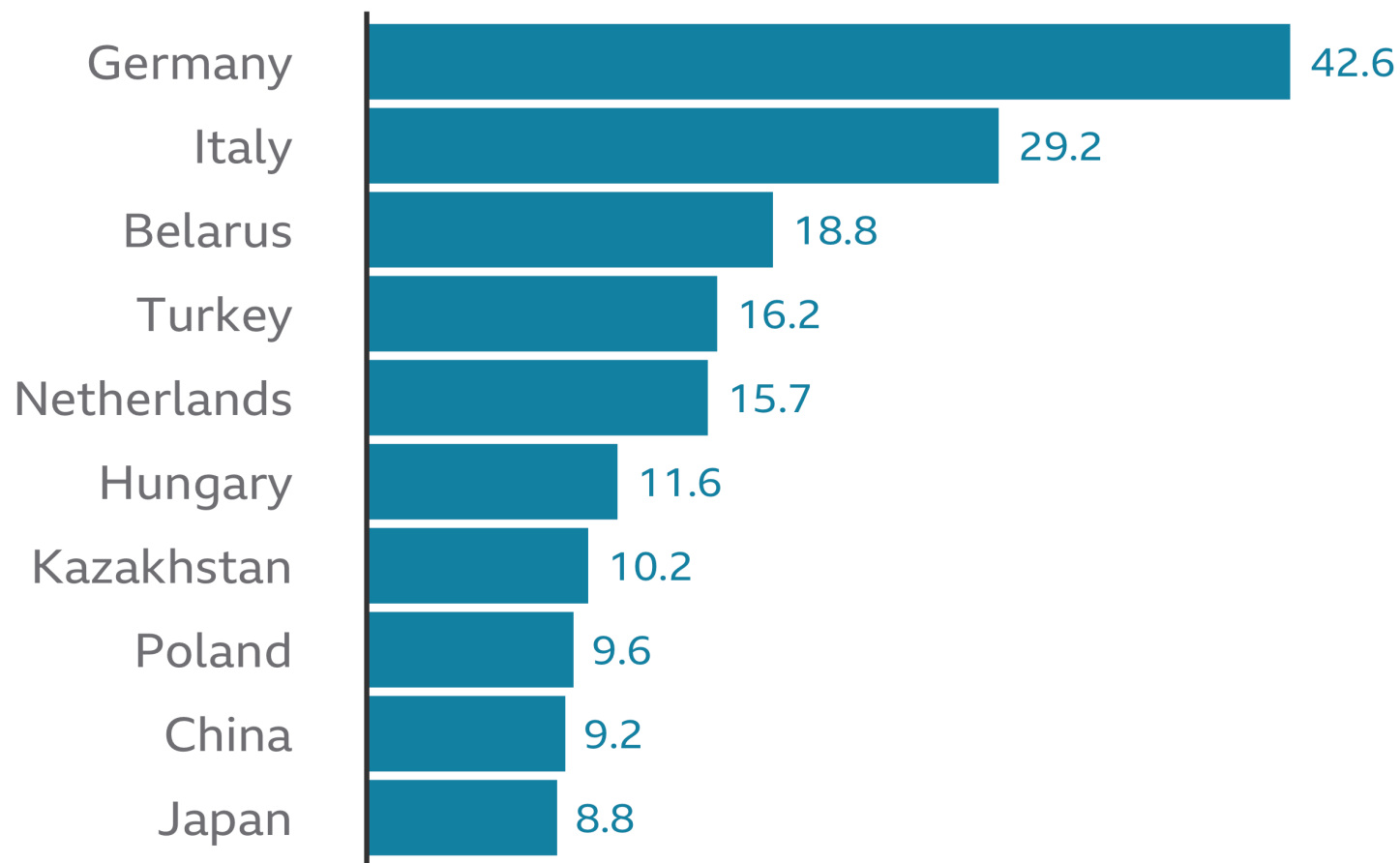
Question posed in 2009 PowerPoint presentation

Energy Security?

- By the year 2020, Gazprom will supply nearly 70% of the European Union's natural gas.
- Would you pursue a conflict with a country that you depend on for the majority of your energy needs?

Russia's gas exports

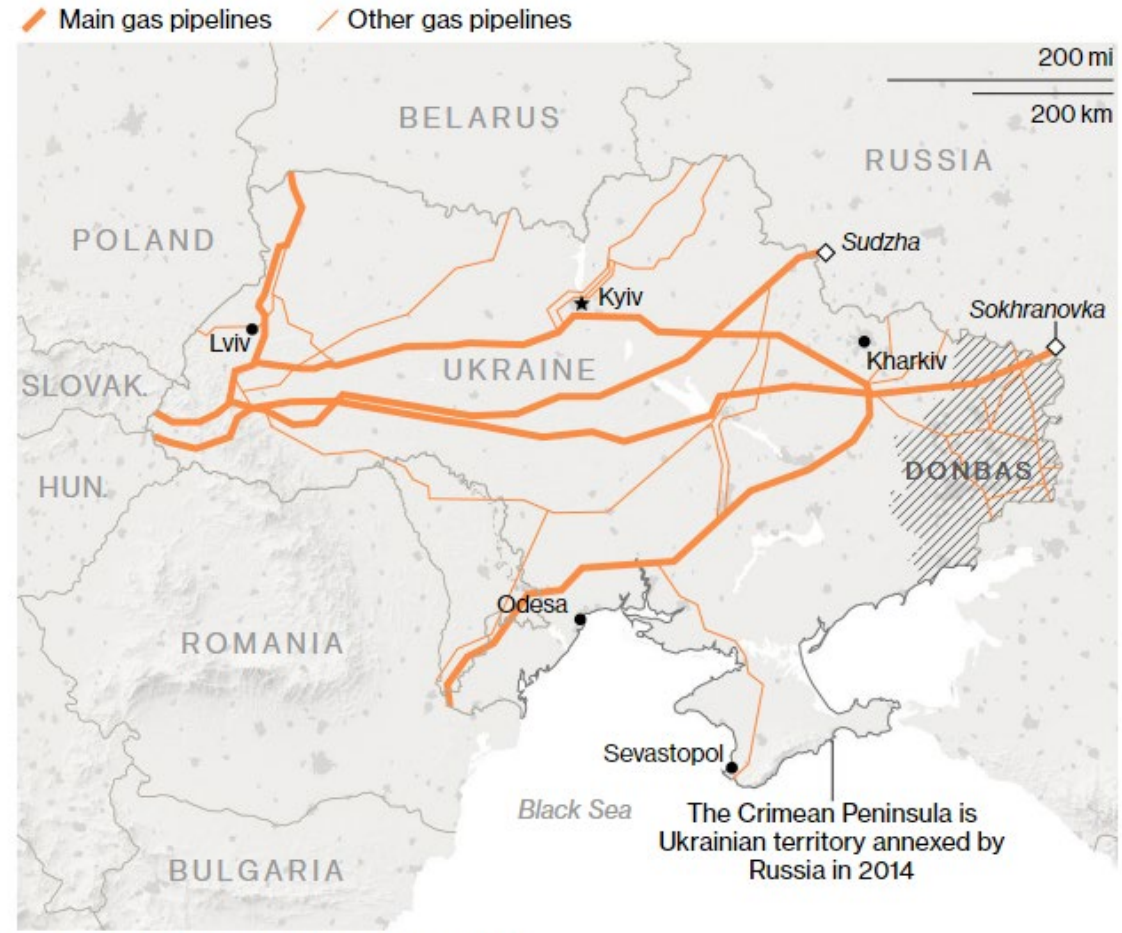
Countries by billion of cubic metres imported from Russia



Source: IEA, Data for 2020



Natural Gas Runs Through Ukraine



Source: The Oxford Institute for Energy Studies

Note: Only the portion of pipelines that run through Ukraine are displayed on the map

Why is Nord Stream I so important?

Linking the Super Powers



Warning from Putin in Spring 2014

\$35.4 Billion Demanded in Letter to EU

Bloomberg

Putin Calls on Europe to Aid Ukraine
or Face Gas Supply Risk



**Putin warns Europe about
Ukraine gas debt**



Germany's Angst

Germany's pursuit of peace in trade with Russia failed

“Roughly half of Germany's homes rely on natural gas for their heating, and 55 percent of the country's gas comes from Russia.”

A near-term cut-off of Russian gas supplies to Germany could cost their economy \$120 billion. Germany would be rationing natural gas.

- ***June 23, 2022, Germany Triggers Gas Alarm Stage, Accuses Russia of ‘Economic Attack’***

“We must not fool ourselves: The cut in gas supplies is an economic attack on us by (Russian President Vladimir) Putin”, “Germany’s Economy Minister Robert Habeck.”*

- ***June 16, 2022, Russia Slashes Gas Flows, Aiming Economic Weapon at Europe***

- World Europe

- **As Russia Cuts Gas, German Industry Grapples with Painful Choices**
- ***FRANKFURT, June 23 (Reuters)* - The German companies that drive Europe's biggest economy are contemplating painful cuts to their output and resorting to polluting forms of energy previously considered unthinkable as they adjust to the prospect of running out of Russian gas.**

Putin to Keep Gas Flowing, But Warns EU

Russian leader says sanctions threaten to reduce output;
Europe prepares for rationing

July 21, 2022

Wall Street Journal

Kremlin Opens Second Battlefield

While Vladimir Putin wages a conventional war in Ukraine, he has opened a second front in Europe that is coming to a head; A battle over natural gas.

July 21, 2022
Wall Street Journal

Natural Gas Soars 700%, Becoming Driving Force in the New Cold War

- Bloomberg.com, July 4, 2022

Entire industries in Germany could collapse due to Russian natural-gas supply cuts: union head

- Business Insider, July 3, 2022

E.U. urges gas rationing ahead of 'likely' cutoff by Russia

- Washington Post, July 20, 2022

Europe's Worst Energy Nightmare Is Becoming Reality

Russian outages and record-high prices threaten a “winter of discontent.”

- Foreign Policy, July 11, 2022

IEA Chief: Europe Has to Cut Gas Use or Face Brutal Winter

- Foreign Policy, July 21, 2022

Germany's About Face Gives Hope

“We must change course to overcome our dependence on imports from individual energy suppliers.”

- Chancellor Olaf Scholz



This will include building two liquefied natural gas (LNG) terminals, one in Brunsbuettel and one in Wilhelmshaven, and raising its natural gas reserves.

Create a New Society



“Let’s not kid anybody,” said Leon Panetta, ***“Putin’s main interest is to try and restore the Old Soviet Union. I mean that’s what drives him.”***

Step 5: Create a New Society

- Legislation calls for a **26 percent reduction in emissions by 2025** and a **50 percent reduction by 2030**. Those targets are measured against Colorado's 2005 emissions.



“This is by far the most ambitious and expansive planning document that Colorado has ever produced on climate change,” Polis said.

COLORADO AIMS TO “ELECTRIFY THE HECK” OUT OF EVERYTHING, GAS STOVETOPS POTENTIALLY TARGETED

*“A swift transition from natural gas-fired power sources to electrification has become a top priority for Colorado Gov. **Jared Polis** as leading officials in his administration aim to stop fossil fuel use by consumers. Such a move raises the specter of higher costs for consumers and other impacts, especially if they lose access to popular home appliances like gas stovetops.”**

Rule Forever

- Vladimir Putin passes law that may keep him in office until 2036

“The Russian president signed the legislation on Monday, ending a year-long process to **“reset”** his presidential terms by rewriting the constitution through a referendum-like process that his critics have called a crude power grab.”

Jared Polis

Term

- 2001-2007- State Board of education**
- 2009-2011- Colorado U.S. House 2nd District**
- 2011-2013- Colorado U.S. House 2nd District**
- 2013-2015- Colorado U.S. House 2nd District**
- 2015-2017- Colorado U.S. House 2nd District**
- 2017-2019- Colorado U.S. House 2nd District**
- 2019-present- Governor of Colorado**

Polis Steps Into National Spotlight*



If Polis wins another term as Colorado Governor and two terms as U.S. President he will be in office until 2034, meaning he would be in public office for a total of 33 years.*



Slide from August 2014 presentation

- What Type of People Share Those 6 Characteristics?
 - **A tyrant**
 - **An Autocrat**
 - **An Ideologue**

- Colorado, under Jared Polis' Leadership is creating **a new CO2-free society** following the same path that Putin encouraged Germany and the EU to follow.
- Can't we learn from mistakes made by the EU and more specifically Germany?

The far green left still doesn't understand scale.

Daniel Yergin: *“... this is a \$90 trillion world economy that gets 80% of its energy from hydrocarbons. It's not going to change overnight.”*

“Carbon Free by 2030”?

1. Why is Putin courting Iran?

Which countries have the biggest natural gas reserves?

1. Russia – 38 trillion cubic metres. ...
2. Iran – 32 trillion cubic metres. ...
3. Qatar – 24.7 trillion cubic metres. ...
4. Turkmenistan – 19.5 trillion cubic metres. ...
5. United States – 12.9 trillion cubic metres.



Russia, Iran sign \$40-billion oil, gas MOU

Gazprom would make \$40 billion dollars of direct investments in Iran's oil and gas industry

- Oil & Gas Journal, July 22, 2022

2. A Tidal Shift?

EU Votes to Label Natural Gas as Climate Friendly



3. For the First Time, US Is Sending More Gas to Europe Than Russia

US LNG volumes were higher than Russian piped gas last month (June 2022)



Source: Bloomberg, Anna Shiryayevskaya, July 1, 2022

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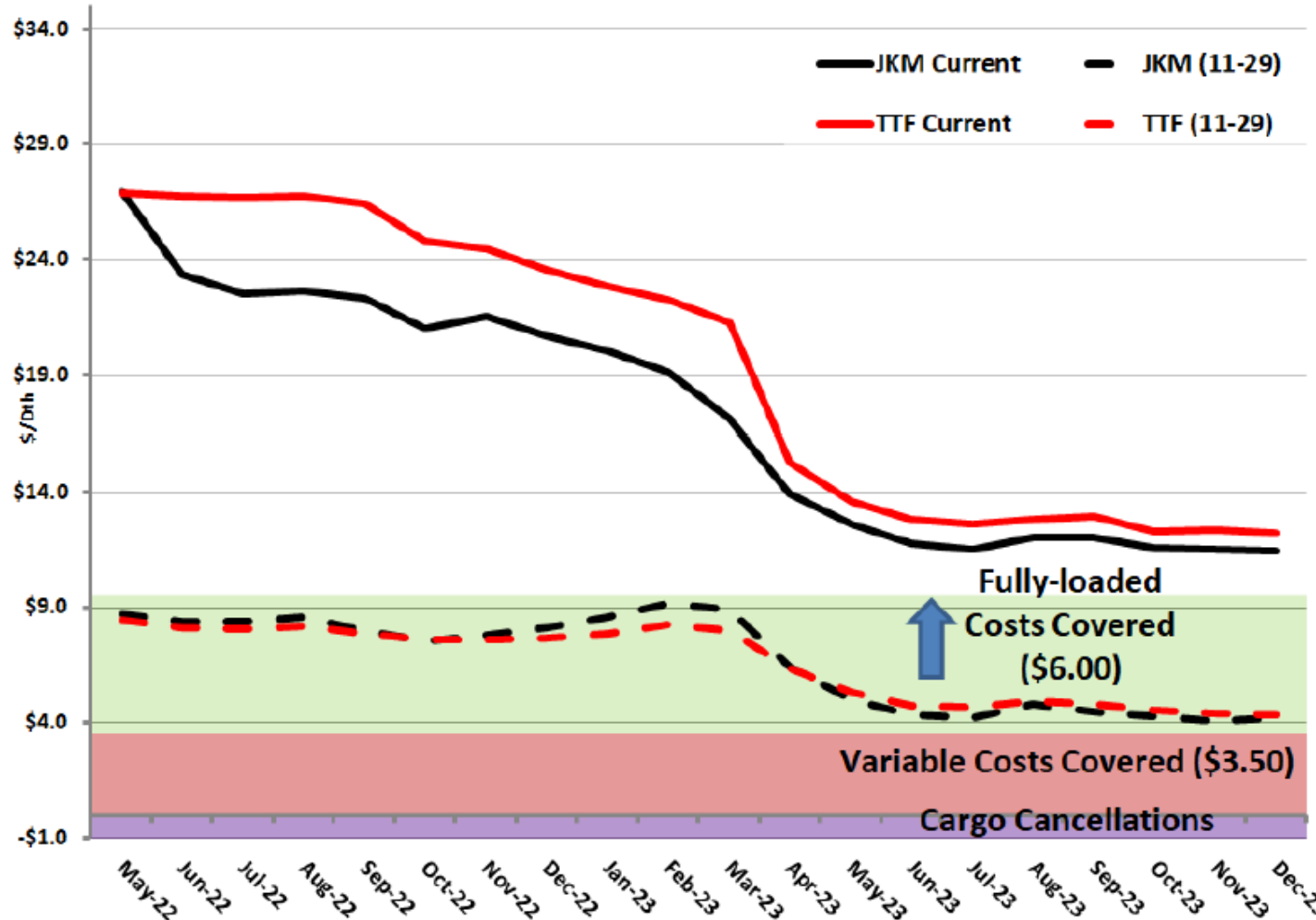
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LNG Export Trends

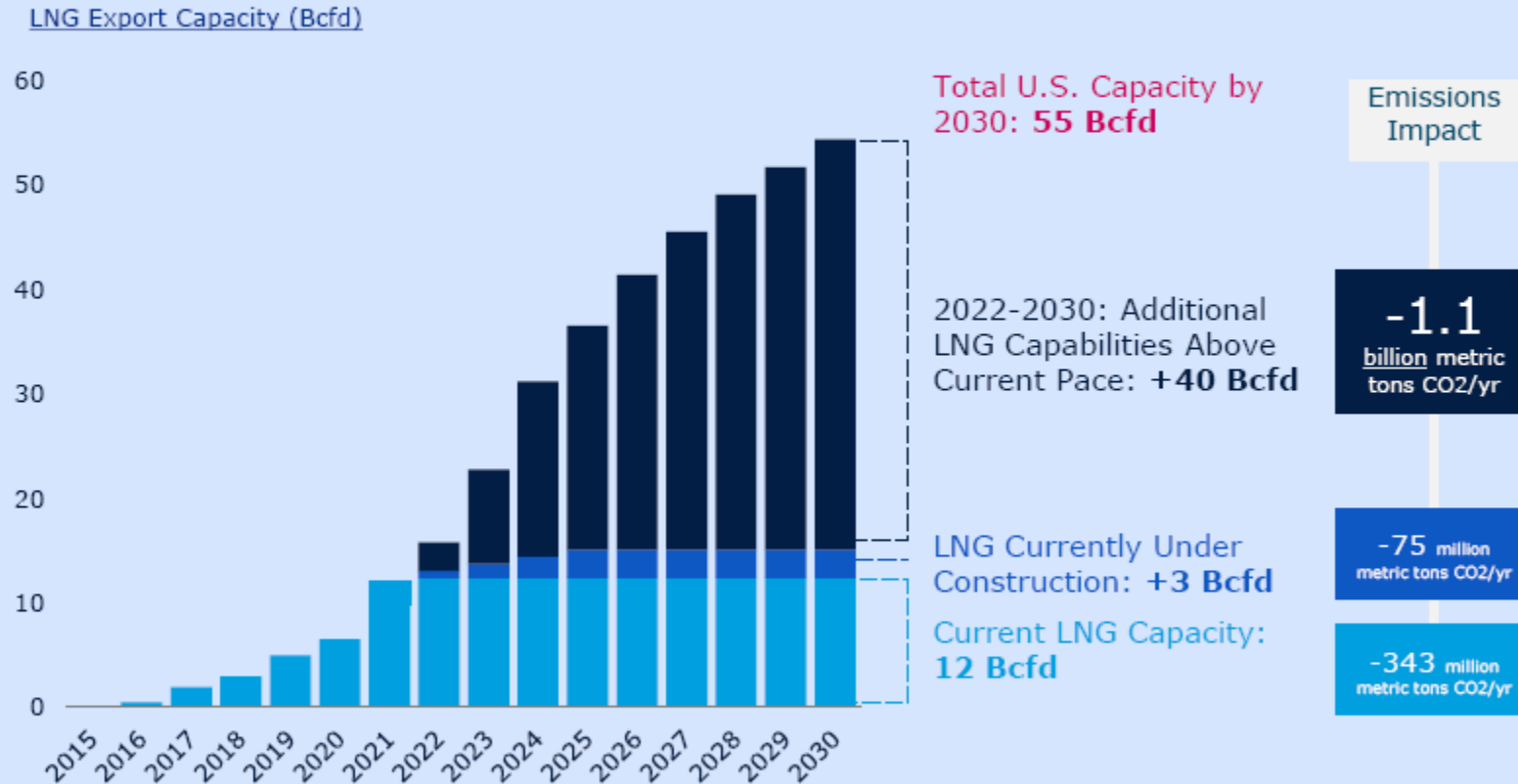
Near Term Outlook Margins



Margins through '23 well above fully loaded costs. Supply demand balance remains tight due to greater demand in Asia and Europe. Competition for cargos between Asia and Europe and Russia/Ukraine conflict sustaining elevated prices in both markets.

Nord Stream 2 will not enter service for the foreseeable future with current situation in Europe

Projected LNG Export Capacity Through 2030¹



1. Based on an internal study, U.S can produce 40 bcf production surplus by 2030. 2. There is 3 bcf capacity currently under construction, and another 3 bcf anticipated. Therefore, projected incremental capacity is 6bcfd. To reach an additional 40 bcf, the incremental needs to be 6x, which is in line with non-obstructed pace. 3. Assuming 3 bcf under construction, and 40 bcf additional capacity by 2030.

Source: ICF Update to the life-cycle analysis of GHG emissions for U.S. LNG exports analysis to calculate emissions saving from coal to gas; EQT analysis for additional production (based on Enverus data)

European LNG infrastructure

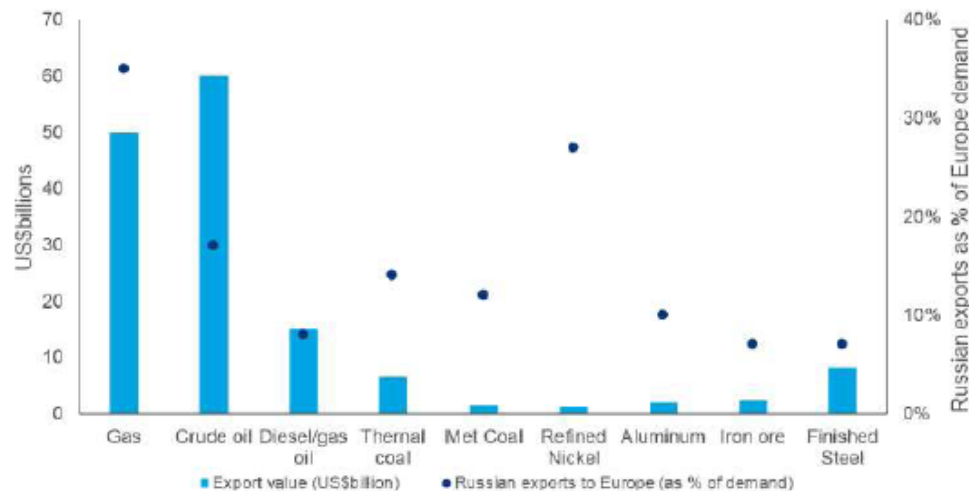


Source: European Commission 2022, Clean Energy Wire

LNG Export Trends

Russian gas supply to Europe and China

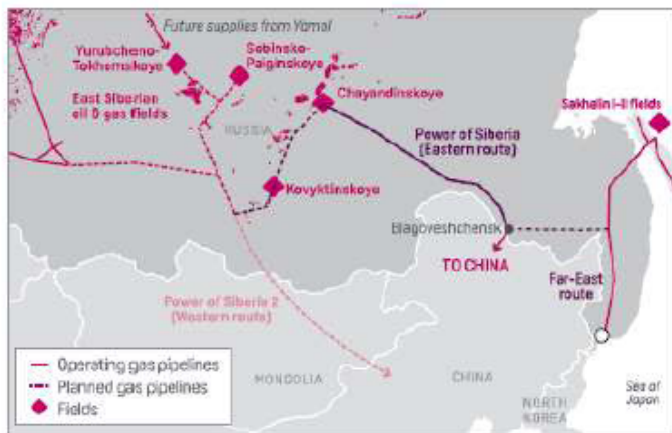
European exposure to Russian commodity imports and its monetary value (2021)



- Russian gas and oil have a significant share of the EU Mkt.
- Russian gas supplies ~38% of European demand
- Russia supplies ~50% of Germany's demand and ~30% of Italy's demand
- May be limits to increase pipe supply from non-Russian sources

- Russian piped gas flows to Europe on the following routes;
- Nord Stream 1 flowing at capacity 5 Bcfd
- Nord Stream 2 (uncertain outcome), capacity of 5 Bcfd
- Yamal (via Poland) capacity of 3.2, not flowing at capacity
- 3 pipes thru Ukraine, capacity 8.1 Bcfd, limited flow currently due to higher cost of transport. Russia has a 3.8 Bcfd flow or pay kt. with Ukraine thru '24
- TurkStream and Blue Stream (via Turkey to Italy /southern EU), capacity of ~3 Bcfd

RUSSIAN GAS LINKS TO CHINA



Source: S&P Global Platts, Gazprom

- Russia currently supplies China and is looking to expand
- Russia supplies China via the Power of Siberia PL; 3.9 Bcfd, supplying ~7% of its gas demand
- In discussions to develop Power of Siberia 2, 5.1 Bcfd
- Entered into new long-term gas agreement with China's CNPC for 1 Bcfd