

# Arktik

## Enerji ve İklim

Barış Sanlı

Bilkent Enerji Politikaları Araştırma Merkezi

11 Ocak 2021

# Yeni Rapor

- Ülkeler
- Değişen stratejiler
- Finansman
- Zorluklar



# Arktik deniz buzu



<https://public.wmo.int/en/media/news/arctic-sea-ice-minimum-2nd-lowest-record>

# Değişik tahminler

## Could all Arctic ice be gone by 2012?

Satellite images say it might be

By **Seth Borenstein**  
Associated Press

WASHINGTON | An already relentless melting of the Arctic greatly accelerated this summer, a warning sign that some scientists worry could mean global warming has passed an ominous tipping point.

One even speculated that summer sea ice would be gone in five years.

Greenland's ice sheet melted nearly 19 billion tons more than the previous high mark, and the volume of Arctic sea ice at summer's end was half what it was just four years earlier, according to new NASA satellite

### MORE CLIMATE NEWS

- Report says warming taking toll on penguins. **5A**
- World looks to post-Kyoto agreement. **5A**

data obtained by The Associated Press.

"The Arctic is screaming," said Mark Serreze, senior scientist at the government's snow and ice data center in Boulder, Colo.

Just last year, two top scientists surprised their colleagues by projecting that the Arctic sea ice was melting so rapidly that it

SEE ARCTIC | **4A**

Articles



Last September 21, as the Northern Hemisphere tilted away from the sun, scientists reported with unprecedented distress that the North Polar ice cap is "falling off a cliff." One study estimated that it could be completely gone during summer in less than 22 years. Another new study, to be presented by U.S. Navy researchers later this week, warns it could happen in as little as 7 years.

Seven years from now.

## TEN YEARS AGO TODAY AL GORE PREDICTED THE NORTH POLE WOULD BE COMPLETELY ICE FREE IN FIVE YEARS

📅 DECEMBER 13, 2019 👤 CAP ALLON

On December 13 & 14, 2009, *professor, prophet, and soothsayer* Al Gore predicted the North Polar Ice Cap could be completely ice free within the next five to seven years.

Star News - December 12, 2007

<https://www.nobelprize.org/prizes/peace/2007/gore/26118-al-gore-nobel-lecture-2007/>

# Yamal LNG - süre

## Northern sea route through Arctic



<https://www.total.com/infographics/yamal-lng-northern-sea-route-cuts-journey-time-half>

# Gaz altyapısı



# Petrol ve gaz altyapısı

The  Moscow Times  
INDEPENDENT NEWS FROM RUSSIA

≡ NEWS OPINION BUSINESS MEANWHILE ARTS AND LIFE PODCASTS VIDEOS IN-DEPTH

## Russia's Thawing Permafrost May Cost Economy \$2.3Bln a Year

Russia's oil and gas infrastructure isn't ready for rising temperatures and melting ice.

By Yuliya Fedorinova and Olga Tanas for Bloomberg  
Oct. 18, 2019



# Vostok Petrol projesi

- Vostok petrol
- 134 milyar \$
- 15 şehir – 400,000 kişi
- 100 milyon ton ihracat
- Trafigura %10.. BP %19.75 (Rosneft)
- Hidrojen?





# Arktik'de nükleer

## Russia floating nuclear power station sets sail across Arctic

© 23 August 2019



REUTERS

The Akademik Lomonosov sailed away from Murmansk with three tugs

Russia has launched a pioneering floating nuclear power station, which will sail 5,000km (3,000 miles) from the Arctic port of Murmansk to Chukotka in the far east.

The nuclear agency Rosenergoatom says the Akademik Lomonosov's mobility will boost the power supply to remote areas.

One of its targets is to power the Chaun-Bilibin mining complex in Chukotka, which includes gold mines.



BBC

<https://www.bbc.com/news/world-europe-49446235>

# ABD – Arktik petrol ruhsat ihalesi

- 2.2 milyar \$ bekleniyordu
- 14.4 milyon \$
- 12 milyar varil rezerv



<https://www.ft.com/content/bf1c671e-a032-43a0-8471-5cfc133c8fee>

# Yenilenebilir kaynaklar



<https://arcticrenewableenergy.org/event-map/>

# Türkiye - buzkıran



## NORMANN NB0045 - HST0129

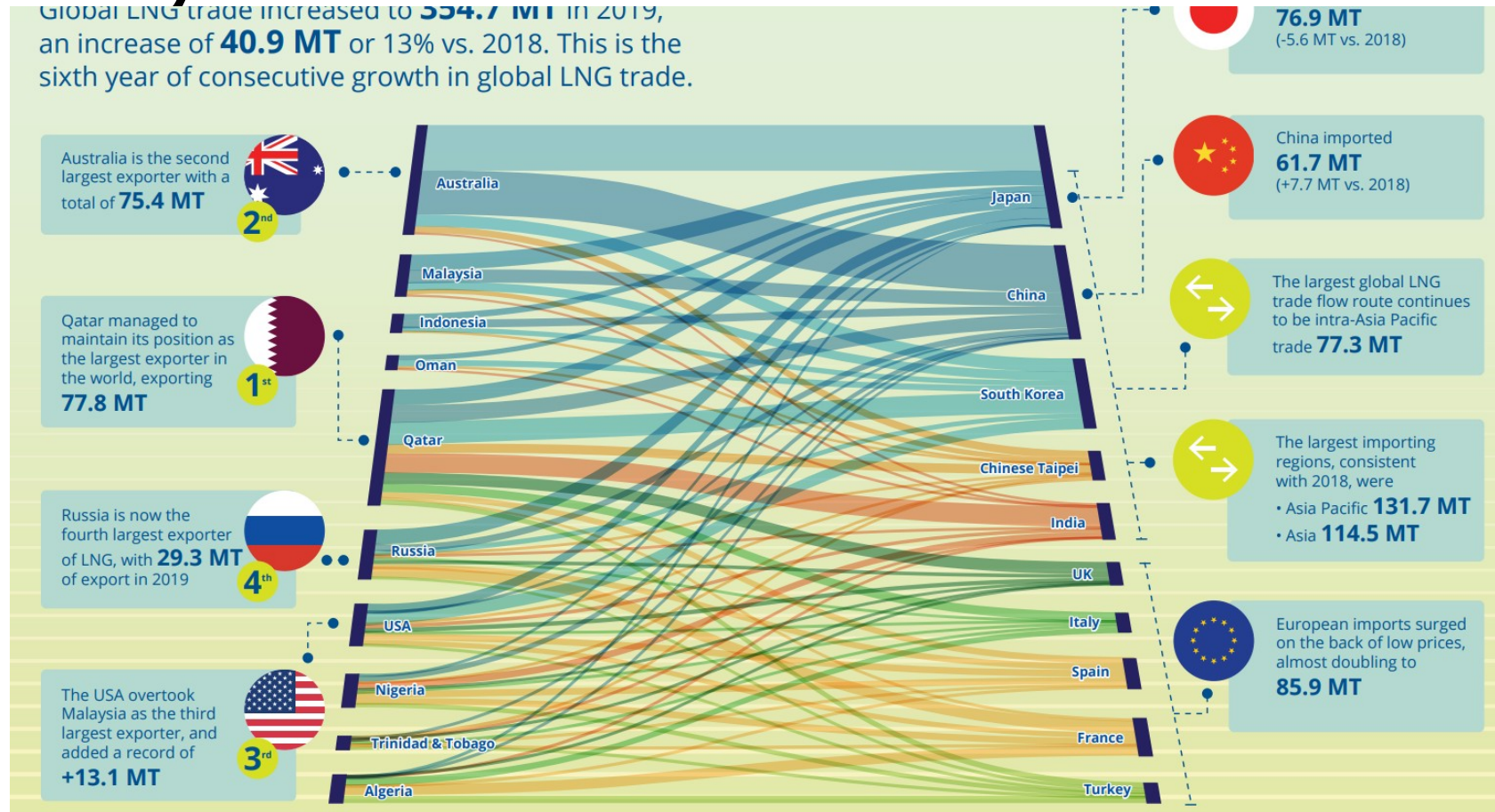
GERİ

TESLİM TARİHİ	Q1, 2016
GEMİ TİPİ	BUZKIRAN GEMİSİ
MÜŞTERİ	HAVYARD GROUP A.S.
DİZAYN	HAVYARD SHIP DESIGN
KLAS	DNV
UZUNLUK	86 m
GENİŞLİK	19,5 m
DERİNLİK	9 m
SU ÇEKİMİ	4,7 m
YOLCU KAPASİTESİ	34 KİŞİ
DWT	2600



<https://www.cemreshipyard.com/tr/references/nb0045-hst0129-normann>

# Türkiye'nin Arktik'ten LNG alması



# Enerji güvenliđi anlamında

- LNG alımı düşük
- Panama kanalındaki darlık
- Permafrost ile enerji altyapısı sorunları
- Nükleer güvenlik
- Hidrojen geleceđine Arktik dođalgazı?

# Türkiye için ne yapılabilir

- Bir koordinasyon için : Arktik Çalışmaları Enst.
- Gemi üreticileri – Buzkıranlar
- Çevresel çalışmalar, iklim değişikliği
- Maden alanında
- LNG anlaşmaları ile ortak çalışma
- Devlet mi/Özel şirket mi?

# Teşekkürler

- Web: [barissanli.com](http://barissanli.com)
- Haber özetleri : [barissanli.com/eak](http://barissanli.com/eak)
- Twitter: [twitter.com/barissanli](https://twitter.com/barissanli)
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