Centre for Global Studies “Strategy XXI”

Aspects of Energy Security in the Black Sea Region

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Centre for Global Studies 'Strategy XXI' is a think tank that specializes in energy and international security studies basing on multidisciplinary approaches.

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SYNERGING

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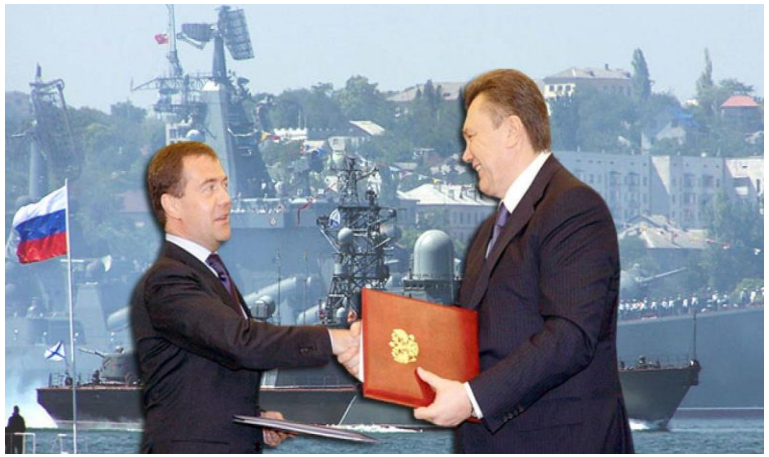
ENERGIES

1. Energy Warfare in the Black Sea Region

Russia's aggression against Ukraine - a part in the chain of the Hybrid War started long before



- **Gas Wars (2006, 2009);**

- **Agreement between Ukraine and Russia on the Black Sea Fleet in Ukraine or Kharkiv Accords** (Russian lease on naval facilities in Crimea was extended beyond 2017 until 2042, with an additional 5-year renewal option in exchange for a 30% drop in the **price of gas** sold to Ukraine);

- **Gas pipeline project "South Stream"** (2007-2014, 63bcm);

- **Open aggression since Feb 20, 2014 - occupation of Crimea**

- **TurkStream** (in 2014 in Turkey, president Putin announced that Russia withdrew from the project and started TurkStream);

1. Energy Warfare in the Black Sea Region

TurkStream

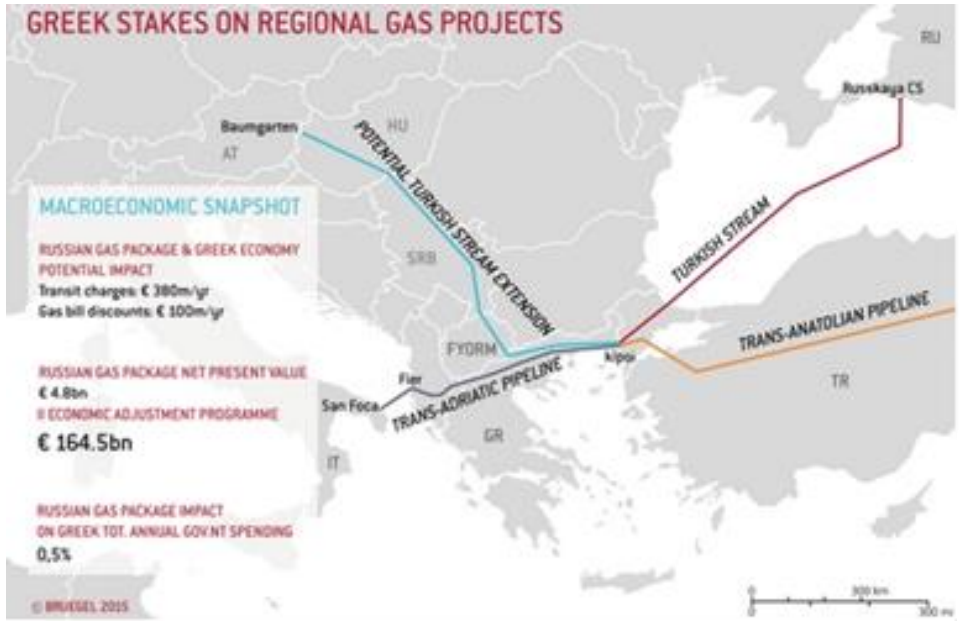
Goals of the project:

1) Supply Russian natural gas to the European part of Turkey, stopping its supply through the existing TransBalkan route Ukraine - Moldova - Romania - Bulgaria.
2) Partially implement the South Stream 2.0 project under the another name by continuing the TurkStream through the Balkan region to Central Europe.

- **Same source** – Russia
- **New old route** – a shift to Turkey
- **Same capacity** (63 bcm – four pipes)
- **Same company** - South Stream Transport B.V. (Gazprom)
- **Same consumers** (Turkey - 10 bcm, Bulgaria - 3.18, Romania – 1.48 (2016), Macedonia - 0.07, Greece - 2.68, Serbia – 2.1, BiH – 0.22)
- **Lack of need** for additional gas pipeline

1. Energy Warfare in the Black Sea Region

TurkStream



- **New tactics –** single pipeline vs. net of pipelines (+TANAP; ITG, IGI, IGB, TAP, Tesla, interconnectors…)
- Bypass requirements of the Third Energy Package by demonstrating various sources – from Russia, Azerbaijan, the Middle East …
- Use different “independent” routes – “Greek stream”, “Serbian stream”, “Balkan hub”…

Balkan ways:

- Greese-Bulgaria, Greese-Macedonia
- Trans Adriatic Pipeline
- Turkey-Bulgaria, Bulgaria-Serbia, Bulgaria-Macedonia, Bulgaria-Romania
- Tesla pipeline
- Former South Stream route: Bulgaria - Serbia - Hungary

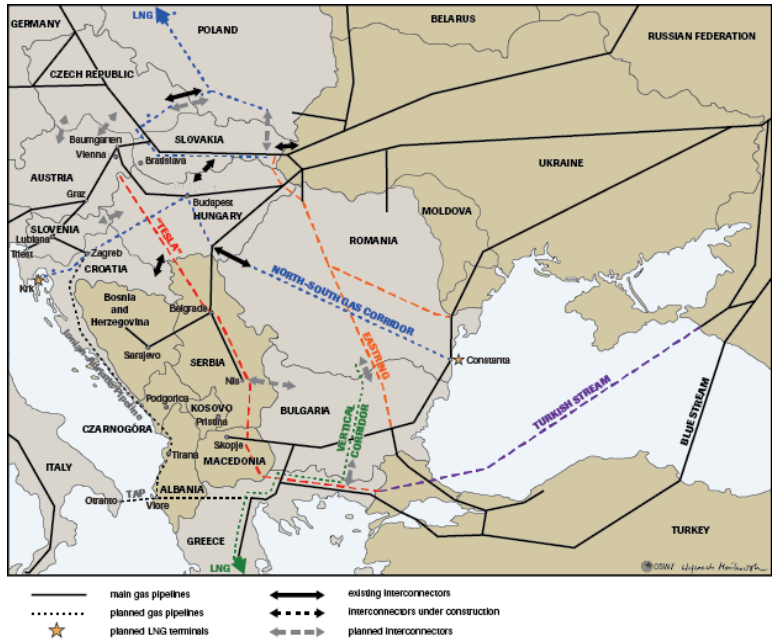
1. Energy Warfare in the Black Sea Region

Route of the TurkStream pipeline in the part that goes through the shallow waters of the Black Sea near the Turkish coast could be used as a platform for the installation of **reconnaissance equipment and facilities** to control movement of NATO ships and vessels through the Bosphorus and their visits to the ports of NATO member states.

Russians is close to complete their “Unified State Surveillance System for Surface and Underwater Environment of the Russian Federation” that was started in the 2000s.

In parallel, development of the new and improvement of existing high-tech tools with the possibility of their practical testing on real marine infrastructure objects is considered as priority for creating advantages over NATO using a variety of civilian platforms.

1. Energy Warfare in the Black Sea Region

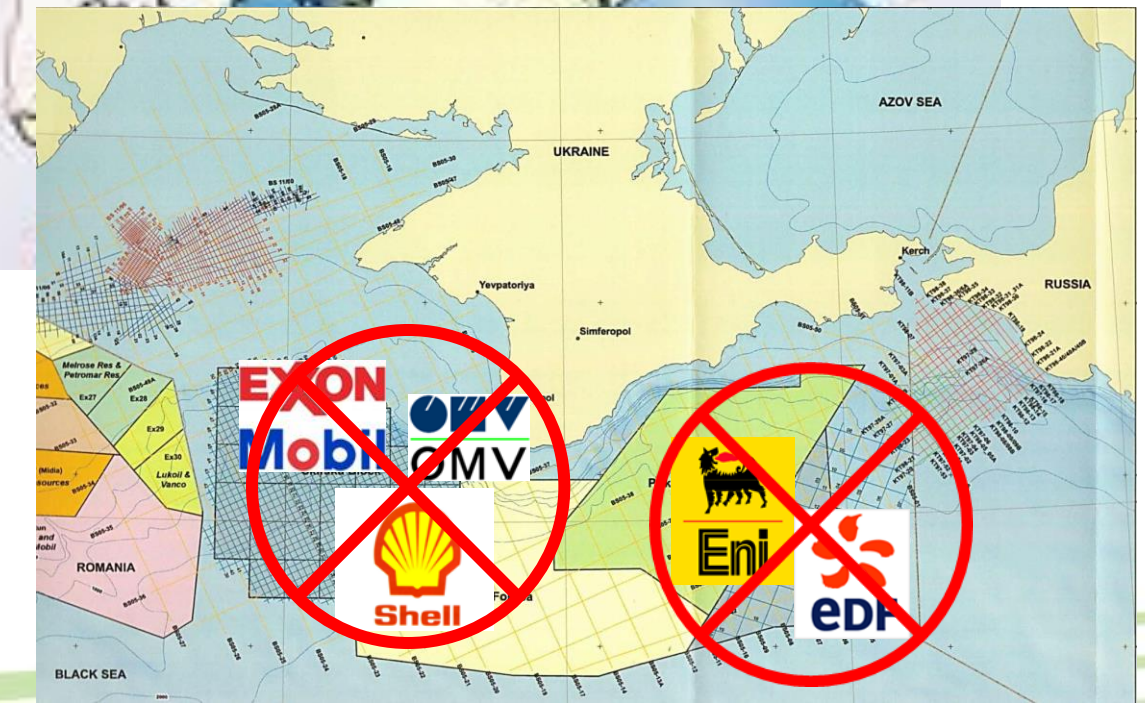


Consequences of TurkStream

- Diversification of routes with the **same source**
- **Deeper dependence** on the one source (Russia) - increased internal consumption
- New **spending** for consumers – remuneration of investments in TurkStream ($6-7bn for two lines)
- **Unbalanced gas supply** throughout the year (region may face a problem of low gas pressure in the pipeline in winter)
- Possible conservation of the capacities of the ShDKRI that would allow Russia to **impose its will** on consumers in South-East Europe
- **Lack of duplicate gas pipeline**s (if there is an accident at the seabed of this gas pipeline, which is laid at depths of more than two thousand meters in the problemous hydrogen sulfide environment of the Black Sea)
- **Increased military presence of Russia** in the Black Sea

2. Energy Occupation of Crimea

Four promising E&P projects were launched in 2012-2013 by American and European companies for 50-years period



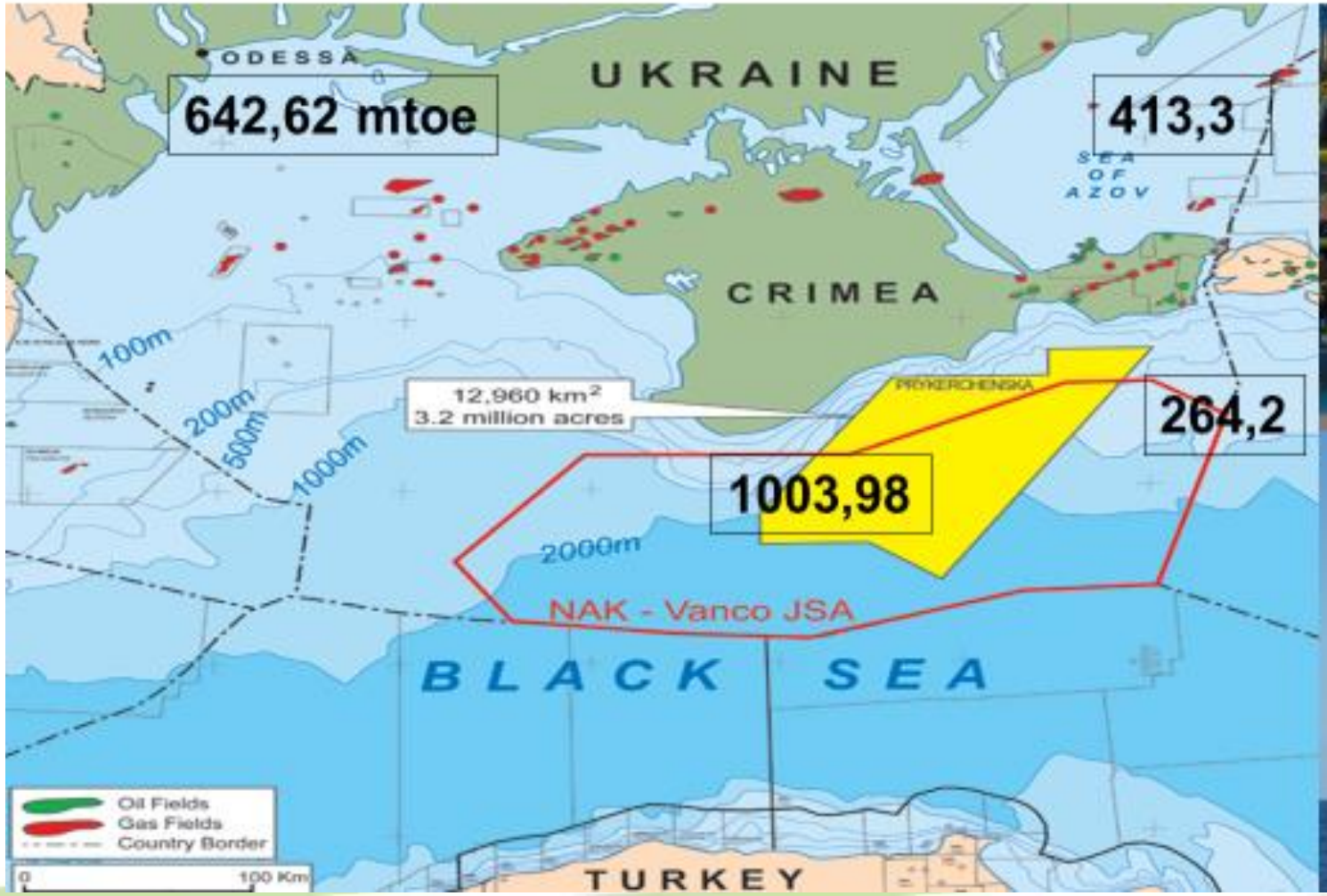
The Kremlin's strategic plan against Ukraine and the Western companies in energy sphere:

- removing Western competitors of the Russian state companies, creating unacceptable high military and political risks in the area of prospective production of conventional and unconventional hydrocarbons in the south and east of Ukraine, in particular, in the Black Sea shelf area around the Crimean peninsula.

2. Energy Occupation of Crimea

Drilling and extractive platforms of Ukrainian state-owned company NaftoGaz on the Black Sea and the Azov Sea shelf were occupied by "little greenmen"

(104th airborne-assault regiment of the 76 airborne-assault division of the Airborne troops of the Armed Forces of the Russian Federation)



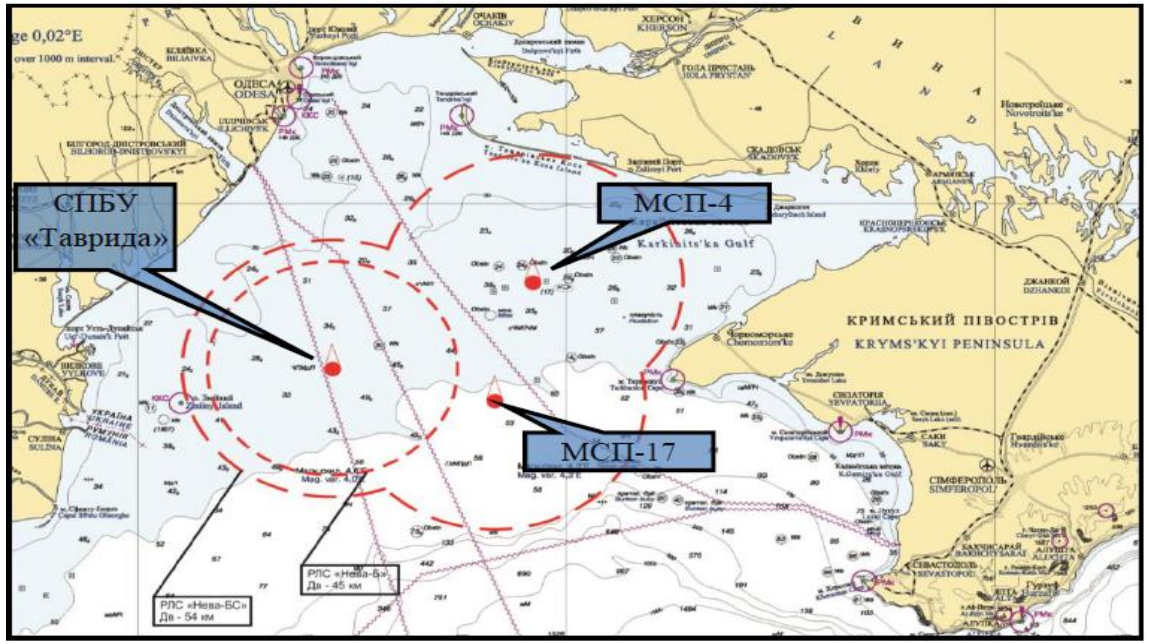
2. Energy Occupation of Crimea

Stolen property:

- 17 fields of the Black Sea shelf:
  11 gas fields,
  4 - gas condensate fields,
  2 – oil fields
- platforms:
  offshore fixed platforms,
  jack-up drilling rigs,
  satellite platforms,
  central processing platforms
- over 7 bcm of gas by this time
- losses of the Naftogaz group are estimated by experts in the amount of about $ 5 billion.

On 1 Feb 2017, Ukrainian air-transport plane An-24 was flying in the exclusive economic zone of Ukraine and was shot from the platform, occupied by Russia.

2. Energy Occupation of Crimea



The drilling rigs of the Ukrainian state-owned company Chornomornaftogaz, captured by the Russian Special Forces in March 2014, became a proper playground for the RF Black Sea Fleet to practice signals intelligence based on civilian marine infrastructure located in the north-western part of the Black Sea (to detect surface, submarine and low-flying air targets)

Surveillance systems for surface environment – the NEVA-BS centimeter-wave radars deployed on: TAVRIDA jack-up drilling rig; Fixed offshore platforms MSP-17 on Shtormove gas condensate field and MSP-4 on Holitsynske field in three sets.

NEVA-BS radar provides automated detection and tracking of up to 200 targets simultaneously. The detection range of targets: up to 30 sea miles (55.5 kilometers) for large targets, up to 15-20 miles - for medium targets (missile and patrol boats), up to 8 miles - for ultra-small targets of boat type.

Russian plans to develop electricity generation in Crimea: 2225 MWt by 2020

General maximal capacity of electricity generation after realization of all projects - 2225 MWt. Crimea's demand has never exceeded 1250 MWt. The need to have additional capacities is combined with growing energy consumption of Russian armed forces in Crimea and Kremlin's plans to increase their number until 2025.

3. Energy Factors on the Donbas

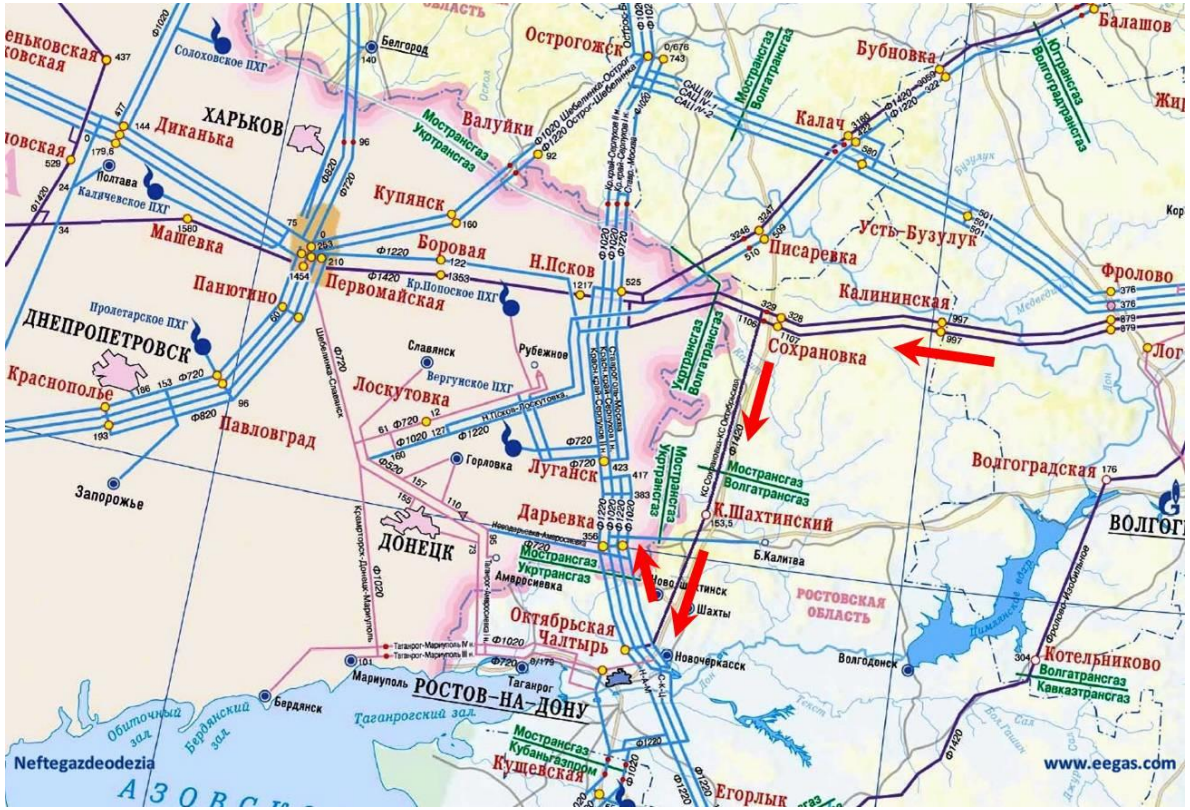
The **goal was** to seize Ukrainian GTS, all coal mines and key power plants, including South-Ukrainian and Zaporizhzhia nuclear PPs (9000MWt), and prevent exploration of new shale gas fields.

Yuzivske shale gas field (4000 bcm) is close to combat area – Shell withdrew

What are seized by Russia on the Donbas:

- Serebrianka-Prohorivo pipeline (non-functional)
- 85 of 150 mines (55 state-owned) - 57% of all mines
- 2 thermal PPs (2845MWt) - 5% of total generation
- No oil or gas wells

3. Energy Factors on the Donbas



Gas & Oil

Total stop of exploration of the Yuzivske shale **gas** field (expected restart of works in 2020)

Ukraine stopped gas supply to ORDLO

Gazprom provides natural gas (2,4 bcm in 2017) to occupied territories and insists that Ukraine should pay for this ($3,3bn by 2017). Naftogas of Ukraine refused to pay that bill.

Russia provides all **oil** and oil products to occupied territories

Zero oil export/import of Ukraine with ORDLO

Lysychansk refinery was stopped at the and of 2013, occurred in the center of fighting in spring of 2014, and now it is going to restart production of petrol and other oil products

3. Energy Factors on the Donbas

Electricity

ORLO is **electricity** dependent – supply electricity from Shchastia TPP (1425MWt) was stopped in April 2017.

The debts of ORLO for electricity is 5 bn UAH.

ORLO is now supplied from ORDO and Russia.

ORDO was cut from electricity system of Ukraine in July 2017.

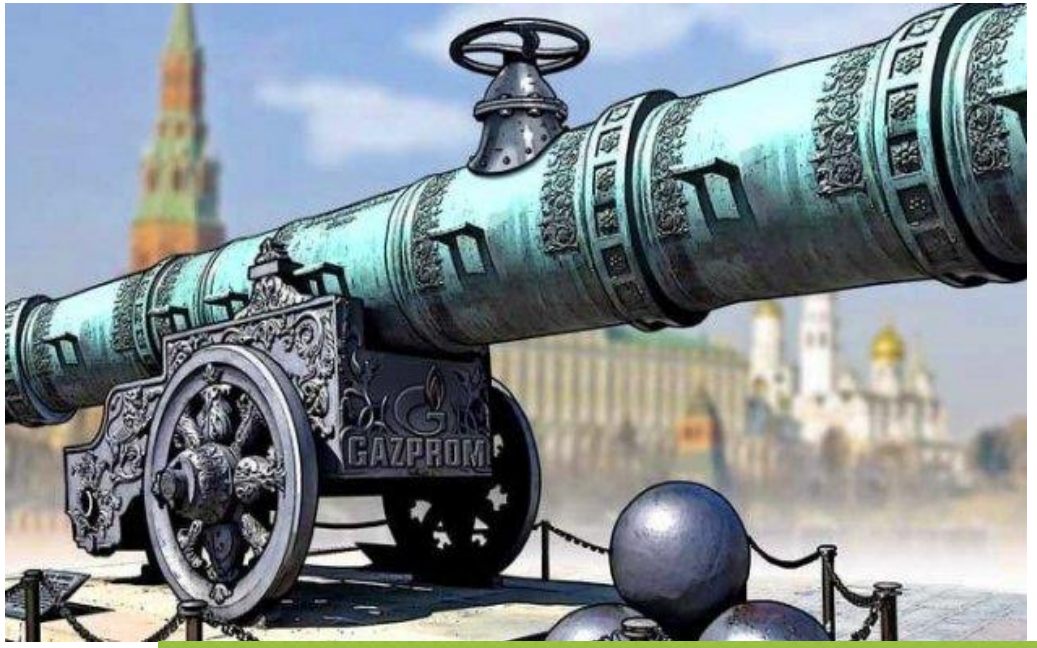
Losses of **coal** production – 60%

No direct coal supply from occupied territories, but through Russia

(around 10 mt on $1,5bn in 2017 – 56,6% from RF)

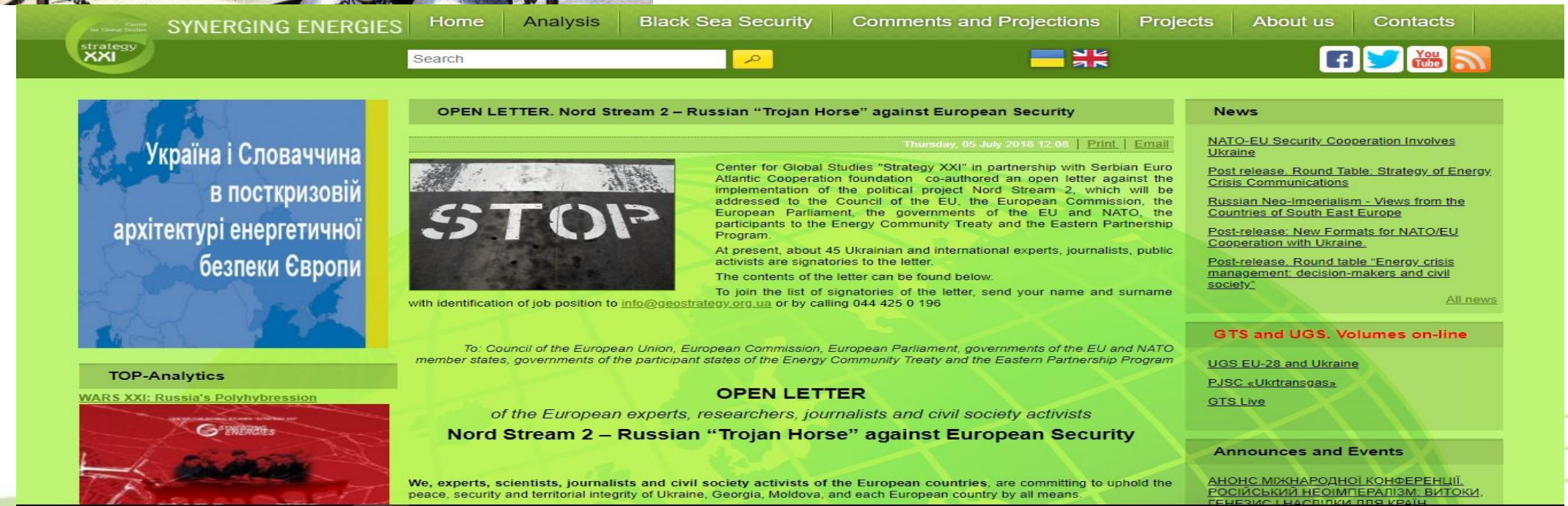
Water supply from controlled territories (still now)

4. Fighting against Russian information warfare in the energy field



What are we doing?

- Sharing true information
- Providing real data
- Preparing analyses and predictions of Russia's bevaviour in energy sphere
- Developing cooperation with foreign energy institutions, think tanks etc.
- Participating in national and international discussions

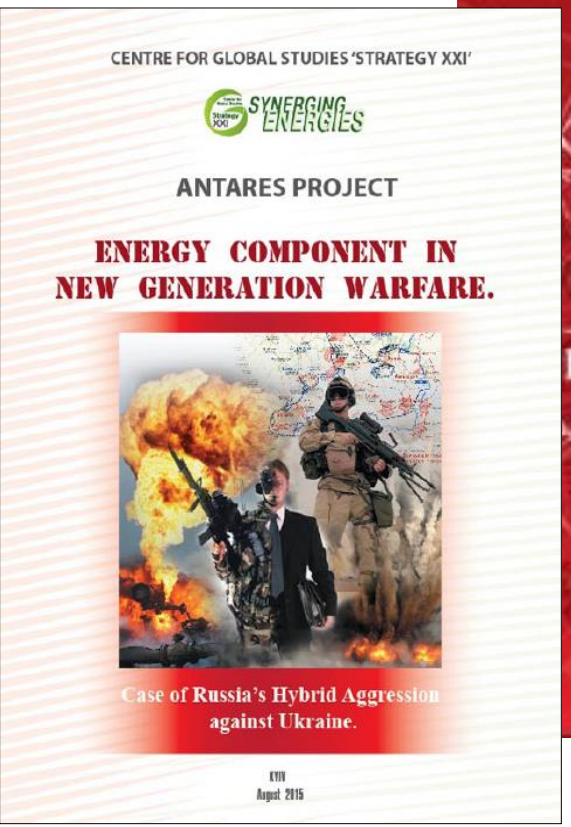


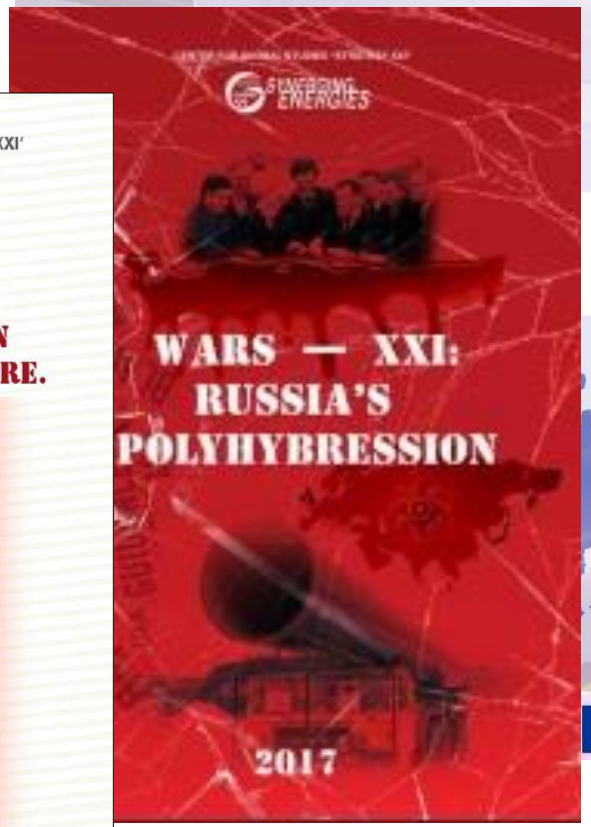
SOME CONCLUSIONS:

Russia is using energy resources as tools of hybrid warfare.

Russia is deploying “a military range” for testing the latest radio equipment of surveillance for surface and underwater environment around Crimea and in the Black Sea in whole.

To stop Russian aggression it is necessary to compound low oil prices and severe sanctions of Iranian model (limits in the EU on the purchase volumes of Russian oil, a SWIFT ban, etc.), as well as the EU's rejection of politically motivated projects like the Nord Stream 2 pipeline (spreading of the EU Third Energy Package on projects coming to the EU).





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Thank you for your attention!

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