

# **The Internet in Ukraine**

**200 days of Resistance**

**Svitlana Tkachenko Hostmaster.ua**

**RIPE 85 meeting Belgrad 28.10.2022**

# Hostmaster Ltd.

.UA ccTLD

gov.ua Registry

about 20 employees in 3 cities

EPP, WHOIS, RDAP, DNSSEC services

Anycast

LIR ua.hostmaster

**2022-02-24**  
**Military attack**



# .UA Registry

- message to RIPE, ICANN, CENTR, international colleagues
- keep the Registry working (at all costs)
- invent new types of verification (email, chat, phone)
- not delete expired domains
- keep in touch with all clients
- gov.ua registry

# **.UA Registry**

## **Priorities**

- People
- Data
- Services
- Money and time



# Internet infrastructure

in the first 4 months 1/4 of all network were destroyed

critical infrastructure in occupied territories

land and buildings are mined

routing switching (in the occupied territories)

# ISP

## reports from "battlefield"

(2.03.2022) ISP network availability indicators by SLA levels:

- BORDER (BORDER ROUTERS) - 99.98%
- CORE (NETWORK CORE) - 99.16 %
- DISTRIBUTION (BACKUP NETWORK) - 98.90%

# Starlink

- march 2022
- October 2022
- 25 thousand terminals



**2022-10-10  
(Monday morning)**

**75 missiles, 40 destroyed**

**11 infrastructure facilities  
were damaged**



# Blackouts

## Ukrainian energy infrastructure hit by Russia since Oct. 10

Sources: Government, local authorities

Number of facilities attacked:

1 2-5 >5

★ Power plants attacked

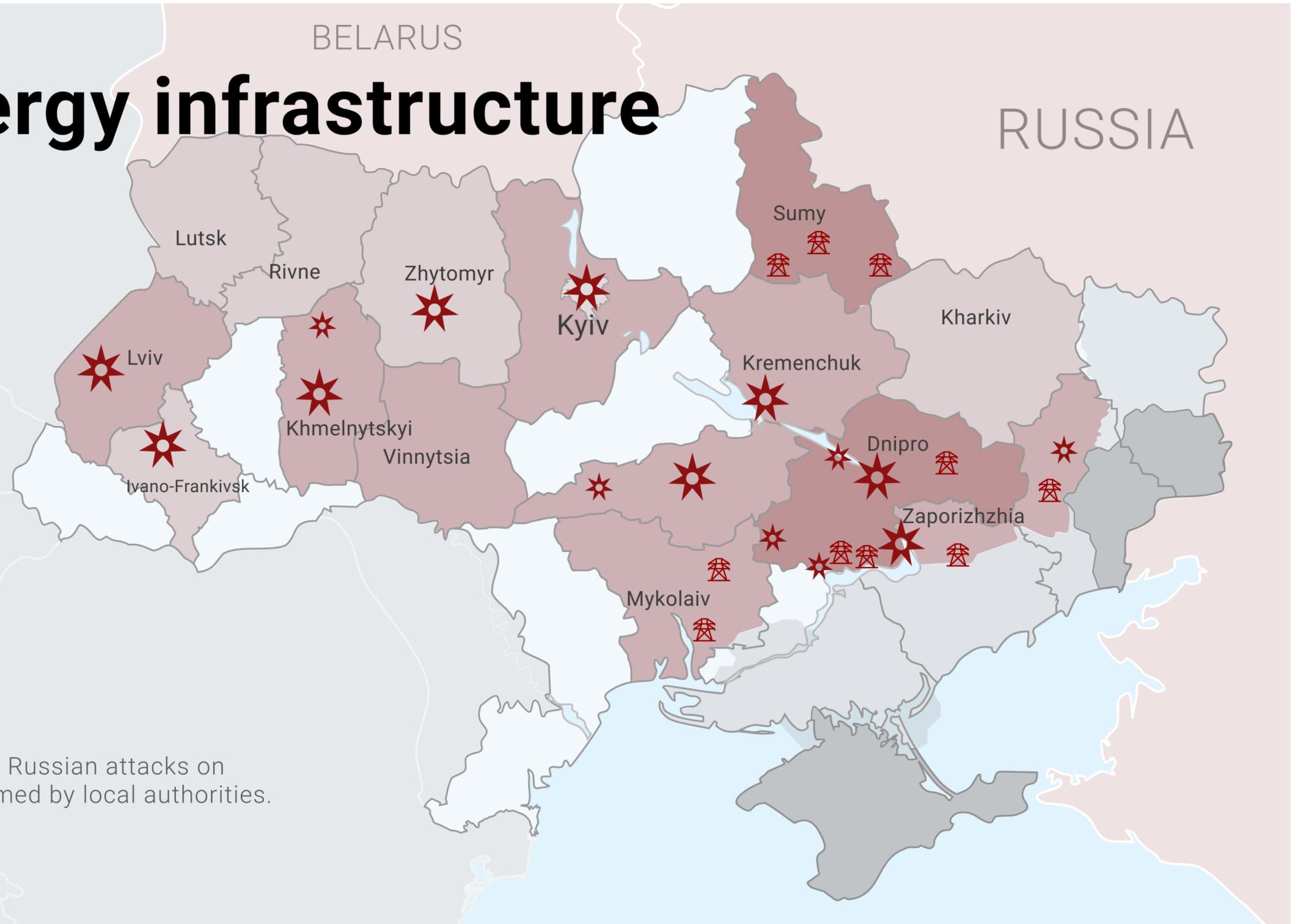
⚡ Power lines damaged

☐ Territories occupied after Feb. 24

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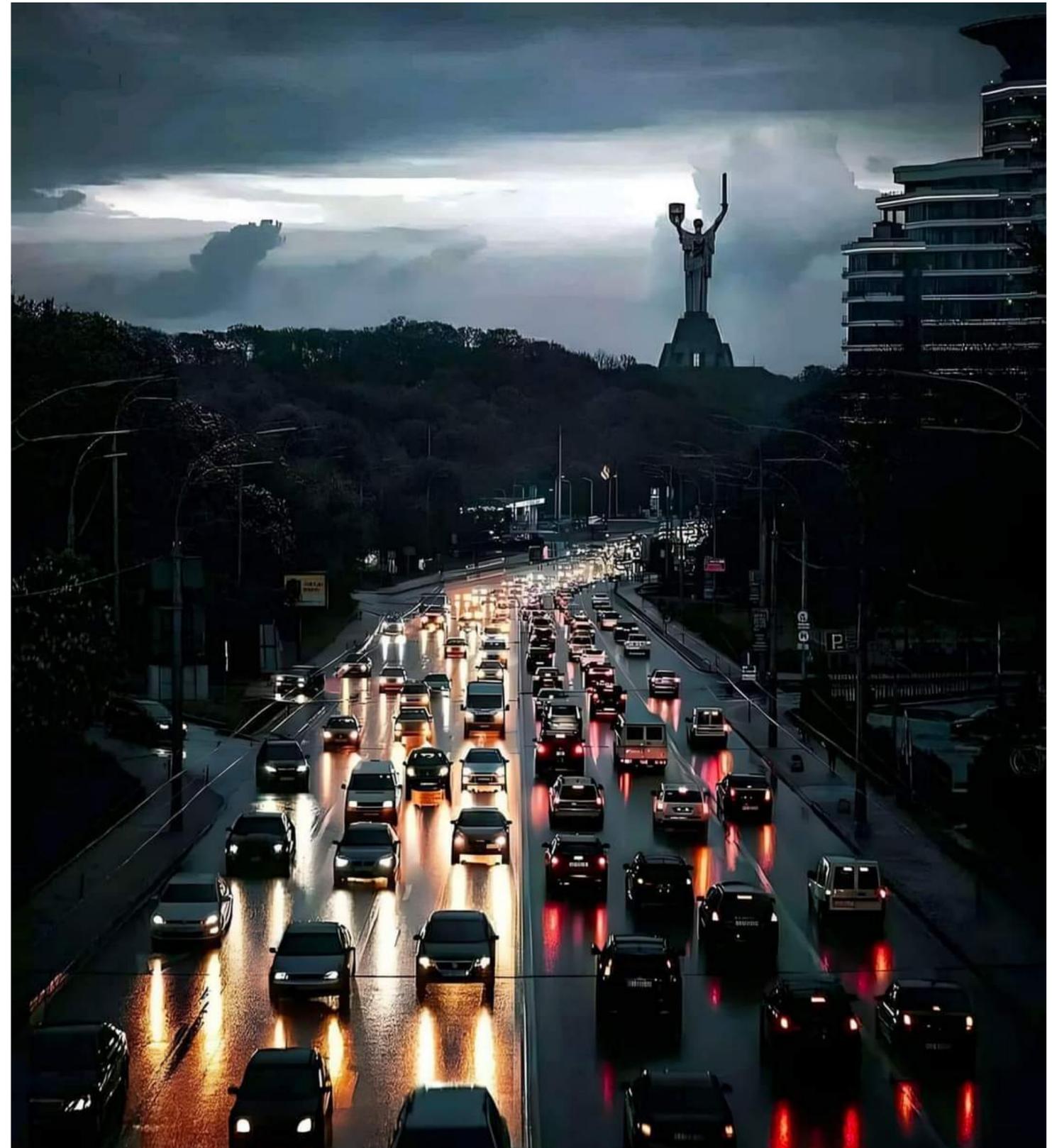
The Kyiv Independent has only included the Russian attacks on energy infrastructure that have been confirmed by local authorities.

THE  
KYIV INDEPENDENT



# Since 2022-10-10

- missiles and drones
- scheduled blackouts (4 - 12 hours a day)
- diesel generators, power supply units
- conserve energy
- shutdown
- internet and mobile interruptions



# Ukraine Internet strengths

- COVID19
- 97-99% broadband internet coverage
- "state in smartphone"
- DIY (Do It Yourself)
- high level of competition
- decentralisation
- PEOPLE

# Gratitude

- supporting members of TLD and RIPE community
- CZNIC for hosting our hosting our infrastructure
- IANA staff
- CENTR board
- Ukrainian ISP in Ukraine and abroad
- 6connect, Netnode, RcodeZero, Cloudflare
- Global NOG Alliance

# Keep Ukraine connected

<https://nogalliance.org>

- more 1 million US dollars have arrived in Ukraine through the Global NOG Alliance
- About 30 operators in Ukraine received 14 welding machines Inno Instrument, 8 Fujikura welding machine, 24 reflectometers
- many many more



# Plans

- restore
- build infrastructure
- background for digital services
- be part of the global internet community



**Defense of Ukraine** ✓

@DefenceU

Ukraine government organization



Being Ukrainian means not only being ready for the end of the world, but also having plans for what comes afterwards.

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# Questions?



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