Naftogaz Group

Operating Major Hazard Facilities During Wartime: Lessons from Ukraine’s Oil & Gas Sector

5 November 2026

NAFTOGAZ

LARGEST ENERGY HOLDING IN UKRAINE



12+ mln households

UNDERGROUND GAS STORAGE FACILITIES

31 bcm

Western Ukraine



NAFTOGAZ SHARE OF TOTAL OIL & GAS PRODUCTION IN UKRAINE

- **96%** oil production
- **79%** gas production

TURNOVER

EUR 6 bn



KEY FINANCIAL FIGURES

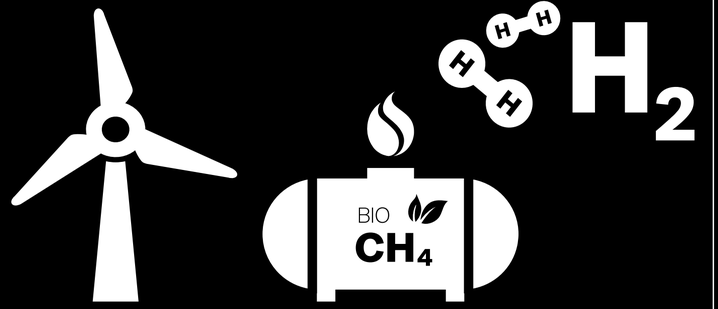
2.5%
contribution to Ukraine's GDP[1]

6.6%
of Ukraine's total Gov tax revenue[2]



700+
filling stations

13
GREEN PROJECTS PORTFOLIO



Notes: (1) Preliminary calculations; (2) Data for 2025

New Operating Environment After 2022

Before 2022:

Traditional major accident risks:

- Fire and explosion
- Toxic releases
- Process safety failures
- Equipment degradation
- Natural hazards

After February 2022:

Additional risk categories:

- Missile and drone attacks
- Power outages
- Damaged logistics routes
- Telecommunications disruption
- Cyberattacks
- Workforce displacement
- Restricted contractor availability

Operational Adjustments

Challenges:

- Repeated attacks on infrastructure
- Interruption of supply chains
- Damage to transport routes
- Workforce evacuation and relocation
- Limited access to some facilities

Adaptations:

- Enhanced business continuity planning
- Redundant operational control systems
- Remote monitoring capabilities
- Alternative supply chains
- Cross-training of personnel
- Decentralized decision-making

Changes in Processes and Production

Operational Changes:

- Dynamic production planning according to security situation
- Increased operational flexibility
- Temporary shutdown and restart procedures reviewed
- Critical maintenance prioritized through risk-based approaches
- Greater use of remote diagnostics and inspections

Lessons Learned:

- Flexibility became as important as efficiency
- Rapid restart capability became a resilience requirement

Hazardous Substance Management

New Considerations:

Military strikes may create:

- Multiple simultaneous containment failures
- Restricted emergency access
- External ignition sources
- Disruption of transportation routes

Adaptations:

- Review of inventories and storage strategies
- Additional physical protection measures
- Enhanced monitoring of storage facilities
- Increased focus on emergency isolation systems

Waste Management Challenges

Wartime Impacts:

- Damaged infrastructure for waste transportation
- Limited disposal capacities
- Delayed contractor services
- Increased volumes from emergency repairs

Responses:

- Temporary storage solutions
- Enhanced waste tracking
- Alternative treatment and disposal routes
- Stronger coordination with authorities and contractors

Risk Management Transformation

Traditional Approach:

Risk assessments focused on:

- Process hazards
- Technical failures
- Human factors

Actions:

- Updated risk registers
- Dynamic risk reviews
- Enhanced scenario planning
- More frequent emergency exercises

Wartime Approach:

Additional scenarios included:

- Missile strikes and drone attacks
- Long-duration blackouts
- Simultaneous multi-site events
- Loss of communications
- Loss of external emergency support

Safety Management System Adaptations

Emergency Response
- Revised response plans
- Shelter-in-place procedures
- Evacuation alternatives

Crisis Management
- 24/7 coordination structures
- Multi-level escalation protocols

Training
- Combined industrial emergency and civil defence scenarios
- Leadership decision-making under uncertainty

Resilience
- Backup power
- Backup communications
- Backup data systems

Regulatory and Institutional Experience

Observations

- Need for practical regulatory flexibility during crisis situations
- Continuous cooperation between operators and authorities
- Risk-based prioritization of inspections and compliance activities

What Worked Best

- Regular communication
- Shared situational awareness
- Joint problem solving

Key Lessons for Europe

Lesson 1

- Industrial safety and national security are increasingly interconnected.

Lesson 2

- Business continuity and process safety should not be managed separately.

Lesson 3

- Organizations must prepare for simultaneous crises.

Lesson 4

- Workforce resilience is as important as technical resilience.

Lesson 5

- Redundancy in power, communications, and decision-making structures is critical.

Recommendations for Seveso Operators

Consider Including in Preparedness Programs

✓ Military and hybrid-threat scenarios
✓ Long-term power loss
✓ Communication failure
✓ Supply chain disruptions
✓ Workforce shortages
✓ Multi-site incident management
✓ Cybersecurity threats
✓ Cooperation with civil protection authorities