



**NATO  
Energy Security  
Centre of  
Excellence**

# **The NATO Energy Security Centre of Excellence**

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**COL Gintaras BAGDONAS (LTU Army)  
Director**





# What is Energy Security ?

- No universally accepted definition
- The International Energy Agency (IEA) :  
*The uninterrupted availability of energy sources at an affordable price.*
- ENSEC COE (working definition) :  
*Energy security refers to the uninterrupted availability and resiliency of energy sources to support ALLIANCE SECURITY INTERESTS*

# Constellation of CoE's since 2003 (24 CoEs)



# Energy Security Within the NATO Institutional Framework





# NATO ENSEC COE

## Mission :

To assist NATO bodies, Nations, Partners, and other civil and military institutions by providing comprehensive and timely expertise on all aspects of energy security.



## Vision:

NATO ENSEC COE acts to become a recognized hub of knowledge and expertise in Energy Security within NATO

# NATO ENSEC COE



- NATO ENSEC COE **established on July 10, 2012**;
  - **Lithuania** = framework nation;
  - **Estonia, Italy, France, Latvia, Turkey** = sponsoring nations;
- Accreditation by **NAC on 12 October 2012**;
- **2014**: First enlargement: **Georgia** (contributing partner), **UK**, Czech Republic (Voluntary Nation) 
- **2015**: **USA** is expected to join by the end of the year 





Raising Awareness in Energy Developments  
with Security Implications

Strategic Analysis and  
Research

Education, Training and  
Exercise

Doctrine and Concept  
Development (CD&E)

Enhancing Energy Efficiency for the Military

Supporting Critical Energy Infrastructure  
Protection

**PROGRAMME OF WORK**



# NATO ENSECOCOE Outreach

Cooperation with :

- other COEs (24)
- NATO / National military organizations

Partnership Sectors:

- ✓ Military – Civilian
- ✓ Public – Private



The Golden Triangle: Military, Academia and Industry








# 1. Raising strategic Awareness within the military

- **Education and Training ;**
- **Exercises;**
- **Studies/researches;**
- **Industry exhibitions.**



# Education and Training Efforts

- On 09 March 2015, NATO Energy Security Education and Training Plan has been approved by North Atlantic Council.
- SHAPE J5  **Requirement Authority (RA)**
- NATO ENSEC COE  **Department Head (DH)**
- Coordinate and collaborate NATO Education and Training efforts on Energy Security based on the requirements set by RA.



# Education and Training Efforts (Individual )

- **ADL Energy Security Awareness Course ( DoK 100/200)**  
(to be available on line in NATO e-portal in 2015)
- **Energy Security Pilot Course ( DoK 300)**  
(Done between 25-29 May 2015 in NATO ENSEC COE )



- **Energy Security Strategic Awareness course (DoK 400/500)**  
(NATO School, Oberammergau, 28 Sep 15 - 02 Oct 15)



# Education and Training Efforts (Collective)



- **NATO-ICI Table Top EXercise on the Protection of Critical Energy Infrastructure (20-23 Oct 2016)**



**2016  
New CEIP TTX for NATO**

- ✓ ... based scenario
- ✓ Cyber attack based scenario
- ✓ STRATCOM Based scenario





## **2. Developing military competencies in supporting Critical Energy Infrastructure Protection (CEIP)**

- **Table Top Exercise (TTX), October 2014;**
- **UA case : CEIP study, Conference;**
- **Studies & Researches;**
- **Workshops (i.e. on LTU Gas Terminal).**



# Experience and best practices sharing

## Klaipėda (LTU) LNG Terminal Security Roundtable

(12 December, 2014)

**Aim:** discuss the potential means of ensuring the safety and protection of energy infrastructure related to the LNG terminal.

### Organizers:

- the NATO Energy Security Centre of Excellence
- the Ministry of the Interior of the Republic of Lithuania
- together with Joint Stock company 'Klaipėdos nafta' (operator)

Security proposals for LTU LNG terminal were based on **good practices:**

- at the Gate Terminal at **Gasunie (Rotterdam)** and
- future LNG terminal in **Swinoujście (Poland)**





# Hybrid Conflict and Critical Energy Infrastructure: the Case of Ukraine

Based on Ukrainian experience, to deliver an **analytical study** for NATO and partner countries to build **resilience** in energy sector (2015-2016):

- Study is on **military/terrorist** threat (**& hybrid warfare**) on energy infrastructure;
- Based on Ukrainian experience, to work out a case study with a **conceptual approach** how to build resilience in energy sector.



### **3. Enhance Energy Efficiency in the Military**

- ***Industry exhibitions “Innovative Energy Solution for Military Applications” (IESMA), Nov 2014;***
- ***SENT/CL 15;***
- **Energy management in the military DFI;**
- ***Cultural change.***
- **Canadian financed project on innovative power generation deployable system for EX/OPS;**
- **Contribution to the APs/Doctrines’ development;**





# Conference & Exhibition IESMA

## Conference & Exhibition:

- 223 participants
- 28 high level speakers
- 41 participants to Governmental Session
- 31 companies in the Exhibition (Including: BAE, THALES, Nexter, Honeywell)
- Keynote Speakers:
  - Ambassador Sorin DUCARU, NATO ASG
  - MGEN Albert HUSNIAUX, Chief NATO Scientist
  - Mr. Oliver Fritz, Director of Policy, OE, DOD US

**IESMA**  
2014

CONFERENCE & EXHIBITION

**Innovative Energy Solutions  
for Military Application**

November 12-14, 2014  
Vilnius, Lithuania

**Increased capabilities,  
reduced costs!**

- Renewable energy
- Smart grids
- Energy storage
- Energy management
- And many more...

**NATO**  
**OTAN**

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## Geography of the Companies





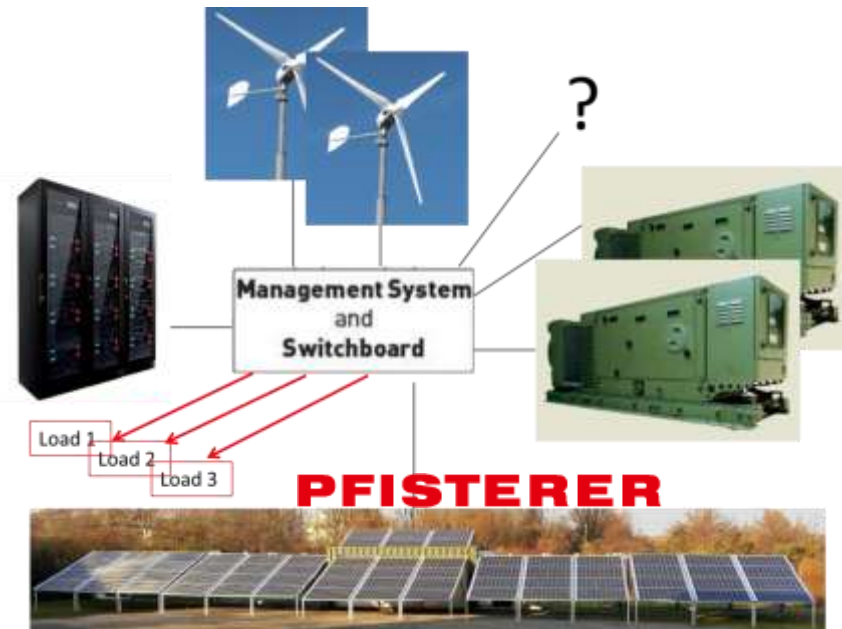
# Research, analysis, assessment, experimentation: CANADIAN CONTRIBUTION TO NATO ENSECCOE

## *Deployable Modular Hybrid Power Generation & Management System*

- Procurement of Hybrid smart power generation system utilising both conventional and renewable power generation technologies with energy storage and management solutions; by March 2016 the project will be fully implemented and the system will be operational.



Foreign Affairs, Trade and  
Development Canada





# Summing up

**NATO ENSEC COE offers the **framework of cooperation** on Energy Security subject for our common security**

**NATO ENSEC COE continues to become a recognized **hub of knowledge and expertise****  
**IOT support NATO by:**

- Enhancing strategic awareness of the security implications of energy developments;
- Supporting the protection of critical energy infrastructure;
- Enhancing energy efficiency in the military.

# Energy is like oxygen

most people only care about it when  
they are deprived of it .....



**but often is too late!!**

*(2009 – 2014) NATO Secretary General Anders Fogh Rasmussen*



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<http://enseccoe.org>



# Thank you

