



EUROPEAN  
DEFENCE  
AGENCY



REPORT

1<sup>ST</sup> CONFERENCE 14-15 JANUARY 2016

**CONSULTATION FORUM FOR  
SUSTAINABLE ENERGY IN THE  
DEFENCE AND SECURITY SECTOR  
(CF SEDSS)**

## EXECUTIVE SUMMARY

More than 80 experts from national administrations, Armed Forces, industry and academia participated in the first plenary session of the Consultation Forum for Sustainable Energy in the Defence and Security Sector (CF SEDSS), in Brussels. The Consultation Forum is a European Commission initiative managed by the European Defence Agency (EDA) in collaboration with Directorate General Energy. After a high-level opening, the three parallel working groups started work on examining how to manage energy more efficiently and maximize the use of renewable energy sources across the European defence sector. The closing plenary revealed common challenges across Member States as well as the potential for improvement of data collection & analysis, energy efficiency in buildings and the development and penetration of renewable energy on defence lands. The Consultation Forum will take place in a series of five plenary meetings over two years, culminating in guidelines for European Ministries of Defence (MoDs) for the way forward technically, financially and administratively to improve energy usage in European defence fixed infrastructure. The executive summary outlines the main aspects, findings and conclusions from the first meeting. A detailed report on each of the working group's work is also included.

### Keynote speakers

The high level speakers opening the event showed support, cooperation and a willingness to innovate to encourage progress. A short extract from each of their speeches is included below.



**Miguel Arias Cañete**  
EU Commissioner for Energy  
and Climate Action

Commissioner Arias Cañete stressed that the European Commission (EC) is giving its full backing to the European Defence Agency and to Member States' MODs and Armed Forces in their work to improve the energy efficiency and energy security of Europe's defence sector. In his speech, Commissioner Cañete called the Consultation Forum "an opportunity" for European Armed Forces and put the work of this forum in the context of Europe's Climate and Energy strategy: "promoting sustainability in the Armed Forces is a win-win for the defence sector and Europe as a whole".



**Jorge Domecq**  
EDA Chief Executive

The Chief Executive of the European Defence Agency (EDA) welcomed the new venture between the Commission and the EDA, emphasizing that the consultation forum is the very first time that the EC is funding a defence specific topic. Mr Domecq highlighted defence sector considerations, including its energy challenges and that EU Energy Legislation is nothing to be feared by the Armed Forces nor does it hamper the ability to deploy and operate. On the basis of a shared understanding between the military end-users and the Commission of the impact of current energy legislation on defence, he expected the consultation to deliver meaningful projects and solutions.



**Dominique Ristori**  
European Commission's  
Director-General for Energy

The Director-General for Energy, Dominique Ristori stated that the Commission is committed to provide full support to the consultation forum. Due to its impact on security, competitiveness and the environment, energy is a high political priority. Given that in the EU, the Armed Forces are one of the largest public sector consumers of energy as well as the largest public owner of land and infrastructure, the shift of the Defence and Security sector to an efficient and clean energy future is a major economic opportunity. DG Energy will fully support the forum for the duration with a network of relevant stakeholders and experts.

## THE WORKING GROUPS

In three parallel working groups, experts from the defence and energy sectors shared information and best practice on improving (1) energy management, (2) energy efficiency in buildings and (3) the use of renewable energy in the military. The focus of these first sessions was on identifying the scope and the goal of the consultation forum as well as the role of participants within the working groups. All three working groups started work on reviewing existing EU energy legislation, in particular the Energy Efficiency Directive (EED), the Energy Performance in Buildings Directive (EPBD) and the Renewable Energy Directive (RES) to understand how measures could be implemented in the defence sector, the challenges encountered and identifying possible solutions.

### Working Group 1: Energy Management

Working Group 1 focused on policy measures and the data challenge in the first meeting. Based on an assessment of the Energy Efficiency Directive (EED), Member States (MS) identified how their MoDs are or could be involved in the future: National Energy Efficiency Action Plans (NEEAPs), alternative policy measures, energy strategy, smart metering and energy modelling. The participants saw opportunities in improving visibility of energy efficiency requirements within MoD organisations, the exchange of best practice on how to improve energy efficiency within the defence sector, and the need for data collection and simulation and modelling. WG1 participants identified their expectations, the scope of work for WG1 and their respective roles. Military/defence sector priorities related to energy efficiency were identified. Specific articles of the EED with respect to NEEAPs, the alternative policy measures, smart metering and billing were discussed.

### Working Group 2: Energy Efficiency

Working Group 2 examined energy efficiency with a focus on the technology side of energy in buildings and fixed infrastructure as well as suitable financing mechanisms. Participants reviewed the key articles of the EED and Energy Performance of Buildings Directive (EPBD). Specific topics included Nearly Zero Energy Buildings (NZEB) and energy benchmarks for Defence buildings. Specific challenges on the implementation of minimum energy requirements in the Defence sector's building stock were identified and seemed to be shared across the majority of MoDs. Areas of common interest include energy efficiency and renovation strategy development, a pilot NZEB project, and a Defence building stock benchmarking project. WG2 discussed in detail the objectives and work plan and also gained a first insight into the MS priorities, interests, difficulties, challenges, and areas of concern.

### Working Group 3: Renewable Energy

Working Group 3 dealt with the application of Renewable Energy Systems (RES) in the Military. The first meeting provided an excellent opportunity to analyse the requirements of the consultation forum, to discuss in detail the objectives, work plan, and terms of reference (ToRs) and to gain a first insight into Member States' (MS) priorities. MS understanding of RES is characterised by a large variability and differing levels of maturity between the departments in National Ministries of Defence and the Ministries of Energy. National RES Action Plans were highlighted as critical documents in understanding the potential for increased RES penetration into the Defence and Security sector. As a first step, an internal software tool will be established for participants to track and analyse the Renewable Energy Directive. The participants agreed to explore further energy storage, fuel cells and smart grids from a defence technology perspective, the use of Defence land (and buildings) for RES heating and cooling and RES electricity including Combined Heat and Power (CHP) and District Heating Schemes; and the potential for biofuels to be used by the military.

## HORIZONTAL CONSIDERATIONS

A number of common themes were identified and cross cutting issues were discussed within the working groups.

### Common Themes

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A number of common challenges and opportunities were identified across the three working groups. These include:

- » the need for development of defence specific online tools and guidance documents to assist MS MoDs;
- » the importance of incorporating energy within strategic planning;
- » the need to identify energy champions in defence organisations;
- » budgetary constraints and division of roles and responsibilities across a department leading to a lack of both understanding and incentivization to act;
- » identifying the best pathway for funding and financial supports;
- » the impact of technology and the impact of behavioural change for improvement;
- » the desire to identify synergies and collaborative opportunities between MS.

Some interesting initial findings include the following:

### Finance

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Alternative policy measures of the National Energy Efficiency Action Plans do not include any specifically allocated funds for the MoDs. Although in many cases the MoDs are required to achieve energy targets set for the whole public sector, there is scarcely any extra financial support provided by MS central governments and the investment has to be covered by continuously constrained defence budgets. There were only two cases where MoDs benefited from national / EU funding to upgrade energy efficiency in selected camps. In contrast, other areas of the public sector are favoured for securing funding for the promotion of energy efficiency.

### Access to Funding

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The Forum is a dedicated platform to stimulate projects in key areas and identifying possible funding streams. An objective of the consultation forum is to analyse possible funding options for potential relevant collaborative projects in all three working groups to stimulate progress. This analysis will include clarification of the availability of European Funding for defence energy projects in fixed infrastructure, exploring the challenges of applying for such funding and identifying suitable projects for funding. Other finance options will be considered including an analysis of power purchase agreements and energy services companies in each MS.

### Interaction between MODs and National Energy Authorities

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There was a clear correlation between MS attitudes towards EU obligations, and their lack of involvement with national energy efficiency action plans. For example, MS expressed that EU directives should not be imposed on MoDs if they interfere with operational activities and that there are strong expectations for defence exemptions from any legislation concerning Energy Efficiency in cases related with operational matters, but MoDs do follow the legal framework, in so far as is possible, regarding Energy Efficiency measures applicable to certain types of military infrastructure. However, MS explained that MoDs give a low priority to and / or have insufficient funding for the renovation of buildings and barracks. This acts as a disincentive to implement energy improvement measures. When funding is secured, emphasis is given to new buildings rather than to the renovation of the old stock with respect to EED. Surveys revealed the 52% of MS stated that the MoDs did not contribute to the consultation on the respective National Energy Efficiency Targets or Action Plans. Coupled with this, 57% of MS stated that the MoDs submit annual energy reports to the competent energy authorities. This action is perceived by some Member States as having no added value to the MoDs. Moreover, the competent energy authorities in some cases do not provide any feedback on the data provided by MoDs, for either future energy needs or annual energy reports.

## Data & Metering

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The quality of information provided by energy suppliers to the MoDs is in general in compliance with the requirements of the EED and complements historic data consumption. It is available to almost all MoDs with electronic billing provided by energy suppliers to more than three-quarters of the MoDs. Data modelling for future energy needs is a very powerful tool. However it was deemed of limited use to the military until now as there has been limited data available and no incentive to collect and model data. Smart metering was acknowledged as another very useful tool, with the forum surveys exposing some useful findings which will inform future work. For example, 65% of MS are utilizing smart meters to monitor actual electricity / gas consumption and maintain records. Whereas, less than 18% of MS use smart meters for transport fuel monitoring. There are financial and technical burdens for installing smart meters which serve as a disincentive to installation. There was just one case where a MoD benefited from national / EU funding for smart meters installation.

## NEXT MEETING



The second conference takes place on the **8th and 9th June in Dublin, Ireland**. The event develops and builds upon the foundations laid in the first conference with a focus on the following areas in each of the working groups: WG1:Energy Management Systems, WG2:Renovation of existing buildings and WG3: Renewable energy technologies.