FINLAND

Green Camp - Applicable and Alternative Ways to Produce Energy in Peacekeeping Missions

1. ISSUE PAPER THEME

Select applicable:

- ☐ Major Equipment
- ☐ **Self Sustainment**
- ☐ Medical
- ☐ Other / Cross-cutting

2. SUMMARY / BACKGROUND

To explore alternative way to produce energy to a military camp in the mission area. The priority would be to introduce green energy using solar panels and wind turbines. System shall be packed up with reasonable battery and diesel generator. As such it would provide independent and, alternatively, grid-connected energy to users' needs. Smart control of heating, cooling and lightning would further reduce the needed amount of diesel fuel.

3. DETAILED PROPOSAL

It is to be developed a modular energy architecture, which can utilize solar panels and wind turbines together with batteries and diesel generator. As such, it should be capable to provide continuous electricity to a camp either as grid-connected or islanded. It should be an open system so that also other renewable energy sources like hydropower and biomass can be added. System shall include smart control of heating, cooling and lighting needs of the camp to further reduce the need for external energy, and to guarantee electricity for critical needs of the camp.

As such, the system would greatly reduce the need of transporting fuel to the camp via vulnerable routes and since the technology is proven and simple, it would reduce the amount of the maintenance tasks. Further, to the host nation it would serve as an example of possible energy solution for country's own needs.

Solar panels to existing energy infrastructure is currently underway in one of the garrisons in Finland.

As the systems are still quite new, the experiences whether they are applicable and suitable to the peacekeeping mission environment is being reviewed. It is highly probable

that renewable energy will be in use also in the missions in the near future.

Green energy would increase the resilience of the troops deployed in the mission. It would also be an excellent example on development for the host nations. In general, this proposal would also promote one of the UN Sustainable Development goals.

4. PROPOSED MANUAL TEXT

This is a new initiative. Proposed manual text would be as described below:

Chapter 3, annex a, appendix 3

8. Renewable energy increases the self-sustainment capacity of camps by reducing the need for fuel supply and related convoys, especially in areas with asymmetric attacks. Deployment of more renewable energy power generation capacity has a positive effect on the safety, security and health, and reduces the environmental impact of missions globally through a reduction of greenhouse gas emissions, and in country through the prevention of air and ground pollution. Since multiple UN resolutions have called Member States to be more environmentally responsible, it is highly encouraged to establish "Green Camps" in the future.