

ENERGY
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Advanced Net Zero Energy, Water and Waste Training Course

APRIL 25-29, 2016 | WIESBADEN, GERMANY

Program

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This activity is supported by: The NATO Science for Peace and Security Programme



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Monday April 25

10.00  Departure of shuttle bus at shuttle bus stop at Friedrich Ebert Allee (in front of Dorint Hotel)

Arrival and Registration

10.30 Security gate check at clay kaserne

11.00 Registration and sandwich lunch

Afternoon Plenary Session

12.00 Introduction to the Workshop

RÜDIGER LOHSE, KEA (DE)

Welcome Addresses

U.S. Army, Europe

LT. GENERAL BEN HODGES (USA)

Ministry of Defense

MINDIR'IN ALICE GREYER-WIENINGER (DE)

NATO's Role in Energy Security

SUSANNE MICHAELIS (BE)

Executive Panel on Pathways to efficient use of energy, water and waste in NATO military installations

12.45 International Energy Agency Energy Roadmap

JOHN DULAC (F)

Net Zero Energy Strategies in Europe

OLIVER RAPF (BE)

Discussion

13.45 Networking Break

14.15 Implementation of Energy Policy Measures in the Bundeswehr

Brigadegeneral MATTHIAS GEITZ (DE)

Enhancing Air Force Mission Assurance Through Energy Assurance

HON. MIRANDA BALLENTINE (USA)

Towards Net Zero Energy and Water – Swiss Roadmap


MARK ZIMMERMANN (CH)

Discussion

15.30 Key Note: Vision for the U.S. Army's Net Zero Installation Initiative (TBD)

HON. KATHERINE HAMMACK (USA)

Concluding Panel: Discussion with all Speakers


16.15  Bus transfer

18.30 Seated Welcome Dinner at Jagdschloss Platte

Welcome by WIESBADEN MAJOR

ENTERTAINMENT BY US ARMY JAZZ ENSEMBLE

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appr.  Shuttle bus stop

22.00 (Wiesbaden Dorint Hotel)

Tuesday April 26

	ENERGY TRACK 	WATER TRACK 	WASTE TRACK 
7.00	 Departure of shuttle buses (Wiesbaden Dorint Hotel)	7.00  Departure of shuttle buses (Wiesbaden Dorint Hotel)	7.00  Departure of shuttle buses (Wiesbaden Dorint Hotel)
8.00	Drivers for Energy Strategy at fixed military communities Introduction to Energy Goals for Military Installations ALEXANDER ZHIVOV (USA) Energy Security Goals for NATO Member Installations LUCA DOTTARELLI (LT) EDA Approach to Military Energy Management SHARON McMANUS Energy Security for European Countries IRENA KONDRATENKO (BE) Energy Drivers for the US Army PAUL VOLKMAN (USA) Discussion Energy Master Planning: Methodologies and Case Studies	8.00 Net Zero Water Overview MARC KODACK (USA) Water Planning Tools ANDY NELSON (USA) Army Water Balances and Net Zero Roadmaps KATE McMORDIE (USA)	Waste Management Basics 8.00 Welcome and Introduction WANDA JOHNSEN (USA) Overview of EU Waste Directives & Requirement Jasmina Bogdanovic (DK) Waste Management Requirements & Assessments at US Army Installations DUANE MEIGHAN (USA), KEVIN McKEAG (USA) Waste Types Generated on Military Bases GISELLE RODRIGUEZ (USA)
9.10	9.10 Premises for Energy Master planning for Energy Efficient Installations ALEXANDER ZHIVOV (USA) Methodology on Energy Master Planning REINHARD JANK (DE) Discussion	9.45 Networking Break 10.00 EU Water Directive Framework and NATO KONSTANTINOS PAPAPETRIDIS (GR) Water Conservation Measures at USAG-Wiesbaden TOMAS FILATOW (USA) Addressing Water Quality Issues at Caserma Del Din, Vicenza, Italy LYMAN PARKHURST (USA)	10.15 Networking Break 10.45 U.S. Army's Net Zero Waste Approach WANDA JOHNSEN (USA) Achieving the Goals of the Environment and Energy Strategy ANNE PETERSEN, DoD DENMARK
10.15	Networking Break	11.30 Networking Break	
10.45	Energy Master Planning: Best Practices 10.45 Energy Master Planning Projects and Strategies RICHARD GIFALDI (USA), URSULA EICKER (DE), KATE TROPMAN (AUS), STEPHANO CIMICHELLA (IT), EMMA OTERVIK (NOR), KJELL HANTHO (NOR)	11.45 Co-Digestion of Food Waste for Net Zero Energy Water and Waste GISELLE RODRIGUEZ (USA)	
13.00	Lunch	11.15 Lunch	12.00 Lunch
14.00	Tools to Simulate and Optimize Neighborhood Energy Systems 14.00 Net Zero Planner (ERDC) ALEXANDER ZHIVOV (USA) Germany University of Stuttgart URSULA EICKER (DE)	13.30 Site K Turkey – Grey Water System and Onsite Treatment RICHARD GIFALDI (USA) Wrap-up; Summary of Tour to Wastewater Treatment Plant on Wednesday MARC KODACK (USA)	13.00 Norwegian Solid Waste Management MAGNUS SPARREVIK (NOR) 13.45 USAG Wiesbaden Waste Management Program PETER ZEISBERGER (DE), TRENISE TRENT (DE), JOCHEN DOERR (DE)
15.00	15.00 Joint Session Energy, Water and Waste: Introduction to Technical Tour at Clay Kaserne Clay Kaserne RICHARD GIFALDI (USA)	15.00 Joint Session Energy, Water and Waste: Introduction to Technical Tour at Clay Kaserne Clay Kaserne RICHARD GIFALDI (USA)	15.00 Joint Session Energy, Water and Waste: Introduction to Technical Tour at Clay Kaserne Clay Kaserne RICHARD GIFALDI (USA)
15.30	15.30 Joint Session Energy, Water and Waste at Clay Kaserne Tour RICHARD GIFALDI (USA)	15.30 Joint Session Energy, Water and Waste at Clay Kaserne Tour RICHARD GIFALDI (USA)	15.30 Joint Session Energy, Water and Waste at Clay Kaserne Tour RICHARD GIFALDI (USA)
16.30	 Bus transfer to Wiesbaden Dorint Hotel	16.30  Bus transfer to Wiesbaden Dorint Hotel	16.30  Bus transfer to Wiesbaden Dorint Hotel
17.00	Networking Exhibition Dorint Hotel, Wiesbaden 17.00 Industry in Military Installations: Technology Presentations	Networking Exhibition Dorint Hotel, Wiesbaden 17.00 Industry in Military Installations: Technology Presentations	Networking Exhibition Dorint Hotel, Wiesbaden 17.00 Industry in Military Installations: Technology Presentations
18.45 - 22.00	18.45 - 22.00 Opening Networking Exhibition with walking dinner	18.45 - 22.00 Opening Networking Exhibition with walking dinner	18.45 - 22.00 Opening Networking Exhibition with walking dinner



Wednesday April 27

	ENERGY TRACK 	WATER TRACK 	WASTE TRACK 
7.00	 Departure of shuttle buses (Wiesbaden Dorint Hotel)	7.00  Departure of shuttle buses (Wiesbaden Dorint Hotel)	7.00  Departure of shuttle buses (Wiesbaden Dorint Hotel)
8.00	Energy Efficiency in Buildings Requirements to Energy Efficiency for New Construction and Major Building Renovation in Germany and the USA JAN KUNDE (DE) ALEXANDER ZHIVOV (USA) US Army Building built to Passive House Standard – Ansbach Case Study JEFFREY WARD (USA) Wiesbaden Hainerberg Schoolproject RICHARD GIFALDI (USA) LUTZ MIERSCH (USA)	Technical Tour 8.00  Leave Clay Kaserne for Kaiserslautern 9.30 Introduction to the Kaiserslautern Wastewater Treatment Park ANDREA OLIVER (DE) 10.00 Kaiserslautern Wastewater Treatment Plant	Unique Wastes & Treatment / Management Options 8.00 Hazardous Material Issue and Re-Issue Center at US Army Wiesbaden and US Army Bavaria ARNOLD BLANTON (USA) Waste from Training Ranges Panel discussion Air Force Waste Management in Europe TILLA MEY (USA) U.S. Navy Technology Demonstration Program CINDY WEBBER (USA)
9.30	Networking Break		10.15 Networking Break
10.00	Energy Efficiency in Buildings Building Stock Building Renovation Strategies: Shallow vs Deep Energy Retrofit / Discussion THOMAS BOERMANS (DE) Technical Concepts and Technologies for Deep Energy Retrofits ALEXANDER ZHIVOV (USA) Optimization of Refurbishment Measures by Least Cost Planning REINHARD JANK (DE) Deep Energy Retrofit Strategies – Evaluation of 26 Case Studies in EU and USA RÜDIGER LOHSE (DE) Holistic Approach for a Hospital Renovation Case Study PETER SCHILD (AT) Discussion		10.45 European Compost Network STEFANIE SIEBERT (DE) Organic Waste Treatment at US Army Bavaria JUERGEN ALEX (USA) Food Waste to Energy GISELLE RODRIGUEZ (USA)
12.00	Lunch	11.15 Lunch	12.15 Lunch
13.00	Energy Efficiency in Buildings Low Cost Approach Low Cost Approaches for Energy Efficiency Improvements in US Military Buildings DOUG DIXON (USA) Energy Audits at US Army Installations and low-cost EEMs LYMAN PARKHURST (USA)	12.15  Bus transfer to Clay Kaserne	
13.30	Infrastructure Data Collection System CARMELO MARICCHIOLO (IT)	13.30 Infrastructure Data Collection System CARMELO MARICCHIOLO (IT)	13.30 Infrastructure Data Collection System CARMELO MARICCHIOLO (IT)
14.00	Energy Concept Deines-Bruchmüller Kaserne MICHAEL ARTELT, JANINE FÄRBER (DE)	14.00 Energy Concept Deines-Bruchmüller Kaserne MICHAEL ARTELT, JANINE FÄRBER (DE)	14.00 Energy Concept Deines-Bruchmüller Kaserne MICHAEL ARTELT, JANINE FÄRBER (DE)
14.30	 Bus transfer for technical tour	14.30  Bus transfer for technical tour	14.30  Bus transfer for technical tour
15.45	Technical Tour Deines Bruchmüller Kaserne, Lahnstein	15.45 Technical Tour Deines Bruchmüller Kaserne, Lahnstein	15.45 Technical Tour Koblenz Bundeswehr Hospital - Waste Management Tour
17.15	 Bus transfer	17.15  Bus transfer	17.15  Bus transfer
17.30	Rhine Boat Trip to Loreley (sponsored by SIEMENS)	17.30 Rhine Boat Trip to Loreley (sponsored by SIEMENS)	17.30 Rhine Boat Trip to Loreley (sponsored by SIEMENS)
appr. 22.00	 Shuttle bus stop (Wiesbaden Dorint Hotel)	appr. 22.00  Shuttle bus stop (Wiesbaden Dorint Hotel)	appr. 22.00  Shuttle bus stop (Wiesbaden Dorint Hotel)

Thursday April 28

	ENERGY TRACK 	WATER TRACK 	WASTE TRACK 
7.00	 Departure of shuttle buses (Wiesbaden Dorint Hotel)	7.00  Departure of shuttle buses (Wiesbaden Dorint Hotel)	7.00  Departure of shuttle buses (Wiesbaden Dorint Hotel)
8.00	<p>Smart energy supply in Net Zero Energy Concepts – Methodological Approach</p> <p>Case Study to Highlight the Importance and Opportunities with Central Heating, Cooling & Co-generation/Tri-generation ANDERS DYRELUND (DK)</p> <p>Methods to Calculate the Ecological Footprint of Compound Energy Supply Systems REINHARD JANK (DE)</p> <p>Demand Side Integration and Load Profiles: Individual Buildings vs Community/ Building Cluster, current central Supply Options STEPHAN RICHTER (DE)</p> <p>Efficiency and Economics of Heating and Cooling Networks compared to decentralized Options. ODDGEIR GUDMUNDSSON (DK) STEPHAN RICHTER (DE)</p>	<p>Technical Tour</p> <p>Joint Water and Waste Tracks Session: Influencing Behavior – Awareness and Outreach Programs</p>	<p>Outreach, Gaps, & Out-brief</p> <p>Hellenic Armed Forces Personnel KONSTANTINOS PAPAPETRIDIS (GR)</p> <p>Joint Water and Waste Tracks Session: Influencing Behavior – Awareness and Outreach Programs</p> <p>Behavior Change – Norwegian Defense Estates Agency MAGNUS SPARREVIK (NOR)</p> <p>Environmental Awareness at US Army Bavaria MANFRED RIECK (USA)</p> <p>Engaging Personnel at US Army Ansbach WALTER MATTIL (USA)</p>
10.00	Networking Break		10.30 Networking Break
10.30	<p>Case Study Panel: Net Zero Energy concepts</p> <p>Central and distributed Energy Storage MARK MACCRACKEN (USA)</p> <p>Innovative Energy Supply Solutions and Energy Supply Systems HARALD BLAZEK (AT)</p> <p>Case studies STEPHAN RICHTER (DE), ANDERS DYRELUND (DK), JAN ERIC THORSEN (DK), HARALD BLAZEK (AT), ANDREA OLIVER (DE), SAMUEL BOOTH (USA)</p>		<p>Centralized Data Capture & Use ADAM SPENCER</p> <p>Trends in Ressource Management MATTHEW PRYOR</p> <p>Royal Navy Energy from Waste PAUL CAREY (UK)</p>
13.00	Lunch	12.45 Lunch	12.15 Lunch
14.00	<p>How to Bridge the Funding Gap</p> <p>Energy Projects using Energy Performance Contracting Models in the USA and Europe RANDY SMIDT (USA) RÜDIGER LOHSE (DE)</p> <p>Technical Tour</p>	<p>How to Bridge the Funding Gap</p> <p>Energy Projects Using EPC Models in EU and the US (together with energy track)</p> <p>Development of outbrief for Friday morning plenary session</p> <p>Technical Tour</p>	<p>Identification of Gaps</p> <p>EC Policy, Training Technologies and Recommendations</p> <p>Technical Tour</p>
15.00	Introduction to the Frenger Net Zero Production Facility KLAUS MENGE (DE)	15.00 Introduction to the Frenger Net Zero Production Facility KLAUS MENGE (DE)	15.00 Introduction to the Frenger Net Zero Production Facility KLAUS MENGE (DE)
15.30	 Bus transfer to Groß Umstadt	15.30  Bus transfer to Groß Umstadt	15.30  Bus transfer to Groß Umstadt
17.00	The Frenger Net Zero Production Facility Guided Tour	17.00 The Frenger Net Zero Production Facility Guided Tour	17.00 The Frenger Net Zero Production Facility Guided Tour
18.30	Dinner on Site	18.30 Dinner on Site	18.30 Dinner on Site
appr. 21.00	 Shuttle bus departure to Wiesbaden Dorint Hotel	appr. 21.00  Shuttle bus departure to Wiesbaden Dorint Hotel	appr. 21.00  Shuttle bus departure to Wiesbaden Dorint Hotel

Friday April 29

7.00	 Departure of shuttle buses (Wiesbaden Dorint Hotel)
	Summary of Tracks
8.00	Discuss and Summarize the Daily and Overall Outcomes in 3 Working Groups: Energy/Water/Waste
10.00	Networking Break
	ATC Outbriefing
10.30	Presentations of Energy, Water and Waste Track-Summaries and Ways Ahead ALEXANDER ZHIVOV (USA) RÜDIGER LOHSE (DE) MARC KODACK (USA) WANDA JOHNSEN (USA)
11.30	Closing Plenary Summary RÜDIGER LOHSE (DE)
12.00	Official End of ATW
12.15	 Bus transfer to Wiesbaden Dorint Hotel

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