VAASA WIND EXCHANGE & SOLAR

21–22 MARCH

KUTSU ■ INBJUDAN ■ INVITATION

TERVETULOA!

Vaasa Wind Exchange & Solar on kansainvälinen tuuli- ja aurinkovoimaan sekä uusiutuvan energian ratkaisuihin keskittyvä näyttely-, verkostoitumis- ja seminaaritapahtuma, joka järjestetään tänä keväänä jo seitsemännen kerran osana EnergyWeek -viikkoa.

Tervetuloa ottamaan selvää toimialan tuoreimmista kuulumisista ja tapaamaan alan asiantuntijoita, päättäjiä, yhteistyökumppaneita ja kollegoita Vaasassa!

VÄLKOMMEN!

Vaasa Wind Exchange & Solar är ett internationellt evenemang för vindkraft, solenergi och förnybara energilösningar. Den kombinerar en utställning, anföranden och ett seminarium av hög standard. Evenemanget arrangeras i vår för sjunde gången som en del av veckan EnergyWeek.

Kom och ta del av senaste nytt inom branschen. Träffa experter, beslutsfattare, partner och kolleger i Vasa!

WELCOME!

Vaasa Wind Exchange & Solar is an international exhibition, networking and seminar event for wind and solar power and renewable energy solutions. The event is arranged for the seventh time this spring as a part of the EnergyWeek.

Get to know the latest developments in the business, meet the experts, decision-makers, partners and colleagues of the trade in Vaasa!

Rekisteröidy kävijäksi ennakkoon osoitteessa:
Registrera dig på förhand på adressen:
Register in advance at

WWW.ENERGYWEEK.FI

Osallistuminen on maksutonta.
Det är gratis att delta.
Participation is free of charge.

Event organizer

EXPO POHJANMAAN ÖSTERBOTTEN

www.pohjanmaanexpo.fi
+358 6 318 5100

Event sponsor

DNV·GL

PART OF VAASA ENERGYWEEK **VAASAN KAUPUNGINTALO | VASA STADSHUS | VAASA CITY HALL, 21.3. 10-17, 22.3. 10-15**

VAASA WIND EXCHANGE & SOLAR OPENING 21 MARCH 2017

11.00-11.30 Opening speech

The opening speech is given by
Miapetra Kumpula-Natri,
Member of the European Parliament,
Member of the Committee on Industry,
Research and Energy (ITRE), EU Commission.

SEMINAR AND PANEL DISCUSSION 21 MARCH 2017

ZERO ANTHROPOGENIC GREENHOUSE GAS EMISSIONS BEFORE 2050, 11.30-13.15

Moderator:
Darius Snieckus, Editor-in-chief at Recharge

11.30-11.45
Darius Snieckus, Editor-in-chief at Recharge
The role of media in the energy switch
Media has a strong role affecting the common opinion related to the energy switch. In order to understand the whole field of energy, a vast competence is required. Do media have time to penetrate these complicated issues? There is a small fraction of people that does not believe in the climate change. Do media pay these people too much attention?

11.45-12.00
Miapetra Kumpula-Natri, Member of the European Parliament, Member of the Committee on Industry, Research and Energy (ITRE), EU Commission
What is the Energy Union?
The role of the Energy Union in the EU energy politics. How does EU contribute to the commitments of the Paris Agreement?

12.00-12.15
Ville Niinistö, Member of Parliament, chairperson of the Greens
Finnish energy politics
The Finnish government's greenhouse gas reduction targets and required policy for fulfilling the commitments of the Paris Agreement. Opportunities and threats in Finnish energy politics.

12.15-12.30
Kari Kankaanpää,
Senior Manager Climate Affairs, Fortum Oyj
For a cleaner world
– transformation of the energy sector
Fortum's vision "For a cleaner world" reflects the ambition to drive the transformation towards a low-emission energy system and optimal resource efficiency. What does reshaping the energy system mean in practice?

12.30-12.45
Sini Harkki, Country Director, Greenpeace
Energy [R]evolution
The environmental organization road map towards energy production without greenhouse gases. Does this road map differ from the Energy Union's?

12.45-13.15
Panel discussion

SEMINAR AND PANEL DISCUSSION 21 MARCH 2017

ELECTRICITY GRID FOR FUTURE ELECTRICITY GENERATION UTILIZING MORE RENEWABLES 14.00-15.30

Moderator: Adrian Timbus, Technology & Solution Manager, Smart Grids and Wind Power, ABB

14.00-14.15
Adrian Timbus, Technology & Solution Manager, Smart Grids and Wind Power, ABB Oy
Power systems with high penetration of renewables
Renewable energy production is intermittent, decentralized and smaller scale. Consumers start to produce their own electricity, some times more than they consume. The future electricity grid that utilizes more renewables is different.

14.15-14.30
Petri Parviainen, Customer Manager, Grid Services, Fingrid Oyj
Renewables in the national transmission system
What are the challenges and limits of the national transmission system with an increased use of renewables? Is there a national transmission system or is the Finnish system a part of the Nordic transmission system? Will there be an EU transmission system without borders in the future?

14.30-14.45
Sten Lillienau,
Key Account Manager Nordic at Neas Energy A/S
Trading of renewable electricity
In Denmark, an average of 40% of the electricity is generated by wind power. Due to its intermittence, wind power production is sometimes close to zero and sometimes more than 100%. Practical experiences from trading electricity in a grid with more than 40% wind power.

14.45-15.00
Pasi Vainikka, Principal Scientist,
VTT Technical Research Centre of Finland
Neo Carbon Energy
An energy system based on renewables alone. New opportunities in electricity generation with an increased use of renewables. Alternatives to energy storage.

15.00-15.30
Panel discussion

SEMINAR AND PANEL DISCUSSION 22 MARCH 2017

WIND POWER, 10.30-12.30

Moderator: Joël Meggelaars,
Head of Advocacy & Messaging, Wind Europe

10.30-11.00
Joël Meggelaars, Head of Advocacy & Messaging, WindEurope asbl/vzw
Wind power in Europe
Is the wind power in Europe in continuous growth or a stagnating business? Forecast

11.00-11.15
Jari Suominen, Finnish Wind Power Association
Status and future of wind power in Finland
Installed wind power over the years. Will the trend continue or will there be a halt due to a lacking support system? Will there be a new support system in Finland? When and how? How much wind power will there be in Finland by 2030 and why?

11.15-11.30
Esa Ala-Honkola,
Vice President Expert Services, VEO Oy
Lifecycle management of wind farm electrifications in the Nordic countries
Are there special requirements on wind farm electrification in cold climates? What specialties need to be considered in electrical lifecycle maintenance and proactive actions for Nordic wind farm's?

11.30-11.45
Hugues Fournier, Head of Section for Offshore & Scandinavia, DNV GL, United Kingdom
Wind resource assessment in cold climates
Challenges and mitigation with wind resource assessment in cold climates. The performance of turbines in cold climates may be significantly reduced by ice accretion on the blades. The magnitude of production loss has been seen to exceed 50% during winter months, and surpass 10% over the course of a year. Therefore, the impact of icing is a challenge for developing and operating wind farms in such regions.

11.45-12.00
Ville Lehtomäki, Senior Scientist,
VTT Technical Research Centre of Finland
IEA Wind Task 19 contribution
Wind power in cold climates has a huge potential. Despite the fact that wind power has been constructed in cold climates for decades, there is still a lack of standardisation and understanding. What can IEA Wind Task 19 do to improve the situation?

12.00-12.30
Panel discussion

SEMINAR AND PANEL DISCUSSION 22 MARCH 2017

SOLAR POWER, 13.00-14.45

Moderator: Karolina Auvinen, Director of FinSolar project and Stakeholder Relations Manager of Smart Energy Transition project, Aalto University

13.00-13.15
Karolina Auvinen, Director of FinSolar project and Stakeholder Relations Manager of Smart Energy Transition project, Aalto University
Solar power in Finland
Feasibility of solar power in Finland. Can 1 kW solar PV plant produce more than 850 kWh annually in Finland? Do we have grid parity with solar power in Finland? The difference of economical feasibility for residential, industrial and general power production with solar power. Are energy storage systems crucial for the solar power?

13.15-13.30
Miko Huomo, Partner, GreenEnergy Finland Oy
Solar Photovoltaics (PV)
Solar PV technology from Finland. Energy production during the day and consumption in the evening. The need of energy storage system and balance management for solar PV. How would the system work in existing buildings, residential, industrial and general distributed power production? So can solar PV really be a part of todays power generation system in distributed level?

13.30-13.45
Pasi Kautonen, Marketing Manager, Valoe Oyj
Solar photovoltaic
Finnish solar panel manufacturing competing with mass production in China, is it possible? How would the system work in existing buildings, residential, industrial and general power production? Electricity production in daytime and consumption in the evening. The need for energy storage system for solar panels.

13.45-14.00
Atte Kallio, Project Director, Helen Oy
Large scale solar power
Experiences from large scale solar power in Finland. Will the levelized cost of energy with solar power in Finland be lower than spot electricity price? What are the most advanced solar power products on the market? Will the energy storage system increase the average sales price of electricity?

14.00-14.15
Riku Merikoski, Analyst, SKM Market Predictor AS
Solar power in the Nordic power market
Anincreased use of solar power switches trading from day-ahead market towards intraday market. How much solar power can be incorporated in the Nordpool system? Can solar power be a complement in summertime replacing reduced electricity production from CHP due to low demand of heat and low water levels of hydropower? Will solar power also decrease the market price like wind power did or is the time of cheap electricity history?

14.15-14.45
Panel discussion

EXHIBITORS' BRIEFINGS 21 MARCH 2017

11.30-12.00
Timo Sivula, Senior Vice President, Heliostorage, Double M Properties Ab
Solar heat in the arctic winter

12.00-12.30
Miko Huomo, Executive partner, GreenEnergy Finland Oy
Distributed energy production – demand for smart grid solutions

13.00-13.30
Markus Andersén, Sales director, Naps Solar Systems Oy
36 years of solar innovations – what have we learned

14.00-14.30
Paljakka Matti, Key account manager, VTT
VTT Wind and Solar innovation activities and offering

14.30-15.00
Lars Tallhaug, Managing director (MD), Kjeller Vindteknikk AS
10 years of experiences with calculation of production losses caused by icing

15.00-15.30
Staffan Asplund, Managing director, Etha Wind Ltd
Wind energy auction price sensitivity simulations

EXHIBITORS' BRIEFINGS 22 MARCH 2017

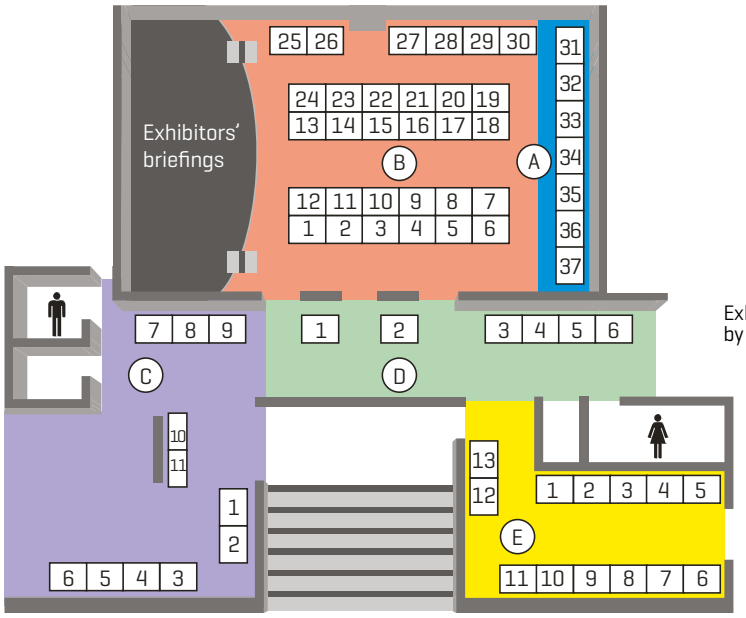
11.00-11.30
Miko Huomo, Executive partner, GreenEnergy Finland Oy
Distributed energy production – demand for smart grid solutions

11.30-12.00
Jakob Nymann Rud, Head of section, Energy planning, District heating / Torill Meistad, Senior adviser, Nordic Energy Research
How to shift to renewable energy systems in sparsely populated areas?

12.00-12.30
Markus Andersén, Sales director, Naps Solar Systems Oy
36 years of solar innovations – what have we learned

12.30-13.00
Sten Lillienau, Key account manager, Neas Energy A/S
What influences the power price and what can you do to maximize your value?

EXHIBITORS, NÄYTTEILLEASETTAJAT, UTSTÄLLARE



Exhibitors confirmed by 10.2.2017.

LOGISTICS

Blomberg Stevedoring Oy Ab www.blomberg.fi A 36
E12 Atlantica Transport www.vasek.fi A 35
Kvarken Ports Ltd www.kvarkenports.com A 35
Silvasti www.silvasti.com A 37
The City of Vaasa, Development of Logistics / NLC – Nordic Logistic Center www.vaasa.fi / www.nlcvaasa.fi A 35

INVESTORS, DEVELOPERS, MANUFACTURERS, SUBCONTRACTORS, CONSTRUCTORS

ABB Oy www.abb.com B 7
Ampner Oy www.ampner.com B 26
AXPO Finland Oy www.axpo.com B 4
Baze Technology A/S www.bazetechnology.com C 1
Bladefence www.bladefence.com B 12
Co-Engineering Oy www.co-engineering.fi B 8
DNV GL Energy www.dnvgl.com/energy B 17
Eltel Networks Oy www.eltelnetworks.com B 6
ENERCON GmbH www.enercon.de B 9-10
Escarmat Ltd Oy www.escarmat.com B 21
Fingrid Oyj www.fingrid.fi B 23-24
Gamesa www.gamesacorp.com B 1-2
GE Renewable Energy www.ge.com/fi B 25
Lagerwey Systems B.V. www.lagerwey.com B 29
Nordex Energy GmbH Finnish Branch www.nordex-online.com B 13-14
Obelux Oy www.obelux.com B 3
Peikko Finland Oy www.peikko.fi B 18
Proplate Oxelösund AB www.proplate.se B 19
Rose Holm A/S www.roseholm.dk B 19
Siemens www.siemens.fi B 30
Teknologian tutkimuskeskus VTT Oy - VTT Technical Research Centre of Finland Ltd www.vtt.fi B 16
Terma A/S www.terma.com B 27
Vaisala Oyj www.vaisala.com/energy B 22
VEO Oy www.veo.fi B 5
Vestas www.vestas.com A 33

CONSULTING, OPERATORS, MAINTENANCE, SERVICES

Cramo Finland Oy www.cramo.fi C 3
Etha Wind Oy Ab www.ethawind.com C 1
FCG Suunnittelu ja tekniikka Oy www.fcg.fi C 7
Fortum www.fortum.com C 4
Hafmex Oy www.hafmex.fi B 28
JBE Service Oy www.jbeservice.fi C 8
Kjeller Vindteknikk AB www.vindteknikk.se C 6
KPMG Oy Ab www.kpmg.fi C 5
Northwind Consulting Oy www.northwindconsulting.fi C 2
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Ramirent Finland Oy www.ramirent.fi B 11
Wind Controller JV Oy www.windcontroller.fi C 9

MUNICIPALITIES, AUTHORITIES, ATTORNEYS, ASSOCIATIONS

Bergmann Attorneys at Law www.bergmann.fi D 6
Flanders Investment & Trade www.flandersinvestmentandtrade.com D 3
Invest in Finland, Finpro www.investinfinland.fi D 2
The Municipality of Korsholm - Korsholms kommun - Mustasaaren kunta www.korsholm.fi C10-11
Neas Energy A/S www.neasenergy.com B 20
Suomen Tuulivoimayhdistys ry - Finnish Wind Power Association www.tuulivoimayhdistys.fi D 1
The city of Vaasa - Vaasan kaupunki - Vasa stad www.vaasa.fi C 10-11

SOLAR ENERGY SYSTEMS, EQUIPMENT, COMPONENTS, CONSULTING , SERVICES

Etelä-Savon Energia Oy www.ese.fi E 10
GreenEnergy Finland Oy www.gef.fi E 13
Heliostorage, Double M Properties www.heliostorage.com E 12
Naps Solar Systems Oy www.napssystems.com E 11
Orima-Tuote Oy www.orima.fi E 2
SolarBiox Oy www.solarbiox.fi E 1

Vaasa Wind Exchange & Solar -tapahtuman järjestää Pohjanmaan Expo Oy. Paikkana on Vaasan kaupungintalo, Senaatinkatu 1.

Evenemanget Vaasa Wind Exchange & Solar arrangeras av Expo Österbotten Ab i Vasa stadshus, Senatsgatan 1.

Vaasa Wind Exchange & Solar is arranged by Pohjanmaan Expo Oy and held in Vaasa City hall, Senaatinkatu 1.

Pidätämme oikeuden muutoksiin / Vi förbehåller oss rätten till ändringar / We reserve the rights to make changes