



4<sup>TH</sup>  
**INTERNATIONAL  
CONFERENCE ON SMALL  
AND MEDIUM WIND  
ENERGY**

23 - 26 NOVEMBER 2020

**NORDIC FOLKECENTER FOR RENEWABLE ENERGY**  
Kammersgaardsvej 16, Sdr. Ydby, 7760 Hurup Thy (DK)

Hosted by:



In partnership with:





# Introduction

Nordic Folkecenter for Renewable Energy, the Danish Test and Resource Centre for Small Wind Turbines, the Danish Association for Small and Medium Wind Turbines, in partnership with the World Wind Energy Association, are pleased to invite to the 4th International Conference on Small- and Medium Wind Energy, which will be held at the Nordic Folkecenter from the 23rd to the 26th of November 2020.

This four-day event gathered international experts from all over the world to discuss about **decentralized solutions and back-up systems**. Among the topics of the conference there were battery-connected wind turbines, regulations, medium wind technology (200-2000 m<sup>2</sup> swept area), the potential of small, medium and off-grid systems and their need for testing and certification.

The event also focused on the possibilities opened by the European Green Deal.

**The videos of the presentations, together with all the material relative to the conference can be found on [folkecenterevents.net](https://folkecenterevents.net), under the section "Previous Events"**





# The Conference

## Program

### Monday 23 November

16:00

#### **Welcome**

Jane Kruse, Director, Nordic Folkecenter for Renewable Energy, Denmark

16:15

#### **Thisted Municipality as a test space municipality for renewable energies: policies for solar and wind installations**

Esben Oddershede, Chairman of the Technical and Environmental Committee, Thisted Municipality, Denmark

16:30

#### **Facilitating the energy transition by continued education in Corona-times**

Peter Hauge Madsen/Cathy Suo, DTU Wind Energy, Denmark

17:00

#### **Mobilising the capacity building and know how for the energy paradigm shift**

Dr. Osman Benchikh Former Head of Energy Programme at UNESCO

17:30

#### **Speech by Ms. Jutta Paulus, Member of the European Parliament for THE GREEN/EFA in the European Parliament**

### Tuesday 24 November

09:30

#### **Market segments for Innovative Energy Supply Systems in Arctic Region of Russia**

George Kekelidze, Director, Eurosolar Russia

10:00

#### **Participation of Power-to-Heat Assets in Frequency Regulation Markets**

Florin Iov, Department of Energy Technology, Aalborg University, Denmark

10:30

#### **Renewable energy supply for remote research facility in Greenland**

Finn Jensen, Associate professor at Aarhus University, Department of Electrical and Computer Engineering, group Electrical Energy Technology, Denmark

11:00

#### **Question time**

11:30

#### **Break**



# The Conference

11:45

## **Global Small Wind Markets Status**

Jean Daniel Pitteloud, Coordinator on the Small Wind Sector, WWEA, Germany

12:15

## **Distributed electricity generation in Sweden – a vision for more secure energy supply**

Sven Ruin, Engineer and Author, Sweden

12:45

## **TWE – The development of a small wind turbine**

Otto Reinke, TWE-Tandem Wind Energy GmbH, Germany

13:15

## **Break**

14:00

## **EUROPE goes Climate neutral- next steps towards 2030**

Dörte Fouquet, Director, European Renewable Energy Federation, Belgium

14:30

## **Integration of existing small wind technology into decentralised and off grid power systems**

Jon Kemp, Technical Director, Ryse energy, the UK

15:00

## **How does small-wind stop sailing against the wind?**

Niels Martin Jørgensen, CEO, CIRKEL Energi A/S, Denmark

15:30

## **Small Wind Market Situation in the U.S**

Mike Bergey CEO, Bergey Windpower Co., United States

16:00

## **Wind Empowerment and open-source power electronics: Creating a fully bottom-up technology suit for rural electrification**

Dr. Luiz Fernando Lavado Villa - Associate Professor at the University of Toulouse - Researcher on software defined power converters, France

16:30

## **Discussion**

## Wednesday 25 November

09:30

## **Micro wind in urban areas**

Robert Nesseler, Blue Power, Austria

10:00

## **Challenges with micro wind turbine control**

James Bradley, Diffuse Energy, Australia

10:30

## **Break**



# The Conference

10:45

## **Analysis of a collective self consumption application of a SWT**

Luis Arribas, Researcher at the Wind Energy Unit, CIEMAT, Spain

11:15

## **Military use of wind turbines**

Prof Dr Ing Galal Osman, College Of Engineering, Mansoura University, Egypt Wind Energy Association (EGWEA), founder V. President World Wind Energy Association, Egypt

11:45

## **Enercon: Onshore Medium Wind**

Mikael Månsson, Enercon,

12:15

## **Break**

12:30

## **Modern Medium Blades**

Troels Ette, CEO, Olsen Wings, Denmark

13:00

## **Update of the services provided by the Danish Test and Resource Center for Small Wind Turbines**

Tonny Brink, Test Site Manager, Nordic Folkecenter for Renewable Energy & Danish Test and Resource Center for Small Wind Turbines, Denmark

13:15

## **Power regulation opportunities for small wind turbines**

Anker Mardal, Data Responsible, Nordic Folkecenter for Renewable Energy & Danish Test and Resource Center for Small Wind Turbines, Denmark

13:30

## **Wind Measurements**

Frits Ogg, author, the Netherlands

14:00

## **Denmark Certifying for the future for Small and Medium Wind – crystal ball view**

Peggy Friis, Senior WindpowerExpert, Denmark

14:30

## **Discussion**

## Thursday 26 November

09:00

## **Smart, affordable and reliable wind turbines for your home and business**

Mohammad M. Mohsen Haghighi, Project Manager at AMarkWIND Aps, Denmark

09:30

## **Ducted wind turbine revisited**

Dr. Vinit V. Dighe, Researcher at CWI (National Research Institute for Mathematics and Computer Science)

10:00

## **Hydrogen Energy Storage**

Rohit Prasad, Enapter, Germany



# The Conference

10:30

## Wind Powered Microgrids

Matteo Vecchiato, Export Sales Director, ESPE, Italy

11:00

## Break

11:15

## The New Online Catalogue of Small Wind Turbines

Anna Krenz, Designer & Daniele Pagani, Capacity Building Coordinator, Nordic Folkecenter for Renewable Energy & Danish Test and Resource Center for Small Wind Turbines, Denmark

11:45

## Windturbines and energy containers in the past and in the army

Frits Ogg, author, the Netherlands

12:15

## ARIA srl - Italian Small Wind Turbines

Manuele Morelli, president, ARIA srl, Italy

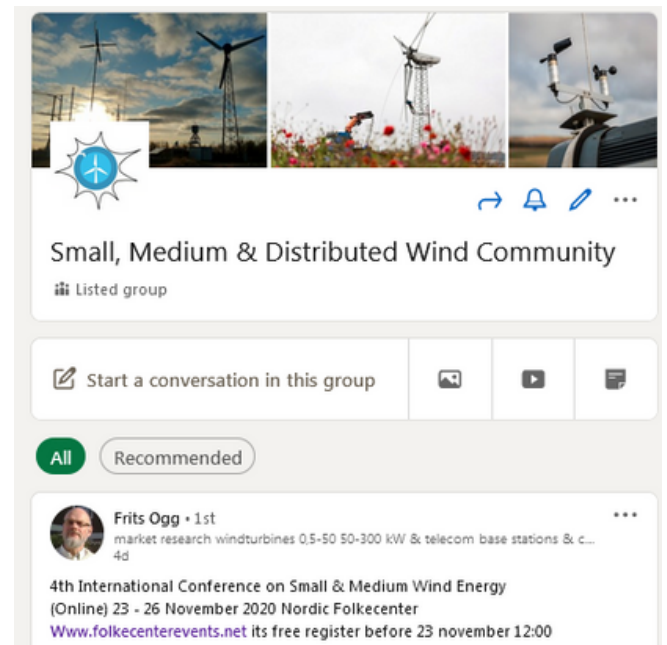
12:45

## Discussion/Evaluation

13:15

## Closing

Interested in Small,  
Medium & Distributed  
Wind? Join our LinkedIn  
group!



<https://www.linkedin.com/groups/8929012/>



# List of Participants

- Abdul Naser Manaa  
Ahmad Osso, Ålborg University Esbjerg  
Ahmed El-Ghandour, Triple M Construction  
Ali Mobaraki, Zagros wind turbine co.  
Alistair Munro, Ryse Energy  
Allen Tebugulwa  
Amol Shende, WiSH Energy Solutions Pvt Ltd.  
Andrii Barulin, Resco  
Andriy Melnyk, Bank Lviv Ukraine  
Anirudha Kharote, HAW Hamburg University  
of Applied Sciences  
Anker Mardal, Nordic Folkecenter  
Anna Krenz, Nordic Folkecenter  
Annelies Vandermeulen, Eocycle  
Arthur Alibekov, Dagestan Development  
Corporation  
Ashkan Sabzevarzadeh, AMarkVAWT Group  
Atefeh Kari Jafari  
Bastian Acevedo, Sustainable Energy Initiative  
Benchikh Osman, Former UNESCO  
Brent Summerville, SWCC  
Catalina Maria Machado Angel, Hochschule  
für Angewandte Wissenschaften Hamburg  
Cathy Suo, DTU Wind Energy  
Charlotte Ploug  
Chris Harrison, DNVGL  
Chrysa, Zioga, Nordic Folkecenter  
Corneliu Barbu, Aarhus University  
Cristian Pons-Seres de Brauwer, Technical  
University of Denmark (DTU)  
Daniel Clunies, Windurance  
Daniele Pagani, Nordic Folkecenter  
David J Carr, RenewTest LLC  
De Bock David, XANT EO CYCLE  
Drew Gertz, Northwind Engineering OÜ  
Dörte Fouquet, EREF  
Eric Jahn, Fortis Wind Energy  
Falk Birett  
Finn Jensen, ASE  
Florin Iov, Aalborg University, Denmark  
Frits Ogg, O2G Sustainable Energy Solutions  
Galal Osman, College of Engineering,  
Mansoura University  
George Kekelidze, EUROSOLAR Russia  
Gini Franker, Zentrepreneur  
Gloria Mariana Márquez Portillo  
Godfrey Katiambo, SUNami Solar Kenya Ltd  
Goncagul Uzun  
Hadi Shahgholi, AMarkvawt  
Helena Solman, Wageningen University  
Henning Bo Madsen, Vestjyllands Energi- og  
Miljøforening og Alliancen for Community  
Power i Danmark  
Hüseyin Dinçol  
Ignacio Cruz, CIEMAT  
Ilaria Pellegrini, ARIA SRL  
Imke Hermeler, European Parliament  
Immanuel Dorn, Ernl - wind turbine collective  
İrem Bilir,  
Irene Vester, Nordic Folkecenter  
James Bradley, Diffuse-energy  
James Duffy, Nixon Peabody LLP  
Jane Kruse, Nordic Folkecenter  
Javier de la Cruz, INEEL



# List of Participants

Jean Pitteloud, WWEA  
Jonathan Kemp, Ryse Energy  
Jose Carrasco Montejano  
Julia Kirch Kirkegaard, DTU Wind Energy  
Justus Munyoki, SusWatch Kenya  
Jutta Paulus, European Parliament  
Kamal Jabr, UNRWA, United Nation Agency for Work and Relief for Palestine Refugees  
Kateryna Knysh, Ukrainian Wind Energy Association  
Kathryn Sikander  
Kimon Silwal, Nelson Mandela University  
Kit Mosegård Bruun  
Laura Schultz, Orbital A/S  
Liam Griggs, Ryse Energy  
Luis Arribas, CIEMAT  
Luis Cano, CIEMAT  
Luiz Villa, Wind Empowerment (LAAS-CNRS)  
Manuel Pérez Larraburu, 500RPM  
Marc Ziengs  
Mark Joyce, Xia Analytics  
Matt Overeem, thewindway.com  
Matteo Vecchiato, ESPE SRL  
Mehran Ziaabadi, Western Norway university of applied science  
Mikael Månsson, Enercon GmbH  
Mike Bergey, Bergey Windpower Co.  
Minh Thao Nguyen, Uppsala University  
Mohammad M. Haghighi, AMarkWIND Group  
Mohammad Mafakheri, Zagros wind turbine Co.  
Morten Petersen, Nordic Folkecenter  
Niels Jakobsen, Orbital A/S  
Niels Martin Jørgensen, CIRKEL Energi  
Nihal Rajesh Rao, Vestas  
Noam Marseille  
Ogulcan Demirtas, Hacettepe University- Renewable Energy  
Oral Kaya, Troya Renewable Energy Cooperative  
Otto Reinke, TWE-Tandem Wind Energy GmbH  
Owen Paterson, Mojo Energy Advice  
Pablo Garces Jerez  
Pablo Ramos, Nordic Folkecenter  
Pacifique NSABIMANA, ARC Power Ltd  
Paul Peterson, University of Newcastle  
Peggy Friis  
Pirouz EBRAHIMI GARAKANI  
Razvan Codreanu  
Reinhard Lonsing  
Rober Nesseler, Blue Power  
Robert Wade, Queen's University Belfast  
Rohit Prasad, Enapter  
Samta Shende  
Sayed Khaled, Transform Energy Ltd.  
Sebastian Salcedo Alba, Nordic Folkecenter  
Sergey Bolotov, Windrotor Bolotov Ltd.  
Shaun Nay, University of Newcastle  
Smirnov Alexey, PENPROC LLC  
Somhari Tripathi, Kathmandu Alternative Power and Energy Group  
Soren Jegsen, Solid Wind Power Europe ApS  
Sumitra Vasudevan





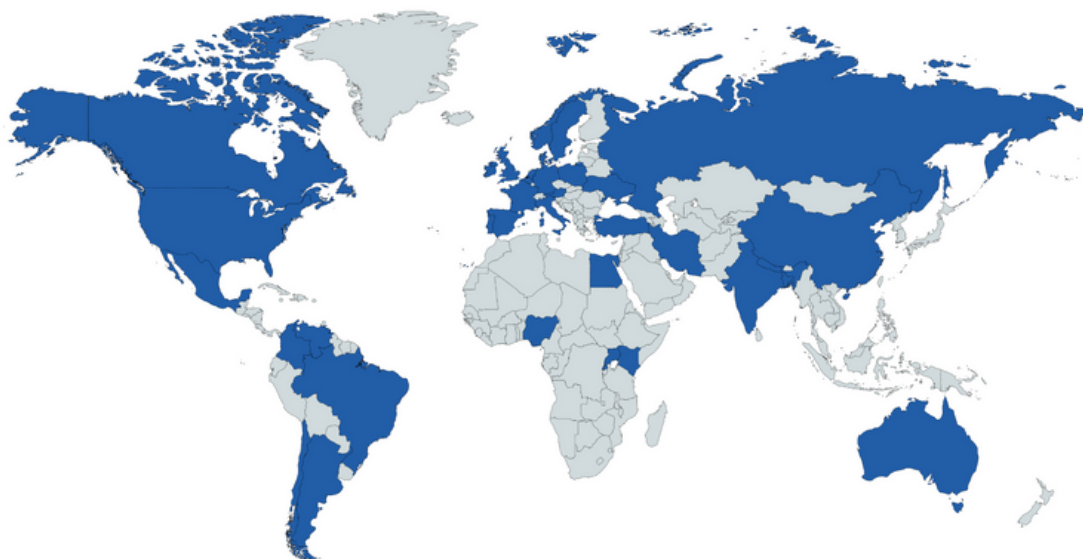
# Participant's Map

Surendra Pandit, KAPEG  
Sven Ruin, TEROCC  
Svend Enevoldsen, Ecology Management ApS  
Thomas Kopp, Environment Tec UG  
Thorstein Midttun, VANNHANDEL  
Tom Cronin, Technical University of Denmark  
Tonny Brink, Nordic Folkecenter  
Ulrich Høgenhaven, Viking Wind ApS  
Vaitea Cowan, Enapter  
Valentin Heusgen, Nordic Folkecenter  
Venkataraman Raghava  
Victor S.Olawoore, Harbin Institute of Technology

Vilas Warudkar, Maulana Azad National Institute of Technology  
Vincent Greeven  
Vinit Dighe, CWI  
Violeta Panev, OOU Vlado Tasevski  
Vivian Poulsen  
Yagiz Eren Abanus, Green Thought Association  
Zalbeg Dzhaliilov, Yuzhno-Sukhokumsk Electromechanical Plant JSK

In an international conference it is important that many countries are represented. So it was in this case! The organizers are very satisfied that the event -and its key messages- reached so many people. The map below shows where the participants came from (36 nations in total). We hope to see you soon in our future events!

Folkecenter Team





# Don't Miss



## Build your Own Wind Turbine Workshop

Have you ever considered building your own small wind turbine? In this workshop you will have a chance to learn the essentials...and you will actually build a small wind turbine!

This is the first of a series of courses which will also teach you how to get the most out of your machine!

The workshop will take place in Folkecenter (physical presence required) in the period **22-26 February 2021**.



## Optimize your Small Wind Turbine

Join us in this series of online workshops where you will learn what your wind turbine can be used for and how the connection should be done.

The workshops will take place in the period **12-15 April 2021** and each day will be dedicated to a specific technology.

The courses are a prerequisite for the practical experiences, which will take place a month later.



## 5th International Conference on Small & Medium Wind Energy

If you enjoyed this event, you will be glad to hear that we will host a 5th edition of the conference in the period **27-29 April 2021**.

The event will be online only.

If you wish to be one of the speakers, please submit your proposal on [this link](#). The deadline for proposal submissions is February 28, 2021.



Register your interest on [www.folkecenterevents.net](http://www.folkecenterevents.net)



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