
OFFWIND
Global Expert meeting /Workshop
11-12, Dec, 2013
IRIS, Stavanger
Free registration:
http://offwind.eu/GlobalMeeting
&
Linkedin/ Offwind group

Introduction:

Open Source Prediction tool for offshore wind energy generation, (Offwind[1])

The effect of turbine wakes on the performance of neighboring turbines is of paramount importance in offshore wind energy applications. The constant increase in size of offshore wind turbines and their associated wake structures only emphasizes the need for increasingly accurate models to predict such effects in order to optimize offshore wind farm layouts. Additionally, with the construction of very large offshore power plants, the magnitude of their effects are reaching larger scales and may have an impact on neighboring wind farms as a whole. Finally, the effect of wind/wave interactions on the vertical wind profile can also have an impact on wind turbine performance.

The Offwind projects seeks to address these problems in two ways: on one hand, by developing and integrating new and existing models onto an open-source development platform, and on the other, by opening up these tools to the community so that developers, consultants, researchers and other users can contribute with their own models and easily test them against wind farm data. The tools will be suitable for onshore applications as well.

This Workshop will present the Offwind platform in its various components: climatology database, CFD wake modelling, development of a wave/wake model, and other avenues of research such as wind turbine control and now-casting. Moreover, it will invite participants to contribute their own models and procedures, in order to advance knowledge in this important area.

Practical information:

- Place: IRIS, Stavanger (more detailed information will be announced later)
- Time: 22-23, Oct, 2013

- Need Other information, Contact:

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[1] Offwind project in brief:
Type: Research project; Project Manager: Jafar Mahmoudi, International Research Institute of Stavanger, Norway; Period: 3 years; Financing: NER (Nordic Energy research); VattenFall (Research and Development) and Own Financing; Partners: 10 partners: Norway: IRIS; SINTEF; Norsk Vind Energi, Sweden: Lund University, Denmark: Aalborg Univ; Vattenfall (Research and Development), Portugal: Megajoule, Germany: FuE-Zentrum FH Kiel GmbH , US: NREL, National Renewable Energy Laboratory (associated member), Russia: NRG Soft Ltd.

Day 1: Introduction to Offwind code

Time	Speaker	Organization	Title	Duration (min)	Comments
11.00-11.15	**Registration**		Coffee / tea		Registration, Distribution of Questionnaire
11.15-11.30	**Anne Cathrine Gjærde**[2]		Welcome speech	15	
11.30-11.45	**Jafar Mahmoudi**[3]	IRIS	Introduction to Offwind	10+5	(Offwind group presentation)
11.45-12.10	**Jens Madsen**[4]	Vattenfall	Simulation needs for Integrated Design of Large Scale Wind Farms	20+5	Industrial perspective
			LUNCH BREAK		
13.15-13.35	**Carlos M. Santos**[5]	Megajoule	Meso-scale wind modeling and coupling with OpenFOAM	15+5	Meso-scale wind
13.35-14.00	**Jon Samseth**[6] **(Balram/ Miahela)**	SINTEF	OffWindSolver: Wind Farm Optimization tool	20+5	CFD/ OpenFoam/ Wake modeling
14.00-14.25	**Johan Revstedt**[7]	LTH	Wind-wave interaction: Modelling and the effects on wind turbine flows.	20+5	CFD/ OpenFoam/ wind-Wave modeling
14.25-14.40	**Ernst Meese**[8]	LTH	OffWind, Licensing & Other Issues	10+5	Open-Source, GPL Licenses, user freedom, dissemination, constraints, etc.
14.40-15.05	**Javier Sanz** [9]		IEA TASK 31 Wakebench	20+5	(Remote speech)

[2] Anne Cathrine Gjærde Director of Nordic Energy Research
[3] Jafar Mahmoudi, PhD, Chief Scientist, IRIS (International research institute of Stavanger), Norway
[4] Jens Madsen, PhD, R&D Section Manager Vattenfall Research and Development, Denmark
[5] Carlos Silva Santos, PhD, Megajoule Inovação Lda, Portugal
[6] Jon Samseth, Prof, SINTEF; Norway
[7] Johan Revstedt, Prof, Lund University, Sweden
[8] Ernst Meese, Prof, SINTEF; Norway
[9] Javier Sanz Rodrigo, IEA TASK 31 Manager

		COFFEE BREAK			
15.30-15.55	**Rebecca Barthelmie**[10]	Indiana Univ	Wakes in large wind farms	20+5	(Remote speech)
15.55-16.20	**Thomas Bak**11	**Aalborg University**	Nowcasting	20+5	Nowcasting
16.20-16.45	**Jafar Mahmoudi**		Offwind validation (IEA Task 31) and future plan	20+5	(Offwind group presentation)

Day 2: work group day

Time	Speaker	Title	Duration (min)	Comments
09.00- 0.30	**Lise Jørstad**[12]	Ongoing activities in Nordic Energy Research		
09.30-10.30	**Work group meeting 1**	Offwind training	90	Run through the tools, do a quick Task 31 case
		COFFEE BREAK		
11.00-12.30	**Work group meeting No. 2**	Offwind Expectation: - Industrial need - Academics needs - New application area	90	Open discussion: - split needs, present results of 1st day questionnaire
		LUNCH BREAK & CLOSING		

[10] Professor, Atmospheric Science and Sustainability, Indiana University, US
[11] Thomas Bak, Prof, Aalborg University, Denmark
[12] Lise Jørstad, Vice Director, of Nordic Energy Research