

WREN Meeting Minutes - FINAL
Berlin Institute of Technology (TU Berlin)
March 13, 2015

Overview

The WREN (IEA Wind Task 34) meeting was held March 13, 2015, in Berlin, Germany. The primary purpose of this meeting was to discuss the status of key WREN activities and determine the next step for the many in-progress projects. This biannual 2015 WREN meeting included representatives from all Task 34 member countries, including representatives from seven countries. A participant list can be found in Table 1. The meeting agenda is found in **Attachment 1**.

Table 1. Meeting Attendees

Germany	Johann Köppel	Berlin Institute of Technology
Ireland	Shane McGuinness	BirdWatch Ireland
Netherlands	Joop Bakker	Rijkswaterstaat – Branch Water, Traffic and Environment (WVL), Department of Water Quality and Nature Management (VWKN)
Norway	Roel May	Norwegian Institute for Nature Research – NINA
Switzerland	Hans Buser	nateco AG
United Kingdom	Finlay Bennet Liz Masden	Marine Scotland Science University of the Highlands and Islands
United States	Karin Sinclair	National Renewable Energy Laboratory
	Andrea Copping	Pacific Northwest National Laboratory
	Jocelyn Brown-Saracino	U.S. Department of Energy

Expected outcome of meeting:

- 1. Share WRENHub progress and determine next steps**
- 2. Determine next steps to complete AM white paper**
- 3. Identify writing teams to begin working on other white paper topics**
- 4. Develop additional themes/presenters for webinar series**
- 5. Determine next steps on regulatory assessment effort**
- 6. Determine next steps for survey activity**
- 7. Begin planning for in-person meeting in Switzerland (Fall, 2015)**
- 8. Determine hosts for 2016 in-person meetings**
- 9. Determine whether Task extension should be considered**
- 10. Refine Work Package and Action Items timelines**

Work Plan Review

Karin began the meeting by reviewing the current work package, discussing progress to date, and identifying activities in the work plan that have not yet been completed based on the proposed schedule.



WREN Hub

Andrea provided a detailed summary on the development of WREN Hub, which is hosted on the Tethys website. Key features included aspects of the WREN Hub Members' page and the presence of land-based wind in the Tethys knowledge base for the first time. The existing functionality and proposed enhancements were presented and discussed. Andrea also presented the results of the recent peer review of Tethys. Comments from the peer review will be reflected in enhancements to Tethys, with an emphasis on further improvements to the filtering and searching methods for material on the knowledge base, rolling out the events calendar for all of Tethys, and an upcoming redesign of the Tethys homepage to better support all the aspects of the website. A key point of discussion concerned which WREN material should be password protected and which material should be openly available on the WREN Members page. The group wants collaborative development of the white papers to be secure on the Google drive; there was less consensus around other material.

ACTIONS:

1. WREN members are asked to review all organizations for their nations on the "Organizations" page under the Tethys "Connections" tab, for accuracy and completeness.
2. Andrea will review and make recommendations for what WREN material should be password protected and which should be openly available, and to ensure that the collaboration preparation of the white papers is secure.
3. Andrea will develop a draft metadata forms for wind farms (land-based and offshore) to collect information on environmental effects monitoring and research that is underway and not yet published. The form will be circulated for WREN members' comment.
4. Andrea will draft information for a press release on WREN Hub for circulation.

Adaptive Management White Paper

Jocelyn gave a presentation on the approach and progress made on developing the first WREN white paper, focused on adaptive management. A primary objective of the white paper is to document how adaptive management is utilized in monitoring and mitigating impacts to wildlife at wind facilities around the world. Interviews were conducted with a number of stakeholder groups including wind farm developers, regulatory agencies, and environmental consultants. Questions centered on understanding interviewees' experiences with the use of adaptive management plans. Most of the information collected to date is US-centric. Although some WREN members have previously circulated the interview questions, no responses have been received. Members have agreed to work to gather input from their countries. The timeline for the completion of the white paper will be revised. Final white papers should include information on relevant regulation as well as an executive summary for ease of use by policy makers. WREN members should determine who the target audience is for each primary WREN activity (white papers, HUB, webinars).

Hans presented the group with a number of theses for discussions pertaining to the wind energy industry's concerns with adaptive management, including:

- Move the uncertainty to the developer/to the financing
- Add an economic perspective
- Economic support is required

Potential solutions included:

- Insurance to deal with the problem
- Move the risk to the public



- Feeding a (regional, national, international) pool to compensate extraordinary curtailments/shutdowns

WREN Panel at CWW

Jocelyn also summarized the feedback received from the AM panel at the CWW, where the workshop engaged three breakout groups to discuss several core questions including:

1. What is your understanding of what adaptive management is and how it is relevant for wind power?
2. What have been some of the successes and challenges applying adaptive management to wind farms (either in the plan development process or the application)?
3. Can you point to any data on the effectiveness of managing wind farms using an adaptive approach?
4. In your experience/your nation, does the use of adaptive management increase project uncertainty, and if so did it affect wind farm ability to secure financing? How might that uncertainty be reduced?

Next White Papers

The group discussed the next white paper topics, including the outline that was developed on ‘individual effects to population impacts’. Discussion on the ‘green vs green’ topic was deferred to the biannual meeting scheduled for October 2015.

Finally, publication options were discussed, including the use of peer review journals such as the PLOS ONE journal. Another option discussed was to develop a synopsis of all the white papers for publication through IEA. The group decided to publish the AM paper as a white paper through IEA.

Integration of White Papers

Joop discussed his integration paper and requested that WREN members review it and provide comments; the paper may be expanded to include land-based wind energy.

ACTIONS:

1. WREN members committed to providing the writing team with information regarding adaptive management policy in their countries and examples of adaptive management of wind farms from their countries, where applicable. The group committed to filling out a modified version of the law/regulatory table revised to specifically apply to adaptive management. Jocelyn will send out an example of the form used to collect information from US respondents. UPDATE: Sent to WREN members April 1.
2. Review integration paper and send comments to Joop by April 30.
3. Jocelyn will develop revised timeline for AM paper.
4. Karin will check on the process for publishing through IEA.
5. Finlay, Liz, Hans and Roel will start working on the Individual & Population Impact white paper. Finlay, Liz and Roel will have a call in May to discuss this further. Liz will visit Norway later this year to work on this paper more intensively.
6. Determine who the target audience is for each primary WREN activity (white papers, HUB, webinars) – feedback to OA by April 15.

WREN Webinars

A brief summary of the webinar series to date and proposed topics for future webinars was given by Karin. Webinars, past and future, will be recorded and posted on the WREN Hub site at <http://tethys.pnnl.gov/environmental-webinars?content=wind>. Shane gave a presentation on Bird Watch Ireland’s newly released tool sensitivity mapping tool (Figure 1).





Figure 1. Shane gave presentation to WREN members on sensitivity mapping tool

The next webinar will be scheduled for June or July and will focus on sensitivity maps, with speakers to include Shane to present on Bird Watch Ireland's mapping tool; other speakers will be determined later. Roel proposed that he (or a colleague) could present a multiple-criteria siting tool they developed for power lines and are extending for wind power plants as well. This tool will be tested in Lithuania.

The September webinar will cover offshore mitigation techniques used by the industry, such as bubble curtains, for example. Johann will assist in identifying speakers. The December webinar will focus on sensors and novel techniques for observing birds and bats around turbines.

ACTION: Provide Karin with suggested speakers for each of the upcoming webinars.

Regulatory Assessment Table

Andrea presented the status and purpose of the regulatory assessment table, with options for having additional WREN member nations add material to the table, finalizing the table as a static entity, further developing and analyzing the information, or ending the activity. There was discussion of the purpose of the table, and WREN members were asked to examine what contributions they might make. The group decided to develop an AM-specific regulatory table for the white paper instead of a general regulatory table. See discussion above.

Stakeholder Surveys

Several WREN members have conducted the stakeholder survey developed last year. Input from other countries could contribute to discussions on next steps. The group decided to revisit the survey in the fall. The input would be used to inform the development of a Task 34 proposal extension, if we decide to do this.

WREN Meeting, Fall 2015

Hans provided details on hosting WREN October 21 – 22, 2015, in Bern, Switzerland.

There are two options for an excursion. Hans provided the following details on each option:

1. **Jura:** We may see some turbines in the Jura region. Especially the one in Le Peuchapatte, where there is research on fatalities going on. This region is about 1'200 m above sea-level. In fall you often find good weather conditions and a marvelous view onto the Alps.
2. **Alps:** We may visit the highest situated wind turbines and dams in Europe and get familiar with technical problems in this height and pump-storage schemes (reservoirs). In addition we may learn more about migratory bats passing the Alps. This region is up to 2'400 m above sea-level. The weather conditions may be fine, but as well quite cold with snow.

ACTION: WREN members provide Karin with their preferred option by April 30.

Future WREN Meetings

Identification of 2016 biannual WREN in-person meeting hosts was postponed.

ACTION: Let Karin know if you are able to host the meeting in 2016.

Other Meeting Topics

Discussion of a proposal extension for IEA Wind Task 34, development of a newsletter, use of Facebook, and development of a press release on WREN Hub was deferred to future WREN conference calls and meetings.



ATTACHMENT 1

WREN Meeting

March 13, 2015

Berlin Institute of Technology (TU Berlin)

Erweiterungsbau = EB: Straße des 17. Juni 145, D - 10623 Berlin

Room 414a (4th floor)

Directions: <https://www.cww2015.tu-berlin.de/menue/venue/>

Berlin, Germany

Agenda - FINAL

Expected outcome of meeting:

11. Share WRENHub progress and determine next steps
12. Determine next steps to complete AM white paper
13. Identify writing teams to begin working on other white paper topics
14. Develop additional themes/presenters for webinar series
15. Determine next steps on regulatory assessment effort
16. Determine next steps for survey activity
17. Begin planning for in-person meeting in Switzerland (Fall, 2015)
18. Determine hosts for 2016 in-person meetings
19. Determine whether Task extension should be considered
20. Refine Work Package and Action Items timelines

Lead/Facilitator

9:00	Welcome Introductions Review Meeting Agenda	Karin/Johann
9:15	Review Current Work Package	Karin
9:30	Overview of progress on WREN Hub New features added since December meeting in Denver Review of Peer Review of Tethys Discuss/determine next steps	Andrea
10:45	Break	
11:00	Review Status of Adaptive Management Paper Summary of intent of White Paper Overview of progress made to date, including literature review, themes from interviews Discussion of feedback received during Adaptive Management panel at CWW Discussion of group members' experiences with AM Plans for completion and review of paper	Jocelyn



12:00	Discussion of Next White Paper Topic –	
	1. Individual to Population	Hans/Finlay/Roel
	2. Green vs Green	All
	3. Demonstration of Bird Sensitivity mapping tool	Shane (15 – 20 min)
	4. Integration paper	Joop
12:30	Lunch	
1:45	Webinar Themes/Proposed Presenters	
	1. Summary of Webinar Series	Karin (15 min)
	2. Discuss future webinar topics/presenters	All
	3. Discuss what format archived files would be most helpful (presentation, recording, transcription?)	All
2:45	Regulatory Assessment Table	Andrea
	1. Overview of intended use of RA information	
	2. Review contributions	
	3. Determine next steps	
3:10	Stakeholder Survey	
	1. Overview of purpose of survey effort	Jocelyn
	2. Presentation from US	Jocelyn (10 minutes)
	3. Presentation from Switzerland	Hans (10 minutes)
	4. Presentation from the Netherlands	Joop (10 minutes)
	5. Others?	TBD
	6. Determine the future of the survey activity	Karin
3:45	Break	
4:00	Fall 2015 Meeting in Switzerland	Hans
4:10	Identify 2016 In-person Meeting Hosts	Karin
4:20	IEA Wind Task 34 extension	Karin
	Discuss/determine next steps	
4:50	Review Work Package and Action Items	Karin
5:15	Adjourn	