

IEA Wind Task 34
Newcastle, UK
May 15 - 16, 2014
Narec

Offshore House, Albert Street, Blyth, Northumberland, NE24 1LZ

Attendees: Åsa Elmqvist (Sweden), Hans Buser (Switzerland); Karin Sinclair (OA – US); Patrick Gilman (US), Andrea Copping (US), Jocelyn Brown-Saracino (US – phone)

Expected outcome of meeting:

- 1. Finalize Work Package**
- 2. Strong recommendation on white paper topic(s) to be completed over next 18 months, taking survey results and member input into consideration**
- 3. Strong Recommendation on Hub platform and conceptual design.**
- 4. Identify activities and schedule for next 6 months.**
- 5. Begin preliminary planning for December in-person meeting.**
- 6. Suggestions for 2015 hosts for in-person meetings**
- 7. Develop suggestions for presentations/panels at NWCC Research Meeting and CWW meeting**
- 8. Strong recommendation for rebranding IEA Task 34 to more descriptive name.**

May 15

Review Current Work Package

We reviewed the work package schedule and noted that we need to develop topics as well as email distribution lists for the proposed June webinar. This will take some time to develop.

ACTION: Topic suggestions should be proposed by Task 34 members and circulated amongst the members. Email distribution lists should be sent to Karin for aggregation.

For the proposed workshops in the schedule, the group wondered whether they should be tied to white paper development or other topics. This was later discussed in detail (see below).

Review Survey Results (summary)

Sweden (Åsa)

It is important to know who will use the white papers to decide who to send surveys to. Significant gaps are related to an understanding of being able to identify where bottlenecks are for permitting projects. Other energy technologies are more established. Deniers also exist. New research is not actually needed. What we need to know is how to treat the data that exists. Small issue can affect large projects. What is possible? Projects are delayed (some up to 10 years). Typical project size is 50MWs and up; financing is done by individual development companies. Strategic planning is missing. Survey results indicate that white papers on cumulative impacts (inclusive), adaptive management (precautionary principles), and individual to population topics would be of most value.



Switzerland (Hans):

Survey results are not yet available. The plan is to interview 10 people, develop a report, share the report for feedback, finalize, and repeat annually. NGOs and Office for Environment have more concerns than research gaps. Deer are of special concern. Developers and Office of Energy have different perspectives. Why are benefits of wind not mentioned, especially in the context of climate change? What is the significance of impacts? How does 10,000 birds/1000 turbines (goal of development in Switzerland) compare to 1.5m birds killed in country due to impacts with buildings? Impacts should be considered in context. White papers on individual to population and adaptive management would be of most value.

US (Andrea):

Survey respondents touched on many of the same issues as already mentioned by other countries. There was similar interest in four white paper topics, including individual to population, cumulative impacts, adaptive management, and targeted monitoring.

ACTION: Countries should complete surveys. Aggregated survey results from each country will be shared. They will be shared as completed.

Review Regulatory Tables/Discuss Regulatory Component of Task

Members discussed results collected thus far however not all countries have completed this activity. A decision on future use of the regulatory information was deferred.

ACTION: Countries should complete the regulatory table, including 2 additional columns that 1) indicate linkage to EIA and 2) relevance to wind energy. See example sent by Switzerland in 5/8/14 email.

Recommendation: Defer decision on what, if anything, to do with regulatory information beyond posting to the website (and Hub once developed) until we get information from all countries.

White Paper Thematic Topics Discussion

Summaries of the five (5) thematic topics identified at the Trondheim meeting were developed prior to this meeting. Each topic summary was presented and discussed by the attendees. The objective was to develop a strong recommendation of which topic(s) should be pursued, and prioritize the others. This recommendation will be presented to the Task 34 member countries for acceptance, with the intention that upon acceptance the work will commence.

Adaptive Management

The concept of adaptive management (AM) focuses on how to plan for and manage in an operational context wind projects in the face of uncertainty. As more is learned, management decisions can be made. Within the context of AM, the concept of mitigation hierarchy is included. In the US, AM is incorporated more on the operational side than on planning side, however this is not the case in all countries. How US and Switzerland approach adaptive management is different – and effectively opposite. The question of how AM is defined at the project level was discussed. The scale at which AM is being implemented is important (landscape level vs individual project level), including the level of monitoring and mitigation required. It may be easier to manage a large number of projects than just a few. The paper should include a description of existing approaches as well as the best approach to AM. It should also include information on what has worked the best as well as lessons learned from various countries. NGO perspectives should be included in this paper.



It was suggested that a workshop, held in conjunction with the National Wind Coordinating Collaborative (NWCC) Research Meeting in December, 2014, in Colorado, US, have multiple presentations on different perspectives of adaptive management.

Cumulative Impacts

Content for a paper on cumulative impacts should be well defined. There are numerous definitions of the term. We will need to narrowly define the topic or allow for and define all the various options. Those options are: cumulative impact of several wind farms in close proximity; cumulative impacts of many wind farms in a specified area or region; and cumulative impacts of wind farm(s) with other anthropogenic sources.

This topic may be too scientific, too broad, and overlaps with adaptive management in some areas. It is not clear how a white paper on this topic will result in better siting, etc. The challenge needs to be well described. What is the problem we are addressing? What would developers and other stakeholders do with this white paper? We may want to link this topic to the green v green paper.

Individual to Population

The summary describes a theoretical approach, and the agent-based model may not be the best solution. What really happens in nature? This topic could be approached from a biological perspective if we had enough data to validate the conclusions. The broader questions are 1) how do you transfer individual carcass search results to population impacts and 2) how do you estimate potential impacts on a population if one or more individuals is lost (this pertains to permitting offshore wind projects and the potential impacts to marine mammals before the wind farm is fully installed). What is the context? We may need to analyze different approaches to determining populations. We may look at how this has been done in climate change analyses. We could also discuss the different existing models to summarize the current options. What are the various ways to approach this topic? What are the advantages and disadvantages of these different approaches? How is each country approaching this? What, specifically, needs to be done?

Green vs Green

This topic should consider the need for strategic planning. Environmental impacts should be classified. Who decides what is green? This paper should provide help for decision makers to categorize attributes. The paper should also define a framework for the discussion, such as climate change vs dead birds and other animals. Wind energy has been promoted on the basis of benefits including property tax, jobs, and new industry but not climate change. Authors should take work that has already been done on this topic and make it available on the hub.

ACTION: Ask Task 28 – Social acceptance (effects on humans) group if they would review a paper on this topic. **Status:** Karin has spoken with Markus Geissmann (Task 28 OA) and he has expressed support for this request.

Transboundary Collaboration

It was thought that this topic could be integrated within the cumulative impacts write up.

White Paper Topic Selection and Next Steps:



Adaptive management was identified as the highest priority white paper topic. We discussed how each of the 5 topics was interrelated. We also discussed the possibility of working on more than one topic during the first phase of Task 34, with perhaps one full white paper and other topics being developed as shorter papers.

ACTION: Hans will develop a pictorial representation of the linkage of all 5 white paper topics. Hans will ask Roel to review and then decide whether it needs a write up. If needed, a short paper discussing how the five topics are interacted will be developed. This will ultimately be posted on the Hub.

Workshops may be held on each topic for which a white paper is being developed. Ultimately, we'd like to submit these papers to the appropriate peer review journals for publication. As a result of our in depth discussion, Hans will revise the individual to population write up to address comments, and redistribute when ready. Others can revise their drafts as they see fit.

ACTION: Revise white paper draft as needed.

An approach to developing the papers was proposed, as follows: 1) core writing team will further develop paper outline and annotated bibliography, 2) a draft paper will be developed, 3) a workshop will be held to discuss the draft, and 4) input from workshop will be used to inform development of the final document.

ACTION: While organizing expert committee for AM white paper, potential presenters for the AM panel at the NWCC Research Meeting can be identified.

Workshops were proposed for the following topics:

1. Adaptive management (workshop in USA in 2014)
2. Individual vs population (workshop in Switzerland in 2015)
3. Green vs green – workshop on this issue (timing and place to be determined later)

Recommendation: Adaptive management should be the first topic fully developed into a white paper.

Depending on the number of countries working on AM, a second topic could be started as well, to include an outline and literature review as the first steps.

ACTIONS: Pertaining to white papers:

1. Confirm recommendation of #1 (adaptive management)
2. US to host workshop, held in conjunction with NWCC meeting in Dec 2014
3. Notification of workshop as part of NWCC meeting; invitation for European attendees and other key contributors
4. Johann/Patrick to lead core writing team
5. Identify experts to form broader team; by June or July (who we should talk to and what we should talk to them about)
6. Each country needs to identify 'key participants'
7. Determine if what we have is sufficient to circulate – if not, redesign and send out

May 16

Hub Discussion

The Hub is not just a website; it is an IT-support community. We reviewed the Hub concept as previously presented during a conference call. Andrea gave a presentation on Tethys (developed by DOE/PNNL), including its content and functionality. NERC – National Environmental Research Council (UK) is closing down and has asked PNNL to put its material on Tethys. We may need to move Tethys to another url because .gov does not work for all countries. The following question was raised: how are non-English papers included? A potential solution is to develop abstracts and identify key words in order to add to Tethys

Recommendation: Design the Hub by expanding off the Tethys platform with, with options for a new front page or an expansion of Tethys. In either case, there will be increased functionality developed to serve the community needs, and the addition of land-based content (not currently represented in Tethys).

Collect information about ongoing research. These documents would be coded differently within Tethys and only participating countries would have access to these reports through a password-protected portion of the site.

ACTION: Need a small design team to contribute to defining functionality and content of the Hub. Hans would like to contribute. Others are also asked to volunteer.

We should be leveraging literature resources and linking to databases that are already established. Hans will check with his government to seek input on how they currently get the information they want, and how would they like to get that information in the future, to help determine the Hub design.

ACTION: PNNL needs input for Hub specifications and requirements, for the IT part and to enable community communication. Send specific information to Andrea – and cc others.

ACTION: PNNL to develop cost proposal options for Hub development for DOE review.

1. Least costly: Adding Task 34 to the home page of Tethys, as was done for Annex 4 (international marine energy effort under Ocean Energy Systems).
2. Most costly: WRENhub.org, a separate front end with distinct homepage that will add functionality and content, as well as have the ability to access information contained in Tethys.

ACTION: Participating countries will provide scientific papers, reports, and other media to the Hub.

We will seek to communicate with each other on a regular basis sharing ideas, especially as it pertains to outreach. We need to develop the Hub before we request input from others.

Recommendation: Defer conversation on outreach strategy to December meeting.

Rebranding Task 34

The name should reflect unbiased position, and be appropriate for wind energy opponents and proponents. After discussion of many options, the following was agreed on:

Recommendation: WREN – Working together to resolve environmental effects of wind energy

Wrenwind

Wrenhub.org is available and has been secured

Windlink.org might be another option.



2014 Fall in-person meeting; NWCC Wind Wildlife Research Meeting; CWW conference

Hans – Markus spoke with Austria and suggests we need to engage Mediterranean countries, such as Italy and Spain. There are numerous species issues and lots of wind energy development. We should also engage non-participating countries, especially as invited speakers. This may get them to participate.

Recommendation: Three items should be submitted to the conference organizers: 1) a (Task 34) WREN sponsored panel to discuss AM: What research is being conducted and how AM is implemented from a biological, operational, and financial perspective? 2) a presentation on Task 34 (WREN, white papers, other activities). 3) poster on all things WREN. Maybe we can have wren calls at a booth (NREL may have a booth at the conference).

ACTION: Abstracts need to be submitted to both NWCC (by June 20) and CWW (by July 28) for 3 proposed presentations.

ACTION: Reach out to Italy and Spain. **Status:** Karin made contact with both IEA Wind representatives during the ExCo meeting. Both countries are interested.

ACTION – Karin to try to make NWCC conference call while in UK. Karin to talk with AWWI then submit abstracts regarding proposed AM panel and WREN presentation. **Status:** Participated in call. Karin will follow up with AWWI directly on June 4.

ACTION: PNNL to take lead to develop poster on Hub for NWCC conference. One-page mock-up should try to include photos of humans, birds and marine mammals.

Task 34 members are encouraged to develop an agenda for virtual meetings and webinars. We need to know what is of interest in order to determine the focus. What are the research gaps?

This information could be used to generate webinar ideas or panel ideas. For example, there are 3 – 4 approaches to mitigating eagle impacts at wind facilities. Would this be of interest? In addition to topic ideas, we need recommendations of good presenters. Which topics are for webinars and what are for conferences?

ACTION: Topics/presenters need to be identified for future webinars. We can use survey results to get ideas. Ideas should be circulated by all.

IEA Wind Task 34 2015/2016 in-person meeting hosts/dates

Recommendation: Hold 1st 2015 meeting in conjunction with the Conference on Wind Energy and Wildlife Impacts (CWW) meeting in March in Berlin, Germany. Switzerland will host 2nd annual meeting later in 2015.

ACTION: Åsa will take lead in requesting panel at CWW.

Additional Items:

ACTION: Circulate minutes to Task 34 members for comment, including request for acceptance of recommendations. Request that all members provide response within 2 weeks.

ACTION: All outstanding activities (completion of regulatory table; surveys; rewrite of white paper summary, as needed) shall be completed and distributed before you go on summer vacation.

ACTION: Update the work package write-up for the current Task 34 web page (NREL to complete)

