

# March 2019 OES-Environmental Analyst Meeting

1500 GMT Meeting Attendees:	0000 GMT Meeting Attendees:
Mikaela Freeman (US – PNNL)	Andrea Copping (US – PNNL)*
Amy Woodbury (US – PNNL)	Alicia Gorton (US – PNNL)
Samantha Eaves (US – DOE)	Mark Hemer (Australia)*
Candace Nachman (US – NOAA)	Takero Yoshida (Japan)
Morgane Lejart (France)	Daisuke Kiazawa (Japan)*
Jan Sundberg (Sweden)*	Ou Ling (China)
Melissa Oldreive (Canada)	
Dan Hasselman(Canada)	
Anna Redding (Canada)*	
Anne Marie O’Hagan (Ireland)*	
Hayley Farr (US – PNNL)	
Dori Overhus (US – PNNL)	

\*Country analysts

Mikaela (1500 GMT Meeting) and Andrea (0000 GMT Meeting) presented slides:

- Rebranding
- France update
- 2020 State of the Science
- Retiring Risk
- Enhancing OES-Environmental Outreach
- OES-Environmental Activities
- Roundtable

## Rebranding

OES has asked us to rebrand Annex IV. We have decided on OES-Environmental (*the task formerly known as Annex IV*), which we will be transitioning to in the next several months.



## French update

Please find the recording of Morgane’s presentation on the *Tethys* Annex IV Members page:

<https://tethys.pnnl.gov/annex-iv-members-page>

## 2020 State of the Science

Mark – I think the outline looks good. I’m not sure if you have contributors from the Australian community or if you want me to circle it around.

Andrea – That would be great. For Chapter 10 (marine spatial planning), Anne Marie O’Hagen (Ireland) will write that chapter. She intends to poll the Annex IV Analysts, so we would like each country to respond. If you have a specialist or some expertise on a specific topic who would like to contribute, let me know. I think the chapter on environmental monitoring approaches and technologies will be led by FORCE out of the Bay of Fundy in Canada, but we have several groups who want to contribute there.

Mark – Australia has a strong spatial planning record, but we haven’t really captured our technologies. But I suspect the EWA group may be interested in contributing to that section. I know there are a number of post-docs doing lots of reviews. Is it appropriate if they contribute?

Andrea – At the least, having them review would be great. By getting this draft to you in October/November is an opportunity to engage those who haven’t contributed through the review process.

Mark – I also acknowledge that Australia has had limited work in the environmental space in marine renewables so our contributions would be small.

Daisuke – Structure is good. Japan can probably contribute to Chapter 10. We have some important revisions for the fisheries act and offshore wind turbine promotion act was established in Japan. So maybe we can contribute to the use of marine space for MRE in Japan.

Andrea – That would be great. Anne Marie will be getting a survey out shortly. I think case studies would be nice in the marine spatial planning chapter to show the range the way the countries are approaching marine spatial planning.

Ling – I can get some case studies for Chapters 8 and 10. There is some information we can collect.

Andrea – That would be great.

## Retiring Risk

Mark – In your EWTEC paper, it was very small and difficult to read.

Andrea – I know. We need to figure out a better version for the final paper.

Morgane – For risk retirement, in the US who will conduct this process, is it the regulators?

Mikaela – Yes, it would be the regulators, as well as developers or other stakeholders, who would use this process. The risk would be evaluate for each project, which is why on the process starts with defining the risk, including project details and marine animals or habitats. The EWTEC paper I sent out before the meeting discusses the details of the pathway. The idea is to bring regulators and stakeholders together as we go through this process to eventually get a larger community consensus on if we can retire a certain risk. One important note that we talk about is the ability to re-evaluate any “retired” risk as more information becomes available, such as when we move towards commercial arrays. If you have any feedback that would be great, we will continue to work on this process as we write it up as a State of the Science chapter and host the ETWEC workshop in September on this topics.

Morgane – we are going through this question with our upcoming project, so we will keep in touch about this question.

## Roundtable

### US

Candace – NOAA isn't the federal agency that is responsible for permitting and siting offshore wind projects, but we do have a lot of where we interact with the BOEM and we do a lot of consultation authorizations for marine mammals, fish, and other species and issues. BOEM is actually quite busy right now with several offshore wind projects in the Atlantic. The big one that is moving forward right now at the most advanced stage is Vineyard Wind and we at NOAA Fisheries have been working a lot with folks in the commercial fishing sector and there has been a lot of issues circulating lately regarding potential impacts to commercial and recreational fishing. Some outside groups have been organizing offshore development alliance comprised of different sectors of the fishing industry both us and BOEM have been working closely with that group and other members of the fishing sector and we are actually in the process of trying to move towards some sort of regional monitoring framework for offshore wind in the northeast Atlantic and maybe as far down as the mid-Atlantic. We are still in some pretty early stages though.

Mikaela – That is great to hear. I should note as well it sounds like that there may be an OES task that is dedicated to socio econ. So even though we are working on some of that in Annex IV we may be handing that over in a bit.

Sam – Quick update environmental monitoring projects in the US. The Triton Initiative at PNNL is just getting started on an experiment looking at fish behavior and movement around deployed tidal turbines. Right now they are in the initial stages of a pilot project where they are releasing tagged fish into a relatively confined area at the Marine Sciences Lab. They have an array of hydrophone sensors and other environment monitoring equipment to track the general swimming patterns and behavior of the fish and at a later point they will be deploying two tidal turbines in the area and repeating the entire experiment to see if, and how, there are any changes in the fish swimming patterns. They are also looking for any collision of the fish with the turbines. Also Triton has been supporting the testing of numerous environmental monitoring technologies and DOE has been funding the development of. Some technologies are moving into the final stages where they will be deployed and tested around wave energy converters at the Navy's Wave Energy Test Site in Hawaii, hopefully this coming summer and fall. So hopefully we will be collecting some information around deployed converters and how well the packages function.

Mikaela – To add to that, since the Triton Initiative is in our PNNL office we have been working closely with them on how the two initiatives can work together and collaborate and compliment each other.

### Canada

Anna - Lately our work here at Arcadia has been focused on some development in Nova Scotia, near Digby, in Grants Passage where Sustainable Marine Energy have installed their PLAT-O platform with shuttle turbines. We have been focused on working with SME and Luna Ocean on doing environmental research that would help inform their environmental monitoring practices. A lot of our focus is on hydrophones and imaging sonar for that project plus camera work. We started that project last year in late October and we will have a second field season this year and hope to wrap that up. That report will be available for the offshore energy association – the primary funder for that program.

Mikaela – Whenever the report is available please send it our way so we can get it up on *Tethys*.

## Australia

Mark – The most pressing issue is that the Carnegie has just learned that the contract they have with the W. Australian state government has been retracted yesterday. That will cause quite a ripple across ocean energy in Australia. This has been going on for several months. It came about through that the commonwealth government policy has retracted a lot of research and development ... (??). This had quite an impact on Carnegie's financial ability to pay their component of revised schedule and activities. There has been a lot of political pressure from the opposition in the state government. They are probably the most mature and only company with activity.

Andrea – That is too bad. What about the university-based work in W. Australia?

Mark – The state funding was about \$20M, \$16M of which went to Carnegie, but the money going to the university continues so the wave energy research center still has funding. They are looking at their strategy and where to focus now. There are several other activities still in the proposal stage which we expect to hear next month of which some of the mutterings have been quite positive.

Andrea – How was AWTEC planning?

Mark – We have dates (October 2020) that will be announced at EWTEC.

## Japan

Daisuke – In December, the offshore wind turbine promotion act was enacted. At same time, the fisheries act was revised. There are many objections from fisherman. This is a large movement in Japan now. We have annual meeting of ocean energy association of Japan. 200 participants (including regulators). We asked again for them to answer surveys.