

# May 2020 OES-Environmental Analyst Meeting

<b>1500 GMT Meeting Attendees:</b>	<b>0000 GMT Meeting Attendees:</b>
Andrea Copping (US – PNNL)*	Andrea Copping (US – PNNL)*
Lars Golmen (Norway)*	Daisuke Kitzawa (Japan)*
Dan Hasselman (Canada)*	Takero Yoshida (Japan)
Anne Marie O’Hagan (Ireland)*	Mark Hemer (Australia)*
Juan Bald (Spain)*	Beth Fulton (Australia)
Caitlin Long (UK)*	Mikaela Freeman (US – PNNL)
Hans Chr Sorensen (Denmark)*	Lysel Garavelli (US – PNNL)
Erin Traeger (US – BOEM)	Lenaig Hemery (US – PNNL)
Jennifer Fox (UK – ORJIP/Aquatera)	Hayley Farr (US – PNNL)
Kate Smith (UK – ORJIP/Aquatera)	
Mikaela Freeman (US – PNNL)	
Lenaig Hemery (US – PNNL)	
Alicia Gorton (US – PNNL)	
Hayley Farr (US – PNNL)	
Lysel Garavelli (US – PNNL)	
Dori Overhus (US – PNNL)	

\*Country analysts

Andrea presented slides:

- Update from Canada
- State of the Science 2020 Update and Release
- Next Steps for OES-E
- International Forum on MRE Environmental R&D
- *Tethys* Peer Review Results
- Upcoming Activities
- Roundtable

## Update from Canada (Presented by Dan Hasselman)

- Andrea – Fantastic presentation and really demonstrates what FORCE is doing to help advance with understanding the collision risk issue in highly energetic tidal environments.

## OES-Environmental State of the Science 2020 Update and Release

### Next Steps OES-E

- Andrea – the Executive Committee is voting on proposals this week, right?
- Mark – Yes, that is what I've heard too.

## International Forum on MRE Environmental R&D

### *Tethys* Peer Review Results

- Mark – are you assessing the analytics on pages used and matching those up with the peer review results?
- Mikaela – we do analytics at the end of the year, but looking at page access is an interesting idea and we can take a look
- Andrea – we look at analytics for certain pages. For the survey, we look at a small sample compared to overall page views. We do have analytics over time that we could show and we have analytics per country and in the US per states
- Mark – any information on the views from Australia?
- Andrea – not sure about the rank, but we can look into this and let you know.

### OES-E Upcoming Activities

- Jen – Do you include the country update recording for the second analyst meeting so they can hear the presentation?
- Mikaela – We don't. But we do make the recording of the country update available on the *Tethys* OES-E Members Page.
- Andrea – Analysts can access to the ambassador activities spreadsheet in the google drive via the *Tethys* analyst page. Based on the *Tethys* Peer Review feedback, the OES-E analyst page is going to be reorganized in the near future, more details to come.
- Mark – webinars that have been done so far have been great. Australia struggles with the live events so having them recorded is great.
- Mikaela – we can look into having some webinars that are more focused on an Australian audience or holding some that are good for Australia/Asia time zones.

## Roundtable

### France (Morgane and Nolwenn – sent via email)

- All the MRE events of this spring and summer are cancelled due to the COVID situation.
- Regarding this situation too, the re-deployment of the Sabella's tidal turbine is delayed, probably to the end of the summer (instead of this spring).

- A good news despite the situation: the echoes seem to say that the French government wants to integrate the development of MRE into the economic recovery plan.

#### Portugal (Teresa)

- Pandemic has delayed monitoring activities at the Wave Roller site in Peniche, and they missed their window. The device is up for maintenance so not operating currently. Planning to do the last monitoring activities regarding WESE project, but couldn't because stopped everything and can't travel.
- Trying to negotiate with Hyda Blue Energy – they want to remove the device for maintenance but don't know when they will put it back. We are trying to negotiate to at least do some monitoring. Planning to do some monitoring around decommissioning activities.
- Good news, received 3 year funding for WESE. Next project will be called Safe Wave. Signing grant agreement and project will start next year with other devices that will be installed in Europe.

#### US (Erin & Andrea)

- Environmental Assessment (EA) is out that FERC (Federal Energy Regulatory Commission) published off Oregon for one of the first wave projects off Oregon (PacWave South), which is a test site that includes 4 test berths. The EA is out for comment for 45 days.
  - Link to US FERC's Notice of Availability of Environmental Assessment re Oregon State University under P-14616:  
<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15516609>
  - Link to the EA itself:  
<https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15516322>
- Have a project to look at TC 114 standards, and just received an award to assess this in New Hampshire with a turbine under a bridge and in Alaska with a river turbine where will work with UW and floating monitoring devices. That is all on hold right now, but hoping to do that next fall. This is an important piece in risk retirement. Having the international standard is helpful, but it has not been validated so we hope to do that for a tidal turbine.

#### Norway (Lars Golmen)

- World Ocean Assessment update coming next month from UN. It includes a chapter on ocean energy, but only touches on environmental aspects.
- Working on underwater energy storage and feasibility studies, which mostly pertain to offshore wind and deepwater energy storage using hydrostatic pressure. This is using a German invention (sphere on the seabed that is evacuated and then charged) that has to have a cable and energy supply. When you discharge it, it runs through a turbine and generates electricity.
- Waves4Power has an ocean demonstration grant that will deploy 6 buoys at EMEC next year and provides a good opportunity for cooperating with EMEC. They also plan to deploy 1-2 other buoys this summer in Norway.
- The ICES working group for offshore wind and fisheries had a kickoff meeting last month. They are focusing on the environmental aspects of offshore wind, especially fishing.

- Fish farming is moving offshore, with the possibility of integrating ocean energy to power the farms.
- Offshore wind is coming to Norway (bottom mounted and floating) so there is some concern and we are engaging in that.

#### UK (Caitlin)

- Lots of construction delays due to pandemic and will be pushed to later in the year in the fall when might hit bad weather.
- Orbital Marine are hoping to continue with anchored deployment this summer and have received guidance with the Scottish government to proceed.
- Having effect on SeaWave project, currently going through a project change with the funder.

#### Ireland (Anne Marie)

- Has been some development on offshore wind. Some projects consented years ago have been fast-tracked now so should be something coming forward. Good for whole offshore energy sector and a sign it is moving forward.
- Had an election in February, but still have no government and no updates on how consenting works.

#### Australia (Mark & Beth)

- Waves Swell project is still progressing in Tasmania, has slowed down a bit and had to shift deployment dates from August to late 2020. Not much environmental work going on but did a significant amount of initial site survey work – not sure if their intention is to publish. Not sure what monitoring work they will do once everything is deployed, but talking with them today.
  - [Lenaig mentioned there is a paper in the Journal of Marine Science and Engineering that is published on the seafloor geomorphological survey results.]
- Albany project (Great Southern Research Facility) is continuing. There is a project on resource assessment and they have students working on physics and marine ecology. The most significant work is research on wave physics
- Australian Ocean Energy Group is moving forward and focused on market research
- New project being led by University of Adelaide, which is a joint offshore wind and wave research program with the Australia China Joint Research Fund. This is a 3-year program that is starting now. More resource focused, not much on the environmental side.
- Blue Economy CRC has a number of scoping or pathfinder projects
  - 6-month projects that are really trying to understand the current situation and re-check what we are doing since it has been about 2 years since developed CRC proposal
  - Working on aquaculture and wave energy
  - Also some regulator work that overlaps with the OES-E regulator survey we were working on
- 3 scoping projects just starting:
  - Best practice for monitoring, which assume will look quite closely at the SoS and across multi-use aspects
  - There is a group looking at decision support tools and what the industry needs, what they're used to using, what their level of entry-level expertise is – could point them to you guys to link up

- Another bio-geochemical/hydrodynamic model-oriented group that is looking at what is needed in the ocean space
- Based on what is needed, there may be another set of projects that is looking at the risk aspect (across all dimensions, not just environmental) and looking to socialize the risk retirement process OES-E has put forward rather than some of the classic methods. Another one on indigenous aspects of the blue economy and where they sit with stewardship in the environmental space. Within the South Pacific, including Australia, there is a strong sense of sea country where you have a close cultural tie to the ocean, a bit like ancestral lands. In some ways they are ancestral lands (land flooded in last sea level rise) and in other senses it is more open ocean, but there is a lot more indigenous interest in offshore renewable energy than maybe with the general public and that has its own environmental aspects, such as stewardship, and have traditional stories of the people of the South Pacific.
- That is all part of the call for projects that went out a few weeks ago.
- Australia has recently become a member of IEC and TC 114. Think that meeting is coming up soon.
- Andrea – Beth those are really interesting projects, that would be great if you can present on some of the work being done. Really interested in the indigenous work, especially in our part of the US we have legal co-management for the Native American tribes for all natural resources and a series of federal lawsuits that go back 30-40 years. This is very much tied into ocean energy work, because it has sometimes been encouraged by coastal tribes but also has been opposed due to fisheries implications.
- Beth – can certainly talk about them that are up and going at the time.

#### Japan (Daisuke)

- Have 3 projects on MRE that are able to continue their work:
  - Ocean current project from IHI. Remote island demonstration that started last August, but we have not heard about it for a couple of months.
  - Tidal energy converter project, but no recent updates. Think they could be preparing for field demonstration in Nagasaki area. Sponsored by the Ministry of the Environment.
  - Small WEC (100-150 kw) installed near Tokyo this February, will be a 1 year demonstration test near the breakwater using the horizontal motion of the platform. Also sponsored by the Ministry of the Environment.
- Very interested in combining MRE and aquaculture.
- We can translate the Executive Summary for the SoS.

#### Items for Analyst input:

1. Translation of State of the Science release material and Executive Summary
2. Please let us know your ideas for State of the Science outreach as well as general OES-E outreach including opportunities for webinars and online events in your country
3. Please fill out the Analyst Activities spreadsheet on the Google Drive.
4. Looking for country presentations during Analyst meetings (1-2 Analysts per meeting). Reach out to Mikaela Freeman if you are available for the September or December meetings.
5. Send any metadata updates to Cailene Gunn (and watch for her emails)

6. Send any social media content (Twitter, Instagram, Facebook) to Dori Overhus

The next Analyst meeting will be held in September. We will finalize the date of the meeting as we get closer to.