



Fundy Ocean Research Center for Energy

6th Meeting of the Community Liaison Committee (CLC)

Work Station Room
FORCE Visitor Centre
1156 West Bay Road

Wednesday, September 19th, 2012

Minutes

1. Welcome & Introductions

The Agenda, Minutes of the last meeting, as well as one-page update on Environmental Monitoring from Joe Kozak were circulated by Mary McPhee. The meeting was called to order at 10:40a.m. Present at the meeting were: Matt Lumley (M.L.), Gerard Cormier (G.C.), Frank Hartman (F.H.), Lois Smith (L.S.), Melissa Nevin (M.N.), Cindy Tupper (C.T.), Robert Yorke (R.Y.), and Mary McPhee (M.M.). Light refreshments, coffee and tea were provided.

2. Regrets

Regrets had been received from Terri McCulloch. Joe Kozak was unable to make the meeting but sent a report which Matt Lumley & Mary McPhee would later review.

3. Objectives of Meeting & Review of Agenda

Mary McPhee asked for any additions to the Agenda. Matt Lumley indicated he had brought along a presentation to review with the CLC. Mary McPhee indicated that the outcomes of the meeting would be to discuss CLC membership updates, review the Environmental Monitoring report from Joe Kozak, and suggested that the presentation from Matt Lumley be included in the FORCE update, and completed first and foremost.

4. FORCE Update (Matt Lumley & Mary McPhee)

As such, much of the FORCE update was covered in Matt Lumley's presentation and discussions during and following.

Addendum: Matt Lumley Presentation (a slide-show was utilized with images on M.L.'s

laptop to supplement the presentation/discussion).

**** This presentation covers discussion on Agenda items 4. b) Fourth Berth RFP**

Matt told the membership that last Thursday (September 13th, 2012), the fourth Berth at the FORCE test site had been released for Tender by the Province of Nova Scotia. This berth would be different than the other three berths as it was designed to be an array technology. Matt described that many processes with the berths at FORCE had been modeled off of EMEC and that discussion had since ensued that in essence says that there is no sense repeating the process, but to do something different at the FORCE site. Matt spoke of Andrew Tyler (MCT) making presentations and speaking to the time involved in getting a device in the water and developing the technology. Matt described that Mr. Tyler had used the example of the MCT device at Strangford Lough and the time involved with that site (four years). Matt Lumley indicated that other discussion involved the great expense involved with a one-megawatt prototype-only device. He indicated that there was a lot of support for development of array technology, and in developers being able to present a business case to funders, as well as to the potential of these developments in the marketplace, particularly to development in the Nova Scotia market.

G.C. – How will this affect the permits / lease (agreement)?

M.L. – Currently lease includes for 5MW of potential development, so with this announcement on the fourth Berth, the lease would require amendment.

C.T. – Will the subsea cable handle another 5MW?

M.L. – Good question. Yes, the submarine cable can handle the additional 5MW. Each section of cable has a capacity of 16MW. Some technologies can be situated so that they can daisy chain connect. A very exciting announcement for tidal energy developments: the tender for the fourth Berth will be closing March 31, 2013, though it may be extended for a further 30 days, in the case that the pricing from the UARB has not been established yet.

C.T. – So nowhere around the world has pricing yet?

M.L. – From typical developments, estimates have been developed for the rate, and currently they are looking at possible rate of 45¢/kwh, less than 65¢/kwh. The UARB will set the price, and of course one main concern is how this will impact the consumer.

**** Discussion relating to Agenda item 4. c) Platform Project, Funding**

Matt Lumley told the membership of the very exciting platform project, which was of course announced at the OREG conference in Halifax September 13th and 14th. Matt identified that the platform project would encompass \$10 million of funding, comprising of \$5 million of Federal Government funding, \$3 million from ENCANA (a loan converted to a grant), \$1 million in funds from developers, as well as contributions from Ocean Networks, who would provide in-kind equipment and support equivalent to a further \$1 million. This is the first ocean monitoring program of its kind. No such instruments have been designed for a place like the site here. Conditions here are challenging the collection of accurate data. This is crucial for project components like characterizing the site, determining blade composition, as well as for collecting data on fish movements and populations.

G.C. – Do they know precisely where the platform will sit as yet?

M.L. – Not yet. On the West coast at Vancouver a platform collecting raw data (0/1); further challenge is to determine what these raw data collections mean. What does it mean? Interpreting the data is necessary, but more depth is needed to interpret meaningful information.

C.T. – Will they run the subsea cable at the same time as installing the platform?

M.L. – Possibly.

G.C. – Will the platform have its own smaller subsea cable or will it be attached to “the” cable out there?

M.L. – Don’t know yet how the cabling will be configured.

C.T. – What capacity involved, how will monies be distributed?

M.L. – Vessels, instruments, equipment will be large part of the distribution of those funds.

G.C. – What’s the timeline for the platform?

M.L. – Completion of initial phase by 2014.

** Discussion relating to Agenda item 4. e) Board of Directors

Matt Lumley informed the membership that the FORCE Board of Directors has two new members. Gerald Walsh Associates completed the search process for two independent directors. The FORCE Board has a combination of independent directors, as well as directors from developer organizations. In particular some of these independents represent public interest in the project as well as the environmental monitoring side. So we have welcomed to the FORCE Board Doreen Malone (Financial background, NFP), as well as Joe Fitzharris (Offshore, oil industry experienced).

** Discussion relating to Agenda item 4. a) Project Schedule i.e. Cable Deployment

Matt Lumley described the recent work on the subsea cable. He noted that cable preparations had included motorized stands for the cable reels, as well as an RFP for instrumentation on cable termination. Here Matt indicated the large amount of environmental assessment that has been included as the project progresses, including instrumentation like sonar bells, acoustic equipment. This equipment aids in knowing what’s going on at the site. Phase One of the subsea cable lay trials has been completed, and the contractors are challenged by the site. FORCE is pleased to see IT completing this testing. There is a small margin of error here, working in a corridor that’s fairly narrow, very challenging. IT won’t go in with the cable until sure of their process; this may be completed with a turbine install, maybe even with the platform.

** Discussion relating to Agenda item 4. d) Substation

Matt Lumley told the membership that the FORCE Substation had been energized, bringing an exciting milestone for FORCE. Mary McPhee told the membership that she wished to take the opportunity to communicate a safety warning regarding the Substation site, in that the memberships should please communicate this hazard with the public, friends in the community. Mary cautioned that the site is contained, monitored with cameras, and is a

highly dangerous, high-voltage facility, like any other electrical substation; off-limits to the public. She reiterated that the Substation site is being monitored, and that the membership should communicate this with people as well. Mary concluded that while the switching on of the Substation is exciting, we must inform the public about the hazard. Matt Lumley reiterated the excitement of the completion of all FORCE land-based infrastructure, indicating that the infrastructure carries the capacity to carry up to 64MW of energy.

R.Y. – Is conversion completed on-site? Otherwise, where will conversion occur?

M.L. – The process varies with different developers, but on-site at the turbine or at the Substation. (At this time Matt Lumley shared a photo of the basement-level of the substation with the cable intakes, and Mary McPhee described the route of the cables coming in the wall following the track-way and the low ceiling, and stale nature of the control building.)

M.L. – Sharing that though the Transmission Line is now complete, the system can be further upgraded. Currently approximately 60MW capacity through the system.

**** ** Discussion relating to Agenda item 4. f) Visitor Centre**

Mary McPhee indicated to the membership that the Visitor Centre had a busy, fairly exciting summer, with great numbers. Total visitors thus far sitting at 3,200, with about 500 of those being student or school/university visitors. A great number of visitors were energy travelers, and many gave feed-back that they had come to the area or even to Nova Scotia specifically because of FORCE, so we're proving our worth slowly. Mary also described that a lot of visitors were from Nova Scotia but also various States from the US, as well as many international visitors; and that there was a good percentage of people who were simply lost looking for Partridge Island or Route 209, and that our average length of stay is huge compared to typical tourism venues (where most places can average six to eight minutes per stay, the VC sees averages of double/triple that, with some variance of visitor origin, or the like. Mary went on to tell the membership that the VC had some summer students who worked out very well. FORCE pursued and received both Federal and Provincial summer student grants to support the Student Assistant. There were a few issues with scheduling, but for a first year, seemed to work very well, and FORCE will pursue grant assistance for student positions next year as well. The VC currently has three students working some shifts on the weekends through September and October until close, namely Samantha Shaw who worked with the VC over the summer and was fabulous, and Chelsey Lightfoot, a Dalhousie student who ranked very high in interviews for the Provincially-funded position in the summer and who is studying Sustainability at Dal, as well as Phoenix Cavers, a local high school student, who ranked very high during the interview process for the Federally-funded position in the summer. All are working out really well, and seem to be enjoying the experience with visitors, questions, etc. Mary McPhee also described to the members present that FORCE would look further into a Volunteer Interpretation plan, so if any members were interested, or knew someone who was interested, pass the information along please.

C.T. – Great results. There is a need for more advertising.

M.M. – Yes, looking more so at Tourism marketing, and now have the brochures for distribution.

R.Y. – We had a great summer in the area, great weather so we should not get our hopes up, just a great summer for every spot around here.

C.T. – Actually a great first summer, seeing as the Visitor Centre is not at capacity for advertising yet, and a lot of visitors hearing about it through word of mouth, a good sign.

M.M. – FORCE building the marketing of the VC, including our Brochure, media, social media, tourism ads. A good time to share with the members that FORCE will soon be hosting a webcam on the web-page which looks out onto the water, viewing Black Rock; can be adjusted to view the site during operations. FORCE will make a formal announcement when the camera goes live.

Melissa Nevin described a summer work program for Mi'Kmaq students which has been utilized with various groups/businesses. Perhaps some potential for FORCE to bring a Mi'Kmaq student or students in 2013, where the focus is employment and training for the students and where the Band funds the position wages. Melissa suggested that FORCE and she get in touch over the winter and work on this initiative. Mary McPhee responded that this would be a great potential program. Matt Lumley offered that this could be a great addition to the summer student employment potential at FORCE. Agreed that Mary McPhee will liaise with Melissa Nevin on the program for Mi'Kmaq student employment potential for the 2013 season at FORCE over the winter months. Matt Lumley added that this could be a great help, emphasizing the value of the summer student funding to FORCE. All funding options explored as FORCE has a strong reliance on Berth Holders for operations costs.

Mary McPhee commented to the membership that FORCE would see some developments of more signage for the VC site, as well as security for the site, and continued refinement of safety procedures in the coming months.

Cindy Tupper asked Matt Lumley if the platform project would have a live-feed to shore.

M.L. – Yes, a live-feed to land-based facility which would monitor the platform, but will have to have some people involved with monitoring.

Matt Lumley shared with the group the development of a MET station for the site, which would be recording weather/conditions at the site, and also has potential for media development.

Matt Lumley also shared an update regarding a tidal development at Eastport, Maine. Matt indicated that the site at Eastport had seen a device get grid-connected the week previous (week ending September 15th), making it the first grid-connected device in North America. Matt then gave an update regarding Fundy Tidal, Inc. saying that Dana Morin and others at Fundy Tidal are furthering their developments in Tidal.

Matt Lumley spoke about the site characterization work that is continuing. Acoustic Doppler instruments are a big part of that, and there have been thirteen ADCP measurement sites within the Crown Lease this year. This work helps us estimate energy potential. For example, in 2006, the energy potential estimates for the site and the Province were much lower than current figures. The ADCP data helps with accurate measurements. Simon Melrose and Oceans, as well as Richard Karsten with Acadia are just some of the people involved with the work concerning site characterization. (Matt Lumley shared a graphical representation on his laptop at this time). Looking at the graph, you can see how much power is available, just being in the water with its density increases the potential. These graphs are based on actuals, more and more accuracy.

C.T. – So there was data taken over the site, from different points?

M.L. – Yes, absolutely. A better picture of what's happening out there.

5. Old Business

** Discussion relating to Agenda item 5. a) CLC Membership Discussion

Mary McPhee updated the membership that though there had been discussion previously to add to the CLC membership (EAC and a weir fisher), there had not been a great deal of success with adding new members. For example, with the weir fisher representative, Wayne Linkletter had been suggested as a potential member, but FORCE had not been able to make contact with Mr. Linkletter and confirm his interest. Mary asked the members present if there was any more discussion on membership.

C.T. – Hurley family members, some had been Harbour Commission members in the past. Maybe Kevin Hurley would be interested.

M.M. – Saw an article in the paper (Chronicle Herald) over the summer with Tony Lewis.

M.M. – Currently also have a vacant position with the representative from Cumberland Energy Authority, as Shawna Eason has taken up a position with Canadian Wind Energy Association. When the Cumberland Energy Authority fills the position, the vacancy will be filled. In the meantime, passing on information and minutes to the organization so a new person can be easily updated.

Discussion related to the addition of a member to CLC from the EAC was conclusive in the intent to participate, with the challenge of finding someone who's a member of the EAC who is in the local area. Cindy Tupper suggested she might be able to speak with her son Craig about EAC representation as such.

Mary McPhee asked if the membership felt that there were any groups who needed representation on the CLC, or whether they rather felt it was complete and inclusive. Discussion resulting involved a focus on fishers, and the premise also that other members could be added in the future. Mary McPhee asked if members could therefore suggest other fishers who could be contacted.

C.T. – Bliss Walton from Five Islands.

L.S. – Brian McLellan from Advocate Harbour, Brian is a member of Parrsboro Harbour Commission. Or David Rafuse.

M.M. – David Rafuse operated the late Croyden Wood Jr.'s boat during the summer lobster season, as well.

Mary McPhee indicated that perhaps she and Lois could make contact with some of the folks suggested in order to get a sense of whether they are interested in being involved with the CLC.

** Discussion relating to Agenda item 5. b) Environmental Monitoring (i.e. shore birds)

Mary McPhee addressed the membership as to the possible development of civilian/amateur bird or mammal observation programs, saying that whereas the CLC had indicated that previously people who volunteered had become disenchanted with the idea as they didn't want to travel to Halifax for training, FORCE would ensure to provide training on-site and in Parrsboro area so that folks would not have to travel. Mary asked if anyone had any contacts to provide. Having none provided, Mary asked the membership to forward any contacts for such a program at any time.

6. New Business

** Discussion relating to Agenda item 6. a) Environmental Assessment & Monitoring Update

Matt Lumley and Mary McPhee reviewed the Environmental Effects Monitoring Program update that had been prepared by Joe Kozak for the CLC, including focus on monitoring continuation, monitoring for the subsea platform, as well as continued studies of birds, mammals and fish at the FORCE site. Members were encouraged to contact Joe Kozak (contact info provided on update sheet), Mary McPhee, or Matt Lumley to be connected with further information regarding the update.

Next meeting date:

Temporarily, the next meeting of the CLC will be Wednesday, May 22nd, 2013. The meeting time and date will be confirmed as we get closer to that time, in case there are conflicts, etc.

Notes:

- i) Frank Hartman had to leave the meeting early, giving his apologies and excusing himself to attend another engagement.