

**Confirmed Minutes of the 88th Meeting of the
Environmental Impact Assessment Subcommittee of
the Advisory Council on the Environment
held on 20 September 2004 at 4:00pm**

Present:

Prof. HO Kin-chung, BBS (Deputy Chairman)
Mr. Peter Y C LEE
Dr. NG Cho-nam, BBS
Mrs. Mei NG, BBS
Prof. POON Chi-sun
Miss Petula POON (Secretary)

Absent with Apology:

Mr. Otto POON, BBS (Chairman)
Prof. WONG Tze-wai

In Attendance:

Mr. Elvis AU	Assistant Director (Environmental Assessment & Noise), Environmental Protection Department (EPD)
Mr. C C LAY	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Mr. Eddie CHENG	Executive Officer (E), Environment, Transport and Works Bureau (ETWB)

In Attendance for Agenda Item 3:

Dr. C W TSO	Chief Mechanical Engineer, Hongkong Electric Company Ltd. (HEC)
Mr. F H LAU	Assistant Chief Mechanical Engineer, HEC
Mr. Y L KWAN	Senior Mechanical Engineer, HEC
Ms. Florence KAN	Senior Architect, HEC
Mr. Freeman CHEUNG	Study Director, Environmental Resource Management Ltd (ERM)
Dr. Robin KENNISH	Ecology Specialist, ERM
Ms. Michelle LEE	Noise Specialist, ERM
Mrs. Shirley LEE	Principal Environmental Protection Officer (Urban Assessment), EPD
Mr. Victor YEUNG	Acting Senior Environmental Protection Officer (Urban Assessment) ³ , EPD
Mr. NG Ping-sum	Senior Environmental Protection Officer (Noise Management & Planning) ¹ , EPD

Action

The Deputy Chairman chaired the meeting as the Chairman was out of town.

Agenda Item 1: Confirmation of Minutes of the 87th Meeting held on 19 July 2004

2. The draft minutes were confirmed subject to the following amendments proposed by a Member -

(a) the third line of paragraph 14 should be amended to read “It was only after the commencement of a more regular and systematic monitoring programme that...” ; and

(b) the words “the Government should form a committee” in the middle of paragraph 15 should be replaced by “a monitoring committee should be formed”.

Agenda Item 2: Matters Arising

Para. 14: To insert a point in the guidelines to alert project proponents of the benefits of setting up a monitoring working group for large-scale projects

3. The Deputy Chairman reported that AFCD would consider the suggestion.

Para. 15: Review report on mitigation measures implemented by project proponents over the years

4. The Deputy Chairman reported that AFCD would submit the review report to Members for information once it was ready.

Agenda Item 3: Environmental Impact Assessment (EIA) report on renewable energy by a wind turbine system on Lamma Island (ACE-EIA Paper 8/2004)

5. The Deputy Chairman welcomed the presentation team to the meeting. A Member declared interest as the Friends of the Earth had received sponsorship from the Hongkong Electric Company Limited (HEC) for conducting the wind mapping study which was related to the project. Since there was no direct interest involved, Members agreed that the Member could continue to participate in the meeting. Dr. C W Tso introduced the project and Mr. Freeman Cheung presented the findings of

the EIA report to Members.

Romer's Tree Frogs

6. A Member welcomed the project and agreed that Lamma Island was a better location than Po Toi Island from landscape and ecological angles. He enquired about the location where Romer's Tree Frogs were found and whether the project site was within the catchment of Stream S4 which was an important habitat for the species. In response, Dr. Robin Kennish said that the Romer's Tree Frogs were located near the project site along the existing cable route that ran down to the coast and most of them were found in discarded plastic containers. The location was shown in figure 5.8 of the EIA report. Dr. Kennish confirmed that the project site was not within the catchment of Stream S4, and construction activities would not affect the stream. Stringent control during construction phase would be imposed to avoid runoff from the site. Since the site formation work was small in scale, the impact was not deemed significant.

7. A Member pointed out that the impact on Romer's Tree Frog would be smaller if the works would take place during dry seasons. In response, Dr. C W Tso said that the construction works would start in January 2005 and would last for about 9.5 months. A specialist on Romer's Tree Frogs would translocate any Romer's Tree Frogs found in the project site to Stream S4 before the commencement of construction work. A specialist had previously surveyed Stream S4 and considered it a suitable habitat for Romer's Tree Frogs.

8. In reply to a Member's question, Dr. Robin Kennish said that they had no plan to enhance the habitat for Romer's Tree Frogs. Mr. Freeman Cheung indicated that the project proponent team would conduct a pre-construction survey on the site and translocate the Romer's Tree Frogs to a suitable habitat to help them to survive. The Member commented that if the new site was suitable, it would have been occupied already. Translocating the species to the area might temporarily increase the number of Romer's Tree Frogs there, but the number would settle to the carrying capacity of the site eventually. He therefore preferred mitigation on-site rather than translocation. Dr. C W Tso explained that the Romer's Tree Frogs were there by chance and they might not be there in dry seasons. Translocating them would increase their chance of survival. Mr. C C Lay informed the meeting that AFCD had considered the mitigation proposal of the EIA report and agreed that translocation would be the best approach. The Deputy Chairman suggested the project proponent work out a suitable and practical plan with AFCD and relevant experts to mitigate the impact to the Romer's Tree Frogs.

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Land status and public access to the site

9. In response to a Member's question, Ms. Florence Kan said that the project site was on government land. The project proponent had applied for a five-year short-term tenancy of the site subject to negotiation upon renewal. The Deputy Chairman asked whether the project would continue after five years. In response, Dr. C W Tso said that they had applied for a five-year tenancy for the purpose of testing whether the wind turbine was technically viable and acceptable to the public. The equipment itself could last for at least 20 years.

10. A Member expressed concern on the cost-effectiveness of the project and whether it would result in a reduction in electricity charges. In response, Dr. C W Tso clarified that the project was not aim at making profit. It was a pilot project for gaining local experience in wind turbine operation and it also served as an educational project to promote renewable energy. As regards the Member's question on whether the cost of the project would be included in the assets of HEC for calculating profits, Dr. Tso said that the issue would fall within the purview of a different bureau of the Government.

11. A Member asked whether the site would be fenced off from the public for safety reason. Another Member said that since the site was on government land, it would be unfair if the wind turbine would affect tourists visiting the area. In response, Ms. Florence Kan explained that they would use the minimum area of land for the wind turbine. The area of the site at 55x55m was just adequate to accommodate the blades of the wind turbine which had a diameter of about 52 m. Mr. F H Lau said that the generator and the related facility would be enclosed and there would not be any electricity hazard. Since one of the objectives of the project was environmental education, the site would be open to the public and display boards and other features would be set up.

Visual impact

12. Noting that the ground area of the wind turbine would be cemented, a Member expressed concern on the visual impact of the project and suggested other innovative use of the land such as adding solar panels or other greening work. In reply, Dr. C W Tso said that the cemented ground surface was required for construction works during the construction stage, and for maintenance and technical purposes during the operational stage. After discussion, the project proponent agreed to consider reducing the area of the cemented ground surface and adoption of other greening measures to reduce the visual impact after completion of

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construction.

Access roads and means of transportation

13. In response to a Member's question, Mr. F H Lau said that the existing cable route would be used as access road. One of the advantages of the site was that there was no need to widen any road or cut any trees for building the wind turbine. Another Member pointed out that in similar projects in overseas countries, helicopters were used for transporting materials. In response, Mr. Lau said that they had considered using helicopters for transportation. However, the loading of the wind turbine components amounted to 5 tonnes, far in excess of the maximum loading capacity of helicopters available in Hong Kong. During the operational stage, road and sea transport would be the major modes of transportation. A Member remarked that if helicopters could be used for maintenance works, the concrete platform might not be required.

Noise impact

14. A Member asked whether the wind turbine would emit low frequency noise and how the noise would compare with the background. In response, Mr. Freeman Cheung explained that based on the information provided by the supplier and wind turbine institutions, most present day wind turbines were tone free which meant that there would not be a particular frequency of noise that would cause nuisance. The maximum noise level would be around 500Hz which was in the middle range. Ms. Michelle Lee said that they had conducted baseline noise level measurement at the nearest noise sensitive receiver N1. The finding was that the minimum noise level was around 45dB which was comparable to the noise level of the wind turbine. They believed that there would not be substantial impact there. In reply to the Member's enquiry, Ms. Michelle Lee said that according to prediction, the noise sensitive receivers would not be able to hear the noise generated by the wind turbine under normal conditions. The prediction was based on the worst-case situation. The Member quoted the example of the Chek Lap Kok Airport in which residents in Shatin were surprised to hear aircraft noise when the airport started operation. He suggested the project proponent reach out to the noise sensitive receivers so that they would be more aware of the noise impact of the wind turbine.

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15. In response to a Member's question on monitoring the noise level before and after the project, Ms. Michelle Lee said that the project proponent would conduct commissioning test of the wind turbine before operation. In addition, a 6-month noise monitoring at the locations of the sensitive receivers would also be conducted to see if there was any

exceedance of the noise criteria. Such information would be uploaded onto the project website.

Site selection and the scope of the project

16. A Member expressed dissatisfaction with the outcome of the site selection process. She was of the view that Po Toi Island was a better option as far as wind potential was concerned. In addition, that option would bring greater social benefits, as there was no electricity supply in Po Toi Island. She was also disappointed that South Lamma which had wind resource potential was not considered due to ecological reasons. She believed that there were suitable sites along the coastal areas of South Lamma. She also pointed out that the project was not able to demonstrate the full potential of renewable energy. In response, the Deputy Chairman said that the latter point which was related to the overall renewable energy strategy in Hong Kong should be discussed in a separate occasion.

Wind potential study

17. A Member suggested that there should be a peer review of the wind potential study of the proposed site. In response, Mr. Y L Kwan explained that they had conducted a one-year wind monitoring in Southeast Lamma. The data obtained was collated to predict the wind potential of the site at Tai Ling using a specialized computer software. They had taken into account the wind monitoring data of the Hong Kong Observatory and a comprehensive wind atlas had been built for Lamma Island. The prediction of the wind potential of Tai Ling was considered reasonable. In reply to the Chairman's question, Mr. Kwan said that the wind turbine itself had wind monitoring measurement equipment and would store all wind data relevant for electricity generation.

Monitoring data

18. In reply to a Member's question on bird monitoring, Dr. Robin Kennish said that bird monitoring would start after the completion of construction work and would last for one year. Bird monitoring would only be conducted during the operation phase because it was predicted that the impact on birds would not be significant during the construction stage. The findings of the one-year bird monitoring and the 6-month noise monitoring exercises would be uploaded onto the project website for public information. Another Member suggested and Dr. C W Tso agreed that the data of bird strike should also be uploaded onto the project website. Dr. C W Tso also confirmed that they were required to submit monthly monitoring data of the Environmental Monitoring and Audit

Programme to EPD, and release the data to the public. The Deputy Chairman suggested the project proponent further increase transparency so that the public could assess whether renewable energy was suitable to Hong Kong. Dr. Tso agreed to reflect to their management the request from Members for the release of the findings of the wind monitoring work.

Scope of public consultation

19. In response to a Member's enquiry on community involvement and objections to the project, Dr. C W Tso said that they had regular informal dialogues with the stakeholders, particular the respective village representatives. They had consulted the Lamma Rural Committee and a local green group, and the responses were positive. During the processing of the short-term tenancy, they had approached the Island District Council and Southern District Council through the District Lands Office but were advised that it would not be necessary to present the proposal to them. The Member considered that the consultation was not comprehensive enough. Mrs. Shirley Lee informed the meeting that at the start of the EIA study, EPD had alerted the project proponent of the need to widely consult affected parties, including those in the southern district of Hong Kong Island. The project proponent could widen the scope of consultation as the consultation period had not yet expired. In reply to the Member's question on whether the extension of the scope of public consultation could be added as a condition for endorsing the EIA report, the Deputy Chairman said that under the EIA Ordinance, the EIA report of the project was open to the public for consideration. The Subcommittee could only recommend the project proponent to widen the scope of public consultation. He then drew the attention of the project proponent to the Member's concern.

Conclusion

20. The Deputy Chairman thanked the presentation team and concluded that the Subcommittee would recommend the EIA report to the Council for endorsement without condition. Members' overall recommendations were as follows –

- (a) The project proponent should work out a suitable and practical plan with AFCD and relevant experts to protect the Romer's Tree Frogs;
- (b) Considerations should be made to reduce the area of the cemented ground surface and adopt other greening measures to reduce the visual impact of the project;

- (c) The project proponent should reach out to the noise sensitive receivers as far as practicable as part of the consultation and education process so that they would be more aware of the noise impact of the wind turbine;
- (d) The project proponent should ensure that members of the public would not be prevented from making use of the site for visit purpose; and
- (e) The project proponent should extend the scope of the public consultation exercise as far as practicable.

Registration of reservation

20. A Member registered her reservation on the EIA report and the project. She considered that Po Toi was more suitable than Lamma Island as far as wind potential was concerned. Furthermore, that option would result in greater social benefits since there was no electricity supply in Po Toi Island. The Member was also of the view that the public consultation was not comprehensive enough.

Issues outside the purview of the Subcommittee

21. Two Members expressed concern about the indirect social and economic impacts of the project which were outside the purview of the Subcommittee. They noted that the project, being part of the assets of HEC, would contribute towards the base for calculating the profit of HEC under the Scheme of Control agreed with the Government. They considered such arrangement less than satisfactory. While noting that the issue was not within the purview of the Subcommittee and ETWB, Members nonetheless agreed that the concern should be passed to the Council for attention.

Agenda Item 4: Monthly Updates of Applications under Environmental Impact Assessment Ordinance

22. Members noted the updates.

23. In response to a Member's enquiry, Mr. Elvis Au clarified that the figures in the table in page 7 of the monthly update had not included the number of applications under consideration.

24. A Member expressed concerns about applications for variation of Environmental Permits. He quoted the example of the EIA of Route 9 which was approved before the enactment of the EIA

Ordinance. After the completion of the project, he felt that the layout of the road had been changed and the noise impact had become significant, but he was not aware of the change of the project after the approval of the EIA report. In response, Mr. Elvis Au explained that the case was relatively complicated because it was approved before the implementation of the EIA Ordinance in 1998. Arising from Members' request at the meeting held on 2 July 2003, EPD had included in the monthly return information on applications for Environmental Permit variations. EPD had also added a page in their website to show the list of active designated projects with links to the respective project websites. A presentation on those initiatives could be arranged at a later meeting. In reply to the Chairman's question, Mr. Au clarified that if the proposed changes would not result in significant impacts and the impacts could be mitigated, an amended Environmental Permit could be granted. If the impacts were significant, a fresh EIA study had to be conducted.

Agenda Item 5: Any Other Business

Tentative items for discussion at the 88th meeting

25. The Deputy Chairman informed Members that the EIA report on Kowloon Southern Link and the strategic environmental assessment for territory-wide implementation study for water-cooled air conditioning systems in Hong Kong were tentatively scheduled for discussion at the next meeting to be held on 18 October 2004.

Agenda Item 6: Date of Next Meeting

26. As some Members might not be able to attend the meeting scheduled for 18 October 2004, the Secretariat would liaise with the Subcommittee Members to fix a suitable date.

**EIA Subcommittee Secretariat
September 2004**