

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 2463/08-09  
(These minutes have been seen  
by the Administration)

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**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Monday, 22 June 2009, at 2:30 pm**  
**in Conference Room A of the Legislative Council Building**

**Members present** : Hon Audrey EU Yuet-mee, SC, JP (Chairman)  
Hon CHAN Hak-kan (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP  
Hon James TO Kun-sun  
Hon WONG Yung-kan, SBS, JP  
Hon LAU Kong-wah, JP  
Hon Andrew CHENG Kar-foo  
Hon Albert CHAN Wai-yip  
Hon Jeffrey LAM Kin-fung, SBS, JP  
Hon CHEUNG Hok-ming, SBS, JP  
Prof Hon Patrick LAU Sau-shing, SBS, JP  
Hon KAM Nai-wai, MH  
Hon Cyd HO Sau-lan  
Hon CHAN Kin-por, JP  
Dr Hon Priscilla LEUNG Mei-fun

**Members absent** : Hon Miriam LAU Kin-ye, GBS, JP  
Hon LEE Wing-tat

**Public officers attending** : **For item IV**  
  
Dr Kitty POON  
Under Secretary for the Environment  
  
Mr KO Wing-hon  
Acting Director of Drainage Services  
  
Mr Elvis AU  
Assistant Director (Water Policy)  
Environmental Protection Department

Mr TAI Tak-him  
Assistant Director/Electrical and Mechanical  
Drainage Services Department

Dr Chris FUNG  
Senior Environmental Protection Officer  
Environmental Protection Department

**For item V**

Dr Kitty POON  
Under Secretary for the Environment

Miss Katharine CHOI  
Principal Assistant Secretary for the Environment  
(Energy)  
Environment Bureau

**Clerk in attendance** : Miss Becky YU  
Chief Council Secretary (1)1

**Staff in attendance** : Mrs Mary TANG  
Senior Council Secretary (1)2

Miss Mandy POON  
Legislative Assistant (1)4

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Action

**I. Confirmation of minutes and endorsement of the draft report of the Panel for submission to the Legislative Council**

(LC Paper No. CB(1) 1943/08-09 — Minutes of the meeting held on 27 April 2009

LC Paper No. CB(1) 1944/08-09 — Draft report of the Panel for submission to the Legislative Council)

The minutes of the meeting held on 27 April 2009 were confirmed.

2. Members endorsed the draft report of the Panel on Environmental Affairs for the current session, and authorized the Clerk to revise the report to cover discussion at the current meeting before it was presented to the Council on 8 July 2009.

**II. Information paper issued since last meeting**

3. Members noted that no information paper had been issued since last meeting.

**III. Items for discussion at the next meeting and matters arising**

- (LC Paper No. CB(1) 1945/08-09(01) — List of follow-up actions  
LC Paper No. CB(1) 1945/08-09(02) — List of outstanding items for discussion)

4. Members agreed to discuss the following items proposed by the Administration at the next regular meeting scheduled for Wednesday, 15 July 2009, at 2:30 pm -

- (a) Legislative framework of mandatory implementation of the Building Energy Codes; and
- (b) Second phase of the Mandatory Energy Efficiency Labelling Scheme.

5. Following the recent "Lights Out" campaigns organized by green groups, Mr KAM Nai-wai considered that the Panel should discuss the subjects of light pollution and regulation of outdoor lighting. The Chairman advised that the subject of "Excessive glare from advertisement signboards" had already been included in the list of outstanding items for discussion. This would be ready for discussion pending the outcome of a study being conducted by the Administration. To facilitate members' understanding, the Administration was requested to provide a paper setting out the scope and details of the study, such as the name of the consultant, methodology and parameters, for consideration at the next meeting of the Panel under the item on "Any other business".

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6. The Chairman informed members that the Administration had extended an invitation for the Panel to visit the Geopark at Sharp Island and High Island on 13 or 14 July 2009. Members had not no objection to the visit, but stressed the need for contingency arrangements to be worked out to take account of inclement weather.

*(Post-meeting note: With the concurrence of the Chairman, the visit to the Geopark would be held on Tuesday, 14 July 2009, from 1:30 pm to 5:30 pm. The relevant notice was issued to members under LC Paper No. CB(1) 2027/08-09 on 24 June 2009.)*

7. As the consultation document on the review of Hong Kong's Air Quality Objectives would be released by the Administration shortly, the Chairman sought members' views on whether this should be presented to the Panel for discussion or followed up by the Subcommittee on Improving Air Quality. Mr CHAN Kin-por suggested and members agreed that initial discussion on the consultation document should be held by the Panel whereas the details should be followed up by the Subcommittee. The Administration was requested to notify the Panel before the release of the consultation document to facilitate the scheduling of meetings.

#### **IV. Odour management in sewage treatment works of Hong Kong**

(LC Paper No. CB(1) 1945/08-09(03) — Administration's paper on odour management in sewage treatment works of Hong Kong)

8. The Under Secretary for the Environment (USEN) said that at the Public Works Subcommittee meeting on 20 May 2009, the Administration was requested to report to the Panel the progress of odour management in sewage treatment works (STWs) of Hong Kong. She said that the number of complaints about odour nuisance from STWs had decreased since 2006 following the implementation of enhanced odour control measures. The Assistant Director of Drainage Services/Electrical and Mechanical (ADDS/EM) then gave a power-point presentation on the odour management measures implemented in STWs operated by the Drainage Services Department (DSD).

*(Post-meeting note: The power-point presentation materials were circulated to members under LC Paper No. CB(1) 2022/08-09(01) on 23 June 2009.)*

#### Measures to control odour in STWs

9. The Assistant Director of Environmental Protection (Water Policy) (ADEP(WP)) said that DSD adopted three types of proven measures to reduce odour nuisance, namely, dosing of chemicals, covering of sewage facilities, and installation of deodorizing units. These measures were able to remove as much as 99.5% of odour from STWs.

10. Noting that ferric chloride was one of the chemicals being used to control the generation of odour, Ms Cyd HO expressed concern about the possible generation of dioxin since incineration would be adopted for treating sewage sludge. ADEP(WP) explained that while ferric chloride was used in the Stonecutters Islands Sewage Treatment Works (SCISTW) and other STWs adopting Chemically Enhanced Primary Treatment (CEPT) to treat sewage, the chloride content was very similar to that of sea water and would be decomposed during incineration. Besides, the incinerators to be used would meet the international emission standards, including the level of dioxin.

11. Referring to his recent visit to the Chai Wan STW, Mr KAM Nai-wai noted that the sewage inlets were exposed and the odour emission was affecting the environment and health of the neighbouring community. He therefore supported the covering of all sewage inlets, as in the case of the Tai Po STWs. Expressing similar concern, Ms Cyd HO enquired if there were measures to completely remove odour from STWs, particularly those located in the close proximity of residential developments like the Chai Wan STWs and if not, additional efforts should be made to mitigate the odour problem. ADDS/EM said that apart from ensuring that STWs were operating in line with existing legislative requirements, DSD would implement mitigation measures to further reduce odour from STWs. He added that while the covering up of sewage channels, chambers and tanks would reduce odour emission, it would not be possible to provide covers for all the sewage facilities in all STWs of Hong Kong given the enormous cost. Notwithstanding, there were plans to cover up the exposed sewage inlets at the Chai Wan STW and Ap Lei Chau STW.

Admin

12. Mr WONG Yung-kan enquired about the estimated cost for covering up all the sewage facilities in STWs, and the measures to reduce odour nuisance arising from septic tanks from unsewered villages. ADDS/EM said that covers would be provided for sewage inlets and primary sedimentation tanks which were the sources of odour emission from STWs, the same would not be applied to aerated treatment tanks where sewage had already undergone preliminary treatment. The Acting Director of Drainage Services (Atg DDS) added that while the cost for covering up all the sewage facilities in STWs was not available, it was worth noting that the cost for covers under Harbour Area Treatment Scheme (HATS) Stage 2A works was estimated at around \$220 million. At members' request, Atg DDS agreed to assess the need for covers for the exposed sewage inlets in STWs of Hong Kong. As regards measures to reduce odour from septic tanks from unsewered villages, ADEP(WP) said that efforts were being made to expedite the provision of sewerage to the unsewered villages. Meanwhile, villagers were requested to properly maintain their septic tanks to reduce odour generation.

13. Mr Albert CHAN said that the odour problem arising from STWs reflected the inadequacies in sewage strategy and district planning. The failure to take into account the impacts of STWs on the surrounding waters had also resulted in the closure of the Tsuen Wan beaches following the commissioning of SCISTW. Ms Cyd HO echoed that misconnection of sewers with the storm water drainage system was another source of odour problem which had been affecting residents of Central and Western District. She enquired if measures could be taken to ease the odour problem. ADEP(WP) said that most STWs were built a long time ago in remote areas which were later developed into new towns with intake of residents. To reduce odour nuisance, many of the STWs had since been upgraded. Atg DDS added that in an old district like Central and Western, cases of misconnection of sewers with the storm water drainage system were not uncommon. In collaboration with the Environmental Protection Department (EPD), efforts had been made to identify the misconnected sewers and improvements had since been made to the sewerage system within the district. The Administration would also study the feasibility of using chemicals to reduce the odour nuisance at Central and Western District as requested by members.

14. Mr Jeffrey LAM held the view that the decrease in number of complaints against odour from STWs might be attributed to residents being accustomed to the odour and not taking the trouble to lodge further complaints, rather than the effectiveness of odour control measures. Despite the upgrading of sewage treatment at STWs, the water quality of the harbour had not been improving. He enquired if HATS Stage 2A could resolve the odour problem associated with the poor water quality of the harbour, and whether mitigation measures could be adopted during the interim to mitigate the problem. ADEP(WP) said that about 450 000 cubic meters of sewage were discharged daily into the Victoria Harbour after preliminary treatment. With the commissioning of HATS Stage 2A, the sewage would undergo CEPT before discharge. This would not only reduce the pollution load but also reduce the odour nuisance. Meanwhile, efforts would be made to reduce the odour nuisance at source by improving the sewerage network. Enforcement actions would be taken against misconnection of the sewerage system with the storm water drainage system.

15. Noting that sludge generated from sewage treatment was also a source of odour, Prof Patrick LAU enquired how the problem could be dealt with. ADDS/EM said that about 800 tonnes of sludge were generated from STWs in Hong Kong, most of which were from SCISTW. ADEP(WP) added that the sludge generated from STWs would undergo a dewatering process and would be sealed and transported to landfills by trucks. As the disposal of sludge at landfills was considered not sustainable in the long run, a Sludge Treatment Facility would be built for the treatment of sludge.

#### Odour monitoring

16. Mr CHAN Kin-por noted that EPD would introduce electronic odour detectors to measure and analyze odour emission from Tseung Kwan O Landfill. He enquired if these detectors could be able to measure hydrogen sulphide levels and if so, whether these could be used in odour monitoring of STWs. ADEP(WP) said that the use of electronic means to measure and analyze odour emission was a newly developed technology and being tested at the Tseung Kwan O Landfill for a period of two years. As the technology was still under trial, it would not be applied to STWs. Nevertheless, the Administration would monitor the outcome of the trial to assess its applicability to STWs. ADEP(WP) added that as hydrogen sulphide had a strong correlation with the odour in sewage and could be measured conveniently and accurately by means of analyzers, DSD adopted hydrogen sulphide measurement for odour monitoring in STWs, in addition to the current environmental monitoring and auditing requirements. Mr KAM Nai-wai questioned the efficacy of these measures in controlling odour emission as evidenced by his recent visit to Chai Wan STW. The Chairman enquired whether the odour level of Chai Wan STWs had exceeded the stipulated standards. ADEP(WP) said that from experience, a level of 0.2 ppm hydrogen sulphide or below measured at STW was generally considered adequate to protect the nearest sensitive receiver from nuisance. ADDS/EM added that as the use of the activated carbon system at Chai Wan STW had been able to reduce the level of hydrogen sulphide to below 0.01 ppm, the impact on the surrounding community should be very low.

17. Mr Albert CHAN said that he could not accept the present odour standards if the highly objectionable odour nuisance arising from Siu Ho Wan STW was considered to be within acceptable standards. He pointed out that the odour from Siu Ho Wan STWs had been affecting the commuters of the North Lantau Highway, including incoming visitors from the Chek Lap Kok Airport who might have a bad impression of Hong Kong on their arrival. He found it hard to accept the Administration's explanation that the odour emission from Siu Ho Wan STWs was due to the slower than expected population growth which resulted in the longer travelling time taken for the relatively smaller amount of sewage to reach the treatment plant. He enquired about the time required to resolve the odour problem. The Senior Environmental Protection Officer added that the standards adopted in Hong Kong to control odour emission were very stringent and were able to protect residents from exposure to excessive odour. ADEP(WP) supplemented that the Siu Ho Wan STW had been expanded from a preliminary STW to a CEPT plant in 2005. The assessment results at the nearest sensitive receiver of the Siu Ho Wan STW had indicated full compliance with the requirements of the Environmental Permit. The Panel might consider

arranging a visit to the Siu Ho Wan STW to see for themselves the measures taken to mitigate the odour problem. ADDS/EM added that STW would occasionally experience shock odour load arising from fluctuating composition of incoming sewage, and such transient odour could be difficult to identify and control. Additional odour abatement measures were being implemented for completion by end 2009 to further ease the odour problem. Mr CHAN however considered that the odour emission standards should be reviewed. At members' request, the Administration agreed to provide a written report to give details of the odour management measures to be adopted at Siu Ho Wan STW.

Admin

18. Mr CHAN Kak-kan said that his home was right opposite to the Shatin STW, and so he had to bear with the odour nuisance despite slight improvement had been made in the last two years following the implementation of odour mitigation measures. The odour was particularly noticeable along the Tolo Highway during the evening. He was of the view that the most effective way to reduce odour nuisances from STWs was the provision of covers, particularly for sewage tanks which were most likely to emit odour. He also enquired about the ongoing odour-related improvements work to be implemented at the Shatin STW. ADDS/EM said that apart from installing the deodourization units of biotrickling filters and covering up the inlet works in August 2008, covers would also be provided at other strategic units with deodourization unit to further reduce the odour from the Shatin STW. It was expected that the odour nuisance would be much reduced upon completion of the odour-related improvement work in 2010. Members would be welcome to pay a visit to Shatin STW to better understand the odour abatement measures. At members' request, the Administration undertook to provide a list of the odour-related improvement works at the Shatin STW and the schedule for completion of the works.

Admin

19. Concluding the discussion, the Chairman said that it might be worthwhile to visit some of the STWs to observe the extent of the odour problem and the mitigation measures taken.

## **V. Promoting the use of electric vehicles**

(LC Paper No. CB(1) 1945/08-09(04) — Administration's paper on promoting the use of electric vehicles

LC Paper No. CB(1) 1945/08-09(05) — Paper on promoting the use of electric vehicles prepared by the Legislative Council Secretariat (background brief)

20. USEN briefed members on the progress of Government's efforts in promoting the use of electric vehicles in Hong Kong by highlighting the salient points of the information paper.

### Complementary legislative framework

21. Given the wide acceptance that electric vehicles were more environment-friendly, Mr Jeffrey LAM said that there was a need to promote their use

in Hong Kong through amendments to existing policies and legislation. By way of illustration, the provisions under the Road Traffic (Expressway) Regulations (Cap. 374Q) to only allow vehicles with a cylinder capacity of not less than 125 cubic centimeters to run on an expressway should be amended to include electric vehicles which did not have cylinders. The Principal Assistant Secretary for the Environment (Energy) (PAS/E(EG)) clarified that owners could apply for special permits under the Road Traffic (Expressway) Regulations if they wished to use vehicles without cylinders in Hong Kong. Mr LAM remained of the view that the existing legislation should be amended to allow the use of electric vehicles in Hong Kong without the need for special permits. PAS/E(EG) said that the Administration would consider amending the relevant legislation to enable the use of electric vehicles in Hong Kong, taking into account the testing results of these vehicles. At members' request, the Administration undertook to provide the objective standards adopted in testing the performance of electric vehicles.

Admin

#### Collaboration with electric vehicle manufacturers on participation in the trials on electric vehicles

22. Prof Patrick LAU enquired if the Administration was aware of a movie entitled "Who killed the electric car" which was about the history of electric vehicles in the United States. He said that back in 1996, the General Motors Company in the United States had already manufactured electric vehicles (notably the EV I which was a famous model) and complementary legislation had been introduced in California to facilitate the use of electric vehicles. Notwithstanding, electric vehicles manufactured in the United States were not put to use and many of them had been scrapped in 2003. To avoid possible recurrence, the Administration should make reference to the history of electric vehicles in United States, and to engage experts in the field to study the feasibility of introducing electric vehicles to Hong Kong. PAS/E(EG) said that the Government of the Hong Kong Special Administrative Region (HKSAR) had already purchased 200 hybrid vehicles from Toyota Motors. Also, the Secretary for the Environment had visited Toyota Motor during his trip to Japan in April 2009, and explored the opportunity in promoting the wider use of plug-in hybrid vehicles in Hong Kong. Nevertheless, she thanked Prof Lau for bringing up the history of electric vehicles in the United States which the Administration would look into.

23. Mr Albert CHAN recalled that the Administration had conducted trials on the use of electric vehicles in the 1990s. In fact, he had participated in one of these trials. However, very little progress had been made over the years, and it was only recently that more active consideration had been given to promoting electric vehicles. He opined that Hong Kong was a very suitable place for electric vehicles since most of the car journeys were within a short range, enabling battery charging to be performed between journeys. He urged the Government to take the lead in using electric vehicles, and to devise a strategic work plan to promote their use. Dr Priscilla LEUNG also supported for more efforts in promoting the use of electric vehicles in Hong Kong. PAS/E(EG) said that the wider use of electric vehicles would depend on their availability. The Government had signed a Memorandum of Understanding with Mitsubishi and Nissan to promote the use of electric vehicles. Mitsubishi had agreed to supply a number of electric vehicles from its first batch of limited production in the near future.



24. Mr Jeffrey LAM considered it unacceptable that the electric vehicle developed by the Hong Kong Polytechnic University (PolyU), costing only about HK\$80,000, could be used in the United States and United Kingdom but not in Hong Kong just because of the restrictions under the existing legislation. Instead, the Administration was spending as much as HK\$350,000 to import an electric vehicle from Mitsubishi in Japan for trial in Hong Kong. He opined that the Administration should explore with other vehicle manufacturers the possibility of conduction trials on electric vehicles of different brands and models, particularly from the Mainland which cost HK\$100,000 to HK\$200,000, so that Hong Kong people could have a wider choice in their selection of electric vehicles. PAS/E(EG) said that the Administration maintained close liaison with the manufacturers on the latest development of electric vehicles by PolyU under the brand name of "My Car". It was understood that testing on "My Car" was being conducted in Shanghai, and upon satisfactory completion of testing, the Transport Department would consider the application for type approval for these electric vehicles. Apart from the trials on electric vehicle from Mitsubishi of Japan, the Administration would also commence the trial on Shenzhen BYD's plug-in dual mode hybrid vehicles together with the Shenzhen Municipal Government in July 2009. It would continue to explore with other vehicle manufacturers the possibility of conducting trials on electric vehicles of different brands and models.

25. Mr KAM Nai-wai supported that more trials should be conducted on electric and hybrid vehicles from different manufacturers both in Hong Kong and the Mainland to allow more choices. Noting that the some buses used in the Mainland were hybrid models, he enquired whether the same could be used in Hong Kong to replace the more polluting diesel buses. PAS/E(EG) said that the Administration adopted an open approach on the introduction of hybrid buses in Hong Kong. Apart from PolyU, the Hong Kong Productivity Council had also liaised with the Mainland manufacturers on the performance of electric and hybrid vehicles, including those used during the 2008 Beijing Olympics. Franchised bus companies in Hong Kong had been invited to join the Administration's visit to Shenzhen BYD in June 2009 to observe the latest development of hybrid buses. Meanwhile, the Administration would actively consider the need to amend the existing traffic regulations to allow for the use of electric vehicles in Hong Kong.

#### Setting up battery charging facilities for electric vehicles

26. Ms Cyd HO stressed the need to ensure the availability of battery charging facilities for the convenience of drivers, as otherwise the use of electric vehicles would not be viable. Apart from charging electric vehicles at night at their own residential car parks, vehicle owners might have to charge their vehicles during office hours at their work places. There was a need for charging facilities to be provided at car parks of commercial and Government buildings, including those managed by The Link Management Company. She therefore enquired about the timeframe for the provision of battery charging facilities in both public and private car parks, and whether consideration could be given to mandating the provision of these facilities in all car parks. As electric vehicles would need to be charged for quite a few hours before they could be pit to use, Mr CHAN Hak-kan pointed out that battery charging facilities had to be conveniently located. Multiple adaptors should be provided at the battery charging facilities to cater for the needs of different models of electric vehicles.

There was also a need to further develop the technology on quick charging of electric vehicles in order to promote the use of electric vehicles. Given that different models of vehicles would have different charging modes, Mr LAU Kong-wah said that there might be a need to standardize the quick-charging system for electrical vehicles.

27. In response, PAS/E(EG) said that the Administration was actively exploring how to encourage the business sector to provide battery charging facilities. The Steering Committee on the Promotion of Electric Vehicles (the Steering Committee) set up in April 2009 comprised representatives from the power companies, property developers, and private car park operators etc. Recently, a power company signed a Memorandum of Understanding with a private car park operator and a property management company to develop charging facilities. Meanwhile, the Administration would also actively study the feasibility of providing charging facilities in Government multi-storey car parks. Efforts would also be made to standardize the quick-charging system for by different models of electric vehicles to be used in Hong Kong. USEN added that the Government had established the Hong Kong Automotive Parts and Accessory Systems R&D Centre in April 2006 to facilitate the transfer of technology of R&D findings to related industries. One of the major areas which the R&D Centre would focus on in the future would be the technology of producing battery and other auto parts of electric vehicles. The Government would continue to support and assist the commercial and industrial sectors to explore business opportunities on electric vehicles

#### Extension of the waiver of First Registration Tax (FRT) on electric vehicles

28. Mr CHAN Hak-kan said that the prices of electrical vehicles had to be competitive in order to promote their use in Hong Kong. Given the high price of HK\$380,000 of the Toyota hybrid model purchased by HKSAR Government, it would unlikely attract too many buyers. On the contrary, the Shenzhen BYD's plug-in dual mode vehicle at a price of HK\$150,000 was much more competitive. Besides, the plug-in dual mode vehicles with cylinders could be used on the roads in Hong Kong without the need for special permits. Hence, it would be more practical to promote the use of the less expensive plug-in dual mode hybrid vehicles as a start, to be followed by electric vehicles at a later stage. It would also be useful if the Administration was prepared to provide incentives to encourage the switch. Mr KAM Nai-wai echoed that the waiver of FRT was not enough to provide the needed incentive to encourage the switch to electric vehicles. EPD should work together with the Transport Department to work out more incentives to encourage the switch. Consideration could be given to pegging the licence fees to the emission performance rather the cylinder capacity of vehicles. PAS/E(EG) said that the selling prices of electric vehicles would likely be on the high side in the beginning given the relatively new technology. With the introduction of more models and keener competition, the selling prices of electrical vehicles were expected to come down as a result of market forces. Government would continue to explore collaboration opportunities with different electric vehicle manufacturers, including the Shenzhen BYD, with a view to introducing more cost-effective electric vehicles to Hong Kong. The promotion of plug-in dual mode hybrid vehicles and electric vehicles would proceed in tandem.

Admin 29. Concluding the discussion, the Chairman requested the Administration to provide a progress report on promoting electric vehicles within three months, setting out the following information -

- (a) history of electric vehicles and the measures taken to overcome the operational difficulties encountered in the past;
- (b) promotion plans for electric vehicles, including the incentives to encourage the switch to electric vehicles, the time frame for introduction of legislative amendments and the provision of battery charging facilities in Government and private multi-storey car parks and roadside metered car parks;
- (c) supply of electric and hybrid vehicles as well as details of the studies and testing being conducted on these vehicles, including "My Car";
- (d) vehicles in the Government and bus fleets which could be replaced with electric models and their replacement programmes,
- (e) measures taken to encourage the development of green industries associated with the manufacture of accessory parts for electric vehicles;
- (f) impact on electricity supply arising from charging of all electric vehicles at night time; and
- (g) promotion plans for electric motorcycles.

**VI. Any other business**

30. There being no other business, the meeting ended at 4:27 pm.