

Auckland Regional Public Health Service

Rātonga Hauora ā Iwi o Tamaki Makaurau



Working with the people of Auckland, Counties Manukau and Waitemata

Auckland Regional Public Health Service

Cornwall Complex
Floor 2, Building 15
Greenlane Clinical Centre
Private Bag 92 605
Symonds Street
Auckland 1150
New Zealand
Telephone: 09-623 4600
Facsimile: 09-623 4633

25th June 2009

Robert Perry and Bruce Forbes

Senior Policy Analysts

Auckland Regional Council

21 Pitt Street

PO Box 92012

Auckland

Submission on the Issues and Options Energy and Issues and Options Climate Change

1. Thank you for the opportunity for the Auckland Regional Public Health Service (ARPHS) to provide a submission to the Issues and Options papers on Energy and Climate Change.

The following submission represents the views of the Auckland Regional Public Health Service and does not necessarily reflect the views of the three District Health Boards. Please refer to Appendix 1 for more information on ARPHS.

3. ARPHS understands that all submissions will be available under the Local Government Official Information and Meetings Act 1987, except if grounds set out under the Act apply.
4. The primary contact point for this submission is:

Dr Janine Manuel
Public Health Scientist
Healthy Environments Team
Auckland Regional Public Health Service
Private Bag 92 605
Symonds Street
Auckland 1150
09 623 4600 ext 27081
jmanuel@adhb.govt.nz

1.0 EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

5. The Auckland Regional Public Health Service (ARPHS) has chosen to make one submission covering both the Options and Issues Paper Energy (Energy paper) and the Options and Issues Paper Climate Change (Climate Change paper). It has chosen to make one submission due to the high degree of interconnectedness between both consultation documents.
6. ARPHS believes that both the energy and climate change papers have incorporated the majority of issues relevant to public health.
7. ARPHS believes that both papers need revision and updating to include those elements omitted from the current documents, but more importantly to reflect the likely changes from current government initiatives.
8. ARPHS supports either option 2 or 3 in the papers as the 'next steps' in addressing the issues raised, however ARPHS believes that addressing the issues raised by amending pre-existing plans, strategies and policies to incorporate and advance responses to issues raised should be considered.

2.0 ENERGY AND CLIMATE CHANGE'S RELEVANCE TO PUBLIC HEALTH

9. Energy use (or the lack thereof) and climate change are both issues that have direct bearings on the health of the population of the Auckland region. The issues traversed in the Energy paper and the Climate Change paper, have both current and future impacts on health outcomes and health status.

3.0 SPECIFIC COMMENTS ON THE ENERGY AND CLIMATE CHANGE PAPERS

10. ARPHS finds both the Energy and Climate Change Issues and Options Papers have introduced well the significant opportunities, challenges and risks faced by the Auckland Region and set out possible options for how the region might respond to these important issues.
 11. Feedback is sought by the ARC on the following key questions:
 1. Do the main issues identified in the energy/climate change issues and options papers accurately reflect the current situation?
 2. Are there any important issues missing?
 3. What are the strengths and weaknesses of the current responses to issues raised in the papers?
 4. Which of the potential approaches outlined best responds to the issues described in the papers? How could these approaches be enhanced?
 5. Are there other ways to respond?
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Do the main issues identified in the energy/climate issues and options papers accurately reflect the current situation?

12. ARPHS believes that both the Energy and Climate Change papers provide an accurate reflection of the current situation.
13. ARPHS, however, believes that climate change hazards as real and immediate, not an uncertain risk of the distant future and their harm to human health and wellbeing warrant action now. ARPHS has commissioned its own research into the health impacts foreseeable from climate change and believes that some of the health consequences from climate change such as the effects of heat stress and extremes of weather are likely to be happening now.

Are there any important issues missing?

14. Public health issues are well addressed in both the Energy paper and Climate Change papers as set out in the extract from the Climate Change paper set out below.
15. The paper states: The effects of climate change will render us increasingly susceptible to threats from invasive species and organisms as well as sub tropical diseases (such as malaria and dengue fever). Our vulnerability is exacerbated due to our national economic dependence on horticultural, agricultural and forestry industries, and limited historical exposure to vector-borne diseases. If not controlled or avoided, such hazards could cause significant risk to human health, the regional economy (e.g. the agricultural and fishery industries), health (human and animal), recreational opportunities (such as fishing) and infrastructure (e.g. water supply and treatment networks).

Climate Change Paper

16. However ARPHS believes that the following issues need inclusion or greater emphasis in this section:

Sub tropical diseases

17. The main limiting factor for the establishment of exotic pathogens in New Zealand is likely to be the climate, which appears relatively cold for the establishment of many tropical human diseases.
18. However, with predicted temperature increases as a result of global warming, some important mosquito-borne pathogens could potentially become established in New Zealand, in particular, Japanese encephalitis virus, Barmah Forest virus and especially Ross River virus and West Nile virus.

Extreme weather events and higher temperatures

19. There is a significant interaction effect between temperature and total mortality. Heat fatigue, heat cramps, heat syncope, heat exhaustion and heat stroke are classical heat-related illnesses. Heat kills by taxing the body beyond its abilities.
 20. Urban heat islands will exacerbate the effects of warming by increasing summer temperatures relative to outlying rural districts. The intensification of urban development contemplated by the Regional Growth Strategy is likely to exacerbate
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the size and effect of heat in areas of intensified development. Due to the long life of most urban developments it is likely to be important that developments currently being planned or planned in the future incorporate mitigation strategies to reduce the likelihood of heat stress impacting on residents.

21. An increase in food and water borne diseases can be anticipated.
22. Flooding is associated with rodent-borne disease, such as leptospirosis, trauma deaths, mainly by drowning, and gastrointestinal infections from disruption to sewage disposal systems and safe drinking water infrastructure.
23. Heavy rainfall events could affect microbiological contamination of coastal, recreational or surface waters and affect water quality and distribution systems.

Climate Refugees

24. The paper identifies potential strain on social services and social cohesion as a result of climate refugees. ARPHS believes that the consequences from a potential influx of 'climate refugees' will be greater than the paper envisages. Climate refugees may also be expected to increase competition for employment and housing. Depending on the background and skills of these refugees this will impact disproportionately on particular sections of society. If the majority of climate refugees come from Pacific islands there are likely to be strains put on the current Pacifica community in terms of providing accommodation and support due to family links.
25. Substantial numbers of climate refugees will also alter overall population numbers and demographics with potentially significant consequences for issues such as infrastructure planning.
26. The work ARPHS has currently commissioned on the health impacts of climate change in for the Auckland region should provide further detail around the health impacts to be expected from climate change.

Energy Paper

Gas

27. ARPHS believes that the comments relating to gas availability, demand and its utility as an energy source need to be reviewed. It is noted that in the regional issues section of the energy trends part of the paper it states that gas supplies are limited, however in the energy supply part of the paper it contains commentary supporting greater use of gas such as "there is a significant opportunity to further exploit the region's existing gas transmission assets..." and "Greater use of gas would also contribute to carbon dioxide emissions..." Advocating for the increasing use of a diminishing resource raises a range of issues that should be explicitly commented on in the report.
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Electricity

28. ARPHS notes the comments that there are numerous agencies involved in the delivery of electricity in Auckland which is stated as leading to “inefficiencies and increased prices”. ARPHS believes that this statement is over simplistic. While there may be some inefficiencies from current arrangements the implication that reducing the number of agencies would improve this is disputed. Network industries such as electricity often involve monopoly provision of services or facilities. Monopoly provision removes incentives to improve performance and allows for excess prices to be charged, unless an appropriate regulatory regime is in place to curb market power. The impact of overcharging, as the energy paper correctly notes, “will be the most severe for low income households” and as such the question of electricity sector structure needs careful consideration.

Both Papers

29. Where both papers are disappointing is in the absence of reference to Maori or to the inclusion of poverty and inequalities as specific issues in the papers (albeit that the energy paper includes some commentary around low income households). Both Maori and sectors of society facing poverty and inequalities may be disproportionately impacted by energy and climate change issues. Any such disproportionate impact needs to be specifically identified and considered in the formulation of any response to energy or climate change issues.
30. If there is to be equity in the impact of energy and climate change issues it may require that there are specific measures and programmes developed to address those sectors of society facing disadvantage.

What are the strengths and weaknesses of the current responses to issues raised in the papers?

31. It is unfortunate that the timing of the release of both the Energy and Climate Change papers largely coincided with the release of Government’s response to the recommendations of the Royal Commission on Auckland Governance and that other policy settings have been changed through the release of the revised transport government policy statement and other initiatives, such as those announced in the recent Budget and other reviews such as that of air quality standards.

Auckland Governance Reforms

32. It seems probable that many of the structural issues relating to local government’s performance noted in both papers will disappear as a result of the formation of the new Auckland Council and the development of documents such as the Regional Infrastructure and Spatial Plan.
 33. It is unlikely that the Auckland governance reforms will resolve issues relating to the participation of other agencies, the business sector and other groups in providing a solution to regional energy and climate change issues.
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Transport Government Policy Statement (GPS)

34. The recent revision of the GPS has revised the funding allocation to differing classes of transport activities. The proportion of funding allocated to state highways was increased reducing the proportion of funding available for active transport and public transport support. The reason for this was stated as “70% of all freight in New Zealand goes by road, and about 84% of people go to work by car truck or motorbike, so we need good roads to grow and compete”. A renewed emphasis on roads will do little to resolve many of the issues outlined in the energy and climate change papers.

Other Announcements

35. In the budget a substantial amount of funding was made available for home insulation, this announcement means that that component of the two papers relating to homes and their insulation will need some revision. The announcement of the review of air quality standards may also change the standards to be achieved and the liability and response to air pollution issues.

Which of the potential approaches outlined best responds to the issues described in the papers? How could these approaches be enhanced?

36. The following options have been proposed in the paper for advancing a regional role to provide an effective mechanism to respond to energy and climate change issues:

Option 1: Remain with the status quo
Option 2: Regional co-ordination and advocacy
Option 3: Enhanced and new roles

37. ARPHS would see options 2&3 as the most effective mechanisms for responding to energy and climate issues.
38. ARPHS seeks greater emphasis to be placed on regional co-ordination, facilitation and advocacy to support greater alignment of effort, together with integrated action to address climate change adaptation and mitigation objectives.
39. Furthermore ARPHS would see Option 3 of crucial importance as this approach places emphasis on mitigation measures.

Implementation

40. While ARPHS is supportive of Option 2 and 3, the Royal Commission noted “Auckland does not lack plans; it lacks the will and the ability to implement them”¹. ARPHS believes that great care needs to be taken in deciding just how ‘regional coordination and advocacy’ or ‘enhanced and new roles’ are defined. There is little point investing time and resources in proposed activities if there is not much in the way of implementation undertaken.

¹ Royal Commission Auckland Governance Executive Summary Page 4

41. ARPHS believes that many of the objectives sought would be gained by ensuring that energy and climate change issues were given appropriate consideration and prominence in pre-existing plans, strategies and policies. Integration into existing plans, strategies and policies will allow energy and climate change issues to be addressed on the basis of 'no regrets or few regrets' actions or initiatives that modify pre-existing proposals to better account for the impact of energy and climate change issues. This approach would reduce the ambiguity and complexity of the issues facing the Auckland region.

Pricing of energy and other resources

42. Price signals have the potential to change behaviours and usage and may over time act to mitigate some of the issues raised in the energy climate change papers. ARPHS believes that public health is likely to be affected if some sectors of society reduce energy (and other resource) use below what is needed for hygiene purposes or reduce investment in keeping homes sufficiently warm and dry. In ARPHS view any such price signals need to penalise excessive consumption, rather than basic needs.
43. ARPHS believes that any price signals used to reduce energy use or respond to climate change should be based on the block tariff approach. With block tariff pricing the initial tranches of resource used are priced lower than subsequent tranches. This allows low income households to access sufficient of the resource to maintain health, but the pricing regime still penalises excessive consumption.

New approaches, new technologies

44. Seeking opportunities for public-private sector partnerships to fast-track deployment of new and emerging low carbon technologies, fast-tracking new and emerging low carbon technologies that may otherwise would be unfeasible or take longer to implement, and establishing regional funding mechanisms to support adoption of new innovation, technologies and improvement programmes is seen as essential for any impact to be made to counteract climate change.

Are there other ways to respond?

45. There are always other approaches that could be adopted. One such example is outlined below:

Solar Power is Made Mandatory - Marburg is a Forerunner in Germany

46. Marburg has become the first municipality in Germany to impose a requirement for solar construction throughout its area. In a heated discussion, the City Council on June 20th approved a Solar Code. According to the Code, any building owner who builds, or renovates a building, fixes its roof or replaces its heating system, must install a certain number of solar collectors on the roof in the process. The primary purpose of these devices is to heat water for household use and to heat the rooms. Under certain circumstances, as an alternative, devices may be installed which produce electric power rather than heat or which use other renewable energy resources.
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47. With this Code, the city is assuming a pioneering role in Germany. Citizens of the city of Marburg now have the duty to install solar-energy units on the roofs of their houses. The ruling coalition in Marburg sees its initiative as a necessary climate-protection measure, which promises to show rapid effects. This example demonstrates exceptional commitment to mitigate climate change.

The Auckland Region may choose to implement some projects which also demonstrate an exceptional commitment to climate change.

48. Some possible implementable projects for the Auckland Region are described below:

Tidal energy: Is proving successful in Britain and New Zealand could leverage this in the future.

Use of waste for power generation: If Auckland developed a green and putrescible organic waste collection, both domestically and industrially, it could divert around 180,000 tonnes of organic waste a year from landfill. If this was processed using an anaerobic digester or biogas machine, Auckland could produce biogas, which could be used as electricity or automotive power as CNG in vehicles. Compost, heat and CO2 are other useful products from this process, particularly in horticulture.

This is energy from existing waste products which would divert material from landfill and take reactive material producing methane into the atmosphere out of circulation and thus mitigate climate change.

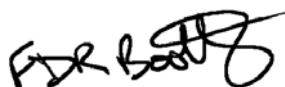
Photovoltaic (PV) Farms: There are already two small solar PV farms in existence in the Auckland area. One is located at the airport and the other on Tiri Tiri Matangi. There is a huge potential to obtain a consortium of property owners and power companies to place PV farms onto roof tops and feed into the grid or use locally.

49. In summary ARPHS would see the options of regional co-ordination & advocacy or enhanced & new roles as the way forward for the future, provided that both options are approached appropriately.

4.0 CONCLUSION

50. Both the energy and climate change papers are useful reference documents for the issues they canvass. ARPHS believes that any decision around the possible 'next steps' should only be taken once the documents have been revised in the light of the foreseeable impacts from the Auckland governance reforms, recent government announcements and other relevant issues.

Yours sincerely



Frank Booth
Service Manager
Auckland Regional Public Health
Service



Dr Denise Barnfather
Medical Officer of Health
Auckland Regional Public Health
Service

APPENDIX 1 - AUCKLAND REGIONAL PUBLIC HEALTH SERVICE

Auckland Regional Public Health Service (ARPHS) provides public health services for the three district health boards (DHBs) in the Auckland region (Auckland, Counties Manukau and Waitemata District Health Boards), with the primary governance mechanism for the Service resting with Auckland District Health Board.

ARPHS has a statutory obligation under the New Zealand Public Health and Disability Act 2000 to improve, promote and protect the health of people and communities in the Auckland region. The Medical Officer of Health has an enforcement and regulatory role under the Health Act 1956 and other legislative designations to protect the health of the community.

ARPHS' primary role is to improve population health. It actively seeks to influence any initiatives or proposals that may affect population health in the Auckland region to maximise their positive impact and minimise possible negative effects on population health.

The Auckland region faces a number of public health challenges through changing demographics, increasingly diverse communities, increasing incidence of lifestyle-related health conditions such as obesity and type 2 diabetes, outstanding infrastructure needs, the balancing of transport needs, and the reconciliation of urban design and urban intensification issues.
