

PACIFIC ENERGY MINISTERS' MEETING

25 – 26 April 2007
Rarotonga

PROCEEDINGS



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**25-26 April 2007
Rarotonga, Cook Islands**

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	4
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SUMMARY RECORD	5
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Agenda Item

1 Opening Session	5
2 Working Procedures and Agenda	6
3 Energy Security and Policy	7
4 Energy Security – Supply Side	12
5 Energy Security – Demand Side	15
6 Key Outcomes and Recommendations	17
7 Adoption of Records	18
8 Report to FOC	19
9 Date and Venue of the next PEMM	19
10 Closing	19

ANNEXES

1 List of Participants	20
2 Opening Addresses	26
3 Adopted Agenda	30
4 Country Statements	32
5 Australian Statement on Phasing out Incandescent Light Bulbs	39
6 Key Points Report of the REM	41
7 Ministerial Declaration and Communiqué	43
8 Small Menu of ‘Best’ Practices	50
9 List of Acronyms	51

ACKNOWLEDGEMENTS

SOPAC as Chair of the CROP-Energy Working Group (EWG), takes this opportunity to extend sincere gratitude to the Government of the Cook Islands for taking up the challenge of hosting both the Regional Energy Officials' Meeting (REM2007) and the Pacific Energy Ministers' Meeting (PEMM2007) at relatively short notice. The commitment to hosting these two meetings was evident through the warm welcome and hospitality that was shown to the Energy Ministers, Energy Officials and delegations from member countries. The same warmth and hospitality was enjoyed by distinguished delegates from other regional donor organisations, regional agencies and relevant stakeholder groups.

Within this context SOPAC also wishes to formally acknowledge the financial contributions to the Regional Energy Officials' Meeting (REM2007)/Pacific Energy Ministers' Meeting (PEMM2007) of firstly, our two key donors – the Australian Government through AusAID and the New Zealand Government through NZAID; and secondly, to the Secretariat of the Pacific Environment Programme (SPREP) and the Secretariat of the Pacific Islands Applied Geoscience Commission (SOPAC).

The member country representatives and delegations are acknowledged for their active and constructive contributions. The sharing of experiences, generally, and especially through the presentation of case studies effectively elaborated on how countries were progressing with addressing energy issues, energy security and energy for sustainable development.

The members of the CROP-EWG from the key regional organisations are gratefully acknowledged for the commitment of their valuable time in the planning and lead up to the meetings and their respective contributions of papers and technical support during the REM2007 and the PEMM2007.

To the SOPAC Secretariat, in particular, thank you to the rapporteurs for the summary record; to the secretarial and meeting logistics team for their contribution to the smooth running of the meeting; and to the core team from the Community Lifelines Programme for bringing together all the technical papers and presentations.

The result of all these efforts was clearly successful based on the outcomes from the meetings, which were a set of Key Points from the Energy Officials; and a Declaration and Communiqué from the Energy Ministers outlining a suite of activities that will jointly contribute to addressing energy security and energy for sustainable development in the region.

Vinaka vakalevu and kia manuia.

Cristelle Pratt
Director
SOPAC Secretariat

17 August 2007

PACIFIC ENERGY MINISTERS' MEETING

25-26 April 2007

Rarotonga, Cook Islands

SUMMARY RECORD

1. The meeting of Pacific Energy Ministers (PEMM¹) was held in Rarotonga, Cook Islands, during 25-26 April 2007. The following countries were represented: Australia, Cook Islands, Federated States of Micronesia, Fiji Islands, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu. The following Council of Regional Organisations of the Pacific (CROP) agencies were also in attendance: Pacific Islands Forum Secretariat (PIFS), Secretariat of the Pacific Regional Environment Programme (SPREP), and the University of the South Pacific (USP); with the Pacific Islands Applied Geoscience Commission (SOPAC) taking the lead in organising the meeting and performing PEMM Secretariat duties on behalf of the CROP Energy Working Group (CROP-EWG). Representatives from the following attended as observers: Office of the Delegation of the European Commission to the Fiji Islands, Pacific Power Association (PPA), United Nations Development Programme (UNDP), Foundation for International Environmental Law and Development (FIELD), Kiribati Solar Energy Company Ltd, British Petroleum, The World Bank, Renewable Energy and Energy Efficiency Partnership (REEEP), and the Government of the United Kingdom.

2. A list of participants is attached as Annex 1.

Agenda Item 1 – OPENING SESSION

1.1 Prayer and Opening Formalities

3. The Reverend Nio Mare offered the opening prayer.

1.2 Opening Remarks

4. The Director of the SOPAC Secretariat, Ms Cristelle Pratt, delivered opening remarks. She informed the meeting that this Pacific Energy Ministers' Meeting, the first after more than ten years, was in response to a call from Pacific Leaders at their Forum Meeting in October 2006 for such a meeting to be convened. She reminded the meeting of how the Pacific has had to deal with the significant increases in global fuel prices over which it had no control. Given that energy is an imperative for economic and social development and that it has significant bearing on environmental sustainability she felt it was of critical importance for ministers to recognise and embrace the key role of energy in respect of their economies.

5. The full text of her address is attached in Annex 2.

¹ A list of acronyms is in Annex 9.

1.3 Keynote Address

6. The keynote address was delivered by the Prime Minister of the Cook Islands, Honourable Jim Marurai.

7. The Honourable Prime Minister was particularly mindful of the Forum Leaders discussions in Nadi in 2006; recalling that the Leaders' Communiqué recognised the critical importance of energy security in the Pacific; and had called for a Pacific Energy Ministers' Meeting. Within this context he expressed the hope that such a meeting would facilitate broader discussions on the energy challenges facing the region, and consider ways to strengthen regional cooperation to meet emerging issues and concerns with particular attention to renewable energy and the possibility of bulk petroleum purchasing. He also hoped that a set of outcomes, directions and recommendations would be developed for reporting back to the next Forum Leaders' meeting.

8. The full text of the keynote address is also attached in Annex 2.

Agenda Item 2 – WORKING PROCEDURES AND AGENDA

2.1 Adoption of Working Procedures

9. The SOPAC Secretariat introduced the draft working procedures with a modification that from Session 6 onwards the meeting was restricted to countries, according to Forum rules. The meeting adopted the amended working procedures.

2.2 Appointment of Chair and Vice-Chair

10. Marshall Islands (seconded by Australia) nominated the Cook Islands, Minister of Energy, Hon. Tangata Vavia, to Chair the Pacific Energy Ministers' Meeting.

11. Fiji nominated Tonga (seconded by Australia and Cook Islands) to be Vice Chair.

2.3 Adoption of Agenda

12. Chair introduced the proposed agenda and an amendment to Item 3.2, in that the paper scheduled would be replaced with "Energy security for economic growth and sustainable development" presented by the Pacific Islands Forum Secretariat (PIFS).

13. Cook Islands enquired after the fate of the subject of the replaced paper "International, regional, national linkages". The SOPAC Secretariat reported that the scheduled speaker was unavailable and that the subject would be covered in the SOPAC paper under Item 3.1.

14. The amended agenda was adopted, as moved by Federated States of Micronesia and seconded by Vanuatu (see Annex 3).

2.4 Appointment of Drafting Committee

15. A drafting committee was formed with the following as members: Australia, Nauru, Marshall Islands, New Zealand, Tuvalu and Vanuatu. The Vice-Chair (Tonga) would

preside over the work of the Drafting Committee. SOPAC would provide the Secretariat support to the Committee's work.

16. Australia thanked the Government of the Cook Islands for their excellent hospitality, and wanted to place on record their thoughts and condolences toward the governments and people of Papua New Guinea and the Solomon Islands for their losses in the April earthquake and tsunami event.

Agenda Item 3 – ENERGY SECURITY AND POLICY

3.1 Energy Security and Policy

17. SOPAC Secretariat presented the paper (PEMM 07.3.1). The paper is available in full in the meeting documentation, and the presentation is in the post-meeting CD.

18. Australia commended the presentation, but cautioned against the creation of regional mandatory benchmarks for national targets. Two points were made to support their advice: (1) that the PIC footprint as GHG emitters was barely measurable; and (2) that PICs needed to take care when mandating targets that they don't find themselves in a situation where governments were subsidising the costs of electricity to pay for these targets rather than allowing commercial forces drive pricing. Other recommendations on the need for a mix of electrical generation to meet the demand and cater for outer stations far removed from central areas are always going to be difficult because of the costs involved. The higher costs of transporting fuel and maintenance of fossil fuel generation facilities at these remote locations starts to make some of the renewable energy solutions affordable. While it is admirable that everyone should try to reduce their GHG footprint, what PICs don't need to do is impose unrealistic economic barriers for the development of their countries. Develop renewable energy, but allow market forces to work with you to supply demand. Mandatory measures leave no choice but to implement, and if the technical expertise on the ground was lacking to maintain and keep programmes running properly, then one is disadvantaged in not meeting the targets one sets. Working together was already happening, e.g. the investment in the \$150 M Australia-Pacific Technical College which would help train and develop electricians and technicians to help meet energy sector objectives; but Australia cautioned against legalistic laying down of mandatory targets, which was likely to disadvantage PICs. Australia suggested that SOPAC undertake a sustained effort to identify and document, for the attention of regional governments and commercial sector, the growing number of PIC success stories with a view to promoting commercial, market-driven uptake of renewable energy solutions, thereby resulting in improvements to regional energy security. Proceeding down the path of setting down targets was equivalent to putting a noose round one's own neck for the benefit of others.

19. Fiji appreciated but differed from the view expressed by Australia. Fiji thought the paper expressed generalisations rather than specifics on standards. Fiji used the example of the South Pacific Games – that given the disparity in sizes, population, hence talent pools, there was created a Mini South Pacific Games – and that these were two standards, one for the bigger countries and another for the smaller ones. PICs are different in physical sizes, population sizes, economies, sources of energy, procurement power, logistical requirements – and if policy was going to be set countries needed to look at themselves first before they could look at the collective with respect to the bulk purchasing of fuel. While Fiji was on the 180 meridian it was not really the centre of the Pacific; and that the most important consideration would be to agree to two different standards, one for the larger countries and one for the smaller.

20. New Zealand thanked the host country for the excellent hospitality. New Zealand found their experiences to be no different from those faced by PICs, fundamentally. Oil was the most expensive import – New Zealand has a balance of payment deficit, and the doubling of the price of oil has had a huge economic effect in New Zealand as it had in the PICs. The same fundamentals applied also to their electricity generation system, because not only had oil prices gone up for transport, but also for gas, which is also used extensively in New Zealand to generate electricity – consequently the price of electricity was driven up. The effects of this on the economy, on the external deficit, and the pressure it puts on families trying to warm their homes and cook their food are very similar to the effects in island countries. The differences were appreciated, but the fundamental similarities were also clear. New Zealand shared some of the core principles applied in his country, which he felt applied in many PIC situations: (1) in terms of the electricity systems, New Zealand could not afford to protect everyone from the effect of increases in the cost of fuel because if that is done then electricity companies would not have enough money left over to maintain their equipment, with the consequence that the electricity system would degenerate. Hence in terms of energy security, they've had to ensure that enough money was gathered from the electricity sector in order to keep it running; (2) the cheapest thing that could be done by all was to get more out of what was already in use; therefore in New Zealand, things that were unaffordable from the efficiency point of view, two years ago, now make very good sense because the price of oil doubled. It was of utmost importance that the value of the fuel that had gone into electricity was not lost through line losses, and inappropriately maintained electricity infrastructure – this seems to be a major concern in PIC governments as well. When setting priorities on where governments placed budget funds, PICs faced the same choices that have to be made in New Zealand. As in PICs as well as in New Zealand, energy was absolutely essential for teaching the children, to keeping the elderly well, and to keeping tourism going which has become the biggest earner of foreign exchange. Finally, although impressed with the quality of the papers, he found them very long; and commended highly the short three-page report that had been circulated to the ministers on the key points from the Regional Energy Officials' meeting of the past two days.

21. Niue greeted his fellow ministers and acknowledged the hospitality of the host country. On the subject of government subsidies, Niue emphasised the differences as highlighted earlier by Fiji, and pointed out that certain countries could ill afford fuel for their everyday living because of how low income was. Niue's circumstance was even more fragile since Cyclone Heta severely damaged the electricity infrastructure, and from the recent fire that crippled the power station. No supplier would supply Niue's fuel needs any cheaper and so government has had to subsidise for the sake of its people – he didn't think this was putting a "noose round the neck" as inferred by Australia. He asked for open-mindedness with respect to government subsidies.

22. Australia commented that when using the expression "noose round the neck" it had been referring to recommendation para. 28(ii) in the paper; and the ultimate cost of mandatory national targets for renewable energy, because to meet those targets governments may find they have to subsidise the generation by renewables. Australia considered a consolidated approach to fuel supply may be more cost effective. Australia had its own national experience of conditions similar to those of PICs: There are numerous remote communities within Australia that rely on diesel generation just as there are in the Pacific. There were many opportunities for renewable energy, and they could play a very big part in the power generation mix. With rising fuel costs, the difference in costs between renewable generation and fossil fuel based generation is narrower making investing in renewables more attractive.

23. Niue saw renewables as a supplement but didn't see it completely replacing fossil fuels any time soon.

24. Nauru as part of the small island states (SIS) sub-grouping of countries and with particular reference to paras 23 and 28 of Paper PEMM 07.3.1, wanted to ensure that the national capacity constraints in SISs of the Pacific was accounted for. Also, whilst agreeing with the recommendations Nauru advised that setting national targets should be undertaken with caution. On the recommendation contained in para. 30 of the paper, he urged that the outcomes from this meeting be linked to the FEMM meeting, seeking regional recognition of energy security as a strategic priority for governments in the region and that this was reason enough to establish links with Forum economic ministers and the budget process. He personally attested to the strong link between energy and finance, being a minister that was responsible for both portfolios in his country, further noting that this was true for a few other ministers around the table.

25. Tuvalu recorded their support for the recommendations contained in para. 28 (i – iv); but suggested an amendment to the recommendation in para. 30 (i) on the cycle of ministerial meetings. If the recommendation were carried in its present form, many energy ministers would attend only one meeting in their term in office, hence he suggested a two-yearly cycle, rather than the four-yearly proposed, given the high importance of energy.

26. New Zealand on price support for fossil fuels compared to renewables, and the setting of national targets referred the meeting to para 4. of the document from REM (admired earlier for its brevity), where it read “biofuel and petroleum fuel strategies need to be integrated – not separate.” This was all about energy, and New Zealand agreed with Australia that a watch on the dollars was necessary, e.g. bringing down the cost of fossil fuels via bulk purchasing is a means to that end. New Zealand was happy to leave the recommendations as they are, as long as there would be a point in the meeting, where the ministers would consider the recommendations brought forward by the energy officials (see Annex 6 for the Key Points out of the REM).

27. The Secretariat confirmed that the energy officials’ recommendations would be tabled the following day; further clarifying that the recommendation in para. 28(ii) on setting targets was not mandatory but rather a voluntary ideal for countries to set targets on how much fossil fuels they could replace with renewables.

28. Federated States of Micronesia (FSM) said it placed the greatest priority on the para. 28(i) recommendation. This was true for most SISs because many oil companies were divesting, and some countries were even setting up their own fuel plants, and enquired how these countries were dealing with this situation. FSM felt that with bulk purchasing, there was a secure way of negotiating for better terms from oil companies. FSM charged some CROP agency to urgently come up with options for regional bulk purchasing, even sub-regional groupings of 3 to 4 countries, to assist the smaller states.

29. Cook Islands commented that bulk purchasing was also a very urgent issue for the Cook Islands, as a small island state without means for bulk storage of fuel. Cook Islands was also aware of talk in the 1980s of bulk purchasing pharmaceuticals – it never happened. For this talk of bulk purchasing of fossil fuels to come to fruition, Cook Islands recommended timelines to be put in place for implementation. In energy efficiency and the story of the light bulbs, he felt PICs should just bite the bullet and apply measures once they’ve verified that it was true and good for the country. He was personally leading the push in the northern Cook Islands for the use of coconut oil to generate electricity. There might be differences between the smaller and larger nations but if the motivation was to help one another, then countries are fundamentally the same.

30. Australia referred to paragraph 30 recommendation (i) and supported that the regional energy agenda would be best addressed by the FEMM. If ongoing regular

ministerial review of regional energy issues is needed, the FEMM, which already deals with economic planning issues, would seem an obvious and sensible choice. The great expense of holding more meetings could be better utilised in infrastructure, and Australia would strongly urge that from 2008, the regional energy agenda be taken forward by FEMM.

31. Vanuatu preferred the long-term strategic and whole-of-government approach to the issue of energy security and sustainable development. Even though they are making inroads into the replacement of fossil fuel by biofuel, Vanuatu found that without laying down a long-term strategic framework with costs, their efforts would not go far enough to achieve energy security. Vanuatu went on to read a full statement, which is appended in Annex 4.

32. Chair noted the strong emphasis by the Cook Islands on timelines to be set alongside the fuel bulk purchasing initiative.

3.2 Energy Security for Economic Growth and Human Development

33. The Pacific Islands Forum Secretariat (PIFS) presented paper PEMM 07.3.2. The paper is available in the meeting documentation. The emphasis in this paper was “where to from here.” Energy security means secure supply of affordable energy for sustainable development. The presenter picked up as good practice the whole-of-government approach adopted by Vanuatu and the need to treat energy as a development issue – to be mainstreamed into national planning and budgetary processes.

34. Chair urged delegates to confine comments to the recommendations in the paper in the interest of keeping to the meeting schedule.

35. Fiji asked for a definition of the term “integrated energy”. Fiji’s understanding was that when things were integrated they lost their individual identities.

36. PIFS explained that when considering solutions to a particular problem the integrated approach would be to look for optimal mixes e.g. if a site had potential for both a solar and wind solution and a stand-alone wind solution was not enough to supply the energy demand then an optimal solution would be to use both, to ensure there was back up. Using a mix, meant considering linkages, affordability of initiative, regulatory regimes, even adding subsidies to achieve goals. When considering linkages, proper sequencing of steps in the process could facilitate the achievement of the ultimate goal.

37. Cook Islands felt the use of term “affordable” with respect to energy was unfortunate. If an energy solution was not affordable then it should neither be recommended nor had.

38. Solomon Islands took the opportunity to make a substantive country statement. This statement is appended in full in Annex 4 of the Proceedings of the PEMM.

39. There seemed to be consensus to accept the recommendations, see end of Item 3.3.

3.3 Regional Cooperation and Collaboration

40. PIFS presented paper PEMM 07.3.3. The paper is available in the meeting documentation and a copy of the presentation is in the post-meeting CD.

41. The meeting agreed to the Secretariat suggestion that given the emerging consensus for certain amendments to the recommendations presented in Paper PEMM 07.3.1, and the similarities in substance and intent of the next two presentations' recommendations, that the recommendations from all three papers be combined.

3.4 Case Studies of Energy Projects and Technologies [CROP-EWG & Participating member PICs]

42. The PEMM heard the following presentations about Pacific renewable energy case studies:

- a) Wind – the Mangaia experience (Cook Islands).
- b) Biofuel initiatives in the Fiji Islands.
- c) Hybrid systems in Papua New Guinea.
- d) Solar PV home systems (Tonga).
- e) Solar PV home systems (Kiribati).

43. A presentation of emerging renewable energy technologies was also given. All case studies and papers are part of the meeting documentation and the presentation is in the post-meeting CD.

44. Cook Islands addressed his questions to the Fiji case study – how was the coconut oil produced (free labour in exchange for electricity?); and with reference to the Papua New Guinea solar hybrid systems – on why four out of seven units didn't work. He was particularly interested in the Fiji study because of his push in the northern Cook Islands for a similar initiative. He also commended Tonga for learning their lesson well after starting with a bankruptcy, and congratulated Kiribati for the success of their venture. He also expressed surprise that the Cook Islands had good potential for wave energy, although he was aware that monitoring buoys had been deployed in the harbour by SOPAC some years back.

45. Fiji Islands confirmed that the copra oil was processed communally, done by committee on certain days and paid \$3.50 per week for electricity. Further, it seemed that insufficient funds were kept at the copra mill to pay for coconuts brought there for milling, hence supply of the raw materials soon dropped off.

46. Papua New Guinea reported that the units did not work according to its technical specifications, and that the batteries were failing because of insufficient capacity to store the power generated.

47. Vanuatu directed their question on how used batteries were disposed of to both the Tonga and Kiribati case studies. Kiribati's system of disposal was to charge \$5 for every battery imported and paid out when the used battery was delivered to the yard. The used batteries are shipped offshore to Australia and New Zealand where there were facilities to properly dispose of them. Tonga didn't have a formal arrangement but was aware that material used in the inside layer of the battery can be used to weight fishing nets, hence that was one way they recycled the material.

Agenda Item 4 – ENERGY SECURITY – SUPPLY SIDE, ENVIRONMENTALLY-SOUND TECHNOLOGIES, AND AFFORDABILITY

48. Chair introduced the item adding the following presentations by specific ministers: after the presentation at *Item 4.1 Petroleum*, the Hon. Niko Lee Hang, Samoa's Minister of Finance was scheduled to present on the pricing structure of petroleum in Samoa. After the presentation at *Item 5.1 Efficiency and Conservation*, the Hon. Bob Baldwin, Parliamentary Secretary to the Minister for Industry, Tourism and Resources, would speak on the Australian plan to ban incandescent light bulbs; and also the Deputy Prime Minister of the Cook Islands, Hon. Sir Dr Terepai Maoate, was scheduled to present on the economics of energy in relation to other agencies.

49. With respect to a Secretariat reference to the set of amended recommendations from the previous day's presentations and discussions, that had just been circulated to ministers; the meeting decided to look at the full set of recommendations at the end of all the presentations and discussions, to avoid dealing with them piecemeal.

4.1 Petroleum

50. Mr Jared Morris of the Pacific Islands Forum Secretariat (PIFS) presented on the *Conventional Fuels Strategy*. The paper PEMM07.4.1 is part of the meeting documentation and the presentation can be found in the CD accompanying the Proceedings document.

51. The paper examined the challenges that isolation and smallness present to the PICs in securing access and availability of affordable petroleum supplies; and proposed regional and sub-regional collaboration mechanisms to overcome common issues of concern.

52. Chair invited the Hon. Niko Lee Hang, Samoa's Minister of Finance, to present the special interest report on Samoa's fuel pricing strategy.

53. Samoa informed the meeting how Samoa rationalized its petroleum supply 10 years ago by awarding an initial five-year contract to the most competitive supplier that happened to own all the assets. The second contract awarded by the government deviated from the first by including a joint venture with a local company. Under the second contract, government – 1) secured OPEC funding to finance the development of the tank farm, where the tank farm facility costs were factored into the price of petroleum products; and established a petroleum monthly pricing template where only national petroleum prices exist. Now the petroleum market is more regulated in Samoa. The national experience in Samoa is beneficial if designed and implemented properly. As expected Samoa has the cheapest petroleum products in the region, for example in March 2007 unleaded gas was WST2.11/L; diesel was WST2.21; and kerosene was WST2.09, where US\$1 = WST2.65. The full text of the Samoan presentation is included in Annex 4.

54. Tuvalu stressed the shared concern and urgency of all PICs over fuel supplies as their fuel supplier (BP Oil) was pulling out of Tuvalu at the end of year.

4.2 *Renewable Energy*

55. Mr Jan Cloin of the Pacific Islands Applied Geoscience Commission (SOPAC) presented on *Increasing Renewable Energy Use in the Pacific*. The paper PEMM 07.4.2 is part of the meeting documentation and the presentation can be found in the CD accompanying the Proceedings document.

56. The paper sets out considerations toward a more diversified energy sector as a means of enhancing energy security by increasing the application of viable renewable energy sources in the Pacific region.

57. Chair ruled that all discussion with respect to the presentations under the whole of Item 4 on *Energy Security* be deferred to the end of the final presentation by the Deputy Prime Minister of the Cook Islands.

4.3 *Electricity Services*

58. Mr Gordon Chang of the Pacific Power Association (PPA) presented on *Improving [the] Delivery of Electricity Services in the Pacific*. The paper PEMM 07.4.3 is part of the meeting documentation and the presentation can be found in the CD accompanying the Proceedings document.

59. The paper highlighted areas where power utilities in the PICs could improve their performance by reducing operating costs through upgrading the skills level of utility employees.

4.4 *Energy Economics*

60. Ms Allison Woodruff of the Pacific Islands Applied Geoscience Commission (SOPAC) presented on *Energy Economics in Pacific Islands Countries*. The paper PEMM 07.4.4 is part of the meeting documentation and the presentation can be found in the CD accompanying the Proceedings document.

61. The paper explained the negative impact that heavy reliance on imported oil-based fuels has on Pacific Island Countries, both at the micro- and macro-economic levels, and highlighted the need for integrated national planning processes which link energy issues to economic development. Graphs based on statistics in the public domain showed how the Pacific island economies are among the most vulnerable countries in the world to shifts in world oil prices due to their almost complete dependence on imported oil-based fuels for meeting their energy needs. For example, it was estimated that fuel imports in 2006 were equivalent to 31%, 20% and 17% of GDP in Kiribati, Tonga and the Solomon Islands, respectively – and that each US\$10 per barrel rise in the price of oil directly reduced national incomes by nearly 5% in the Federated States of Micronesia and Kiribati; about 3% in the Solomon Islands, Tonga, Palau and Tuvalu; and by about 1.5% in Samoa, Fiji, Cook Islands and Vanuatu. Oil prices had risen US\$30 a barrel over the last five years, translating to some appalling order of magnitude of lost growth in Pacific island economies.

62. Chair invited the Hon. Sir Dr Terepai Maoate, Cook Islands' Deputy Prime Minister and Minister for Finance, to present on energy considerations as part of economic planning.

63. Cook Islands was reported as considering energy infrastructure as a major component of the Cook Islands Infrastructure Master Plan. Energy was considered as a very important factor in the Cook Islands' economic development programme. In 1986, 50-60% of the population lived on the outer islands; now only 25% still do. The dilemma is how to encourage people to return to the outer islands – a concern that was undoubtedly shared by other island states as it has been hindered by the drip-feed formula of the development of the rural areas to improve the lives of those that dwell there. Cook Islands viewed it as extremely important for all island states to have national sustainable development plans in place; and in the Cook Islands the Infrastructure Master Plan underpins the National Sustainable Development Plan. A sense of urgency is upon government to address the neglect of the past and implement sectoral developments, e.g. water, airstrips, harbours, telecommunications to all be addressed in the outer islands, in an accelerated approach. Cook Islands was attending an ADB donor meeting the following week in Kyoto, and expressed the hope that some ministers at this meeting would assist their approach to the ADB. He called for a change in mentality among the islands states with respect to their endeavours to reverse the slow pace of development in the “little” countries – and expressed incredulity at the revelations received at the current meeting, requesting that copies of all presentations and papers be provided to ministers and officials in attendance for future reference. The Deputy Prime Minister ended his address by advising island states against losing sovereignty and ownership of resources while in pursuit of integration at the regional level.

64. Chair allocated ten minutes for discussion on all the papers presented in Item 4.

65. New Zealand emphasised a point most notable to them from the presentation which reinforced issues brought the day before on the need to integrate energy policy into wider economic policy; drawing particular attention to the graph showing the Kiribati copra price. New Zealand pointed out that if there was a potential for developing economically viable biofuel, it would be suppressed and not be apparent if there were subsidies for other uses of copra. This was not saying there should be no subsidies for copra, but that there should be subsidies for all uses of copra, rather than just for the non-biofuel uses of copra. The same logic should be applied to the subsidies for fossil fuel based sources for some island groups; i.e. similar subsidies must be set for copra-based diesel biofuel so that the biofuel was not disadvantaged.

66. Cook Islands was experimenting with removing all levies on solar energy goods except on the importation of motor vehicles, but even this would be removed soon.

67. Vanuatu advised that for the sake of their vulnerable communities countries needed to act collectively to support their welfare. He suggested a clear statement with clear mandates and responsibilities to progress this further. Countries must have their houses in order so that they could drive the processes. Vanuatu believed that the potential for coconut oil biofuel was very good and requested assistance from CROP and donors on a standard for biofuel. While Vanuatu fully supported bulk procurement as an imperative; they wanted to see that whatever was proposed decreased the price and limited risks. Vanuatu was currently investigating the potential for CDM initiatives in the country and called on Papua New Guinea and Fiji to share their experiences on the CDM projects in their countries. See also the Vanuatu Briefs in Annex 4, especially the section on *Energy Security – Supply Side and Environment*.

Agenda Item 5 – ENERGY SECURITY – DEMAND SIDE AND ENVIRONMENT

Presentations are part of the documentation and will be part of the post-meeting CD.

68. Chair introduced a new paper under this item titled *Mainstreaming Energy* presented by Ms Padma Lal, PIFS.

69. From the premise that energy security was a development issue, the paper made the case for mainstreaming energy into national planning and budgetary processes; and the hows and whys of it.

5.1 Efficiency and Conservation

70. Mr Rupeni Mario of the Pacific Islands Applied Geoscience Commission (SOPAC) presented on *Promoting Energy Efficiency and Conservation in Pacific*. The paper PEMM 07.5.1 is part of the meeting documentation and the presentation can be found in the CD accompanying the Proceedings document.

71. The paper presented some opportunities for promoting and implementing energy efficiency and conservation measures as a means of enhancing energy security in the Pacific, highlighting issues and solutions through a regional approach.

72. Fiji agreed with the point made by the Deputy Prime Minister of the Cook Islands who pronounced that the drift of people from the outer islands was a result of neglect of rural communities. If proper infrastructure were in place it might have stemmed the prevalent rural to urban drift. For bulk buying, Fiji re-submitted that in the spirit of cooperation there was a need to classify smaller and larger island countries separately.

73. Cook Islands agreed there was an urgency to address petroleum issues since it currently constituted the major energy supply to PICs; and that attempts to deal with renewable energy technologies (RET) are still at the experimental stages. In the past, RET projects failed because of poor project design and the lack of capacity training; hence how to best address identified needs must be examined, and timelines must be set for meeting those needs.

74. Marshall Islands agreed with the Cook Island on the need to get people back to the outer islands. Marshall Islands was placing priority on taking solar energy to outer islands in an attempt to get people to stay there. Marshall Islands suggested formulating an agreement with Papua New Guinea, that is self-sufficient in oil, for a supply source that was located within the region.

75. Papua New Guinea (PNG), while acknowledging their oil-producing country status reported that some of their crude oil is refined locally and that there were domestic as well as international demands for its refined products. Arrangements for purchase of any PNG petroleum product are done commercially and he invited neighbouring islands to make contact with them so that they could lead them to the appropriate commercial people that handle these matters.

76. Chair invited the Australian Parliamentary Secretary to the Minister of Industry, Tourism and Resources, the Hon. Bob Baldwin, to speak on the Australian ban on incandescent light bulbs.

77. Australia said that its concerns in this regard were the same as PICs in that all were concerned with the three key issues of (1) the cost of energy; (2) the reliability of supply; and (3) the access to it. Australian remote communities like Thursday Island are no different from PICs in having to deal with petroleum pricing issues.

78. \$3 billion had been committed by the Australian Government to reduce the Australian carbon footprint. The emphasis has been on gaining the maximum efficiency for each kilowatt of energy produced. Australian leaders announced in a world first initiative the introduction of legislation to ban the use of inefficient incandescent light bulbs. In Australia, there was an estimated number of 135 million light bulbs (~7-8 bulbs for every household). Compact fluorescent light bulbs can last around seven times longer than the average incandescent light bulb, which eventuates to an equivalent of \$170 savings per year in household energy costs. While low watt bulbs may be more expensive up front, they can pay themselves in lower power bills within a year.

79. Greenhouse emissions from electrical lighting equates up to 70% of emissions from all the world's passenger vehicles. Hence the reduction in emissions by introducing energy efficient bulbs will increase as the their planned phase out progresses, with the annual average reduction between 2008-2012 estimated at around 800,000 tonnes.

80. Efficiency was critical. It was important that consideration be given not only to how energy was generated, but on how to maximise the efficiency of the power generated. The Hon. Minister told PIC ministers that they were in control of their own destinies. The successes and failures evident from the case studies presented the day before emphasised the need to determine which technology was suitable for each specific country, and where there was a potential for cooperation. The Australian address on their incandescent light bulb initiative is annexed in full (see Annex 5).

5.2 *Energy and Environment*

81. Mr Espen Ronneberg of the Secretariat of the Pacific Regional Environment Programme (SPREP) presented on *A Perspective on Linkages to Sustainable Development, Climate Change and Pacific Livelihoods*. The paper, PEMM 07.5.2, is part of the meeting documentation and the presentation can be found in the CD accompanying the Proceedings document.

82. The paper discussed the wider environmental issues associated with energy use, including global climate change. The paper linked the vulnerability of Pacific Island Countries to their energy sector and recommended resilience building measures to cope with this vulnerability, if energy and environment were to play major roles in the sustainable development of PICs.

83. Vanuatu acknowledged its reliance on fossil fuels for economic and social development; and that it was indeed high priority that there were national and regional efforts to improve energy efficiency. Vanuatu congratulated Australia on phasing out incandescent light bulbs calling it a short-term sacrifice for long-term gains. He expressed concern about what mechanisms might be in place in the region to ensure that vendors did not dump inefficient bulbs in PICs. He urged ministers to assign higher priority to the issue of energy efficiency and conservation. (The Vanuatu intervention under this item is also contained in full in a country paper, see Annex 4).

84. Cook Islands commended Australia on a good presentation and acknowledged that while Australia was a developed country it also faced many similar problems to PICs. He however maintained that there was a basic difference between small island developing states with their small economies of scale and Australia even if its rural communities faced the same problems as PICs. PICs needed to bring energy into development and hence address other sectors – Australia was advanced in being able to address its energy issues because it was developed. He felt a strategic plan was needed to holistically address all other sectors at the same time as energy.

85. Cook Islands suggested that PICs support Australia's move and seriously look at conservation through eliminating incandescent light bulbs. He also suggested conserving electricity through a [prepaid] card system similar to the one currently used in telecommunications.

86. New Zealand endorsed all the comments on energy efficiency and pointed out that 70% of energy is used for transportation, hence there was merit in stopping the importation of low-efficiency vehicles. He commended the Fiji practice of having differential import fees for vehicles based on their fuel efficiency.

87. Australia put forward a recommendation on the energy efficiency issue and submitted the following; "A working group be formed to look at developing a framework of implementation of energy efficient appliances/devices and motor vehicle efficiencies so consumers can better understand the benefits, not only in cost, but also in utilisation of existing electrical supply."

88. New Zealand reinforced the remarks made by Vanuatu on ensuring that PICs did not become a dumping ground for inefficient appliances. He suggested incorporating elements of the Australia and New Zealand standards which were already identical into a standard for PICs; although Australia and New Zealand currently do not restrict the importation of energy inefficient vehicles.

89. SOPAC mentioned an appliance labelling project undertaken with the Fiji Department of Energy and the Australian Greenhouse Office. Fiji was reported to be fully committed to adopting a full labelling approach.

90. Chair announced that all sessions from Agenda Item 6 onward were restricted to member countries only and their advisers according to Forum rules.

Agenda Item 6 – KEY OUTCOMES AND RECOMMENDATIONS

6.1 Report from REM

6.2 Recommendations of the PEMM

6.3 Meeting Proceedings (Draft)

91. The Vice-Chair of the Regional Energy Officials' Meeting (REM), who was also Chair of the REM Drafting Committee, presented the findings of the officials' meeting, where the Pacific Energy Ministers subsequently endorsed the key points as outcomes from the REM. It was further noted that the REM and Pacific Energy Ministers' meetings were convened because of a mandate handed down in October 2006 by Forum Leaders' who decided that it was opportune time to address issues and challenges in the energy sector. The key points from the REM can be found in Annex 6.

92. Fiji considered the strengthening of regional technical training efforts of great importance. He proposed that it was an appropriate time to agree to have a nucleus of top students from each PIC identified and trained for the purpose of developing and advancing the Pacific energy agenda. The chief advantage of this strategy is that PIC students would only need training in science and technology; the knowledge of the region and its environment was already resident in them. He cited the example of the inventor from the Republic of Kiribati who created the controller 'perfect' for the Kiribati environment and insisted that there must be other young people in the region that can do the same. He felt this should be initiated now rather than later.

93. New Zealand drew the meeting's attention to the recommendations from REM and suggested that, given the officials' sterling effort at distilling key issues from the papers presented in REM, the PEMM Drafting Committee be instructed to add action points to the recommendations and report back to the meeting as a whole. He gleaned from the comments by Vanuatu and Samoa that adding action points would give real impetus and direction to the recommendations; and that this was in line with what had been requested of this forum by the last FEMM meeting.

94. Cook Islands supported the Fiji suggestion, citing their failures with renewable energy technology. He expressed particular disappointment at the way certain technologies got "dumped" into countries and without any real agreement between the sellers and the buyers, with countries copping the lions share of the blame for failures. The Cook Islands case study of the wind project in Mangaia presented (under Agenda Item 3) was a case in point. He emphasised the need to train Pacific people; and the need to get proper agreements drawn up to safeguard countries from sellers of technology that were not fully understood by those receiving them.

95. Tuvalu followed up the New Zealand comments with a suggestion that given the commonalities with the two sets of recommendations from REM and PEMM, that the Drafting Committee proceed with merging the two sets of recommendations and producing one set with associated actions for ministers to consider.

96. The meeting accepted the suggestions of process and acknowledged the statements by Fiji and the Cook Islands on the need for action and technical training of the Pacific's own people.

97. Chair wrapped up the formal presentations by thanking all the presenters and the countries for their participation in the discussion. He also observed that there appeared to be considerable capacity within PICs reflected through not only the very interesting and informative presentations but also demonstrated through the case studies presented thus far. He suggested that the opportunity be taken to strengthen information exchange within the region using homegrown expertise and experience in effecting a south-south approach. Chair therefore encouraged the lead organisations, in particular SOPAC, to source the necessary resources to progress this initiative and seek the support of donor partners.

98. Chair then adjourned the meeting to allow the PEMM Drafting Committee to do its work.

Agenda Item 7 – ADOPTION OF RECORDS

7.1 Ministerial Declaration & Communiqué

99. Following a lengthy consideration of the draft text of the Communiqué and the processes used by the PEMM Drafting Committee to arrive at the text version before them, the meeting agreed amendments at various points and adopted the text in Annex 7; releasing it for dissemination with a signed Ministerial Declaration at the conclusion of their meeting.

100. Fiji re-submitted an earlier suggestion for the identification and training of top students throughout the PICs to form a cadre of competent individuals to service the energy industry in the Pacific, wishing to see specifics written into the Communiqué. The meeting requested Fiji to prepare a detailed paper on the issue for presentation at the next Pacific Energy Ministers' Meeting, to clarify the purposes for such an elite group, and to guide discussion on the matter.

101. Cook Islands reinforced the Fiji point on competent Pacific experts by recommending that the expertise from the Kiribati Solar Energy Company be utilised as a resource for solar energy projects in the region; further recommending that SOPAC or PIFS take note of it. See Annex 8 for more details on the Kiribati best practice.

102. Kiribati expressed appreciation for the praise and recommendation made by Fiji and the Cook Islands and promised to bring these to the attention of his Government.

Agenda Item 8 – REPORT TO FOC

103. Chair informed the meeting that the agreed ministerial declaration and communiqué would be transmitted under cover letter to the Chair of the Forum Officials Committee (FOC), and the FOC Chair would in turn send it to the Forum Leaders.

Agenda Item 9 – VENUE AND DATE OF THE NEXT PEMM

104. The Kingdom of Tonga expressed the intention to host the next Pacific Energy Ministers' Meeting in 2009. The meeting acknowledged this intent by acclamation.

Agenda Item 10 – CLOSING

105. Chair expressed his appreciation for the understanding and cooperation of his fellow ministers in getting through the agenda of the meeting, and also for the work carried out in the background to ensure the meeting advanced to its successful conclusion.

106. New Zealand expressed gratitude on behalf of itself and all the countries represented to the Chair for his able and considerate steering of the meeting's business which had seen a sensible outcome none in attendance would be hesitant to own.

107. The Cook Islands Deputy Prime Minister, the Hon. Terepai Maoate thanked the members of the CROP Energy Working Group for fixing on the Cook Islands as the venue for the meeting and for organising it; and expressed the hope that friendships and family had been established during the delegates' stay. Hon. Terepai Maoate also thanked Australia and New Zealand for providing the financial support to hold the meeting; and the officials who worked hard and tirelessly in support of the ministers. Hon. Terepai Maoate repeated his advice for setting timelines against actions – with respect to implementation and with respect to the next meeting; and bade farewell to the participants as guests of the Cook Islands on behalf of the host country.

108. The Director of the SOPAC Secretariat, Ms Cristelle Pratt, commended the work of the ministers, their officials, and the CROP-EWG toward the successful outcome of the meeting. Ms Pratt gratefully acknowledged the governments of Australia and New Zealand for funding the meeting; and the Government of the Cook Islands for their sterling hospitality as hosts.

109. The Chair invited the Deputy Prime Minister of the Cook Islands, Hon. Terepai Maoate to say the traditional closing prayer on behalf of the Cook Islands as the host country.

ENDS

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ANNEX 2

Opening Addresses

Keynote Address by the Honorable Jim Murarai, Prime Minister of the Cook Islands

Honourable Ministers
Energy Officials
Ladies and Gentlemen etc

Kia Orana and Welcome to the Cook Islands

I am delighted that we have been able to bring together such a select group of Energy Ministers and experts for these meetings that are focused around “Energy Security and Sustainable Development” and thank you all for contributing your valuable time to be with us here in the Cook Islands to discuss and debate a number of critical energy sector issues that we see as contributing to and guiding the future energy sector activities for the region.

I understand that it is at least a decade and a half since a similar meeting of this level has been held in the Pacific and therefore on behalf of the Cook Islands Government and its people like to warmly welcome you to our country to not only take the opportunity to discuss issues related to energy but also take the time to enjoy the beauty of our country, our hospitality and our culture. I note that the Energy Officials have continued to meet on a regular basis and hope that this meeting will be the catalyst for future may be a similar ongoing Energy Ministers meetings so as to ensure that energy issues in our respective countries are accorded the level of importance that they should have and in particular the ability to contribute more effectively into other regional ministerial meetings where energy fails to be recognised as an imperative for economic and social development.

I note that you have already had a very busy schedule with the Energy Officials having met for the last two days to re-look at the progress made in the implementation or energy programmes, projects and activities in the Pacific Islands Energy Strategic Actions Plan (PIESAP) which is the operational plan for the implementation of the Pacific Islands Energy Policy (PIEP) and enshrined under the Pacific Plan. In addition the opportunity to consider in detail a number of new and emerging energy technologies along with some of the economic aspects is admirable. I am sure that this can only be beneficial to the region, contributing to building the capacity and an increased understanding of our energy officials so that they are better equipped to be able to advise on alternate energy options and energy management in their countries.

In hosting this meeting I am particularly mindful of the Forum Leaders discussions on Nadi in 2006 and recall that the Leaders Communiqué recognised the critical importance of energy security to the Pacific. In recognising this, the Leaders called for a Pacific Energy Ministers Meeting, I therefore have the pleasure in addressing you on this occasion as we move towards realising this objective.

Within this context it was hoped that such a meeting would facilitate broader discussions on the energy challenges facing the region and consider ways to strengthen regional cooperation to meet emerging issues and concerns. In acknowledging this, the Leaders also expressed a desire for Energy Ministers to consider renewable energy sources and a possibility of bulk petroleum purchasing.

I therefore hope that in convening this Energy Ministers meeting that you are able to work together over the next day and a half to develop a set of outcomes, directions and recommendations that can be reported back to the next Forum Leaders Meetings that will provide positive direction for addressing the regions energy issues.

I also understand that the convening of this energy ministers meeting is extremely timely in that it immediately proceeds the 15th Session of the Commission on Sustainable Development where the thematic cluster includes, energy for sustainable development, industrial development, air pollution/atmosphere, and climate change. Hence as the Pacific aligns itself with Alliance of Small Island States (AOSIS) and the Small Islands Developing (SIDS) in many of their energy sector development matters then the outcomes of the energy ministers meeting clearly will be able to be used as the basis for the Pacific islands countries to make interventions during the 15th Session of the Commission on Sustainable Development debate.

I totally support the concept that the profile of energy needs to be improved and within this context see that at the international level the Commission on Sustainable Development offers this opportunity. However at the national level I see the particular need to take an aggressive approach so as to ensure that energy sector concerns and issues are acknowledged and become fully integrated into the national planning and development processes.

Having said this I would like to digress for a moment and reflect on some of the energy sector activities within the Cook Islands and now we are attempting to better manage our energy sector and addressing the issue of reducing its reliance on fossil fuels. I had noted above the technologies that were considered as offering potential for the Cook Islands namely wind, solar, oceans and wave energy and biofuels.

Government has in place the National Energy Policy that represents Government's Vision for the development of the Cook Islands national energy sector. It provides the framework within which the Energy Division and others can plan, and Government can make investment decisions for action engaging both the public and private sector. Government has in place or proposing to implement the following:

Wind Energy.

Mangaia	A grid connected wind power has been constructed with assistance from the Australian and French Governments
Aitutaki	wind resource assessment project is in progress with assistance from the Australian Government.
Rarotonga	There is a proposed wind resource assessment project to be constructed with assistance from UNDP Samoa and PIEPSAP.
Atiu, Mauke and Mitiaro	Government is proposing wind resource assessment projects.

Solar PV.

The solar PV installation in Pukapuka has been destroyed by cyclone and Government is finding ways to reconstruct the solar PV or substitute with other alternative sources such as biofuel.

Biofuel Feasibility Study

This study is to determine the potential of biofuel development in the Cook Islands. As no investigation has ever been undertaken on the viability of coconut oil as fuel source the study will determine the current production potential across the country.

Energy Conservation and Energy Efficiency

The programme is to reduce the consumption of imported fuels. It will address first government where a conservative target of 10% reduced energy consumption is set.

Government will act as leader, and experiences from this programme will be communicated to the general public.

I am please to announce that Government is putting in place mechanisms to enable the Energy Division to bed strengthened and to the operate effectively in order to be able to deliver the results required in managing the country's energy sector.

In closing I would like to acknowledge the effort that you have all made in joining your fellow colleagues here in the Cook Island to discuss the issues currently facing us all in respect to the energy sector and more specifically in regard to energy security and sustainable development.

To New Zealand and Australia meitaki maata for not only your financial support to the Energy Ministers meeting but to you for your on going support to the Cook Islands in a wide range of development sectors, but also for the significant delegations that you have separately arranged to come to the Cook Islands including your contributions to the technical sessions.

Further I would also acknowledge SOPAC for taking up the challenge of coordinating not only this Ministerial component of the meeting but also for convening the Energy Officials Meeting on Monday and Tuesday this week, and to the CROP Energy Working Group for the comprehensive agenda and supporting papers that have been developed as guiding documents for these meetings.

As referenced earlier I hope that the Energy Ministers here will take up the challenge and ensure that this is not a one off event but just the start of strengthening the regions position in regard to addressing the energy sector concerns and issues that will offer opportunities for ensuring better energy security and contribute to sustainable development in the Pacific countries.

I wish you well in your deliberations and look forward to the out comes from this Pacific Energy Ministers Meeting.

Kia Manuia and God Bless

Opening Remarks by Ms Cristelle Pratt, Director of Secretariat of the Pacific Islands Applied Geoscience Commission (SOPAC)

Prime Minister of the Cook Islands the Honorable Jim Murarai, your deputy Prime Minister and Ministers of your Government, Honourable Ministers from Pacific Island Countries, Australia and New Zealand, Heads of Delegations, National Representatives of SOPAC member countries, Colleagues of CROP organisations, Development Partners, Delegates, Ladies and Gentlemen

I am extremely pleased to be here and to be able to make a few opening remarks at this important Pacific Ministers Meeting, which will over the next day and a half seek to discuss and address the energy security issues that challenge our region. This meeting responds to a call from our Pacific Leaders at their Forum Meeting in October last year, for such a meeting to be convened.

The last ministers meeting on energy was held well over a decade ago and in the intervening years since 1994, our countries and region have seen many developmental changes; Over the last several years we have not been spared the experience of having to deal with the significant increases in global fuel prices for which we have no control over but which have certain implications on our economies and our aspirations for sustainable development.

Although I am not a subscriber to being an alarmist I would suggest that we are in the midst of a crisis in our region in respect of energy, and we, with some urgency, need to look at considered,

pragmatic and creative ways to see our way through it. In this regard Ministers your Officials have had some very good discussions over the last two days on the energy challenges and possible solutions, and no doubt they have briefed you on these. They have prepared, for your consideration during this meeting, a summary of immediate, concrete actions, which seeks to progress as well as strengthen the energy agenda at national and regional levels.

With respect to policy, we have the Pacific Plan which provides the overarching regional strategic policy framework to guide us. It clearly articulates under its Kalibobo Roadmap the need to implement the Pacific Island Energy Policy and its related strategic action plan as a matter of priority. We know that energy is an imperative for economic and social development and that it has significant bearing on environmental sustainability. Its critical importance for sustainable development and its implications and imperatives across many if not all sectors suggests that one of our immediate, achievable challenges will be to mainstream it into our national development plans. Clearly this will result in recognising and embracing the key role of energy in respect of our economies, and to improving the living standards of our peoples and the maintaining the integrity of our islands and ocean.

With respect to implementation, we know that this will have to be tackled at both national and regional levels. Another achievable challenge is to progress discussions on initiatives that may be addressed better through adopting a regionally cooperative and collaborative approach, which when agreed and implemented will undoubtedly produce tangible benefits for all. For example, significant work has already been completed on a regional petroleum procurement strategy and will require your consideration in this meeting. Other initiatives that could benefit from regionalism could be the development of regional regulatory systems, pooling insurances, benchmarking and standardisation.

A priority challenge will be to keep energy on the policy agenda and to demonstrate real progress in respect of implementation; This I believe can be achieved if we agree to uphold the spirit of partnership between ourselves as countries to share experiences and best practice and embrace regional cooperation wherever appropriate, between ourselves as regional organisations to effectively coordinate activities that serve and support our member countries, between ourselves as donors and development partners that provide technical and financial support to coordinate efforts in order to optimise results and achieve visible, sustained outcomes within countries.

The energy challenge is complex with a medley of variables that offer a blend of solutions. The next few days will range across areas and issues relating to energy security, energy policy, energy efficiency, energy conservation, energy options such as renewables and fuel procurement and I trust that across all of these issues, that Ministers will maintain their energy levels to discuss and reach concrete recommendations for our Leaders consideration at the next Forum meeting.

I would like to take this opportunity to thank the Governments of Australia and New Zealand for providing the resources necessary to convene this meeting; as well to thank my CROP siblings and other members of the CROP Energy Working Group that have worked extremely hard with my energy colleagues at SOPAC toward putting together the necessary elements for this meeting within a very tight timeframe.

On behalf of SOPAC Prime Minister I would like to thank you and your Government for offering to host this Ministerial Meeting; your government has provided excellent support in preparing for this meeting and an excellent venue for these important deliberations on energy. I am certain that all delegates will enjoy the beauty of your country and the hospitality and friendliness of your people whilst we're here.

I am looking forward to the discussions and to the deliberations over the next few days and I wish you all well with these.

ANNEX 3

Adopted Agenda

PACIFIC ENERGY MINISTERS' MEETING

25-26 April 2007, Rarotonga Cook Islands

DAY 1 – Pacific Energy Ministers Meeting (PEMM) 25th April – Wednesday

Day 1 will set the scene with a situation analysis, linkages in international, regional and national energy initiatives, experience with renewable energy, bulk procurement study and electricity services in the region, the support for the implementation of energy-related initiatives in the Pacific Plan and the consideration of regional policy planning principles that drive regional and national energy strategies.

Time	Sessions	Document No.	Presenter/Facilitator	Annotated Comments
10.00 – 11.00	Energy Ministers and Officials to attend ANZAC Day Service		Cook Islands Government	Optional and details will be provided.
11.00 – 1.00	LUNCH			
1.00 pm	1.0 OPENING SESSION 1.1 Prayer and Opening Formalities 1.2 Opening Remarks 1.3 Keynote Address	PEMM 07.1.2 PEMM 07.1.3	<i>Moderator – Paul Fairbairn (SOPAC)</i> 1.1 Cook Islands Government 1.2 Cristelle Pratt – Director SOPAC 1.3 Hon. Prime Minister of the Cook Islands	The keynote speech on the overarching theme of Energy Security and Sustainable Development will tie the various elements under the Ministerial meeting together and in particular the recognition by the Leaders of the detrimental impact on people and countries in the region as a result of fluctuating oil prices in small economies, vulnerability and the need for long-term energy security to the future prosperity of the region.
2.00 pm 2.30 pm – Afternoon Tea	2.0 WORKING PROCEDURES AND AGENDA 2.1 Adoption of Working Procedures 2.2 Appointment of Chair and Vice-Chair 2.3 Adoption of Agenda 2.4 Appointment of Drafting Committee 2.5 Photo session	PEMM 07.2.1 PEMM 07.2.3	2.1 Moderator 2.2 Moderator 2.3 PEMM Chair 2.4 PEMM Chair 2.5 Cook Islands Government	The Working Procedures will be introduced for adoption. The Working Procedures will provide details for the appointment of the Chair and Drafting Committee.
3.00 pm 3.15 pm 3.30 pm 3.45 pm	3.0 ENERGY SECURITY & POLICY An introduction to the Session by the Chair 3.1 Energy Security and Policy 3.2 International, Regional National Linkages 3.3 Regional Cooperation and Collaboration 3.4 Case Studies of Energy Projects and Technologies [CROP EWG & participating member PICs]	PEMM 07.3.1 PEMM 07.3.2 PEMM 07.3.3 PEMM 07.3.4/1 PEMM 07.3.4/2 PEMM 07.3.4/3 PEMM 07.3.4/4 PEMM 07.3.4/5 PEMM 07.3.4/6	3.1 Paul Fairbairn (SOPAC) 3.2 Ambassador _____ 3.3 Jared Morris (PIFS) 3.4 Wind – Mangaia Experience – Anthony Whyte (Mangaia Power Utility) Biofuel Initiatives in Fiji – Makereta Sauturaga (Fiji Department of Energy) Hybrid Systems in PNG – Vore Vore (Department of Petroleum and Energy) Solar PV Home Systems – Tevita Tukunga (Tonga Energy Planning Unit) & Kireua Kaia (Kiribati Energy Planning Unit) Emerging RE Technologies – Rupeni Mario & Jan Cloin (SOPAC)	3.1 Pivotal around the energy related issues from the Forum Leaders Communiqué – Nadi 2006, the Pacific Plan, the Pacific Islands Energy Policy (November 2004) and the CSD14&15. This paper will provide background information on the energy sector and the inter-linkages between the these documents and events, and how they contribute to addressing energy security for sustainable development with particular reference to available, reliable, affordable and environmentally sound energy source and options for the region. 3.2 It has been identified that the region can benefit substantially from ensuring that it optimizes its strengths at the international, regional and national levels. This paper will focus on the opportunities that have been more recently identified in relation to the energy sector through capitalizing on these opportunities to the potential benefit of the region in particular in respect to renewable energy technologies and alternate fossil fuel supply options which could contribute to better energy security for the region in the long term. 3.3 A presentation on various forms of regionalism and the potential for a formalized Regional Support Services to address common energy policy principles relating to legislation/regulatory frameworks, international standards, incentives for investment, competition, access and price policy. The presentation will also comprise of harmonizing donor support when considering energy development needs across the region including the need for a REM & PEMM on a recurring basis. 3.4 This series of case studies will demonstrate what project activities are currently being implemented and demonstrate how they are addressing the key components of available, reliable, affordable and environmentally sound energy sources. In addition this session will provide examples of “lessons learnt” where what were thought to be well founded and thought out projects, were unable to deliver the level of service and long term sustainability originally anticipated.

DAY 2 – Pacific Energy Ministers Meeting (PEMM) 26th April – Thursday

Day 2 will allow Ministers to discuss the challenges based on the economic dependence on fossil fuel based technologies; to consider and support the various forms of coordination and regionalism. Ministers will also consider the various forms of cooperation and collaboration that are available, including the potential for greater donor harmonisation with the Pacific Islands Energy Policy (PIEP). It will conclude with the consideration of a Ministerial Declaration and Communiqué that identifies key regional priorities based on the PIEP.

Time	Sessions	Document No.	Presenter/Facilitator	Annotated Comments
8.55 – Prayer 9.00 am 9.25 am 9.40 am 9.55 am 10.10 am – Morning Tea	4.0 ENERGY SECURITY – SUPPLY SIDE, ENVIRONMENTALLY SOUND TECHNOLOGIES, AND AFFORDABILITY An introduction to the Session by the Chair. 4.1 Petroleum 4.2 Renewable Energy 4.3 Electricity Services 4.4 Energy Economics	 PEMM 07.4.1 PEMM 07.4.2 PEMM 07.4.3 PEMM 07.4.4	 4.1 Jared Morris (PIFS) 4.2 Jan Cloin (SOPAC) 4.3 Gordon Chang (PPA) 4.4 Allison Woodruff (SOPAC) & Theodore Levantis (AUSAID)	A brief background on the session will be provided by the Chair followed by the presentation of following papers: 4.1 Conventional Fuel Strategy: on the product supply chains into the Pacific, the management of Strategic Fuels Reserves, the challenges and some solutions to issues faced by the Pacific as a result of a lack of economies-of-scale and pressures of diseconomies-of-isolation. 4.2 Will focus on the direction towards a more diversified energy sector by increasing the application of viable renewable energy sources, in particular new and evolving options that include for example the use biodiesel or the use of coconut oil as a biofuel. 4.3 Will highlight the areas where utilities can improve their performance 4.4 A brief overview of the impact of heavy dependence on imported oil-based fuels on Pacific.
10.40 am 11.00 am	5.0 ENERGY SECURITY – DEMAND SIDE & ENVIRONMENT An introduction to the Session by the Chair 5.1 Efficiency and Conservation 5.2 Energy and Environment	 PEMM 07.5.1 PEMM 07.5.2	 5.1 Rupeni Mario (SOPAC) 5.2 Espen Ronneberg (SPREP)	A brief background on the session will be provided by the Chair followed by the presentation of following papers: 5.1 Details opportunities for promoting and implementing energy efficiency and conservation measures as a means of enhancing energy security highlighting pertinent issues and possible solutions through a regional approach. 5.2 Will draw out the wider environmental issues associated with energy use, including global climate change.
11.20 am	6.0 KEY OUTCOMES and RECOMMENDATIONS [Chair] 6.1 Report from REM 6.2 Recommendations of the PEMM 6.3 Meeting Proceedings (Draft)	 PEMM 07.6.1 (REM 07.7.1) PEMM 07.6.2 PEMM 07.6.3	 6.1 REM Chair 6.2 PEMM Chair 6.3 Drafting Committee	Will highlight the REM Communiqué including key outcomes & recommendations from REM and Sessions 3.0, 4.0 & 5.0 for consideration by the Ministers. A draft meeting proceedings will also be presented.
12.30 pm	→ Lunch for Ministers → Working Lunch for Drafting Committee			Energy & Gender – screening of a DVD produced by the Pacific Energy & Gender Network Drafting Committee will convene to review the proposed outcomes of the PEMM in the form of a Ministerial Declaration and Communiqué.
3.00 pm 3.45 pm 4.00 pm 4.05 pm	7.0 ADOPTION OF RECORDS 7.1 Ministerial Declaration & Communiqué 8.0 REPORT TO FOC [Chair] 9.0 VENUE & DATE OF NEXT PEMM 10.0 CLOSING	 PEMM 07.8.1		7.0 Ministers to consider endorsement of the Communiqué and meeting Proceedings. 8.0 The Ministerial Declaration and Communiqué will be transmitted under cover of a letter to go to the Chair of the Forum Officials Committee (FOC) and subsequently to the 2007 Leaders meeting. 9.0 A venue and date for the next PEMM will be agreed upon.
4.30 pm	MEDIA BRIEFING AFTERNOON TEA			

ANNEX 4

Country Statements

(of those island countries that prepared statements and submitted them)

SAMOA

Official Statement by the Samoan Minister of Finance and Energy

Honourable Chairman,
Distinguished Colleagues,
Ladies and Gentlemen,

A warm and immeasurable “Talofa” from our Government and our people.

It is an honour and a privilege to participate in this critical meeting as we deliberate and share our knowledge and ideas on how we can cope with energy issues both from the perspective of value adding in our countries and also in our region.

As the theme of this meeting is security for sustainable development, it is inevitable that we have to discuss the following three issues:

- A. *Bulk Petroleum Purchasing Framework;*
- B. *Long term Security Issues, Options and Challenges;*
- C. *Opportunities for exploitation of existing and alternative renewable energy resources;*

A. Bulk Petroleum Purchasing Framework;

Bulk petroleum purchasing based on our national experience is a beneficial undertaking if designed and implemented appropriately and accordingly.

Let me share you Samoa’s experience on this issue. We had three oil suppliers with the liberty to charge petroleum prices at their own accord. Ten years ago, our country pursued the rationalisation of petroleum supply and distribution where a 5 year contract was awarded to an oil supplier and distributor with the most competitive bid in terms of prices, supplying and domestic distribution process and structure. In the initial contract, an oil supplier owned most assets such as the petroleum terminal, tank farm facilities and some petroleum stations.

The second contract was significantly different from the first as another oil supplier has a joint venture with a local company to handle oil domestic distribution. This contract was also significant as our government had undertaken the following steps:

1. secured loan funding from OPEC to finance the development of the tank farm;
2. government acquisition of tank farm facilities where these costs are factored into the price of petroleum products;
3. establishment of petroleum monthly pricing template where only national petroleum prices exist;

As expected and to date, Samoa has benefited from this process being one of the cheapest in petroleum products in the Pacific region with our March petroleum prices as follows:

Petroleum Products	March Prices 2007	Exchange Rate USD\$
1. unleaded 91	SAT\$2.11 per litre	USD\$1=SAT\$2.65
2. diesel	SAT\$2.21 per litre	
3. kerosene	SAT\$2.09 per litre	

Based on these evidences, we support the proposed regional bulk petroleum purchasing framework concept, however with some conditions and criteria that we need to address as a region as follows:

- a. Petroleum product specifications has to be agreed upon; i.e. unleaded fuel and diesel should be standardised in the Pacific region to meet European Union and Asian standards;
- b. Changing structure of regional market; i.e. rationalisation of petroleum products supply and distribution versus the reduction in the number of oil suppliers in the Pacific region; (Shell selling its shares to Total);
- c. Location of petroleum products storage facility in the Pacific;
- d. Types of petroleum products imported;
- e. Structure of petroleum pricing in the region;
- f. Petroleum products' payment currencies;
- g. Exchange rate regimes;

B. Long term Security Issues, Options and Challenges;

Given the vast Pacific Ocean and the Pacific islands being so scattered, the diseconomies of scale in petroleum supplies and distribution and the increasing transportation costs in the region, it is essential that less sophisticated and more harmonised and synchronised energy technologies and sources to provide fuel for food, to power electric appliances and light up houses are selected.

In terms of energy and security, it is really up to the individual countries to look at ways to ensure that their demands are nationally or locally met in terms of energy and energy sources.

The region through its regional institutions may only assist in the different countries in terms of energy security by the continuous sharing of knowledge and information on the various types of energy technologies and their alternatives. This is also consistent with the proposed regional institutional framework restructuring currently under review. Also, assistance from development partners either through bilateral or multilateral should also be directed into researching alternative renewable energy sources.

In terms of Samoa and the region, Samoa has been trailed for the regional renewable energy project Cocogen (Coconut Oil for Power Generation where the Electric Power Corporation (EPC) experienced the use of a mixture of coconut oil and diesel to power vehicles and also power generation. UNDP acquired the software while SOPAC consultants had undertaken a feasibility study. UNDP also initiated a solar project for Apolima Island due to the inefficiency and unreliable supply of diesel generated electricity to the island and other associated problems. A feasibility study was carried out and it opted for solar power to supply 24 hours supply of electricity. Again, UNDP funded the feasibility study and software whereas the Danish government assisted with the procurement of the hardware (solar panels and equipment). These are the types of developments that should be nurtured and encouraged to see us through these challenging times. However, for the sustainability of these projects, a country has to look at the training component of the project in order to build capacity at the community level to enable them to maintain the equipments and sustain the project. Ownership and commitment by the local community are sought through effective consultations is also anticipated before any project is implemented so that these valuable assets last their lifetime and beyond.

Current renewable sources existed are hydro and solar both for power generation and solar for water heating. Other potential renewable energy sources identified for future developments in Samoa are wind, geothermal and biomass.

C. Opportunities for exploitation of existing and alternative renewable energy resources;

The rules of the club theory³ as stipulated in the Pacific Plan to promote this cause for regional opportunities for exploitation of existing and alternative renewable energy resources should be encouraged.

As Samoa has just completed its National Energy Policy with the following vision:

- **To enhance the quality of life for all through access to reliable, affordable and environmentally sound energy services and supply**

This document covers the following areas with renewable energy featuring predominantly:

1. Energy Planning and Management;
2. Renewable Energy;
3. Petroleum;
4. Electricity;
5. Transport;

The challenge now is the commitment to implement and remain focus on these strategies. Despite, what we decide here at this meeting, the fact remains that the implementation is at the heart of the success and energy security of our region rests with us as a country and as a region.

As a point of departure, I thank the Government of Cook Islands and its people for their sincere generosity and hospitality in hosting this meeting and also to SOPAC for pursuing value adding regional energy matters consistent with their mandate.

Once again,

Faafetai tele lava ma ia manuia le fonotaga.

SOLOMON ISLANDS

Statement by Solomon Islands Minister of Mines & Energy, Hon. Siriako Usa

Honourable Chairman,
Honourable Colleagues
Representatives of Regional Organisations
Representatives of Donor Governments & Institutions,

Firstly, I would like to thank the organizers of this Meeting for organizing this very important Meeting. I also commend the financiers of the Meeting and I am most thankful to the Government of Cook Islands for their warm welcome and hospitality that has made us all feel comfortable and made our stay here a very enjoyable one.

³ Club theory gives more weight to regional member countries in terms of directing regional organizations such as SOPAC, Forum and SPC to pursue regional member countries' consensus rather than that of these organizations.

May I take this opportunity to thank all the regional countries for their assistance given through involvement in RAMSI that has restored law and order in Solomon Islands. Further words of appreciation goes out to you all for the overwhelming response in assisting the victims of the recent tsunami that has struck the Western and Choiseul Provinces in Solomon Islands.

Solomon Islands is similar to all Pacific Islands countries in that we are vulnerable to the global rising fuel price and fuel price shocks. Although, Solomon Islands has an abundant indigenous renewable energy resource base, we are still dependent on imported fossil fuel for our economy.

My Government has taken up the bottom-up approach to develop the rural areas and improve the standard of living in the rural areas where 85% of the population live.

The bulk of the natural resources of the country is located in the rural areas and we feel that in order to sustain the harvesting of these resources, we need to improve the standard of living of the custodians or land owners where the resources are located.

Furthermore, the purpose of improving the standard of living of our rural dwellers will minimize the movement of people to urban centres especially Honiara seeking basic services and economic opportunities. This approach means we have to invest more in infrastructures like wharves, roads, bridges, transportation services and most importantly energy services to drive forward our production sectors in the rural areas and of course our education and social services. Provision of electricity to our rural dwellers will not only improve their household living but drive downstream processing of our natural resources such as timber milling, agricultural commodities and marine resources. This encourages sustainable harvesting of our natural resources and will improve the income opportunities of our rural dwellers.

Solomon Islands has a population of around 470,000 and 85% of the population have no access to electricity or basic lighting facilities. This means that around 400,000 people who are part of the region have no access to electricity, which is quite a big number of people. This population is spread out in the nine provinces comprising of more than 1000 islands scattered over a fairly large sea area.

Honourable colleagues, when we look at the whole region, we can see that majority of the Pacific Islands Region's population have no access to electricity and therefore lack an important driving tool to sustainable development. I understand that the World Bank is assisting Solomon Islands in initiating rural electrification ventures. I would like to thank SOPAC through PIEPSAP also for assisting my Ministry in setting up a rural electrification framework. This framework needs to be implemented and would require financial and technical assistance to see actual implementation of projects realized.

In this juncture, I would like to inform the Ministers of the respective regional governments, representatives of the regional organizations, aid donors and donor agencies to note Solomon Islands concern that reads:

- 1) "Increase access to affordable and sustainable energy services to the region's un-electrified population."
- 2) "Increase training and transfer of knowledge to nationals and local villagers to manage the operation and maintenance of their renewable energy installations to ensure these schemes are sustainable in the long term"

Since a lot of issues are coming up in the energy sector, I would like to recommend that the REM and PEMM be held regularly. And that the World Bank which is currently assisting Solomon Islands a lot in our energy sector be given observer status at future Meetings.

With these few remarks, I finally thank all of you for your attention.

VANUATU

Ministerial Briefs to Pacific Energy Ministers Meeting (PEMM), Rarotonga, Cook Islands, 25-26 April 2007

Thank you Hon Chair for this opportunity and good afternoon to all the colleagues Ministers around the region who are here today at this very important meeting. I have no doubt that under your able leadership you will guide our canoe into the direction of getting us into a safe and calm harbor.

Firstly, I bring with me greetings from the Government and the people of Vanuatu to you all. I would like through you Hon Chair to convey to your Government and the people our humble appreciation of your excellent hospitality accorded to my delegation thus far.

I would also like to express our deepest gratitude to the Director of SOPAC, staff and donor partners who have in one way or another contributed to enable the Ministers' meeting to be realized here in the Cook Islands.

Energy Security & Policy

Firstly Hon Chair, I would like to thank all the presenters for their comprehensive and informed presenters.

Hon Chair, the issue of energy security and sustainable development would not have come at any other better time than now given the continuous rising of fossil fuel that has significant negative impacts on our small but vulnerable economies within the region.

At this juncture Hon Chair, I would like to register my Government's acknowledgement and support to the various regional organizations and the development partners efforts in undertaking some of the initiatives in the areas of alternative renewable energy sources such, as wind, solar, bio-fuel, hydro to name a few in our region.

Vanuatu has been fortunate to be part of some of these regional initiatives. Hon Chair, at the country level my Government is committed to investing time and resources into alternative renewable energy sources. One of the big areas that we are currently leading the region on is the use of coconut bio-fuel.

But Hon Chair, undertaking all these energy initiatives without laying down clear long-term policy framework and strategic implementation plans at the national level with clear costs will not go too far in terms of achieving energy security and sustainable development. Furthermore Hon Chair, energy being one of the key drivers in economic and social development, addressing it from a sectoral basis or a piecemeal approach will not work.

Recognizing these realities Hon Chair, my Government through my Ministry has adopted a whole-Government approach to deal with energy issues because of its prominent importance in the economic and social development of the country and cross-sectoral nature. We have now completed a draft National Energy Policy which is on its way to the Cabinet for approval. On behalf of the Vanuatu Government, I would like to thank SOPAC for technical assistance and the Danish Government for funding this initiative.

Parallel to the development of our National Energy Policy, we have also completed a draft National Rural Electrification Master Plan which also on its way to the Cabinet for approval. The master

plan has been put together with the following objectives: improve quality of life, decentralization of services, make communities responsible, introduce appropriate management practices, and spearheaded rural development.

With these two guiding documents in place Hon Chair, I am convinced that Vanuatu is now in a better position to deal with the issues of energy security and sustainable development.

On that note Hon Chair, I thank you.

Energy Security – Supply Side & Environment

Thank you Hon Chair and good morning to all the colleagues around the table.

Again Hon Chair, I would like to commend all the presenters for the well presented and informed papers presented to us this morning on different areas with regard to energy security from the supply side of the chain.

It is becoming more obvious Hon Chair that we as the region need to both collectively and individually act now to mitigate against negative impacts on our economies and welfare of our people. Hon Chair, the talking is over, it is now time for practical actions if we would like to enjoy economic growth into the future.

However, for this move to progress any further, I urge this meeting to ensure that we come up with a more focused and action oriented outcomes with clear mandates and responsibilities of who should lead the processes in the different areas.

Furthermore Hon Chair, we as the region have to help each other by sharing experiences and information in order to move forward together to avoid some of us falling through the cracks. I think it is no longer fair for us regional organizations or donor partners for that matter to impose projects on countries who are not ready for, but equally so, countries must be prepared to take their house in order so that they can drive the initiatives based on their priorities.

For Vanuatu Hon Chair, the potential of coconut bio-fuel is great and we would encourage both the regional organizations and the donor partners to assist us in standardizing the oil quality and ways and means to make pricing competitive.

Hon Chair, the idea of petroleum bulk purchasing is longer a choice but a must, given that more and more well established multi-international companies are slowly moving out of the region. By so doing, it allows for fragmentation of facility operation within the region that further expose the region in terms of energy security and quality standards. While supporting the concept in principle, my Government will wait and see that whatever that is proposed will surely reduce the price at the national level and the associated risks. Please, allow me Hon Chair to take this opportunity to register my Government's gratitude to Pacific Island Forum Secretariat for continuing to play a vital role in this area, recognizing the capacity issues within the regional organizations.

Hon Chair, Vanuatu is quite disappointed that the region has not been taking full advantage of the Clean Development Mechanism under the Kyoto Protocol. In saying that, I also do appreciate the difficulties of having clearly defined rules and procedures that took longer than anticipated for the United Nations Framework Convention on Climate Change to come up with, high cost of documenting the project and monitoring to name a few. However, I am optimistic that there are existing initiatives that may qualify under the CDM. Vanuatu is currently investigating CDM potentials in the country. I would like to thank New Zealand Government and United Kingdom for their kind support thus far. If CDM can be achieved it will attract big investments and in return reduce the greenhouse gases into the atmosphere.

Hon Chair, it is my understanding that currently in the region there are two CDM projects: one in Fiji and another in PNG, and it is my hope that experiences through these projects may be shared with other countries in the region.

Once again Hon Chair, thank you.

Energy Security – Demand Side & Environment

Thank you Hon Chair and would like to commend the presenters for well-informed presentations.

Recognizing Hon Chair and colleagues that sometimes yet we have to rely on fossil fuel for our economic and social development in the region, our national and regional efforts with regard to improving our energy efficiency and conservation is ever than before becoming a priority. It is clear from the presentations that there has been a lot of wastage in our current way of doing businesses in terms of lack of proper management systems, inefficient technologies and our changing lifestyles.

At this stage, I would like to congratulate the Government of Australia in taking a challenging decision of phasing out incandescent light bulbs. This is the sacrifice that we have to make sometimes for long-term gains through a cleaner and safer environment.

While applauding Australia for this initiative Hon Chair, it also my concern that what are the mechanisms in place in our region or at the national levels that may assist us in ensuring that what is being phased out in Australia is not dumped by vendors in the Pacific island countries. Having said that, I am also mindful of the economy of scales within the region to ensure that our people are being victimized, given the variation in the economies.

Hon Chair, energy efficiency and conservation need to be addressed both at the regional and national level, and across all sectors of the communities. On this note Hon Chair that I urge this meeting to elevate the issue of energy efficiency and conservation at a high level.

Again Hon Chair, I thank you.

ANNEX 5

Australian Statement on Phasing Out Incandescent Light Bulbs

Overview of Speech by the Hon Bob Baldwin, Parliamentary Secretary to the Minister of Industry, Tourism and Resources to the Pacific Energy Ministers Meeting

Australia has many similar issues in assessing energy to Pacific Island Countries, particularly in our rural and remote areas. The cost of energy, reliability of supply and access to energy are issues that we must all address.

The increase in the cost of fossil fuels over the last 4 years has had a significant impact on our transport industry and rural and remote areas, particularly those that rely on diesel generation for their power supply. Many remote regions in Australia, such as Thursday Island have similar petroleum pricing issues to Pacific Island Countries.

We must make our electricity work for us as efficiently as possible. Many large countries are discussing how to decrease greenhouse gas emissions and improve energy efficiency. Australia is taking a range of practical initiatives to address these challenges.

We are focusing on gaining maximum efficiency from every kilowatt generated.

The Prime Minister, John Howard and the Minister for the Environment and Water Resources, Malcolm Turnbull, recently announced that in a world first initiative that we will be introducing legislation that will ban the use of inefficient incandescent bulbs in Australia.

We estimate there are around 135 million bulbs in Australia. Compact fluorescent light bulbs use around 20 per cent of the electricity to produce the same amount of light as conventional bulbs. A compact fluorescent light bulb can last between 4 and 10 times longer than the average incandescent light bulb, which can lead to major savings in household energy costs.

Introducing more efficient lights, such as compact fluorescent bulbs, will save consumers \$30 over the life of the bulb, and household lighting costs will be reduced by up to 66 per cent - around \$170 a year based on Australian Electrical energy costs per mwh.

While low watt bulbs may be more expensive to buy up front, they can pay for themselves in lower power bills within a year.

Globally, electrical lighting generates greenhouse emissions equate to up to 70 per cent of those from all the world's passenger vehicles. Australia is committed to managing our carbon footprint and we have already committed some \$3 billion to our climate change efforts.

The reduction in emissions by introducing energy efficient bulbs will increase as the phase out progresses and the annual average reduction between 2008-2012 is estimated at around 800,000 tonnes. However, by 2015 the annual cut in emissions will have soared to an estimated 4 million tonnes per annum.

It is important that consideration is not only given to how energy is generated, but on how to maximise the efficiency of the power generated.

Pacific Island Countries could gain significant benefits by introducing a similar scheme as it significantly decreases demand side power usage, meaning that more power can be delivered to more households. In a free market Governments can't control the cost of generating electricity, but we can ensure we use that electricity as efficiently as possible.

The banning of incandescent bulbs will have positive effects on both the environment and economy.

Each country needs to assess its own needs and find solutions that address its own energy issues. I welcome your consideration and interest in Australia's initiative.

ENDS

ANNEX 6

Key Points Report of the Regional Energy Officials' Meeting

Report from Energy Officials to Ministers' Meeting

REM2007 – Key Points

- 1) Energy is a key driver of economic growth, with a significant bearing on education, environment, health and social welfare. Energy and economic development need to be integrated and be prioritised in national strategic development plans.
- 2) Good progress has been made on energy planning across the Pacific. However, there is a need for all Pacific nations to have national energy policy and action plans in place to ensure that energy initiatives are progressed in line with national expectations. There is also a need to identify capacity requirements and ways to assist countries to develop their plans.
- 3) The Pacific island countries are extremely vulnerable to oil price shocks. Even moderate increases in world fuel prices cause significant damage to their economy. The regional petroleum procurement strategy should be progressed and implemented as it will drive market competition, price efficiencies and secure supply.
- 4) Biofuels of a recognised quality and standard can make an important contribution to energy security and sustainable supply. Local biofuel production should be evaluated and progressed where it is economically viable and environmentally sustainable. Biofuel and petroleum fuel strategies need to be integrated – not separate. Any price support mechanisms for biofuels and petroleum fuel should be transparent and targeted to ensure overall national benefits.
- 5) Increase sustainable renewable energy initiatives at a national level and share experiences and expertise in the region. Expertise and competencies in the renewable energy sector need to be continually developed.
- 6) Implementation of appropriate policies, incentives and programs to improve energy efficiency will support sustainable energy outcomes. Reducing energy losses and improving consumer behaviour can deliver significant savings. There is a need to share national experiences and develop expertise and competencies in the energy efficiency and conservation area.
- 7) Good support has been given by regional agencies and mechanisms to the energy sector. But to strengthen regional capacity and institutional co-ordination of energy related issues, CROP agencies need to re-energise their efforts, and reorganise consultative mechanisms as appropriate. We need closer linkages and to eliminate duplication between their respective activities, strengthening coordination with Member Countries, development partners, the commercial sector and other stakeholders.
- 8) Sustained efforts are needed to improve donor coordination and to harness private sector support for financing of national energy requirements within the region, including for recurrent cost payments and investment.
- 9) It is important to strengthen locally-appropriate regional technical training efforts to support energy technologies and their management (particularly maintenance) as there is limited technical, human resource management resources, and institutional capacity in the

region. Strong and effective management is essential for functional national energy strategies and the delivery of affordable energy.

- 10) Efficient and transparent utility governance and pricing of energy and energy services is essential given ongoing dependence on fossil fuel, and high power losses. PICs should work with the commercial sector, the CROP Energy Working Group and consumers, to drive greater efficiency by utilities, to recover the real costs of generation through objective tariff-setting and effective billing and to reduce power consumption.
- 11) Improved national and regional information sharing is important particularly with regard to dissemination of regional best practices and lessons learned. We need to review and as appropriate strengthen PIC national energy data management systems to better inform national energy planning and policy choices. Greater public awareness of opportunities and costs of appropriate energy choices is required.

ENDS

ANNEX 7

Ministerial Declaration and Communiqué

MINISTERIAL DECLARATION

Recognising, that energy security is an imperative for economic growth and human development and further that Pacific economies are the most vulnerable in the world to rising oil prices and the urgent need to reduce this vulnerability through mainstreaming energy security into national planning and budgetary process; improving energy efficiency and energy conservation; adopting financially viable renewable energy sources; and where appropriate regional approaches to petroleum procurement and coordination of regional services.

We declare that on behalf of our governments, we endorse the Communiqué developed during the Pacific Regional Energy Ministers' meeting held in Rarotonga, Cook Islands, 25-26 April 2007, and attached to this Declaration:



AUSTRALIA

Hon. Bob Baldwin, MP

Parliamentary Secretary to the Minister for Industry, Tourism and Resources



COOK ISLANDS

Hon. Tangata Vavia

Minister Responsible for Energy



FEDERATED STATES OF MICRONESIA

Hon. Akillino H. Susaia

Secretary for Economic Affairs



FIJI ISLANDS

Hon. Manu Korovulavula

Minister for Transport, Works & Energy



REPUBLIC OF KIRIBATI
Hon. Natanaera Kirata
Minister of Public Works and Utilities



REPUBLIC OF THE MARSHALL ISLANDS
Hon. John Silk
Minister of Resources and Development



NAURU
Hon. David Adeang MP
Minister of Foreign Affairs, Finance and Utilities



NEW ZEALAND
Hon. David Parker
Minister of Energy



NIUE
Hon. Kupa Magatogia
Minister of Energy, Finance



PAPUA NEW GUINEA
Mr Bernard Pawih
Secretary, Department of Petroleum and Energy



SAMOA
Hon. Niko Lee Hang
Minister of Finance



SOLOMON ISLANDS
Hon. Siriako Usa, MP
Minister of Mines and Energy



TOKELAU
Hon. Ionata Galway O'Brien
Minister of Energy



KINGDOM OF TONGA
Dr Sione Nailasikau Halatuituia
Secretary, Ministry of Lands, Survey, Natural Resources and Environment



TUVALU
Hon. Taukelina Finikaso
Minister of Works and Energy



REPUBLIC OF VANUATU
Hon. Maxime Carlot Korman
Minister of Lands and Natural Resources

Communiqué

Pacific Energy Ministers' Meeting Cook Islands, 2007

Preamble

Pursuant to the mandate issued by Pacific Forum Leaders in October 2006, a meeting of Pacific Energy Ministers was held in Rarotonga, Cook Islands, 25-26 April 2007.

Energy Ministers from the following countries attended: Australia, Cook Islands, Federated States of Micronesia, Republic of the Fiji Islands, Kiribati, Republic of the Marshall Islands, Nauru, New Zealand, Niue, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Kingdom of Tonga, Tuvalu and the Republic of Vanuatu.

Ministers reviewed the serious energy challenges in the region and took stock of national issues, priorities and actions. They also considered regional energy initiatives, the regional and national energy policies and various technical sessions, which focussed on energy efficiency, renewable energy and bulk procurement of petroleum products.

Key Actions

Ministers agreed that:

1) Energy is a key driver of economic growth, with a significant bearing on education, environment, health and social welfare in Pacific nations. Energy and economic development need to be integrated and prioritised in national strategic development plans.

They directed:

- their officials and SOPAC to provide a consolidated stocktake on how well each Pacific Island has integrated and prioritised energy into national development strategic plans and identify where improvements are required. This should be provided to Leaders by October 2007;
- their officials to utilise the Forum's Regional Regulatory principles and other regulatory principles, to create an economic policy environment and energy legislative frameworks that encourages cost-effective and efficient energy security initiatives for national development; and
- SOPAC to work with member nations to identify capacity requirements and overall regional expertise to enable the development of such regulatory framework;

2) Good progress had been made on energy planning across the Pacific. However, there is a need for all Pacific island nations to have national energy policy and action plans in place to ensure that energy initiatives are progressed in line with national expectations. Ministers agreed:

- their country should have a national energy policy in place as soon as practical and report on progress on developing energy action plans with appropriate measurable targets to the FEMM 2008.

3) That Pacific Island countries are extremely vulnerable to oil price shocks, a fact of deep concern. Even moderate increases in world fuel prices cause significant damage to their economies. They endorsed the regional bulk fuel procurement initiative and the Framework Agreement approach proposed to implement this. They consequently directed their officials, as a matter of urgency, to work intensively with the Pacific Islands Forum Secretariat (PIFS) in the lead-up to the Leaders' 2007 meeting and subsequently, with the objective of presenting a finalised package of measures, including contractual arrangements, for the approval of Forum Economic Ministers and Leaders at their 2008 meetings, ready for immediate implementation. To achieve this, Ministers:

- directed PIFS to assume the role of project manager of the initiative, and to convene urgently a Project Working Group (PWG) of national and regional officials and other stakeholders;
- directed their officials to take a proactive approach in the PWG to facilitate national inputs and approval processes in support of this initiative;
- requested development partners to lend technical support as appropriate to the PWG; and
- requested PIFS to guide urgent work by the PWG to develop the most appropriate partnership vehicle to meet the needs of participating PICs.

4) Biofuels of a recognised quality standard can make an important contribution to energy security and sustainable supply. Local biofuel production should be evaluated and progressed where it is economically viable and environmentally sustainable. Biofuel and petroleum fuel strategies need to be integrated – not separate. Any price support mechanisms for biofuels and petroleum fuel should be transparent and targeted to ensure overall national benefits. Ministers directed SOPAC to work with member countries to:

- investigate and recommend appropriate regional/national quality standards for biofuels, in particular those sourced from coconut and standardised biodiesel and ethanol blend limits with petroleum fuels by October 2008;
- directed PIFS to assist Pacific Island nations to review subsidies and price support mechanisms for biofuels including source crops and petroleum fuel to ensure optimal overall national benefits, and report to Leaders by October 2008; and
- to strengthen human capacity to support at regional level, through the involvement of existing regional institutions such as the University of the South Pacific to support emerging Renewable Energy initiatives.

5) Increase sustainable renewable energy initiatives at a national level and share experiences and expertise in the region particularly on emerging opportunities and lessons learnt. Ministers agreed:

- SOPAC and member countries to continually develop their expertise and competencies in the renewable energy sector; and
- their officials explore options to reducing barriers to the uptake of renewable energy including making subsidies transparent; and
- programme and project designs should make appropriate arrangements such as technical specifications, performance standards, contractual arrangements and targeted capacity building for long term sustainability for renewable energy projects.

6) Implementation of appropriate policies, incentives and programs to improve energy efficiency will support sustainable energy outcomes. Reducing energy losses and improving consumer behaviour can deliver significant savings. There is a need to share national experiences and develop expertise and competencies in the energy efficiency and conservation area. Ministers directed SOPAC to work with member countries to:

- develop programmes and champion regional demonstration projects in energy efficiency and conservation with particular focus on energy efficiency standards for lights, appliances and building design by October 2009.

7) Current levels of inefficient operation of many power utilities and distribution facilities in the region are unacceptably high. Efficient and transparent utility governance and pricing of energy and energy services are essential given ongoing dependence on fossil fuel, and high power losses. Ministers agreed that:

- PICs should work with the commercial sector, the CROP Energy Working Group and stakeholders, to drive greater efficiency by utilities, to recover the real costs of generation through objective tariff-setting and effective billing to reduce power consumption by:
 - ensuring energy utilities and networks are efficient and energy losses are substantially reduced;
 - setting and implementing best practice tariff structures and billing practices such as pre-paid meters by 2009; and
 - encouraging adoption of best practice maintenance policies and a preventive maintenance culture by energy utilities.

8) Good support has been given by regional agencies and mechanisms to the energy sector. But to strengthen regional capacity and institutional co-ordination of energy related issues, CROP agencies need to jointly develop their work programme with clearly identified roles and responsibilities, within the context of the current review of the Regional Institutional Framework. We need closer linkages and to eliminate duplication between their respective activities, strengthening coordination with Member Countries, development partners, the commercial sector and other stakeholders. Ministers directed SOPAC to:

- strengthen the energy working group through greater engagement with the private and public sector and to improve coordination of climate and energy activities, under the Pacific Islands Sustainable Energy Development Partnership.

9) Sustained efforts are needed to improve donor coordination and to harness private sector support for innovative financing of national energy requirements within the region, including for recurrent cost payments and investment.

10) It is important to strengthen locally-appropriate regional technical training efforts to support energy technologies and their management, particularly maintenance, as there is limited technical, human resource management resources, and institutional capacity in the region. Strong and effective management is essential for functional national energy strategies and the delivery of affordable energy. Ministers directed SOPAC and PPA to work with member countries to:

- develop a programme to increase technical energy capacity and capability and form a network of technical personnel to maximise the use of technical expertise including energy efficiency and conservation in the region and report by October 2009.

Ministers also agreed:

- officials work with FEMM to develop firm recommendations to build and sustain capacity in energy and economic policy and planning.

11) Improved national and regional information sharing is important particularly with regard to dissemination of regional best practices and lessons learned. We need to review and as appropriate strengthen PIC national energy data management systems to better inform national energy planning and policy choices. Greater public awareness of opportunities and costs of appropriate energy choices is required. Ministers directed SOPAC to:

- work with Pacific island nations to develop and implement best practice national energy data management support appropriate and develop a regional mechanism such as a website to share information and report to Ministers at their next meeting.

Further management of the Pacific energy agenda

Ministers recommended to Leaders that:

- the Pacific region energy agenda issues be mainstreamed with and incorporated into the economic planning and reform agenda of the Forum Economic Ministers (FEMM) from 2008 onwards; and
- a further meeting would be valuable and propose to convene this in 2009 with the next Energy Officials' Meeting.

ENDS

ANNEX 8

Small Menu of 'Best' Practices

This annex was compiled due to the numerous requests made during the REM/PEMM 2007 meetings to compile a list of best practices gleaned from presentations and discussions. The practices were deemed 'best' as they seemed to be practical solutions well within the capabilities and reach of countries of the Pacific region to adopt and implement to help cushion the adverse effects of oil price hikes.

The practices are listed below along with details where they were given, or with pointers as to where further details may be extracted from the practising countries' energy officials:

- 1) Australia phasing out incandescent light bulbs – see the Annex 5 for the Australian statement on their initiative.
- 2) Samoa petroleum pricing regime – see the Annex 4 for the Samoan statement, which has a section discussing the Samoan initiative.
- 3) New Zealand surcharge to pay for verifying standards of petroleum (see para. 132 of the REM2007 Summary Record) – for more information contact energy officials of the New Zealand Government whose contact details can be found in Annex 1 of this Proceedings document.
- 4) Fiji two levels of vehicle duties, the higher level for inefficient engines (see para. 86 of the Summary Record) – for more information contact energy officials of the Fijian Government whose contact details can be found in Annex 1 of this Proceedings document.
- 5) The Kiribati controller invented and crafted to be used in conjunction with solar panel installations in the harsh equatorial and highly saline environmental conditions of Kiribati – for more information contact energy officials of the i-Kiribati Government whose contact details can be found in Annex 1 of this Proceedings document.
- 6) Appliance labelling in Fiji – for more information contact energy officials of the Fiji Government and the SOPAC Secretariat whose contact details can be found in Annex 1 of this Proceedings document.
- 7) Vanuatu avoidance of double handling with its fuel procurement, saving 10c per litre – for more information contact energy officials of the ni-Vanuatu Government whose contact details can be found in Annex 1 of this Proceedings document.
- 8) Kiribati system of battery disposal (see para. 47 of the Summary Record) – \$5 charged per imported battery. \$5 was paid out when the used battery was dropped off at the collection yard. Used batteries were shipped offshore for proper disposal. For more information contact energy officials of the i-Kiribati Government whose contact details can be found in Annex 1 of this Proceedings document.
- 9) Various countries: e.g. Fiji – pre-paid household electricity billing meters.
- 10) The successful CDM Project in Lihir, Papua New Guinea, where total power generation is via geothermal resources (see para. 146 of REM 2007 Summary Record) – for more information contact the Papua New Guinea energy officials whose details can be found in Annex 1 of this report.

ENDS

ANNEX 9

List of Acronyms

ADB	– Asian Development Bank
ANZAC	– Australia-New Zealand Army Corps
AusAID	– Australian Agency for International Development
CDM	– Clean Development Mechanism
CROP	– Council of Regional Organisations of the Pacific
CSD	– Commission on Sustainable Development
EE	– Energy Efficiency
EU	– European Union
EUEI	– European Union Energy Initiative
EWG	– Energy Working Group
FEMM	– Forum Economic Ministers' Meeting
FOC	– Forum Officials Committee
FSM	– Federated States of Micronesia
GDP	– Gross Domestic Product
GHG	– Green House Gas
NZAID	– New Zealand Agency for International Development
OPEC	– Organization of the Petroleum Exporting Countries
OTEC	– Ocean Thermal Energy Conversion
PEMM	– Pacific Energy Ministers' Meeting
PESTRAN	– Promotion of Environmentally Sustainable Transportation in the Pacific Islands
PIC	– Pacific Island Country
PIFS	– Pacific Islands Forum Secretariat
PIEPSAP	– Pacific Islands Energy Policy and Strategic Action Plan Project
PIEP	– Pacific Islands Energy Policy
PIESAP	– Pacific Islands Energy Strategic Action Plan
PIGGAREP	– Pacific Island Greenhouse Gas Abatement through Renewable Energy Programme
PNG	– Papua New Guinea
PPA	– Pacific Power Association
PV	– Photo-Voltaic, direct solar energy to electricity conversion
RE	– Renewable Energy
REM	– Regional Energy Officials' Meeting
RET	– Renewable Energy Technologies

SIS	– Small Island State
SOPAC	– Secretariat for the Pacific Islands Applied Geoscience Commission
SPREP	– Secretariat of the Pacific Regional Environmental Programme
SURE	– Sustainable Use of Renewable Energy
TERI	– Tata Energy Research Institute
UNDP	– United Nations Development Programme
UNESCAP	– United Nations Economic and Social and Commission in Asia and the Pacific
USP	– University of the South Pacific

