The Pacific Appliance Labelling and Standards (PALS) program: Importing efficiency instead of fuel

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Energy efficiency in the Pacific

- Most attention in electricity policy has been on renewables and access (i.e. electrification)

- Has been less focus on efficiency of electricity use, but this has grown over the years

- 1996: South Pacific Forum Secretariat commissioned study of scope for appliance energy labelling in Fiji, Tonga and PNG

- 2002-4: Fiji DOE worked with retailers and public. Concluded that mandatory energy labelling, minimum energy performance standards (MEPS) needed.
Path to PALS

- Fiji published a Trade Standard (Household Electrical Refrigerating Appliances) Order in September 2007 – finally came into force in January 2012

- Fiji experience demonstrated value of MEPSL and ability of Pacific governments to implement them

- In September 2011 Pacific Island Forum leaders endorsed Australian PM’s proposal for MEPSL in Pacific

- AusAID committed FastStart finance to PALS program in late 2011
Scope of PALS

- Started Dec 2011 – currently funded to Dec 2015

- Objective: assist PICs to establish mandatory MEPSL

- PALS is managed by SPC, with assistance of Australian Department of Industry and Science

- PICs were invited to participate – 12 have agreed and appointed national coordinators

- Participating PICs aim to endorse MEPSL at cabinet level, draft and enact necessary legislation, then implement
What is the case for MEPSL?

- Marginal electricity generation fuel in all PICs is diesel
  - Even where there are renewable generation resources, a kWh generated or saved at the margin is usually diesel

- If appliances and lamps become more energy efficient, then diesel imports will be lower than otherwise

- MEPS prevents import of the least efficient products
  - Lead to energy savings whether consumers are aware or not

- Energy labelling enables consumers to identify and prefer the more efficient products
  - Need information/motivation to do so
Current status

- 12 PICS participating
- One has already implemented
- 7 have draft legislation or regulations at various stages of development (see table)
  - Some at point of introduction to parliament
- Of the rest, 3 are in North Pacific, with different electricity supply voltage and frequency from South
## Current status

<table>
<thead>
<tr>
<th>PIC</th>
<th>PALS Status</th>
<th>Refrigerator &amp; Freezers</th>
<th>Air conditioners</th>
<th>Lighting</th>
<th>Other products</th>
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What appliances are covered?

- Same appliances covered in all PICs, because patterns of electricity use similar
  - Refrigeration (household first, then commercial)
  - Air conditioners (mainly for non-residential buildings – very little air conditioning used in PIC homes)
  - Lamps: phasing out least efficient incandescent lamps, minimum quality performance & standards for fluoros

- Some PICs considering other products as well
  - Clothes washers, dishwashers, TVs
What standards and labels to use?

- Energy labelling only effective if there is one label type
- Many products already carry Australian/New Zealand energy labels
  - Some China, Singapore, EU labels also seen
- Regulations will mandate compliance with ANZ energy labels and MEPS
- Country of manufacture is not relevant - provided it has been tested to ANZ standards and has ANZ label
- ANZ maintain a public register of compliant products
Costs of PALS

- Project planning, meetings, administration, drafting regulations, verifying compliance etc.
  - Met from AusAID grant initially

- Compliance costs for appliance importers
  - Reduced because most available products have already been tested for ANZ market
  - Suppliers will have to make commercial decisions about whether to have others tested

- Removing least efficient products may drive up prices
  - Other MEPSL programs have found this effect is small
Benefits of PALS

- For energy users, lower electricity bills
  - Value of savings greatly exceeds any additional product costs, so lifetime costs are lowered
- Enables householders to choose more efficient products
- Nationally, reduces both electricity generation and peak demands
- Reduces (or offsets growth in) generation and distribution system capital and operating costs
- Reduces fuel import cost
- Increases energy services available from renewables
Projected electricity savings by PIC
Projected electricity savings by product
Projected impacts: 2015-2030

- Reductions in electricity demand of 2040 GWh

- Reductions in diesel fuel costs of USD 507 million
  - With Net Present Value of USD 269 (7% discount rate)
  - Assuming end-2014 price (75c/litre excl. tax and duty)

- Benefit/cost ratios vary from 2.6 (Fiji) to 12.6 (Vanuatu)
  - Depends on level of local appliance efficiency without MEPSL program
Conclusions

- PALS on track to improve energy-efficiency in the Pacific well beyond the ‘Business-as-usual’ case

- Aimed to implement MEPSL in 3 PICs (apart from Fiji) – looks like achieving 7

- This will allow regional co-operation in administration

- Challenges to come with implementation, but PALS is planning for these

- Have worked well with other regional energy efficiency programs

- PALS has been rated highly in AusAID evaluations
THANK YOU – ANY QUESTIONS?