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Privatization and Corporatization Options for Palau Public Utilities Corporation

Working Paper 4



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ACRONYMS

CEO	– Chief Executive Officer
FEIM	– Facility for Economic and Infrastructure Management
GDP	– Gross domestic product
GOP	– Government of Palau
IPP	– Independent Power Producer
JICA	– Japan International Cooperation Agency
OEK	– Olbill Era Kelulau
PNCC	– Palau National Communications Corporation
PPUC	– Palau Public Utilities Corporation

1. Executive Summary

1. This Working Paper explores options for improvements in the performance of Palau Public Utilities Corporation (PPUC), to be achieved primarily through further privatization or increased private sector participation in the sector.
2. Unlike Palau National Communications Corporation (PNCC), which has successfully withstood the entry of private sector competition whilst continuing to service a large loan and provide telecommunication services throughout the country, the financial performance of PPUC cannot be considered a success. It appears the Corporation has adopted a break even philosophy to planning, but failed to keep pace with increasing costs. As a result, operating losses have been incurred, at least since 2001. In 2006 these amounted to almost USD4.7 million before non operating revenue was considered. In the six years 2001 – 2006 total losses before offsets from non operating income totaled USD14.5 million. The source of non operating income has not been determined within the time frame available for this review.
3. Deferred maintenance has reduced the efficiency of plant and equipment, and is believed to lie behind major engine failures.
4. Not everything is the fault of PPUC. The Board has limited opportunities to reduce costs. There has been a reluctance to increase tariffs. Tariff increases attributable to fuel costs have lagged behind price increases in oil, which represent 77% of the cost structure. However, the merit of having one of the lowest, if not the lowest, tariff structure in the Pacific is of little value if it is accompanied by a high level of financial loss and risk of equipment breakdown or poor performance because of deferred maintenance.
5. The recently completed Japan International Cooperation Agency (JICA) study “Upgrading Electric Power Supply” has identified major investments required to replace obsolete generation and distribution equipment, and the possibility of making a major reduction in the cost structure by moving to heavy fuel oil to power replacement engines.
6. The challenge in the short-term is what to do to improve efficiency and financial performance of PPUC, and to decide whether the existing governance structures should continue unchanged, or what modifications are necessary.
7. This Working Paper discusses a number of options:
 - i) Do nothing. Accept ongoing losses, to be carried by Government. This is not considered acceptable;
 - ii) Introduce targeted subsidies. This concept is favoured, since it can focus on assisting those most in need, such as large, poor families. It can also be used to support PPUC fulfil its wider universal service obligations by contributing to the costs of providing electricity in areas that are not commercially profitable;
 - iii) Reduce PPUC costs. Benefits from this strategy are likely to be limited in the short term because so much of the cost structure (77%) is dominated by fuel costs;

- iv) Introduce additional tariff increases. This is supported, despite the pain that it will cause citizens. One of the reasons for the present scale of losses has been the failure of PPUC to apply for tariff increases reflecting increased costs over their operations as a whole. Increased differentials can be considered between residential and commercial customers (especially hotels), and between low and high users. Fuel cost escalation increases need to be much more timely than at present, because the “lag” imposes irrecoverable costs on PPUC;
 - v) Merge PNCC and PPUC, to introduce additional management and governance expertise. By itself this will not resolve the level of losses, but it is expected that it would deliver some level of savings through sharing of some operations;
 - vi) Open up opportunities for Independent Power Producers (IPPs) to enter the Palau market. Whilst JICA believe the country is too small to be attractive to such operators, PPUC report that there have been such enquiries in the past, but they have gone nowhere because the IPPs would not recover their costs at existing tariff levels. This is not necessarily surprising if the Corporation has not been meeting all of its own costs;
 - vii) Dissolve the Board, and employ a contract manager to turnaround the corporation to profitability. If this strategy is to be successful then tariff increases will be necessary, or subsidies firmly locked into place;
 - viii) Offer the electricity sector as a long term concession, to be tendered to experienced operators through a competitive bidding process. This option has a number of potential benefits. Before it can be pursued it will require clear policies on tariffs, tariff increases, targeted subsidies etc.;
 - ix) Fully privatize operations – not favoured because of lack of a regulatory framework or the ability to introduce competition.
8. The report also suggests transferring energy conservation activities from the Department of Public Works to PPUC, and clearly delineating Ministry responsibilities for energy policy with the Ministry of Resources and Development, and financial oversight of business plans with the Ministry of Finance.

2. Introduction

9. This Working Paper focuses on opportunities for performance improvement in the PPUC. The Paper is one of a series considering opportunities for corporatization, privatization or greater private sector participation across a range number of government services.
10. The work has been undertaken in a very limited time frame. Three other independent detailed studies have been completed over the past 12 months, and considered when formulating this Working Paper, namely:
 - i) an in depth study of opportunities for upgrading electric power supply conducted by a team of consultants from JICA, currently being concluded;
 - ii) an Electric Rate Study undertaken by economists.com., which commenced in July 2007, with a final report dated March 2008; and
 - iii) a 2007 Energy Efficiency Action Plan, formulated with European Union assistance.
11. The JICA study did not consider outlying areas of the country.
12. One result from this level of activity was that the demands made on PPUC time by the consultants with specific sector interests made it difficult for the ADB Infrastructure and Privatization consultants to obtain access to staff during the initial visit. The second, and more important impact, was that the JICA team in particular have been able to study requirements for efficient power supplies in much greater breadth and depth than would have been possible within the time and expertise of the Privatization consultant. This Working Paper therefore leans heavily on the recommendations made by the JICA consultants. In addition, discussions took place between the consultant with the Chief Executive Officer (CEO) and General Manager of PPUC, who is thanked for the time he made available.

3. Sector Structure

13. The electricity sector was corporatized in 1994, with the formation of PPUC as a wholly government owned corporation. PPUC has five Directors appointed by the President. The CEO describes the present Board as the “best he has worked with”. The Board members are stated to have a cross section of skills including finance, engineering, private sector and technical. Legal advice is available independently. The Board typically meets monthly, or more frequently. It focuses on policy; improvements; budgeting and performance against plans, and, at times, operational issues.
14. The sector is somewhat fragmented, and effectively lacks appropriate governance arrangements. The Board of Directors does not report to a Ministry. Instead, ultimate control rests with the President and legislature, and they do not receive independent professional advice on the performance of PPUC. Within the Bureau of Public Works, itself part of the Ministry of Resources and Development, there is an Energy Office, which is independent of PPUC and is primarily concerned with renewable energies and energy savings. There is no single organization responsible for energy policy or alignment of the interests of PPUC and national energy development policies.

15. As already suggested in other Working Papers, the system of governance lacks the high level shareholder oversight provided in other models of corporatization, whereby a government institution, typically the Ministry of Finance, acts as a representative of the shareholder, and reviews annual budgets and overall performance against plans, in order to ensure compatibility with national policies and economic objectives.
16. Key strategic issues are how Government, as shareholder, can:
 - i) provide policy guidance on what return on investment (or operating loss) is acceptable within the national economic policy framework;
 - ii) ensure that PPUC acts as a successful business if there is no independent, skilled scrutiny of its Business Plans; and
 - iii) ensure that PPUC has the capacity to produce adequate Business Plans that provide the basis for sustainable, affordable electricity supplies.
17. It is noted that there is no regulatory framework, apart from operational issues relating to safety. Whilst there is no competition in the sector the need for a regulatory framework is perhaps of lower importance than in cases such as telecommunications, where the PNCC has faced selective competition in the most profitable geographic segments of its market. In the medium-term a regulatory framework is desirable to control future private sector initiatives, including in-house generation adopted by resorts or commercial premises.

4. Business Plans

18. At the time of completing this Working Paper the PPUC strategic plan had still not been provided. The following comments are therefore based on an overview discussion with the CEO and the analyses of the plan provided in the JICA report.
19. The Board has no mandated Return on Investment targets. A strong philosophy underpinning commercialization and corporatization internationally is that corporatized businesses should operate as successful (commercially profitable) businesses. However, the CEO states that the Corporation philosophy has been to operate on a break even basis. But, as indicated in the following section, even this goal is not being achieved. Operating losses have increased steadily from USD735,673 in 2001 to USD4.69 million in 2006.
20. The JICA analysis of the strategic plan indicates that of the eight goals in the plan, only one directly relates to profitability – “to achieve an improvement in operating profit, to be achieved by an analysis of costs and investment recovery rates, and development of a plan to confirm costs and boost profits”. Other goals relating to efficiency improvements are based on infrastructure improvements rather than financial performance. None are quantified, and many are general in nature (“prohibition of illegal connection and.....public notice of possible prosecution”; “a new power station with four of the latest 5.3 MW generating units will be constructed.....”Submission of a request for a loan of USD35 million from the US Department of Agriculture”).
21. The PPUC Upgrading Plan was produced in 2003, and covers the five years to 2008. Only one of the eight items is referred to as being completed, with some work on some

other items. Design changes have been recommended by JICA to some items in the PPUC plan, such as a submarine cable. No items in the PPUC plan are costed. Cost estimates are provided by JICA for their proposed improvements through to 2025.

22. The CEO states that PPUC is relying heavily on JICA to formulate their Medium-Term Development Strategy. JICA are currently finalizing a comprehensive Master Plan
23. Residential consumers account for 77% of the customer base; commercial customers for 14% of customers and national and state governments for 4.3% and 4.1% of customers respectively. The customer base has remained relatively static, as has consumption, which has only increased by 4.5% per annum (JICA) or 1.4% based on the economists.com tariff study.

4.1 Financial Performance

4.2 Overall Financial Performance

24. Financial results for 2007 were not available at the time of preparation of this report. In 2001 and 2002 PPUC was able to offset operating losses with non operating revenue, (the origin of which is not known to the consultant) thus achieving an overall surplus whilst holding tariffs below production costs. This cannot really be considered an operating strength, but rather an ancillary benefit.
25. Operating losses have occurred each year from 2001. In the three year period 2004 – 2006 the value of assets fell from USD48.3 million to USD41.7 million. (Current assets fell by USD1.36 million and plant by USD4.10 million. These falls were offset by an increase in other assets, from zero to USD2.27 million). Financial liabilities increased from USD3.37 million to USD6.79 million.

Table 1. PPUC Financial Performance 2001- 2006

	2001	2002	2003	2004	2005	2006
Operating Revenue						
Power	11,107,747	10,189,964	10,808,975	11,739,414	15,073,865	17,482,734
Other	419,747	231,545	302,522	242,266	414,559	321,351
Sub total	11,527,494	10,421,509	11,111,497	11,981,680	15,488,424	17,804,085
Bad Debts	0	0	0	0	288,788	(88,396)
Net Operating Revenue	11,527,494	10,421,509	11,111,497	11,981,680	15,777,212	17,717,689
Operating Expenses						
Fuel Costs	7,265,841	6,279,414	6,977,392	8,403,772	12,656,688	15,530,247
Other Generation Cost	1,091,123	1,277,842	1,217,513	1,631,389	2,444,890	2,355,184
Depreciation	2,248,848	2,234,400	2,236,790	2,239,607	2,356,631	2,506,465
Distribution and Transmission	809,893	1,046,481	1,044,065	1,561,029	1,165,961	1,059,226
Administration	814,595	826,033	771,060	691,437	838,435	786,834
Engineering Services	32,867	20,983	83,667	198,050	189,640	166,334
Sub Total	12,263,167	11,685,133	12,330,487	14,725,284	19,652,245	22,404,290
Operating Profit / (Loss)	(735,673)	(1,263,624)	(1,218,990)	(2,743,604)	(3,875,033)	(4,686,601)
Non Operating Revenue	1,197,687	2,595,672	1,110,422	571,669	1,276,885	673,376
Net Income	462,014	1,332,048	(108,568)	(2,171,935)	(2,598,148)	(4,013,225)

Source: JICA report, based on PPUC audited accounts.

26. The financial outcome is marginally better if equipment depreciation values are added back to net income, as is done in the JICA analysis. Even when this is done PPUC shows losses from 2005 – 2006, while financial provision for equipment replacement has not been factored into financial performance.
27. In a number of respects the above figures understate the true situation, since scheduled maintenance of generator engines has been deferred, thus reducing expenditure. This has led to lower engine efficiency and breakdowns. The JICA report cites a number of other examples of neglected maintenance.
28. Opportunities to reduce costs are largely dependent on efficient fuel use, since this represents almost 77% of operating costs. Preventive maintenance is essential to efficient engine operation, and failure to meet manufacturers recommended servicing has almost certainly added to long run costs – quite apart from imposing additional costs that may have been avoided by scheduled maintenance, such as the need to replace damaged crankshafts.
29. The JICA estimate for 2008 costs puts fuel costs at 73.4% of total costs, but probably, in common with much of the rest of the world, underestimated recent rises in the costs of oil.
30. The March 2008 JICA Progress Report refers to the proposed budget for 2008 but does not provide the full information. It points out that PPUC budgets for a loss, and makes no provision for depreciation or bad debts. A more detailed review of the budget is necessary to verify the basis for maintenance projections, and funding levels of technical staff considered essential for operations.

4.3 Tariff Structure

31. The present tariff structure has only minimal differences between residential customers compared to government and commercial customers. An Automatic Fuel Price Adjustment Clause applies to both groups, but is at best activated quarterly. It has therefore been unable to keep pace with the recent rapid increases in oil prices, even if there had been a willingness to introduce such adjustments.

Table 2. Tariff Structure Unit Cost (USD)

	Residential	Commercial / Government
Monthly Minimum Energy Charge	3 (Residential) 10 (Non residential)	10
Cost per Kwh		
0 – 500 Kwh	0.08	0.10
501 – 2000 Kwh	0.10	0.10
2000 and above Kwh	0.12	0.12
Fuel Adjustment Nov 2007 – Jan 2008	0.15	0.15

Source: JICA Progress Report March 2008

32. In 2008 residential consumers, accounting for 33% of consumption, are budgeted to provide 28% of income (before the recently agreed subsidy). Commercial customers are expected to provide 43% of revenue (and 39% of consumption).
33. Given the level of financial losses and the extent of deferred maintenance, it must be of concern that, according to the JICA report, PPUC has only used the fuel adjustment clause to increase income and has not raised the basic tariff since 2001. It has not, therefore, recovered increases in other cost components.
34. The 2007 Electricity Rate study identifies inflation for Palau between 2004 and 2007 as 12.8%, and it points out that during the same period US Electricity rates increased by 23.9%.
35. The price per Kwh in PPUC is USD 0.245 compared to Chuuk at USD 0.373, Pohnpei USD 0.431; Hawaii USD 0.364 and Kauai USD 0.412. However, there is little merit in having the lowest level of tariff in the Pacific if this means high financial losses; a failure to make adequate provision for equipment maintenance and replacement, and no compensating economic benefits such as export led manufacturing.
36. The major conclusion of the JICA report in relation to tariffs is that a price increase of some 40% to 50% is necessary to cover actual operating expenditure. A partially completed survey currently being conducted as part of the wider FEIM Technical Assistance project indicates a strong resistance to paying increased tariffs. Possibly attitudes would change if there was wider understanding of the fact that without tariff increases future reliable electricity supplies could be at risk.
37. No reference was made in discussions with PPUC of the cost differential associated with servicing remote areas. The tariff, therefore, is likely to involve significant implicit subsidies for electricity supplies to consumers in such locations.

5. Future Investment Needs

38. The JICA study has identified that past load forecasts (always an imperfect process) have been more optimistic than later justified by reality. However, given the age of equipment and continued decline in performance, they have recommended a time phased equipment replacement plan phased through to 2025. Cost estimates are provided in the JICA reports for all items except those already planned for 2008 by PPUC.
39. Of particular significance is the proposed procurement in 2013 of two new diesel generators for Aimelik Power Station, and a further two in both 2014 and 2019. Transmission and distribution investments are also proposed for 2012 and 2013.
40. A number of other recommendations are made by JICA, including strict adherence to manufacturers recommended routine maintenance for engines; improved substation maintenance, and capacity development for employees, to improve operational efficiency.

6. Conclusions

41. In contrast to PNCC, the outcome from corporatization of electricity must be considered unsuccessful. The Corporation has reported operating losses each year since 2002. (Although final results for 2007 are not available, it is reasonable to assume that significant losses are likely, based on historic trends); financial goals for the company are lacking; equipment maintenance has been deferred or neglected, and the JICA report identifies skill gaps within existing staff. Accumulated operating losses in the six years 2001 – 2006 total USD14.5 million.
42. Not all the responsibility for this result rests with the Board of PPUC. If the Board of Directors operates on the philosophy that it must hold tariffs down, and operate at best on a break even basis, and at worst with escalating losses, in order to meet social objectives, then it is adopting social more than financial objectives. This may be an acceptable outcome for Government.
43. Commercialization and corporatization use profit as one measure of successful operation. However, government social or economic policies may mean that, as the shareholder, government is quite prepared to accept financial projections of an operating loss. In these circumstances the issues to be considered are:
 - i) Is it government policy for the institution to operate at breakeven or profitable levels, or are operating losses acceptable? This is a policy decision for government, not the Board of Directors.
 - ii) Is government sure that accepting the proposed level of operating losses is the best way of achieving broader economic or social objectives? How do financial losses contribute to the broader goals?
 - iii) Does the subsidy that is implicit in the decision to forgo profit reach those that are targeted under the economic or social policies (is it pro poor?) or is it spread across all the community regardless of ability to pay?
 - iv) What incentives or other measures (eg benchmarking) exist to ensure the institution is operating efficiently, taking a medium-term perspective? (It is always possible to improve financial performance in the short term by deferring such things as maintenance and staff training, but these have unsatisfactory medium-term impacts).
44. There is no evidence that this debate has taken place. This is as much a systemic failure of governance as a whole as a failure of the Board of Directors to provide adequate leadership to the Corporation. In those cases where a government wishes a Corporation to pursue social objectives these should be clear and transparent, and with associated well defined funding lines. Improved governance processes, involving careful scrutiny of Annual Plans of corporatized government institutions, have been recommended in other Working Papers.
45. It is likely that under any of the following strategies discussed below, significant increases in the electricity tariff will be necessary in the short-term, or GOP will be locked into substantial operating and investment subsidies for many years to come.

7. Strategic Options

46. The major issue facing GOP now is what to do about the situation. If PPUC is to perform consistently with economic policies and not be an ongoing drain on the national budget, then significant tariff increases are necessary (probably in excess of the 50% quoted by JICA, because of ongoing cost increases in oil costs). Untargeted lump sum subsidies, such as the recent USD3 million, are likely to be short-term palliative measures. The inability to recover full operating costs is not an issue that will go away. As has been suggested for PNCC, any subsidies should be fully transparent, and targeted at consumers most in need of support, such as low income families (thus meeting pro-poor objectives) and/or those in remote locations who are receiving electricity more because of universal service obligations than because it is financially profitable.
47. The first decision that must be made is “what should the national goal be for the next 3 – 5 years in relation to the provision of electricity to the population?”
48. A number of strategies to achieve this goal and associated improvements can then be considered, as follows:
49. **Do nothing.** Losses are likely to continue, in all probability at a marginally faster rate than oil price rises, because the fuel adjustment clause lags behind increases in oil price, and only applies quarterly. The only result this is likely to achieve is continued financial losses in the sector. It is not considered an acceptable option.
50. **Define Ministry responsibilities.** In order to improve sector governance the responsibility of individual Ministries should be clearly defined. It is suggested that the Ministry of Resources and Development should have clear policy responsibilities relating to national energy policies, while the Ministry of Finance should be accountable for reviewing Corporation Annual Plans and performance, and ensuring that these are compatible with national objectives. Decisions in this area will influence detailed corporation activities for the following 12 months. The legislature would retain the ultimate right to amend policies and plans. This change is considered an essential feature of good governance, and should be applied regardless of other decisions.
51. Implementation of policy should rest at a unified operational level. As such, the Energy Office should be transferred from the Department of Public Works to PPUC, where its activities can be integrated with those of the Corporation.
52. **Target subsidies.** One motivation for break even operations is that low tariffs benefit all citizens. However, not all citizens are equal. Non targeted subsidies benefit all users, whether they be wealthy tourists, overseas hotel operators, or large, low-income families. Targeting subsidies helps those considered to be most in need, and is recommended as an alternative to bulk subsidies for the Corporation. If subsidy support is to be provided, then the consultant recommends that it is targeted. A review of subsidy targeting has already been recommended in the Working Paper relating to PNCC. The consideration of electricity tariff subsidies can be completed concurrently.
53. **Reduce costs,** to minimize the need for higher tariffs. In general, this strategy is supported. The PPUC Strategic Plan refers to some initiatives in this area, although it is unclear how much progress has been made. There are significant limits on how much

this will change the cost structure, since 77% of the cost structure is stated to be for fuel. (This percentage is marginally reduced in the JICA 2008 estimates, presumably because it allowed for increased expenditure on maintenance and skilled engineers).

54. The strategy requires careful consideration before implementation. For instance, the JICA report refers to difficulties created by omitting scheduled maintenance of engines, and the need for additional technical staff and other investments in order to improve efficiency.
55. It is not clear from available reports what scope there is for reducing costs through reduced technical and system losses.
56. In the medium term it appears that the recommended investment in new engines running on heavy fuel oil, purchased at a significantly lower cost than diesel fuel, presents the best opportunity to reduce costs. As fuel costs increase, renewable energy may also become a more attractive proposition, in particular for outlying areas, where the average generation cost per Kwh used is particularly high because of the lower number of consumers. Renewable energy has additional benefits in terms of reduced emissions to the environment.
57. **Introduce additional tariff increases**, allowing for more frequent price escalations to reflect changing oil prices. Within this option there is the possibility of widening the differential between domestic and commercial users so that, for instance, hotels do not pay the same rate as residential customers for consumption over 500 Kwh. Whilst this is unpleasant for consumers, it is seen as essential if PPUC is to be restored to an institution which is covering its costs.
58. As mentioned earlier, the JICA estimate is for an increase in tariffs of some 50%. The 2007 – 2008 tariff study undertaken by economists.com proposed residential tariff increases ranging from 33% for consumption to 500 Kwh, to 60% tariff for consumption above 2000 Kwh. Commercial and Government tariff increases recommended in their report range from 73% for consumption to 2000 Kwh, to 60%, for consumption in excess of this level.
59. Any strategy to further increase tariffs should be accompanied by a public relations campaign explaining the need for the increases and what is being done to improve performance. As indicated earlier, a recent survey indicates strong resistance to higher tariffs. What is less apparent is how much awareness there is of the full production cost of electricity; how low the Palau tariff is compared to other Pacific nations, and the long-term supply risks if maintenance is neglected and equipment replacement cannot be funded. These considerations are likely to affect willingness to pay.
60. **Merge PNCC and PPUC** into a single utility, using the demonstrated expertise of PNCC Board and management to achieve efficiencies and economies of scale. Such a strategy will divert the focus of PNCC senior management and Board members away from operating an efficient telecommunications service, and require them to develop additional expertise in electricity sector management. A merger of this nature will not by itself avoid the need for further tariff increases. A merger is likely to result in some economies, for instance in billing systems and common services. Its primary objective is to strengthen management and governance capacity.

61. **Explore options for allowing Independent Power Producers (IPPs)** to contribute generation capacity – for instance by taking over Aimeliik power station, and selling electricity to the grid at commercial prices. In the opinion of JICA, Palau is too small for such an option to be attractive to producers. However, the CEO indicates that inquiries from potential IPPs have been received in the past, but not pursued further because the IPPs could not provide electricity at the same price as PPUC. Given the losses sustained by PPUC this is not surprising, and should have been seen as a warning, in the same way that the decision of major hotels to purchase electricity from PPUC rather than generate it with their own facilities says something about PPUC cost recovery.
62. Current legislation provides for IPPs. However, an adequate regulatory framework and policies on payment levels or subsidies is required before opening the sector to private sector operators.
63. **Dissolve the Board** and appoint a contracted industry expert with responsibility for turning around PPUC into a successful business over a period of, say, three years. The appointee’s remuneration would be directly linked to improved financial performance. This strategy has the advantage of bringing in industry expertise. The cost of an international manager will be high, though offset by the elimination of Directors fees. (A Board of Directors could be retained, but this shifts major policy decision making away from the “turnaround manager” and potentially reduces that person’s effectiveness). The consultant is aware that a much earlier attempt to employ international expertise was not a total success.
64. **Offer electricity supply as a concession** to experienced electricity supply operators. Although the market is small, this does not make it totally unattractive to operators, as indicated by earlier enquiries from IPPs. It is an attractive alternative to consider. It brings in expertise; allows for earlier replacement of inefficient engines if the concessionaire believes this is possible, and ensures a balanced focus on all factors impacting efficiency. Tariff increases will still be required, unless there are significant savings possible that are not identified in the JICA report. It may adversely affect the willingness of donors to offer concessional loans to what is effectively the private sector, but the counter argument to this is that Government of Palau (GOP) has adopted this strategy in order to reduce long run costs to the country.
65. Any concession will need to be long term; provide adequate incentive to the operator to implement improvements from which both parties benefit; clearly specify any community service obligation subsidy components and price escalation provisions, as well as accountability for infrastructure maintenance.
66. **Full privatization**, through an asset sale. Given the financial performance of the sector, the absence of any regulatory framework, and the importance of electricity to everyday life, this is not considered an acceptable option.

8. Summary

67. If a radical improvement in PPUC performance is to be achieved, the greatest chance of success appears to rest with increased private sector participation, including encouraging IPPs; and either through the employment of a contract manager accountable for achieving a significant improvement in efficiency, or offering a sector wide-term concession, to be bid contestably amongst experience operators. In either

scenario it will be important that all implications of the change are assessed before proceeding further. The Working Papers to be produced on corporatization and privatization principles, and public private partnerships, address these issues in greater detail.

9. References

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