



THE MCKELL INSTITUTE

# Islands of Opportunity

STEPPING UP TO THE PACIFIC'S  
ENERGY CHALLENGE

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Stepping Up to the Pacific's Energy Challenge



Children fishing in Savo, Solomon Islands. Photo: Edward Cavanough

By Edward Cavanough

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## Author Note

This project has been enhanced by formal and informal conversations, and semi-structured interviews with a range of actors engaged in Pacific infrastructure, development financing, aid, and energy delivery.

The research is complemented by a study tour to the Solomon Islands, Kiribati and Fiji in April 2019, and includes observations from previous travel to rural Vanuatu in 2017 and rural Timor Leste in 2018.

Thanks are extended to those who offered insights, advice and feedback during the course of this research.

## About the Author

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His writing and analysis has been published in Foreign Policy, Al Jazeera English, The Guardian, The Sydney Morning Herald and more, and includes reporting from Timor Leste, Vanuatu, China, Afghanistan, and Mongolia.

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# Foreword

Australia's relationship with the Pacific has entered a new phase.

Towards the end of 2018, a suite of initiatives offered in a largely bi-partisan fashion have made clear Canberra's willingness to step up to some of the biggest challenges in the region.

A centerpiece of this new approach is the creation of the *Australian Infrastructure Financing Facility for the Pacific (AIFFP)*, a \$AU2 billion fund designed to facilitate investment Pacific Islands infrastructure.

Strategic interests are often front and center in contemporary debate about Pacific policy. But that singular focus at times makes us forget the bigger picture: despite decades of investment, millions of Pacific Islanders remain without the basics like clean water, modern medicines, adequate roads, and more.

What is demanded of a partner like Australia now is not just new money, but new ideas, explored in concert with the Pacific, aimed at making it more prosperous, and more empowered.

While the challenges are many, this report argues a special emphasis should be placed on one of the major handbrakes on economic development: the electricity challenge.

Seven million Pacific Islanders, mainly living the Melanesian states of Papua New Guinea, Solomon Islands, and Vanuatu, don't have access to power.

Where electricity access is higher, an over-reliance on expensive diesel-fuelled electricity generation leads to some of the world's highest electricity tariffs, placing a heavy financial burden on governments and consumers.

To be the partner of choice, Australia must be the partner of vision: ambitiously striving to overcome the most stubborn impediments to development in the Pacific, in close coordination with governments, communities, and Australia's like-minded development partners. Australia's role as the Pacific's leading partner, and the home to a growing and innovative renewable energy sector, leaves it uniquely placed to provide the capital, technology and expertise for such an endeavour.

This report offers ideas aimed towards realising this vision.



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# Executive Summary

Australia's renewed commitment to the Blue Pacific comes at a vital time.

The stubborn challenges in the region seem to be becoming more acute. The development financing and aid landscape is becoming more contested. And Australia's international reputation as an aid partner has been diminished in recent years on the back of a dwindling aid budget and diminished institutional capacity.<sup>1</sup>

In this context, Australia's Pacific 'Step Up'<sup>2</sup> is also a step forward. But it's essential that, in the rush to implement it, the opportunity to design a lasting, transformational infrastructure investment facility is not squandered. This report offers ideas that will help the AIFFP, Australia's new infrastructure financing facility, achieve these aims.

This report begins by outlining the nature of the Pacific's infrastructure challenge and Australia's response. Within the region, an underinvestment in infrastructure, and inadequate asset management practices, have resulted in the dire need for basic infrastructure delivery. This investment deficit inspired a suite of measures by the Australian Government, but as is noted, certain elements of the current approach may have unintended consequences.

It then looks at the Pacific's electricity challenge, which is twofold: across the Melanesian states of PNG, Solomon Islands, Vanuatu and (to a lesser extent) Fiji, as well as Timor Leste, millions of people have *no* access to electricity. In Micronesia and Polynesia, where electricity access is closer to 100 per cent, governments, communities and businesses are burdened by a reliance on expensive diesel-fuelled generation. It argues overcoming these challenges should be a priority for the Australian Government.

The report then offers ideas about how the Government can incentivise Australian industry to participate in overcoming the electricity challenges in the Pacific, while ensuring Australian investment doesn't stifle local agency. The AIFFP could be structured in a way that encourages Australia's nascent renewable industry to consider future investment in Pacific markets without undermining the capacity of existing Pacific firms to meet local needs.

Finally, this report offers recommendations aimed at ensuring the AIFFP delivers a lasting benefit to the Pacific, and is shaped in a way that allows it to take on the electricity challenge. It offers ideas ranging from allowing the AIFFP to offer finance and insurance separate from EFIC, to providing employment pathways for locals,

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focusing on rural electrification, fostering maintenance culture, incentivising responsible private sector investment, and more.

Australia's Pacific step up, and the creation of the AIFFP, provides a once in a generation opportunity to radically improve development outcomes in the Pacific while confirming Australia's value to such a vital region.

But so far, the AIFFP has been hampered by a rapid implementation, an unclear focus and an unimaginative design that resembles the approach of Australia's competitors.

This report plots an alternative pathway.



*North Tarawa, Kiribati. Photo: Edward Cavanough*

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# The Pacific's Infrastructure Challenge & Australia's Step Up

## The Pacific's infrastructure woes

A lack of investment in vital infrastructure is evident throughout the Pacific. Visitors are quickly challenged by crumbling roads and bridges, poor phone coverage, or electricity deficits that much of the world has left behind.

This infrastructure challenge manifests itself in two ways. First, there is an overall investment shortfall, which is thought to be more than US\$3 billion per annum. This means that every year that goes by without substantive investment, this deficit expands.

Second, the infrastructure that gets built often falls victim to a lack of adequate maintenance. The poor asset management practices throughout the Pacific have been dubbed the 'build, neglect, rebuild' syndrome. Aid and development partners, who see their investments as short-term kick-starters of economic growth rather than lengthy entanglements, are repeatedly required to rebuild vital assets that have been neglected after installation. This system becomes cyclical, with assets falling repeatedly into disrepair before eventually being reconstructed.



*Figure 1: The muddy main street of Maubisse, Timor Leste. This typifies the infrastructure deficit in the region. (Photo: Edward Cavanough)*





*Figure 2: Road in western Timor Leste, near Maubisse. (Photo: Edward Cavanough).*

In 2006, the World Bank published a comprehensive review of the Pacific's infrastructure challenge, assessing the state-of-play in a sector-by-sector approach that identified the impediments to best-practice infrastructure delivery<sup>3</sup>. It found that 'although some utilities perform well, and infrastructure access is adequate in some (mainly urban) areas, Pacific countries do not perform as well as comparator countries on most key performance indicators.'

It highlighted how 'network infrastructure' – that is telecommunications, electricity, water and sanitation – is particularly poor. Additionally, tariffs are exceedingly high – especially when it comes to electricity.

Maintenance of most infrastructure assets remains a preeminent challenge. While more funding for maintenance would be helpful, the lack of maintenance in the Pacific is not purely driven by a lack of resources. Funds already exist focused on maintenance, such the National Transport Fund in Solomon Islands, which Australia contributes to alongside other development partners. Even this well-established fund, however, was found to be underperforming when reviewed in 2014.<sup>4</sup>

### Existing political paradigms dissuade asset management

The deployment of additional resources alone can't alter political paradigms that incentivise local political leaders to complete new projects rather than maintain old

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ones. ‘Maintenance of existing infrastructure, generally built by previous governments’, Matthew Dornan notes, ‘simply does not attract the attention of the media, nor does it win votes’<sup>5</sup>.

One I-Kiribati contributor to this project argued that overcoming the lack of a maintenance culture is one of Kiribati’s highest priorities.<sup>6</sup> It was an argument that would make sense in much of the region. This dynamic has led to a backlog of infrastructure maintenance, compounded by the fact that newly procured assets are still not always subject to robust asset management schedules embedded in contracts.<sup>7</sup>

A major review<sup>8</sup> of the Pacific’s infrastructure maintenance issue was published in 2013. While it painted a dire picture of the state of asset management in the Pacific, it also outlined how the region’s development partners can help mitigate against it.

It argued that development partners need to, amongst other actions, ‘consider the design of all infrastructure projects...including analysing the asset management liabilities associated with new infrastructure’, implement ‘long-term maintenance contracts’ in all new projects, and provide technical assistance for asset management. The AIFFP, as the newest financing vehicle on the scene, has the capacity to learn from the mistakes that have been made in the past, and incorporate best-practice recommendations in the design of the facility, as is recommended in this report.

It is in this difficult environment that Australia’s new suite of initiatives are being unveiled.

## Canberra’s step up

Late 2018 served as an important moment in Australia’s engagement with the Pacific. After what some had perceived as a period of ‘benign neglect’,<sup>9</sup> both the Government and Opposition spent much of 2018 unveiling various commitments, recognising that, while Australia has long been an invaluable partner, more needs to be done to improve the Pacific’s development trajectory.

The step up has been multifaceted. There has been an increase in Australia’s diplomatic presence, with the Prime Minister committing to the opening of diplomatic posts in Palau, the Marshall Islands, Niue, the Cook Islands, and French Polynesia. This will mean Australia will have a diplomatic presence in every member of the Pacific Islands Forum.<sup>10</sup>

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High level diplomatic visits have also occurred. In January 2019, Australian Prime Minister Scott Morrison became the first Australian leader to make a dedicated visit to the Pacific outside of a multilateral forum, stopping in Vanuatu and Fiji<sup>11</sup>. Later that month, the Morrison Government dispatched some of Australia's most senior defence and security personnel. Chief of the Defence Force, Angus Campbell, led a delegation that also included the Australian Federal Police Commissioner, the director-general of the Australian Secret Intelligence Organisation, and the Australian Border Force Commissioner, to Vanuatu, Tonga, Fiji and Solomon Islands.

A suite of policy initiatives have also been announced, such as the creation of the Office of the Pacific within DFAT, and a number of investments improving regional capacities in the fields of law enforcement, security and more (see *Figure 3*).

Perhaps the highest profile component of the Pacific step up, however, is Australia's promise to invest in infrastructure through two initiatives: the creation of the AIFFP, and the announcement of reforms to EFIC, Australia's export finance agency. While both significant announcements, they have been subject to criticism due to a rushed design process, poor consultation<sup>12</sup> and a lack of clarity.



*Ambo, Kiribati. Photo: Edward Cavanough*

<b>Initiative</b>	<b>Cost</b>
<i>Australian Federal Police to continue to provide specialist advice and training on law enforcement to the Royal Papua New Guinea Constabulary;</i>	\$135.9 million
<i>Expand Australia's diplomatic presence in Palau, Niue, Republic of the Marshall Islands, French Polynesia and the Cook Islands;</i>	\$30.6 million
<i>Enhance Australia's sporting ties with Pacific Island countries;</i>	\$29.2 million
<i>Establish a Pacific Fusion Centre, which will share information from multiple sources to equip Pacific decision makers with the information they need to better identify and respond to security threats;</i>	\$17.7 million
<i>Establish a new Pacific Faculty at the Australian Institute of Police Management focussing on policing leadership;</i>	\$12.1 million
<i>Establish the Office of the Pacific, led by a new Pacific Coordinator, within the Department of Foreign Affairs and Trade to enhance coordination and engagement with the region;</i>	\$10.9 million
<i>Establish a Pacific Centre of Law Enforcement Cooperation to enhance coordination and alignment of policing capabilities across the Pacific;</i>	\$2.8 million
<i>Introduce an Australia-Pacific Business Gateway Card to facilitate streamlined travel arrangements for eligible individuals from Pacific nations seeking to travel to Australia;</i>	\$1.2 million
<i>Provide for specialist expertise and other operational costs to enhance the assessment of proposed infrastructure projects to ensure proposals accelerate the delivery of quality infrastructure in the Pacific. (Announced in 2019-20 Budget)</i>	\$12.7 million
<i>EFIC Reform</i>	\$1 billion*
<i>AIFFP</i>	\$2 billion*

Figure 3: Pacific Step Up Announcements in the 2018-19 MYEFO

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## The AIFFP and EFIC reforms: room for improvement

The creation of the AIFFP and reforms to EFIC are a net positive in that they signal Australia's bi-partisan commitment to financing infrastructure in the Pacific. However, their design, and the process in which both proposals have been developed, leave room for improvement.

AIFFP Proposed Funding Breakdown	
<i>Component</i>	<i>Resource Allocation</i>
Concessional Loans	\$AU 1.5 billion
Grants	\$AU 500 million

*Figure 4 : AIFFP Proposed Funding Breakdown*

The AIFFP currently consists of AU\$1.5 billion in concessional loans to the region and an additional \$500 million in grants. It will focus on the entire Pacific Islands community *plus* Timor Leste – 15 sovereign nations with more than 11.5 million people. While significant, in the context of its remit, this is a modest financial contribution, arguably attempting to do too much with too little.

Despite its high-profile nature, the AIFFP is not guaranteed to exist in the years to come. Budget 2019-2020 did not confirm the Australian Government's commitment to the AIFFP beyond its initial endowment. However, DFAT has been allocated \$12.7 million over the forward estimates (slightly over \$3 million annually from 2019-2023) to consult financing experts on the delivery of the program.<sup>13</sup>

The AIFFP design has been a closed-door process and its focus is unclear

The Department of Foreign Affairs and Trade (DFAT), facing the task of formulating the AIFFP within just 7 months, restricted consultation. While DFAT did open consultation to the public, it did so for just two weeks, and limited public comments to just three pages in length. DFAT has been consulting regional governments, but its public consultation effort has been hamstrung by the limited time it has been given. There is also evidence of relatively limited consultation with other development actors.<sup>14</sup>

The outcome is that the AIFFP's remit remains ill-defined. The need for investment in infrastructure across the Pacific is obvious. But what will the AIFFP specifically work



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towards achieving within this context? Its formation results in more questions than answers.

## Reforming EFIC carries risks

A bill to reform EFIC – Australia’s export finance agency - passed into law in late March 2019 with support from both major parties, though the Australian Labor Party - the Federal Opposition - has outlined its intention to review the reform 18 months after its passage<sup>15</sup>. The reform was ostensibly designed to facilitate Australian investment in the Pacific, but there are questions over how it will in fact achieve that, and if its wording carries risks.

The EFIC reforms are focused around two headline changes to EFIC’s legislation: an introduction of an ‘Australian benefits test’ on EFIC funded projects, and an expansion in EFIC’s ‘callable capital’ from \$200 million to \$1.2 billion. Each present their own issues.

The ‘Australian benefits test’ raises numerous questions and, unfortunately, formalises the notion that Australia’s Pacific ‘step up’ is legally focused on Australia’s interests rather than the Pacific’s. Amendment 5:4 of the EFIC reform bill states:

‘EFIC is to perform EFIC’s overseas infrastructure financing in such a manner as EFIC reasonably believes is likely to result in the ***maximum Australian benefits***.’

The bill further states that:

“EFIC must not lend money [for overseas infrastructure] unless EFIC reasonably believes that lending the money is likely to result in an Australian benefit.”

The language is broad and not focused on the Pacific. In fact, nowhere in the proposed legislation is the Pacific or any Pacific nation mentioned, despite the reform being presented as a centrepiece to Australia’s Pacific ‘step up’. The reform gives EFIC the power to finance any project globally so long as it meets and maximises Australian benefits, which themselves are not defined by legislation.

EFIC’s ‘Callable Capital’ unlikely to be called upon

The second curiosity is an expansion in EFIC’s ‘callable capital’. The reform will see EFIC’s callable capital expand from \$200 million to \$1.2 billion. On paper, this looks like an additional \$1 billion commitment by Australia to Pacific infrastructure, given

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its announcement under the umbrella of the Pacific step up. However, there is no guarantee this additional capital will flow to the Pacific – because the Australian benefits test does not dictate investments are geared towards the Pacific - nor is there a guarantee that the additional capital will ever be called upon.<sup>16</sup>

EFIC is already involved in financing projects in the Pacific, including in challenging locations such as Micronesia.<sup>17</sup> There is no public evidence that its current form has *prohibited* any businesses from engaging in projects in the Pacific. EFIC is a vital institution – but it is not a development agency. Its remit is facilitating Australian exports to the world, not working towards specific development outcomes in any one jurisdiction. Accordingly, bolstering the capacity of the AIFFP itself to administer the type of risk-insurance and finance offered by EFIC would be a more sensible way of ensuring the step up commitments materialise in real investment flows into the Pacific.

In the end, the \$3 billion headline figure associated with Australia's Pacific 'step up' is quickly diminished once the nature of that funding is broken down. Three quarters of the AIFFP funding is, ultimately, recoverable loans. And the EFIC reform is unlikely to see all of the additional \$1 billion in capital deployed to the Pacific. The result is that Australia's \$3 billion headline investment in the Pacific is quickly diminished to a \$500 million expense (the cost of the grants slated under the AIFFP). \$500 million in grants are not insignificant, but only has the capacity to modestly alter the long-term trajectory of Pacific infrastructure development.

AIFFP and EFIC reform may encourage 'supply-side, project-proponent led'<sup>18</sup> planning in its current form

Further, the AIFFP and EFIC reform carry the potential to encourage 'project pushing' – the tendency for larger projects initiated by firms with the capacity to engage in active lobbying both within Australia and abroad. It is possible for Australian firms to argue successfully to EFIC that their engagement in certain projects is in Australia's benefit. This kind of project pushing primarily benefits the firm, then Australia, before factoring in the interest of the Pacific state.

This is not a theoretical concern, but is in fact how many Pacific infrastructure projects already occur.<sup>19</sup> Australia mustn't join actors engaging in potentially damaging deployment of capital to the Pacific. Key to making Australia the long-term partner of choice for Pacific Island infrastructure projects is positively differentiating the way Australia engages in finance with that of competitor financiers, rather than replicating approaches that may undermine Australia's standing in the long run.

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# The Pacific's Energy Opportunity

## The Pacific's electricity access deficit

While the infrastructure challenges in the Pacific are numerous, one of the major handbrakes on economic development is the widespread lack of electricity. Seventy per cent of Pacific Islanders do not have access to electricity. If we include Timor Leste, almost 7.5 million of Australia's nearest neighbours are living in the dark.

While there are some unelectrified households within urban areas, the majority of unelectrified communities remain in rural areas in the large Melanesia states and Timor Leste. Papua New Guinea, by far the largest state in the Pacific Islands, is the most acutely challenged in terms of electrification.

The disparate and rural nature of population bases in the Pacific is a major determinant of this electricity access shortfall. Island nations like Solomon Islands (which has more than 900 islands) and Vanuatu (88 islands) make the creation of electricity grids challenging. Even in a country such as Papua New Guinea and Timor Leste, in which most of its population is located on the main landmass, challenging topography leaves many communities isolated.

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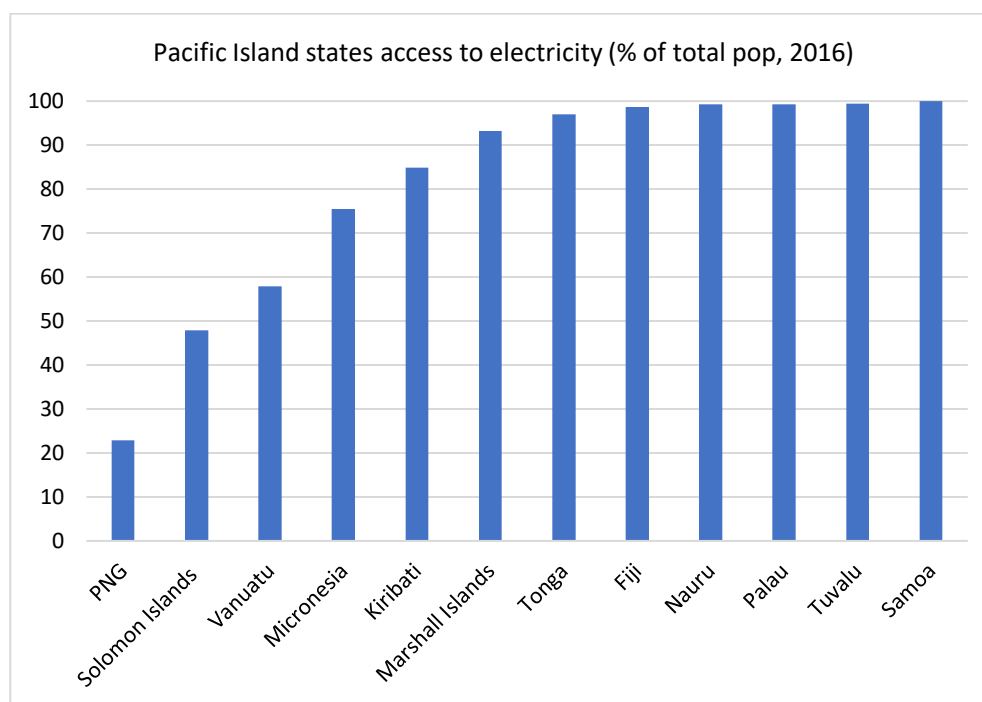
*"The Pacific faces a unique set of energy challenges. Its limited supply of domestic fossil fuel resources has led to a historical dependence on imported fuels and a corresponding vulnerability to fluctuating energy prices. At the same time, outdated power infrastructures, geographical constraints, small populations, and limited generation capacity lead to high electricity tariffs (or costly subsidies), transmission and distribution losses, and low electrification rates.... In spite of existing challenges, Pacific island nations possess a large potential for scaling up the use of renewable energy."*

*– Asia Development Bank<sup>20</sup>*

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Country	Population	With Electricity	Without Electricity
Papua New Guinea	8,511,000	1,949,019	6,561,981
Timor Leste	1,296,000	821,664	474,336
Solomon Islands	611,343	292,833	318,510
Vanuatu	276,244	159,669	116,575
Estimated individuals without access to electricity			7,471,402

*Figure 5: Estimated individuals without access to electricity, major Melanesian states and Timor Leste.*



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*Figure 6: Pacific Island States' access to electricity, 2016. Note: many experts believe official electricity access rates in PNG and Solomon Islands are greatly exaggerated. Some experts informed the author that as few as 5 per cent of PNG might have access to electricity. Source: World Bank data bank.*

## The cost of energy poverty is significant

Pacific Islanders subject to severe energy poverty face major economic hurdles as a result. Electricity is vital for participating in modern economic activity, and for providing access to many basic necessities. For an unelectrified community, there is little capacity to engage in online education, to freeze fresh catch, to refrigerate foods and medicines, to foster tourism, to power modern healthcare equipment, to light work and community spaces in evenings, and to provide basic modern amenities that might incentivise keyworkers – teachers, doctors, nurses, etc - to live in their community. Without these community assets, escaping endemic poverty is challenging.

## Grid extension not viable pathway to higher rates of electrification

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*“[In rural Papua New Guinea], biomass – a combination of wood, dung and agricultural waste burnt for heat – is still the main fuel for cooking for 95% of the rural population and 92% lack access to electricity.” – ANZ Insight, 2015.<sup>21</sup>*

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In the pursuit of extending electricity access to more households and businesses, development partners have typically invested in grid-extension projects rather than off-grid, isolated energy solutions.<sup>22</sup> Even in countries where rural, disparate population bases ill-suited to grid extension dominate, this approach continues to be adopted.

When announcing the Papua New Guinea electrification partnership in November 2018, the Australian Government outlined its plan to invest in ‘transmission and distribution lines to connect households, service providers and businesses to the grid’.<sup>23</sup> This will likely improve connectivity to those in PNG living within proximity of major urban canter. But for the remaining 80 per cent of the population, this is unlikely to offer any material benefit.<sup>24</sup> As Dornan notes,



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“traditional approaches to rural electrification which prioritise grid extension are not suited to the Pacific islands region. Increased funding should be directed by both governments and development partners towards rural electrification, especially in off-grid areas where isolated systems are more appropriate”.

Accordingly, development partners need to establish new frameworks that facilitate investment in off-grid, isolated energy projects in order to benefit the vast majority of the Pacific. This report argues that overcoming the rural electricity deficit should be a priority area for the AIFFP.

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*Renewable energy offers the key not only to achieving universal energy access, but also to raising incomes and employment, reducing inequality, and powering inclusive social and economic development.” – Bradshaw, 2017. <sup>25</sup>*

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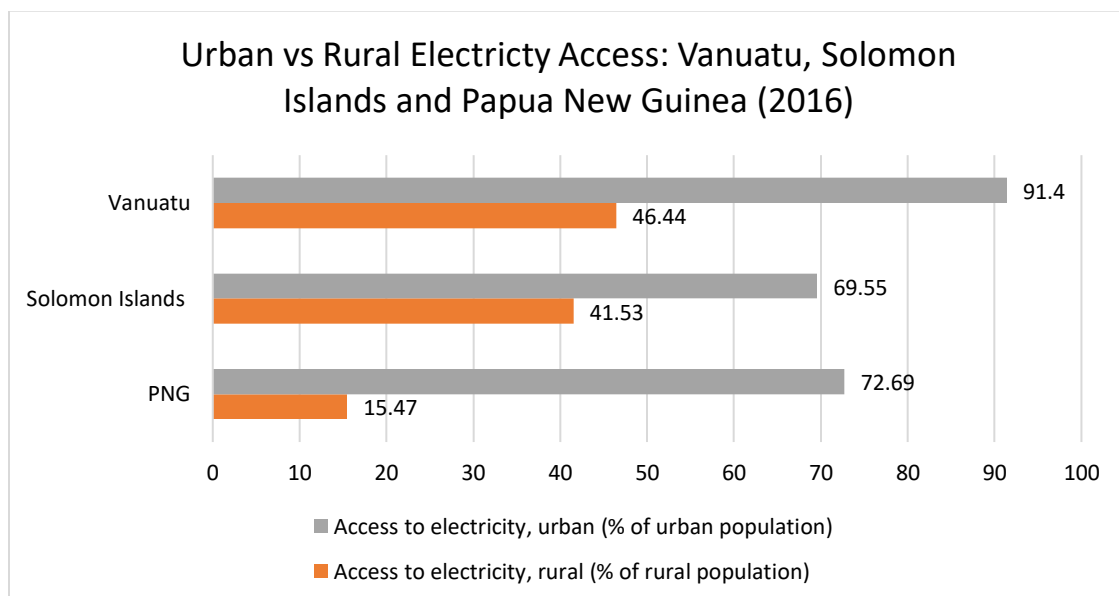


Figure 7: Urban vs rural electricity access in Vanuatu, Solomon Islands, Papua New Guinea.

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### Community Case Study: Northern Pentecost, Vanuatu



*A village in Northern Pentecost, Vanuatu. Photo: Edward Cavanough*

*Northern Pentecost is an acutely under-developed region in north-east Vanuatu*

*A majority of the islanders are subsistence agriculturalists with little access to recognised income. There is almost no electricity infrastructure on the island, limiting its appeal to foreign tourists. Many villages are only accessible by foot. These more remote villages often see dozens of individuals sharing small solar panels capable of powering only a few lightbulbs or a mobile phones. Others use car batteries to power basic amenities for the few foreign visitors, while rarely enjoying such luxury themselves.*

*The lack of electricity stifles development and limits the economic opportunities for the local population. In one Pentecost community, struggles over resources had led to violent unrest<sup>26</sup>. The disparate nature of the population centers on the island render traditional grid systems unviable.*

*Northern Pentecost exemplifies the need for localised energy generation and storage solutions across the Pacific. There is a desire by local leadership on the island to encourage more tourism. However, the lack of basic amenities means only the most adventurous foreigners travel to the island's north. Just a few dozen visitors had signed a guestbook in the four years up to 2017.<sup>27</sup>*

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## The Pacific's dependency on diesel-fuelled generation

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*"The Government of the Republic of the Marshall Islands declared an "economic state of emergency" in July 2008 when it appeared that electricity provision would cease as a result of the government-owned utility's inability to pay for diesel fuel required to operate its generators." – Matthew Dornan, 2015.<sup>28</sup>*

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Not all of the Pacific suffers low rates of electrification. Across Micronesia and Polynesia, most states' electrification rates are closer to 100 per cent. However, the highly electrified countries of the Pacific are often burdened by some of the most expensive tariffs in the world. Pacific Islanders typically rely on diesel fuelled electricity generation, both in villages in the form of smaller generators, and in larger urban environments, in the form of grid-scale generators. Up to 12 per cent of the regional economy is thought to be allocated on importing diesel, depending on oil prices.<sup>29</sup>

The degree of diesel-dependency exposes communities and governments to oscillations in the global oil market. Every country is, to some extent, burdened by fluctuations in the global oil price. Advanced economies can usually absorb such shocks, but Pacific Island states are more vulnerable, due to the lack of diversity in their energy mix. In 2008, the Marshall Islands Government was forced to declare an 'economic state of emergency because it was unable to pay for diesel fuel'.<sup>30</sup>



*A Solomon Islander setting sail. Photo: Edward Cavanough*

***Diesel Contribution to Electricity  
Generation (2015)***

<i>American Samoa</i>	98%
<i>Cook Islands</i>	100%
<i>Fiji</i>	49%
<i>Micronesia</i>	90%
<i>Kiribati</i>	52%
<i>Marshall Islands</i>	90%
<i>Nauru</i>	100%
<i>Niue</i>	100%
<i>Palau</i>	98%
<i>PNG</i>	77%
<i>Solomon Islands</i>	45%
<i>Tahiti</i>	74%
<i>Tonga</i>	98%
<i>Tuvalu</i>	100%
<i>Vanuatu</i>	92%
<i>Western Samoa</i>	64%

***Average Annual Power Bill 2014 (Small  
domestic consumption) (\$US)***

<i>Fiji</i>	\$ 529.00
<i>Vanuatu</i>	\$ 1,154.00
<i>Nauru</i>	\$ 1,208.00
<i>Palau</i>	\$ 1,379.00
<i>Micronesia (Pohnpei)</i>	\$ 1,385.00
<i>Tahiti (French Polynesia)</i>	\$ 1,637.00
<i>Tuvalu</i>	\$ 1,796.00
<i>Marshall Islands</i>	\$ 2,341.00
<i>Kiribati</i>	\$ 2,483.00
<i>Tonga</i>	\$ 2,540.00
<i>PNG</i>	\$ 2,551.00
<i>Samoa</i>	\$ 2,605.00
<i>Cook Islands</i>	\$ 2,982.00
<i>Niue</i>	\$ 3,504.00
<i>Solomon Islands</i>	\$ 5,080.00
<i>Micronesia (Falalop)</i>	\$ 6,990.00

Source: Utilities Regulatory Authority, 2015.<sup>31</sup>

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## Diesel dependency is felt at local and national levels

Diesel dependency manifests itself in two ways: at the village level, and at the urban level. At village levels, communities spend a significant portion of their income on the direct purchase of diesel to fuel single-household generators. Often, this results in communities only using electricity for brief periods in the evening to save money. An energy use survey in Fiji identified that:

“Fuel costs, transport costs, maintenance costs, spare parts, operation charge are some problems that are now faced by communities that are running diesel generators.”

This has flow-on effects for development. It limits the capacity for energy-deprived communities to engage in any number of activities reliant upon electricity, such as computing, schooling, refrigeration and lighting. Village-level diesel dependency is also problematic due to the temperamental delivery of fuel to remote communities. The delivery of diesel to remote communities adds significantly to costs.

In urban environments, individual households connected to diesel-powered electricity grids face expensive power tariffs. The high price of energy contrasts with the low purchasing power of individuals. At times, consumers are unable to afford to keep the lights on. In Honiara, for example, the provision of electricity is not guaranteed, even to connected households. Consumers must first buy credit on the *Cash Power* network, which depletes as the household uses electricity. Often, households will run out of credit and be plunged into darkness or rely on candlelight unless they can find money to buy additional credit.<sup>32</sup>



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## Community Case Study: Savo, Solomon Islands



*A village in Savo, Solomon Islands. Photo: Edward Cavanough*

*Savo is just a short boat ride from Solomon Island's capital, Honiara.*

*Reliant on expensive diesel to power household generators, villages on the island are typically forced to conserve fuel and use electricity for only a few hours each evening. This is despite the fact that much of the island's villages are bathed in sunlight, and well suited to solar PV rooftop installation.*

*This small village pictured receives a few tourists each month, but few stay the night due to poor phone coverage and limited electricity. While lights are able to be turned on each evening, they're accompanied by noisy generators.*

*The cost of running electricity inflates the price of staying in modest accommodation on the island. Further electricity access in the village would permit more tourists to stay longer and spend more, benefiting the entire island economy.<sup>33</sup>*

*Many of the structures on Savo Island are well built – strong enough to survive cyclonic conditions - and are suitable for rooftop solar generation. Modest investment in sustainable solar PV and battery storage would provide economic stability to communities in Savo, and make stays more comfortable and enticing for tourist.*

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## Renewables key to an energy-independent Pacific

Country	Hydro	Wind	Solar	Biomass	Geothermal
Cook Islands	No	Moderate	Good	Some	No
Fiji	Good	Moderate	Good	Good	Good
Kiribati	No	Moderate	Good	Some	No
Marshall Islands	No	n.a	Good	Some	No
Micronesia	No	n.a	Good	Some	No
Nauru	No	n.a	Good	No	No
Niue	No	n.a	Good	No	No
Palau	No	No	Good	No	No
Papua New Guinea	Good	Moderate	Good	Good	Good
Samoa	Good	Moderate	Good	Moderate	No
Solomon Islands	Moderate	n.a	Good	Good	TBD
Tonga	No	Moderate	Good	TBD	No
Tuvalu	No	No	Good	Some	No
Vanuatu	No	Moderate	Good	Moderate	Good

Figure 8: Renewable potential in Pacific states.<sup>34</sup>

Despite the challenges, the Pacific Island states are committed to highly ambitious renewable energy targets.<sup>35</sup> There are reasons why Australia should welcome the region's ambition, and help it realise its goals.

The Pacific Islands are uniquely vulnerable to climate change.<sup>36</sup> It is in their interest, therefore, to contribute to a global clean energy future and to lead by example. Doing so grants the region greater moral authority in ongoing climate negotiations, and also serves Australia's interests: fostering the capacity of the Pacific Island states to advocate for further global action on climate will benefit Australia in the long run.

As explained above, millions across the region also don't have any access to electricity, with the only solution often being locally generated renewable electricity, be it in microgrids reliant on roof-top solar<sup>37</sup>, village-scale wind power, locally produced and consumed biofuel, or a combination of these technologies.

The Pacific's ambitious renewable energy targets are not incongruous with overcoming the lack of access to electricity: they are essential to achieving it. The most viable way to increase electrification is through incentivising investment in off-grid energy solutions. The more the Pacific courts investment in renewables, the quicker its electrification rates will rise. Ultimately, this will grant more investment opportunities for Australia's nascent renewable energy export industry.

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Further, diesel-dependency leaves the Pacific highly vulnerable. The International Monetary Fund has explored how increases in oil prices hurt consumers in Pacific Island states. Because of the severity of price shocks caused by spikes in global oil prices, the IMF argues that such shocks will often be followed by interest rate increases:

“The immediate pass-through of a price shock (the “first-round” effect) can be accommodated, but monetary policy needs to remain vigilant against “second-round” effects. Price shocks will therefore often need to be followed by increases in interest rates to contain domestic demand, decrease inflation pressures, and help protect external reserves.”<sup>38</sup>

The IMF also argues that “further exploration of alternative energy sources could help reduce dependence on imported oil for electricity needs”.

For Australia, helping its neighbours shift to more sustainable and, ultimately, more affordable energy supply will help mature regional economies, give Pacific states further credibility in global climate negotiations, and help develop markets for Australian exporters.

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### Community Case Study: Tokelau <sup>39</sup>

*The Tokelau Renewable Energy Project demonstrates the transformative nature of well-designed solar energy schemes in the Pacific.*

*With New Zealand Government funding of \$NZD8.45 million, Tokelau’s three atolls, Fakaofu, Nukunonu and Atafu – transitioned away from a purely diesel generated electricity system to a more sustainable network. The aim was to see 90 per cent of the country’s electricity generated from solar, with existing diesel generation replaced with locally sourced biofuels, typically derived from coconut oil.*

*The results were significant: Tokelau is now saving almost NZD\$1 million per year thanks to an 82 % reduction in its fuel consumption.*

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# Mobilising Australian Industry

AIFFP: The timing is right

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*“Australia supplies little support for renewable energy manufacturing industry although it has world-class renewable energy technologies and resources.” – Hua et al, 2016.<sup>40</sup>*

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The AIFFP has emerged at an opportune time when the interests of the Pacific and Australia are highly complementary.

The Pacific needs electricity sector reform to ensure greater access to electricity and lower prices for those who already have it. Lowering electricity prices and extending access to electricity will grant Pacific states more agency in the long-run, leaving them less reliant on expensive diesel imports, while boosting economic development outcomes.

Achieving these Pacific goals are in Australia’s strategic and economic interests: a more independent Pacific means a region less susceptible to the overtures of Canberra’s strategic rivals, while a prosperous Pacific grants Australia new markets to engage economically. The need to reform the Pacific’s electricity systems comes at a time of rapid development and technological innovation in the global renewable energy sector – an industry that Australian policymakers should see as a key export industry in the future, particularly if ideas around domestic value-adding to Australia’s ample natural resources, such as lithium, come to fruition.<sup>41</sup>

Policymakers should aspire for the AIFFP, currently a relatively unimaginative pool of resources, to emerge as an entity that takes advantage of this confluence of interests, and facilitates links between Australia’s emerging renewable energy sector and Pacific Island markets.

Doing so, however, requires a calculated approach that both incentivises Australian industry to participate in the Pacific, while ensuring Australian businesses willing to take up that challenge don’t undermine the existing capacities of local firms.

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## The Pacific: stepping stones to an Australian renewable export economy

Helping the Pacific shift to cleaner energy systems provides economic opportunities to renewable tech and manufacturing firms operating within Australia. Australia has rapidly growing domestic demand for renewable technologies. As Australia's renewable sector matures and scales in a response to skyrocketing domestic demand, the sector should be seeking new markets.

Policymakers have a role in opening such markets. As noted above, while investing in the Pacific is not without challenges, a sizeable potential market for renewable energy does exist, and it is a market Australia is strategically well placed to engage.

Encouraging business connections between Australian renewable technology innovators and Pacific energy consumers is advantageous for each party. People-people ties with the Pacific can only be strengthened by deepening economic relationships, and engaging new markets of energy consumers can deliver Australia's renewable sector a larger client base beyond Australia's shores.

Additionally, active Australian Government support of such an initiative can help provide further incentives for Australian firms to manufacture renewable technologies in Australia. Currently, Australia's renewable technology manufacturing base is thin. Incentives could be explored that encourage Australian firms to both engage Pacific markets and produce or assemble renewable technologies within Australia.

### Towards an AIFFP 'Project Marketplace'

The Australian Government should consider developing an AIFFP Project Marketplace, through which Pacific governments and communities can submit proposed projects, and through which projects identified by DFAT or other development actors in the Pacific can be presented for tender by Australian firms.

AIFFP Project Marketplace approved projects would be subject to a unique set of incentives for Australian firms, such as tailored financing schemes or risk insurance. Such a marketplace could serve as the conduit between Australian enterprise and Pacific communities in need.

Certain projects could be subject to additional incentives for participating Australian firms. To avoid exploitation, the AIFFP could maintain the capacity to limit the number and type of projects that are available through the marketplace, and apply strict



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criteria that ensures the primary beneficiary of the investment is the Pacific recipient state or community.

### The AIFFP Project Marketplace – A Hypothetical Model

Tier 1	\$100,000 - \$5,000,000
Tier 2	\$5,000,001 – \$20,000,000
Tier 3	\$20,000,001 - \$50,000,000
Tier 4	\$50,000,001 plus

*Figure 9: Proposed project tiers.*

Country	Type	Tier	Project Details	More info
Solomon Islands	Energy	1	Microgrid energy system for 100-person village in Savo Island, Central Province	Access to Project Page, Project Information
Nauru	Energy	2	Replacing diesel-fuelled power generator with solar and thermal storage solution.	
Fiji	Energy	2	PAYG solar system for Soluvu Village, Moloko Islands.	
PNG	Energy	3	Grid extension	

*Figure 10: A simple mock up of the proposed AIFFP project marketplace.*

### The AIFFP must avoid displacing successful local enterprises

Industry participants already operating in the Pacific islands are somewhat concerned that Australia's commitment might risk their existing capacity to compete for tenders in the Pacific<sup>42</sup>. While there are numerous infrastructure challenges in the Pacific which require the participation of foreign firms, this is not always the case. There is a risk that encouraging Australian industry participation through the measures recommended in this report could crowd out local firms if there are not adequate safeguards in place. Accordingly, AIFFP projects must consider the local capacity to participate in the delivery of infrastructure. The AIFFP should have the ability to finance locally based firms, as well as Australian firms willing to engage in projects where there is no local vendor.

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## Experimenting with a ‘reflective development’ model

The need for the Pacific’s unelectrified communities to seek engagement from international renewable tech firms coincides with a challenging economic transition in advanced economies such as Australia. This has seen some of Australia’s traditional manufacturing industries – most notably the automotive industry - decline while a more advanced manufacturing sector fills some of that vacuum.

There are considerable benefits to the Australian economy, Pacific communities, and the shared environment of all parties in ensuring Australia’s renewable sector matures, expands and helps provide solutions to energy challenges at home and abroad.

This report recommends the Australian Government experiment with a model of two-way economic development – a framework that links communities in need in the Pacific with firms establishing themselves in Australian regions undergoing economic transition.

The AIFFP represents a major Australian Government investment in the Pacific. Its primary purpose, as is strongly argued in this report, should always be meeting the development needs of the region before any other consideration. However, the needs of certain Pacific communities correspond with the emergence of new Australian firms engaged in renewable energy design, advanced manufacturing and installation, at times based in Australian communities undergoing challenging economic transitions.

The AIFFP could serve as a conduit between Australian renewable energy suppliers or manufacturers and the Pacific, using its capital to facilitate long-term economic relationships between Australian firms and Pacific communities or nations. A modest portion of the \$2 billion capital endowment granted to the AIFFP could be quarantined for an experimental pilot project that seeks to achieve this aim.

More generous financing arrangements could be explored for firms manufacturing within Australia, further assisting the development of Australia’s fledgling renewable manufacturing sector and providing employment prospects in regions where traditional manufacturing opportunities have waned.

Growing Australia’s renewable sector is an important component in delivering a just transition for Australian workers and communities displaced by economic transition, and capitalising on the Pacific’s increasing demand for clean energy can create opportunities for this industry to grow in Australia.

<b>Hypothetical Reflective Development Example:</b> Solar PV Manufacturer in Elizabeth, South Australia providing solar panels to Dotik Village, Timor Leste.				
<b>Steps</b>	<b>Dotik Village</b>	<b>AIFFP</b>	<b>Solar PV Manufacturer</b>	<b>Aus. Government</b>
1	Engages AIFFP with project, likely through regional leadership or national government.			
2		Assesses project, designs project with experts, places on 'AIFFP Project Market Place', commences outreach to private sector.		
3			Bids for project in AIFFP marketplace.	
4		AIFFP reviews and accepts bid. Provides advice to Australian firm, provides finance / risk insurance tailored to location.		
5	Project commences.	Project commences.	Project commences.	
6	Project concludes.	Project concludes.	Project concludes.	Potentially provides further tax offsets for % of investment, depending on project and AIFFP assessment.
<b>OUTCOME</b>	Clean power solution in community. Reliance on expensive diesel generation minimised, enabling more local investment in agriculture.	Facilitated project, minimised overall Government capital expenditure, enabling further capital investment on other projects.	Secured ongoing market, with investment risks mitigated through the AIFFP. Scaled business.	Facilitated key economic development project in region. Helped facilitate job creation in South Australia. Helped deepen people-people and economic ties between Australia and Timor Leste.

*Figure 11: Reflective development in action. Partnering communities in the Pacific in need of an electricity solution with firms in economically-transitioning communities in Australia could provide a two-way benefit.*

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## The AIFFP should engage with existing frameworks to mitigate resource constraints

This report accepts that an additional focus on micro-level projects and village-village scale investment strains the existing resources of the Australian Government and the future AIFFP. Accordingly, the AIFFP should develop close working relationships with other actors in the region, and work within existing frameworks that already have detailed oversight of communities and regions within challenging countries of operation. This report has cited the Suku Development Program in Timor Leste as an example of one such framework. Programs run by development actors such as the World Bank maintain visibility over village-level investments and programs throughout the region. Further collaboration with such frameworks can minimise the costs associated with a more granular approach to infrastructure investment.

## DFAT should open a dialogue with Australia's institutional investors

Considering the investment deficit in the Pacific, the Australian Government should open a dialogue with Australia's major institutional investors to identify the key impediments to Pacific investment, and how new initiatives under the 'Step Up' umbrella could be shaped to responsibly encourage greater private investment in the region. Australia's superannuation industry, in particular, has a growing capacity to explore new investment opportunities abroad. By 2035, it is expected that Australia's superannuation sector will be overseeing assets worth AU\$9.5 trillion<sup>43</sup>. Harmonising the investment desires of large institutional investors with the development needs of Australia's Pacific partners could help orient considerable Australian resources into the region without creating financially unsustainable Australian Governments commitments.

## Clean Energy Finance Corporation engagement could be considered

An additional vehicle through which investments in clean energy projects could be realised is the Clean Energy Finance Corporation (CEFC). Currently the CEFC is mandated to facilitate investments in clean energy projects within Australia. Given the growing institutional capacity of the CEFC, there could be some room to modestly expand its mandate, permitting investment in clean energy projects within the region – particularly if they engage Australian firms.

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## Success in the Pacific could lead to new market opportunities

Australia is the 13<sup>th</sup> largest GDP in the world, and therefore has a responsibility and unique opportunity to contribute to creative financing instruments focused on providing energy to those across the world without it. Providing off-grid renewable energy to unelectrified communities is an enormous economic opportunity for Australia. In sub-Saharan Africa alone, more than AU\$40 billion is spent annually on kerosene to power lighting and cooking in off-grid communities<sup>44</sup>. In the decades to come, such communities will likely shift from these fuel sources to renewable energy solutions, while remaining detached from grids. The investment profile in unelectrified Pacific communities is not dissimilar to those in sub-Saharan Africa. Demonstrating Australian industry's capacity in achieving essential electricity generation and distribution reform in the Pacific could open doors for Australian firms looking further afield.



*Looking west towards Betio, Kiribati. Photo: Edward Cavanough*

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# Recommendations

## **Recommendation 1:** The AIFFP shouldn't be limited to loans and grants

The AIFFP currently plans to offer two types of financial contributions to Pacific infrastructure projects: concessional loans to Pacific governments, and direct grants for projects. There is room for these types of financial contributions, but considering the modest size of the AIFFP, much of its capital could be more effectively used incentivising and facilitating private sector engagement in essential projects. In addition to the existing distribution of AIFFP capital, a third pool of resources could be affixed to the facility and used to offer alternative types of financing and insurance.

The Pacific is a challenging investment environment for private enterprise. Infrastructure projects, in particular, face significant risks – environmental risks, political risks, and risks to their long-term viability as a result of the Pacific's at times fragile economies. Ultimately, the AIFFP would be a better vehicle through which private sector investment is leveraged than EFIC, which has an expansive global mandate. The AIFFP – an entity targeting the Pacific specifically – should emerge as the vehicle through which most investment in the Pacific is leveraged and aided.

## **Recommendation 2:** AIFFP projects must always include guidelines that work towards the goal of breaking the 'build, neglect, rebuild syndrome'.

AIFFP projects should attach detailed asset management schedules into contracts. For each project, AIFFP resources could be quarantined for long-term asset management and maintenance, with such funding providing both the long-term health of the asset and employment opportunities. As Wood argues, "donors cannot expect to build roads in Solomon Islands and PNG and then see those roads maintained by local politicians, but they can themselves fund maintenance —facilitating the economic benefits that roads bring."<sup>45</sup>

## **Recommendation 3:** AIFFP projects should demonstrate employment pathways for Pacific Islanders

Projects financed through the AIFFP should demonstrate local employment pathways. At times, the small labour markets in many Pacific states will require external labour

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to be used in the development of infrastructure. However, when local labour is available, it should be utilised. This already occurs to varying degrees, but could be formalised. Doing so would further distinguish Australia's approach from that of its competitors.

**Recommendation 4:** The AIFFP, with DFAT, should proactively identify projects in rural Pacific communities

The AIFFP cannot replicate the 'top-down' infrastructure financing that is the norm in the region. The fund should be able to engage at local government and community levels, as well as engage with other development actors and practitioners to identify community and village level projects that can be financed directly by the AIFFP. These should be identified in partnership with existing development actors, many of which have been establishing community level relationships for decades.

**Recommendation 5:** The AIFFP should be open to providing finance to non-Australian firms already established in the Pacific

There are already firms operating in the Pacific that have the capacity to meet local infrastructure needs when contracted to do so. It is important that projects do not proceed in such a way that foreign firms undermine local agency. Instead of just loaning directly to Pacific governments, or even Australian firms, the AIFFP could position itself as a financier in the region that local firms are able to approach and utilise.

**Recommendation 6:** The AIFFP & the Office of the Pacific should develop a specific focus on electricity infrastructure.

A primary focus of the AIFFP should be overcoming the Melanesian electricity deficit in PNG, the Solomon Islands, Vanuatu and (to a lesser extent) Fiji, and fostering clean energy initiatives elsewhere in the region. Part of this focus could be demonstrated through establishing a pilot program that would identify challenging off-grid renewable and diesel-displacement projects, and facilitate engagement by Australian firms with the technical capacity to complete such projects.



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Beyond AIFFP's direct focus, the Office of the Pacific within DFAT should work with Pacific states to develop a regional electricity strategy that works towards rural electrification and diesel displacement.

### **Recommendation 7: Quarantining resources for smaller projects**

A considerable portion of AIFFP funding should be quarantined for smaller (projects between \$100,000 and \$10,000,000). The disparate nature of population bases across the Pacific means that much of the populations are living in small communities which often require smaller investments. Quarantining resources for smaller projects will help ensure the bulk of the AIFFP funding is not usurped by major projects in the largest states, at the expense of a more widespread distribution of resources.

These projects could include creative models of energy delivery, such as pay-as-you-go systems guaranteed by the AIFFP. Decentralised solar energy solutions often require high up-front costs to get projects off the ground. Accordingly, pay-as-you-go models have emerged as a common method for financing solar and renewable energy projects across the world, including in the Pacific. Australia, however, is not heavily involved in such projects, nor has the Australian government offered finance for projects of this nature to this date.

### **Recommendation 8: The AIFFP must actively pursue Australian industry engagement.**

For businesses seeking to demonstrate the efficacy of their technology, there is no greater stage than the Pacific Islands. The AIFFP must adopt a highly proactive outreach campaign, identifying and liaising with Australian industry to facilitate links between Australian firms and Pacific communities.

### **Recommendation 9: Creating an AIFFP Approved Project Market Place**

Working with Pacific states, Canberra should develop and maintain a 'project marketplace' focusing on smaller projects the AIFFP is able to finance. While it is true that a proliferation of smaller projects requires more oversight and management, the reality is that much of the Pacific requires such local investment. Where possible, the AIFFP can collaborate with existing development programs and apparatus that are already operation in communities to help identify projects.

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**Recommendation 10:** DFAT should open a dialogue with Australia’s institutional investors to identify pathways to injecting more institutional capital into the Pacific.

Mobilising just a small portion of the capital held by Australia’s institutional investors could offer considerable benefits to Pacific Island nations. The superannuation industry alone currently manages more than AU\$2 trillion in assets, with its growth forecasted to reach \$9.5 trillion by mid-century.

**Recommendation 11:** The Australian Government could explore expanding the Clean Energy Finance Corporation mandate to permit investment in clean energy projects within the region, where Australian firms are involved.

Australia’s Clean Energy Finance Corporation (CEFC) was formed in 2012 with the mandate to ‘facilitate increased flows into the clean energy sector’<sup>46</sup>. In that time, the CEFC has facilitated ‘more than \$6.6 billion’ of investment into the clean energy economy, ‘to projects with a total value of \$19 billion’<sup>47</sup>. The Government could consider granting the CEFC a targeted international mandate that permits it to finance clean energy projects in the Pacific.

**Recommendation 12:** The Australian Government should dispatch senior representatives to the Pacific Power Association’s conference in Cook Islands in July 2019<sup>48</sup>.

The Pacific Power Association is a regional peak-body representing most of the power companies operating in the Pacific. Dispatching senior Australian public servants to its annual conference on 1-5 July, 2019 could have both symbolic and practical outcomes, demonstrating a re-elected or newly elected Australian Government’s commitment to energy policy in the Pacific, while offering an opportunity to engage key personnel in Pacific energy delivery. The newly appointed Chief Investment Officer of the AIFFP should be considered for such an assignment. Representatives from Australia’s renewable energy sector could also be invited in delegations for future conferences.

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## Conclusion

Australia is well placed to remain the indispensable partner to the Pacific.

But this position shouldn't be taken for granted. As the needs of the region grow, so too should Australia's capacity to take on its biggest challenges.

The Pacific Step Up – the overt renewal of Australia's approach to the Pacific that started under the Morrison Government in 2018 - provides a unique opportunity to reimagine Australia's initiatives, and create new institutions that will ensure Australia remains the partner of choice to the Pacific for generations to come.

Policymakers should aspire for the AIFFP to be such an institution.

Australia's commitment to infrastructure investment in the Pacific is vital – but the current approach is unlikely to achieve lasting changes that will benefit both Pacific communities and Australian interests beyond the immediate future.

While there are many infrastructure shortfalls in the Pacific, Australia should be willing to take on the toughest assignments. And there are few greater missions than overcoming the Pacific's electricity challenge.

It is not morally permissible for millions of Australia's closest neighbours to be living in an abject poverty that is exacerbated by the lack of electricity.

Nor is it economically sustainable to have much of the Pacific dependent on expensive, imported diesel-fuelled electricity generation to power their homes and businesses.

Overcoming these challenges requires leadership and imagination; experimentation and collaboration. It also requires the evolution of new institutions that mobilise both Government resources and the technical capacity of private sector actors, especially renewable energy firms in Australia.

The Pacific Step Up can be a game-changer, and the AIFFP a key vehicle through which ambitious change can be achieved. This report puts forward ideas that will help this vision be realised.

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# End Notes

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<sup>14</sup> Author observation made during conversations with development sector in Honiara, Solomon Islands in April, 2019. Members of a major multilateral agency described having very minimal consultation with Australia's mission in Honiara over the nature of the AIFFP and how it will work in concert with existing programs in Solomon Islands.

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