Project Status: This paper provides a detailed overview and business case of the financing proposal as at the time it was received and endorsed by the AIFFP Board. Some aspects of the proposal may have changed following subsequent negotiations or during implementation.

Note: Sensitive and confidential information has been removed to enable publication

Australian Government
Department of Foreign Affairs and Trade

Australian Infrastructure Financing Facility for the Pacific

East Micronesia Cable Project

Business Case
Considered by the AIFFP Board on 7 December 2021

Key Issues and Recommendations

AIFFP (alongside the United States and Japan) proposes to provide a combined grant package to the Federated States of Micronesia (FSM), Kiribati and Nauru to deliver the East Micronesia Cable Project (EMC, the Project) at an estimated total project cost of up to **USD80 million**. The Project will: (i) deliver a 2,070km trunk cable from Tarawa (Kiribati) to Pohnpei (FSM); and (iii) deliver spurs off the trunk to establish new connections in Nauru and Kosrae (FSM); to (iii) enhance internet accessibility by providing affordable, quality, secure and reliable connectivity to the three EMC countries.

Key Issues

(i) **The Project meets the priorities and strategic interests of Australia and the three EMC Governments.** EMC countries are some of the last Pacific countries without internet connectivity via a submarine cable.

(ii) **Australia will provide majority funding of the Project, between USD33.5 to USD45 million, depending on final co-funder commitments.** Japan and the United States (US) have committed to co-fund the Project. Disbursement restrictions for Japan (bilateral grants only) and the US (FSM components only) will require close management to ensure full commitments are realised. While the balance of total project costs identified for Australian funding is approximately USD33.5 million, there is an expectation that Australia – as project lead – will retain flexibility to fill any funding gaps, up to a maximum of USD45 million.

(iii) **Funding is proposed on a 100 per cent grant basis.**

(iv) **Unresolved legal and regulatory issues between FSM's telecommunications providers threatens to fragment the EMC consortium**. Nauru and Kiribati remain concerned to ensure resolution of ongoing FSM legal issues, to confirm at-cost access to capacity on the HANTRU-1 cable, the ultimate provider of capacity to the proposed EMC trunk cable.

Key Risks

Risk	Mitigation
Lack of timely or fulsome resolution of existing legal issues between FSM's telecommunications providers results in increased access costs for Nauru and Kiribati, or withdrawal of one or more EMC countries from the consortium.	- AIFFP is continuing targeted advocacy and working closely with Japan and the US to coordinate diplomatic engagement with the FSM Government to encourage prompt resolution of legal issues between FSM telecommunication providers. - The cable tender process can progress in parallel to legal consideration, to minimise potential time delays.
Co-donors fail to effectively coordinate complex co-funding arrangements, leading to implementation delays and criticism that donors cannot deliver timely infrastructure projects.	- AIFFP, Japan and the US meet frequently to discuss financing arrangements and have established a technical implementation working group. This group will develop a joint project management plan to establish agreed governance structures, financing, procurement, monitoring and reporting arrangements. - However, complex multi-donor funding and implementation requirements means coordination risks will remain throughout project delivery and require dedicated resources to manage.

AIFFP's share of project costs increases due to escalated supplier costs and/or funding partner disbursement restrictions.	- AIFFP is leading development of a project Financing Framework to solidify partner funding commitments and disbursement mechanisms.

We recommend that the Board endorses:

(i) AIFFP grants of up to USD45 million [approximately AUD58.5 million] (excluding GST) to support implementation of the EMC Project; and

(ii) AIFFP grant of up to AUD650,000 (excluding GST) for AIFFP to fund costs associated with implementation oversight and monitoring and evaluation for the Project.

Contents

Project Overview

INVESTMENT DETAILS					
Investment Objective	To provide affordable, quality, secure and reliable internet connectivity to Kosrae (FSM), Tarawa (Kiribati) and Nauru through construction of a submarine cable system.				
Investment Benefits	The Project will: (i) Construct a 2,070km trunk cable from Tarawa to the HANTRU-1 cable Pohnpei spur. (ii) Construct two spurs off the trunk cable to Nauru and Kosrae, including new cable landing stations. (iii) Provide high speed internet connectivity for the first time to Nauru, Kosrae and Tarawa. (iv) Promote competition within the domestic telecommunications markets intended to reduce retail costs and increase the availability of internet services. (v) Facilitate increased economic and social benefits to communities by enabling e-government services, e-commerce and ICT workforce opportunities.				
Countries	Federated States of Micronesia, Kiribati and Nauru				
Geographic Location	Micronesia				
Proponent	The FSM Telecommunications Cable Corporation (FSMTCC), the BwebwerikiNET Limited (BNL) and the Nauru Fibre Cable Corporation (NFCC), state-owned telecommunications companies mandated by the respective governments to act as the 'EMC consortium'.				
Debt Sustainability	Not applicable				
IPFA Assurance	Not applicable				
FINANCIAL OVERVIEW					
Total Project Value	USD80 million (approx. AUD104 million)[1]				
Proposed AIFFP Investment	*Grant*	USD33.5-45 million (approx. AUD43.55-58.5 million)			
	Grant (M&E and oversight costs)	AUD650,000			
Co-investors	*Japan (via the Ministry of Foreign Affairs of Japan)*	Grant - TBC			
	United States (via the Department of the Treasury and the Department of the Interior)	Grant - TBC			
Proposed Execution Date	Q1 2022				
RISK ASSESSMENT					
Risk Category:	**Reputational**	**Country**	**Financial**	**Compliance**	**Implementation**
DFAT Category Risks	Moderate	Moderate	N/A	Moderate	Moderate
DFAT Risk Weighting	20%	15%	N/A	30%	20%
Overall DFAT Risk Rating	**Moderate**				

[1] 1 USD = 1.3 AUD used throughout

Project Description and Background

1. The EMC Project involves the construction of a 2,070km submarine cable from Tarawa (Kiribati) to the existing Pohnpei Spur (FSM) on the HANTRU-1 cable as well as two spur cables to new landing points in Nauru and Kosrae (FSM). See Attachment 1.

2. The Project proponent is a consortium of three state-owned telecommunications companies nominated by the respective EMC countries to undertake the Project on behalf of the governments.

3. The Project's key objective is to provide quality, secure, reliable and high-capacity broadband connectivity, making the internet more accessible to directly impacted populations (about 120,000 people), and enabling a range of economic and social benefits.

4. For the FSM, the EMC would enable Kosrae state (the last of FSM's four states without a cable connection) to shift from an increasingly expensive satellite connection to a more reliable and effective fibre optic connection. For Nauru and Tarawa, the EMC would provide connectivity via fibre optic (as opposed to existing satellite connections) for the first time. Delivering the cable as a regional initiative, compared to national cable investments, will realise significant time and cost savings.

5. Finalisation of the investment is considered urgent. Noting the long lead time to procure and construct a submarine cable, it is anticipated that the cable would be ready for service by Q4 2025.

6. Total project cost is estimated at USD80 million.

Strategic Assessment

7. While the Indo-Pacific has some of the world's most advanced digital economies, it is also home to countries whose digital development is still in early stages.

8. Connectivity remains a barrier to change with a 33 per cent average internet usage rate in the Pacific.2 The delivery of current and next generation telecommunications infrastructure that is stable and secure provides significant economic and social dividends for the Pacific region.

9. **The proposed project is located in one or more countries in the Pacific Islands Forum region.** Kosrae, Nauru and Tarawa are within the AIFFP's geographic mandate and some of the last Pacific locations to be connected to the internet via submarine cables.

10. **The proposed project demonstrates a broad public benefit and/or transformative effect to the economic development of host countries.** Delivery of the EMC system will contribute to a range of social and economic benefits for the EMC countries, including related to e-government services, community engagement, education, employment and health opportunities. Details are set out in *Section 4 – Investment Impact*.

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[2] "Individuals using the Internet (% of population) - Pacific Island small states", The World Bank, accessed 15 November 2021

11. The EMC countries have taken action to enact telecommunications legislation and establish telecommunications regulators, considered essential for ensuring equitable and affordable access to broadband services.[3] This is consistent with their national development strategies and plans, which emphasise the importance of telecommunications systems to enhance development opportunities and service delivery in various sectors and target the achievement of better quality, affordable and equitable internet access.

12. **The proposed project reinforces Australia's relationships with host countries and supports a stable and prosperous region.** The Project will strengthen Australia's reputation as a partner of choice for Pacific countries considering submarine cable connectivity, building on past cable investments including the Coral Sea Cable System, the Timor-Leste South Sea Cable and the Palau Submarine Cable.

[3] "Improving Internet Connectivity for Micronesia: Report and Recommendation of the President", Asian Development Bank, accessed 15 November 2021

Financial Overview

4.1 Investment Capital Structure

13. The Project will be jointly funded by the AIFFP, Japan and the US. AIFFP will need to provide between USD33.5 – 45 million depending on confirmation of final contributions from Japan and the US.

4.2 AIFFP Financing Package

14. The Project will be 100 per cent grant funded by the AIFFP, Japan and the US. Partners will enter into separate but complementary contract arrangements with either EMC Governments or the EMC consortium members. The EMC consortium will jointly hold the contract with one submarine cable supplier.

15. AIFFP will fund a Project Coordination Unit (PCU), the Kiribati spur and contribute to the main trunk cable. AIFFP grant funds will be disbursed to the PCU via a direct contract with the successful tenderer for PCU services, procured from the AIFFP Panel. For capital expenditure, AIFFP will establish separate grant agreements with EMC consortium members, which will include a direct disbursement method, whereby payments are made directly to the submarine cable supplier following the EMC consortium's validation and DFAT's acceptance of invoices for work completed.

16. Japan has indicated their intent to provide up to one third of the total costs. Japan has indicated interest in funding cable landing stations and associated equipment and technical assistance in all countries, as well as the Nauru cable spur and branching unit. Funding will be drawn from the Ministry of Foreign Affairs and the Japan International Cooperation Agency.

17. The US has agreed to fund costs associated with FSM components of the Project as well as funding of up to USD1.5 million from the United States Agency for International Development (for technical assistance).

18. Provisions for operations and maintenance of the EMC asset are detailed in the Construction and Maintenance Agreement (C&MA) established between the three EMC consortium parties, signed on 15 April 2019. The C&MA sets out mutual undertakings to procure, construct, own, operate, use, maintain and decommission the EMC system as an unincorporated joint venture.

Investment Impact

19. It is intended that once the network is ready-for-service, the resulting higher capacity, speed and reliability will facilitate improved socio-economic status for the impacted population by lowering the ICT cost to businesses and individuals and increasing the flow of information and access to services.

20. Like many Pacific Island economies, FSM, Kiribati and Nauru have remote geographies and dispersed populations, lack economies of scale, face high transaction costs and have limited institutional capacity. Their long-term viability hinges on better domestic and international economic integration. Improved connectivity with access to international markets, based on lower communication costs, will contribute to national economic development, to regional coordination and to these countries' integration in the Pacific and internationally.

21. Submarine fibre optic cable offers improved connectivity, lowers transaction costs for businesses, government, and households, creates new economic opportunities, and increases options for service delivery. Improved affordability, reliability, speed and quality of internet access can boost regional trade, support formation of a market for digital products and services and increase the overall efficiency, transparency, and accountability of government services delivery through digitisation.

22. While internet access is currently available in the countries through satellite connectivity, the capacity, speed and reliability fall short of countries' needs. Satellite services experience latency issues and are susceptible to compromised service during inclement weather. Satellite is priced significantly higher than that expected with a cable.

23. Economic assessments conducted by the WB and ADB in 2016 referenced the existing wholesale internet prices for the three countries. In FSM, the wholesale internet price was USD1,800 (per Mbps/mth). In Kiribati, the price was USD700. Price data was not available for Nauru, however ADB indicated that the affordability index for broadband was 23.3% of the gross national income (based on the average price of a 1GB broadband plan), compared with 4.9% in Australia. Bandwidth capacity from satellites is also limited compared to a submarine cable. In 2016, the WB noted that the bandwidth for FSM was 38 Mbps; for Kiribati it was 150; and ADB noted that Nauru's bandwidth was 360[4]. Social and economic benefits are expected for the impacted populations, as outlined further in Sections 5.1 – 5.4 below.

[4] "Sector Assessment (Summary): Information and Communication Technology", Asian Development Bank, accessed 15 November 2021

6.1 Improved Local Labour and Employment

24. Design, manufacture and installation of submarine cable network marine elements is a specialist area performed by a limited number of suppliers, providing minimal opportunities for local employment to be engaged on the largest component of the Project. The terrestrial works and cable landing station components provide opportunities for inclusion of local construction-related jobs, including the use of locally based sub-contractors and locally hired workers. The potential for upskilling of respective national workforce/s will be explored to maintain and operate the asset post-construction.

25. Enhanced connectivity facilitates various flow-on local labour and employment benefits through a range of flow-on impacts, including but not limited to, improved access to information about markets, prices, and consumers; new market and cross-border trade opportunities; and digital entrepreneurship, with specific opportunities for women. [5]

6.2 Climate change and disaster resilience

26. The marine elements of a submarine cable network, by nature of being predominantly buried in the seabed, are inherently resilient against service disruptions from the impacts of cyclones and other adverse weather events when compared to satellites.

27. Once in operation, the cable can assist governments with disaster and climate change preparedness by facilitating the deployment of disaster risk monitoring tools and applications that require large volumes of data transmission, which can be costly and slow via satellite. Enhanced connectivity also provides additional options for early warning systems and post-disaster communications, for example live-streaming discovery of disaster impacts to enable faster crisis identification and response.[6]

28. Climate change impacts of the Project relate primarily to the cable vessel and associated small machinery, which burn fossil fuels and contribute to CO^2 in the atmosphere. This cannot be avoided; however international vessel emission standards requirements reduce emissions and pollutants. Once the construction phase of the project is completed, minimal emissions are foreseen.

29. AIFFP will engage Australian Pacific Climate Partnership to review project engineering design and construction aspects, to identify any additional mitigation and adaptation opportunities beyond what is already required under relevant design standards to improve climate resiliency.

6.3 Gender equality, disability and social inclusion

30. Enabling people to better connect with friends and family online has a positive impact at the community level. It is particularly beneficial to those who may be considered vulnerable due to disabilities, people isolated from the broader community due to unemployment, parental roles or age and people living in remote island communities.

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[5] "Kiribati – Fourth Phase of the Pacific Regional Connectivity Program Project", World Bank, accessed 15 November 2021

[6] "Micronesia – Second Phase of Pacific Regional Connectivity Program Project: additional financing", World Bank, accessed 15 November 2021

31. It is estimated that worldwide only 48 per cent of women use the internet, compared to 55 per cent of men. Facilitating increased internet access for women and girls can empower them through new opportunities, including starting new businesses; identifying new markets to sell goods; finding better-paid jobs; accessing education, health and financial services; improving information exchange; as well as enhancing public participation.[7]

32. However, women and girls are disproportionately at risk of adverse impacts of internet connectivity.[8] Persistent inequalities in labour force participation, health and education, participation in leadership roles, as well as gender-based violence (GBV), pose risks to the ability of women to take full advantage of digital services. In consultations, concerns were raised with respect to possible impacts, including potential for an increase in GBV, cyber bullying and gender-based discrimination.

33. AIFFP is exploring opportunities to address gender equality and social inclusion in the EMC countries and will identify gender activities in a Gender Action Plan that complement ongoing work by the WB, DFAT and other development partners in these countries. For example, in FSM the WB is working to strengthen the institutional capacity of the Gender Development Office to carry out activities to increase participation in the digital economy on a gender-informed basis, including policy development, research, citizen engagement and outreach activities relating to digital literacy and digital entrepreneurship.

Environmental, Social and Governance

8.1 Environmental and Social Safeguards

34. Safeguards instruments for the EMC system assessing residual environmental and safeguards risks to be **Low**/Category B. Potential environmental impacts arising from design, construction, operation and maintenance of the project will be minor, localised and acceptable provided that the mitigation measures set out in the Environmental and Social Management Plan (ESMP) are implemented properly.

35. The PCU will include an environmental monitoring resource, responsible for supporting the EMC consortium to manage and comply with the Project's ESMP.

Procurement Approach

36. The primary construction contracts for the EMC system include marine, terrestrial works in each country and cable landing stations.

37. The EMC consortium, advised by technical project management resources, will be responsible for procuring and contracting the marine contractor. The remaining contracts for terrestrial works and the cable landing stations are subject to discussion with Japan as the primary funder for those Project components.

[7] "Bridging the gender divide" ITU, accessed 15 November 2021
[8] "I'd blush if I could: closing gender divides in digital skills through education", UNESCO, accessed 15 November 2021

38. It is intended that the existing contractors for the core roles of administrative project manager and technical project manager will be retained. The contractors have significant existing knowledge and expertise of the Project context and established, positive working relationships with key stakeholders. The contractors will either be incorporated into the PCU or contracted by the EMC Consortium partners with AIFFP funding support. AIFFP assesses that direct sourcing these roles, combined with a Request for Bid to the AIFFP Panel for other PCU functions, aligns to DFAT's value for money principles.

Implementation

39. The EMC consortium is the Project proponent. Due to their limited institutional capacity for procurement and management of large cable projects, an experienced PCU will be contracted by AIFFP to support the EMC consortium with selection, procurement and implementation of all Project components. Core functions of the PCU will include primary engagement with the EMC consortium; administrative and technical project management; finance and donor relations; environmental and safeguards monitoring; works oversight; monitoring and evaluation; legal and regulatory advice; and EMC consortium operational support.

40. A Project Management Plan (PMP) will be agreed between funding parties, and will set out the project coordination, governance, procurement and financial management, monitoring and reporting, and stakeholder communication arrangements. AIFFP will maintain oversight of the Project in accordance with the Monitoring and Evaluation (M&E) plan, including regular progress reporting from the PCU.

Key Risks

41. The AIFFP has assessed the investment to have an overall **Moderate** risk rating.

42. **Lack of resolution of existing complex FSM legal issues** causing fragmentation of the EMC consortium remains a key country risk.

Monitoring & Evaluation

43. The Project directly contributes to intermediate outcomes IO1 – *AIFFP delivering quality infrastructure that helps meet the demands and priorities of Pacific countries* and IO4 – *AIFFP investments contribute to the delivery of measurable benefits for Pacific Island communities* set out in the AIFFP facility-level Monitoring, Evaluation and Learning Plan. The program logic is at Figure 2.

Figure 1 – Program Logic

High Level Goals	**Economic and social benefits for Kosrae (FSM), Tarawa (Kiribati) and Nauru communities through increased capacity and reliability of internet connectivity**	
Investment Objective (Direct outcomes of AIFFP investment)	**Provision of high-speed internet connectivity through delivery of submarine fibre optic cable to Nauru, Tarawa (Kiribati) and Kosrae (FSM)**	**Telecommunications sectors in FSM, Kiribati and Nauru are more competitive, enabling more affordable internet services for consumers**

Outputs of AIFFP Investment	2,070 km repeatered main trunk cable constructed from Tarawa (Kiribati) to the existing Pohnpei Spur (FSM)	Two spur cables constructed to Nauru and Kosrae (FSM)	Cable landing stations built in Pohnpei (TBC), Kosrae (FSM), Tarawa (Kiribati) and Nauru

44. The Project M&E Plan is currently under development and discussions are ongoing with co-funders about a coordinated M&E approach. It will remain in effect until one year post ready-for-service of the EMC, with the exception of the independent evaluation which will be commissioned within three years of construction being completed. Monitoring mechanisms include regular reporting, meetings with project stakeholders and regular field visits by AIFFP, subject to travel restrictions.

Key Project Milestones

KEY MILESTONES	
7 December 2021	AIFFP Board Date
January 2022	Ministerial Approval
Q1 2022	Establish contracts for the PCU
Q2 2022	Resolution of FSM legal issues
Q2 2022	Cable suppliers tender process open for bids
Q3 2022	Cable contractor selected by EMC consortium
Q3 2022	Cable contractor negotiations
Q4 2022	Signing ceremony and project commencement announcement
Q4 2022	Cable construction commences
Q4 2025	Cable ready for service

Attachments

Attachment 1 – Figure of Proposed EMC Route

Attachment 1

Proposed EMC route in relation to the existing HANTRU-1 cable system