



Government of the Cook Islands

Cook Islands

Utilities Regulation Policy 2021: Electricity, Water & Sewerage Services



**Consultation
Draft**
February 2021

Prepared by the Economic Planning Division, Ministry of Finance and Economic Management, in collaboration with the Pacific Private Sector Development Initiative, a technical assistance project of the Asian Development Bank.

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Abbreviations and acronyms

ADB	Asian Development Bank
CIDWS	Cook Islands Drinking Water Standards
CIIC	Cook Islands Investment Corporation
Authority	Competition and Regulatory Authority
IPP	Independent Power Producer
MFEM	Ministry of Finance and Economic Management
MTVKTV	Mei Te Vai Ki Te Vai Project
NSDP	National Sustainable Development Plan
PSDI	Pacific Private Sector Development Initiative
TAU	Te Aponga Uira
TMO	Te Marae Ora (Ministry of Health)
TMUA	Te Mana Uira O Araura
Te Mato Vai	TMV Project
TTV Authority	To Tatou Vai Authority
TTV Bill	To Tatou Vai Authority Bill 2020
TTV Limited	To Tatou Vai Limited
Utilities Regulation Act	Proposed <i>Utilities Regulation (Electricity, Water and Sewerage Services) Act 2021</i>

Foreword

Kia Orana,

High quality and efficient economic utility service infrastructure play a vital role in supporting a competitive and growing economy by providing services on which all businesses and citizens depend.

The Government is also keen to ensure the sustainability of the significant levels of investment being made and planned in renewable electricity, water network and sewerage utility infrastructure.

Electricity and water utility services in the Cook Islands are provided by Government-owned monopoly service providers. As monopolies, these service providers are not subject to normal competitive forces, nor are they subject at present to formal independent economic regulation.

Having recently established an independent economic regulator for the telecommunications industry – the Competition and Regulatory Authority, we are now in a favourable position to bring regulation of the electricity and water & sewerage sectors under one roof, together with regulation of telecommunications services.

The primary objective of this draft policy is to ensure that electricity and water & sewerage public utility services are provided efficiently, safely and reliably for the long-term benefit of end users by establishing a regulatory framework that:

- is transparent, accountable, predictable and coherent;



- promotes consumer welfare;
- creates incentives and opportunities for efficient investment in these industries; and
- ensures the delivery of high quality, safe, sustainable and reliable infrastructure.

I invite all stakeholders to engage in the public consultation on this draft policy in the interests of achieving our common goals.

Kia Manuia,

Hon. Mark Brown
Prime Minister and Minister of Finance

Document structure

This document is organised in five parts:

- [Part I: Policy Objectives and Rationale](#) describes the current framework for regulation of electricity and water & sewerage infrastructure-based utilities in the Cook Islands; presents the Government's reasons – the policy need – for reforming regulation; and sets out the Government's objectives in this regard that underpin this Draft Policy.
- [Part II: Competition and Regulatory Authority](#) outlines the form and role of the Competition and Regulatory Authority, which was established in 2019 under Stage 1 of the Government's multi-sector regulator plan. The Authority has commenced operating, initially with sole responsibility for regulating the telecommunications industry.
- [Part III: Utilities Regulation Framework](#) summarises the Government's proposed legislative arrangements for the future regulation by the Competition and Regulatory Authority of electricity and water & sewerage utility provision in the Cook Islands.
- [Part IV: Transitional Arrangements](#) sets out the measures the Government proposes in order to ensure an orderly transition from the current regulatory arrangements to the new framework described in **Part III**.
- [Part V: Consultation Process](#) summarises the steps proposed by Government for consultation on this Draft Policy and for development of legislation to give effect to it.

Executive summary

Introduction

This *Cook Islands Utilities Regulation Policy 2020: Electricity, Water & Sewerage Services Consultation Draft (Draft Policy)* sets out the Government's proposed approach to extend the responsibility of the Competition and Regulatory Authority to energy licensing and electricity technical regulation and licensing and regulating the retail charges, service standards, and customer terms offered by the providers of key electricity and water & sewerage utility infrastructure services in the Cook Islands.

The Government seeks industry and community feedback on the proposals contained in this Draft Policy.

Please provide your comments before 5:00pm on Wednesday, **10 March 2021**, by:

- **Telephone:** 29511 (please ask for 'Economic Planning Division')
- **Email:** mfem.economics@cookislands.gov.ck
- **Hard copy:** Economic Planning Division, MFEM, PO Box 120, Avarua.

Submissions will be treated as public, unless confidentiality is requested. If a party wishes to request confidential treatment of any part(s) of its submission, that party must:

- identify the part(s) of its submission in respect of which it asserts confidentiality;
- set out the reason(s) for those part(s) of the submission to be treated as confidential; and
- provide a redacted public version of the submission, for publication.

Background

This Draft Policy has been developed as part of a staged process:

- **Stage 1** establishes a telecommunications regulator.
- **Stage 2** transforms the telecommunications regulator into a multi-sector utilities regulator.
- **Stage 3** introduces a broader economic regulatory remit for the utilities regulator, beyond the three utility sectors, potentially undertaking a Commerce Commission-type role in respect of competition and consumer protection across the economy.

Stage 1 has been completed. Following extensive consultation, the Cook Islands *Telecommunications Market Competition Policy 2019*¹ was approved by Cabinet, and the legislation that gives effect to the Policy — the *Competition and Regulatory Authority Act 2019* and the *Telecommunications Act 2019* — came into force in December 2019.

This Draft Policy deals with Stage 2 of the multi-sector establishment process: transforming the Competition and Regulatory Authority – currently solely a telecommunications regulator – into a multi-sector utilities regulator by extending its remit to the electricity and water & sewerage utility sectors.

Policy rationale

Electricity and water utility services in the Cook Islands are provided by Government-owned monopoly service providers:

- Electricity – Te Aponga Uira (Rarotonga) and Te Mana Uira O Araura (Aitutaki);
- Water – To Tatou Vai Authority.

Unlike in Rarotonga and Aitutaki, electricity and water services in the Pa Enua are not set up as distinct state-owned enterprises, with clearly defined and separate management, operational and asset ownership arrangements. Essentially the provision of electricity services is one of many services provided by Island Governments, utilising a central management and funding pool.

As monopolies, these service providers are not subject to normal competitive forces, nor are they subject at present to formal independent technical or economic regulation. In the absence of competition, there is the potential for abuse of market power in terms of either pricing or customer service levels. In practice, the objective of safeguarding against the abuse of monopoly powers means that the utility must be encouraged to conduct its business as efficiently as possible. This applies irrespective of ownership arrangements, that is whether the service provider is a private company, a state-owned utility or a public-private partnership.

There are also a number of other limitations of the current regulatory arrangements in the electricity and water & sewerage utility service industries, including:

- limited independent regulatory oversight of service standards, pricing and consumer protection;
- lack of an independently administered licencing and technical qualifications regime;
- absence of any formal consumer protection regulation; and
- limited transparency around cross-subsidies that may be embodied in current pricing arrangements.

Policy response

This Draft Policy sets out – for comment by the industries and public – how the Government intends to go about extending the remit of the Competition and Regulatory Authority to include regulatory oversight of the monopoly providers of electricity and water & sewerage services and responsibility for energy licencing and electricity technical regulation.

Table 1 summarises the key features of the Competition and Regulatory Authority, already established but which is intended to take on additional responsibilities under the proposed new *Utilities Regulation (Electricity, Water and Sewerage Services) Act 2021 (Utilities Regulation Act)*. Further detail on the Authority is provided in **Part II** of this Draft Policy, below.

Table 1: Summary of Competition and Regulatory Authority Act 2019

Key element	Summary
<p>Competition and Regulatory Authority</p> <p>An independent statutory body charged with responsibility for regulation of (initially) the telecommunications industry and equipped with powers appropriate for regulation of other industries as well.</p>	<p>Established by Act of Parliament in December 2019:</p> <ul style="list-style-type: none"> • Membership – minimum of 1 and maximum of 3 members. • Powers – to investigate and prosecute (it must apply to court for imposition of penalties). • Review – decisions are subject to judicial review by the courts; ‘reviewable decisions’ may be reviewed by an expert Review Panel. • Scrutiny – required to consult the public on particular decisions, publish its decisions and report to Parliament. • Funding – by industry fees, levies and Government appropriation.

The proposed Utilities Regulation Act will establish the new framework for regulating the infrastructure-based utilities providers. Specifically, the new Act is intended to provide for:

- licensing of utilities service providers;
- consumer protection, including codes of conduct;
- services price reviews and price directions;
- technical standards for networks, equipment, and work;
- qualification of technical personnel;
- Community Service Directions to utilities;
- continuity of service, in case of public emergency; and
- access to land, and other matters.

It is anticipated that the following utilities will be initially be captured by this Draft Policy and proposed legislative framework:

- Electricity – Te Aponga Uira (Rarotonga) and Te Mana Uira O Araura (Aitutaki);
- Water – To Tatou Vai Authority.

The provision of electricity services in the Pa Enea by Island Governments will also be captured, with a focus on licensing, technical and safety aspects of the regulation, but not price reviews and determinations at this stage as these services are not currently provided through a separate utility.

The framework provides for additional utility service providers to be regulated in the future as required, or for existing utilities to be licensed to provide other services (e.g. TTV Authority adding sewerage services to its water portfolio, the licensing of independent power producers in the electricity industry, the establishment of water and/ or sewerage utilities in the Pa Enea).

The key policy elements to be given effect to in the proposed new Utilities Regulation Act are summarised in Table 2, with more detail provided in **Part III** of this Draft Policy, below.

Table 2: Utilities Regulatory Policy Summary

Key element	Policy position summary
<p>Overarching objective</p>	<p>The proposed utilities regulation framework has been developed with the objectives of:</p> <ul style="list-style-type: none"> • ensuring efficient pricing and use of, and sustainable investment in, utilities networks and services; • delivering high quality, safe, sustainable and reliable essential infrastructure; • promoting fair and transparent dealing between licensed utilities and end users; • supporting policies and initiatives that encourage the deployment and development of sustainable means of providing utilities services utilising renewable sources; and • facilitating the emergence of competition in utilities provision, where economically feasible.
<p>Licensing of utilities service providers</p> <p>The opportunity to offer utilities services for sale to the public is a privilege which should be subject to a basic level of control, to ensure public safety, fair treatment of customers, and reasonable pricing of services</p>	<p>Licensing provides the means by which the Competition and Regulatory Authority can exercise control, in the public interest, over the opportunity to offer utility services to the public.</p> <p>Authority powers to:</p> <ul style="list-style-type: none"> • determine licence terms and conditions and issue licences; • enforce utilities' compliance with licence conditions; • issue licences to additional utilities service providers, on terms to be determined by Authority; and • vary, suspend, cancel and renew licences. <p>Current providers of utility services (e.g. TAU, TMUA, TTV and Pa Enea Government electricity services) will be deemed to hold licences, until issued with licences by the Authority.</p>
<p>Consumer protection</p> <p>Utility services are an important and regular consumer purchase, for very many Cook Islanders. The Government considers that consumers' rights require protection in relation to utility services.</p>	<p>Licensees obliged to:</p> <ul style="list-style-type: none"> • establish consumer complaints-handling procedures, with the Competition and Regulatory Authority investigating unresolved complaints; • not engage in misleading or deceptive conduct; • provide services that meet minimum quality/reliability standards (that may be prescribed by the Authority) and pay compensation if in breach; • protect the privacy of users' communications, subject to lawful interception with warrant; • protect the confidentiality of users' personal information. <p>Authority will have the power to approve, or issue, a Consumer Code that is binding on service providers.</p>

Key element	Policy position summary
<p>Price review and directions</p> <p>Price reviews and directions provide transparency of providers' charges for services and ensure utilities offer services their customers want at reasonable prices.</p>	<p>Competition and Regulatory Authority to have power to:</p> <ul style="list-style-type: none"> • conduct a <u>price review</u> to assess the prudence and efficiency of the utility's proposed expenditure, its proposed levels of customer service, and its structure and levels of proposed tariffs; and • make a <u>price direction</u> determining maximum prices a utility can charge having regard to the long-term benefit of end users and having regard to a range of sub-objectives including the financial viability of the utility. <p>Licensed utilities shall be:</p> <ul style="list-style-type: none"> • required to submit a pricing submission to the Competition and Regulatory Authority setting out details of the services they plan to offer, the forecast operating and capital costs of providing the services, expected service demand and proposed service tariff structure and charges; and • required to comply with the price direction, including refraining from charging prices in excess of the approved maximum.
<p>Technical standards</p> <p>The electricity and water industries are technically complex, with the quality, reliability and security of services, and the safety and security of end users, dependent on operators' and customers' use of equipment that meets appropriate standards.</p>	<p>Competition and Regulatory Authority to have power to:</p> <ul style="list-style-type: none"> • determine technical standards for utilities networks and utilities equipment used by service providers; • determine technical standards for work performed on networks, equipment, or customer connections; • determine technical standards to protect against damage to networks/ facilities, degradation of service quality, public nuisance, environmental harm or danger to persons; • recognise and apply technical standards and rules of other countries; • prohibit the use or supply of equipment that does not comply with technical standards.
<p>Qualification of technical personnel</p> <p>Personnel employed or engaged by utilities to perform work on networks or network equipment, or who offer electrical or network services to the public, must meet minimum standards of competence in their trade.</p>	<p>Competition and Regulatory Authority to have power to:</p> <ul style="list-style-type: none"> • examine candidates for registration as electrical workers; • administer registration and maintain register of electrical workers; and • handle complaints against, and investigation and discipline of, registered electrical workers.
<p>Community service obligations</p> <p>The Government considers that all Cook Islanders should have access to a certain basic level of utilities services, within a utility service network.</p>	<p>The Minister may determine that a licensed utility is required to provide a specified service within a specified area, or to a specified group of customers.</p> <p>A licensed utility must provide a service in accordance with a Community Service Direction, and must record its costs of doing so, in accordance with guidelines issued by the Competition and Regulatory Authority.</p>

Key element	Policy position summary
	A licensed utility providing a service in accordance with a Community Service Direction shall be entitled to recover from the Government its audited costs of service provision.
<p>Public emergencies</p> <p>The Government considers it desirable to confirm access to utility services in circumstances of a ‘disaster’ or ‘emergency’ in terms of the <i>Disaster Risk Management Act 2007</i>.</p>	<p>Licensed utilities shall be required to cooperate with Emergency Management Cook Islands in making service continuation or restoration plans after a disaster or emergency.</p> <p>The Response Executive, after a state of disaster or emergency has been declared, may direct a licensed utility to provide, or refrain from providing, a service of a specified kind.</p> <p>The Government shall be liable to pay compensation to any licensed utility for the costs it incurs in complying with a direction of this kind.</p>
<p>Land access</p> <p>A licensed utility might require access to third parties’ land (including public land) for the purposes of constructing or maintaining its network.</p>	Licensed utilities to have standing as infrastructure managers under the <i>Infrastructure Act 2019</i> to gain access to land for repair, maintenance, installation, etc. of facilities.
<p>Transition arrangements</p> <p>Arrangements for an orderly transition from the current to the proposed new regulatory framework.</p>	<p>The key arrangements for transition to the new framework for utilities regulation are:</p> <ul style="list-style-type: none"> • Existing utilities and Pa Enea electricity service providers will be deemed to be licensed until issued with their licences by the Competition and Regulatory Authority. • Existing utility service tariffs and price levels will be permitted to continue until a pricing decision is made by the Authority; • Provisions that require the Authority to perform functions currently performed by the Office of the Energy Commissioner, Regulatory Services Division of Infrastructure Cook Islands, and the Cook Islands Electrical Workers Registration Board will commence on a date notified by the Minister. • Regulations, standards, codes, qualifications, etc. currently in force under the <i>Energy Act 1998</i> will continue in effect under the new framework.

PART I: Policy Need and Objectives

Part I describes the current framework for regulation of electricity and water & sewerage infrastructure-based utilities in the Cook Islands; presents the Government's reasons – the policy need – for reforming regulation; and sets out the Government's objectives in this regard that underpin this Draft Policy.

1.1 Background

1.1.1 Preamble – a multi-sector regulator for the Cook Islands

In August 2018, the Cook Islands Government Cabinet approved:

- in principle the establishment of a multi-sector utilities regulator for the telecommunications, electricity and water & sewerage utility sectors; and
- the preparation by the Ministry of Finance and Economic Management (MFEM) of a comprehensive proposal to establish a utilities regulator.

The Cabinet Submission set out a 3-stage process:

- **Stage 1** establishes a telecommunications regulator.
- **Stage 2** transforms the telecommunications regulator into a multi-sector utilities regulator.
- **Stage 3** introduces a broader economic regulatory remit for the utilities regulator, beyond the three utility sectors, potentially undertaking a Commerce Commission-type role. Under such a model, in addition to its utility-related functions, the regulator would take on economy-wide responsibility for competition, pricing and trade practices, as well as a range of other economic regulatory and licensing functions currently carried out by other agencies/boards across Government.

Stage 1 has been completed. Following extensive consultation, the [Cook Islands Telecommunications Market Competition Policy 2019](#) was approved by Cabinet, and the legislation that gives effect to the Policy — the [Competition and Regulatory Authority Act 2019](#) and the [Telecommunications Act 2019](#) — came into force in December 2019.

The first Act provides for an independent regulator. The Competition and Regulatory Authority was established on 31 March 2020 following the appointment of the inaugural Chair, Mr. Bernard Hill, with funding allocated in the 2020/21 Budget to establish the office. The *Competition and Regulatory Act 2019* was designed to accommodate the extension of the Authority's role to additional industry sectors through the promulgation of further industry-specific legislation. More detail on the Competition and Regulatory Authority and its functions is provided below, in [PART II: Competition and Regulatory Authority](#).

The *Telecommunications Act 2019* contains the new competitive framework under which the Competition and Regulatory Authority licences and regulates the provision of telecommunications services by Cook Islands providers.

This Draft Policy deals with Stage 2 of the multi-sector establishment process: transforming the Competition and Regulatory Authority – currently solely a telecommunications regulator – into a multi-sector utilities regulator by extending its remit to the electricity and water & sewerage utility service sectors.

1.1.2 What is a public utility?

A public utility is a business that provides the public with essential services such as water, electricity, natural gas, and telephone services. Public utilities may be wholly or partially publicly owned (i.e. state-owned enterprises), or privately owned, or public-private joint ventures. Public utilities often operate as monopolies in the markets they supply. Public utilities usually aim to earn a return on investment, but can be non-profit, or even subsidised by central government where full cost recovery is not feasible.

For the purposes of this Draft Policy, utility services will include the supply of an electricity, water or sewerage service to the premises of another person.

1.2 The Cook Islands electricity, water & sewerage utilities sector

1.2.1 Electricity utility services

Energy regulatory framework

The Minister for Energy currently is responsible for granting energy supply licences under section 6 of the *Energy Act 1998*.

The *Energy Amendment Act 2012* replaced the Energy Division (under the old Ministry of Works, Energy and Physical Planning, now Infrastructure Cook Islands), with the Office of the Energy Commissioner, headed by an Energy Commissioner appointed by the Minister for Energy.

Functions of the Office of the Energy Commissioner²

The principal functions of the Office of the Energy Commissioner are:

- a) Promote, plan, develop and implement policy and projects for the generation of energy from different sources, including but not limited to, diesel, gas, coal, photovoltaic, ocean, thermal, wind and biomass generation;
- b) Facilitate the co-ordination of energy policies and projects to ensure stakeholders in government, private business and community sectors assist in the development and implementation of such policies and projects;
- c) Facilitate communication between government, private business and community sectors in the development and implementation of energy policies and projects;
- d) To review any legislation that may affect the energy sector;
- e) Promote and encourage the safe and efficient use of energy;
- f) Promote and encourage measures for conservation of all forms of energy;
- g) Encourage and oversee research in the Cook Islands regarding exploitation of different sources consistent with local requirements, and resources;
- h) Ensure various government agencies comply with energy policies set down by the Minister;
- i) Ensure standards of safety, efficiency, and economy of operation in respect of generation, transmission, and distribution of energy;
- j) Monitor electricity tariffs.

The Office currently has a number of policy functions, and a price oversight role that is limited to monitoring electricity tariffs under s. 4(j). The independence of the Office is limited, being subject to policy directions from the Minister of Energy and the Energy Commissioner sitting on the TAU Board (as an ex-officio member under the *Te Aponga Uira O Tumu-Te-Varovaro Amendment (No. 2) Act 2012*). The Energy Commissioner position is currently vacant.

Duties and powers of the Energy Commissioner³

The principal duties and powers of the Energy Commissioner are:

- a) Develop and implement the energy policies of government as conveyed by the Minister;
- b) Plan for the development of energy and the supply of power in the Cook islands for such period and in such detail as the Minister may from time to time require;
- c) Regularly advise the Minister of energy developments in the Cook Islands;
- d) Issue directions and instructions to government agencies as may be required to give full effect to this Act, or any regulations made under, or to implement the energy policies of the government.
- e) Exercise those powers invested in him or her or delegated by this Act or the regulations;
- f) Ensure the functions of the Office of the Energy Commissioner are effectively carried out;
- g) Administer the provisions of this Act and regulations.

The *Energy Act 1998* provides for the establishment of an Electrical Inspectorate, which is responsible for ensuring that the electrical sector is compliant with the Act and other legal mandates in the industry. The Electrical Inspectorate, under the management of the Chief Electrical Inspector, is a core service delivery unit within the Regulatory Division of Infrastructure Cook Islands.⁴



The *Energy Act 1998* also provides for the establishment of an Electrical Workers Registration Board, responsible for certification matters, registration of electricians and issuing of practising licences.

The *Cook Islands Energy Regulations 2006* (the principal regulations), as amended by the *Energy (Amendment) Regulations 2010*, made under section 25 of the *Energy Act 1998*, set out detailed provisions for energy suppliers to apply, and the Minister to grant energy licences; for the appointment of Electrical Inspectors by the Secretary; and provisions around the supply of energy to consumers as well as a range of technical and safety requirements. It also prescribes arrangements for the registration and licencing of registered electricians and other electrical workers by the Electrical Workers Registration Board.

The [Renewable Energy Development Division](#) of the Office of the Prime Minister is the key policy body responsible for the management and monitoring of the Government's Northern and Southern Group Renewable Energy Projects. It is also responsible for the energy efficiency policy for electrical appliances and the transport sector, and facilitating renewable energy donor funding projects under Green Climate Fund and Global Environment Fund to support renewable energy for Rarotonga.

Rarotonga

[Te Aponga Uira \(TAU\)](#) is a vertically-integrated state-owned enterprise responsible for the generation, distribution and retailing of electricity on Rarotonga.

The operations of TAU are governed by the *Te Aponga Uira O Tumu-Te-Varovaro Act 1991 Act (TAU Act)* and amendments, the *Cook Islands Investment Corporation Act 1998* and amendments which establishes TAU as a commercially-operated Government Business Enterprise to provide electricity reliably and economically to the Rarotonga community.



Section 20 of the TAU Act provides that it is deemed to be TAU's energy licence under the *Energy Act 1998*.⁵ Section 17(c) of the TAU Act provides for TAU to:

[D]evelop and publish tariffs and schedules of rates, charges, and services and other rules for providing energy; tariffs and schedules shall be developed subject to guidelines determined by the Minister and conveyed to the [TAU] in writing.

In practice, in the absence of Ministerial pricing guidelines, the TAU Board determines electricity tariff structures and prices. Appendix 1 provides more information on the relationship between tariff structures and prices.

As TAU is a state-owned enterprise, the Cook Islands Investment Corporation (**CIIC**) has overall responsibility for its control and governance under the *Cook Islands Investment Corporation Act 1998*.

Aitutaki

Te Mana Uira O Araura (**TMUA**), formerly known as Aitutaki Power Supply, is a vertically-integrated state-owned enterprise responsible for the generation, distribution and retailing of electricity on Aitutaki. Electricity tariff structures and prices are determined by the TMUA Board.

TMUA does not have its own legislation, but as a state-owned enterprise falls under CIIC's governance framework.

Rest of the Pa Enua

The responsibility for managing and maintaining electricity generation, distribution and retailing in the other Pa Enua, including the setting of tariffs and collection of revenues, lies with individual Island Governments, with the central Cook Islands Government (and its donor partners) assisting with capital costs. TAU also supports Pa Enua electricity service delivery through the provision of technical advice and support to Island Governments.

Unlike in Rarotonga and Aitutaki, electricity services in the Pa Enua are not set up as distinct state-owned enterprises, with clearly defined and separate management, operational and asset ownership arrangements. Essentially the provision of electricity services is one of many services provided by Island Governments, utilising a central management and funding pool.⁶

1.2.2 Water utility services

Water regulatory framework

The principal legislation directly relevant to the provision of water utility services includes the *Rarotonga Waterworks Ordinance 1960* (as amended by the *Rarotonga Waterworks Ordinance Amendment Act 1972* and the *Rarotonga Waterworks Ordinance Amendment Act 2015*). This legislation deals with the construction and maintenance of infrastructure on Rarotonga for the public supply of water.

The *Public Health Act 2004* and *Ministry of Health Act 2013* provide for the monitoring of water quality to minimise public health risks.⁷ In relation to public utility water networks, [Te](#)

[Marae Ora](#) has oversight in a surveillance and test capacity, with a focus on compliance and overall quality assurance for the public.

There are currently no water quality standards issued under the public health legislation. The Cook Islands Drinking Water Standards (**CIDWS**) are in development, along with the Drinking Water Safety Plan: Aitutaki Water Supply.

Drinking water standards⁸

The Cook Islands Drinking Water Standards (CIDWS) are still in development. The CIDWS draws upon a broad range of public health and scientific research from other countries and jurisdictions, enabling Te Marae Ora to draft and tailor standards to suit our needs and expectations. The CIDWS will require water suppliers to develop and implement a drinking water safety plan to guide the safe management of water supplies, and prescribe maximum allowable concentrations of potentially harmful contaminants. Standards of bottled/packageged water are covered in the Food Act 1993.

The [Cook Islands Building Code 2019](#), made under the *Building Controls and Standards Act 1991*, includes water supply plumbing and sanitary plumbing and drainage standards with which all Cook Islands buildings need to be compliant. The Code is administered by Regulatory Services, Infrastructure Cook Islands.

There is no legislative provision (akin to that for sanitary professionals under the *Public Health Act 2004*) for the registration and or certification of water professionals.

Rarotonga

Under the auspices of the [Te Mato Vai Project \(TMV\)](#), the Cook Islands Government, in a tripartite agreement with the governments of New Zealand and the People's Republic of



China, is upgrading Rarotonga's reticulated water supply network. As TMV nears completion, the management of the network has been handed over to the Crown. As an interim measure, CIIC set up a wholly Government-owned subsidiary [To Tatou Vai Limited \(TTV Limited\)](#) to take on this role.

TTV Limited is responsible for the collection, treatment and transport of potable (once TMV is completed) water to the Rarotonga community. It is an essential monopoly service and critical to the public health and economic development of the Cook Islands.

TTV Limited will be transformed into a not-for-profit statutory Government-owned authority, the TTV Authority, under the [To Tatou Vai Authority Bill 2020 \(TTV Bill\)](#), which is currently before a Select Committee in the Cook Islands Parliament. The TTV Bill will dissolve TTV Limited and make amendments to the *Rarotonga Waterworks Ordinance 1960* and the *Public Health Act 2004*.

Water charges are not currently levied by TTV Limited. Clause 26 of the TTV Bill provides for the TTV Authority Board to impose tariffs, and the Explanatory Note to the Bill signals a future role for the Competition and Regulatory Authority:

Under the Bill, the board of the [TTV] Authority will have the power to impose tariffs but these will be subject to a number of restrictions. The Authority will not be allowed to make a profit, which is consistent with the principle that water is a community resource owned by the collective. While the Authority is permitted to impose tariffs it is anticipated that the imposition of tariffs will not occur until 2022 at the earliest. Meters need to be installed and this will take some time. Prior to the introduction of tariffs it is anticipated there will be an amendment to the legislation so To Tatou Vai falls within the mandate of the Competition and Regulatory Authority appointed under the Competition and Regulatory Authority Act 2019.⁹

Pa Enuā

The Island Governments, with the support of Infrastructure Cook Islands, are responsible for the provision of non-potable water services in Aitutaki and the remaining Pa Enuā, and no charges are levied on customers. There are no current plans to establish separate water utility



governance arrangements. The TTV Bill does provide for the TTV Authority to be responsible for managing the water supply on Aitutaki and reticulated sewerage system on both Rarotonga and Aitutaki, should that be considered at some future time.

1.2.3 Sewerage utility services

Sewerage regulatory framework

The principal legislation directly relevant to the utility provision of sewerage services is the *Public Health Act 2004*. The purpose of Part 6 is to ensure that waste is safely stored, collected, treated, removed, transported, disposed of, and otherwise dealt with, including emptying and disposal of septic tank waste.

The *Public Health (Sewage and Wastewater Treatment and Disposal) Regulations 2014* made under section 41 and 142, among other things:

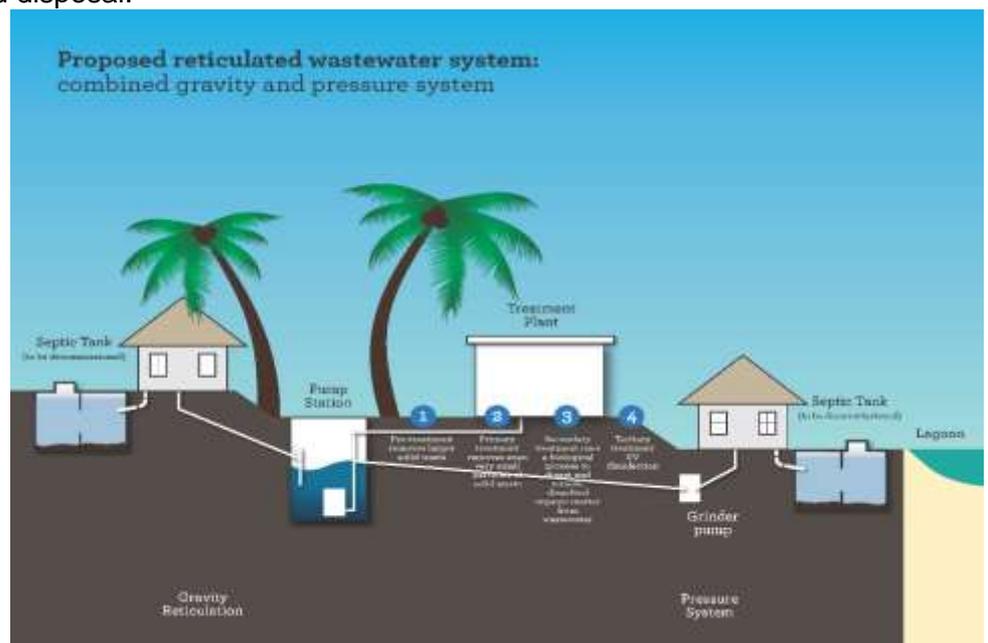
- provide for a Sewage and Sanitation Board that is responsible for enforcing the regulations;
- require proprietors of septic tanks, other sewage treatment facilities, water treatment plants, or sewage treatment plants to operate, maintain, and monitor the devices in a prescribed manner and follow prescribed construction and disposal standards; and
- provide for the Board to keep a register of sanitary professionals and technicians and sewage treatment designs.

The *Public Health Act 2004* and sewage regulations are administered by the [Community Health Services Directorate](#), Te Marae Ora (Ministry of Health).

Rarotonga

At present, no public reticulated sewerage utility service is provided on Rarotonga. There are an estimated 3,500 domestic and 80 commercial stand-alone sanitation systems that rely on on-site effluent treatment and disposal.¹⁰

The Mei Te Vai Ki Te Vai (MTVKTV) project arose from ongoing concerns about the environmental state of Muri Lagoon in the Ngatangia District of Rarotonga, with periodic outbreaks of seaweed growth and blue green algae outbreaks. Following a number of interventions, including an upgrade to on-site residential septic systems, the Cook Islands Government (with New Zealand Government



support) launched the project in 2017. The aim of the MTVKTV project is to improve the water quality of the lagoons in Rarotonga and Aitutaki. The project has a number of specific objectives, including drafting a Sanitation Master Plan for Rarotonga and the design development and environmental assessment of wastewater solutions to improve the water quality of Muri Lagoon.

Following receipt of technical advice from GHD on its three preferred wastewater solutions for the Muri Lagoon, following several years of research and investigation, the Government will proceed to the construction phase when the fiscal situation permits. This is likely to involve the construction of a centralised sewerage network for the Muri catchment that reticulates and treats sewage and disposes of sewage effluent.

Following the construction of a sewerage system for Muri, there is a strong likelihood of the TTV Authority adding the Muri sewerage system to its water service role.

Pa Enea

There are no current plans for the centralised provision of sewerage utility services for Aitutaki or the rest of the Pa Enea.

1.3 Utilities regulatory objective

High quality, safe, reliable and efficient economic utility service infrastructure plays a vital role in supporting a competitive and growing economy, by providing services on which all businesses and citizens depend. The Government is also keen to ensure the sustainability of the significant levels of investment being made and planned in the electricity (renewable energy) and water (Te Mato Vai) and sewerage (Mei Te Vai Ki Te Vai) industries.

The primary objective of this Draft Policy is to ensure that electricity and water & sewerage public utility services are provided efficiently, safely and reliably for the long-term benefit of end users by establishing a regulatory framework that:

- is transparent, accountable, predictable and coherent;
- promotes consumer welfare through access to better quality services and/or lower service prices;
- creates incentives and opportunities for efficient investment in the electricity and water & sewerage industries by ensuring the operation of well-functioning and contestable markets where appropriate or by providing a system of incentives and penalties that replicate as far as possible the outcomes of competitive markets; and
- ensures the delivery of high quality, safe, sustainable and reliable infrastructure.

1.4 Relationship with other key relevant Strategies

1.4.1 National Sustainable Development Plan 2016–20 (NSDP)

The NSDP articulates the national vision and development outcomes desired by Cook Islanders, which are to be realised through a three phase medium term (5 yearly) planning approach.

Through this Draft Policy, the extension of the Competition and Regulatory Authority's role to electricity and water & sewerage will support Cook Islands national development goals in relation to the provision of resilient infrastructure and information communication technology (NSDP Goal 5) and improving access to affordable, reliable, sustainable and modern energy (NSDP Goal 6). It will also contribute promoting a peaceful and just society and practice good governance with transparency and accountability (NSDP Goal 16).

1.4.2 Economic Development Strategy 2030

The *Cook Islands Economic Development Strategy 2030 (EDS)* identifies five objectives for the future economic development of the Cook Islands, with corresponding key focus areas and measures of progress. Many of these are engaged by the utilities services and reflected in this Draft Policy.

In relation to **EDS Objective 1: Improving equity and access for all**, this Draft Policy proposes a new mechanism – the Community Service Directive – to help ensure equitable access to utilities services for Cook Islanders in the Pa Enua. (See Section 3.7 below, for more information regarding the proposed Community Service Directive).

In relation to **EDS Objective 2: Transforming our economy**, the stated actions include 'Extend remit of Competition and Regulatory Authority' to the electricity, water and sewerage utility sectors'.¹¹ This Draft Policy will give effect to that action. The EDS states:

The Competition and Regulatory Authority will initially have a sole focus on the telecommunications industry. The Government will then extend its remit to the monopoly provision of electricity and water and sewerage services, which have natural monopoly characteristics (Action No 2.2).

Independent regulatory oversight will ensure that these monopoly utility services are provided efficiently – that is at least cost and allocated efficiently between consumers.¹²

In relation to **EDS Objective 4: Investing in our islands**, investment in essential infrastructure is a key priority. Investment has risen in recent years, however:

Despite this substantial investment program, and in line with other emerging economies, critical infrastructure constraints remain. The challenge is to identify and resolve these infrastructure constraints to ensure that the Cook Islands economy remains on track and business and industry opportunities are not lost.¹³

Regarding electricity, the EDS notes that affordable and reliable energy is a critical business input:

While the Government has made substantial progress towards its 100 per cent renewable energy target, domestic and commercial electricity costs remain relatively high in Rarotonga and there are concerns about the sustainability of the investments made in the Pa Enua.¹⁴

Electricity is expensive in the Cook Islands in comparison with other South Pacific countries. The annual electricity bill for a typical business customer was estimated at about \$8,861

which is relatively high compared to the South Pacific average of about \$6,524.¹⁵ The Government's target, therefore, is to reduce the annual electricity bill for a typical business customer towards the South Pacific average.¹⁶ The tariff and tariff review procedures proposed in this Draft Policy are intended to help achieve that target.

A safe and reliable water supply to households and businesses is essential for public health and economic development.¹⁷ While Rarotonga still does not have a reliable potable reticulated water supply, the Government and its donor partners have invested substantially in upgrading the network (through the Te Mato Vai Project) and the Government has established the TTV Authority to run that network. The EDS reaffirms the Government's objective of 'extension of the Competition and Regulatory Authority's remit to regulate the water and sanitation sector',¹⁸ to which this Draft Policy will give effect.

In relation to **EDS Objective 5: Greening our economy**, the Government notes that progress has been achieved towards its 100 percent renewable energy target. Balanced investment in manufactured, human, and natural capital is required to achieve quality growth.

The transition to a greener economy requires making investment trade-offs between short-term high growth policies that may not be sustainable over the long term, and more environmentally sustainable policies that might involve a lower rate of growth in the short term.

Investing in our natural capital—so that we use fewer resources, generate fewer emissions in meeting our demands for food production, transport, construction and housing, and energy and minimising negative environmental impacts and risks—is necessary for the quality economic growth the Strategy is seeking to promote.¹⁹

Achieving the correct investment trade-offs will involve having due regard to the effects of investment decisions on pricing for end-users, as the EDS observes:

An affordable and reliable energy supply is a critical business input. As such, the review will consider the financial impacts on Government and pricing impacts on customers of future renewable energy investment decisions.²⁰

In Rarotonga, where Te Aponga Uira sets its own prices to fully recover costs, business and industry concerns expressed in 2012 about relatively high electricity prices remain. Following the extension of the Competition and Regulatory Authority's remit to the electricity industry (see Action 2.2), the Authority will assume responsibility for determining Te Aponga Uira's tariff structures and maximum prices. This will ensure efficient prices and least cost renewable investments in the long-term interests of consumers.²¹

Similarly, in relation to water services:

With the current level of water demand and the reliance of the Rarotonga water supply system on stream flows, short periods of low rainfall put pressure on supply. This implies that any growth in demand is likely to require an expensive supply augmentation.

As part of the final stage of the Te Mato Vai project, water meters will be installed for all customer connections. As noted in Objective 4: Investing in our Islands, following the extension of the Competition and Regulatory Authority's remit to the water and sanitation sector, the Authority will undertake a water tariff review.²²

This Draft Policy outlines the Government's intended approach to empowering the Competition and Regulatory Authority to review utilities' tariffs and make price determinations. (See Section 3.4 below, for more information regarding tariffs and pricing).

1.4.3 Sanitation Master Plan

The Draft Sanitation Master Plan Cook Islands prepared under the auspices of the MTVKTV Project proposes a planning process and implementation plan for a sanitation upgrade programme for Rarotonga, and outlines a programme of infrastructure upgrades and institutional strengthening interventions, to provide a long-term sanitation planning tool for the Cook Islands.

The Draft Sanitation Master Plan proposes introducing new public sanitation systems, noting that:

The Government will need to make key policy decisions about future ownership and management responsibility for on-site assets.²³

The Draft Master Plan also highlights the role of cost recovery strategies to ensure service sustainability and the need for consumer protection through affordability consideration and service standards:

Both water supply tariffs and cost recovery strategies are necessary to ensure services provided are sustainable. Affordability will be a key consideration, as will the level of any necessary subsidies. A logical approach would be to consider a combined tariff for both water supply and sanitation services. This could be partially or wholly based on water consumption and the size or number of sanitation facilities, alongside a fixed charge for sanitation services. Charges would need to reflect the levels of private and public ownership, and the Government would need to establish appropriate service levels for consumers.²⁴

This Draft Policy, and in particular its focus on efficient pricing, will help ensure that future sewerage utility services are provided in a financially sustainable manner that protects consumers.

1.5 Identifying the need for change

While some aspects of electricity and water & sewerage utilities' operations might already be contestable, or might become so in the near future, most operations are likely to remain a monopoly activity in the Cook Islands due to their natural monopoly characteristics.

Natural monopoly is the classic case of a market failure. Train (1991) loosely defines a natural monopoly as existing 'when the costs of production are such that it is less expensive for market demand to be met with one firm than with more than one'.²⁵ In such circumstances, it is more

economically efficient (cheaper) to have only one business provide the service, because the infrastructure required to produce and deliver a product such as electricity or water is very expensive to build and maintain.

Natural monopolies arise due to economies of scale or scope. The former, which is common in the utility services space, occurs when the average cost of production decreases as output expands. (That is, the average cost curve slopes downwards, up to and perhaps beyond the overall size of the market.) Utility services in the electricity (TAU and TMUA) and water & sewerage (TTV Authority) sectors of the Rarotonga economy have natural monopoly characteristics.

These utilities, which are state-owned and fall under CIIC's governance arrangements, are subject to a measure of external control through various mandated checks and balances, including rules on selection of Board members, signoff of Statements of Corporate Intent and annual tabling of financial statements.

However, as monopolies, these service providers are not subject to normal competitive forces. In the absence of competition, there is the potential for abuse of market power in terms of either pricing or customer service levels, with welfare losses (see Appendix 2 for a more detailed discussion). In practice, the objective of safeguarding against the abuse of monopoly powers means that the utility must be encouraged to conduct its business as efficiently as possible. This applies irrespective of ownership or governance arrangements, that is whether the service provider is a private company, a state-owned utility or a public-private partnership.

While the Government does not rule out the emergence of competition within these industries, and will encourage it where possible, the Government considers that it is in the public interest to provide for regulatory oversight of utilities, including by providing for the monitoring of their charges for retail services and possible intervention to set charges, where that is found to be justified.

There are also a number of other limitations of the current regulatory arrangements in the electricity and water & sewerage utility service industries, including:

- limited independent regulatory oversight of service standards, pricing and consumer protection;
- lack of an independently administered licencing or technical qualifications regime;
- absence of any formal consumer protection regulation; and
- limited transparency around cross-subsidies that may be embodied in current pricing arrangements.

1.6 Rationale for government involvement

Where competition is not feasible, for example where economies of scale create circumstances such as natural monopolies, economic regulation aims to provide a proxy for competition, with protection of consumers' interests at its heart.²⁶ Independent regulatory oversight is a common way of ensuring that monopoly utility services are provided efficiently (that is, at least cost) and are allocated efficiently between consumers.

Independent multi-sectoral economic utility regulators are commonplace across the world, including other island jurisdictions. For example, the [State of Hawaii Public Utilities Commission](#) regulates public utility companies that provide electricity, gas, telecommunications, private water and sewage, and motor and water carrier transportation services in that State. The [Cayman Islands Utility Regulation and Competition Office](#) regulates the telecommunications, electricity and water sectors in the Caymans. Closer to home, the Samoan [Office of the Regulator](#) provides another multi-sector regulator example.

A second reason for the independent economic regulation of monopoly utilities is to provide a safeguard against the possibility of political intervention in pricing decisions. Such political intervention can involve a government setting prices well below the cost recovery level, thereby encouraging inefficiently high levels of consumption and jeopardising necessary maintenance or capital investment. As well, in the absence of independence, governments may view utilities as an easy source of revenue and encourage them to set prices above efficient levels in the hope of increasing the government's dividend but to the cost of customers. The existence of an independent regulator with price-setting powers, operating at arm's length from government, offers some protection against both of these undesirable outcomes.

While independent regulation does not preclude the provision of subsidies (e.g. to minimise price impacts on consumers when introducing prices for the first time), it will ensure that any subsidy is applied in an economically rational and explicit manner. This leads to a third reason for independent regulatory oversight, which is transparency. Shining a light on the price-setting processes of monopoly utilities, and the provision of reasonable opportunities for public consultation and public input into the price determination process, is critical to ensuring public – and government – confidence in the efficiency of the service provider.

At the time of establishing an independent telecommunications regulator to administer the *Telecommunications Act 2019*, the Government took the opportunity to anticipate a broader, multi-sector role for that agency. The Competition and Regulatory Authority was therefore designed in such a way that it would be competent to regulate multiple industries, not solely telecommunications. This has the benefits of ensuring that regulation is applied consistently across utility industries (with advantages for operators and investors) and cost effectively (with savings for end users and the Government budget).

The Cook Islands is therefore in a favourable position now to bring regulation of the electricity and water & sewerage sectors under one roof, together with regulation of telecommunications services.

1.7 Identification of alternative policy options

Three policy options have been considered in relation to the Government's objectives for the future regulation of electricity, water & sewerage infrastructure-based utilities.

1.7.1 Option 1: Status quo

The first option, maintaining the status quo, entails no change to the current regulatory framework, with a continuation of the current local monopolies under the supervision and regulation of Government agencies.

The status quo is characterised by monopoly service providers, which are subject to neither competitive forces nor independent economic regulation. The Government considers that this does not meet the Government's objectives identified in Section 1.3 due to the:

- lack of public transparency around utility expenditure decisions and price setting arrangements; and
- risk of inefficient expenditure contributing to higher prices.

For these reasons, the status quo does not meet the Government's objectives.

1.7.2 Option 2: Monopoly under independent industry-specific regulator

The second option is to subject the current monopoly utility providers to the scrutiny of an independent economic regulator that has responsibility for a single industry (i.e. an 'Electricity Authority' and a 'Water Authority'). The regulators each would aim to promote efficiency by ensuring the service provider's costs were prudent and efficient and guarding against any abuse of market power, for example by reviewing services prices and intervening if necessary.

This approach is common in utility industries such as water and sewerage, and electricity and gas distribution, which are characterised by natural monopolies.²⁷ The Australian Energy Authority regulates monopoly electricity and gas distribution service providers under this model.²⁸ Australian state-based regulators, such as the Independent Pricing and Regulatory Tribunal in New South Wales, typically regulate monopoly water utilities. Although a more 'heavy-handed' approach than relying on competition in the market, this approach is common where competition cannot realistically be expected to develop.

Independent economic regulation of a monopoly provider can never be a perfect substitute for competitive forces because of information asymmetries. In principle, a fully-informed regulator with complete authority could, by micro-managing the firm, simply order the firm to choose the competitive – or first best – outcome. However, regulators are never fully informed and have finite powers. To be effective, independent regulation of a monopoly must maximise the transparency of the regulated monopolies' terms and conditions, costs, and prices. Service providers must be subject to regular price reviews that entail detailed scrutiny of operating and capital costs to ensure prudence and efficiency.

The Government considers that establishing and maintaining several independent industry-specific regulators would be unnecessarily costly. It is also prone to result in duplication of resources and possible inconsistency of approach. The Government has therefore determined (when establishing the telecommunications industry's regulator) that the Competition and Regulatory Authority should operate as a multi-sector regulator.

1.7.3 Option 3: Monopoly under independent multi-sector regulator

A third option would be to subject the current monopoly utility providers to the scrutiny of an independent economic regulator that has responsibility for multiple industries (i.e. the Competition and Regulatory Authority). This option has the advantages identified above in respect of independence and is substantially less costly to implement than option 2.

The Government's preferred option is Option 3, involving the existing monopolies being overseen by the Competition and Regulatory Authority as an independent multi-sector regulator. This option is explored in more detail in [Part II](#) and [Part III](#), below.

1.8 Monitoring and evaluation

It is prudent to monitor any new regulatory arrangements to ensure that they have the desired effect on the behaviour of market participants and do not have any unintended consequences.

The Government intends to rely on the Competition and Regulatory Authority to undertake regular monitoring of the performance of the market and market participants. This may include key indicators such as network coverage and service quality, reliability and pricing. The monitoring report will be made publicly available to ensure transparency.

The *Competition and Regulatory Authority Act 2019* requires the Competition and Regulatory Authority to report annually to Parliament on its activities during the year, including summaries of complaints received, investigations carried out, proceedings in which the Authority is involved, outcomes achieved by the Authority, and information required under other Acts.

As the Government intends that the role of the Competition and Regulatory Authority will be expanded incrementally, rather than all at once, the Government will keep the process under review as each step proceeds, and will consider amending this Draft Policy or the legislation implementing it, if necessary.

1.9 Lead agency

This Draft Policy was compiled and developed by the Government in collaboration with its development partner the Pacific Private Sector Development Initiative (a technical assistance project of the Asian Development Bank), and key stakeholders.

The Economic Planning Division, Ministry of Finance and Economic Management (**MFEM**) will lead the implementation of the proposed Policy and the development of appropriate legislation to give effect to it with support from the Office of Prime Minister, Infrastructure Cook Islands, the Cook Islands Investment Corporation and Crown Law.

1.10 Effect

The Policy is intended to come into effect in 2021, following consultation on this Draft Policy and endorsement by Cabinet.

The Government will give effect to the new framework for utilities regulation that is proposed in this Draft Policy through a proposed new *Utilities Regulation (Electricity, Water and Sewerage Services) Act 2021 (Utilities Regulation Act)*, which is intended to be introduced to Parliament towards the end of 2021. The Bill for that Act is expected to be circulated for public consultation subsequent to consultation on this Draft Policy.

1.11 Purpose of this Draft Policy

This Draft Policy has been prepared for the purpose of consulting with key stakeholders (including utilities service providers, relevant Government agencies and with members of the public as end users of utilities services) on the proposals herein for transfer to the Competition and Regulatory Authority of responsibility for regulating electricity, water & sewerage infrastructure-based utilities providers in the Cook Islands.

The remainder of this Draft Policy describes the proposal in more detail and sets out an indicative timeline for implementation.

PART II: Competition and Regulatory Authority

Part II outlines the form and role of the Competition and Regulatory Authority, which was established in 2019 under Stage 1 of the Government's multi-sector regulator plan, initially with sole responsibility for regulating the telecommunications industry.

2.1 Introduction

The Government considered various possible forms of regulator when opening the Cook Islands telecommunications industry to competitive entry. Following extensive public consultation,²⁹ the Government determined that the telecommunications industry should be regulated by an independent statutory body, with appropriate powers and expertise to undertake regulation of that industry, and of other industries as required under Stage 2 and Stage 3 of the Government's multi-sector regulator plan.³⁰

2.2 Draft policy

2.2.1 Stage 1 telecommunications regulator

In 2019 the Government set out its policy in respect of the Competition and Regulatory Authority as follows:

The Government will establish a new regulatory authority in the Cook Islands, to be known as the Competition and Regulatory Authority (**Authority**). The Authority will have responsibility solely for the telecommunications industry, at first, but the Government will confer additional responsibilities in respect of other sectors on the Authority later. As the Cook Islands is a small economy, the Government has determined that it will be more cost-effective to establish a multi-sector regulator rather than a regulator specific to the telecommunications industry. [...]

The Government considers that, in summary, the Minister should retain policy responsibility, but an independent statutory authority should bear administrative and enforcement responsibility. [...]

The Authority will be established under its own Act of Parliament. While the Authority will be accountable to the Government, and report annually to Parliament, it will be free to administer and enforce the new *Telecommunications Act 2019* independently from Government. The Authority's empowering Act provides for the appointment of a minimum of 1 and maximum of three members, supported by a small full-time staff. The Authority will be led by the Chair, appointed as such by the Minister. The Authority will have regard to published Government policies but otherwise will not be subject to direction or control by the Minister or any other person. The Authority will have a duty to consult before making significant decisions and to publish reasons for its decisions.

The Authority will be able to cooperate with overseas agencies, where appropriate, and its functions will include:

- promoting public understanding of the policy and law for which it has responsibility;

- advising the Minister on matters for which it has responsibility;
- promoting voluntary compliance with regulation;
- enforcing compliance with regulation, where necessary; and
- investigating possible infringements of the new *Telecommunications Act 2019*.

The Authority will receive and investigate any complaints under the new Telecommunications Act 2019. The Authority will be able to prosecute infringements of the new Telecommunications Act 2019 and apply to a court for penalties and other orders but not impose penalties itself. The Authority's investigative powers will include the power to require production of documents, to require persons to attend and answer questions, and to require persons to make statutory declarations as to the truthfulness of their answers. The Authority will not be permitted to search premises or seize documents or objects unless it has a search warrant signed by a judge.

In addition to prosecuting infringements, the Authority will be able to issue warning notices and accept enforceable undertakings from operators and service providers.

The Authority will be able to carry out an inquiry into an issue affecting the telecommunications industry, on its own initiative or on request by the Minister. The Authority will report its findings to the Minister, for tabling in Parliament.

Any decision of the Authority will be subject to judicial review by the High Court, in accordance with Cook Islands common law and Part 1A of the *Judicature Act 2008*. Certain decisions of the Authority will also be reviewable by a panel of independent experts. A party to such a decision of the Authority will have a right to have the decision reviewed and reconsidered by an expert panel, the members of which will be appointed from time-to-time from a list of persons recognised as having relevant expertise in telecommunications and regulation. The review panel will determine its own procedures but will undertake the review based on the evidence that was before the Authority. The review panel will then issue a reasoned opinion which either confirms the Authority's decision or substitutes, in whole or in part, its decision in place of the Authority's.

The Authority will be funded in part by budget appropriation and in part by cost-recovery from the industries it regulates.³¹

This policy has already been given effect by the *Competition and Regulatory Authority Act 2019*, which commenced on 13 December 2019. That Act sets out the establishment arrangements, structure, functions and responsibilities of the Competition and Regulatory Authority. The Authority has now been established, its first member and inaugural Chair has been appointed, and it has commenced performing its functions in respect of the telecommunications industry.

2.2.2 Stage 2 multi-sector utilities regulator

The Government, consistent with its policy that the Competition and Regulatory Authority should operate as a multi-sector regulator under Stage 2 of its plan, now intends that the

Authority should be made responsible for regulation of the electricity and water & sewerage industries, under the regulatory framework described in **Part III**.

As the *Competition and Regulatory Authority Act 2019* was drafted to allow for extension of the Authority's responsibilities to additional industries via separate legislative instrument, the Government is not contemplating any changes to the *Competition and Regulatory Authority Act 2019* under this Draft Policy.

As a practical matter, the Competition and Regulatory Authority will be likely to need to add additional Authority members and take on additional staff to enable it to carry out the extra responsibilities that would be conferred on it under this Draft Policy and the legislation giving effect to it.

PART III: Utilities Regulation Framework

Part III summarises the Government's proposed legislative arrangements for the future regulation by the Competition and Regulatory Authority of electricity and water & sewerage utility provision in the Cook Islands.

3.1 Introduction

The proposed regulatory framework for electricity and water & sewerage utility service providers includes the following functions and powers:

- licensing of utilities service providers;
- consumer protection, including codes of conduct;
- services price reviews and price directions;
- technical standards for networks, equipment, and work;
- qualification of technical personnel;
- Community Service Directions to utilities;
- continuity of service, in case of public emergency; and
- access to land, and other matters.

It is anticipated that the following utilities will be initially be captured by this Draft Policy and proposed legislative framework:

- Electricity – Te Aponga Uira (Rarotonga) and Te Mana Uira O Araura (Aitutaki);
- Water – To Tatou Vai Authority.

The provision of electricity services in the Pa Enea by Islands Governments will also be captured, with a focus on licensing, technical and safety aspects of the regulation, and not price reviews and determinations at this stage.

The framework provides for additional utility service providers to be regulated in the future as required, or for existing utilities to be licensed to provide other services (e.g. TTV Authority adding sewerage services to its water portfolio, the licensing of independent power producers in the electricity industry, the establishment of water and/ or sewerage utilities in the Pa Enea).

Provision will also be made to exempt certain classes of utility services or providers from certain aspects of the legislative framework (e.g. to allow for exclusion of services provided by Pa Enea Island Governments from price reviews and determinations). The framework will also authorise the making of necessary regulations, under the Act.

3.2 Licensing

The business opportunity to offer utilities services to the public is a privilege over which the Government will continue to exercise control, in the public interest. The Government's aim,

however, is not to limit but rather to encourage entry by new utility service providers, where competition is feasible.

3.2.1 Introduction

The Government notes that various types of utility licences are possible, including:

- 'Individual licences', which set out the rights and obligations of the operator to whom they are issued.
- 'Unified licences', which impose a uniform set of rights and obligations on operators that provide differing kinds of services.
- 'Class licences', which provide for standard rights and obligations for all operators within the bounds of a defined class.
- Free market entry, without a licence but imposing certain statutory responsibilities on operators who elect to enter the market.

For the purposes of electricity and water & sewerage infrastructure-based utility services provision, the Government considers it unlikely there will be more than a handful of licensees in the foreseeable future. The energy supply licensing framework will be broader, and is expected, for example, to cover energy suppliers that are not established as formal utilities.

3.2.2 Draft policy

Having regard to market circumstances, it is proposed that individual licences should be issued by the Competition and Regulatory Authority to each utility service provider. With respect to the energy industry, the responsibility for issuing energy licences by the Minister under the *Energy Act 1998* will be transferred to the Competition and Regulatory Authority by the new *Utilities Regulation (Electricity, Water and Sewerage Services) Act 2021 (Utilities Regulation Act)*.

The Competition and Regulatory Authority will be empowered to issue utility service provider licences, for a fixed period, on terms and conditions appropriate to the intended services.

The Competition and Regulatory Authority may determine the terms and conditions of each licence. To the extent possible, licences will be technology neutral, so that licensees are free to choose the technology they wish to use to provide the services for which they are licensed.

The Government considers that licence terms should include requirements for the licensee to:

- publish its tariffs of charges for services offered by the licensee;
- publish terms and conditions of supply of services to retail customers, which comply with any applicable code of conduct or direction of the Competition and Regulatory Authority;
- publish, and report regularly against, service quality indicators;
- pay the licence fee or levy, if applicable;

- keep records and documents necessary to substantiate its reports;
- implement a customer complaint handling system, which complies with any applicable code of conduct or direction of the Competition and Regulatory Authority;
- establish and maintain information systems that are adequate to support customer billing and directory inquiry services;
- comply with technical standards or requirements, including service performance standards;
- provide services to unprofitable areas of the Cook Islands or to disadvantaged persons, if required to do so in accordance with a Community Service Direction;
- connect the licensee's network with another licensee's network; and
- connect the licensee's network equipment with customer equipment that meets relevant standards.

Breach of a term or condition of a utility service provider licence would be a serious matter, in respect of which the Competition and Regulatory Authority would be empowered to apply to a court for remedies or penalties.

The Competition and Regulatory Authority will have powers to suspend, vary, or revoke a licence, in specified circumstances, and the power to issue a new licence to an operator on expiry of their existing licence.

3.3 Consumer protection

Electricity services are an important, regular and essential consumer purchase, for businesses and individual Cook Islanders, as will be water & sewerage services in the future. The Government considers that consumers' rights in relation to essential utility services require particular protection.

3.3.1 Introduction

Consumer rights that are relevant in relation to the provision of utilities services such as electricity and water & sewerage include the rights to:

- complete and accurate disclosure of prices and charges for services in advance of the services being provided;
- accuracy in billing, including the ability for consumers to check their usage over a period); and
- confidentiality of customers' personal data.

3.3.2 Draft policy

The Government proposes that the new Utilities Regulation Act will provide for:

- licensees to be obliged to establish consumer complaints-handling procedures;
- the Competition and Regulatory Authority to receive and investigate consumer complaints that are not resolved by a licensee's complaints-handling procedures;

- a prohibition against any conduct by a licensee that is misleading or deceptive or likely to mislead or deceive;
- an obligation for licensees to provide services that meet certain minimum standards of quality and reliability (which may be prescribed from time to time by the Competition and Regulatory Authority) and pay compensation if they breach these standards;
- a requirement for licensees to protect the confidentiality of users' personal information;
- a power for the Competition and Regulatory Authority to determine terms and conditions of a consumer contract, if a licensee fails to submit one or submits one that fails to meet applicable requirements of the Act, the relevant licence, or the Consumer Protection Code; and
- a power for the Competition and Regulatory Authority to make a binding Consumer Protection Code, dealing with the above matters.

3.4 Price review and determination

While utilities services continue to be provided in the Cook Islands by local monopolies, the Government considers that complete transparency of charges for services (and of terms and conditions of supply to retail customers) and regulatory oversight of charges is in the best interests of end users and of sustainable investment in the sector.

3.4.1 Introduction

Giving an independent regulator the ability to conduct a price review and approve or set (determine) the prices that a monopoly utility can charge for a utility service, and set service standards, is a common approach to ensure that utilities offer the services that their customers want at reasonable prices. To this end, a review process resembles the pressures that competition provides in other markets.

In practice, a price review process involves the regulator assessing:

- the prudence and efficiency of the utility's proposed expenditure, both operating and capital, over a future period of several years (called a price path);
- the utility's proposed levels of customer service, and the trade-off with cost (and therefore price); and
- the utility's forecast service demand, and proposed structure and level of tariffs.

The assessment process generally concludes with the regulator approving (if the utility has proposed a prudent and efficient expenditure program and efficient prices) or alternatively determining the maximum (or minimum) price the utility can charge for its services. The regulator would also determine a form of regulation, which is the mechanism by which the utility is allowed to recover its revenue through approved prices from customers over the duration of the price path. This includes matters such as the form of price control, which

commonly involves a specified maximum price (price cap), a maximum amount of revenue the utility can earn (revenue cap), or a combination of the two.

The pricing and form of regulation details are usually set out in a formal 'price direction'.

Form of regulation³²

The form of regulation describes the framework that the regulator applies to determine and adjust the revenue that the regulated entity can earn and/or the prices it can charge over the course of a regulatory period. The form of regulation comprises the following key elements:

- the length of the regulatory period – lengthening the period between price investigations involves a trade-off between stronger incentives for cost efficiency, increased risk of material profits or losses and increased administrative costs
- the method of determining prudent and efficient costs (and therefore allowed revenues) – the building-block approach is commonly applied (alternatives include cost benchmarking)
- pass-through arrangements to share the risk of unexpected, uncontrollable events
- ancillary mechanisms – such as unders and overs accounts to deal with deviations between forecast and actual revenue collection, and side constraints to limit bill impacts
- the form of price control – the price cap, revenue cap or hybrid mechanism that controls the utility's prices for each year of the regulatory period.

3.4.2 Draft policy

The Government proposes that the Competition and Regulatory Authority may, on its own initiative or at the request of the Minister, commence a price review for one or more services provided by a licensed utility, for a specified future period or price path.

Once a price review is initiated, licensed utilities will be obliged to submit a pricing submission, for the price path period, to the Competition and Regulatory Authority. A pricing submission should set out details of the services the utility plans to offer, their forecast operating and capital costs of providing the services, expected service demand and their proposed service tariff structure and charges.

The Competition and Regulatory Authority will be required to review the price submission, including:

- the prudence and efficiency of the utility's proposed expenditure;
- the utility's proposed levels of customer service and forecast demand; and
- the structure and level of tariffs proposed by the utility.

Following the price review, the Competition and Regulatory Authority will be required to make a price direction, by formally approving the proposed prices or determining alternative prices, and setting out how the utility can recover revenue from customers over the period of the price path.

The Government does not intend that the new *Utility Regulation Act 2021* should specifically prescribe a particular method or formula for determining charges for utilities services. The

price control method in the price direction might take the form of either or both of the following:

- a price, a maximum price, or both a minimum and maximum price for each service;
- a maximum total amount that a licensed utility can earn from providing a service.

The price control method may include a formula for calculating the price or revenue amount or a method by which a price or revenue amount is to be calculated, or both.

The Competition and Regulatory Authority will be required have regard to the long-term benefit of end-users when making a price direction, including their interest in long-term continuity and sustainability of supply. In making a price direction, the Competition and Regulatory Authority shall also be required to have regard to:

- the need to protect end-users from abuses of monopoly power;
- the principles of ecologically sustainable development;
- the quality, reliability and safety of the relevant service(s);
- the social impacts of the determination;
- improving efficiency in the provision of services to end-users;
- the costs of providing the relevant service(s);
- achieving an appropriate rate of return on investment in the utility;
- demand management and least cost planning considerations; and
- borrowing, capital, and cash flow requirements of licensed utilities and the need to renew or increase relevant assets in the utility industry.

Utility prices will not be permitted to take effect until the utility has received the Competition and Regulatory Authority's approval or determination. Utilities will not be permitted to charge prices in excess of their approved (or determined) maximum.

Charges for services that are provided by a licensed utility, and within the scope of its licence, will no longer be subject to price control under the *Control of Prices Act 1966*.

Except for commercially sensitive information (which may be protected as confidential), a price review should be open to the public. The Competition and Regulatory Authority will be required to publish a draft price review report, call for public comment, and have regard to relevant submissions, before publishing a final report and price direction which sets out its reasons. The Minister must cause the report to be laid before Parliament.

Variation of a price direction should be possible, where:

- variation is requested by the licensed utility concerned and the Competition and Regulatory Authority is satisfied that variation is justified having regard to the applicable criteria; or

- the Competition and Regulatory Authority is satisfied that there has been a material change in the cost conditions relating to provision of the service(s); or
- the Competition and Regulatory Authority is satisfied that information on which it based a tariff direction was false or misleading in a material particular.

The Competition and Regulatory Authority will be required to publish guidelines explaining its intended approach to a price review.

Parties to a decision made by the Competition and Regulatory Authority will have rights of recourse under the *Judicature Act 1980-81* to apply for a judicial review of the decision.

3.5 Technical standards

The operation of utility networks and the safe and reliable provision of utility services depends to a great extent on the deployment of technically complex equipment. The quality, reliability and security of utility services, and the safety and security of end-users, depends on operators' and customers' use of equipment that meets appropriate standards.

3.5.1 Introduction

The Government considers that the new Utilities Regulation Act should make provision for the specification and enforcement, where necessary, of technical standards for utilities' equipment and services.

3.5.2 Draft policy

The Government proposes that the new Utilities Regulation Act should include provision for:

- determination by the Competition and Regulatory Authority of technical standards and codes to protect against damage to utilities networks or facilities, degradation of service quality, public nuisance, environmental harm, or danger to persons;
- recognition and application in the Cook Islands of technical standards and codes from other countries;
- prohibition against the use or supply of equipment that does not comply with technical standards or codes in force in the Cook Islands; and
- investigation, testing, and enforcement (including penalties for proven non-compliance) to promote compliance with technical standards.

At present, technical standards and their enforcement in the electricity industry are the responsibility of the Office of the Energy Commissioner under the *Energy Act 1998* and relevant regulations. In practice, this role is carried out by the Electrical Inspectorate of the Regulatory Services Division, Infrastructure Cook Islands.

The Government proposes that the Competition and Regulatory Authority should have responsibility for:

- developing (or adopting) standards for electrical equipment;
- investigating compliance (or non-compliance) with equipment standards;

- developing (or adopting or approving) codes of practice for electrical or water or sewerage works;
- investigating compliance (or non-compliance) with codes of practice; and
- taking appropriate enforcement action in respect of cases of non-compliance with applicable standards or codes.

The Government proposes that staff with specialist knowledge or experience in the performance of these functions will be transferred from Infrastructure Cook Islands to the Competition and Regulatory Authority, together with budget provision sufficient for their salaries and associated overhead.

The Community Health Services Directorate, Te Marae Ora is presently responsible for technical standards and their enforcement in the sewerage industry under the *Public Health Act 2004* and *Public Health (Sewage and Wastewater Treatment and Disposal) Regulations 2014*. The Government is not proposing to change these arrangements, beyond giving the Competition and Regulatory Authority the ability to adopt them, for example in licence conditions for utilities providing sewerage services.

Similarly, Government is not proposing to change the *Cook Islands Building Code 2019* or related arrangements, beyond giving the Competition and Regulatory Authority the ability to reference the Code, should that be required, in licence conditions for utilities providing water & sewerage services.

3.6 Qualification of technical personnel

For the safety of the public, the safety of workers, and the integrity and security of supply, it is essential that work on utility networks is performed by personnel who possess the necessary skills and training.

3.6.1 Introduction

Requirements for the qualification of technical personnel are designed to protect the safety of the public, the safety of workers, and the integrity and security of the supply of services.

Under the *Energy Act 1998*, the functions of the Office of the Energy Commissioner include 'Ensure standards of safety, efficiency, and economy of operation in respect of generation, transmission, and distribution of energy'.³³

A person who satisfies the Electrical Workers Registration Board 'that he or she has the necessary qualifications, skills, experience and training to be so registered under this Act' currently is entitled to be registered as an Electrician, Electrical Mechanic, Electrical Service Technician, or Line Mechanic.³⁴ A registered electrical worker must obtain a Practising Licence.³⁵ A person must not carry out electrical work unless registered³⁶ and commits an offence if he or she does so.³⁷

Section 7 of the *Public Health (Sewage and Wastewater Treatment and Disposal) Regulations 2014* provides for the Sewage and Sanitation Board to approve and register sanitary professionals and technicians. Subsection 7(2) states that:

Sanitary professionals and technicians who must be registered under these regulations include sewerage system designers, installers and servicing agents, and any other class of professional or technician prescribed by the approved standards, who meet the requirements of the approved standards.

The regulations also provide for Te Marae Ora to require registered professionals and technicians to be licensed, and to issue annual licences upon payment of a licence fee set under section 33(2) of the *Ministry of Health Act 2013*.

3.6.2 Draft policy

The Government proposes that the existing requirements in respect of registration of electrical workers and maintenance of Practising Licences should continue but should be administered by the Competition and Regulatory Authority rather than by the Electrical Workers Board and Registrar of Electrical Workers.

Similarly to the provisions under the *Telecommunications Act 2019* in respect of 'certificates of competency' for radiocommunications operators, the Competition and Regulatory Authority should be able to prescribe appropriate standards of competency, prescribe examinations, recognise equivalent overseas qualifications, and issue relevant certificates or registrations.

The Government is not proposing any changes in respect of sanitary professionals and technicians, who will continue to be regulated under the *Public Health (Sewage and Wastewater Treatment and Disposal) Regulations 2014*.

3.7 Community Service Directions

3.7.1 Introduction

Basic utilities services are an important part of daily life for most Cook Islanders. The Government considers that all Cook Islanders should have access to a certain basic level of utilities services, regardless of where they live.

3.7.2 Draft policy

The Government proposes that the new Utilities Regulation Act should include provision for the Minister to direct a licensed utility, where satisfied that such a direction is appropriate, to provide service to a particular geographic area, or to a particular group of end-users, in circumstances where a licensed utility cannot reasonably provide service on a profit-making basis. Such powers will involve:

- a power for the Minister to request that the Competition and Regulatory Authority investigate and report on whether a Community Service Direction is appropriate;
- a power for the Competition and Regulatory Authority to recommend (on its own initiative or on referral by the Minister) that the Minister make a Community Service Direction;
- a power for the Minister to issue to a licensed utility a Community Service Direction, requiring it to provide service within a specified area, or to a specified group, or on specified terms and conditions including as to price;

- an obligation for a licensed utility to provide a service in accordance with a Community Service Direction;
- a requirement that a licensed utility providing a service in accordance with a Community Service Direction must maintain prescribed records of the costs and revenues associated with that service;
- a requirement that the Government compensate a licensed utility for its net costs incurred in provision of a service pursuant to a Community Service Direction; and
- a power for the Competition and Regulatory Authority to arbitrate in any dispute between a licensed utility and the Government regarding the costs of, or compensation for, provision of a service pursuant to a Community Service Direction.

3.8 Public emergencies

The continuation, or prompt restoration, of supply of essential utility services is critical in the event of a public emergency, including a natural disaster, and for supporting recovery work in the wake of an emergency or disaster.

3.8.1 Introduction

The Government has confidence that utility service providers would endeavour to support the continuation or restoration of services in the circumstances of a public emergency or national disaster. It is nevertheless desirable for the new Utilities Regulation Act to provide for the continuation of services in circumstances of a ‘disaster’ or ‘emergency’ in terms of the *Disaster Risk Management Act 2007*.

3.8.2 Draft policy

The Government proposes that the new Utilities Regulation Act should provide that:

- a licensed utility must cooperate with Emergency Management Cook Islands in making appropriate plans for the continuation or restoration of services after a disaster or emergency;
- the Response Executive may, after a state of disaster or emergency has been declared, direct a licensed operator to provide, or refrain from providing, a service of a specified kind, or in a specified area, or to a specified location; and
- the Government shall pay compensation to any licensed operator for any costs reasonably incurred in complying with a direction of this kind.

3.9 Land access, and other matters

The construction of utility networks necessarily involves the installation of physical infrastructure on land owned or leased by third parties. To facilitate network construction and maintenance, licensees require access to third parties’ land (including public land) for the purposes of constructing or maintaining their networks, subject to appropriate safeguards.

3.9.1 Introduction

The *Infrastructure Act 2019*, which took effect from 1 July 2019, provides a common framework for 'infrastructure managers' in the Cook Islands to deal with land access matters that balances public and private interests.³⁸

3.9.2 Draft policy

The Government proposes that the new Utilities Regulation Act will provide for a licensee to be deemed an infrastructure manager for the purposes of the *Infrastructure Act 2019* and to have all the powers and duties of an infrastructure manager.

PART IV: Transitional Arrangements

Part IV of this Policy sets out the Government's intended approach to ensuring an orderly transition from the current arrangements to the new framework described in **Part III**.

4.1 Introduction

Transitional and savings arrangements will be provided for in the proposed *Utilities Regulation (Electricity, Water and Sewerage Services) Act 2021* (Utilities Regulation Act).

4.2 Draft policy

4.2.1 Commencement

The Government will require an interval of time to put in place necessary administrative arrangements, for example to implement the transfers of relevant staff from the Regulatory Division, Infrastructure Cook Islands to the Competition and Regulatory Authority; to establish public registers; and to ensure that functions currently performed by the Regulatory Division under the *Energy Act 1998* can be seamlessly transferred to the Competition and Regulatory Authority.

The commencement of the new Utilities Regulation Act, or of relevant provisions of it, will be timed to allow sufficient time for the Competition and Regulatory Authority to be equipped to perform its new functions in respect of the infrastructure-based utilities.

4.2.2 Licencing of existing utilities and existing tariff structure and prices

The new Utilities Regulation Act will include interim licencing provisions to ensure that existing electricity and water & sewerage utilities are able to operate legally from commencement of the new legislation.

Provision will be made for existing utility service tariffs and price levels to continue until a pricing decision is made by the Authority.

4.2.3 Consequential amendments and repeals

Consequential amendments to the following legislation to enable this Draft Policy are expected to include:

- *Energy Act 1998* — repeal of the *Energy Act 1998*.
- *Control of Prices Act 1966* — amend so that charges for services that are provided by a licensed utility, and within the scope of its licence, will no longer be subject to price control under the *Control of Prices Act 1966*.
- TAU Act — amend to make TAU's tariffs, rates, and charges subject to approval or determination by the Competition and Regulatory Authority.
- TTV Bill — amend to make TTV's tariffs, rates, and charges subject to approval or determination by the Competition and Regulatory Authority.

4.2.4 Savings provisions

The new Utilities Regulation Act will include provision for registrations of electrical workers to be deemed to continue and for Practising Licences that are in force to continue for their stated term.

Any regulations, and any electrical code of practice made under the *Energy Act 1998* will continue in force under the new Utilities Regulation Act, until those regulations or that code are superseded.

PART V: Consultation and Next Steps

Part V summarises the Government's proposed approach to consultation on this Draft Policy and development of legislation to give effect to it.

5.1 Consultation plan

The Government will undertake a thorough consultation process in the development of this Draft Policy and the legislation that will give effect to it.

5.1.1 Draft Policy

Consultation on this Draft Policy is planned to include:

- The public release of the Draft Policy in early 2021 on the MFEM website.³⁹
- Publication of notices in the news media, along with a media release on the MFEM website, informing the general public of the release of this Draft Policy.
- Community meetings and meetings with a range of key Government and industry stakeholders including electricity and water & sewerage utilities and the Cook Islands Chamber of Commerce.

5.1.2 Draft legislation

In light of consultation on this Draft Policy, including consideration of submissions received, MFEM will issue legislative drafting instructions for the preparation of a draft Utilities Regulation Bill 2021. Consultation on the draft Bill will include:

- The public release of the draft Bill on the MFEM website.
- Publication of notices in the news media, along with a media release on the MFEM website, informing stakeholders and the general public of the release of the draft Bill, with opportunity for industry and public comment and submissions.
- Meetings with a range of key Government and industry stakeholders.

5.2 Final steps

Following industry and public comment on the draft Bill, consideration of all relevant comments, and the drafting of such changes as may be desirable, the final Policy and draft Bill will be submitted to Cabinet for endorsement and subsequently put before Parliament before the end of the year.

Appendix 1 Tariff structures versus prices

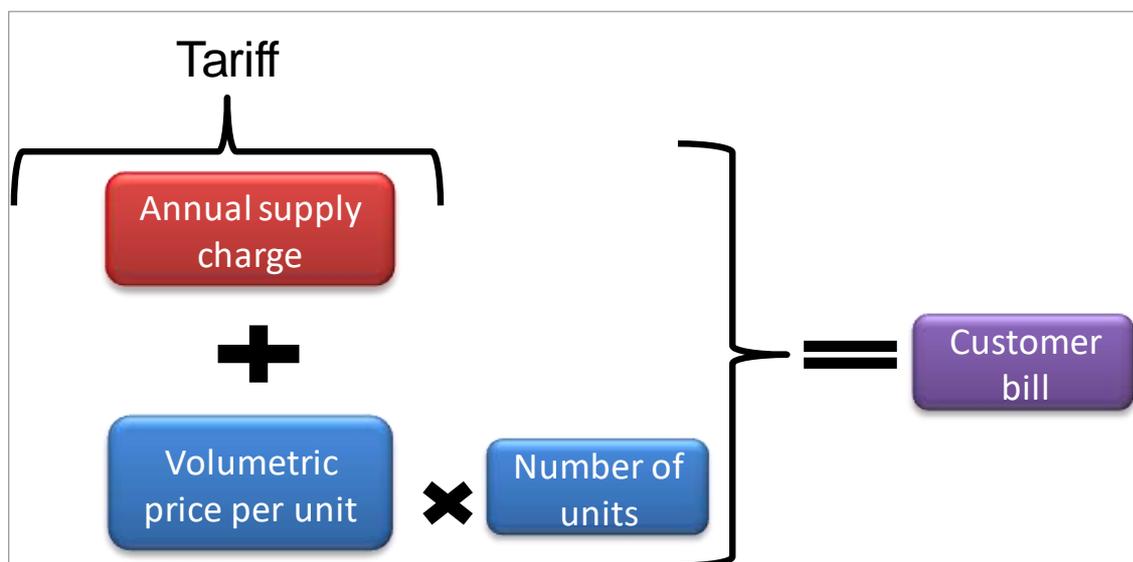
A price (or charge) is the monetary value of a good or service that a business levies on its customers for the provision of that good or service. Prices are often expressed per unit, such as x dollars per litre or y dollars per kilogram. Alternatively, a price can be expressed as a fixed amount for a particular service, such as z dollars for a year's use of sewerage services.

In contrast, a tariff is a collection of individual prices. The tariff schedule — or structure — for any particular tariff describes:

- the structure and level of the individual prices or charges; and
- any customer pricing differentiation, such as different prices that may apply to domestic and commercial customers.

The bill the consumer has to pay is determined by multiplication and addition – the number and types of products selected multiplied by their respective price.

Figure 1 Tariff versus prices



In the water and electricity industries, a tariff generally comprises a fixed annual charge and a separate volumetric price for usage of the commodity, be it water, electricity or gas. Charges that are set on a per unit basis can vary, such that the unit price increases as consumption increases (known as an inclining block) or decreases as consumption increases (declining block). The unit price can also vary with the time of day or the season. In the sewerage business, the tariff structure often comprises only a fixed charge, although a number of utilities also have a volumetric price component.

In regulated utility industries, the tariff is usually designed to recover the efficient costs of providing the service from customers. In the case of water for example, the costs primarily relate to the expenditure required to store, treat and deliver water to customers through the water network, rather than the intrinsic cost of the water itself.

Appendix 2 Social welfare maximisation & monopoly

Pareto efficiency

Social welfare is maximised at the point at which it is impossible to make some individuals better off without making some other individuals worse off. Such an outcome is termed Pareto-optimal or Pareto-efficient.

Pareto optimality addresses the organisation of production and the allocation of resulting commodities among consumers. The 'organisation of production' part deals with what is commonly termed productive or technical efficiency and is concerned with the allocation of factors of production to ensure goods and services are produced at the lowest possible resource cost. The 'allocation of resulting commodities among consumers' part deals with what is often called 'allocative efficiency' and is concerned with the efficient allocation of resources and commodities between competing uses. A Pareto optimal outcome is one where the commodities, or services in this particular case, are produced at least cost and allocated efficiently between consumers.

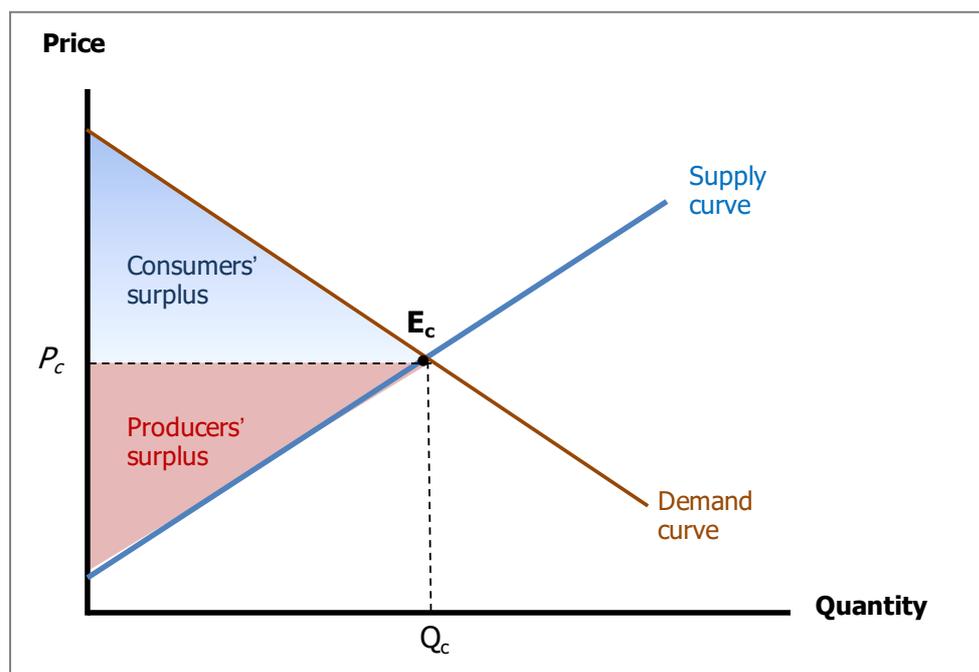
Perfect competition

The first fundamental theorem of welfare economics states that when markets are complete, any competitive equilibrium is necessarily Pareto optimal. This theorem is a demonstration of Adam Smith's 'invisible hand' of the market, which equates private goals with optimum social outcomes. The first theorem establishes the perfectly competitive case as a benchmark for considering optimal outcomes in market economies, and, perhaps more importantly, for thinking about optimal outcomes in cases of market failure, such as the natural monopoly example. As noted by Mas-Colell et al. (1995):

In particular, any inefficiencies that arise in a market economy, and hence any role for a Pareto-improving intervention, must be traceable to a violation of at least one of the assumptions of this theorem.⁴⁰

While, in principle, the analysis of Pareto optimal outcomes requires general equilibrium analysis—that is, simultaneous consideration of the whole economy—partial equilibrium analysis allows us to consider equilibrium outcomes in a particular market in isolation from all other markets.⁴¹ It also allows us to apply the concept of Marshallian surplus, which conveniently lends itself to graphic representation, as shown by the competitive equilibrium demonstrated in Figure A2.1.⁴²

Figure A2.1 The socially optimal competitive equilibrium



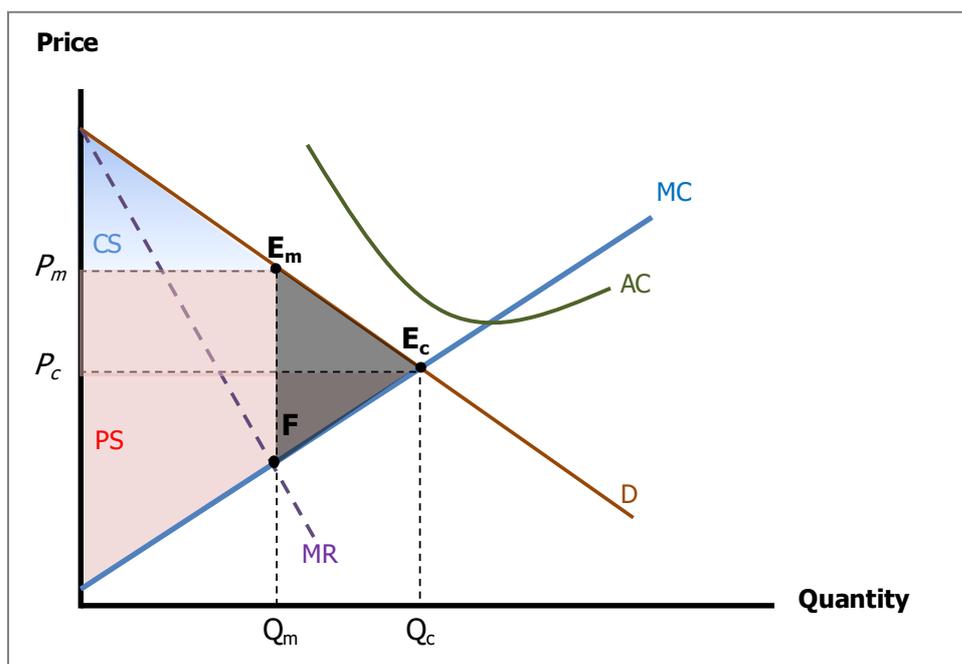
Consumers' surplus, the blue-shaded area under the demand curve and above the market price line P_c , is the difference between the total value consumers place on the all the units consumed of some good and the total amount they are required to pay for the good.⁴³ Producers' surplus, the pink-shaded area under the price line and above the supply curve, is the difference between the total value of all the units sold of some good at the market price and the total value at the minimum price at which the seller would be prepared to sell the good.⁴⁴ Marshallian aggregate surplus is the sum of the consumers' and producers' surplus.

In the perfectly competitive case, firms equate marginal cost to price in order to maximise their profits, which produces a market outcome where the demand and supply curves intersect, the point E_c in Figure A2.1. The Marshallian aggregate surplus is maximised at the same point. Recalling that the socially optimal outcome is the one in which Marshallian aggregate surplus is maximised, *ipso facto*, the economically efficient outcome achieved by setting price equal to marginal cost is the one which maximises social welfare.⁴⁵

Deadweight loss under monopoly

The monopoly situation, which requires one firm to achieve least-cost production and is characterised by market power, violates the first fundamental welfare theorem's assumption that all agents act as price takers.⁴⁶ As such, the market equilibrium will not be Pareto optimal with a resulting welfare loss. This can be demonstrated graphically by recourse once again to Marshallian aggregate surplus, as shown in Figure A2.2.

Figure A2.2 Deadweight welfare loss under monopoly



Assume we are dealing with a natural monopoly, with a declining average cost curve with a minimum scale beyond market demand. The monopolist maximises profits by producing quantity Q_m at price P_m determined by the intersection of its marginal revenue and marginal cost curves. This outcome is not Pareto optimal as the Marshallian surplus is smaller than that attainable with price P_c . The difference, referred to as the efficiency or deadweight loss, is equal to the area of the grey-shaded triangle bounded by E_m , E_c and F .⁴⁷

In the case of a regulated monopoly, the regulator could direct the monopolist to set price equal to marginal cost at P_c in an attempt to ensure a Pareto optimal outcome. The problem facing the regulator is that in many cases, as here, the monopolist is on the falling portion of its average cost curve. This means that its marginal cost is less than its average cost, as depicted by the AC curve in Figure A2.2. Such a direction from the regulator will result in the monopolist not recovering enough revenue to cover its total costs, leading to an unsustainable financial situation.

Directing the monopolist to set prices based on average cost to ensure full cost recovery, with a quantity produced somewhere between Q_m and Q_c , will also result in a suboptimal Pareto outcome. Brown et al. (1992) state:

Regulated natural monopolies are usually required to recover losses in the marketplace. Average cost pricing is frequently used, though the resulting allocation has no hope of being Pareto-efficient.⁴⁸

In short, in the monopoly case the first-best Pareto optimal outcome—that achieved by setting price equal to marginal cost—is infeasible due to the cost recovery constraint. In order to allow cost recovery, the regulator is faced with achieving the second-best outcome. This exercise can be broadly described as maximising social welfare subject to a revenue constraint.

Endnotes and references

¹ See:

http://www.mfem.gov.ck/images/Telecommunications/CI_Telco_Lib_Policy_2019_Final_Dec2019.pdf

² *Energy Amendment Act 2012*, s 4.

³ *Energy Amendment Act 2012*, s 8.

⁴ See: <http://ici.gov.ck/regulatory>.

⁵ The *Energy Act 1998* replaced and repealed the *Ministry of Energy Act 1991* and the *Electricity Supply Regulations 1992*.

⁶ The Government recognises that the provision of electricity services in the Pa Enea, with the exception of Aitutaki, faces the problem of small customer bases across which to spread operating and capital costs along with pricing practices that currently have little regard for costs. This is compounded by limited operation and maintenance capabilities on-island. In response, under the Economic Development Strategy 2030 framework, the Government will implement an action plan to introduce new governance and pricing arrangements that will ensure the sustainable provision of affordable renewable electricity across the Pa Enea.

⁷ See: <https://www.health.gov.ck/policies-guidelines/>.

⁸ See: <https://www.health.gov.ck/public-health/health-protection/>.

⁹ To Tatou Vai Authority Bill 2020, Explanatory Note, p. 1.

¹⁰ GHD 2018, Mei Te Vai Kei Te Vai Draft Sanitation Master Plan Cook Islands, p 3.

¹¹ Cook Islands Government (2020), Cook Islands Economic Development Strategy 2030: Consultation Draft – Action 2.2.

¹² *Ibid*, p. 43.

¹³ *Ibid*, p. 72.

¹⁴ *Ibid*, p. 73.

¹⁵ See, Utilities Regulatory Authority 2019, *Comparative Report Pacific Region Electricity Bills* (Vanuatu, July 2019), available at:

[http://www.ura.gov.vu/attachments/article/52/Electricity%20Price%20Comparison%20Report%20-%20Pacific%20Area%20February%202019%20\(Updated%20Version\).pdf](http://www.ura.gov.vu/attachments/article/52/Electricity%20Price%20Comparison%20Report%20-%20Pacific%20Area%20February%202019%20(Updated%20Version).pdf)

¹⁶ Cook Islands Government (2020), *Cook Islands Economic Development Strategy 2030*, p. 89.

¹⁷ *Ibid*, p. 73.

¹⁸ *Ibid*, p. 74.

¹⁹ *Ibid*, p. 90.

²⁰ *Ibid*, p. 73.

²¹ *Ibid*, p. 92.

²² Ibid, p. 95.

²³ GHD 2018, *Mei Te Vai Kei Te Vai Draft Sanitation Master Plan Cook Islands*, p 39.

²⁴ Ibid, p. 39.

²⁵ Train, Kenneth E (1991) *Optimal Regulation: The Economic Theory of Natural Monopoly*, p 1.

²⁶ As Joskow (2008) explains, utilities regulation is focused on setting prices that reflect efficient service delivery with a clear concern that without regulation, the utility would exploit consumers through excessive prices. However, regulation cannot exactly mimic the world of competition, as the regulator faces incomplete information; information asymmetry, where the business knows more about itself than the regulator who is charged with setting the price and service standards. (Joskow 2008, *Incentive regulation and its application to electricity networks*, *Review of Network Economics* 7(4): 547–60).

²⁷ A natural monopoly arises where the least cost way to provide the service is by a single firm.

²⁸ See, <https://www.aer.gov.au/>.

²⁹ CIG 2019, *Cook Islands Telecommunications Market Competition Policy 2019 – Final*, Part V.

³⁰ Ibid, p. 28.

³¹ Ibid, p. 29-30.

³² Icon Water 2017. *Attachment 2: Form of regulation – 2018-23 Water and Sewerage Price Proposal*, Canberra. June 2017.

³³ *Energy Act 1998*, s 4 (as amended in 2012).

³⁴ Ibid, s 18.

³⁵ Ibid, s 19.

³⁶ Ibid, s 20.

³⁷ Ibid, s 21.

³⁸ See the Infrastructure Cook Islands website for more information:

<http://ici.gov.ck/news/infrastructure-bill-2019-consultation>. The Act is available on the Cook Islands Parliament website at: <https://2ea1d92bczh11rmgm1rcot6-wpengine.netdna-ssl.com/wp-content/uploads/2020/02/Infrastructure-Act-2019-No.-6-1.pdf>.

³⁹ <http://www.mfem.gov.ck/economic-planning/utilities-regulation-policy>.

⁴⁰ Mas-Colell, A, Whinston, MD and Green, JR 1995. *Microeconomic Theory*, New York, Oxford Economic Press, 308.

⁴¹ For full treatment of Marshallian partial equilibrium analysis, see Mas-Colell et al. (1995), Part 3.

⁴² Note that consumers' surplus is the aggregate of all individual consumers' surplus in the particular market, and likewise for producers' surplus.

⁴³ George Stigler, in his 1966 textbook on the theory of price, provides an apt description of consumers' surplus: 'When a reflective man buys a crowbar to pry open a treasure chest, he may well remark to himself that if necessary he would have been prepared to pay tenfold the price. When a

parched man drinks a free beer on a hot day, he is apt to consider it a bargain. Marshall gave the odd name of 'consumer's surplus' to these fugitive sentiments.' (Stigler, GJ 1966, *Theory of price*, New York, The Macmillan Company, p. 78).

⁴⁴ Producers' surplus can also be defined as the earnings of firms over and above their variable costs.

⁴⁵ Remembering, of course, that this conclusion depends on the same assumptions as those underpinning the first fundamental theorem of welfare economics, as discussed above.

⁴⁶ The second fundamental welfare theorem states that if household preferences and firm production sets are convex, there is a complete set of markets with publicly known prices, and every agent acts as a price taker, then any Pareto optimal outcome can be achieved as a competitive equilibrium if appropriate lump sum transfers of wealth are arranged. Mas-Colell, Whinston and Green (1995) note that the second welfare theorem also runs into difficulties, in the presence of nonconvex production sets that characterise the natural monopoly situation, even if price taking can somehow be relied on. See Mas-Colell et al. (1995) p. 570-71 for more detail.

⁴⁷ If the monopolist was able to perfectly discriminate among its customers by knowing customer preferences and making a distinct offer to each customer, there would be no welfare deadweight loss. Mas-Colell et al. (1995) note that such discrimination is impractical, in particular due to a lack of information about customer preferences and the possibility of customer resale.

⁴⁸ Brown, DJ, Heller, WP and Starr, RM 1992, *Two-part marginal cost pricing equilibria: Existence and efficiency*, Journal of Economic Theory. 57, 52-72.p. 53.