THE HON ANGUS TAYLOR MP
MINISTER FOR ENERGY

MS19 000101

19 FEB 2019

Ms Paula Conboy
Chair
Australian Energy Regulator
GPO Box 520
MELBOURNE VIC 3000

Dear Ms Conboy Paula

I recently met with Mr Greg Dawes, Manager of Pioneer Valley Water Co-operative Limited, in Mackay, who is concerned about electricity price impacts on irrigation in the Pioneer Valley, Queensland.

As reflected in Mr Dawes' enclosed correspondence, the co-operative has suggested, as part of the AER's examination of network tariff proposals, that it give consideration to the development of irrigation specific tariff structures. Such structures could, in turn, be reflected through the Queensland Competition Authority's tariff setting process.

While I recognise that the Australian Government does not have the authority to direct the AER in these matters, I ask that you consider the Co-operative's specific irrigation tariff proposal, and respond directly to Mr Greg Dawes with your decision.

Yours sincerely

[redacted]

ANGUS TAYLOR

Enc. Letter of 31 January 2019 from Mr Greg Dawes
CC: The Member for Dawson, Mr George Christensen MP and Mr Greg Dawes

Pioneer Valley Water
Co-operative Limited.
A co-operative formed under the *Cooperatives Act* 1997.
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Mackay QLD 4740

Ref: GD: 10/029/10
By Hand

31 January 2019

The Honorable Angus Taylor MP
Minister for Energy
Parliament House
CANBERRA ACT 2600

Dear Sir,

Electricity and water pricing impacts on irrigation in the Pioneer Valley, Queensland

Thank you for meeting with representatives from Pioneer Valley Water Co-operative Limited (Pioneer Valley Water) Kinchant Dam Water Users Association (KDWUA), and CANEGROWERS in Mackay on 31 January 2019.

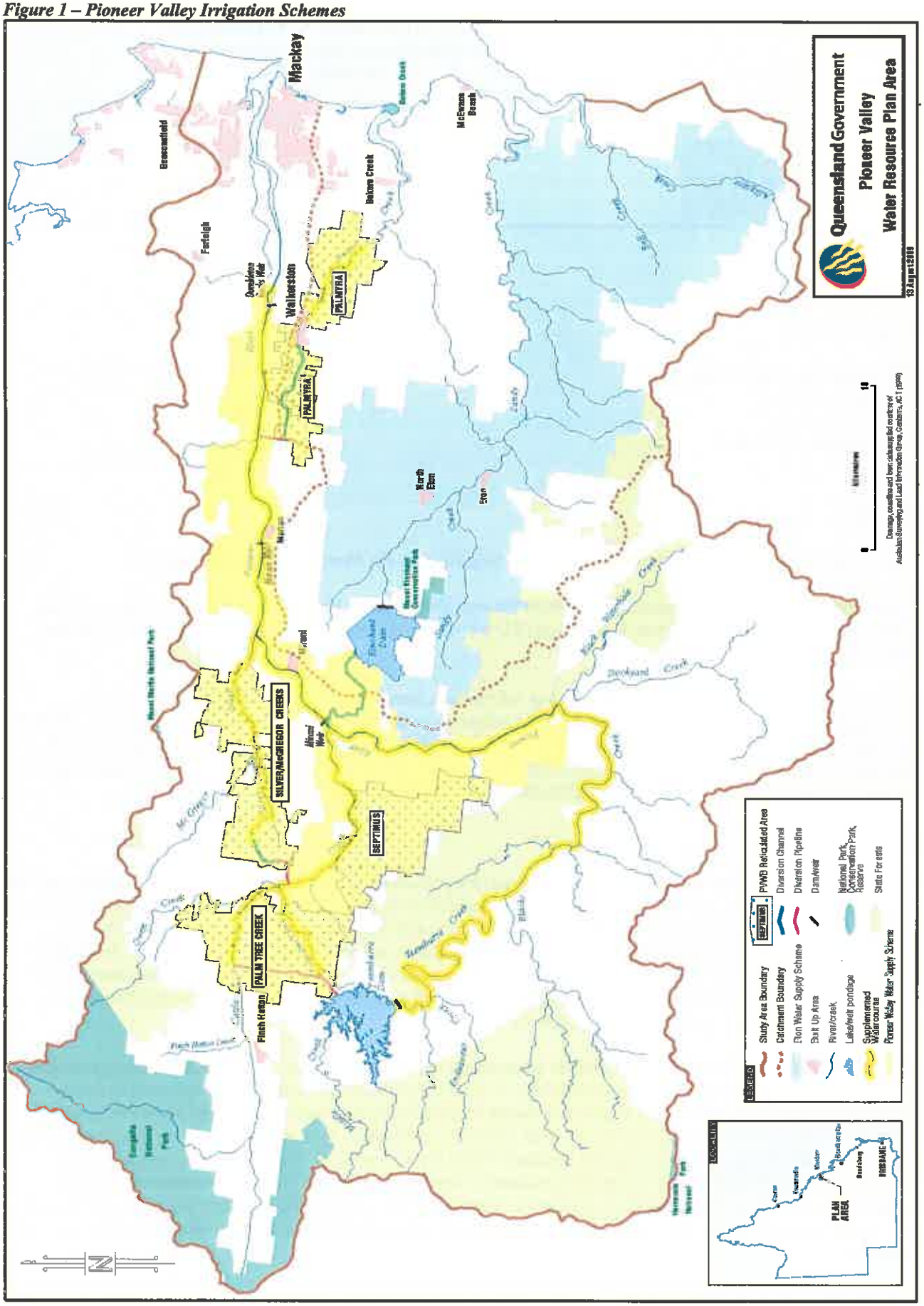
This document is intended to provide supporting information concerning the severe negative impacts of unsustainable electricity and bulk water pricing on irrigation in the Pioneer Valley, Queensland. Please note that the numerical data provided herein relates largely to those Pioneer Valley Water schemes utilising electricity (Palmyra, Septimus, Silver-McGregor (refer Figure 1 on page 2)). None-the-less, the issues discussed below are common across the whole of the local supplementary irrigation community.

Background

Pioneer Valley Water has been an irrigation water service provider for over 20 years, following completion of the Teemburra Dam Project in 1997. The project was undertaken with an 80-year infrastructure outlook, and with a view to drought-proofing local urban and agricultural sectors and ameliorating historic community impacts associated with fluctuating agricultural productivity. Reticulation schemes within the project were designed to simultaneously encourage efficient use of the water resource and flatten the demand profile of the electricity network. Importantly, this was achieved through matching infrastructure design with price-signalling within electricity tariffs suited to supplementary irrigation.

In development of the project, the Queensland government approached farmers in the Pioneer Valley, encouraging uptake of allocation and subsequent investment in on-farm irrigation infrastructure. The approach to farmers included indicative fixed and usage price components encompassing the costs of electricity and of bulk water. There is a tacit and moral implication in any such approach, particularly by a government body, that the economic principles underpinning initial pricing will continue within forward pricing. This was the not unreasonable expectation of the Pioneer Valley irrigation community when making critical business investment decisions concerning a long-term commitment to support the Teemburra Dam Project. This support has taken the form of both initial uptake of allocation, and on-farm investments in irrigation infrastructure to make productive use of that allocation.

Figure 1 – Pioneer Valley Irrigation Schemes



Impacts of recent electricity and bulk water pricing increases

Pricing for electricity and for bulk water have since remained within the purview of the Queensland government through its ownership of the relevant state government owned corporations. Despite this, the rate of increase in *electricity* prices to irrigators has far and away exceeded that of every other input associated with irrigation, almost doubling as a percentage of the overall water charge applicable in each of the above-mentioned reticulation schemes and placing enormous pressure on the budgets of water service providers and individual irrigators alike (refer Table 1).

Table 1 - Average Electricity Price Increases (compounding) 2007/08 to 2018/19

Irrigation Area	Year	Electricity ($/Ml)	Average Annual % Increase Since 2008	Usage Charge ($/Ml)	Electricity as % of Water Usage Charge	Total Charge ($/Ml)	Electricity as % of Total Water Charge	Electricity price increase as % of Total Water Charge increase
Palmyra	1/07/2007 - 30/06/2008	11.10		20.10	55.22%	65.60	16.92%	**80%**
	1/07/2018 - 30/06/2019	27.02	**8.43%**	33.46	80.75%	85.47	31.61%	
Septimus	1/07/2007 - 30/06/2008	18.50		29.95	61.77%	85.45	21.65%	**91%**
	1/07/2018 - 30/06/2019	45.31	**9.37%**	54.55	83.06%	114.78	39.48%	
Silver-McGregor	1/07/2007 - 30/06/2008	14.75		23.90	61.72%	69.70	21.16%	**94%**
	1/07/2018 - 30/06/2019	36.53	**9.24%**	43.28	84.40%	92.99	39.28%	

*Increases in electricity prices shown here represent approximately 145% in eleven years (an average of $20.80/ML) and translate to around $155,000 p.a. to the farmers in these specific irrigation areas (based on 50% allocation usage). It should be noted that the increases in electricity costs shown are to deliver water to the farm gate and **do not include on-farm electricity cost increases for application of irrigation water to the crop**.*

In a similar vein, *Bulk Water* prices over the last 15 years, have increased at an average of 4.5% per annum. That amounts to $9.00/ML (averaged) and based on 50% allocation usage translates to $423,000 per annum across Pioneer Valley Water's 47,390ML footprint.

These ongoing significant price increases have been part of a strategy implemented by successive Queensland governments', to transition the agricultural sector towards "cost recovery" for critical irrigation inputs. This strategy:

- disregards the established premise that subsidising critical input costs enables productivity gains required by agricultural businesses to compete in a sector where commodity returns are dictated by world markets; and
- fails to recognise that irrigation schemes were constructed to support the regional economy on the back of increased productivity, were never intended to recover input costs, and would not have proceeded on a cost recovery basis.

There can be no doubt at this point that the cost recovery model for critical irrigation inputs into the agriculture sector has failed water allocation holders in the Pioneer Valley (and elsewhere), where pricing increases have:

- overseen a curtailing in irrigation practices, which have moved away from a crop promotion basis to one of crop survival, reversing productivity gains required to offset additional ongoing fixed costs to farmers associated with allocation uptake;
- caused changes in irrigation methodologies, which have moved away from high-pressure irrigation (efficient use of the natural resource and of electricity infrastructure) towards less efficient low-pressure practices;
- overseen the demise of the regional water market, with water allocations now seen as a deterrent to farm transfers, and many entitlement holders regarding their allocations as a financial burden rather than as an asset. [redacted]

The data in Table 2 illustrates the stark decline in allocation usage for irrigation in the Pioneer River Water Supply Scheme, comparing the percentage of available allocation applied by irrigators in two years with similarly dry conditions and with full allocation availability, twelve years apart.

Table 2 - Decline in Allocation Usage 2002/03 to 2014/15

Year	Rainfall (mm)	% Allocation Available	Palmyra % Available Allocation Used	Septimus % Available Allocation Used	Silver McGregor % Available Allocation Used	All PVWater Schemes % Available Allocation Used
2002/2003	958	100%	90%	96%	54%	89%
2014/2015	906	100%	33%	54%	16%	34%

It cannot be emphasised enough that without intervention in these pricing arrangements, irrigated agriculture in the Pioneer Valley, is at serious risk.

[redacted] Other industries directly reliant on productivity in the local sugar industry, and the Mackay regional community more generally will ultimately bear the brunt if governments continue to fail to react to indicators that agriculture simply cannot afford to transition to cost recovery on critical irrigation input costs, and that supplementary irrigators in this region are at the leading edge of that policy failure.

Predicted crippling price increases

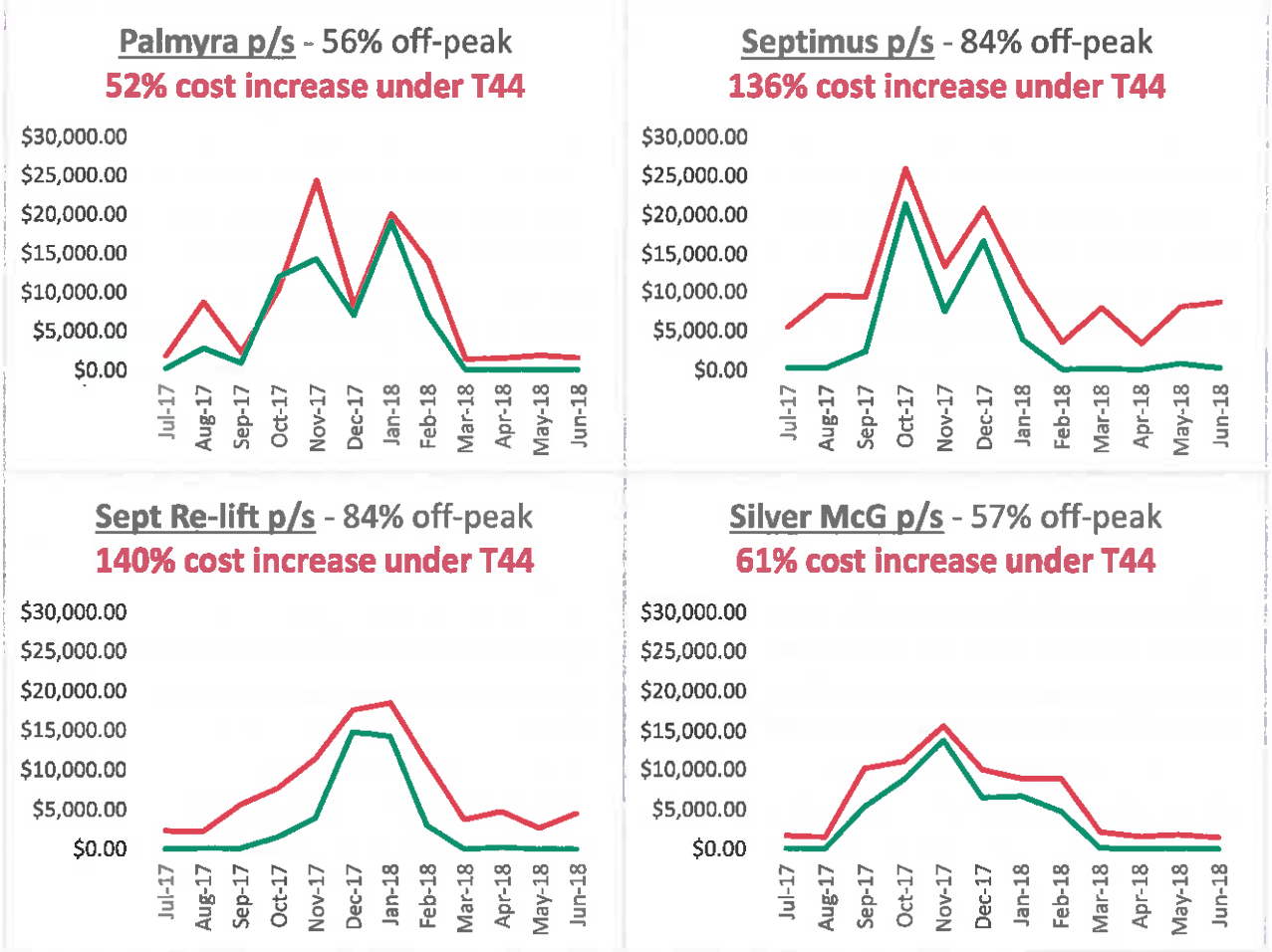
The above outcomes for irrigated agriculture precede a predicted step increase in electricity prices of between 52% and 140% on current pricing modelled (Ergon Energy) for the above irrigation areas from 01 July 2020. Bulk water pricing is also anticipated to increase by up to 60% over the four years from 01 July 2020.

Electricity:

From 2020 with transitional electricity tariffs removed, Pioneer Valley Water as a business with usage exceeding 100MWh/annum, will be moved to Large Business Tariff 44 Demand Small (T44). Modelling has been conducted in conjunction with Ergon Energy to compare costs for Pioneer Valley Water between the current *transitional* tariff (T62) and T44 based on actual electricity consumption data from 2013/14 and comparative electricity pricing for 2018/19 tariffs. The results show a staggering single step increase in the cost of electricity to customers in all irrigation schemes modelled (refer Figure 2). [redacted] The magnitude of these increases simply cannot be significantly impacted through economically achievable efficiency gains.

T44 is utterly unsuitable for supplementary irrigation and tariff alternatives being proposed by the GOC at this time are both unmodelled and highly impractical for supplementary irrigation. The pricing signals in T44 not only fail to achieve the mooted aim of a "demand" based tariff (flattening the demand profile of the electricity network), when applied to irrigation they will in fact only fail to amplify peak energy use because farmers *won't be able to afford to use electricity for irrigation.* T44 is particularly savage when applied to *supplementary* irrigation where there is a reduced ability to disseminate fixed costs. Forward prediction of expenditure becomes virtually incalculable for supplementary irrigation scheme managers under T44 due to the weather dependent nature of irrigation and the amplifying impact on costs variability of this aspect through the demand component of the tariff. T44 also pushes irrigation patterns and methodology farther down the paths previously mentioned in terms of inefficient use of the water resource and the electricity network.

Figure 2 – Modelling of Step Increases in Electricity Prices from 2020, by pump station. Outgoing T62 vs incoming T44



Increases in electricity prices shown here represent around $180,000 p.a. to the farmers in these irrigation areas (based on 50% allocation usage). For supplementary irrigation, a demand charge means that in months where allocation is not used and charges were minimal under T62, significant charges are incurred under T44. Once again it should be noted that the increases in electricity costs shown are to deliver water to the farm gate and ***do not include on-farm electricity cost increases for application of irrigation water to the crop.***

Bulk Water:

The Referral Notice recently issued by the Queensland government directing the Queensland Competition Authority to recommend (among other things) two sets of pricing for Bulk Water in the Pioneer River Water Supply Scheme (one with, and one without, Dam Safety upgrade costs included) for 2020/21 to 2023/24, makes stark reading for Pioneer Valley irrigators. The notice binds QCA to a transitional model, which while intended to ease the burden of transition, utterly fails to recognise the unaffordability of that transition in the first instance.

Existing water charges have been determined by SunWater to be below "cost recovery", and if this position is supported by the QCA then the notice issued by the Queensland government binds the QCA to recommend an increase in water charges in the first year in the order of 20%. Irrigators are facing an increase due to the bulk water charge alone of around $10/ML over four years, which will mean an additional $444;000 per annum to be found by Pioneer Valley Water irrigators. This pricing does not include dam safety costs which would increase this overall figure, and significantly extend the duration over which increases of this magnitude could be expected to continue to apply.

Minister, we fully understand that these are pricing issues over which you as a Member of the *Federal* Parliament may feel you have little direct influence. However, we feel the federal government has a critical role to play here in recognising and communicating the failure of the one-size-fits-all approach to cost recovery which has grown out of the National Water Initiative, and to inject into COAG's discussions some reality around the issues of affordability and the importance of agriculture not just to the national economy and for national food security, but to the stability and growth of regional communities. This includes review of policy settings around rules for returns on electricity network assets, infrastructure investment, and the methodology for electricity network asset base valuation. There is also a responsibility incumbent upon the federal government in advocating and working positively towards a national energy framework which returns a competitive edge to Australian agricultural businesses, and downstream dependent businesses and communities.

At a more specific level, the Australian Energy Regulator is about to go through the process of examining network tariff proposals from all network owners, including Energy Queensland, and the issue of provision of appropriate tariff structures for irrigation *could not be more critical*. Similarly, attention on affordability issues at a time when the Queensland government is making decisions about future water pricing will be important to short-term pricing outcomes at the least.

Locally, without intervention in electricity and bulk water pricing for irrigation, [redacted] Downstream impacts will of course include direct impacts on irrigation supply and service businesses, and there will be a general downturn in regional wealth, impacting the balance of the business community. [redacted]

Please feel free to contact me to discuss any aspect of the information presented here, or to seek additional details. I am certain that members of KDWUA will similarly seek to support you in advocating in relation to these issues.

Yours sincerely,

[redacted]

GREG DAWES
MANAGER.