REGULATION OVERLOAD

A REVIEW OF GOVERNMENT REGULATIONS IMPACTING THE AUSTRALIAN SUGAR INDUSTRY AND THEIR IMPLICATIONS FOR INDUSTRY REVITALISATION AND LONG-TERM SUSTAINABILITY

Australian Sugar Milling Council

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Prepared by the Australian Sugar Milling Council
with the assistance of McCullough Robertson Lawyers

WHO WE ARE

AUSTRALIAN SUGAR MILLING COUNCIL

The Australian Sugar Milling Council (ASMC) is the peak representative body for the sugar manufacturing sector, representing the five companies that collectively produce approximately 90% of Australia's raw sugar at 17 sugar mills across Queensland.

These mills also own and operate large sugarcane farms.

Sugar manufacturing generates around $2 billion in revenue annually – 85% of which comes from global raw sugar sales.

The Australian sugar industry – including millers and growers – is responsible for $4 billion in annual economic activity and underpinning 23,000 jobs in regional Queensland.

MCCULLOUGH ROBERTSON LAWYERS

McCullough Robertson is a leading independent Australian law firm. For more than 92 years, major Australian and foreign owned corporations, financial institutions, governments, private enterprises and high net worth individuals have trusted their advice on critical legal challenges. They have a depth of resources, with more than 380 employees across Brisbane, Sydney, Melbourne, Canberra and Newcastle offices.

Having been established in 1926 as a pastoral practice serving Australia's primary producers, they have a notable history in the food and agribusiness industry, and sugar in particular. Its legal specialists have the experience, technical expertise and imagination to deliver the best results to a diverse client base. They provide clients with the highest quality of commercially focused legal advice, backed by years of experience.

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FOREWORDS

JOHN PRATT
Executive General Manager
Wilmar Sugar Australia

I lead a milling company that owns and operates eight sugar mills and an ethanol distillery in Queensland. Our mills manufacture around half of Australia's raw sugar, crushing 15-16 million tonnes of sugarcane to produce more than two million tonnes of raw sugar annually.

We employ about 1400 people on a full time basis and an additional 650 people join us on a seasonal basis, mostly during the annual crushing season from June to November. We currently have more than 120 apprentices in training for a range of trades at our mills.

In 2019 our business is under stress. The joint impact of low sugar prices resulting from a distorted world market for sugar and the disruptive regulatory burden that has built up over the past 10-15 years is weighing heavily on us. We want to engage closely with the Australian and Queensland Governments to jointly find a way to create a conducive environment for the sustainability of our business and the communities it supports.

MIKE BARRY
Chief Executive Officer
MSF Sugar

Our Thai parent Company Mitr Phol purchased MSF Sugar and its four sugar mills in 2012 for $313 million. Since then it has continued to invest heavily in the company with the most recent major addition our $75 million green power plant attached to our sugar mill at Arriga on the Atherton Tablelands in North Queensland.

Mitr Phol is Asia's largest sugar producer and the second largest in the world with operations in Thailand, Laos and China, as well as here in Australia.

We urgently need the Australian and Queensland Governments to work with us to re-establish confidence in the outlook for our industry. Regulations have increased the cost of irrigation water and the electricity that is needed to pump that water is way beyond what is reasonably affordable for most of our growers. Irrigation brings reliability to the sugarcane supply that is critical for a sugar mill's viability.

MARK DAY
Executive Director and Chief Executive Officer Mackay Sugar Limited

It is well known that the company I lead, Mackay Sugar Limited, has been struggling with debt and lack of maintenance expenditure for a number of years. There have been many factors contributing to this situation.

We have recently been able to attract a cornerstone investor into our business. Nordzucker AG, the second largest sugar manufacturer in Europe, has acquired a 70% share of the Mackay Sugar business and is committed to re-establishing Mackay Sugar as a leader in sugar production in this country.

The Queensland and Australian governments have an important role to play by partnering with the milling sector in our industry revitalisation plans. We need both governments to closely examine the web of regulatory constraints identified in this report that represent resistance to quickly achieving a financially sustainable future for our industry.

ANDREW YU
Chief Executive Officer Tully Sugar Limited

Tully Sugar Limited is wholly owned by the major Chinese-based international agribusiness COFCO. We are strongly committed to Tully Sugar and our tight knit North Queensland community of Tully that relies heavily on the local sugar industry.

Low world sugar prices are having a major negative impact on the business at the moment, but in the longer term it is the regulatory burden that threatens a sustainable future for our industry.

Among a range of hurdles imposed on the industry through regulation, those relating to Great Barrier Reef water quality, port charges and electricity in addition to the counter-productive elements of the Queensland sugar marketing legislation and the Federal Sugar Code of Conduct pose the greatest impost for the sugar industry in Tully. We want to work positively with governments to ease this burden and allow our industry to flourish.

JOHN GORRINGE
Chief Executive Officer Isis Central Sugar Mill Limited

Our sugar milling business has a very proud history built on the joint endeavour of our sugarcane growers and the employees at our sugar mill.

There is strong competition for land in our region and the profitability of growing sugarcane is being seriously impacted by the exorbitant cost of applying irrigation water in our region.

We need both the Australian and Queensland governments to address this issue and a range of other regulatory constraints to ensure that there is a sustainable future for sugarcane growing and milling in our region.

EXECUTIVE **SUMMARY**

To promote long-term financial security, resilient regional communities and environmental sustainability, Australian Sugar Milling Council (ASMC) members are vigorously pursuing an industry *Revitalisation* plan.

The plan focuses on three key 'pillars':

- Growth in area under cane
- Improved cane and sugar yield
- Product diversification.

The industry's continuing 85% reliance on global raw sugar sales in an increasingly distorted and volatile price environment is a risk for the Australian economy, and more significantly, important regional communities in Central and North Queensland.

Our largest sugar-exporting competitors – Brazil and Thailand – reduced their risk profile decades ago by implementing diversification and growth strategies.

Why then has the Australian sugar industry not made substantial progress over the past 40 years to embrace the three pillars needed to revitalise the industry?

The anecdotal answer is inevitably 'over-regulation'.

To better understand the dynamics in play, ASMC has analysed the role of public policy in shaping the past, present and – at this juncture – the future of the Australian sugar industry.

Government interventions including marketing and environmental laws and charges by governments and Government Owned Corporations (GOC) have substantial impacts on the viability of the sugar industry, and the milling sector in particular.

Recognising the symbiotic relationship between sugarcane growers and millers, this study also examines the impact of grower-specific interventions to assess the flow-on impacts for milling operations.

With expert legal input, this report calls out key changes in legislation and significant movements in GOCs charges in 12 critical regulatory areas since 2006 (Table 1 below).

Across the 12 areas, a total of 21 separate regulatory interventions were identified during the timeframe and all were subject to regulatory (milling) impact assessments (Appendix A, Table 18 lists the 21). Of the 21 interventions, 15 are still relevant to milling operations today (Table 2).

ASMC asked its most experienced milling company executives to assess the impacts of the 21 interventions against four regulatory metrics.

Their scores were tallied and averaged to create a ranking from 'most' to 'least' burdensome (Table 2). Respondents also indicated how each intervention impacted the three *Revitalisation* pillars promoted by the AMSC (Table 2).

Scores in Table 1 show whether the regulatory burden has increased, decreased or remained the same over the reference periods analysed. The increases in GOC charges over certain reference periods and the percentage contribution to total operating costs appear in Chart 1.

THE KEY FINDINGS OF THE ANALYSIS SHOW THAT ON AVERAGE ACROSS THE SUGAR INDUSTRY:

The milling sector has experienced an INCREASE in regulatory burden since 2006

Of 15 interventions directly impacting the milling sector today, 40% impose either a MEDIUM or HIGH regulatory burden

Of all government charges analysed (electricity, water, ports and General rates), the compound average growth rates (CAGRs) over the reference periods ranged from a low of 2.5% (T20 electricity tariff) to a high of 6.6% (T62 grower electricity tariff). Over the same period, Australia's annual average CPI growth was 1.8%.

The increase in regulatory burden and government charges over the past 15 years is in direct contrast with the 2% decline in real sugar prices.

There are various reasons behind government market inventions including public safety, environmental protection and open competition.

Well-conceived and designed interventions are efficient, equitable, and achieve government objectives at minimal cost and without unintended consequences.

However, ASMC's analysis of government regulatory interventions and cost impositions on the sugar industry by the three levels of Australian government (federal, state, local) make a compelling argument that cumulatively, domestic regulation is stalling industry revitalisation and a more sustainable future for the regional communities it supports.

TABLE 1: MILLING SECTOR REGULATORY BURDEN 2006–2020

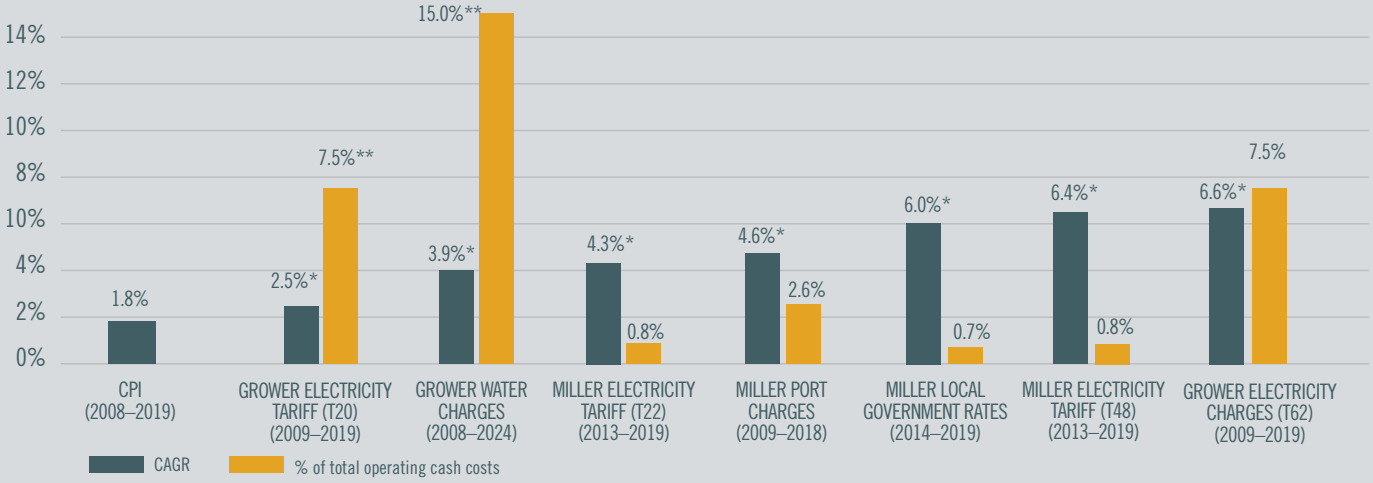
NO.	INTERVENTION	YEAR														
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020(p)
1	Marketing	●	○	○	○	○	○	○	○	○	●	○	●	○	○	—
2	Environment (reef)	○	○	○	●	○	○	○	○	○	○	○	○	○	●	—
3	Energy/climate change policy	○	●	○	●	○	○	○	○	○	○	●	○	○	●	—
4	Water tariffs (grower)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	Electricity tariffs (miller)	—	—	—	—	—	—	—	●	○	●	●	○	○	○	—
6	Miller local government rates	—	—	—	—	●	●	●	●	●	●	●	●	●	●	—
7	Vegetation management	—	—	—	●	○	○	○	●	○	○	○	○	●	○	—
8	Foreign investment	—	—	—	—	—	—	—	—	—	●	○	○	○	○	—
9	State planning	—	—	—	—	—	—		—	●	○	●	○	○	○	—
10	Electricity tariffs (grower)	—	—	—	●	●	●	●	●	○	●	●	●	●	●	—
11	Port charges	—	—	—	●	●	●	●	●	●	●	●	●	●	●	—
12	WH&S	●	○	○	○	○	○	○	○	●	●	○	●	○	○	—

● Decrease in regulatory burden ○ No change in regulatory burden ● Increase in regulatory burden — Not analysed (p) Proposed

TABLE 2: CURRENT REGULATORY INTERVENTIONS BY ORDER OF IMPACT AND *REVITALISATION* PILLARS MOST AFFECTED

NO.	INTERVENTIONS	TOTAL SCORE (AGAINST THE 4 METRICS)	AVERAGE SCORE (AGAINST THE 4 METRICS)	PILLAR/S MOST IMPACTED
1	*The Sugar Industry (Real Choice in Marketing) Amendment Act 2015 (Qld)* (Marketing Choice Amendments)	88	High	Diversification
2	*The Environmental Protection (Great Barrier Reef Protection Measures) Other Legislation Amendment Bill 2019 (Qld)*	80	High	Cane yield & acreage
3	Energy/climate change policy uncertainty (Qld & Cwth)	73	High	Diversification
4	*The Competition and Consumer (Industry Code – Sugar) Regulations 2017* (Cwth) – Sugar Industry Code of Conduct	71	High	Diversification
5	Grower water tariffs (Qld)	64	Medium	Acreage
6	Miller electricity tariffs (Qld)	49	Medium	Diversification
7	*The Vegetation Management and Other Legislation Amendment Act 2019 (Qld)*	40	Low	Cane acreage
8	*The Foreign Acquisitions and Takeovers Legislation Amendment Act 2015* (Cwth) (FATAA) and related legislation	38	Low	Cane acreage
9	*Planning Act 2016* (Qld)	35	Low	Cane acreage
10	Grower electricty tariffs (Qld)	35	Low	Diversification
11	Port Authority charges (Qld)	35	Low	Diversification
12	Miller local government rates (Qld local)	31	Low	Diversification
13	*The Work Health and Safety and Other Legislation Amendment Act 2017 (Qld)*	24	Very low	Diversification
14	*Regional Planning Interests Act 2014 (Qld)*	21	Very low	Cane acreage
15	*The Work Health and Safety and Other Legislation Amendment Act 2015 (Qld)*	8	None	Diversification

CHART 1: COMPOUND ANNUAL GROWTH RATES (CAGRS) OF VARIOUS GOVERNMENT CHARGES AND PERCENTAGE CONTRIBUTION OF TOTAL OPERATING COSTS



* ASMC calculations based on published data and a fixed level of consumption over the reference period
** Assumes a cane farm that irrigated, for example in the Burdekin

LIST OF DIAGRAMS, TABLES AND CHARTS

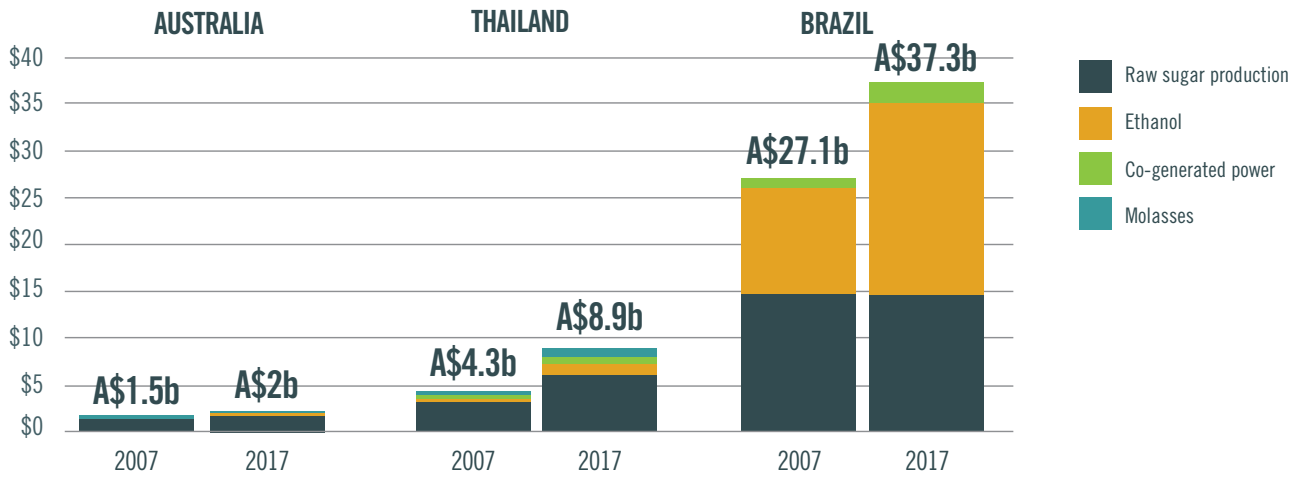
1 ASMC'S *REVITALISATION* PLAN

Australia's sugar milling sector derives 85% of its $2 billion in annual revenues from global raw sugar sales. This global market is intensely competitive with supply and demand balances the main determinant of global prices. Good seasonal conditions combined with generous government subsidies in competing countries often leads to oversupply and 'long and deep' price cycles such as the one occurring now. The remaining 15% of sector revenue is derived from domestic raw sugar, molasses, ethanol and cogenerated electricity sales.

Another defining characteristic of the global sugar market is real price decline over time – estimated to be around 2% per year since the 1960s. In the absence of productivity gains and diversified revenue streams, this trend will continue to erode the margins and competitiveness of Australian growers and millers.

A review of Brazil and Thailand's sugar industries – Australia's main competitors – reveals these countries are developing effective commercial and government policies and strategies to mitigate these risks. An analysis of revenue growth over the past 10 years at constant prices demonstrates these competitors have had greater relative success then Australia (Chart 2).

CHART 2: GROWTH IN AUSTRALIAN, THAI AND BRAZILIAN MILLING REVENUES: 2007–2017



SOURCE: ASMC, UNICA AND THAI SUGAR MILLERS

Strategies helping the Brazilian and Thai sugar industries include strong government support, product diversification, innovative policy and strong R&D initiatives. The need for Australia to follow a similar path and adapt and evolve its approaches has been acknowledged by the Australian sector for decades but implemented with limited success.

Under its 'Revitalising Queensland sugar' banner, ASMC is seeking to develop a commercial and policy reform agenda to achieve growth in three pillars:

(1) Growth in area under cane
(2) Cane and sugar yields
(3) Product diversification

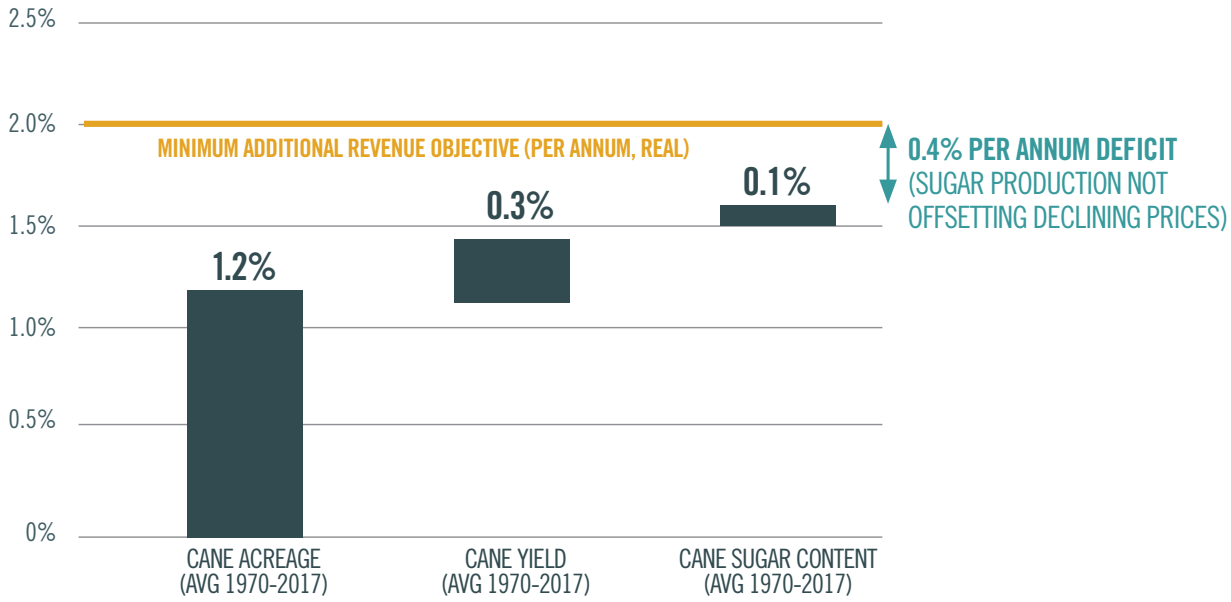
Australian government data shows[1] that from 1974–2018, sugar production increased 1.6% per annum, but short of the 2% needed to offset the real price declines in global sugar prices over the past 50 years. There are three components to the 1.6% per annum Australian increase over the period (Chart 3):

(1) cane acreage recorded a 1.2% per annum increase

(2) cane yield recorded a 0.3% per annum increase

(3) CCS or sugar content of the cane recorded a 0.1% per annum increase.

CHART 3: THE SECTOR'S 2% PROBLEM STATEMENT



SOURCE: ABARES AND ASMC

There are numerous commercial and policy drivers impacting the three pillars. For example, maintaining cane acreage is influenced by commercial factors such as the price relativities of cane and alternative crops. Public policy, and the regulations and interventions of government, also play a significant role. For example, regulations that continually change can make feasibility assessments difficult to complete and interfere with informed decision-making.

An efficient regulatory system is vital for a well-functioning society and economy. In the Australian sugar industry, governments intervene for a variety of reasons including protection of the environment, worker and community health and safety, and to address perceived market power. However, regulation is pervasive and governments must ensure interventions are efficient and achieve objectives at the least cost and with minimal unintended consequences. In the context of the Australian sugar industry, unintended consequences mean threats (or challenges) to viability, and specifically, growth in the three pillars.

The Australian sugar industry is a symbiotic industry where success in cane growing often impacts mill viability and vice versa. Therefore, regulations that adversely impact one sector will generally be felt upstream or downstream in much the same way.

This ASMC Regulatory Scorecard is the milling sector's first attempt to understand the cumulative impact of both grower and miller-specific regulations on milling operations, and the degree to which this burden is assisting or slowing growth in the three revitalisation pillars.

1 ABARES, Agriculture commodities and trade data, rural commodities – sugar

2 THE REGULATORY ASSESSMENTS

2.1 MARKETING

KEY FINDINGS

- ASMC members assessed that on average, the *2015 Real Choice in Marketing Amendment Act* and *2017 Sugar Industry Code of Conduct* impose **HIGH** regulatory burdens on the milling sector and rescinding both is a priority for ASMC.
- Increasing government controls in the commercial relationship between millers and growers creates signficant compliance costs and investment uncertainty, and will most impact the **DIVERSIFICATION** revitalisation pillar.

The 20th century was highlighted by government interventions in Australia's agricultural industries. The Queensland sugar industry was highly regulated with governments controlling almost every aspect of production from the allocation of cane growing areas to the acquisition, marketing and sale of raw sugar; the contractual relationship between growers and millers and millers and marketers; and how industry participants resolved contractual disputes.

Until 2006, 'single desk' marketing arrangements made Queensland Sugar Limited (QSL) – and antecedents the Queensland Sugar Corporation and Sugar Board – the sole export marketer of the mills' raw sugar.

While most of Australia's agricultural sectors have deregulated in pursuit of economic efficiency and global competitiveness, the Queensland sugar industry has recently seen a return to regulation by intrusive state and federal legislation controlling key aspects of the miller-grower commercial relationship, including the expropriation of milling companies' property rights to the raw sugar that they produce in favour of cane suppliers and the introduction of pre-contract arbitration.

How have marketing policies and legislation changed since 2006?

There have been three significant regulatory interventions in sugar marketing since 2006. For this exercise, these regulatory interventions are described as the marketing laws:

(1) The *Sugar Industry Amendment Act 2005* (Qld) (Sugar Industry Amendment Act) came into effect on 1 January 2006. In summary this intervention:

- Amended the *Sugar Industry Act 1999 (Qld) (Sugar Industry Act)* and deregulated the Queensland sugar industry, removing statutory vesting of all raw sugar in QSL and providing transitional arrangements for the orderly marketing of the Queensland raw sugar as determined by the millers that produced the raw sugar.
- Resulted in most Queensland millers (but not all) entering into voluntary agreements with QSL to market approximately 90% of all raw sugar exported from Australia.
- Resulted in a framework for the sale of sugarcane by changing arrangements between growers and mill operators requiring them to enter into contracts for supply while not prescribing the matters to be addressed in the supply contracts.
- Allowed growers and mill operators to set the price of sugarcane; removed the 'cane production area' restrictions, allowing growers to choose which mill operator they marketed their cane to; and removed restrictions on the marketing of raw sugar for export.
- Ultimately resulted in three of the main mill operators (Wilmar, MSF Sugar and COFCO) announcing in 2014 that they would cease the voluntary sale of their raw sugar to QSL at the end of the 2016 season and directly undertake export marketing of the sugar they produced at their mills.

(2) The *Sugar Industry (Real Choice in Marketing) Amendment Act 2015* (Qld) (Marketing Choice Amendments) came into effect on 17 December 2015. In summary this intervention:

- Gave each individual grower the right to require a mill to sell to a party nominated by the grower that portion of the sugar produced by the mill to which the grower bears the sale price exposure; therefore depriving millers of their inherent right to market approximately two thirds of their own sugar production.
- Provided for commercial disputes between a grower or bargaining representative and a mill owner during the negotiation of a cane supply agreement to be resolved by arbitration (so-called 'pre-contract arbitration' provisions).
- Resulted in three of seven Queensland milling companies retaining their existing raw sugar supply agreements (RSSAs) with Queensland Sugar Limited (QSL) whereby all of the miller's sugar production was sold to QSL, albeit that the portion of the sugar in which the mills had an economic interest was available for those mills to market directly either for export or use in the domestic refining industry.
- Led to millers choosing to exit their RSSAs and negotiating new on-supply agreements with QSL which provided for the sale to QSL of that portion of the miller's sugar production in which growers had an economic interest, based on nominations by growers.

(3) The *Competition and Consumer (Industry Code – Sugar)* Regulations 2017 (Cwth) – commonly known as the Sugar Industry Code of Conduct (Code) – came into effect in 2017. In summary this intervention:

- Enshrined the principles of the Marketing Choice Amendments into federal regulation (via a Code).
- Regulated the conduct of growers, mill owners and marketers in relation to contracts or agreements for the supply of cane or the on-supply of sugar, including to establish a process for pre-contractual arbitration where the parties fail to agree to terms of contracts or agreements.
- Extended the pre-contract arbitration provisions of the Marketing Choice Amendments that applied to mill owners and growers so that they also applied during the negotiation of contracts between mill owners and grower nominated marketers.

The Code was reviewed in 2018[2] with a series of recommendations ensuing. The Australian Government announced its response to the recommendations but is yet to act in accordance with the response. The review recommendations and government responses, shown in parenthesis, are as follows:

- The code should be retained to continue to provide certainty for growers and millers regarding their arbitration options while they conclude their adjustment to commercially negotiated cane supply contracts. (Agreed)
- The code should be amended to make clear that pre-contractual arbitration applies to raw sugar only and not to any other products obtained from sugarcane. This will provide millers with regulatory certainty and facilitate investment in milling assets and development of innovative products. (Agreed)
- The provision that allows growers to choose their marketer should be repealed from the code. It is inconsistent with the objectives and benefits of the recent evolution of the industry's regulatory arrangements, and duplicates obligations already contained in the *Sugar Industry Act 1999*. (Rejected)
- The Code should be reviewed in two years to assess whether commercial relationships between the parties have matured and whether the code is still needed. (Agreed in principle but amended to four years)
- Australian sugar industry representative bodies should work collaboratively to develop a long-term strategy to address shared future challenges. (Agreed)
- All industry parties should focus on the longer term and fundamental issues jeopardising the industry's future. (Agreed)

2 Department of Agriculture and Water Resources, Review of the Sugar Code of Conduct, 2018

What has been the impact on millers from changes in marketing arrangements?

Marketing is one of 12 regulatory areas identified in the ASMC Regulatory Scorecard.

From a miller's perspective, the three significant changes to marketing laws identified above were were assessed by senior milling sector executives from each ASMC member company on the basis of whether they had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs
(2) Investment uncertainty
(3) Lags/delays in commercial decision making
(4) Distortions in decision-making.

Table 3 provides the total and average scores of the survey respondents against each assessable intervention. Chart 4 shows the total scores in chart form.

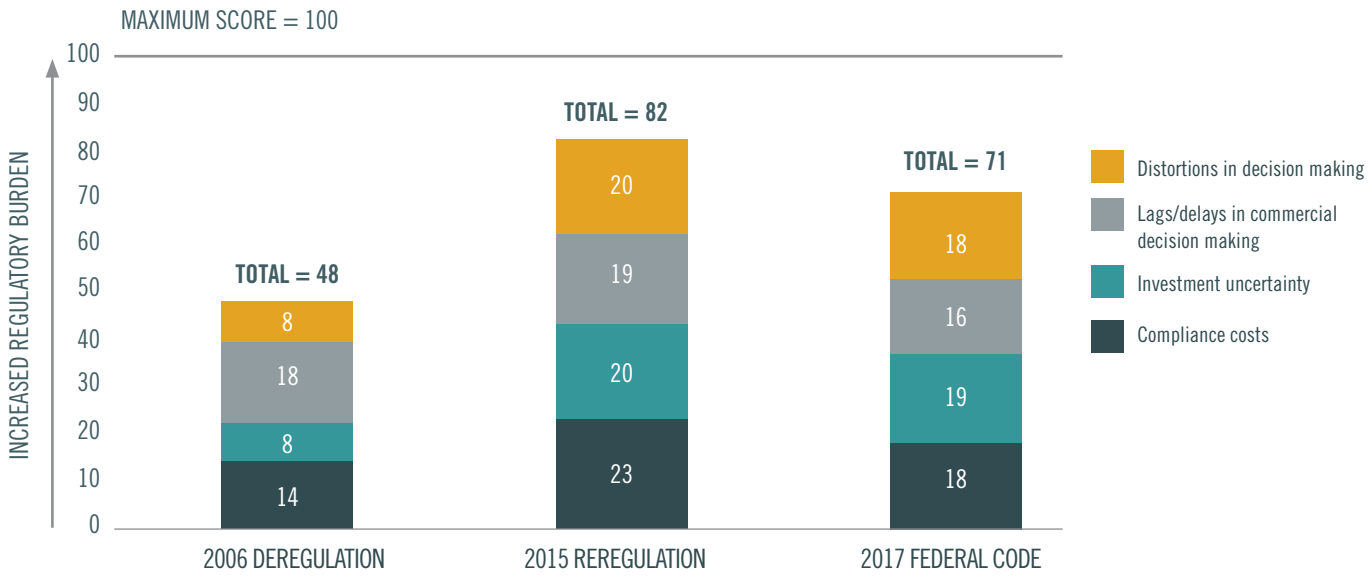
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 3: IMPACT OF VARIOUS MARKETING LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

MILLING IMPACTS (REGULATORY METRICS)	ASSESSED INTERVENTION/S					
	2006 STATE DEREGULATION		2015 STATE RE-REGULATION		2017 FEDERAL CODE	
	TOTAL SCORES OF ALL 5 RESPONDENTS	AVG SCORE OF ALL 5 RESPONDENTS	TOTAL SCORES OF ALL 5 RESPONDENTS	AVG SCORE OF ALL 5 RESPONDENTS	TOTAL SCORES OF ALL 5 RESPONDENTS	AVG SCORE OF ALL 5 RESPONDENTS
Compliance costs (max. score is 25)	14	Medium	23	Very high	18	High
Investment uncertainty (max. score is 25)	8	Low	20	High	19	High
Lags/delays in commercial decision making (max. score is 25)	18	High	19	High	16	Medium
Distortions in decision making (max. score is 25)	8	Low	20	High	18	High
TOTAL	**48 out of 100**	**Medium**	**82 out of 100**	**High**	**71 out of 100**	**High**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 4: IMPACT OF VARIOUS MARKETING LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Miller representatives also described the impacts of the various marketing changes since 2006:

In relation to the 2005 Act changes:

> *"Vesting of sugar title was replaced with the voluntary marketing arrangements so there were some costs in establishing and administering the new agreements."*
>
> *"Investment uncertainty: Quite the opposite, the deregulation provided the impetus for Wilmar's purchase of CSR Ltd's sugar business (Sucrogen) and its substantial re-investment in the assets."*
>
> *"Some loss of cane to competitors."*

In relation to the 2015 Act changes:

> *"Significant expenditure on legal fees in: Trying to understand the amendments; fighting an arbitration launched under the amendments by a grower group; developing and negotiating new cane supply agreements and raw sugar sales agreements. Significant additional costs in IT systems were required to administer grower choice including automated document execution and marketing choice selection by growers. Significant resource and effort was involved in assessing the impact of grower choice on financial reporting in relation to Principal vs Agency considerations associated with revenue recognition under international accounting standards. Accounting for commercial arrangements under grower choice will have ongoing undesirable impacts on timing and volatility of underlying milling profit recognition."*
>
> *"There is now significant risk of growers using the arbitration provisions to gain access to mill non-sugar sources of revenue (molasses, cogeneration, ethanol etc) based on investment that the mills, not the growers, have made. This significantly increases risk of any new value adding or diversification investments – effectively putting them on hold."*
>
> *"The time taken to develop and negotiate commercial agreements in relation to cane supply and raw sugar sales agreements (including mediations and arbitrations) was extensive.*
>
> *Examples include:*
>
> - *Millers being forced to either sell raw sugar to Queensland Sugar Limited (QSL) on uncommercial terms (e.g. title changing prior to payment) or enter into complicated arrangements with QSL as a work around for the fact that QSL cannot operate commercially and has no funds to actually purchase sugar, whether on standard industry FOB terms or on FIS terms. One milling company ended up by agreement with growers, re-directing grower cane payments to QSL so QSL had funds to purchase raw sugar from the milling company at the international market price and make payment in full prior to title exchange.*
> - *Complicated stock loans to compensate mills for the fact that sugar is sold to QSL based on season average CCS whereas in the early part of the season, CCS and therefore actual sugar production is lower than average.*
> - *QSL's insistence that they be notified in advance and be provided with an option to purchase a proportionate share of any custom specification sugar (e.g. Japan Spec) that is made by a mill. This reduces a miller's ability to compete as a marketer with QSL in the Japanese market and serves as a disincentive for milling companies to innovate to make different quality sugar."*

In relation to introduction of the 2017 Code:

> *"The Code mirrors the Queensland Sugar Industry Act amendments and also introduces the further obligation of pre-contract arbitration in respect of negotiation of raw sugar sales agreements with marketers. In effect it duplicates and extends the reach of the Queensland amendments. The impact has been assessed as very high from the perspective that it has the same effect as the Queensland amendments, however the incremental compliance costs over and above the Act that it duplicates have been very low to date because significant compliance costs were already incurred in respect of the Queensland Act. However, due to the addition of pre-contract arbitration between marketers and millers that the Queensland Act does not contain, the compliance costs would be potentially even higher than the Queensland Act if the Code was considered on a stand-alone basis.*
>
> *"The impact of the Code is the same or worse than the Queensland Act amendments and now that there are both state and federal jurisdictions that impose the same 'grower choice' provisions, there is even more risk that a claim by growers could be brought against a milling company under one or both of these jurisdictions. Mill operators also have the burden that if one set of regulations is removed, the other still remains. This adds to the risk and uncertainty for new investment made by a miller, as it further increases the potential of a successful claim for a share of co-product revenue by growers."*

"The Code was introduced after the Act, and is not active while state legislation exists, so the overall impact and incremental impact on timeliness of decision making is yet to be measured. However as the Code currently stands, the pre-contract arbitration provisions remain as a high threat to future milling company earnings and therefore will negatively impact future commercial decision-making in the same manner as the Queensland Act amendments, should the Queensland legislation be repealed in the future."

The positive impact on milling investment sentiment from the 2006 changes and improved prices and the negative impact of the 2015 and 2017 changes are shown in Diagram 1 (page 17). From 2006–2015 when prices were recovering, marketing deregulation was in place and policy stability existed, almost AU$1.719 billion in foreign direct investment (FDI) occurred as acquisition capital was invested in Queensland milling operations[3]. Wilmar, COFCO and Mitr Phol also brought significant new capital to improve mill efficiency and safety, and in some cases, diversification[4].

Since the re-regulation of the marketing controls in 2015 there has been limited FDI – the exception being the 70% acquisition by Nordzucker AG in Mackay Sugar Limited ($60 million in equity and the provision of a shareholder loan of up to $60 million) in 2019 and the planned $35 million, 54% acquistion by the Almoiz Group of the Isis Central Sugar Mill. While the Nzorducker and Almoiz transactions progressed during a period of marketing law re-regulation, the anticipated earnings potential of these mill acquisitions is significantly lower than those during the deregulation period – as influenced by a range of commercial and policy factors.

For example, and applying average production levels over the three years prior to the enterprise values at acquisition as a proxy for future earnings capacity, the market through the Wilmar/Tully Sugar/MSF Sugar transactions period expected to generate considerably higher earnings ($645/$633/$492 per tonne respectively) compared with the Nordzucker and Almoiz transactions ($269 and $315 per tonne respectively – Table 4). Marketing law deregulation has the potential to earn higher anticipated earnings owing to the absence of pre-contract arbitration laws. These laws discourage investment in diversification opportunities like co-generation and ethanol because of the risk of post-investment revenue expropriation through cane supply agreements. Furthermore, in the regulated marketing environment mill owners are only able to deal with approximately one third of their sugar production and are exposed to significant additional compliance costs and commercial and legal risks.

TABLE 4: CHANGES IN INVESTMENT SENTIMENT UNDER MARKETING DEREGULATION (2006–2015) AND REGULATION (2015 –)

MILLING COMPANY	YEAR OF ACQUISTION*	STATUS OF MARKETING LAWS	3-YEAR AVG PRODUCTION BEFORE ACQUISITION (IPS SUGAR TONNES) (A)	ENTERPRISE VALUE (SUGAR MILLING BUSINESSES ONLY)* ^ (B)	TRANSACTION MULTIPLES (I.E ANTICIPATED EARNINGS / TONNE) (C) = (B)/(A)
Wilmar	2010	DEREGULATED	1,970,000	$1,271,000,000	$645
MSF	2011	DEREGULATED	510,000	$322,800,000	$633
Tully Sugar	2012	DEREGULATED	247,000	$121,600,000	$492
MSL	2019	REGULATED	671,000	$180,700,000	$269
ICSM	2019	REGULATED	186,000	$58,500,000	$315

* offered in the case of ICSM

^ The Enterprise value (EV) is calculated as (x)+(y)-(z) with (x) being 100% of the equity value of the market offer, (y) being net debt and (z) being value of non-core business assets (for example STL shares and shopping centres) (farms and associated land value have been included as core business assets). For Wilmar the EV in 2010 was an estimated $1,271 million consisting of $1,294m + $456m - $479m (source: Wilmar). For MSF the EV in 2011 is an estimated $322.8 million consisting of $312.8m + $80m - $70m (source: Lonergan Edwards & Associates Limited Valuation Report 2011). For Tully Sugar the EV in 2012 was an estimated $121.6 million consisting of $126.7m + $0m - $5.1m (source: BDO Proserpine Co-operative Sugar Milling Association Ltd Independent Expert's Report July 2011). For MSL the EV in 2019 was an estimated $180.7 million consisting of $85.7m + $205m - $110m (source: Crowe Horwath BDO Mackay Sugar Limited Independent Expert's Report July 2019). For ICSM the EV in 2019 was an estimated $58.5 million consisting of $52m + $9m - $2.5m (source: Isis Central Sugar Mill Company Limited and Controlled

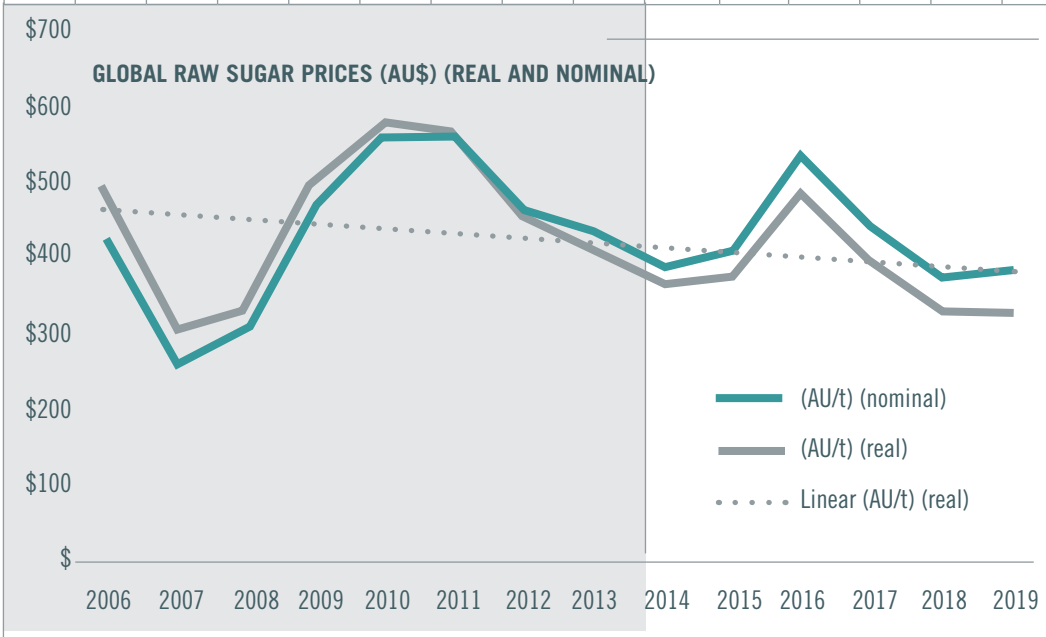
3 $1.27 billion by Wilmar for seven mills (another $0.48b in remaining Sucrogen assets); $0.136 billion by COFCO for the Tully mill; and $0.313 billion by Mitr Phol for four MSF Sugar mills.

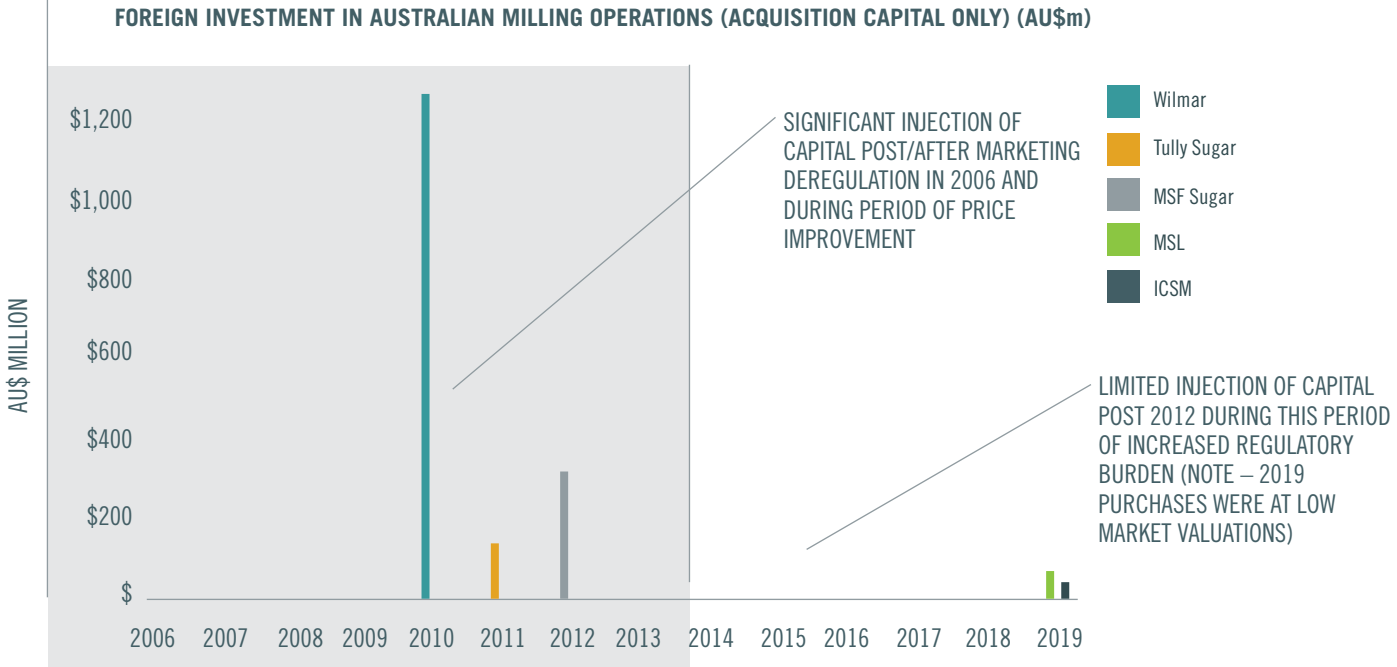
4 For example, the following investments in sugar cogeneration capacity were made: Wilmar approximately AU$150 million in 2005 in a 60MW capacity plant; Isis Central Sugar Mill (ICSM) and AGL approximately AU$50 million in 2006 for a 17MW capacity plant, Wilmar approximately AU$23 million in 2011 in a 18MW capacity plant and Mackay Sugar Limited approximately AU$114 million in 2013 in a 38MW capacity plant.

DIAGRAM 1: IMPACT OF THE VARIOUS MARKETING LAW CHANGES ON FOREIGN DIRECT INVESTMENT (FDI) LEVELS IN QUEENSLAND MILLING

● Decrease in regulatory burden ● No change in regulatory burden ● Increase in regulatory burden — Not analysed (p) Proposed

YEAR															NO.	INTERVENTION
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020(p)		
●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	1	Marketing
●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	2	Environment (reef)
●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	3	Energy/climate change policy
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	Water tariffs (grower)
—	—	—	—	—	—	—	●	●	●	●	●	●	●	—	5	Electricity tariffs (miller)
—	—	—	—	●	●	●	●	●	●	●	●	●	●	—	6	Miller local government rates
—	—	—	●	●	●	●	●	●	●	●	●	●	●	—	7	Vegetation management
—	—	—	—	—	—	—	—	—	●	●	●	●	●	—	8	Foreign investment
—	—	—	—	—	—		—	●	●	●	●	●	●	—	9	State planning
—	—	—	●	●	●	●	●	●	●	●	●	●	●	—	10	Electricity tariffs (grower)
—	—	—	●	●	●	●	●	●	●	●	●	●	●	—	11	Port charges
●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	12	WH&S





2.2 ELECTRICITY TARIFFS

2.2.1 MILLER TARIFFS

KEY FINDINGS

- ASMC members assessed that on average, the increase in Queensland Competition Authority (QCA) determined miller electricity charges from 2013 impose a **MEDIUM** regulatory burden on the sector.
- On average, respondents thought that the compound average growth rate (CAGR) increases in bundled electricity charges since 2013 are **HIGH** compared with other input cost CAGR increases and reform is required.
- Members indicated the proposed transition to new tariffs from 2021 will have mainly **NEGATIVE** cost impacts on milling operations.
- Increasing miller electricity charges and the proposed new tariffs from 2021 will mainly impact upon the **DIVERSIFICATION** revitalisation pillar given reduced profitability.

Introduction

Despite all sugar mills having co-generation capacity, they consume significant amounts of imported electricity in the non-crush period (January-June) and at the start of the crush to initiate boilers and other power-intensive parts of their operations.

In 2018, Queensland's sugar mills[5]:

- generated approximately 780,000 MWh of electricity
- exported approximately 348,000 MWh of electricity
- purchased approximately 12,710 MWh of electricity - the vast majority of which was in Queensland via the National Electricity Market and was purchased from Ergon under QCA-regulated tariff rates.

It is estimated that imported electricity charges represent around 0.8% of total cash operating milling costs (excluding cane purchases)[6].

How are electricity prices determined in Queensland?

The Queensland Government directs the Queensland Competition Authority (QCA) to determine regulated (bundled) retail electricity prices (notified prices) that will apply to standard contract customers outside the Energex distribution area (i.e. South-East Qld) from 1 July to 30 June each year. Essentially this is the area designated as the Ergon Energy isolated supply area and the Ergon Energy main network.

The QCA's primary role is to ensure that monopoly businesses operating in Queensland, particularly in the provision of key infrastructure, do not abuse their market power through unfair pricing or restrictive access arrangements.

A key directive to the QCA is the Queensland Government's Uniform Tariff Policy (UTP) that, inter alia, 'provides that, wherever possible, standard contract customers of the same class should pay no more for their electricity, regardless of their geographic location'[7].

The QCA has determined the 2019/20 Ergon tariffs. Of significance, to incentivise consumers to move usage away from peak periods and to improve cost recovery, T22 and T48 tariffs will become obsolete in 2021 and 2022 respectively. There is uncertainty in the sugar industry as to what alternative tariffs (T51 likely) are available and whether they will be more expensive and indeed, incentivise off-peak consumption.

Have electricity charges paid by millers increased from year 2013?

Applying the QCA-determined tariff schedules and assuming constant consumption, it is possible to calculate over the 2013/14 to 2019/20 reference period:

(a) whether electricity charges have increased in aggregate (Charts 5 and 6)

(b) the percentage increases in electricity charges year on year (compound average growth rates or CAGRs) compared with other relevant measures such as CPI (Charts 7 and 8).

Of note is that each sugar mill has a different demand profile and tariff cost comparisons can vary significantly. For these purposes two different but representative mills with different peak and off-peak demand and capacity (kVA) profiles were chosen (Mills A and B).

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5 ASMC annual data collection of Queensland sugar mills

6 Assuming an average T48 tariff of $330 MWh, the total industry cost in 2018 of consuming 12,710 MWh would be $4.2 million. The average cash costs of milling (excluding purchasing cane) is estimated to be $115 per tonne of sugar or approximately $518 million assuming 4.5 million tonnes of production.

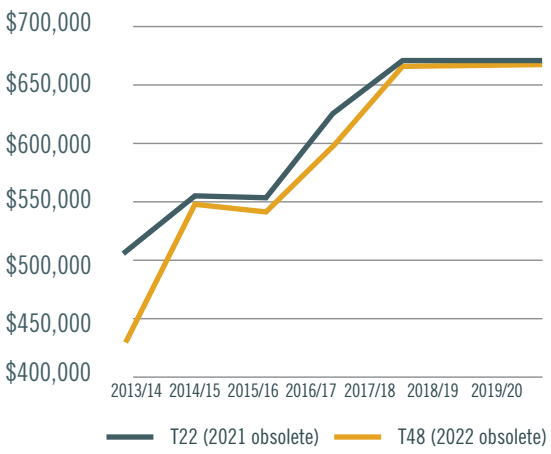
7 http://www.qca.org.au/getattachment/08e9efa1-05c3-4b81-8d18-94c69f49b2a0/Interim-consultation-paper-2019-20-Regulated-ret.aspx

All Queensland sugar millers have utilised the soon to be obsolete T22 and T48 tariffs. Charts 5 and 6 show the estimated increases in T22 and T48 charges over the reference period for two Queensland sugar mills (Mill A and B)[8]. For Mill A, T48 is the preferred tariff with total annual costs of $433,000 ($213/MWh) in 2013/14 increasing to $670,000 ($330/MWh) in 2019/20. T22 is comparable to T48 with costs in 2019/20 of $675,000 ($332/MWh). For Mill B, T22 is the preferred tariff with total annual costs of $496,000 ($220/MWh) in 2013/14 increasing to $664,000 ($294/MWh) in 2019/20.

Charts 5 and 6 show the annual average percentage increases (CAGRs) in T22 and T48 for Mills A and B over the reference period. For Mill A, T48 registers a very strong 6.4% CAGR and T22 a more moderate 4.3% notwithstanding that this tariff remains a slightly more expensive option. For Mill B, T48 registers a strong 4.1% CAGR and T22 a slightly higher 4.3%. In comparison since 2006/07, Australia's inflation rate[9] increased on average 1.8% per annum.

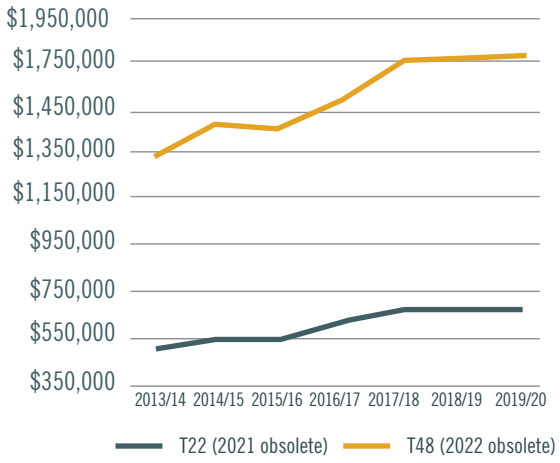
TOTAL MILL A AND B, T22 AND T48 QCA REGULATED ELECTRICITY COSTS AT 2018 CONSUMPTION LEVELS, 2013/14 – 2019/20

CHART 5: MILL A



SOURCE: ASMC, CALCULATIONS BASED ON QCA TARIFF DATA

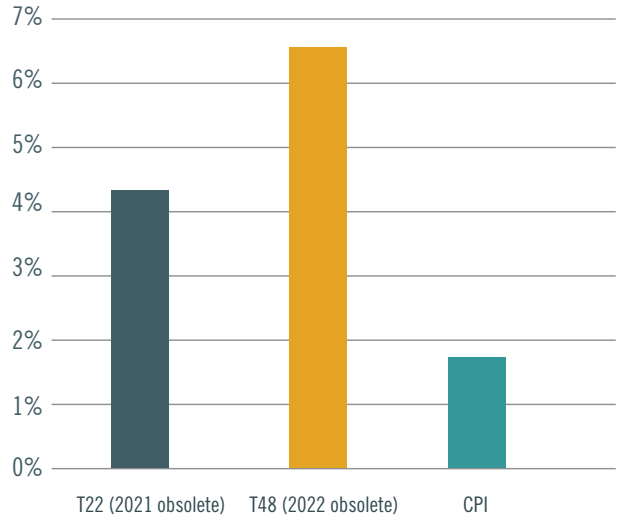
CHART 6: MILL B



SOURCE: ASMC, CALCULATIONS BASED ON QCA TARIFF DATA

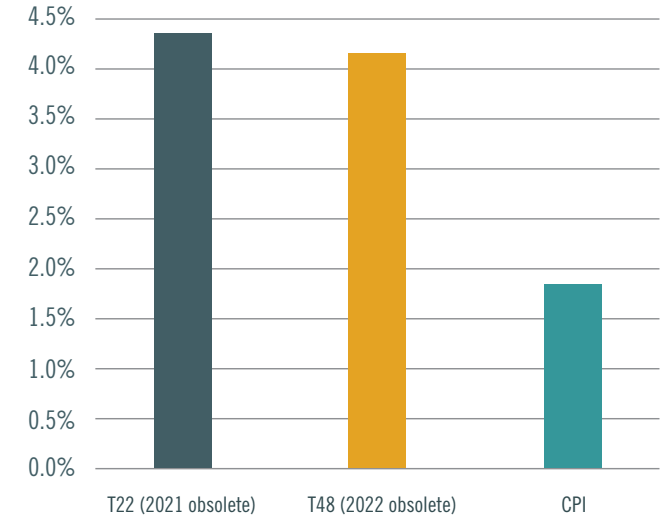
MILL A AND B COMPOUND AVERAGE GROWTH RATE (CAGR) INCREASES IN QCA-REGULATED ELECTRICITY CHARGES AT 2018 CONSUMPTION LEVELS, 2013/14–2019/20

CHART 7: MILL A



SOURCE: ASMC, CALCULATIONS BASED ON QCA TARIFF DATA

CHART 8: MILL B



SOURCE: ASMC, CALCULATIONS BASED ON QCA TARIFF DATA

8 Mill A is a single train mill producing less than 1 million tonnes of sugar per annum with 2 million kWh of demand (54% peak/46% off-peak split) and 1,670 kV of Authorised demand. Mill B is a single train mill producing less than 1 million tonnes of sugar per annum with 2.3 million kWh of demand (45% peak/55% off-peak split) and 8,420 kV of Authorised demand.

9 See https://www.abs.gov.au/ausstats/abs@.nsf/0/938DA570A34A8EDACA2568A900139350?Opendocument

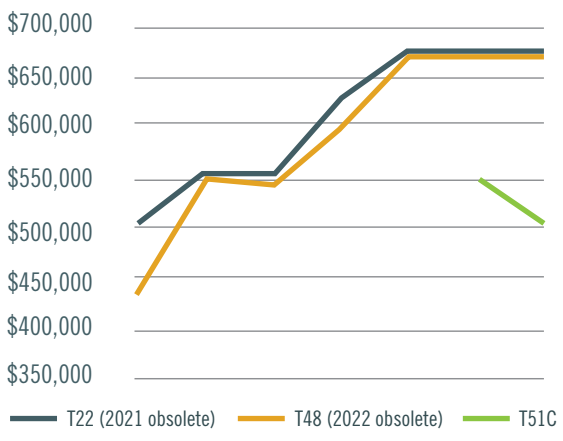
Will the milling sector be better off under the new tariffs?

Queensland sugar mills currently utilise the T22 and T48 tariffs that are proposed to be phased out in 2021 and 2022 respectively. Alternative tariffs could be T51A or C or T52B. The mills could also 'go to the market' and seek a more competitive retail rate.

Modelling conducted by ASMC shows that Mill A would be better off under T51C while Mill B would be worse off compared to T48. (Charts 9 and 10).

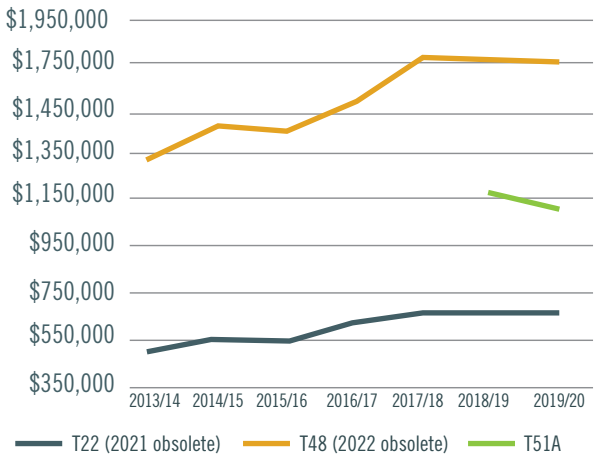
TOTAL MILL A AND B, T22, T48, T51A, T51C QCA REGULATED ELECTRICITY COSTS AT 2018 CONSUMPTION LEVELS, 2013/14–2019/20

CHART 9: MILL A



Source: ASMC calculations based on QCA tariff data

CHART 10: MILL B



Source: ASMC calculations based on QCA tariff data

What has been the impact on millers of continued increases in Ergon tariffs?

Energy charges are one of the 12 areas in the ASMC Regulatory Scorecard.

The regulatory impacts on milling operations of the steadily increasing and recently determined 2019/20 energy tariffs have been assessed by milling sector representatives from each ASMC member company on the basis of current and proposed new tariffs having a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 5 provides the total and average scores of survey respondents against each assessable intervention. Chart 11 shows the total scores in chart form.

Members were also asked to describe the impact post-2021 and 2022 when the T22 and T48 tariffs expire.

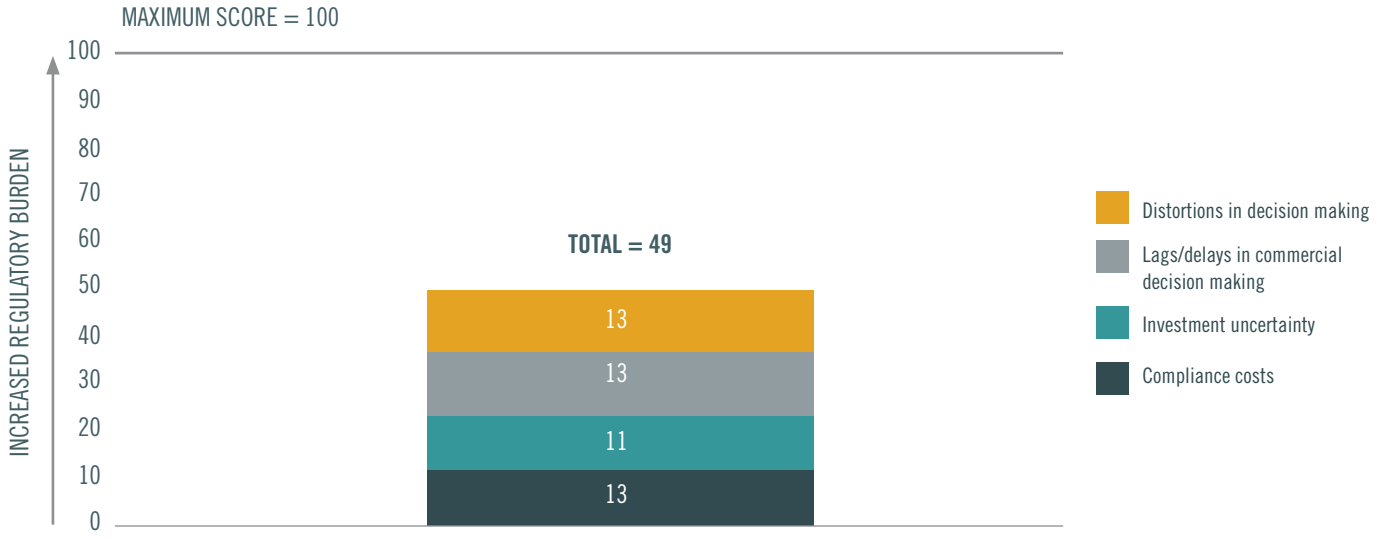
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 5: IMPACT OF QCA'S 2019/20 REGULATORY DETERMINATION OF ERGON MILLER TARIFFS: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	MILLER ELECTRICITY TARIFFS	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	13	Medium
Investment uncertainty (max. score is 25)	11	Low
Lags/delays in commercial decision making (max. score is 25)	13	Medium
Distortions in decision making (max. score is 25)	13	Medium
TOTAL	**49 OUT OF 100**	**MEDIUM**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 11: IMPACT OF QCA'S 2019/20 REGULATORY DETERMINATION OF ERGON MILLER TARIFFS: TOTAL SCORES OF ALL FIVE RESPONDENTS



In relation to the T22 and T48 CAGRs identified in Charts 7 and 8, survey responents were also asked to describe these increases relative to other cost increases their business may have encountered since 2009/10. Respondents, on average, thought these CAGRs were **HIGH** compared to other cost increases.

Comments

Miller representatives also described the impacts of the increases in miller electricity tariffs:

"We will do business as normal, and incur higher costs. We will keep up to speed with alternative power supply options."

"The new tariffs require greater resourcing to analyse a more complicated data set to optimise options available."

"This is the highest or one of the highest area CAGR increases we have faced."

"This is 3-4 x CPI - going up faster than most other expenses e.g. wages."

"Increased uncertainty to capital investment and contract direction in the electricity market."

"Some decisions are delayed awaiting outcome of the annual determination of retail tariffs."

"Decisions are delayed until the last moment to mitigate the anticipated higher tariff costs."

"The transitional period has allowed increased time for our business to move to higher cost tariffs."

ASMC also asked respondents the following question to understand the anticipated impacts post-2021:

In relation to the decision of the Queensland Government to make T22 and T48 obsolete from 2021 and 2022 respectively, do you anticipate that your electricity costs will go up or down across your milling operations? Please provide any details that you can – for example, what tariff/s will be preferred and what will be the approximate percentage increase or decrease in costs per annum?

Responses:

"Costs have been determined to increase by ~$300,000 at one site with high peak power imports."

"Exact costs yet to be determined. We are however installing additional diesel generation capacity before the tariff changes, which will assist in reducing our maximum demand."

"Up, by approx. 30%, tariff 51A."

"While some sites will see an advantage in transferring from their existing tariff, some will see a major unfavourable impact – as a result we expect electricity costs to go up by roughly $600k pa across the group (or roughly 17%). Each connection to a site is different - so the tariff change impact is different."

2.2.2 GROWER TARIFFS

KEY FINDINGS

- ASMC members assessed that on average, the increase in grower electricity tariffs since 2009/10 will impose a **LOW** regulatory burden on the milling sector.
- However, increasing grower electricity tariffs will negatively impact upon all three pillars of the revitalisation project – notably **CANE YIELD** and **CANE ACREAGE**.
- On average, respondents thought that the percentage year-on-year increases in bundled electricity tariffs are **HIGH** compared with other business input cost increases and changes are needed.
- Of note is the significant contribution of increasing electricity prices to the increase in water tariffs (refer Water Tariffs chapter).

Introduction

Growers typically incur two large electricity costs – indirectly and directly:

(1) Indirectly via regulated water tariffs – SunWater charge to move water into irrigation catchments and distributors charge to pump water to the farm gate.

(2) Directly through on-farm charges in pumping water from water sources under low or high-pressure onto the cane and for other on-farm purposes (e.g. workshops). The focus of this chapter is these direct electricity charges.

It is estimated that electricity for on-farm irrigation and other purposes can represent between 5-10%[10] of all operating costs for an irrigated sugarcane farm. Increases in electricity costs and large electricity bills received outside of cane payment periods have a significant impact on grower behaviour. These include cash flow concerns and in the absence of informed and accurate assessments, a reticence to irrigate especially during low sugarcane price periods.

How are electricity prices determined in Queensland?

The Queensland Government directs the QCA to determine regulated retail electricity prices (notified prices) that will apply to standard contract customers outside the Energex distribution area (South-East Qld) from 1 July to 30 June each year. This is largely the area designated as the Ergon Energy isolated supply area and the Ergon Energy main network.

The QCA's primary role is to ensure that monopoly businesses operating in Queensland, particularly in the provision of key infrastructure, do not abuse their market power through unfair pricing or restrictive access arrangements.

A key directive to the QCA is the Queensland Government's Uniform Tariff Policy (UTP) that, inter alia, 'provides that, wherever possible, standard contract customers of the same class should pay no more for their electricity, regardless of their geographic location.'[11]

The QCA has recently determined the 2019/20 Ergon tariffs. Of significance to incentivise consumers to move usage away from peak periods, a number of regulated tariffs currently utilised by the water distribution, milling and growing sectors will be removed in 2021.[12] There is currently uncertainty in the sugar industry as to what alternative tariffs are available and whether these tariffs will be more expensive, and indeed, incentivise off-peak consumption.

Sugarcane growers in Queensland currently utilise the T62, T65 and T66 tariffs that will become obsolete in 2021. An alternative tariff could be T20. While not the focus of this paper, at this stage water distribution operators appear likely to transition to T44 from T62.

10 Assumes an irrigated cane farm in the Burdekin for example with total operating costs of $38/t of cane, where water is provided from channels, and pumping costs (electricity only) of approximately $1.70/t of cane. Electricity costs could be higher dependant on the water source (for example underground aquifers) and the efficiency of on-farm pumping and application systems (Source: Wilmar).

11 http://www.qca.org.au/getattachment/08e9efa1-05c3-4b81-8d18-94c69f49b2a0/Interim-consultation-paper-2019-20-Regulated-ret.aspx

12 The Honourable Dr Anthony Lynham MP, Minister for Natural Resources Mines and Energy Media Statement (21 June 2019) announcing an extension to the phase out date for legacy electricity tariffs by 12 months. This decision applies to tariffs 20 (large), 21, 22 (small and large), 37, 62, 65 and 66, which will now be available until 30 June 2021. Tariffs 47 and 48 will continue to be phased out in 2022.

Have electricity charges paid by growers increased from year 2009/10?

Applying a reference year and constant electricity consumption, it is possible to calculate over the 2009/10-2019/20 reference period:

(a) whether electricity charges have increased in aggregate across the sector (Chart 12)

(b) the percentage increases in electricity charges year on year (compound average growth rates or CAGRs) compared to other relevant measures such as CPI (Chart 13)

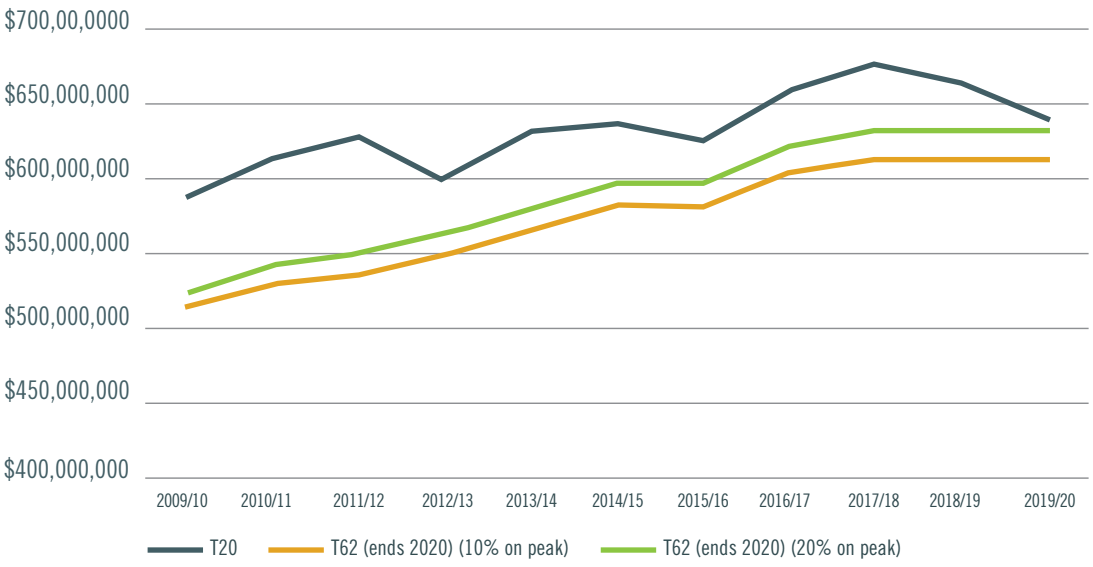
(c) from examining cost data published in QCA determinations, which cost factors are driving the increase in electricity costs and the percentage contribution of each factor to these higher prices (Chart 14).

Chart 12 shows the estimated, sector wide increases in total electricity charges between 2009/10 and 2019/20 for T62 (assuming 10% and 20% total peak consumption) and T20. Of note is that when the 2019/20 tariffs are applied, T20 approaches T62 when 20% peak consumption is applied, but becomes approximately $6 million per annum more expensive when 10% peak consumption is assumed. There is likelihood therefore that when T62 is made obsolete in 2021, and T20 is utilised, the growing sector's sector wide on-farm electricity costs will continue to increase.

Chart 13 shows the annual average percentage increases (CAGRs) in T62 and T20 over the reference period. T62 registers a very strong 6.6% CAGR and T20 a more moderate 2.5%, however this tariff remains a more expensive option. In comparison since 2006/07, Australia's inflation rate [13] increased 1.8% per annum on average.

In their 2019/20 *Regulated retail electricity prices report*, the QCA[14] published an annual notified price bill breakdown for T20 between 2015/16-2018/19. Chart 14 shows the percentage contribution of each of the regulatory cost 'building blocks'[15] to the overall increase in Ergon's T20 tariff. The most significant drivers of the increase in T20 tariffs were increases in energy costs (gas, coal, renewables) and retail costs (administration etc.) whereas changes in transmission and distribution costs put downward pressure on T20.

CHART 12: TOTAL ESTIMATED CANE GROWER COSTS OF T20 AND T62 REGULATED RETAIL ELECTRICITY TARIFFS AT 2018 CONSUMPTION LEVELS



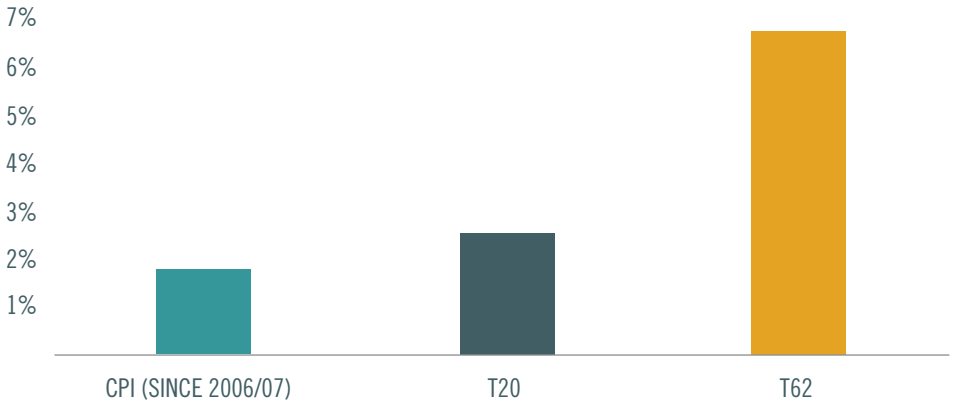
Source: ASMC calculations based on final QCA published tariffs
Based on an estimated 220,000,000 kWh of consumption pa across 4,550 growers

13 See https://www.abs.gov.au/ausstats/abs@.nsf/0/938DA570A34A8EDACA2568A900139350?Opendocument

14 Page 3, Figure 3 at http://www.qca.org.au/getattachment/08e9efa1-05c3-4b81-8d18-94c69f49b2a0/Interim-consultation-paper-2019-20-Regulated-ret.aspx

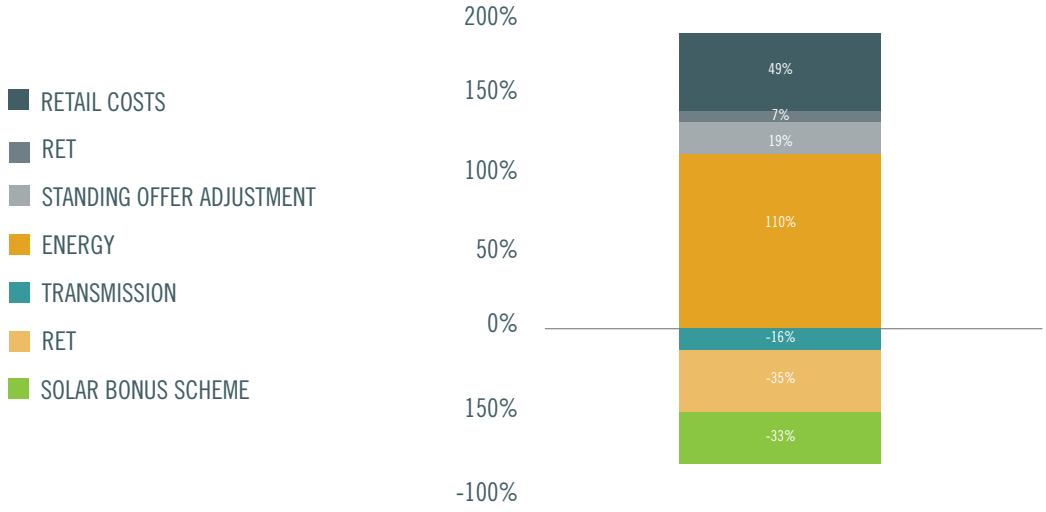
15 For these purposes the Projected Routine Expenditure costs were applied.

CHART 13: COMPOUND AVERAGE GROWTH RATE (CAGR) INCREASES IN T20 AND T62 QCA REGULATED ELECTRICITY GROWER CHARGES (2009/10-2019/20)



Source: ASMC calculations based on final QCA published tariffs
Based on an estimated 220,000,000 kWh of consumption pa across 4,550 growers

CHART 14: PERCENTAGE CONTRIBUTION OF EACH COST DRIVER TO INCREASES IN THE T20 ENERGY TARIFF 2015/16-2018/19



Source: ASMC analysis of QCA data

What has been the impact on millers of these increases in grower Ergon tariffs?

Regulated energy tariffs are one of 12 regulatory areas in the ASMC Regulatory Scorecard.

From a miller's perspective, the increase in grower electricity tariffs as at 2019/20 has been assessed by senior milling sector executives from each ASMC member company on the basis of whether they had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 6 provides the total and average scores of the survey respondents against each assessable intervention. Chart 15 shows the total scores in chart form.

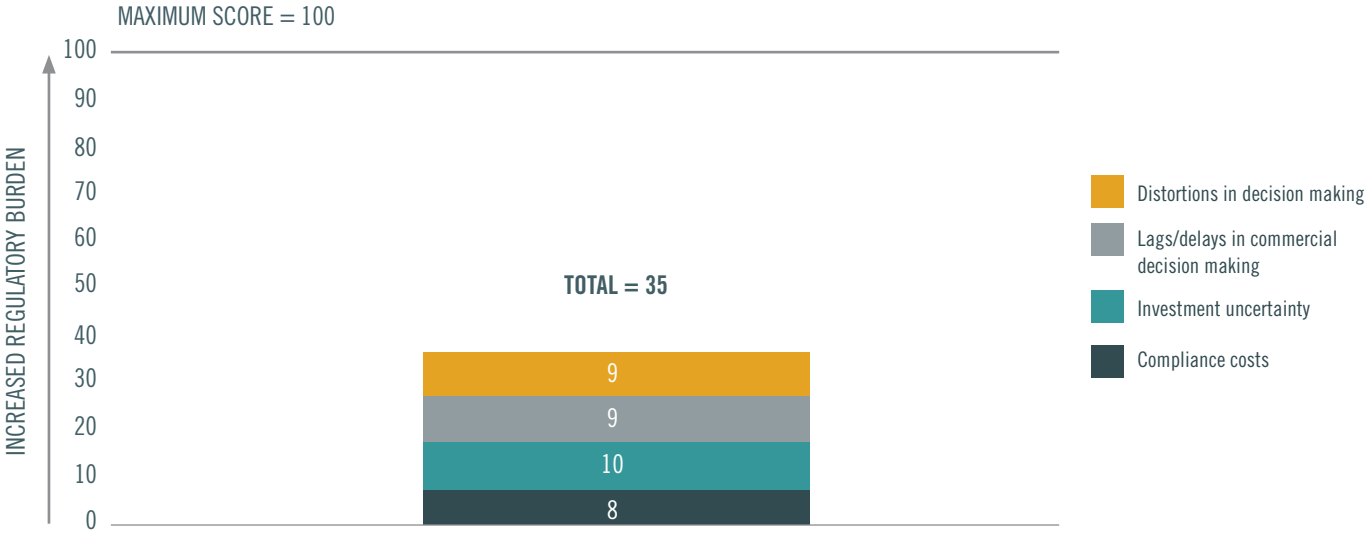
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 6: IMPACT ON MILLING OPERATIONS OF QCA'S 2019/20 REGULATORY DETERMINATION OF ERGON GROWER TARIFFS: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	PROPOSED 2020/21 TO 2025/26 SUNWATER GROWER CHARGES	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	8	Low
Investment uncertainty (max. score is 25)	10	Low
Lags/delays in commercial decision making (max. score is 25)	9	Low
Distortions in decision making (max. score is 25)	9	Low
TOTAL	**35 OUT OF 100**	**LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 15: IMPACT ON MILLING OPERATIONS OF QCA'S 2019/20 REGULATORY DETERMINATION OF ERGON GROWER TARIFFS: TOTAL SCORES OF ALL FIVE RESPONDENTS



In relation to the T62 CAGR identified in Chart 13, survey respondents were also asked to describe this increase relative to other cost increases their oganisation may have encountered since 2009/10. Respondents, on average, thought the T62 CAGR was HIGH compared with other cost increases.

Comments

Miller representatives described the impacts of the increases in grower electricity tariffs:

"Impact from this will be reduced irrigation leading to reduced tonnes of cane delivered to the mill."

"The 60s tariffs are popular with irrigators. A 6.6% average rise compared to a 2% CPI results in growers' resistance to use power. This then results in reduced irrigation water which leads to reduced tonnes of cane."

"We have been concerned about power prices but to date it has not been considered a limiting factor for reinvestment eg CAPEX and maintenance."

"Very concerned for grower viability. If we were planning an expansion project (which we are not) then it would be very concerning."

2.3 WATER TARIFFS

KEY FINDINGS

- ASMC members assessed that the increase in grower water charges since 2006 and proposed 2020-24 grower water charges will impose a **MEDIUM** regulatory burden on the milling sector.
- Increasing grower water charges and the proposed 2020-24 water charges will negatively impact upon all three pillars of the revitalisation project – notably **CANE YIELD**.
- On average, respondents thought that the percentage year-on-year increases in bundled water charges were **HIGH** compared with other cost increases.
- Reductions in proposed 2020-24 grower water charges are required to reduce the regulatory burden. Of note is the significant contribution of increasing electricity prices to water charges and the decision of the Queensland Government to direct the QCA to apportion dam safety upgrades to irrigation customers that will potentially increase water charges.

INTRODUCTION

Sugar mills consume small amounts of water as sugarcane contains 65-70% water, which is generally recycled through mills.

The more important issue is grower water costs and whether growers continue to irrigate their cane to improve yield and production.

Sugarcane growers in drier areas of the state consume significant water from a variety of sources including dams, groundwater and rivers, creeks with water pumped or gravity fed into irrigation channels and irrigation pipelines.

Sufficient volumes of water applied at appropriate times can significantly improve the amount of cane that is grown and, by inference, the amount of sugar produced.

It is estimated that water costs (bulk and distribution) on irrigated cane land can represent at least 15%[16] of all operating costs. Increases in water costs and large water bills payable outside cane payment periods have a significant impact on grower behaviour – including cash flow concerns (and in the absence of informed and accurate assessments), a reticence to irrigate especially during low sugar price periods.

Relative to other irrigators, the Queensland sugarcane sector is a significant water consumer. The ABS estimates that in 2017/18[17]:

- 1,719 agricultural businesses in the Queensland sugarcane industry consumed 1 million mega litres (ML) of water on 209,213 hectares (ha)
  - 1 million ML represents 37% of all Queensland's agricultural water consumption
  - 1,719 agricultural businesses represent 32% of all Queensland's agricultural businesses that irrigate
  - 209,213 hectares (ha) represents 50% of all Queensland's watered land.

How are irrigation prices determined?

The Queensland Government sets the price of irrigation water supplied by SeqWater in South-East Queensland and SunWater elsewhere in Queensland to recover the associated costs of the infrastructure (e.g. dams, weirs and channels).

Of relevance to the sugar industry are SunWater's bulk and distribution water charges, proposed by SunWater but ultimately subject to Queensland Competition Authority (QCA) scrutiny and determination.

According to the Queensland Government[18], prices are regulated to strike a balance in:

- cost recovery for the services provided
- impacts on customers
- keeping prices as simple and transparent as possible.

16 The SunWater water charges are an estimated $5.60/t cane for an irrigated cane farm in the Burdekin for example with total operating costs of $38/t of cane and where water is provided from channels (Source: Wilmar). Embedded in these water costs would be the energy costs incurred by SunWater to move and make the water available. Energy costs incurred directly by the farmer to pump the water for irrigation would be additional to this.

17 ABS, 46180DO002_201718 Water use on Australian farms_2017-18, 30 April 2019

18 https://www.business.Qld.gov.au/industries/mining-energy-water/water/industry-infrastructure/pricing/irrigation

19 https://www.qca.org.au/Water/Rural/Irrigation-price-investigations/In-Progress/Irrigation-Price-Review-2020-24

Prices are set following a QCA review process generally covering a 4–5 year period. The QCA recommends prices to government, which makes the final decision. The recommendations must be consistent with government pricing policies.

The government's key policy is to gradually increase prices to the point where they recover the irrigation sector's share of the schemes' operating and maintenance costs, but not any share of the initial costs of building assets constructed before 2000.

The government provides community service obligation (CSO) payments to Seqwater and SunWater from its budget when it becomes necessary to give operators additional revenue to meet the operating and maintenance costs to supply water for irrigation.

The QCA's 2017/18–2019/20 price review was deferred because some SunWater channel assets were being considered for transition to local management arrangements. Prices for 2017/18, 2018/19 and 2019/20 have been, or will be, adjusted in line with arrangements that applied until 2016/17. The next price review for 2020–24 by the QCA is currently under way with the government's decision expected in 2020[19]. In July 2019, SunWater lodged revised 2020-24 costings and proposed tariffs for the Water Supply Schemes (WSS) it operates. In September 2019, the QCA released its draft report including proposed new charges for 2020-24.

Have irrigation charges paid by growers increased from year 2006/07?

The sugar industry irrigates from numerous Water Supply Schemes (WSS) including Mareeba-Dimbulah, Burdekin-Haughton, Proserpine River, Pioneer River, Eton, Bundaberg and Mary River.

Applying a reference year of constant water consumption, it is possible to calculate over the 2006/07–2024/25[20] reference period:

(a) whether bulk water and water distribution charges have increased in aggregate across the growing sector (Chart 16)

(b) the percentage increases in bulk water and water distribution charges year on year (CAGRs) compared with other measures such as CPI and the ABS Building price index (Chart 17)

(c) which cost factors are driving the increase in distribution costs in particular, and the percentage contribution of each factor to these higher prices (Chart 18).

Chart 16 shows the aggregate, industry wide increase in total water charges (bulk and distribution) across five WSS between 2006/07 and 2024/25[21]. Of note is that for all of the WSS, bundled water costs (bulk water and distribution) have increased over the reference period.

Chart 17 shows the annual average percentage increases (CAGRs) in the unbundled costs (i.e. bulk water and distribution costs separately) over the reference period. Of note is that while bulk charges have remained relatively flat (except for Eton in the period 2020-2024[22]) distribution costs have increased significantly ranging from 4.2% (Mareeba) to 7% (Lower Mary). By comparison over the reference period, Australia's inflation rate[23] was an average 1.8% per annum and the ABS Building price index[24] was 1.9%. Across all WSS, and assuming constant levels of consumption, the CAGR increase in bundled water costs across the grower sector was 3.9% across the 2008/09–2024/25 reference period.

Applying granular cost data provided by SunWater to the QCA[25], Chart 18 shows the percentage contribution of each of the regulatory cost 'building blocks'[26] to the overall increase in SunWater distribution costs[27] for each WSS over the reference period. For example, in the Burdekin-Haughton WSS, 33% of the increase in distribution costs over the reference period was attributed to increases in electricity cost allocations while 31% was attributed to Local Area Support cost allocations. Of note at Chart 18 are the significant contributions of higher Electricity and Local Area Support cost allocations to the increases in distribution costs demonstrated in Charts 16 and 17.

Electricity in this context refers to the regulated electricity prices[28] that SunWater are compelled to pay and Local Area Support refers to scheme resources (be they bulk water or distribution related) as opposed to corporate resources.

---

20 The tariffs in the QCA draft report for the 2020-24 Irrigation Review released 9 September 2019 were utilised

21 Based on ABS catalogue 4618.0, this assumes a constant level of consumption in each year in each WSS including Burdekin-Haughton (623,847 ML consumed @ 9.1 ML/ha application rate), Eton (157,964 ML consumed @ 1.8 ML/ha application rate, Mareeba-Dimbulah (40,570 ML consumed @ 6.4 ML/ha application rate) and Bundaberg and Lower Mary (150,133 ML consumed @3.7 ML/ha application rate).

22 The increase shown for the EWSS distribution cost in SunWater's initial submission to the QCA 2020-24 price path does not take account of the significant step increase currently foreshadowed for electricity prices from 1 July 2020.

23 See https://www.abs.gov.au/ausstats/abs@.nsf/0/938DA570A34A8EDACA2568A900139350?Opendocument

24 Table 17 and Building construction (Australia) at https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6427.0Mar%202019?OpenDocument

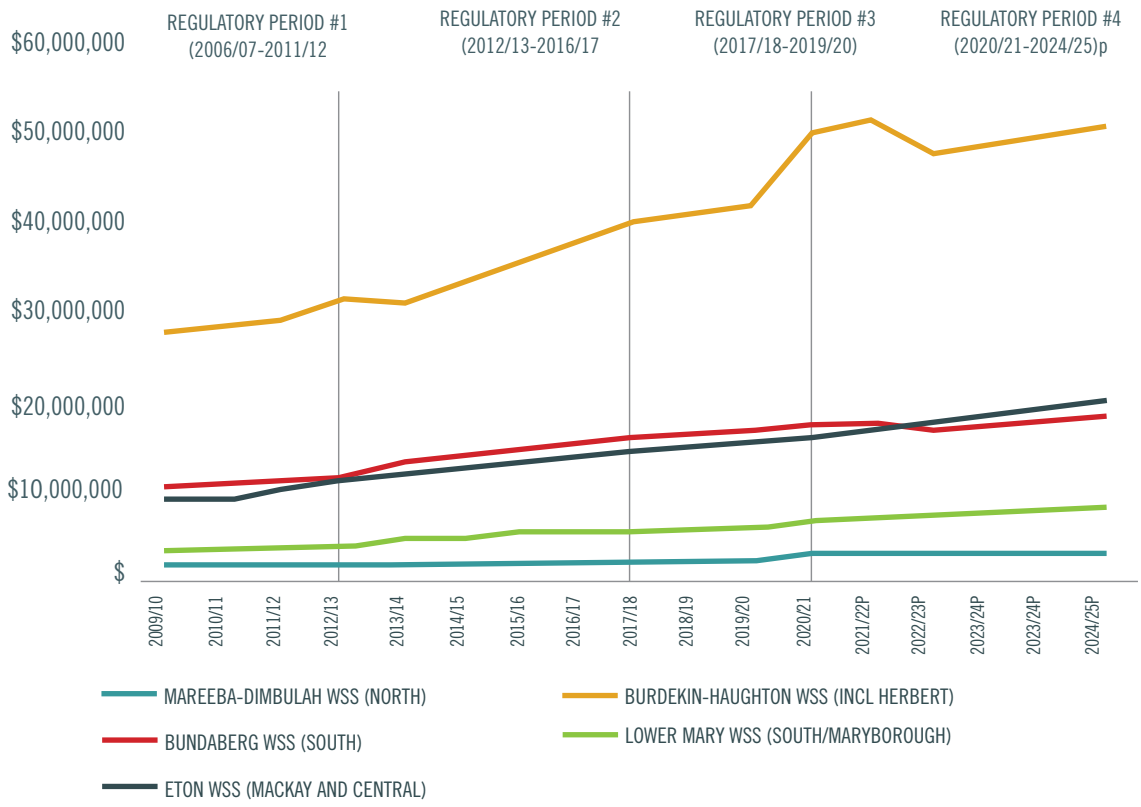
25 SunWater submission, Appendix F at http://www.qca.org.au/water/rural/irrigation-price-investigations/in-progress/irrigation-price-review-2020%E2%80%9324. Note – these costs should not be considered final and are subject to modification by the QCA.

26 For these purposes the Projected Routine Expenditure costs were applied.

27 Bulk and distribution costs could be viewed together as there has been significant restructuring and cost shifting between the two as SunWater geared up for transition to local management

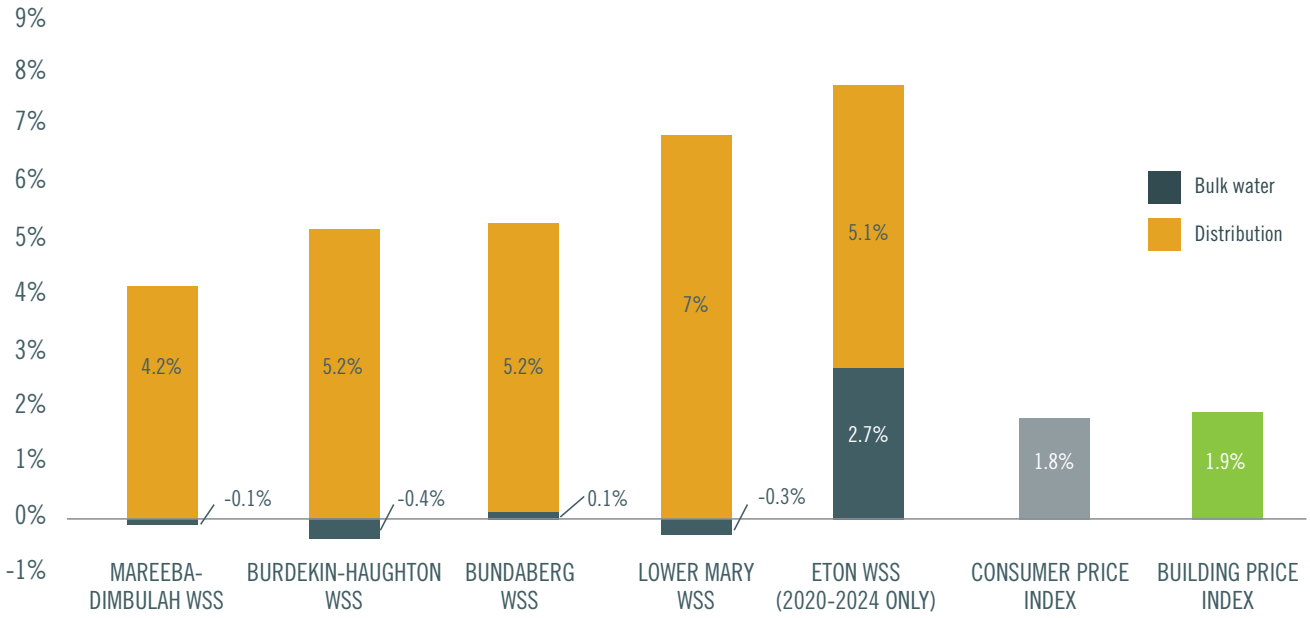
28 Like other Qld businesses, SeqWater is compelled to purchase electricity at regulated prices – be that power supplied by Ergon in regional Qld, of which regulated network distribution charges is a component.

CHART 16: TOTAL ESTIMATED GROWER COSTS OF ACTUAL AND PROPOSED (2020/24) REGULATED BULK WATER AND DISTRIBUTION WATER TARIFFS AT 2017/18 CONSUMPTION LEVELS



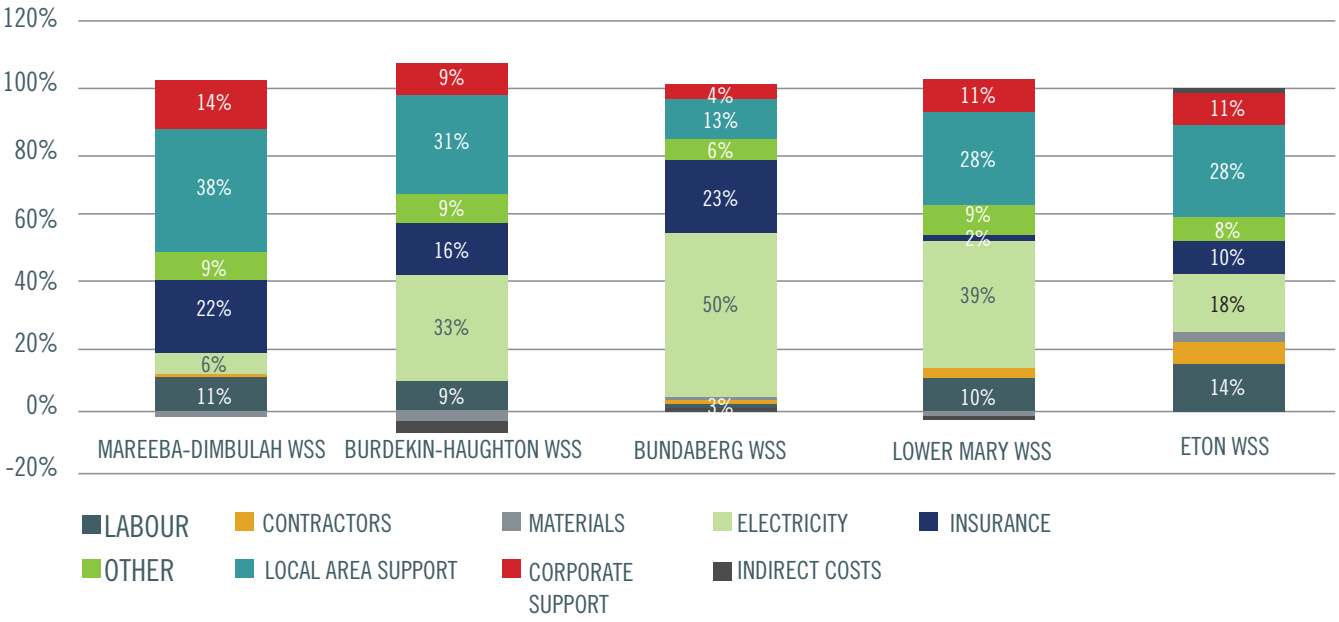
Source: ASMC calculations based on QCA and ABS data. p is proposed

CHART 17: COMPOUND AVERAGE GROWTH RATE INCREASES OF QCA REGULATED BULK WATER AND DISTRIBUTION WATER TARIFFS BY WSS (2006–2020)



Source: ASMC calculations based on QCA and ABS data

CHART 18: PERCENTAGE CONTRIBUTION OF EACH COST DRIVER TO THE INCREASES IN DISTRIBUTION CHARGES BETWEEN 2006/07 AND 2024/25



Source: ASMC calculations based on QCA data

What is the impact on millers from increased grower water charges?

Water charges are one of 12 areas identified in the ASMC Regulatory Scorecard.

Proposed 2020-2024 SunWater water charges on growers have been assessed by senior milling sector executives from each ASMC member company on the basis of whether the charges will have a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 7 provides the total and average scores of the survey respondents against each assessable intervention. Chart 19 shows the total scores in chart form.

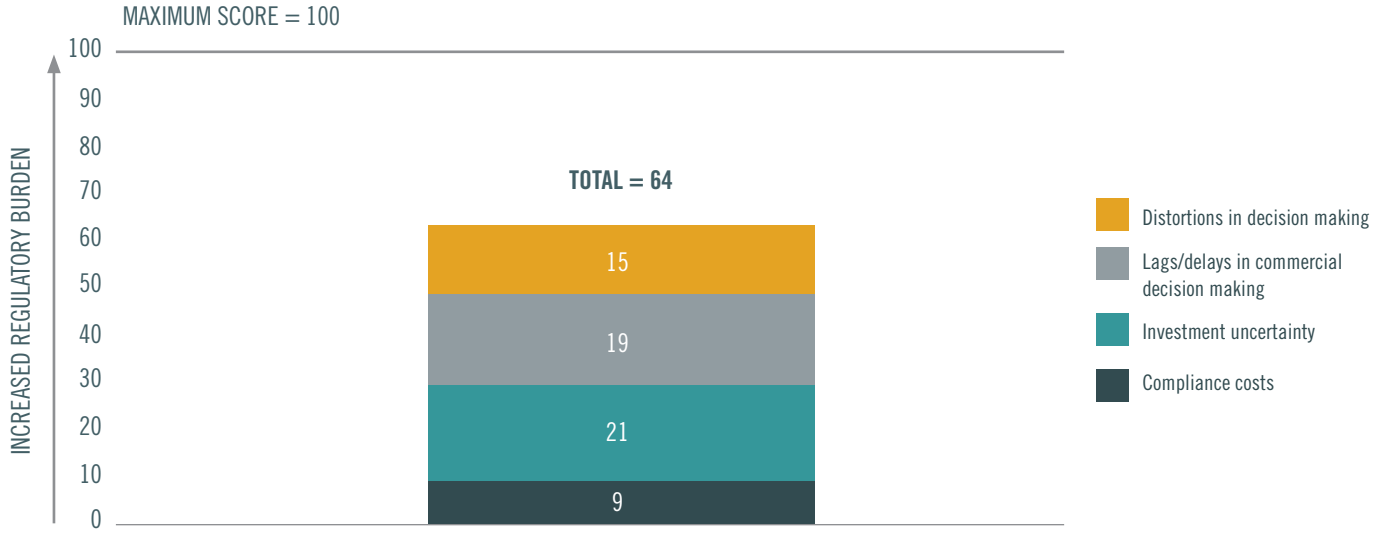
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 7: IMPACT ON MILLING OPERATIONS OF PROPOSED 2020–24 SUNWATER GROWER WATER TARIFFS: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	PROPOSED 2020/21 TO 2014/25 SUNWATER GROWER CHARGES	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	9	Low
Investment uncertainty (max. score is 25)	21	High
Lags/delays in commercial decision making (max. score is 25)	19	High
Distortions in decision making (max. score is 25)	15	Medium
TOTAL	**64 OUT OF 100**	**MEDIUM**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 19: IMPACT ON MILLING OPERATIONS OF PROPOSED 2020–24 SUNWATER GROWER WATER TARIFFS: TOTAL SCORES OF ALL FIVE RESPONDENTS



In relation to the CAGRs identified in Chart 17, survey respondents were also asked to describe the increases in bundled water charges on growers relative to other cost increases their organisation may have encountered since 2007. Respondents, on average, thought that the water CAGRs were HIGH compared with other cost increases.

Comments

Miller representatives also described the impacts of increased water tariffs and the proposed 2020–24 water tariffs:

> *"Costs have outstripped other production inputs and growers are now using less water, with subsequent lower yields compensated by lower production cost."*
>
> *"Investment is limited to reinvestment capital expenditure, including maintenance and Stay In Business capital."*
>
> *"Lower water use leads to greater reliance on rainfall, hence unreliable crop size. This limits the ability of growers and millers to forward price raw sugar. Other capital and maintenance spending is often distorted by uncertainty around crop size."*
>
> *"Production planning and raw sugar marketing is impacted by the unreliability of crop estimates, with reduced irrigation leading to late decisions by growers to stand marginal blocks over to the following year."*

2.4 PORT CHARGES

KEY FINDINGS

- ASMC members assessed that on average, the increase in port call and harbour dues charges since 2009 imposed a **LOW** regulatory burden on the milling sector.
- Increasing port charges will most negatively impact the **DIVERSIFICATION** revitalisation pillar.
- On average, respondents thought that the percentage year-on-year increases in charges (CAGRs) across the various sugar ports were **HIGH** compared with other business input cost increases.

INTRODUCTION

In 2018, Queensland sugar mills produced approximately 4.4 million tonnes of raw sugar and exported approximately 3.7 million tonnes to destinations including South Korea, Japan and Indonesia.

Queensland raw sugar destined for export is carried by bulk road and/or rail transport to six bulk storage and port facilities at Bundaberg, Mackay, Townsville, Lucinda, Mourilyan and Cairns.

Bulk storage facilities are owned by Sugar Terminals Limited and operated under contract by QSL. Adjacent port facilities are owned by Queensland Government Owned Corporations (GOC), specifically North Queensland Bulk Ports Corporation (Mackay), Port of Townsville (Lucinda, Townsville), Gladstone Ports Corporation (Bundaberg) and Ports North (Cairns, Mourilyan).

Highlighted in this chapter are GOC-related port charges, and the 'port call' and 'cargo-based' (harbour due) charges in particular. Port call costs refer to the various Port Authority charges (pilots, tugs, lines, security, port agent charges etc.) payable by a shipping company who in turn pass these charges on in the 'freight rate' they charge to the vessel charterer (shipper or buyer depending on the terms of the contract of sale). Alternatively, cargo-based charges refer to the various Port Authority charges (commonly harbour dues) that are payable by the shipper. These are usually levied on the quantity of cargo being loaded while port call costs are usually levied on the size of the vessel.

The ocean freight costs to milling companies of shipping raw sugar from these bulk facilities can vary between US$25/t (delivered Asia) to $70/t (delivered Europe). It is estimated that port call and cargo based charges (approximately $3.65/tonne) make up around 15% of these costs when exporting to Asia. The majority of the costs are shipping which are influenced by demand and supply conditions for vessels and the price of bunker fuel.

It is estimated that port call and cargo-based charges constitute around 2.5% of total cash operating milling costs (excluding cane purchases)[29].

How are Queensland Government Owned Corporation port charges determined?

Each Queensland GOC Port Authority provides a similar suite of port call services including tugs and pilotage, mooring and unmooring, customs reporting, garbage removal and security. The cost of these services to port users is determined by each Port Authority, which also determines the charges for cargo-based charges like harbour dues. The cost of these services is not regulated by a competition authority like the QCA or ACCC.

Have GOC port charges (port call and harbour due charges) paid by millers increased from year 2009/10?

Applying a reference year (i.e. constant 2018 export volumes and number of vessels), it is possible to calculate over the 2009/10 to 2019/20 reference period:

(a) whether GOC port charges have increased in aggregate across the milling sector (Chart 20)

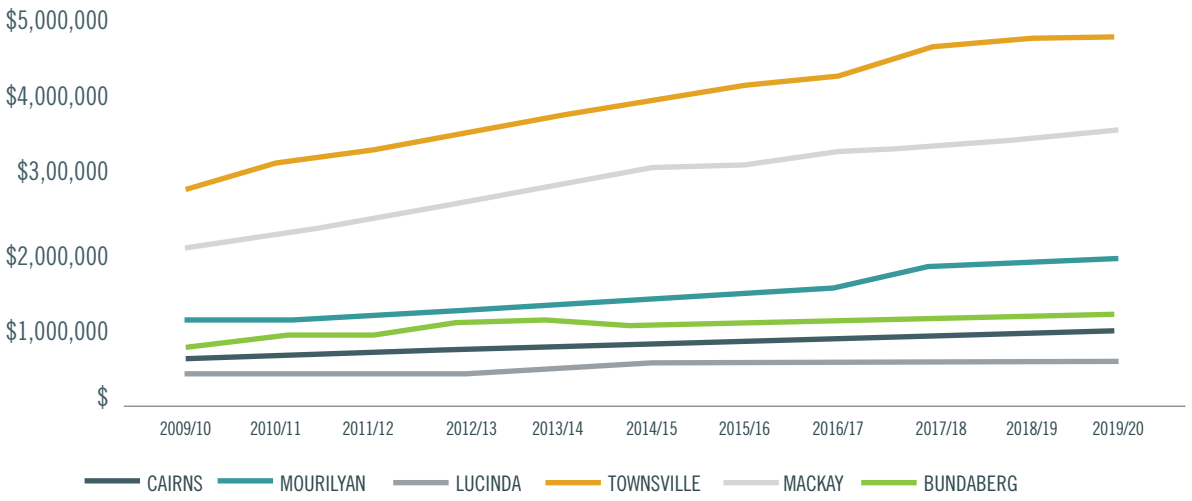
(b) the percentage increases in GOC port charges year on year (CAGRs) compared with other measures such as CPI (Chart 21).

29 Assuming 102 handysize vessels exporting 3.7 million tonnes of sugar including 7 from Cairns, 14 from Mourilyan, 15 from Lucinda, 27 from Townsville, 26 from Mackay and 14 from Bundaberg. When the known 2018/19 port call and cargo based port charges are assumed, the total industry costs come to $13.5 million per annum. The average cash operating costs of milling (excluding purchasing cane) is estimated to be $115 per tonne of sugar or approximately $518 million assuming 4.5 million tonnes of production.

Chart 20 shows the changes in total GOC port call and harbour due charges across six ports between 2009/10 and 2019/20[30]. Of note is that for all these GOC ports, charges increased over the reference period and is reported in Chart 21 using annual average percentage increases (CAGRs). Using the Port of Townsville, millers paid approximately $2.9 million in total port call and harbour dues charges in 2009/10 for 27 Handysize cargoes (~1,031,690 tonnes) and $4.8 million for the same number of cargoes and export volume in 2019/20. This equates to a CAGR of 4.7% over the reference period.

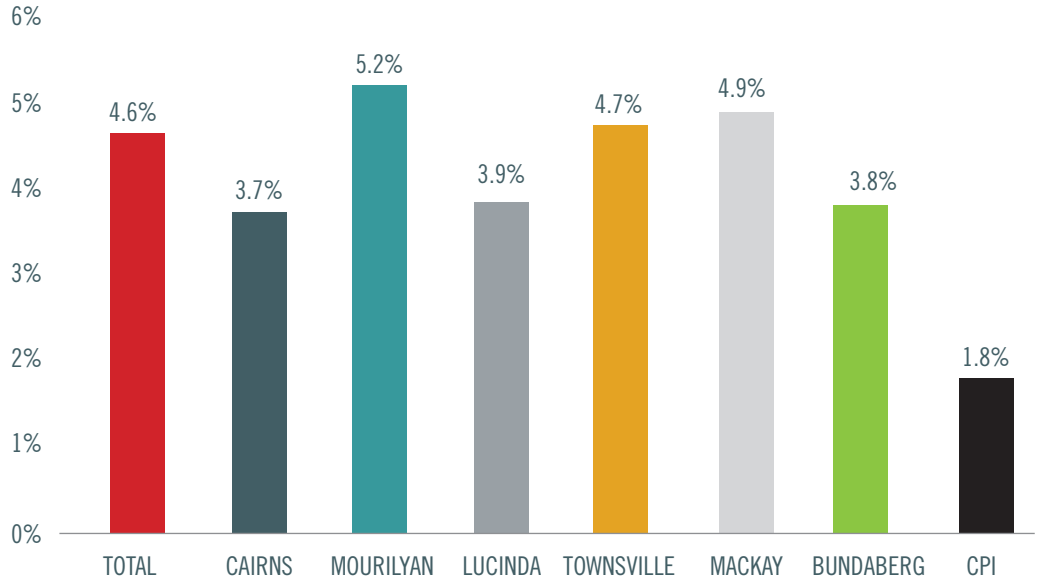
Appendix B contains the estimated total port call costs (with cost breakdowns) for a Handysize vessel and separately by port, harbour dues between 2009/10 and 2019/20.

CHART 20: BY PORT, TOTAL QLD PORT CALL AND HARBOUR DUE CHARGES AT CONSTANT 2018 TONNAGES AND VESSEL NUMBERS: 2009/10–2019/20



Source: ASMC calculations based on NQBPQ, Port of Townsville and Ports North data

CHART 21: BY PORT, CAGRS OF TOTAL QLD PORT CALL AND CARGO BASED PORT CHARGES AT CONSTANT 2018 TONNAGES AND VESSEL NUMBERS: 2009/10–2019/20



Source: ASMC calculations based on NQBPQ, Port of Townsville and Ports North data

30 This assumes a constant level of Handysize vessel exports in each year at each port including seven vessels from Cairns (235,570t), 14 from Mourilyan (561,717t), 15 from Lucinda (551,950t), 27 from Townsville (1,031,690t), 26 from Mackay (913,600t) and 14 from Bundaberg (415,000t). The total GOC port call charges by each port for a Handysize vessel were ascertained with the assistance of a shipping broker utilised by the millers. Care was taken to ensure a comparable comparison of costs year-on-year. The harbour dues data was collated from each Port Authority website.

What is the impact on millers from the increase in port charges?

Port Authority-determined charges are one of 12 areas in the ASMC Regulatory Scorecard.

From a miller's perspective, increases in Port Authority charges as at 2019/20 have been assessed by senior milling sector executives from each ASMC member company on the basis of whether 2018/19 charges have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 8 provides the total and average scores of the survey respondents against each assessable intervention. Chart 22 shows the total scores in chart form.

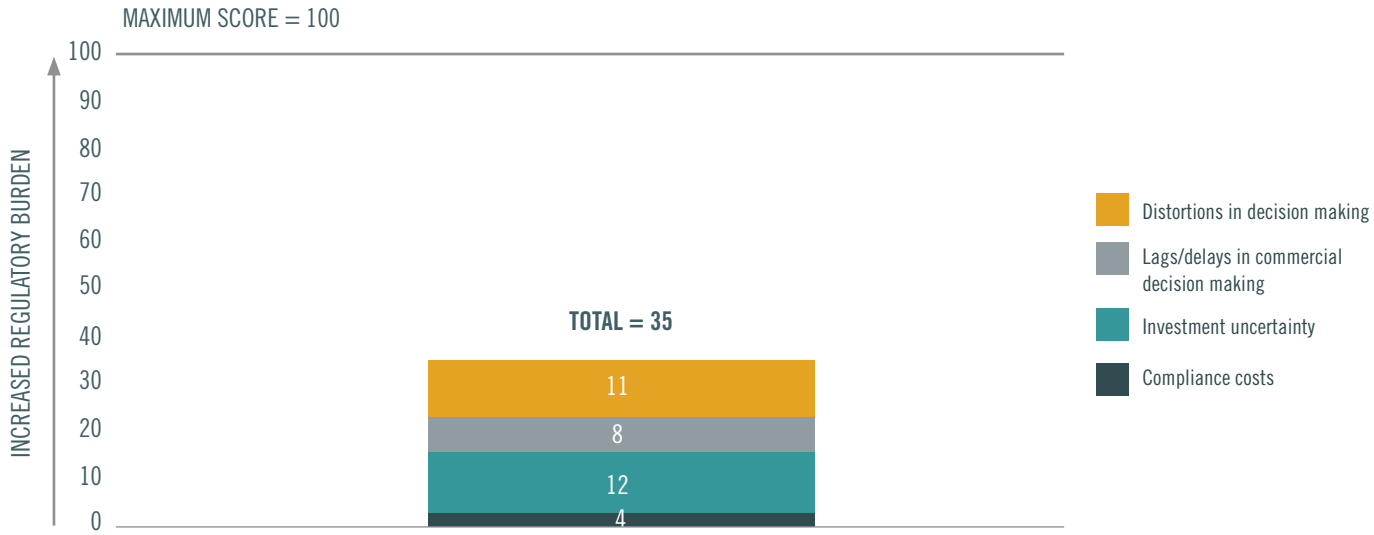
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 8: IMPACT OF 2019/20 GOC PORT CHARGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	2017/18 PORT AUTHORITY CHARGES	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	4	Very low
Investment uncertainty (max. score is 25)	12	Low
Lags/delays in commercial decision making (max. score is 25)	8	Low
Distortions in decision making (max. score is 25)	11	Low
TOTAL	**35 OUT OF 100**	**LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 22: IMPACT OF 2019/20 GOC PORT CHARGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



In relation to the CAGRs identified in Chart 21, survey respondents were also asked to describe the increases in port charges relative to other cost increases their oganisation may have encountered since 2009. On average, respondents thought that the port charge CAGRs were HIGH compared with other cost increases.

Comments

Miller representatives also described the impacts of increased port charges on their operations:

> *"Port charges over the past decade have increased at a rate that vastly exceeded inflation and escalation rates for other cost categories."*
>
> *"Increases in port charges have diminished value for our milling operations; a burden that falls entirely on the miller (despite >60% of sugar produced being to the economic benefit of growers)."*
>
> *"The period under review has largely been one of 'business as usual' rather than expansion - hence the limited impact here."*
>
> *"The increases in port charges well in excess of inflation are akin to a tax on sugar milling as the milling sector bears the entire cost burden."*

2.5 WATER QUALITY

KEY FINDINGS

- ASMC members assessed that on average, enactment of the *Environmental Protection (Great Barrier Reef Protection Measures) Other Legislation Amendment Bill 2019* (Qld) will impose a **HIGH** regulatory burden on the milling sector.
- If implemented the proposed regulations will negatively impact all three pillars of the revitalisation project but most notably **CANE YIELD** and **CANE ACREAGE**.

INTRODUCTION

Sugarcane growing in Queensland operates along a coastline shared with the Great Barrier Reef (GBR).

Considerable funds, time and effort over the past decade have been expended by governments and industry on GBR sustainability initiatives including targeted research to understand risks and their impacts, the introduction of best practice management including Smartcane BMP and improved record-keeping products and planning (e.g. Six Easy Steps program to support more precise nutrient management).

Beyond these initiatives, Australian governments have developed overarching plans and have introduced a number of regulatory interventions to accelerate changes in the Australian sugarcane growing sector to meet plan targets.

How have GBR water management policies and legislation changed since 2006?

Before 2009, sugarcane growing was subject to the *Environmental Protection Act 1994* that established a principle of environmental duty. Specifically, it placed a requirement on parties carrying out activities associated with sugarcane farming to take all reasonable and practicable measures to minimise the risk of harm to the environment.

Over time, the Australian and Queensland Governments released a number of plans, which set long-term goals for the protection of Great Barrier Reef water quality. The two primary plans introduced since 2006 are the:

- *Reef Water Quality Protection Plan 2013 (2013 Reef Plan)*
- *Reef 2050 Long-Term Sustainability Plan 2015 (2050 Plan).*

These set the basis for the legislative agenda of federal and state governments and inform future legislative amendments with respect to environmental protection.

Reef Plan (2013)

The 2013 Reef Plan set a number of targets to improve run-off water quality and land management practices. With regard to the sugar industry, it set the following targets:

WATER QUALITY TARGETS (2018)	LAND AND CATCHMENT MANAGEMENT TARGETS (2018)
At least a 50% reduction in anthropogenic end-of-catchment dissolved inorganic nitrogen (DIN) loads in priority areas	90% of sugarcane, horticulture, cropping and grazing lands are managed using best practice systems in priority areas
At least a 20% reduction in anthropogenic end-of-catchment loads of sediment and particulate nutrients in priority areas	
At least a 60% reduction in end-of-catchment pesticide loads in priority areas	

Reef 2050 Plan (2015)

The *Reef 2050 Plan* was introduced by the federal government in 2015 and amended in 2018. It is designed to operate as the overarching framework for protecting and managing the GBR until 2050.

The objective is to provide concrete targets, actions, objectives and outcomes along with defined areas of responsibility to comprehensively preserve the health of the GBR while allowing ecologically sustainable use.

The *Reef 2050 Plan* endorses the objectives set out in a 2013 version, and in addition to existing targets, it sets out a number of new actions, including:

- working with industries to measure management efforts to achieve best practice water quality management
- requiring farmers to be accredited to best management practice guidelines or to operate under an environmental risk management plan
- building the capacity for local government and industry to improve water quality management in urban areas
- reviewing and developing water quality objectives, targets and standards across the region
- strengthening protection of natural wetlands and riparian vegetation
- targeted environmental policy and regulation of sugarcane growing.

Since 2006, two significant regulatory interventions have (and will if passed) directly affect sugarcane growers.

(1) The *Great Barrier Reef Protection Amendment Act 2009 (Qld)* (GBR Amendment Act) and *Environmental Protection Amendment Regulation 2009 (Qld)* (EPA Regulation):
   - seeks to introduce a regulatory structure to reduce the impact of agricultural activities on the quality of water entering the GBR and contribute to achieving the targets under the Reef Water Quality Protection Plan
   - introduces a new Chapter 4A to the *Environmental Protection Act 1994 (Qld)* (EP Act), which targets sugarcane farming and cattle grazing.[31] Broadly, sugarcane growers whose operations are of a commercial scale and are located within one of three priority catchment areas (Mackay-Whitsundays, Burdekin and Wet Tropics) are required to limit the amount of fertiliser applied to their soil and prepare and report Environmental Risk Management Plans (ERMPs)
   - foreshadows financial penalties for sugarcane growers who fail to report ERMPs, as well as other technical breaches of Chapter 4A
   - inserts a new Part 1A (Agricultural ERAs) to make provisions relating to fertiliser application requirements and documentation requirements for agricultural environmentally relevant activities.

(2) The introduction to the Queensland Parliament on 27 February 2019 of the *Environmental Protection (Great Barrier Reef Protection Measures) Other Legislation Amendment Bill 2019* (Qld) (EP Amendment Bill).

   In summary this intervention seeks to amend the EP Act to strengthen GBR protection measures to improve the quality of water entering the GBR and aims to:
   - set limits for nutrient and sediment loads in each reef catchment to guide regulatory decision-making for improved water quality outcomes
   - apply minimum practice standards for agricultural environmentally relevant activities (ERAs) targeting nutrient and sediment pollution from key industries (including sugar) in reef regions
   - broaden the Great Barrier Reef catchment area to include Cape York, Fitzroy and Burnett- Mary regions
   - require advisers to provide advice about agricultural ERAs that is not false or misleading and to keep and produce records upon request
   - establish a framework for recognising industry best management practice
   - introduce measures to address additional nutrient and sediment loads from new cropping and industrial land uses to achieve 'no net decline' in reef water quality from new development
   - allow a regulation-making power to require data from the agricultural sector and to manage water quality offsets.

31 Environmental Protection Act 1994 (Qld), section 75(1).

What has been the impact on millers from changes in the environmental (water) legislation?

Water quality is one of 12 areas in the ASMC Regulatory Scorecard.

From a miller's perspective, the two significant changes to reef regulations identified above have been assessed by senior milling sector executives from each ASMC member company on the basis of whether they have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance cost

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 9 provides the total and average scores of the survey respondents against each assessable intervention. Chart 23 shows the total scores in chart form. Of note is that the proposed 2019 Reef regulations will significantly increase the regulatory burden on Queensland mills (compared with 2009 regulations).

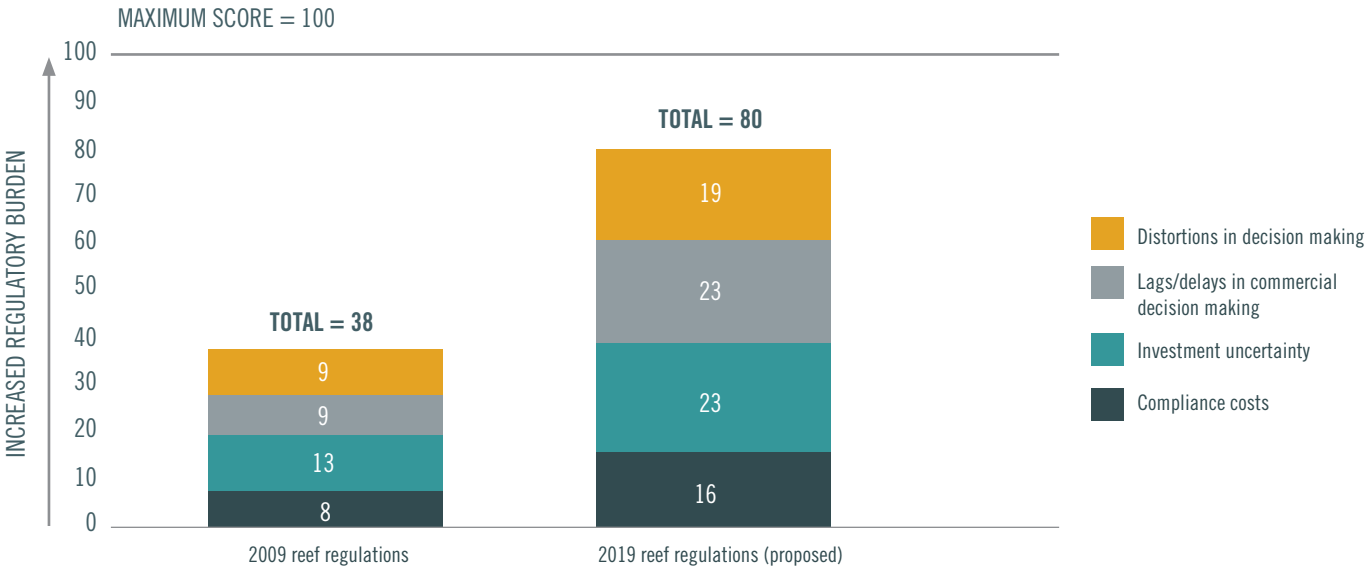
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 9: IMPACT ON MILLING OPERATIONS OF VARIOUS WATER QUALITY LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS BY ASSESSED INTERVENTION

	ASSESSED INTERVENTION/S		ASSESSED INTERVENTION/S	
	2009 REEF REGULATIONS		2019 REEF REGULATIONS (PROPOSED)	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	8	Low	16	Medium
Investment uncertainty (max. score is 25)	13	Medium	23	Very high
Lags/delays in commercial decision making (max. score is 25)	9	Low	23	Very high
Distortions in decision making (max. score is 25)	9	Low	19	High
TOTAL	**38 OUT OF 100**	**LOW**	**80 OUT OF 100**	**HIGH**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 23: IMPACT ON MILLING OPERATIONS OF VARIOUS WATER QUALITY LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

Miller representatives also described the impacts of the proposed 2019 reef regulation:

> *"As with the previous reef regulations - growers will require data - that will require work from the millers. Additionally it is proposed that DES may acquire data from the millers directly - this will incur legal and administrative resources."*

> *"Given the catchment load limits and the requirement for growers to comply with New ERA conditions - expansion is NOT possible. Additionally DES speaks of reducing N for different management zones - our research evidence suggests that if this is applied incorrectly it will reduce tonnes of cane and therefore reduce mill viability."*

> *"The ERA conditions can be changed (through a proposed legislated Heads of Power) at the CEO's request. This does not give any certainty with investment."*

2.6 ENERGY

KEY FINDINGS

- ASMC members assessed that on average, uncertainty with federal and state energy and climate change policy has imposed a **HIGH** regulatory burden on the milling sector.
- More specifically, changes to abatement and renewable energy targets, the Renewable Energy Target and carbon pricing policies, volatile NEM wholesale market prices, regional loss factors, AEMO generator performance standards, industry energy efficiency standards, and Queensland regulated import tariffs have all played a role in co-generation investment uncertainty.
- Energy and cabon pricing uncertainty has negatively impacted upon all three revitalisation pillars – most notably **DIVERSIFICATION**.

INTRODUCTION

By burning sugarcane fibre (bagasse – a milling by-product), sugar mills produce renewable electricity for internal consumption and export to the National Electricity Market (NEM). Unlike wind and solar, cogenerated (biomass) power generation provides a reliable source of renewable power at any time of day. Cogeneration based on bagasse is renewable because the sugarcane crop that produces it can be continually regrown.

There are currently 429 MW of installed cogeneration capacity in Queensland's 21 sugar mills producing around 1 million MWh of electricity annually. Around half is exported to the grid (enough to power 109,000 dwellings per year or 25% of all Brisbane dwellings).[32]

There is significant potential to increase cogenerated power from the sugar industry under the right commercial and policy settings. ASMC member analysis reveals the potential to reach 3,300,000 MWh in total electricity production annually, of which approximately 2,500,000 MWh would be available to sell to the grid (enough to power 543,500 dwellings or all of Brisbane). [33]

Under global agreements including the Kyoto Protocol and Paris Agreement consecutive Australian governments have supported national emission targets as Australia's contribution to global action to reduce greenhouse gas emissions. Despite electricity and stationary energy-related activity contributing most of Australia's emissions profile[34], Australian governments are still to reach agreement on a cogent, national renewable energy and climate change policy framework.

The advent of the Renewable Energy Target (RET) in 2001 and creation of revenue streams via Large-scale Generation Certificates (LGC) led to a significant increase in Queensland sugar mill cogeneration capacity. However, the issues for the sugar industry today are inconsistent abatement targets and subsequent policy changes (especially the RET and carbon pricing); the lack of ambition with energy and climate change policy (post abolition of the NEG emissions component); volatile NEM prices, and numerous other policy interventions that make it difficult to undertake assessments and prove market feasibility.

How have energy & climate change policies and regulation changed since 2000?

As with any substantial capital commitment, investors need long-term policy certainty (10+ years) to calculate future costs and revenues and to understand likely returns on investment. Policy uncertainty has been an enduring feature of the renewable energy landscape in Australia for the past 20 years and has had a significant flow-on impact to Australian sugar manufacturing and its ability to diversify milling operations into cogeneration.

Australian energy and climate change policy has principally sought to:

- create reporting obligations in respect of greenhouse gas emissions and
- set abatement and renewable energy targets and provide incentives for the development of renewable energy generation.

Differences between Australia's political parties over abatement and renewable energy targets have resulted in an overwhelming number of legislative changes at both state and federal levels.

Variable national emission targets and policies

Multiple national and state emission targets and policy ambitions have created policy and investment uncertainty. Examples of variable greenhouse gas abatement and renewable targets impacting the Queensland sugar industry are provided in Table 10.

32 Assumes ABS estimates of 437,500 dwellings in Brisbane consuming 4.6 MWh per dwelling (AEMC, 2017 Residential Electricity Price Trends)

33 Ibid

34 Quarterly Update of Australia's National Greenhouse Gas Inventory, December 2018

TABLE 10: VARIABLE GREENHOUSE GAS ABATEMENT AND RENEWABLE TARGETS

YEAR ANNOUNCED	FEDERAL GHG ABATEMENT TARGETS		QLD RENEWABLE ENERGY TARGET	
	KYOTO PROTOCOL			
2007	ALP position	108% of 1990 levels between 2008-2012		
	LIB/NAT position	Same as above		
	PARIS AGREEMENT			
2016	LIB/NAT position	26-28% below 2005 levels by 2030		
2018	ALP position	45% below 2005 levels by 2030	(2017) ALP	50% renewables by 2030

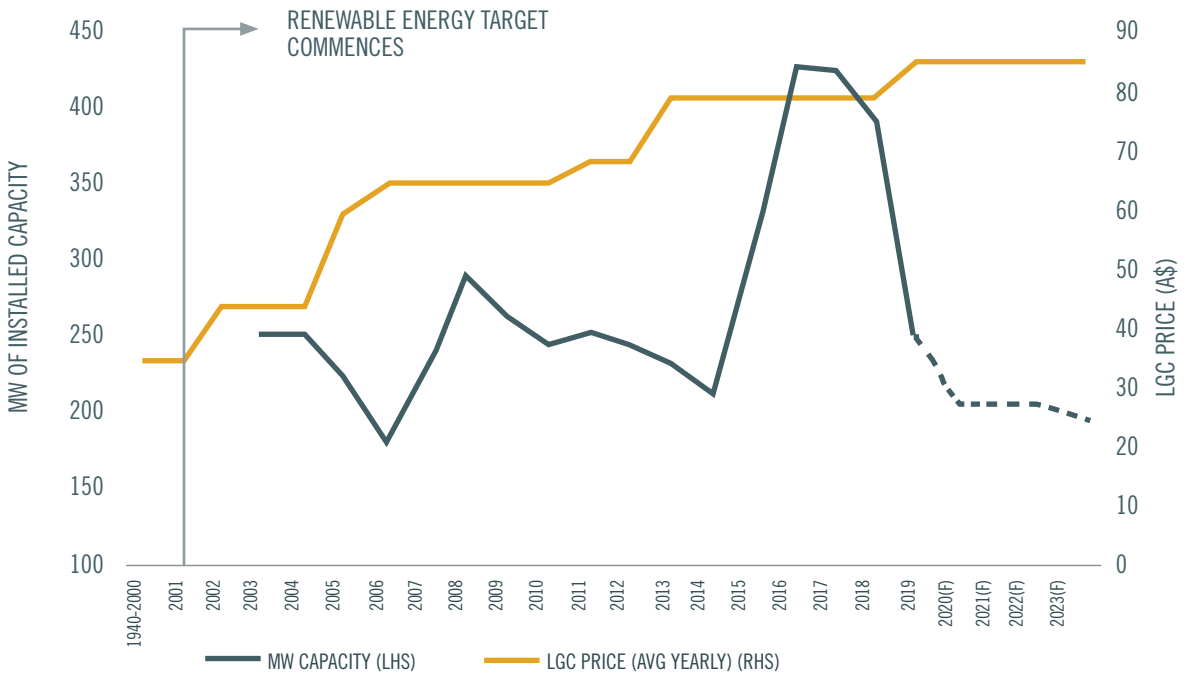
Energy policy in Australia and incentives for renewables are focused on the following to achieve these varying targets:

- a carbon price (economy-wide such as the Carbon Pollution Reduction Scheme and the carbon tax proposed under *Clean Energy Act 2011*) or on the energy sector only – such as the previous version of the NEG
- the Renewable Energy Target (RET) and the generation of certificates (see below)
- funding options (e.g. ARENA and CEFC) and reverse auction schemes
- improved data collection and reporting through the National Greenhouse Gas and Energy Reporting Scheme (NGERs).

Renewable Energy Target

The *Renewable Energy (Electricity) Act 2000* (Cwth) (Renewable Energy Act) came into effect in 2001. The revenue raised through LGC sales has boosted cogeneration capacity from 233 MW pre-RET to 429 MW today (Chart 24).

CHART 24: POSITIVE IMPACT OF RET AND LGC REVENUES ON SUGAR INDUSTRY COGENERATION INVESTMENT



Source: Green Energy Markets and ASMC

The following changes have occurred to the RET since 2001:

- From 2001, the policy aimed to source 2% or 9,500 GWh of the nation's electricity generation from renewable sources through the creation and sale of RECs and additional revenues for accredited power stations. Registered RECs can be sold or transferred to entities with liabilities under the RET or other companies looking to voluntarily surrender RECs. Liable entities are companies (mainly electricity retailers) that are required to purchase and surrender RECs to the Clean Energy Regulator each year to fulfil obligations under the *Renewable Energy (Electricity) Act 2000*.
- In 2009, the Amendment Act was passed and gave effect to the federal government's expanded national RET scheme. The amended RET scheme extended and expanded the existing RET from a target of 9,500 GWh of electricity from renewable sources by 2010 to a target of 45,000 GWh by 2020. The new target was designed to achieve the government's commitment to at least 20% of Australia's electricity coming from renewable sources by 2020.
- From 2010, renewable energy certificate (REC) prices crashed as a result of a steep increase in demand for mainly household small generation units (SGUs), which created a large numbers of RECs within a short period of time. Consumer demand for SGUs was driven by a series of generous federal government subsidies such as the former Solar Hot Water Rebate and Solar Homes and Communities Plan, and state-based subsidies such as solar feed-in tariff schemes. As a result, the Renewable Energy Act was amended again in 2010 in accordance with the R*enewable Energy (Electricity) Amendment Act 2010* (Cwth) (2010 Amendment Act) to divide the RET into two schemes: the Large-scale Renewable Energy Target (LRET)(with LGCs or Large Scale Generation certificates) and the Smaller-scale Renewable Energy Scheme (SRES). Targets of 41,000 GWh for the LRET and 4,000 GWh for the SRES were set.
- From 2015, the RET was amended again to reduce the large-scale renewable energy target for 2020 from 41,000 GWh to 33,000 GWh with this level to be maintained until 2030 and to allow full exemptions for electricity used in prescribed emissions-intensive trade-exposed activities. The impetus for the reduction in the RET was falling demand for electricity. This resulted in the 41,000 GWh target that was intended to represent 20% of all power generation in 2020 being forecast to represent 27% when modelled in 2014.
- In 2019, the RET was fully contracted and the Large-Scale Generation Certificate (LGC) price dropped into the mid-20 range.

National greenhouse and energy reporting

The *National Greenhouse Gas and Energy Reporting Act 2007* (Cwth) (NGER Act) came into effect in 2007. This Act created a national reporting framework for entities whose energy consumption breached certain thresholds. The stated policy objective of the NGER Act was to:

- provide a single, cooperative, streamlined reporting system for greenhouse and energy data across all jurisdictions that imposes the least cost and red tape burden needed to maintain the integrity of existing national data collections
- provide for the removal of current, and avoidance of future, duplicate reporting requirements
- provide greenhouse and energy data that are nationally consistent, robust and comparable across jurisdictions to inform decision making on greenhouse and energy policy and actions by government and business
- make information on greenhouse and energy related performance of companies available to the public.

What has been the impact on millers from changes in the energy & climate change policy and regulatory settings?

Energy and climate change is one of 12 areas in the ASMC Regulatory Scorecard.

Senior milling sector executives from each ASMC member company were asked to rank the uncertainty created by changes to the RET, a lack of clear energy and climate change targets and policy and the NGER according to whether they have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 11 provides the total and average scores of the survey respondents against each assessable intervention. Chart 25 shows the total scores in chart form.

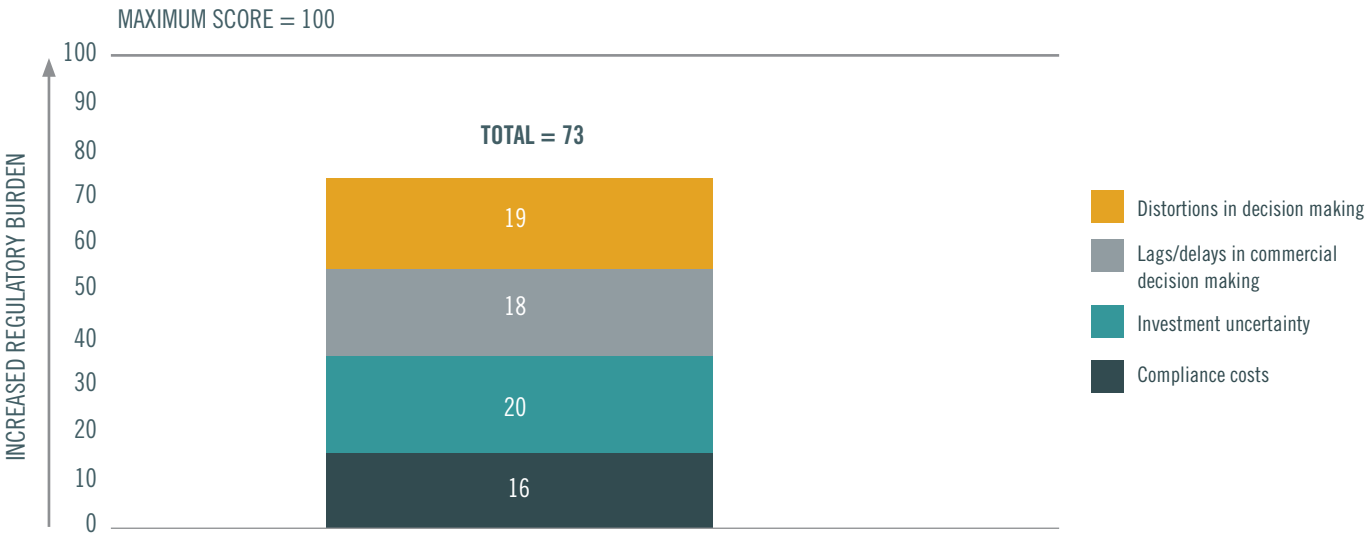
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 11: IMPACT ON MILLING OPERATIONS OF VARIOUS ENERGY AND CLIMATE CHANGE LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	POLICY UNCERTAINTY	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs	16	Medium
Investment uncertainty	20	High
Lags/delays in commercial decision making	18	High
Distortions in decision making	19	High
TOTAL	**73 OUT OF 100**	**HIGH**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 25: IMPACT OF VARIOUS ENERGY AND CLIMATE CHANGE LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

Miller representatives also described the impacts of energy and climate change policy uncertainty:

"Since the introduction of RET and NGERs, Mackay Sugar has invested considerable time in understanding our obligations, and analysing opportunities under changing policies and regulations. While internal processes have been established to minimise reporting time, this is still a moderate cost to the business, especially with regulatory changes."

"Mackay Sugar has invested about $120m in a large cogeneration plant based on revenue from export energy and LGCs. Project finance was contingent on a 6-year PPA, which has now expired. The project revenue is now market linked, and the recent collapse of the LGC price has negatively impacted project returns. Revenue uncertainty due to changes in the RET target, volatility in NEM wholesale prices, and reductions in regional loss factor benefits, has resulted in Mackay Sugar shelving all plans for further investment in renewable electricity."

"The value of Mackay Sugar's renewable fuel (bagasse) varies considerably depending on the price received for exported electricity and LGCs from the cogeneration investment. The company has considerable opportunities to implement energy efficiency projects to increase bagasse for cogeneration, but these projects now have low priority due to the reduced revenue streams from cogeneration."

"Changes to RET targets, carbon pricing (e.g. CPRS, Safeguard Mechanism), NEM wholesale market prices, regional loss factors, AEMO generator performance standards, industry energy efficiency standards, and Queensland regulated import tariffs have all played a role in decision making for Mackay Sugar over the last 20 years. Consistent, long-term energy policies are critical for our business to determine the optimal investment strategy to maximise returns from our investment in energy efficiency and renewable energy."

"Investment uncertainty has prevented not only expansion but effective and long term asset replacement strategies."

"We are unable to execute long-term solutions with confidence - as a consequence shorter term solutions are sought."

"Decisions are left until the last possible moment at the cost of efficient and effective solutions."

2.7 VEGETATION MANAGEMENT

KEY FINDINGS

- ASMC members assessed that on average, the introduction of the *Vegetation Management and Other Legislation Amendment Act 2009* (Qld), the *Vegetation Management Framework Amendment Act 2013* (Qld) and the *Vegetation Management and Other Legislation Amendment Act 2018* (Qld) imposed collectively a **LOW** regulatory burden on the milling sector.
- However, restrictions, especially on Category C (high value regrowth) will negatively impact the **CANE ACREAGE** revitalisation pillar.

INTRODUCTION

Vegetation management (retention) is a contentious issue in Queensland with the government and opposition parties holding vastly different views on how it should be managed. This has resulted in a plethora of legislative amendments and changes in government policy over recent years. Since its inception, the *Vegetation Management Act* has been the subject of 41 amendments, with more than 20 of those being major changes that required landholders to significantly change existing vegetation and property management plans.

Given the high cost of transporting sugarcane to mills, the land footprint for cane growing is typically in close proximity to a mill. The Australian sugar industry has had a relatively constant land footprint over more than a century of operation. Industry data[35] confirms that over the past 45 years the amount of sugarcane under cultivation in Queensland has increased an average 1.2% per annum (226,000ha to 372,000ha). Over this time sugarcane land has also been used for alternative activities including timber plantations, bananas, grazing, tree crops and nuts. Today, a number of mills are actively pursuing approaches to convert some of this land back to sugarcane.

How have vegetation management policies and legislation changed since 2009?

There have been three distinct and significant regulatory interventions in the Queensland vegetation management area since 2009:

(1) The *Vegetation Management and Other Legislation Amendment Act 2009* (Qld) (VM Act 2009) came into effect under the ALP Government in 2009 and sought to provide a new legislative framework for the protection of important regrowth vegetation. In summary this intervention:

- amended the *Vegetation Management Act 1999* (Qld) (VM Act) and *Integrated Planning Act 1997* (Qld) (IP Act) to provide a new legislative framework for the protection of important regrowth vegetation
- repealed the *Vegetation Management (Regrowth Clearing Moratorium) Act 2009* (Qld) and provided for the long-term regulation of regrowth vegetation on agricultural and grazing leasehold land and non-urban freehold and indigenous land through a performance based compliance code (i.e. the Code)
- commenced new regrowth vegetation regulations retrospectively from the end of the moratorium, to prevent pre-emptive clearing.
- mapped and regulated areas of regrowth vegetation which are woody vegetation which meet certain specified criteria
- excluded regulation of regrowth vegetation less than 20 years old, to avoid impact on the most productive primary production lands, while at the same time protecting regrowth vegetation that is likely to be a functioning ecosystem
- implemented a partnership between industry and government to co-deliver training and information on the new regrowth vegetation regulations.

(2) The *Vegetation Management Framework Amendment Act 2013* (Qld) came into effect in 2013 under a LNP Government and sought to scale back much of the 2009 legislation. In summary this intervention:

- repealed regrowth regulations on freehold and indigenous lands for clearing high value growth
- created new clearing purposes for 'high value agriculture clearing', 'irrigated high value agriculture clearing' and 'necessary environmental clearing'
- created a new head of power under the VM Act to allow for the development of self-assessable vegetation clearing codes.
- streamlined mapping by creating a single 'regulated vegetation management map'
- removed section 60B sentencing guide to allow a court to apply the *Penalties and Sentencing Act 1992*, providing a more equitable and consistent approach to sentencing

35 ABARES, Australian sugar production, 1973-74 onwards.

- removed unfair enforcement and compliance provisions so that standard prosecution principles apply and landholders are not automatically held responsible for clearing on their land without evidence
- removed the VM Act's interaction with the *Wild Rivers Act 2005*.

(3) The *Vegetation Management and Other Legislation Amendment Act 2018* (Qld) was enacted by the current ALP Government in 2018 and sought to re-regulate and re-instate the previously (2009) repealed vegetation laws, as well as strengthen the framework in relation to remnant vegetation, 'high value' regrowth vegetation and riparian zones. In summary this intervention:

- extended the protection of high value regrowth vegetation to align with the international definition of 'High Conservation Value'
- removed high value agriculture and irrigated high value agriculture as a relevant purpose under the VM Act
- provided changed re-growth classifications
- provided consistent protection to regrowth vegetation near watercourses in all Great Barrier Reef catchments, by extending category R to include regrowth vegetation in watercourses and drainage feature areas in three additional Great Barrier Reef catchments
- re-introduced provisions in the *Water Act 2000* (Qld) (Water Act) to require landholders to obtain riverine protection permits for clearing vegetation in a watercourse
- provided enhanced compliance measures that will assist with enforcement of vegetation management laws consistent with other similar contemporary natural resource legislation
- provided an option to landholders to request an area mapped as a category X area to be converted to a category A area, where the area contains remnant vegetation or high value regrowth vegetation on the ground
- supported the implementation of the revised accepted development vegetation clearing codes, including changes to area management plans.

What has been the impact on millers from changes in vegetation management laws?

Vegetation management is one of the 12 areas in the ASMC Regulatory Scorecard.

The three significant vegetation management changes identified above have been assessed by senior milling sector executives from each ASMC member company on the basis of whether they have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 12 provides the total and average scores of the survey respondents against each assessable intervention. Chart 26 shows the total scores in chart form.

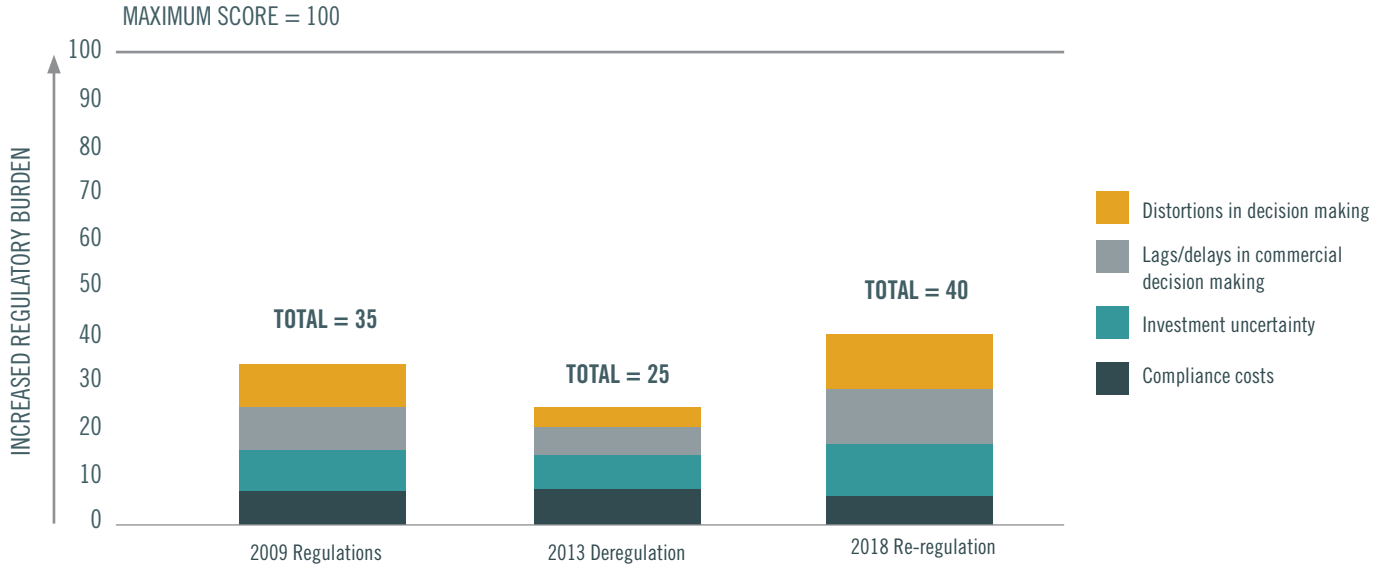
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 12: IMPACT ON MILLING OPERATIONS OF VARIOUS VEGETATION MANAGEMENT LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S					
	2009 REGULATION		2013 DEREGULATION		2018 REREGULATION	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	8	Low	8	Low	6	Very low
Investment uncertainty (max. score is 25)	9	Low	8	Low	11	Low
Lags/delays in commercial decision making (max. score is 25)	9	Low	6	Very low	11	Low
Distortions in decision making (max. score is 25)	9	Low	4	Very low	11	Low
TOTAL	**35 OUT OF 100**	**LOW**	**25 OUT OF 100**	**LOW**	**40 OUT OF 100**	**LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 26: IMPACT ON MILLING OPERATIONS OF VARIOUS VEGETATION MANAGEMENT LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

Miller representatives also described the impacts of the various regulatory changes to vegetation management following the 2009 Act:

2013 changes

> *"Gave confidence for possibilities regarding growth."*
>
> *"Repealing regrowth restrictions allowed development of unused cane lands."*

2018 changes

> *"Gaining permission to maintain existing drainage infrastructure concerning dead vegetation."*
>
> *"All changes in 2018 Act concern us in relation to agricultural enterprise's future development."*
>
> *"Category C (high value regrowth vegetation) is a concern – across our supply region and potential new supply regions land went out of cane or grain crops – large sections of this land has had cattle grazing and therefore strong regrowth has occurred. Our concern is that this may now be lost to cropping? To the extent that this will impact we are not sure. For example, when the Wallaville Mill closed – some land has long-term regrowth – our concern is that this was cropping ground and we want to bring it back into cropping and we may not be able to. Further, in Wallaville to Gayndah – dairy and cropping ceased in the mid to late 80s. We want to develop cropping land now into cane land – regrowth has occurred and we may not be able to. Even locally there are parcels that grew cane up to the mid to late 80s and now is heavily timbered with regrowth."*

2.8 FOREIGN INVESTMENT

KEY FINDINGS

- ASMC members assessed that on average, the introduction of changes to Australia's foreign investment framework in 2015 imposed a **LOW** regulatory burden on the milling sector.
- The rating does need to be taken in context with a number of members yet to be exposed to the controls – and given market conditions, few are making acquisitions.
- Two members significantly exposed to the new controls rated the burden as **HIGH**.
- The 2015 foreign investment controls negatively impact all three pillars of the revitalisation project – most notably **CANE ACREAGE** and **CANE & SUGAR YIELD**.

INTRODUCTION

The ownership structure of the Australian sugar manufacturing sector has changed significantly over the past 10 years.

Following acquisition of Mackay Sugar by the German-based company Nordzucker AG ($120 million equity and debt contribution) and a pending investment by Almoiz (Pakistan) in the Isis Central Sugar Mill ($35 million equity investment), 19 of the 21 operating mills in Queensland will have significant or majority foreign share ownership (Mossman and Rocky Point being the exceptions).

Previously, Singapore-based Wilmar paid $1.75 billion for Sucrogen (from CSR) in 2010; the China-based conglomerate COFCO injected $136 million into Tully Sugar Limited in 2011; and the Thailand-based Mitr Phol made a $313 million investment in MSF Sugar Limited in 2012. While there was interest in investment from domestic sources in some of these businesses, they were unable to match the levels offered by international companies.

This injection of capital following the 2006 deregulation of sugar marketing laws came after a long period of significant under-investment in Australian sugar mill operations. This investment has ensured that sugar industry participants have sufficient capital to undertake essential maintenance and provide growers with confidence in the capacity of the factories they supply. The new investment has also provided the opportunity to consider value-adding projects such as bio refineries and cogeneration.

However, Australia's foreign investment regulations have changed significantly in recent years. Given the high level of foreign ownership in the Australian sugar industry and ongoing benefits of investor-friendly regulations, the burden of regulatory change is of high importance.

How have Australia's foreign investment laws changed?

In 2015, the Commonwealth Government introduced a package of legislation with the stated policy objective of strengthening the integrity of the foreign investment framework in Australia.

The 2015 Amendments comprised the following Acts:

- *Foreign Acquisitions and Takeovers Legislation Amendment Act 2015* (Cwth) (FATAA)
- *Foreign Acquisitions and Takeovers Fees Imposition Act 2015* (Cwth) (FATFA)
- *Register of Foreign Ownership of Agricultural Land Act 2015* (Cwth) (RFOAL Act).

Enactment was followed by the introduction of supporting regulations.

Key amendments

The primary changes related to the FATAA, which sought to modernise foreign investment rules and strengthen the enforcement of the foreign investment system, including:

- introducing civil penalties and additional stricter criminal penalties for non-compliance
- the transfer of responsibility for regulating foreign investment in residential real estate to the Australian Taxation Office (ATO)
- the lowering of screening thresholds for investments in Australian agricultural land and agribusiness to ensure significant investments in this sector are scrutinised.

Lower approval thresholds

Beyond the positive streamlining of various provisions, the 2015 amendments also introduced measures that could be viewed as a disincentive for foreign investment in Australia.

- The approval threshold for private foreign investment in agricultural land (whether by acquiring interests in the land or in a share or unit in an agricultural land corporation or trust) decreased from $252m to $15m (cumulative)[36]
- The approval threshold for private foreign investment in agribusinesses is now $58m.

Changes to these thresholds significantly increased the number of transactions involving sugarcane farms and sugar mills requiring FIRB approval.

Stronger penalties

The penalties that could be imposed for non-compliance by foreign investors with foreign investment regulations were strengthened under the FATAA with the introduction of civil penalties and increases to existing criminal penalties.

As a result of the 2015 amendments, breaches by foreign investors are subject to significant fines under the civil penalties provisions, which allow for penalties of up to $45,000 for individuals and $225,000 for a body corporate. The criminal penalty framework could also result not only in significant fines for foreign investors (up to $135,000 for individuals and $675,000 for a body corporate) but also possible imprisonment for non-compliance.

Higher application fees

The FATFA Act was introduced to operate in conjunction with the FATAA. Specifically, it sought to introduce fees on all foreign investment applications, including:

- fees for applications relating to exemption certificates
- fees for giving notice of notifiable actions
- fees where more than one action is taken
- fees for internal reorganisations.

Before 2015, there were no fees for applications and their administration was funded through consolidated government revenue. Tables 13 and 14 demonstrate that for sugar mill acquisitions over $1 billion and agricultural land over $10 million, market rates for legal assistance for the approval application process are $105,200 (Source: McCullough Robertson Lawyers). The fees further increased the already substantial costs associated with engaging advisors to guide a foreign investor through the approval application process.

TABLE 13: INDICATIVE LEGAL FEES FOR COMMERCIAL LAND AND ENTITIES AND BUSINESS ACQUISITIONS

CATEGORY	CONSIDERATION FOR THE ACQUISITION IS: $10 MILLION OR LESS	CONSIDERATION FOR THE ACQUISITIONS IS: ABOVE $10 MILLION AND NOT MORE THAN $1 BILLION	CONSIDERATION FOR THE ACQUISITION IS: ABOVE $1 BILLION
Acquisition is of a direct interest in an Australian entity or Australian business that is an agribusiness (i.e. sugar mill)	$2,000	$26,200	$105,200

TABLE 14: INDICATIVE LEGAL FEES FOR AGRICULTURAL LAND ACQUISITIONS

CATEGORY	CONSIDERATION FOR THE ACQUISITION IS: $10 MILLION OR LESS	CONSIDERATION FOR THE ACQUISITIONS IS: ABOVE $10 MILLION AND NOT MORE THAN $1 BILLION	CONSIDERATION FOR THE ACQUISITION IS: ABOVE $1 BILLION
Agricultural land	$2,000	$26,200	$105,200

Source: Foreign Acquisitions and Takeovers Fees Imposition Act 2015 (Fees Act) and Foreign Acquisitions and Takeovers Fees Imposition Regulation 2015 (Fees Regulation)

36 Calculated by adding the consideration to the value of agricultural land the acquirer (and its associates) already holds.

FIRB application fees are payable for any application or notice given relating to foreign investment in agricultural land or agribusinesses. The applicable fees range from $5,000 to $100,000 depending on the consideration for the proposed acquisition. The application fee must be paid before an application is processed, subject to the Treasurer's statutory power to waive and remit fees.

There is broad concern that the fees incorporate the costs of administrative activities that are unrelated to the processing of the applications for foreign investment. Activities such as data collection, monitoring, compliance and enforcement activities currently covered by the fees provide benefits to the Australian Government rather than the foreign investor. These fees are more consistent with a tax on foreign investment in agriculture than a means of full cost recovery, the primary intent of the fees.

Introduction of agricultural land register

The RFOAL Act was designed to complement changes introduced under FATAA and FATFA by establishing an Australian Tax Office register of foreign ownership of agricultural land.

Broadly, the RFOAL Act requires foreign persons to register information about their existing holdings and subsequent acquisitions and disposals of interests in Australian agricultural land, providing greater transparency in relation to the level of foreign ownership of agricultural land.

The introduction of the land register has further increased administrative and compliance costs for foreign investors and is viewed as another deterrent to investment in Australian agriculture, and particularly, the sugar industry.

Advertising requirements

Following the 2015 amendments, foreign investment regulation has been tweaked by a number of policy measures set out in Guidance Notes released by FIRB. Guidance Notes are not legislated and therefore not binding on foreign investors. However, they provide an indication of how FIRB will interpret the law in particular circumstances.

Most notably for the sugar industry, Guidance Note 17 introduced the 'Australian opportunity – an open and transparent sale process' requirement. This 'advertising requirement' provides that FIRB approval will not be granted for acquisitions of interests in agricultural land in circumstances where the relevant agricultural property has not been offered for sale publicly and, marketed widely for a minimum of 30 days. The intent of the policy is to provide an opportunity for Australian individuals and entities to bid for the assets.

Definition of what constitutes 'marketed widely' is given in the Guidance Note. An open and transparent sale process means advertising on real estate listing sites or large regional and national newspapers. Various exemptions are provided in this process, including where an Australian entity is retaining a 50% or greater interest; undertaking internal reorganisations or where the acquiring entity is an ASX-listed company.

What is the impact on millers from the 2015 changes to the foreign investment regime?

Foreign investment controls are one of 12 areas in the ASMC Regulatory Scorecard.

The 2015 changes to Australia's foreign investment controls have been assessed by senior milling sector executives from each ASMC member company on the basis of whether the charges have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 15 shows total and average scores of the survey respondents against each assessable intervention. Chart 27 shows the total scores in chart form.

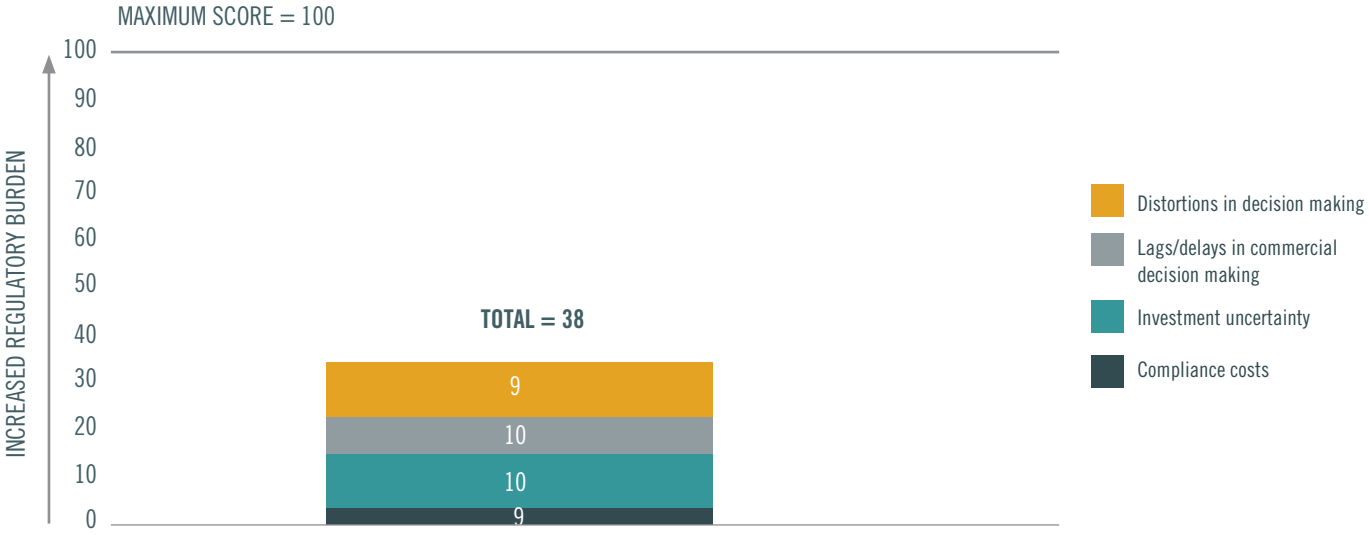
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 15: IMPACT OF VARIOUS FOREIGN INVESTMENT LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	2015 FOREIGN INVESTMENT	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	9	Low
Investment uncertainty (max. score is 25)	10	Low
Lags/delays in commercial decision making (max. score is 25)	10	Low
Distortions in decision making (max. score is 25)	9	Low
TOTAL	**38 OUT OF 100**	**LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 27: IMPACT OF VARIOUS FOREIGN INVESTMENT LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

Miller representatives also described the impacts of the 2015 foreign investment changes:

"We have had to engage external law firms to advise on compliance issues and application of the changes post changes to the Singapore Free Trade Agreement which saw the lower levels in respect of agricultural land applied to Singapore owned entities."

"Legal resources to fully understand the requirements and also how they apply to particular transactions, including for example, providing funding (and seeking land as security) to growers to assist them in purchasing in their name, agricultural land."

"The changes have created uncertainty in the milling operations being able to support growers who provide cane to the mills and ensure that land will remain under cane. The volume of cane produced and supplied underpins a successful milling operation."

"The thresholds make it harder for us to add smaller parcels to increase the efficiency of our existing farms. Also they have increased the hurdles for potential purchasers of our existing land holdings."

"Decisions with respect to almost any investment opportunities are now often the subject of external legal advice, internal scrutiny and FIRB applications. This process is costly, takes considerable time and creates delay and uncertainty in being able to undertake investment opportunities."

"How does one buy land at auction under the new requirements? Also the FIRB timeframes are not particularly quick and they routinely ask for extensions of time."

"FIRB considerations are now a major initial consideration, often even before the commerciality of potential investments has been considered. When assisting growers, it adds a complexity, which makes processes inefficient or just too hard to continue with."

"Time delays, inability to purchase at auction, difficulty in providing funding to growers as taking a security interest in land also requires FIRB approval. Nothing can be done discreetly (in terms of a farmers wanting to sell to us and not their neighbours for example)."

2.9 WORKPLACE HEALTH & SAFETY

KEY FINDING

- ASMC members assessed that the introduction of the 2011 *Workplace health and safety (WH&S) Act* and 2014, 2015 and *2017 WHS Amendment Acts* imposed a **VERY LOW** regulatory burden on the milling sector.

INTRODUCTION

Workplace health and safety (WH&S) is a vitally important issue for sugar milling companies. The nature of milling operations requires the use of heavy machinery, boilers running at high temperatures, steam at high pressure and a network of sugarcane railways. Because of these risks, sugar millers place a significant emphasis on the safety of workers and have a range of checks and balances to try to avoid or at least limit to the largest extent possible the number of harmful workplace incidents.

Before the *Work Health and Safety Act 2011* (Qld) (WHS Act), WH&S was regulated by a complex web of federal and state regulations. The volume of regulatory instruments created complexity and confusion around issues such as which legislation applied and to whom mill operators owed duties.

This meant that mill operators engaged lawyers regularly to help them understand and comply with their legal obligations, which was often a costly experience.

This lack of consistency in WH&S regulation led (among others) to major reviews by the Federal Industry Commission and the Productivity Commission. The reviews recommended development of a nationally consistent legislative framework to reduce the complexity of existing legislation. More recently, successive state governments have made amendments to the Queensland WH&S regime, with the most recent change the introduction of an industrial manslaughter offence.

How have National and Queensland Workplace Health & Safety policies and legislation changed since 2006?

There have been four distinct and significant regulatory interventions in the Queensland WH&S area since 2014:

(1) The *Work Health and Safety Act 2011* (Qld) (WHS Act) provides for a system of nationally consistent WH&S laws including legal duties and operating requirements. In summary this intervention:

- sought to protect workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work or from particular types of substances or plant by imposing specific non-transferable duties on persons conducting businesses or undertakings
- set out the functions and powers of the WH&S Regulator including powers to obtain information.
- required a person who conducts a business or undertaking to ensure that the Regulator is notified immediately after becoming aware that a "notifiable incident" arising out of the conduct of the business or undertaking has occurred, and require the person to preserve the incident site
- established the offences framework for authorisations required under model WH&S Regulations, including licences, registrations and permits
- provided for fair and effective workplace representation, consultation, cooperation and issue resolution in relation to work health and safety, including duties to consult and provision for health and safety representatives and WH&S Committees
- prohibited discriminatory, coercive and misleading conduct in relation to work health and safety matters, including the establishment of both criminal and civil causes of action in the event of such conduct.

(2) The *Work Health and Safety and Other Legislation Amendment Act 2014* (Qld) (WHS 2014 Amendment Act) relaxed certain entry and reporting requirements introduced in 2011. In summary this intervention:

- requires WH&S entry permit holders to give at least 24 hours' notice before they can enter a workplace to inquire into a suspected contravention in order to align with the other entry notification periods under the principal Act and the Fair Work Act 2009 (Cwth)
- increased penalties for non-compliance with WH&S entry permit conditions and introduce penalties for failure to comply with the entry notification requirements
- required at least 24 hours' notice before any person assisting a WH&S representative can have access to the workplace
- removed the power of WH&S representatives to direct workers to cease unsafe work

- removed the requirement under the principal Act for a person conducting a business or undertaking to provide a list of health and safety representatives to the WH&S regulator
- allowed for codes of practice adopted in Queensland to be varied or revoked without requiring national consultation as required by the principal Act.

(3) The *Work Health and Safety and Other Legislation Amendment Act 2015* (Qld) (WHS 2015 Amendment Act) re-instated certain provisions removed in 2014. Briefly, this intervention:

- allowed a WH&S entry permit holder to enter a workplace immediately if they suspect a contravention has occurred and provide notice of entry as soon as is reasonably practicable afterwards, removing the requirement to provide at least 24 hours' notice of entry
- amended the powers of a trained health and safety representative (HSR), including to reinstate the power to direct a worker in their work group to cease work if they have a reasonable concern that to carry out the work would expose the worker to a serious risk to their health and safety, emanating from an immediate or imminent exposure to a hazard
- removed the penalty for failing to provide notice of entry to inquire into a suspected contravention of the *Work Health and Safety Act 2011* No. 18 (Qld), consult and advise workers and make copies of documents relevant to a suspected contravention
- decreased the maximum penalty for contravening WH&S entry permit conditions from 200 penalty units to 100 penalty units.

(4) The *Work Health and Safety and Other Legislation Amendment Act 2017* (Qld) (WHS 2017 Amendment Act) introduced the offence of industrial manslaughter (negligence causing death). Among other interventions it:

- established an independent statutory office for workplace health and safety prosecutions
- expanded the jurisdiction of the Queensland Industrial Relations Commission to include hearing and determining disputes
- requires a mandatory review of codes of practice in operation in Queensland every five years
- prohibited enforceable undertakings in circumstances involving a fatality.

What has been the impact on millers from changes in the WH&S laws?

WH&S constitutes one of the 12 areas in the ASMC Regulatory Scorecard.

The four significant regulatory and policy changes identified above have been assessed by senior milling sector executives from each ASMC member company on the basis of whether they have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 16 shows the total and average scores of the survey respondents against each assessable intervention. Chart 28 shows the total scores in chart form.

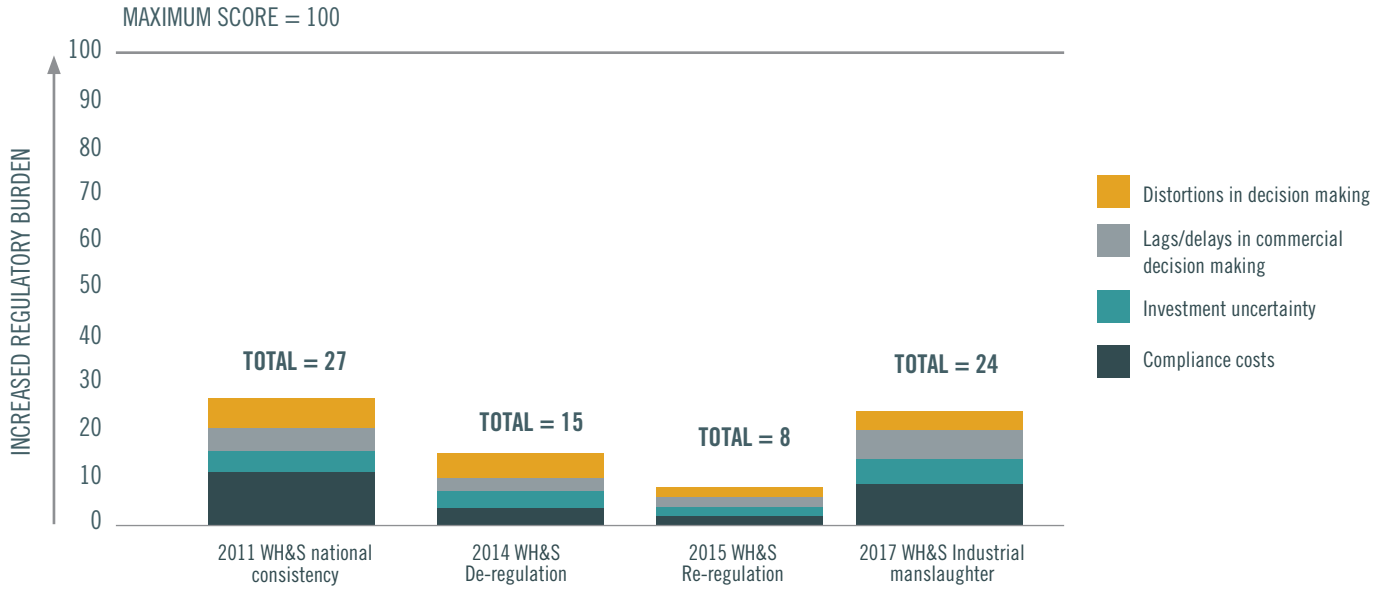
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 16: IMPACT OF VARIOUS WH&S LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S							
	2011 WH&S NATIONAL CONSISTENCY		2014 WH&S DEREGULATION		2015 WH&S REREGULATION		2017 WH&S INDUSTRIAL MANSLAUGHTER	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	11	Low	4	Very low	2	None	9	Low
Investment uncertainty (max. score is 25)	5	Very low	3	Very low	2	None	5	Very low
Lags/delays in commercial decision making (max. score is 25)	5	Very low	3	Very low	2	None	6	Very low
Distortions in decision making (max. score is 25)	6	Very low	5	Very low	2	None	4	Very low
TOTAL	**27 OUT OF 100**	**VERY LOW**	**15 OUT OF 100**	**VERY LOW**	**8 OUT OF 100**	**NONE**	**24 OUT OF 100**	**VERY LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 28: IMPACT OF VARIOUS WH&S LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

The following qualitative comments were provided by respondents:

Work Health and Safety Act 2011 (Qld) (WHS Act)

> *"Further resources required when mapping the legislative changes to create a gap analysis for compliance purposes."*
>
> *"The introduction of enforceable undertakings to avoid prosecution was good, but the timeframes for processing these applications, especially where an appeal of decision takes place is unreasonable and can leave a business in limbo for up to a number of years whilst decisions are made. Investment in an EU is substantially higher than that of prosecution fine and with an EU comes legal costs in drafting and submitting such an application."*

Work Health and Safety and Other Legislation Amendment Act 2017 (Qld)

> *"Queensland Industrial Relations Commission determining disputes - long review times, in particular in an appeal of EU decision. Extra costs associated with legal support."*

2.10 LOCAL PLANNING

KEY FINDINGS

- ASMC members assessed that on average, both the 2014 *Regional Planning Interests Act* and the 2016 *Planning Act* imposed a **LOW** regulatory burden on the milling sector.
- However, one respondent reported a strongly negative experience obtaining a Temporary Local Planning Instrument from a local government. Further, recent planning decisions approving the development of solar farms in areas zoned as good quality agricultural land is considered 'thin edge of the wedge'.
- The 2014 and 2016 (and subsequent Land Court decions) will negatively impact the **CANE ACREAGE** pillar.

INTRODUCTION

The Australian sugar industry has had a relatively constant land footprint. Industry data[37] shows that over the past 45 years the land area under sugarcane cultivation in Queensland has increased by an average of only 1.2% per annum (226,000 ha to 382,500 ha). Over this time, some cane land has been used for growing timber, bananas, cattle, tree crops and nuts. Today, a number of mills are actively pursuing approaches to maintain and grow the area under sugarcane cultivation.

As sugarcane must be processed within 10-20 hours of harvesting before it starts to deteriorate both in terms of quality and value, it is grown in close proximity to a mill. To ensure the sugarcane can be harvested and processed efficiently, industry has invested in more than 3,000 kilometres of main line sugarcane railway tracks with an additional 1,000 kilometres of sidings at a replacement value estimated at $1.2 billion.

Maintaining and preferably growing the amount of land under sugarcane cultivation is critical to each mill's long-term viability and return on investment. With the exception of the Tully mill, all Australian sugar mills are currently operating below capacity and margins could be improved with increased cane supply. Competition for sugarcane land from renewables, urbanisation, industrial uses, mining and forestry continues, and without appropriate legislative protections, further land losses from sugarcane will reduce cane supply, margins and ultimately the sugar industry's competitiveness. Consecutive state governments have recognised that variable growing conditions and volatile prices can change the value of agriculture and in the absence of legislative protections like Strategic Cropping Land laws, the state's interests are unlikely to be met.

How have state planning policies and legislation changed since 2009?

There have been four significant but related regulatory interventions in the Queensland planning area since 2009:

(1) and (2): The *Sustainable Planning Act 2009* (Qld) (SP Act), later replaced by the *Planning Act 2016* (Qld) (Planning Act). Both are discussed in turn.

In an attempt to apply consistent terminology, zoning categories and overlays, and common state-determined planning principles, the SP Act sought to:

- set out the scope and purpose of state and local planning instruments, including the provision of regulatory support for regional planning or master planning, to provide charges for infrastructure and to protect planning scheme areas from adverse impacts
- establish planning partnerships between state, local government and private individuals relating to the preparation of structure plans and master plans
- provide for the designation of land for community infrastructure, including the matters to be considered when designating land
- establish the integrated development assessment system (IDAS) as the centrepiece of the integration system, including covering approvals for almost all development in Queensland and provide accountability on all participants to ensure the process is timely, transparent and fair, including rights of appeal or review
- set out provisions relating to appeals, offences and enforcement
- set out provisions relating to infrastructure, including to integrate land use and infrastructure plans, to establish an infrastructure planning benchmark and to integrate state infrastructure providers into the framework and
- make other miscellaneous provisions, including relating to environmental impact statements, compensation and powers to purchase, take or enter land for planning purposes.

37 ABARES, Australian sugar production, 1973-74 onwards.

In 2016, the Queensland Government repealed the SP Act and replaced it with the Planning Act. The Planning Act introduced a new structure and some new supporting instruments but retained many of the existing planning and development concepts from the SP Act. The underlying policy objective behind the Planning Act was to:

- enable better strategic planning and high quality development outcomes
- ensure effective public participation and engagement in the planning framework
- create an open, transparent and accountable planning system that delivers investment and community confidence
- create legislation that has a practical structure and clearly expresses how land use planning and development assessment will be done in Queensland
- support local governments to adapt to and adopt the changes.

These policy objectives were to be achieved by:

- providing for matters in relation to planning instruments and planning schemes
- providing for matters in relation to development assessment and trunk infrastructure, including development applications and approvals, infrastructure agreements and various offences
- conferring certain powers on the relevant Minister
- providing for various other, related and transitional matters.

Like the SP Act, planning approval from the local government (Council) is typically required to change land use. For long-standing farms, pre-existing use rights may exist, but for new farms or mills approval from the local council would typically be required for:

- A material change of use (the commencement of a new activity)
- Reconfiguring a lot (if subdividing or amalgamating, or entering into a long-term lease that sub-divides the property)
- Operational works (if conducting earth works, clearing vegetation or other similar activities)
- Building works (if conducting construction activities).

Certain activities may also require environmental approvals from the state government and permits for works to enable the taking or interfering with water. Approvals may not be required for certain activities in certain areas (like farming in a rural zone) but will depend on the particular circumstances of each property and proposed activity. Before commencing any new use it is often necessary for industry participants to seek advice from a town planner or solicitor regarding required planning or environmental approvals.

(3) and (4): The more specific *Strategic Cropping Land Act 2011* (Qld) and *Strategic Cropping Land Regulations 2011* (Qld) (SCL regulations) that were later replaced by the *Regional Planning Interests Act 2014* (Qld) (RPI Act). Both are discussed in turn.

In response to the threat to agriculture land use, especially from the resources sector, the Queensland Government introduced the Strategic Cropping Land Framework in 2011, implemented by the SCL Act and SCL Regulations.

The SCL Act sought to implement a legislative framework that recognised the state's strategic cropping land (SCL) as a finite resource that must be protected against the impacts of development and preserved for future generations, including to:

- protect land that is highly suitable for cropping
- manage the impacts of development on that land
- preserve the productive capacity of that land for future generations.

Specifically, the SCL Act sought to utilise planning and development powers to manage development impacts and, in identified areas, protect such land from developments that would have a permanent impact and diminish the productivity of the land.

The SCL Act was repealed and replaced by the RPI Act in 2014. The RPI Act incorporated many of the concepts included in the SCL Act, and inter alia, defined an area of regional interest to be a priority agricultural area, a priority living area, a strategic cropping area or a strategic environmental area.

Renewable energy generation is a new and emerging land use that is increasingly competing for land once exclusively rural. Notably solar energy generation facilities tend to require similar conditions to sugarcane production.

The Planning and Environment Court has authorised a renewable energy use competing with traditional farming uses (i.e. on SCL), in circumstances where:

- a solar farm can be a 'temporary' use, because the panels can be driven into the ground on stakes and poles to be removed at a later time (as opposed to the creation of a hardstand which can sterilise land)
- renewable energy is recognised as beneficial to society at large (both from the reduction of electricity prices, and for climate change reasons)
- renewable energy projects typically have few negative impacts on surrounding land users (particularly well-screened solar farms)
- the location of renewable projects can be quite constrained.

Recent planning decisions approving the development of solar farms in areas zoned as good quality agricultural land are being viewed locally as the 'thin edge of the wedge'. Although any future planning decisions will be based on the surrounding circumstances at the time, including if the public interest benefits of more renewable energy generation outweigh the adverse impacts on the local sugar industry, the alienation of good quality agricultural land will have adverse economic impacts for both growers and millers. Although it provides some precedent, any subsequent cases would be decided on their facts, including the prevailing circumstances at the time i.e. is the public interest still weighted more in favour of renewable energy or would the saturation of that market vs. the state of the sugar industry at the time have an impact on how such subsequent cases were decided?

What has been the impact on millers from changes in planning laws?

Planning constitutes one of the 12 areas in the ASMC Regulatory Scorecard.

The *Regional Planning Interests Act 2014* and the *Planning Act 2016* changes identified above have been assessed by senior milling sector executives from each ASMC member company according to whether they have had a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 17 shows the total and average scores of the survey respondents against each assessable intervention. Chart 25 shows the total scores in chart form.

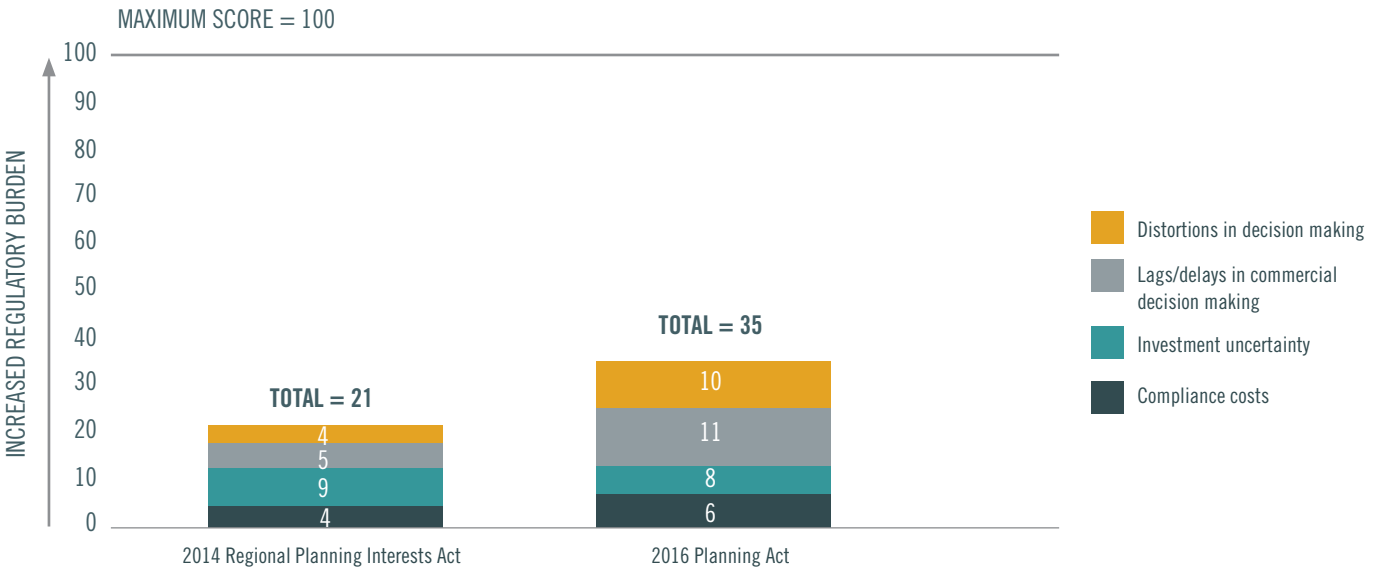
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 17: IMPACT ON MILLING OPERATIONS OF VARIOUS PLANNING LAW CHANGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S			
	2014 REGIONAL PLANNING INTERESTS ACT		2016 PLANNING ACT	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	4	Very low	6	Very low
Investment uncertainty (max. score is 25)	9	Low	8	Low
Lags/delays in commercial decision making (max. score is 25)	5	Very low	11	Low
Distortions in decision making (max. score is 25)	4	Very low	10	Low
TOTAL	**21 OUT OF 100**	**VERY LOW**	**35 OUT OF 100**	**LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 29: IMPACT ON MILLING OPERATIONS OF VARIOUS PLANNING LAW CHANGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

Miller representatives also described the impacts of the various planning changes since 2006:

In relation to the 2016 Planning Act

> *"Boundary realignments of farming enterprises require full Council MCU development applications and significant additional supporting information. Installation of road truck pads also require higher levels of Council approval. Regarding cane railway developments, cane railway is no longer code assessable which when considered in light of impact assessable requirements makes the process almost impossible to achieve. In Isis case, we sought to obtain an amendment to the local planning scheme by applying to the Minister for approval of a TLPI. This process required considerable cost and effort of Isis staff, consultants and significantly from Jim Crane who guided it through the department and Minister approval processes. Once obtained, while not having to endure an impact assessable process, the whole Council MCU approval process was still very heavy with meeting their requirements and providing additional detail from consultant reports to support them being able to provide an approval even though was with conditions."*
>
> *"In particular with cane railway no longer code assessable, had the Minister not approved a TLPI, the certainty of the investment would have been highly questionable."*
>
> *"The project was delayed by over 12 months due to obtaining a TLPI (needed twice) and navigating through the Council approvals pathways."*
>
> *"The Act had high potential to have led to a distorted investment decision outcome. Financially and commercially the project makes a lot of sense and produces tangible cost savings and community benefits. However, if Isis had not persevered to push through the hurdles and obtain the TLPI's to make the project code assessable and give it the best chance for an acceptable approvals pathway then the project may not have proceeded which would have been a certain distorted outcome."*

In relation to the 2014 Regional Planning Interests Act

> *"Approximately 300 hectares of high quality irrigated cane land with adjoining cane transport infrastructure has been lost to a solar farm following intervention by the Deputy Premier of Queensland (exercising "call in" powers)."*

2.11 LOCAL GOVERNMENT RATES

KEY FINDINGS

- ASMC members assessed that on average, the increase in General local government rates since 2009 impose a **LOW** regulatory burden on the milling sector.
- However, General rates in certain LGAs have increased significantly and are of concern to certain members.
- Increases in General rates have the greatest negative impact on the **DIVERSIFICATION** revitalisation pillar.
- On average, respondents thought the percentage year-on-year increases in General rates charges (CAGRs) across the various LGAs were **HIGH** compared with other business input cost increases.

INTRODUCTION

The Queensland sugar industry has 21 mills operating in 10 different Local Government Areas (LGAs) and is subject to local government rates and charges, including General rates which are the focus of this chapter.

It is estimated that General rates constitute around 0.7% of total cash operating milling costs.[38]

How are local government rates charges determined?

As part of the annual budget resolution, a local government must set the General rate. A local government may also choose to adopt differential General rates for multiple categories of land when it determines it is appropriate for different types of land to contribute different amounts in rates. The rate adopted by the local government is multiplied by the annual statutory valuation for the land to determine the quantum of rates levied on each parcel of rateable land.

The statutory valuation of a lot is determined by the Queensland Valuation Service using a number of factors including the present use and zoning under the relevant planning scheme and the physical attributes and constraints on use of the land. Council must use the statutory valuation as a basis to calculate General rates.

Rates levied by councils are set after determining total revenue required from rates. Determination of the level of rates that landowners must pay is at the sole discretion of their council.

In most LGAs, rates for sugar mills are generally levied at or above general, light and heavy industry markers, and are commonly among the highest charged land uses behind mining and utilities extraction.

In some cases, higher or supplementary levels of rates can be imposed and attributed to cost recovery of services, maintenance and infrastructure, such as cane rail sidings maintenance, road upgrades, waste water and emergency fees (where applicable).

Rates are expressed as cents in the dollar (of lot valuations) and as a total minimum rate.

The focus of this chapter is General rates.

Have rates paid by millers increased from 2011/12?

Utilising mill lot valuations provided by all ASMC member companies and local government General rates schedules between the 2011 and 2019 reference period, it is possible to calculate:

(a) if General rates charges have increased in aggregate across the milling sector (Chart 30)

(b) the percentage increases in total General rates payable by the milling sector year on year (CAGRs) compared to other measures such as CPI (Chart 31).

Chart 30 shows the changes in total General rates charges for all ASMC member company mills[39] for each of the 10 relevant LGAs between 2011 and 2019. The sector's total General rates bill in 2011 was approximately $2 million and in 2019, $3.4 million.

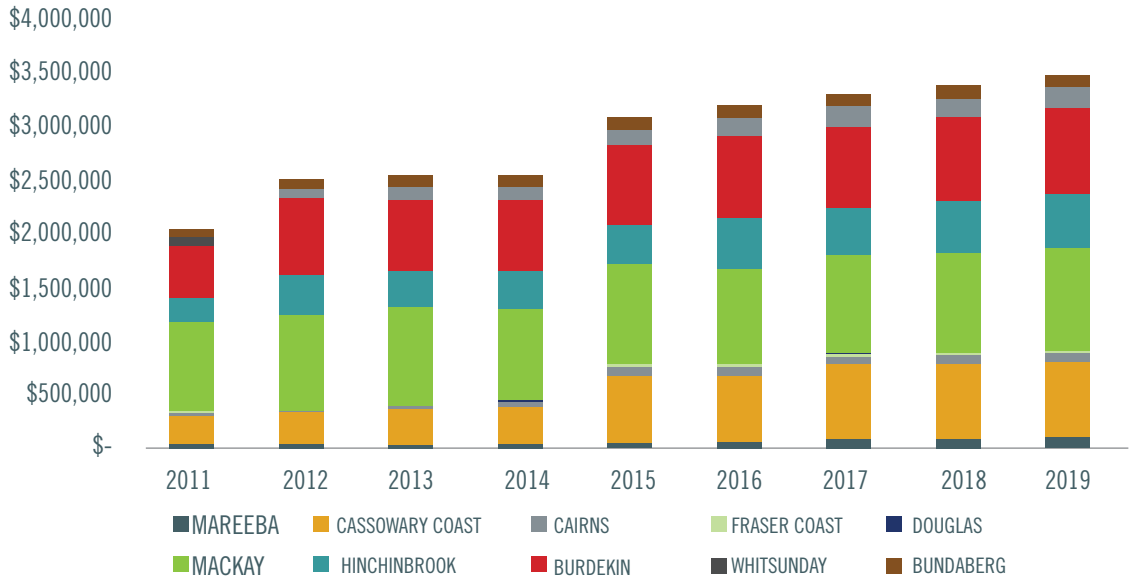
Chart 31 shows the annual average percentage increases (CAGRs) in General rates charges over this period. The average CAGR across all LGAs and years over the reference period was 6.1%. LGAs recording the strongest increases were Cairns (20%), Douglas (14%) and the Cassowary Coast (11%).

---

38 For the 21 mills, the total General rate charges in 2019 were $3.5 million. This was calculated by multiplying the known 2019 General rate charges by the milling lot valuations as provided by each ASMC member company. The average cash operating costs of milling (excluding purchasing cane) is estimated to be $115 per tonne of raw sugar produced or approximately $518 million assuming 4.5 million tonnes of production.

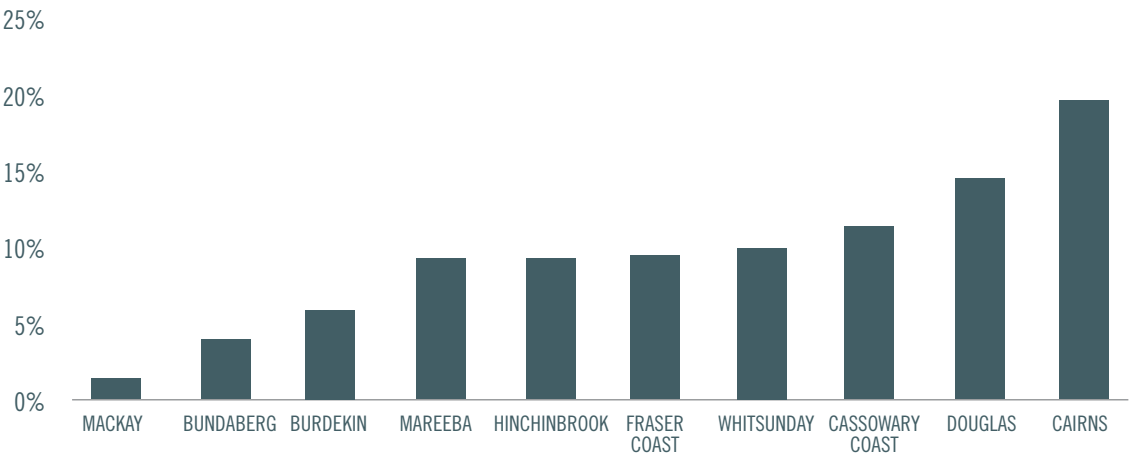
39 Being Mareeba LGA (Tableland mill), Cassowary Coast LGA (South Johnstone and Tully), Cairns LGA (Mulgrave), Fraser Coast LGA (Maryborough), Douglas LGA (Mossman), Mackay LGA (Farleigh, Marian, Racecourse and Plane Creek), Hinchinbrook LGA (Victoria and Macknade), Whitsunday LGA (Proserpine), Burdekin LGA (Pioneer, Inkerman, Kalamia and Invicta) and Bundaberg LGA (Isis).

CHART 30: BY LGA, TOTAL QLD MILL GENERAL RATES CHARGES AT KNOWN MILL LOT VALUATIONS: 2011–2019



Source: ASMC calculations based ASMC member company mill lot valuations and Local Government General rates schedules

CHART 31: BY LGA, CAGRS OF TOTAL QLD MILL GENERAL RATES CHARGES AT KNOWN MILL LOT VALUATIONS: 2011–2019



Source: ASMC calculations based ASMC member company mill lot valuations and Local Government General rates schedules

What is the impact on millers from the increase in General rates charges?

General rates is one of the 12 areas in the ASMC Regulatory Scorecard.

Increases in in General rates charges as at 2019/20 have been assessed by senior milling sector executives from each ASMC member company on the basis of having a Nil, Very Low, Low, Medium, High or Very High impact on:

(1) Compliance costs

(2) Investment uncertainty

(3) Lags/delays in commercial decision making

(4) Distortions in decision-making.

Table 18 shows the total and average scores of the survey respondents against each assessable intervention. Chart 32 shows the total scores in chart form.

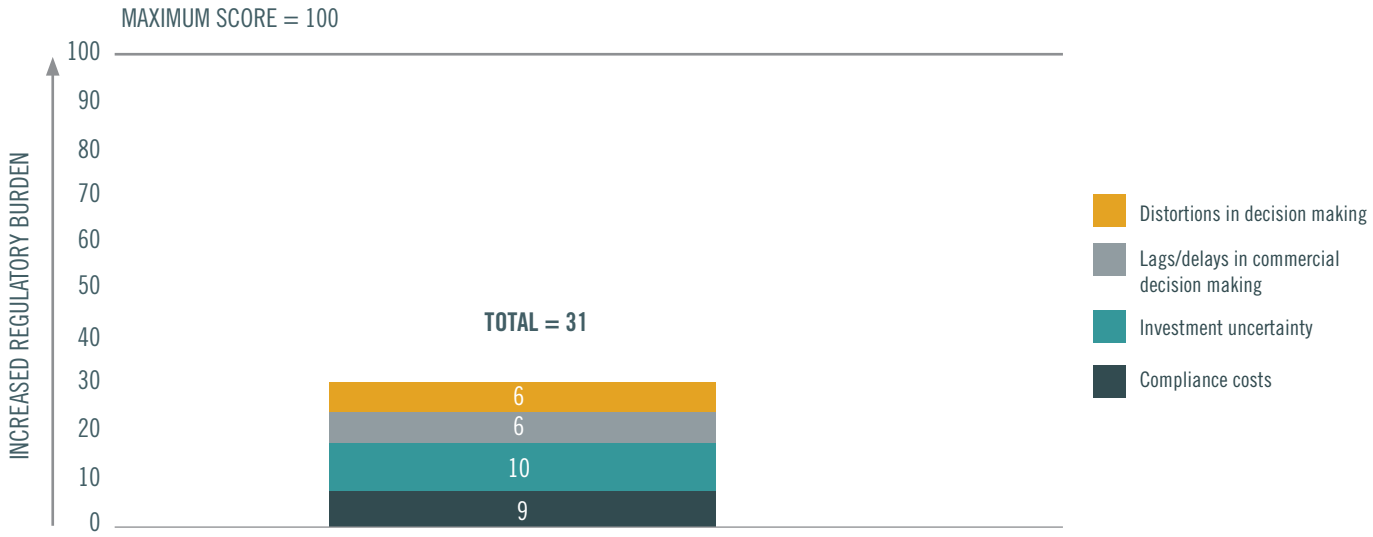
A full description of the methodology applied in conducting the regulatory assessments is outlined in Appendix A.

TABLE 18: IMPACT ON MILLING OF LOCAL GOVERNMENT GENERAL RATE CHARGES: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS

	ASSESSED INTERVENTION/S	
	GENERAL RATES	
MILLING IMPACTS (REGULATORY METRICS)	TOTAL SCORES	AVERAGE SCORE
Compliance costs (max. score is 25)	9	Low
Investment uncertainty (max. score is 25)	10	Low
Lags/delays in commercial decision making (max. score is 25)	6	Very low
Distortions in decision making (max. score is 25)	6	Very low
TOTAL	**31 OUT OF 100**	**LOW**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

CHART 32: IMPACT ON MILLING OF CHANGES TO LOCAL GOVERNMENT GENERAL RATE CHARGES: TOTAL SCORES OF ALL FIVE RESPONDENTS



Comments

In relation to the CAGRs identified in Chart 31, survey responents were also asked to describe the increases in General rates charges relative to other cost increases their business may have encountered since 2009. On average, respondents thought rates charge CAGRs were **HIGH** compared with other cost increases.

APPENDIX A – METHODOLOGY

BACKGROUND

The ASMC Regulatory Scorecard examines the main regulatory changes that have occurred in the Australian sugar industry since 2006 in 12 key areas: environment (water quality), energy/climate change, miller and grower electricity tariffs, grower water tariffs, local planning, vegetation management, workplace health & safety, marketing, foreign investment, local government rates and port charges.

McCullough Robertson Lawyers were engaged by ASMC in June 2019 to identify the main regulatory changes over this period in the areas of the environment, energy/climate change, local planning, vegetation management, workplace health & safety, marketing and foreign investment. ASMC gathered regulated tariff data for electricity, water and port charges and local government rate schedules from public sources. Mill lot valuations (land values) for the purposes of calculating General rate charges were provided to ASMC by ASMC members.

Part of the ASMC regulatory stocktake is an assessment of not only the type of burden that the regulations impose but the total burden (a quantification). This approach allows a comparison of the relative burden on millers over time and between different regulations.

To understand the type of burden, ASMC developed four 'regulatory metrics'. These include:

(1) Compliance costs (are more internal and external resources needed to meet requirements)?

(2) Investment uncertainty (does the regulation diminish value of current or future investments)?

(3) Lags/delays in decision-making (does the regulation causes unreasonable delays)?

(4) Distortions in decision-making (does the regulation lead to inefficient and ineffective decisions)?

To quantify the regulatory burden of each assessable intervention, ASMC developed a simple scale - None (0), Very low (1), Low (2), Medium (3), High (4) or Very high (5).

Over July-August 2019, ASMC identified within its membership the most senior executive with operational control in each of the regulatory areas. Between June and July 2019 a total of 21 separate surveys were sent to ASMC representatives (Table 19). For electricity, water, port and rate charges, ASMC members were also asked if the percentage increases or decreases in tariffs over the reference period was comparable with other cost increases experienced by them.

TABLE 19: REGULATORY AREAS AND ASSESSABLE INTERVENTIONS

NO.	REGULATORY AREA	ASSESSABLE INTERVENTIONS
1	Electricity charges (milling tariffs)	2019/20 Impact of QCA tariffs only (i.e. T22 and T48 [both phased out 30 June 2022] and T51 [ongoing])
2	Electricity charges (grower tariffs)	2019/20 Impact of QCA tariffs only (i.e. T62 and T20 [both obsolete and to be phased out 30 June 2021])
3	Marketing	2006 *(The Sugar Industry Amendment Act 2005 (Qld)* (Sugar Industry Amendment Act))
4		2015 *(The Sugar Industry (Real Choice in Marketing) Amendment Act 2015 (Qld)* (Marketing Choice Amendments))
5		2017 *(The Competition and Consumer (Industry Code – Sugar) Regulations 2017 (Cwth)* – commonly known as the Sugar Industry Code of Conduct (Code)
6	Bundled water charges (grower charges)	2020-24 Impact of proposed Sunwater tariffs for each relevant Water Supply Scheme
7	Energy/climate change	Policy uncertainty
8	Environment (Reef regs)	2009 *(The Great Barrier Reef Protection Amendment Act 2009 (Qld) (GBR Amendment Act) and Environmental Protection Amendment Regulation 2009* (Qld) (EPA Regulation)
9		2019 (*The Environmental Protection (Great Barrier Reef Protection Measures) Other Legislation Amendment Bill 2019 (Qld)* (EP Amendment Bill).
10	Port charges (non STL) (Port Authorities only)	2018/19 Impact of Qld Port Authority port charges (non-STL) across six Qld sugar ports
11	Vegetation management	2009 *(The Vegetation Management and Other Legislation Amendment Act 2009 (Qld))*
12		2013 *(The Vegetation Management Framework Amendment Act 2013 (Qld))*
13		2018 *(The Vegetation Management and Other Legislation Amendment Act 2018 (Qld))*

14	Workplace health & safety	2011 *(The Work Health and Safety Act 2011 (Qld)* (WHS Act))
15		2014 *(The Work Health and Safety and Other Legislation Amendment Act 2014 (Qld)* (WHS 2014 Amendment Act))
16		2015 *(The Work Health and Safety and Other Legislation Amendment Act 2015 (Qld)* (WHS 2015 Amendment Act))
17		2017 (*The Work Health and Safety and Other Legislation Amendment Act 2017 (Qld)* (WHS 2017 Amendment Act))
18	Local planning	2014 *Regional Planning Interests Act*
19		2016 *Planning Act 2016* (Qld)
20	Foreign investment	2015 *Foreign Acquisitions and Takeovers Legislation Amendment Act 2015 (Cwth) (FATAA); Foreign Acquisitions and Takeovers Fees Imposition Act 2015 (Cwth) (FATFA); Register of Foreign Ownership of Agricultural Land Act 2015* (Cwth) (RFOAL Act).
21	Local government rates	2019/20 Impact of rates

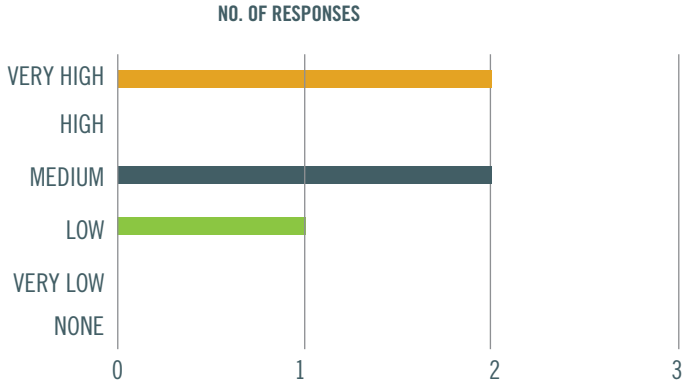
A number of these interventions are grower specific (e.g. grower electricity tariffs) and some are miller specific (e.g. energy/climate change policy uncertainty). The objective of each survey was to understand the impact of all government interventions on milling operations only. This acknowledges the fact that regulations that are grower specific but impact upon cane yield and/or the amount of land under cane cultivation, can also have a significant impact on milling operations.

A worked example

In relation to assessable intervention #5 - Sugar Industry Code of Conduct (see Table 20), the most senior executive within each of ASMC's five member organisations was sent a survey. The survey requested some basic personal information, a detailed summary of the assessable intervention, and prompts to assess the intervention from 0–5 against each regulatory metric. The following from the survey instrument shows the question to ascertain the impact of the 2017 Marketing Code of Conduct on milling operations.

Example of question taken from electronic survey

> Question – *What impact, if any, did the introduction of 2017 Sugar Industry Code of Conduct have on the COMPLIANCE COSTS of your milling operations? Compliance costs in this context refers to whether your business needed to deploy more internal or external resources to comply with the 2017 Sugar Industry Code of Conduct.*



ANSWER CHOICES	WEIGHTING (A)	# OF RESPONDENTS THAT SELECTED THIS CHOICE (B)	TOTAL SCORE (A) X (B)
none	0		0
very low	1		0
low	2	1	2
medium	3	2	6
high	4		0
very high	5	2	10
TOTAL		**5**	**18**

In this example, one respondent answered low (score of 2), two answered medium (two multiplied by three = six) and two answered very high (two multiplied by five = ten) to give an aggregate score of 18 for that question on the 2017 Code of Conduct. A total score of 18 when divided by five equals 3.6 (four when rounded) equating to a 'High' average score (red circle at Table 19).

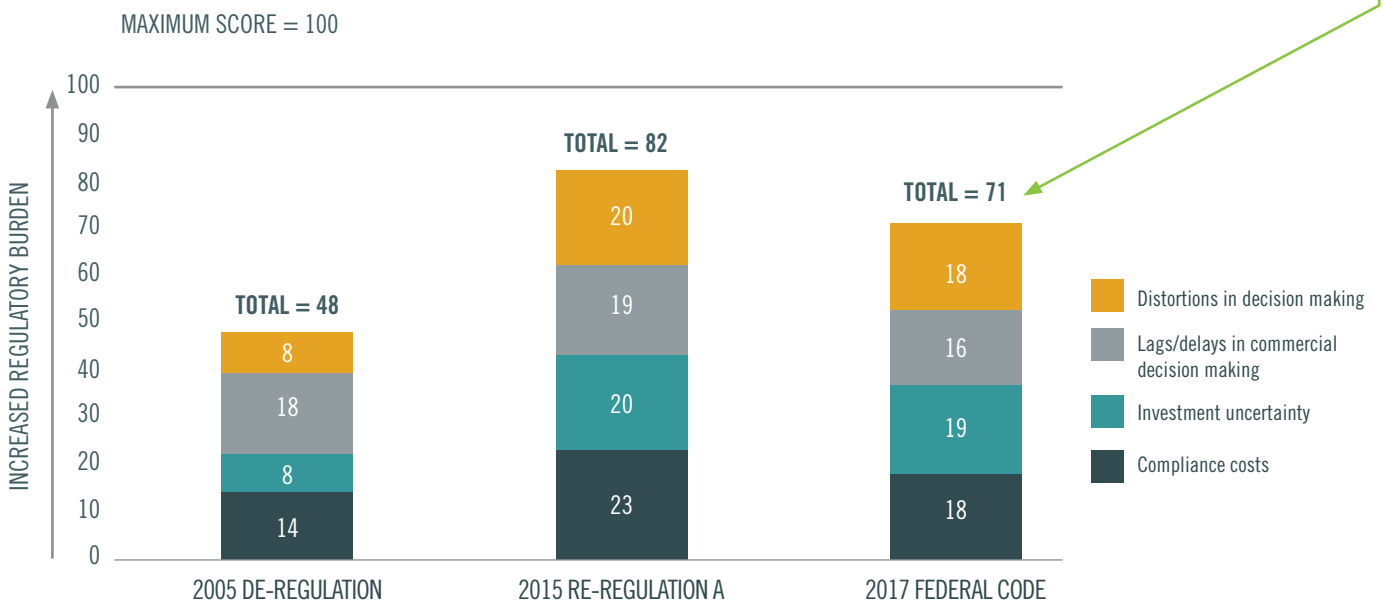
TABLE 20: METHODOLOGY EXAMPLE: TOTAL AND AVERAGE SCORES OF ALL FIVE RESPONDENTS BY ASSESSED INTERVENTION

MILLING IMPACTS (REGULATORY METRICS)	ASSESSED INTERVENTION/S					
	2005 STATE DEREGULATION		2015 STATE RE-REGULATION		2017 FEDERAL CODE	
	TOTAL SCORES OF ALL 5 RESPONDENTS	AVG SCORE OF ALL 5 RESPONDENTS	TOTAL SCORES OF ALL 5 RESPONDENTS	AVG SCORE OF ALL 5 RESPONDENTS	TOTAL SCORES OF ALL 5 RESPONDENTS	AVG SCORE OF ALL 5 RESPONDENTS
Compliance costs (max. score is 25)	14	Medium	23	Very high	18	High
Investment un-certainty (max. score is 25)	8	Low	20	High	19	High
Lags/delays in commercial de-cision making (max. score is 25)	18	High	19	High	16	Medium
Distortions in decision making (max. score is 25)	8	Low	20	High	18	High
TOTAL	**48 out of 100**	**Medium**	**82 out of 100**	**High**	**71 out of 100**	**High**

(Each of the 5 company respondents answered none [0], very low [1], low [2], medium [3], high [4] or very high [5] to each Regulatory metric)

By intervention, the total scores for each regulatory metric were added to give a score out of 100 (e.g. 71 for 2017 Federal Code). It was calculated that the average score across the four regulatory metrics was 3.8 (4.0 when rounded) equating to a 'High' average rating (green circle on Table 20). The total scores for each intervention were then charted. In this example there were three significant regulatory interventions in marketing over the reference period with the 2015 changes to the *Sugar Industry Act* showing the highest regulatory burden (82 total score) (Chart 33).

CHART 33: METHODOLOGY EXAMPLE, TOTAL SCORES OF ALL FIVE RESPONDENTS BY ASSESSED INTERVENTION



APPENDIX B – PORT CHARGES DATA

TABLE 21: HARBOUR DUES (PER TONNE BY PORT) (GST INCLUSIVE)

	CAIRNS	MOURILYAN	LUCINDA	TOWNSVILLE	MACKAY	BUNDABERG
2009/10	$ 2.409	$ 1.785	$ 0.561	$ 2.728	$ 2.178	$ 1.749
2010/11	$ 2.464	$ 1.785	$ 0.638	$ 3.025	$ 2.369	$ 1.980
2011/12	$ 2.552	$ 1.871	$ 0.638	$ 3.201	$ 2.576	$ 2.090
2012/13	$ 2.662	$ 1.955	$ 0.638	$ 3.388	$ 2.800	$ 2.200
2013/14	$ 2.805	$ 2.068	$ 0.638	$ 3.586	$ 3.042	$ 2.200
2014/15	$ 2.959	$ 2.189	$ 0.682	$ 3.795	$ 3.302	$ 2.277
2015/16	$ 3.113	$ 2.310	$ 0.726	$ 3.993	$ 3.381	$ 2.342
2016/17	$ 3.278	$ 2.442	$ 0.748	$ 4.103	$ 3.520	$ 2.410
2017/18	$ 3.454	$ 2.915	$ 0.770	$ 4.433	$ 3.597	$ 2.449
2018/19	$ 3.641	$ 3.058	$ 0.792	$ 4.543	$ 3.707	$ 2.498
2019/20	$ 3.839	$ 3.212	$ 0.814	$ 4.620	$ 3.828	$ 2.539
CAGR	**4%**	**5%**	**3%**	**5%**	**5%**	**3%**

(Note - dues reflect the arrangement where RSSA participants receive the following AUD reductions per tonne at Cairns (0.20), Mourilyan (0.30), Lucinda (0.20), Townsville (0.20), Mackay (0.20) and Bundaberg (0.20).)

TABLE 22: HANDYSIZE PORT CALL CHARGES (GST INCLUSIVE)

	CAIRNS	MOURILYAN	LUCINDA	TOWNSVILLE	MACKAY	BUNDABERG
2009/10	$ 49,915	$ 49,705	$ 74,774	$ 37,564	$ 49,717	$ 48,462
2010/11	$ 52,347	$ 52,189	$ 78,914	$ 42,145	$ 53,161	$ 75,363
2011/12	$ 59,499	$ 95,152	$ 86,372	$ 47,130	$ 61,705	$ 87,137
2012/13	$ 67,859	$ 133,466	$ 87,039	$ 48,421	$ 64,077	$ 160,558
2013/14	$ 66,903	$ 129,949	$ 151,266	$ 50,200	$ 66,049	$ 180,922
2014/15	$ 74,969	$ 132,862	$ 153,418	$ 51,802	$ 68,309	$ 122,594
2015/16	$ 71,709	$ 133,644	$ 158,290	$ 53,968	$ 63,831	$ 129,648
2016/17	$ 71,285	$ 134,851	$ 159,743	$ 57,080	$ 64,751	$ 130,577
2017/18	$ 72,311	$ 123,048	$ 144,207	$ 56,924	$ 68,415	$ 132,909
2018/19	$ 67,761	$ 125,502	$ 146,882	$ 57,233	$ 73,660	$ 131,573
2019/20	$ 69,479	$ 126,879	$ 147,302	$ 63,606	$ 74,498	$ 131,992
CAGRS	**3%**	**9%**	**6%**	**5%**	**4%**	**10%**

AUSTRALIAN Sugar Milling COUNCIL

Trade policy

Social licence

Advocacy

Revitalisation

Research strategy

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