

# Advising a local government efficiency factor

Final paper

March 2018



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# Contents

<b>Introduction</b>	<b>1</b>
Purpose of this paper	1
Why are we reviewing the efficiency factor?	1
Stakeholder consultation	1
Structure of this paper	2
<b>Our final proposal</b>	<b>3</b>
Our draft proposal	3
Submissions on the draft proposal	3
Our analysis	4
Our final proposal	6
Next steps	8
<b>Appendix A — Summary of submissions on the draft proposal and responses</b>	<b>9</b>
<b>Appendix B — Using data envelopment analysis</b>	<b>26</b>

# Introduction

## Purpose of this paper

The purpose of this paper is to set out the commission's final proposal for advising the minister on the required efficiency adjustment in the rate cap formula.

## Why are we reviewing the efficiency factor?

We are reviewing the efficiency factor in the rate cap formula because in our final report on the local government rates capping and variation framework we said that:<sup>1</sup>

*The efficiency factor should initially be set at zero in 2016–17 and increase by 0.05 percentage points each year from 2017–18. The Commission will undertake a detailed productivity analysis of the sector to assess the appropriate long-term rate for the efficiency factor.<sup>2</sup>*

## Stakeholder consultation

We began consulting with stakeholders in late 2016. To help us identify an appropriate efficiency factor, we established a productivity study working group (the working group) in early 2017. We invited all councils and sector peak bodies to nominate staff to participate on the working group. The main purposes of the working group were to:

- provide relevant data and information
- provide insights and understanding about what is driving productivity trends across the Victorian local government sector
- test preliminary findings of the study
- provide advice on how outcomes are best communicated to the sector.

Following the nomination process, the working group comprised representatives from Local Government Victoria, the Municipal Association of Victoria, the Victorian Local Governance Association, Local Government Professionals (LGPro), 15 staff from different councils and members of the commission's local government team.

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<sup>1</sup> Essential Services Commission 2015, *A blueprint for change, local government rate capping & variation framework review — final report*, September.

<sup>2</sup> The Victorian Government response to the Essential Services Commission's report on the local government rates capping and variation framework review accepted the recommendation to set the efficiency factor at zero for 2016-17 and accepted in principle that it should increase by 0.05 percentage points thereafter, subject to a detailed productivity analysis of the sector by the commission to determine the appropriate long-term rate.

Input from the working group informed our paper Essential Services Commission 2017, Measuring productivity in the local government sector: Consultation paper, September (the consultation paper), which we released in September 2017.<sup>3</sup> The consultation paper examined the underlying productivity trends in the local government sector and identified options to estimate an efficiency factor.<sup>4</sup>

We received 21 written submissions relating to the consultation paper and reconvened the working group in October 2017. We also invited those who had made submissions to the consultation paper to attend the meeting. Written submissions can be found on our website. All feedback through the consultation process was considered in making our draft proposal.

In December 2017, we released our paper, Essential Services Commission 2017, Advising a local government efficiency factor: Draft proposal, December (the draft proposal) for consultation. The draft proposal also included input from our consultants Predictive Analytics Group and Applied Econometrics. The consultants addressed issues raised by stakeholders about using data envelopment analysis to measure productivity and set an efficiency factor. We received 15 written submissions on the draft proposal. We also met with LGPro separately to discuss the draft proposal. The draft proposal, consultants' reports and written submissions on the proposal can be found on our website. We considered this feedback in making our final proposal.

We would like to take this opportunity to thank stakeholders for their valuable input, which has helped inform key decisions along the way to making our final paper.

Any questions regarding this final paper may be directed to:

Merryn Wilson  
Project Manager, Local Government Division  
03 9032 1300

## Structure of this paper

This paper is structured as follows:

Introduction

Our final proposal

Appendix A — Summary of submissions on the draft proposal and responses

Appendix B — Using data envelopment analysis

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<sup>3</sup> We met with the working group twice before releasing the consultation paper.

<sup>4</sup> The consultation paper can be found on our website [www.esc.vic.gov.au](http://www.esc.vic.gov.au)

# Our final proposal

This chapter sets our final proposal for the way in which we will account for efficiency adjustments in the rate cap formula.

## Our draft proposal

Our draft proposal was to adopt a staged approach where we increased the efficiency factor each year by a notional 0.05 per cent and capped it at 0.10 per cent. After three years we would then review the efficiency factor.

**Table 1 Efficiency factors by year**

Year	2015-16 <sup>a</sup>	2016-17 <sup>a</sup>	2017-18 <sup>a</sup>	2018-19	2019-20	2020-21
Efficiency factor (%)	0.00	0.05	0.10	0.10	0.10	To be reviewed

<sup>a</sup> Proposed by us in our advice to the minister.

We proposed using data envelopment analysis to underpin the calculation of future efficiency factors. This was because the method uses data that is attributable to the sector and therefore takes into account the effects of rate capping. The method also uses data that is already available and has been widely used to calculate local government productivity trends and efficiencies in other jurisdictions. The draft proposal in full is available on our website ([www.esc.vic.gov.au](http://www.esc.vic.gov.au)).

## Submissions on the draft proposal

We received 15 written submissions on our draft proposal and met LGPro separately. In summary:

- Two submissions supported our draft proposal to introduce an efficiency factor in a staged way.
- One submission, while not supporting an efficiency factor, added that if a factor was to be used then it should be established well in advance so as to give councils time to plan.
- Twelve submissions did not support the inclusion of an efficiency factor in the rate cap formula.
- Representatives from LGPro stressed that they did not support the inclusion of the efficiency factor in the rate cap formula.

Some of the reasons for not supporting the inclusion of the efficiency factor in the rate cap formula were:

- The fact that rate increases are now capped at lower levels than previous rate increases has forced councils to look for efficiencies.

- The minister has set the rate cap at Consumer Price Index (CPI). This means that an implicit efficiency factor is already included because a rate cap set at CPI is lower than a rate cap calculated using the commission's formula.
- There is insufficient evidence on how the introduction of an efficiency factor in the rate cap formula would work as an incentive to be more efficient.
- The rate capping regime is new. As such, it is sensible to wait for its effects to be understood before applying an efficiency factor.
- There are many differences between councils and council groups. A 'one size fits all' approach to setting an efficiency factor is inappropriate.
- There are factors outside of a council's control that affect its ability to be efficient.

Also, the City of Stonnington, Glen Eira City Council and LGPro raised a new issue in response to the draft proposal. Their submissions suggested that a number of councils' actual average rate increases were less than the minister's cap for 201718 and hence have already delivered 'efficiencies' to their communities. We acknowledge that some councils reported average rate increases (in the annual compliance information) less than the minister's cap. We are considering whether reporting on all councils' actual average rate increases would add transparency for stakeholders about councils' compliance with the rate caps and whether they are pursuing efficiencies beyond the rate cap.

A compilation of the key issues raised in the submissions and our responses are found in appendix A.

## Our analysis

We have considered the submissions and re-examined whether the efficiency factor in the rate cap formula generated incentives for councils to operate efficiently.

### Incentive properties of the efficiency factor in the rate cap formula

Efficiency factors are applied widely in utility regulation. In these areas it is assumed that regulated entities will always seek to outdo the revenue allowance provided by the regulator. In other words, the regulated entities will pursue efficiencies that are not observable *ex ante* by the regulator. An efficiency factor seeks to share the proceeds of those efficiencies between the regulated entity and its customers.

Our recent reform in the way we regulate water prices has provided incentives to the state's water authorities to pursue ambitious efficiency targets. The commission is currently assessing proposals from the water authorities in which they have proposed efficiency factors of up to 3 per cent per annum on their operating expenditure over the next five years. This compares to the 0.1 per cent we had proposed in our draft decision on a local government efficiency factor.

We acknowledge the local government environment is not driven by a profit motive which would see councils drive their costs to their efficient levels; nonetheless, we would expect councils would want to outperform their own cost forecasts in order to free funds for emerging priorities or new commitments.

Councils have argued that the rate cap already provides this incentive and that no further efficiency assumptions need to be imposed.

We agree that the minister’s decisions since the commencement of the Fair Go Rates system to impose a CPI-based rate cap, rather than one corresponding to our formula, has had the same effect as an efficiency factor. That is, in 2016-17 and 2017-18, the minister adopted a rate cap based on CPI which was lower than the rate cap based on our formulation. For 2018-19, the two approaches resulted in the same value (see Table 2). This means ratepayers have benefitted from efficiency gains that exceeded those assumed in the commission’s formula.

**Table 2 Comparing rate caps**

Year	Rate cap using our formula (%)	Minister’s rate cap (%)
2016-17	2.80	2.50
2017-18	2.15	2.00
2018-19	2.25	2.25

### Reviewing the rate cap formula

Each year since 2016/17, pursuant to section 185D (3) (a) of the Local Government Act 1989, the minister must ask the commission for advice on setting the level of the average rate cap.<sup>5</sup>

Our original rate cap formula includes an efficiency factor. See Box 1 below. Consistent with the broad approach developed through the rate capping review, our advice in each year used the formula in Box 1.

#### Box 1 Formula for average rate cap (ARC)

$$\text{ARC} = (0.6 \times \text{CPI}) + (0.4 \times \text{WPI}) - \text{efficiency factor}$$

Under the Act, the average rate cap is defined as the change to the CPI over the financial year to which the cap relates, plus or minus any adjustment. The Wage Price Index (WPI) was included in the rate cap formula to reflect councils’ limited capacity to adjust their costs immediately after the

<sup>5</sup> Under section 185D of the Local Government Act 1989, the Minister for Local Government sets the average rate cap based on the change to CPI over the financial year to which the cap applies, plus or minus any adjustments.



introduction of rate capping in 2016-17.<sup>6</sup> The efficiency factor was included to ensure that as these ‘inflexible’ costs were progressively ‘unlocked’ as contracts were renegotiated; with the benefits shared between councils and ratepayers. We recommended to the minister that the efficiency factor be set at zero for 2016–17, 0.05 per cent for 2017–18 and 0.1 per cent for 2018-19.<sup>7</sup>

## Our final proposal

An increasing efficiency factor (in our original formula) would have seen the rate cap gradually transition toward CPI as previously ‘inflexible’ costs, accounted for by the WPI, are progressively renegotiated over the medium term.

In light of our further work, we have determined that the transition arrangements proposed under our original formulation can be achieved without using an efficiency factor. Alternatively stated, there are other mechanisms available that can be used to gradually lower the rate cap towards the CPI over a transition period (recalling that the transition period is defined as the time it would take councils to progressively renegotiate contracts that were in place at the commencement of the Fair Go Rates system).

We have therefore determined to remove the efficiency factor. Instead, we will gradually lower the weighting placed on the WPI in our formula and correspondingly increase the weighting placed on the CPI component, according to the schedule shown in Table 3.<sup>8</sup>

In addition, our work during this review of the rate cap formula has highlighted that the WPI component of our rate cap formula should have been fixed at its value at the time the Fair Go Rates system was introduced (rather than being updated each year in our advice). This fixed value more accurately represents the prices of goods and services being delivered under medium-term contracts at the time the rate capping regime was introduced. While this was an error in our formula, we note it had no effect on the local government sector as the minister set the rate cap based on the value of forecast changes in the CPI rather than as suggested by our formula.

We propose to transition the rate cap formula toward CPI over five years. We consider that a five year timeframe is sufficiently long to allow contracted arrangements to expire and be renegotiated after the commencement of the Fair Go Rates system.

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<sup>6</sup> As WPI has been higher than CPI recently, it can be considered an ‘uplift’ to the rate cap.

<sup>7</sup> Our advice can be found on our website ([www.esc.vic.gov.au](http://www.esc.vic.gov.au)).

<sup>8</sup> The rate cap formula becomes,  $RC_t = ((1 - \alpha) \times CPI_t) + (\alpha \times WPI_0)$  where  $RC_t$  is the rate cap for the next financial year,  $CPI_t$  is the forecast CPI for the next financial year,  $WPI_0$  is the forecast value for the year 2016-17,  $\alpha$  is the weight (in percentage terms) of  $WPI_0$

**Table 3 - Rate cap formula for the years 2016-17 to 2020-21**

Year	CPI (weight in rate cap formula %)	WPI (weight in rate cap formula %)
2016-17 <sup>a</sup>	60	40
2017-18 <sup>a</sup>	70	30
2018-19 <sup>a</sup>	80	20
2019-20	90	10
2020-21	100	0
2021-22		Review

<sup>a</sup> We advised the minister that the rate cap formula for these years was  $0.6CPI+0.4WPI$  less an efficiency factor.

### The rate cap in the longer term

We expect the attention to efficient operations and prudent investment promoted by the Fair Go Rates system will become embedded in councils over the five year transition period discussed above. Towards the end of the transition period, we anticipate undertaking another productivity analysis to examine the longer-term opportunities for council to pursue efficiencies and how these efficiencies might be shared with ratepayers. In other words, we will examine whether CPI is the appropriate long term cap on local government rates. We will again consult widely when we undertake this review in 2020.

#### Our final proposal

In advising the minister, we will propose a transitional arrangement be used until 2020-21 under our formula that aims to provide an incentive for councils to move away from the higher ‘inflexible’ costs that were ‘locked’ in at the start of rate capping.

The sector is given time for the effects of the rate capping regime to flow through into its operations before we review the rate cap formula

Towards the end of the transition period we anticipate undertaking another productivity analysis to examine the longer term opportunities for council to pursue efficiencies and how these efficiencies might be shared with ratepayers.

## Next steps

Over the course of the productivity study, a small number of councils have expressed an interest in continuing to work with us on matters related to productivity. We will continue to monitor productivity trends using data envelopment analysis and explore other methodologies with the sector, Local Government Victoria and the Victorian Auditor-General's Office, to clearly and transparently measure efficiency in the sector.<sup>9</sup>

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<sup>9</sup> Appendix B explains how we came to consider using data envelopment analysis to measure productivity trends and set an efficiency factor for the sector.

# Appendix A — Summary of submissions on the draft proposal and responses

We received 15 written submissions on the draft proposal. We have provided our responses to key issues raised by stakeholders in this document. The tables below contain our responses on issues specifically related to the efficiency factor.

We will do further work on the efficiency factor and be mindful of the feedback in this process. We will also consider feedback in the context of the outcomes report and higher cap application process where relevant.

We acknowledge that some submissions raised issues related to broader matters including the higher cap application process, the Local Government Act review, cost shifting, grants funding and rate capping in other jurisdictions.

## Submissions and responses

### Australian Services Union

Issue raised	Commission's response
It being the case the ESC has not materially changed its proposed efficiency factor measure from its September 2017 proposal, I ask you to revisit my submission – along with those of other stakeholders – and adjust your proposed methodology for calculating the efficiency factor to reflect that feedback.	In response to stakeholder feedback we have revised our approach to setting an efficiency factor. Please refer to pages 3 to 8 of the final paper.

Australian Services Union, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## City of Ballarat

Issue raised	Commission's response
<p>The ESC appears to have a limited understanding and appreciation of the multifaceted nature of local government, council operations and service provision. This is clearly demonstrated in the Draft Report where the suitability of the 'efficiency factor' on other sectors regulation by the ESC (water authorities and utility companies) is used as a comparison, however it is a false premise – neither is a tier of government, and both operate in an entirely different paradigm.</p>	<p>We acknowledge council's concerns about the comparison between sectors. Please refer to pages 4 and 5 of the final paper.</p>
<p>City of Ballarat contends that any 'efficiency factor' proposed by the ESC on Councils is unnecessary, overbearing and unsuitable. We also contend that the paper provides no evidence base for implementing an 'efficiency factor', we therefore remain strongly opposed to its introduction.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>

City of Ballarat, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

Issue raised	Commission’s response
<p>There is little to no benefit in setting an efficiency factor in addition to the Minister’s rate cap.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>Attempting to apply a one size fits all approach to Councils on this matter is inappropriate and does not recognize the vastly different starting positions of each Council before the introduction of the rate capping policy.</p>	<p>We have designed the higher cap application process to provide scope for councils to demonstrate a need for a higher rate cap that may arise from the different circumstances each council faces. We consider this to be a more transparent and efficient method that better serves councils and the community.</p> <p>In the longer term we will review the efficiency factor again.</p>
<p>As Glen Eira has already made clear in earlier representations to your office, it is next to impossible for a Council to achieve a perfect 2% (for example) increase to the average rate due to the number of assumptions that must be made in advance of setting the annual budget.</p>	<p>Please refer to page 5 of the final paper.</p>
<p>Your draft proposal notes that ratepayer associations did not make any submissions on this matter as part of the consultation process. I suggest that this is likely because the objective of ratepayer associations in early consultations on rate capping was to achieve control of rating growth, and that this has already been achieved through the Minister’s rate cap policy. There is no evidence in your paper to support the inference that they are now strongly in support of a further efficiency factor.</p>	<p>Ratepayers did not engage in the consultative process for this paper. However prior consultation with some stakeholders has indicated that they see potential benefits of including an efficiency factor in the rate cap formula.</p>
<p>As far as I am aware, the rate cap formulae of 60% CPI and 40% WPI was not introduced to accommodate short term cost pressures faced by Councils but in recognition that as service organisation CPI alone is not an appropriate measure by which to consider reasonable cost escalation.</p>	<p>We included a WPI component into the rate cap formula to allow councils to adjust for inflexible costs over the short term. This is outlined in section 2 of our original review – A Blueprint for Change.<sup>10</sup></p>

City of Glen Eira, submission to Essential Services Commission 2017, *Setting a local government efficiency factor*, Draft proposal, December

<sup>10</sup> Essential Services Commission 2015, *A blueprint for change, local government rate capping & variation framework review — final report*, September.

## City of Greater Bendigo

Issue raised	Commission's response
<p>The paper assumes that local government is by its nature inefficient, and the cited research as well as the proposed approach all build on rather than testing this assumption. This assumption should be rigorously tested and independently verified before any further limitations on revenue are imposed upon local government.</p>	<p>Predictive Analytics Group did measure productivity trends in the sector between 2010-11 and 2015-16 and found that overall productivity has declined over this time period. Details of this analysis are in our earlier consultation paper which can be found on our website <a href="http://www.esc.vic.gov.au">www.esc.vic.gov.au</a></p> <p>We will continue to work with the sector to improve the appropriateness of our analysis. This will be used in our monitoring and outcomes work and, in two years, provide valuable information for our next review of local government productivity.</p>
<p>The rate capping regime by its very nature is an efficiency factor.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>The rate capping regime is still relatively new and its medium and long term impacts are not yet fully known or understood.</p>	<p>Monitoring the outcomes of the Fair Go Rate system is one of the commission's core local government functions. As more information becomes available, we will incorporate it into our analysis of productivity and efficiency.</p>
<p>Any factor that is set should be established well in advance to enable councils to plan for the medium term future rather than having to react on a year-by-year basis to new data.</p>	<p>We hope the certainty of our new approach enables council to plan over the medium term (pages 4 to 8 of the final paper).</p>
<p>The drivers of increased costs to local government are far more connected to growth in communities and increasing community needs and expectations than they are to inefficient operating practices.</p>	<p>We will continue to work with the sector to better understand how external factors affect the efficiency and performance of local government.</p>

City of Greater Bendigo, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## City of Hume

Issue raised	Commission's response
Whilst council supported the data envelopment approach, it accepts that a stage approach before its use would provide the sector with greater certainty in the advice that the ESC will provide to the Minister.	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
Council supports the ongoing development of measuring productivity in the local government sector as this will provide the sector with an evidence base to discuss with and inform the State Government policies that would impact the sector. Council would also be willing to participate in the next productivity review scheduled for 2020-21.	<p>We will continue to work with the sector on refining the data and models that can be used to measure the productivity and efficiency of the local government sector.</p> <p>We now intend to undertake another productivity review in two years to determine if a productivity factor should be included in the rate cap formula.</p>

City of Hume, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December



## City of Manningham

Issue raised	Commission's response
The introduction of the rate cap itself is a form of forced productivity improvement.	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
An efficiency factor ignores the diversity of the local government sector and will adversely affect those councils that are already more efficient in the delivering services and infrastructure.	<p>We will continue to work with the sector to better understand the factors affecting different councils' productivity and efficiency.</p> <p>We have designed the higher cap application process to provide scope for councils to demonstrate a need for a higher rate cap that may arise from the different circumstances each council faces. We consider this to be a more transparent and efficient method that better serves councils and the community.</p>

City of Manningham, submission to Essential Services Commission 2017, *Setting a local government efficiency factor*, Draft proposal, December

Issue raised	Commission’s response
<p>There is insufficient evidence on how the introduction of an ‘Efficiency Factor’ in the rate cap formula will work as an incentive to be more efficient, promote innovation and improvements in the sector. No case studies or analysis have been provided to support an “Efficiency Factor” to be a driver of innovation and improvements in the sector.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor. Please refer to pages 3 to 8 of the final paper.</p>
<p>Introduction of an “Efficiency Factor” will further diminish councils’ ability to invest in available technology and imposes a risk of widening the gap.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor. Please refer to pages 3 to 8 of the final paper.</p>
<p>Setting an ‘Efficiency Factor’ to 0.10 per cent for the next 2 financial years, is over and above the proposed range of 0.01 to 0.09 per cent demonstrated by the data envelopment analysis (Measuring Productivity in the Local government Sector Consultation Paper September 2017). This approach also assumes a one size fits all, ignoring diversity in operations, services, infrastructure, demographics, financial position etc. of 79 different councils.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor. Please refer to pages 3 to 8 of the final paper.</p>
<p>Over the past 2 years under the rate cap system and previous year’s analysis, it is clear that achieving a perfect rate cap (2.00% FY17/18) is next to impossible. During the budgeting period, increases to the average rates is based on a number of assumptions such as total amount of annualised supplementary valuations (approximately 2 months prior to end year close) etc. These assumptions mostly lead councils to set an actual rate rise lower than the required rate cap.</p>	<p>Please refer to page 5 of the final paper.</p>

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## City of Stonnington (continued)

Issue raised	Commission's response
<p>As a long term impact, the introduction of an efficiency factor will cripple councils' financial sustainability. This will lead councils to cut services or reduce service levels, which is not in the best interests of the community and is in conflict with the idea of 'Efficiency Factor'.</p> <p>City of Stonnington calls on the ESC to abolish the 'Efficiency Factor' and allow councils for a period of 5 years to reinvest the equivalent of an 'Efficiency Factor' into business efficiencies and improvements.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper</p>

City of Stonnington, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## City of Whitehorse

Issue raised	Commission's response
<p>We are of the view that the document does not address the current issues being faced by many councils who are driving changes and efficiencies consistently as part of their commitment to continuous improvement as a separate process, but including the result of rate capping.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p> <p>We will continue to work with the sector to better understand the factors affecting different councils' productivity and efficiency.</p>
<p>The assessment of the need for an efficiency factor is overlooked and rather a focus on a neat highly technical solution is outlined.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>The Local Government Performance Reporting Framework provides a comparative data base, by local government type of the performance of councils on an annual basis and offers a trend in performance and cost of a wide range of services. Enhancements to the LGPRF are already proposed as an appropriate comparative tool for Council's service and financial performance.</p>	<p>The LGPRF indicators do provide useful comparative measures of individual services. Although they could be aggregated they do not yet measure whole of organisation productivity.</p> <p>We support the ongoing development of comparative measures to assess council service and financial performance.</p>

City of Whitehorse, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## Corangamite Shire

Issue raised	Commission's response
<p>Corangamite Shire contends no efficiency factor should be introduced in the short to medium term, as the sector has effectively had an efficiency cap introduced through rate capping.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>The proposal notes that no consultation on the efficiency factor was undertaken with rate payers, and it is also noted that no consultation seems to have occurred with unions or, for example, asset and engineering bodies.</p>	<p>Ratepayers did not engage in the consultative process for this paper. However prior consultation with some stakeholders has indicated that they see potential benefits of including an efficiency factor in the rate cap formula.</p>

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## Corangamite Shire (continued)

Issue raised	Commission's response
<p>Pleasingly, the paper recognises the diversity within the sector. However, more explicit recognition of the issues and difference between metro and rural councils is required. Rural councils are required to manage large numbers of assets (predominately roads) with much smaller rate bases and fewer alternative income sources. The ESC response on page 13 of the draft proposal to our previous submission suggests “as rates fund a broad range of council services we consider that an aggregate measure of efficiency is reasonable”. This simplistic approach is flawed and the premise that there will be winners and losers (described in the proposal as acknowledging “...for some services, an overall efficiency factor will overestimate what can be achieved. Elsewhere it will underestimate opportunities...”) fails to recognise the diversity within the sector which the ESC has observed.</p>	<p>We will continue to work with the sector to better understand the factors affecting different councils' productivity and efficiency.</p>
<p>The draft proposal still sufficiently fails to recognize the theoretics and practical difficulties of using DEA. For example, many (small rural) councils considered ' technically efficient' in the initial consultation paper are potentially those councils the Victorian Auditor General's Office would consider high risk in terms of long-term financial sustainability. In that regard, the competing objectives of efficiency and sustainability need to be carefully considered.</p>	<p>We invited all councils to meet with us for a confidential discussion about their technical efficiency score and about the potential tradeoffs between efficiency and sustainability.</p> <p>We will continue to improve the models over time and intend to undertake another review in in 2020 to determine the need for including an efficiency factor in the rate cap formula.</p>
<p>The efficiency and effectiveness of Local Government remains an important issue, however the ESC has not adequately demonstrated to or consulted with the sector on the application of DEA. As the ESC “recognises that there are some limitations at the moment as the effects of the rate capping regime on productivity and efficiency are not yet fully revealed”, the introduction of an efficiency factor by the Essential Services Commission is premature until further discussion with the sector occurs.</p>	<p>Given our revised approach to setting an efficiency factor, we expect to continue monitoring productivity of the sector to help understand the outcomes of the Fair Go Rates system. This will involve working with the sector to improve the models and refine the data.</p> <p>We intend to undertake a productivity review in 2020 to determine if an efficiency factor should be included in the rate cap formula.</p>

Corangamite Shire Council, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## LGPro

Issue raised	Commission's response
<p>As we understand it the draft proposal is based on the ESC's study on Measuring Productivity in Local Government. Rather than a study, that piece of work on productivity was undertaken based on a preconceived conclusion that the introduction of an efficiency factor was required and all the study was required to achieve was to identify the best way of doing it.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>Having predetermined the need for an efficiency factor the draft proposal makes no attempt to assess efficiencies being achieved by the recent introduction of rate capping, nor does it consider that the full impact of rate capping is unlikely to be properly understood until it has been in operation for 5 or more years.</p>	<p>We intend to undertake a productivity review in 2020 to determine if an efficiency factor should be included in the rate cap formula.</p>
<p>We reject the draft proposal.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>

LGPro, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## Maribyrnong City Council

Issue raised	Commission's response
<p>Rate capping has led to significant changes to our operations and will continue to do so. However, the main drivers to increasing costs are not due to inefficiencies in operations, but the rapid growth of our community and their increasing needs and expectations.</p> <p>While we are able to manage the current service levels, factors such the universal rate in the dollar; the garbage charge; cost shifting from the state and federal government; and declining government grants will affect our future capacity to deliver services.</p>	<p>We will continue to work with the sector to better understand how external factors affect the productivity of councils operating under the Fair Go Rates system.</p>
<p>Rate capping is an efficiency program and its introduction is still relatively new. As such the longer term impacts are still not known. Until they are known we, along with most of the local government sector, do not believe that a further efficiency factor is warranted and that it would appear to be premature to impose an additional reduction in revenue.</p>	<p>Please refer to pages 3 to 8 of the final paper.</p> <p>We intend to undertake a productivity review in 2020 to determine if an efficiency factor should be included in the rate cap formula.</p>

Maribyrnong City Council, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## Maroondah City Council

Issue raised	Commission's response
<p>An efficiency factor increasing by 0.05 per cent each year, implemented sector wide cannot be considered a reasonable approach to encouraging efficiency in every single local government entity.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>With the review of the Local Government Act (LGA), there has been no mention of the efficiency factor and the role it will play in determining the rate cap.</p>	<p>The efficiency factor is included as part of our advice to the minister on the rate cap and is outlined in our guidance for councils.</p>
<p>Page two of the document states that the efficiency factor, incorporated into pricing formulas, is common in incentivising service providers. Typically, the service providers that are incetivised implementing efficiency factors, normally deliver, more commonly, one type of service, not 130 plus service types. It also notes that it is particularly important in a local government context, as competitive pressures are rarely placed upon the services delivered by local government. However, in rebuttal to this statement, one would reasonably conceive that a competitive pressure currently being posed on Councils, would be dealing with a predicted 30% electricity price hike, within a rate capped environment. For Maroondah City Council specifically, this results in what potentially could be a \$19M gap over 10 years. The formulae for rate capping and efficiency factors doesn't necessarily capture these gaps faced by Council.</p>	<p>We acknowledge council's concerns about the comparison between sectors. Please refer to page 5 of the final paper.</p>
<p>Implementing an arbitrary efficiency factor can only be considered as inhibiting, when there is relatively uninformed base to start with and not sufficient data on the current impacts of rate capping in Victoria.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>

Maroondah City Council, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December



Issue raised	Commission’s response
<p>The use of a combined CPI and WPI outcome is supported as it better reflects the true costs of running local government operations rather than a straight CPI calculation. Employee costs are a major component of local government expenditure. The Minister for Local Government has consistently ignored this ESC recommendation when setting the annual rate cap, which is disappointing. Until such time as the combined CPI and WPI is used in setting the annual rate cap, the concept of an efficiency factor is not supported as it is inconsistent with the whole formula recommended by the ESC.</p> <p>Moyne Shire also contends that councils have achieved considerable efficiencies in moving to the rate cap regime. For our council this has resulted in rate revenues being reduced from 4.5% growth per annum to the rate cap of 2.0% to 2.5% per annum. This has resulted in reduced average rate bills.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>Moyne Shire also supports the view that “one size does not fit all” regarding the rate cap and therefore any efficiency factor. Many rural councils have far less scope to make savings and efficiencies or opportunities to increase revenue streams when compared to their metropolitan and regional counterparts. At the same time rural shires are often faced with greater challenges in funding their infrastructure renewal needs. These variations support the application of an alternate rate cap and formula for rural councils.</p>	<p>We will continue to work with the sector to better understand the factors affecting different councils’ productivity and efficiency.</p>

Moyne Shire Council, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## Municipal Association of Victoria

Issue raised	Commission's response
<p>The MAV highlights its continued belief that the application of an efficiency factor is not warranted and that it would be inappropriate given that the impacts of rate capping are still being assessed.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>
<p>The MAV stands by its critique of the proposals in the Consultation Paper and does not feel that the additional analysis undertaken provides any more comfort, especially with respect to the effect of the proxies being used in the DEA approach.</p>	<p>We will continue to work with the sector on refining the data and models that can be used to measure productivity in local government.</p> <p>We will continue to improve the models over time and intend to undertake another review in 2020 to determine the need for including an efficiency factor in the rate cap formula.</p>
<p>The MAV is however pleased to see that the ESC believes it unreasonable to entertain a proxy value drawn from historic Australian industry productivity data which is generally accepted as having little relevance for the sector. The MAV also sees benefit in a staged approach while the impacts of rate capping are being assessed. The adoption of a notional factor must be considered as quite arbitrary but at least can be seen easily for what it is compared with the DEA-proxy approach. Although there is no certainty there may be less risk in the notional factor.</p>	<p>We will consider these comments as we continue to develop our models to measure productivity and efficiency in the sector.</p>
<p>It should not be lost when considering this issue and in the setting of a factor over a number of years that there will be influences on efficiency and productivity that may be outside a council's control. The recent example regarding recyclables is a good one which may result in increased costs for councils. The ability for annual flexibility needs to be ensured in any approach and therefore the adoption of factors for more than one year (i.e. 3 years) needs to be subject to annual review.</p>	<p>We will continue to work with the sector to better understand how external factors affect the efficiency of local governments operating in a rate capping environment.</p> <p>We will review the timeframe of our reviews to ensure they capture any significant changes to councils' operations.</p>

Continued next page

## Municipal Association of Victoria (continued)

Issue raised	Commission's response
<p>The MAV considers that longer term development in the ability to use more disaggregated data (either VGC or LGPRF or something else) be considered seriously as sources for the basis of commenting on productivity. The fact the LGPRF currently does not include corporate overheads and does not cover the full gamut of services should not preclude this development. Approaches like pooling intermediate services and corporate overheads and separating governance costs as distinct from the more direct service costs, requiring inclusion of corporate overheads in service cost reporting and encouraging better development of corporate overhead allocation systems could be considered. The time made available from the staging of the introduction of efficiency factor could possibly be used by the ESC to consider how alternatives to the DEA-Proxy approach might be fostered.</p>	<p>We support the development of disaggregated data for use of measuring productivity and council performance. Given our revised approach, we will now work with the sector to refine the data and models used to measure productivity.</p>

Municipal Association Victoria, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

Issue raised	Commission's response
<p>The preferred option is a high-level methodology that is quite simple and cost-effective to calculate and it is an approach that produces a broad-brush approximation of the efficiency increase relevant to the Local Government sector. To create a Local Government specific model that produces a much more accurate estimation of efficiency improvements would require an incredibly complex methodology. Collecting and validating the large number of data elements for such a model would be very costly and time consuming for each of the 79 Councils. Even if it was possible to create a very accurate efficiency measurement tool for each Council, then the sector efficiency measure would still need to be some sort of average of 79 specific (and potentially quite variable) results. The chosen methodology is certainly not perfect but it does meet the requirements of the Legislation, and does so with minimal impact on Councils individually and collectively.</p>	<p>In response to stakeholder feedback we have revised our approach to setting an efficiency factor.</p> <p>Please refer to pages 3 to 8 of the final paper.</p>

Pyrenees Shire Council, submission to Essential Services Commission 2017, Setting a local government efficiency factor, Draft proposal, December

## Appendix B — Using data envelopment analysis

In this appendix we explain how we came to consider using data envelopment analysis to measure productivity trends and set an efficiency factor for the sector. Data envelopment analysis is a mathematical technique that has been widely used to measure local government productivity trends in other jurisdictions.

### Approaches to set an efficiency factor

In our consultation paper we identified four different approaches to set an efficiency factor.<sup>11</sup> We were also mindful that the approaches considered should use existing data and minimise the reporting burden on councils. The approaches were:

- A small, notional factor of 0.05 per cent.
- A proxy value drawn from historic Australian industry productivity data for other sectors collected and published by the ABS. This resulted in an efficiency factor of 0.17 per cent.
- A value calculated using data from the data envelopment analysis. We identified a range of values from 0.01 to 0.09 per cent.<sup>12</sup>
- Using performance data from the local government performance reporting framework to inform the efficiency factor.

### Options for setting an efficiency factor

Our review of each approach against well recognised regulatory criteria suggested that the data envelopment approach best met the criteria.<sup>13</sup> However, the formula used to calculate the efficiency factor using this approach needs values for the required efficiency gain and the number of years over which to achieve the gain. Until the effects of rate capping on productivity and efficiency are better known, it would be difficult to make an informed decision about what the values for these parameters should be. Nevertheless, this method could still be used to generate past productivity trends and monitor future productivity trends in the sector.<sup>14</sup>

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<sup>11</sup> Full details on each approach can be found in our paper, Essential Services Commission 2017, Measuring productivity in the local government sector: Consultation paper, September (the consultation paper) and in the accompanying consultants' reports. These reports can be found on our website [www.esc.vic.gov.au](http://www.esc.vic.gov.au).

<sup>12</sup> The formula used to calculate an efficiency factor using data from the data envelopment analysis can be found in Attachment 1.

<sup>13</sup> The regulatory criteria are objectivity, accuracy, applicability, defensibility and cost effectiveness.

<sup>14</sup> The values reflect the required efficiency gain and the number of years over which to achieve the gain. The formula is in Attachment 1.

## Summary of stakeholder feedback on a preferred approach to set an efficiency factor

We asked stakeholders to provide feedback on the approaches identified in the consultation paper to set an efficiency factor. In summary, there was some support for the unit cost or service level, data envelopment analysis, or notional value approaches to set the efficiency factor. Each of these approaches has strengths and weaknesses that need to be considered if implemented.<sup>15</sup>

### Our responses

#### Using the local government performance reporting framework, service level data, data envelopment analysis and the notional value to set an efficiency factor

There were opposing views on whether the efficiency factor should be based on the local government performance reporting framework and service levels more generally, results from the data envelopment analysis or the notional value. The submissions highlighted strengths and weaknesses of each approach. Full details on stakeholder feedback and our responses can be found in our draft proposal which is available on our website: [www.esc.vic.gov.au](http://www.esc.vic.gov.au)

#### Data envelopment analysis

While there was some support, there were a number of submissions that raised concerns about using the data envelopment analysis approach to measure productivity trends and set the efficiency factor. Most concerns centred on the robustness of the model specifications used in the analysis. Particularly whether the inputs used accurately reflected the costs incurred by councils. And, whether using proxies for the outputs (such as number of houses and businesses and length of roads) reflects the bundle of services delivered by councils. Some councils were also concerned as to whether the original models took into account differences between councils in the quality of services delivered. The original model specifications used in the analysis described in the consultation paper are contained in attachment 1.

In response we appointed Predictive Analytics Group to undertake additional modelling to test the robustness of the original models used to calculate technical efficiency ratios and productivity trends for the local government sector.<sup>16</sup> The alternate modelling included:<sup>17</sup>

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<sup>15</sup> There was no support for the proxy method using ABS data to set the efficiency factor. This was primarily because it was based on industries that were not closely related to local government.

<sup>16</sup> Full technical efficiency occurs at the point (frontier) at which the highest output occurs given specified inputs or the point at which the lowest amount of inputs are used to produce a specified quantity of output. Technical efficiency ratios measure the distance an entity is from the frontier. Full technical efficiency is represented by a score of 1.0.

<sup>17</sup> The alternate model specifications are included in Attachment 1.

1. changing the inputs used
2. incorporating community satisfaction scores into the models to act as a proxy for service quality
3. changing the outputs so they directly reflect services delivered
4. changing the outputs to include population
5. using an alternate framework (Bayesian stochastic frontier analysis) to measure local government efficiencies.

Predictive Analytics Group's additional analysis showed that altering the inputs and outputs used in the data envelopment analysis does not change the results significantly. On this basis we concluded that the original models proposed in the consultation paper are reasonably robust and fit for our purposes. That is, the models can be relied upon to generate information that can be used in the efficiency factor calculation. The information can also be used to monitor council or council group efficiency at a high level as part of our outcomes reporting.<sup>18</sup>

Finally, on a practical level, the analysis uses council data that is readily available and does not place additional reporting burdens on councils.

However, we recognise that more work can be done to:

- understand whether different inputs and, particularly, outputs can be used to better reflect council operations.
- explore whether the effects of different demographics can be measured.
- understand how productivity and efficiency are affected by rate capping.
- develop case studies to support and understand the results from the data envelopment analysis.

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<sup>18</sup> We intend to report on the outcomes of the Fair Go Rates system every two years.

## Attachment 1 —Model specifications and efficiency factor calculation

**Table 1 Original model specifications for data envelopment analysis**

Model	Inputs	Outputs
Model 1	Staff (\$) + Capital (\$)	H/holds + Businesses + Roads
Model 2	Staff (FTE) + Capital (\$)	H/holds + Businesses + Roads
Model 3	Staff (\$) + Capital (\$)	H/holds + Businesses + Roads + Waste (Tonnes)
Model 4	Capital (\$) + Operating Expenses (excluding Depreciation) (\$)	H/holds + Businesses + Roads
Model 5	Operating Expenses (excluding Depreciation) (\$) + Depreciation (\$)	H/holds + Businesses + Roads

**Table 2 Alternate models for data envelopment analysis**

Model	Inputs	Outputs
Model 1 Revised	Staff (\$) + Operating Expenses (excluding Depreciation and Staff) (\$)	H/holds + Businesses + Roads
Model 2 Revised	Staff (FTE)	H/holds + Businesses + Roads
Model 3 Revised	Staff (\$)	H/holds + Businesses + Roads + Waste (Tonnes)
Model 4 Revised	Operating Expenses (excluding Depreciation) (\$)	H/holds + Businesses + Roads
Model 5 Revised	Operating Expenses (excluding Depreciation) (\$)	H/holds + Businesses + Roads



**Box.1      Calculating the efficiency factor using the outputs from data envelopment analysis**

$$\text{Efficiency factor} = \text{TFPC} + ((1+p (1-\text{TE}))^{1/t} - 1) \times 100$$

Where TFPC = Total Factor Productivity Change

TE = Technical Efficiency ratio

p = the required efficiency gain in percentage terms

t = the time (in years) that the efficiency gain is required

