

public interest
ADVOCACY CENTRE

ATTACHMENT D

PIAC's Submission on Essential Energy's 2019-24 Capex Proposal

17 August 2018

About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in Sydney.

Established in 1982, PIAC tackles barriers to justice and fairness experienced by people who are vulnerable or facing disadvantage. We ensure basic rights are enjoyed across the community through legal assistance and strategic litigation, public policy development, communication and training.

Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program (EWCAP) represents the interests of low-income and other residential consumers of electricity, gas and water in New South Wales. The program develops policy and advocates in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives input from a community-based reference group whose members include:

- NSW Council of Social Service;
- Combined Pensioners and Superannuants Association of NSW;
- Ethnic Communities Council NSW;
- Salvation Army;
- Physical Disability Council NSW;
- Anglicare;
- Good Shepherd Microfinance;
- Financial Rights Legal Centre;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- The Sydney Alliance; and
- Mission Australia.

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The Public Interest Advocacy Centre office is located on the land of the Gadigal of the Eora Nation.

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Recommendation 1

That the AER's consider the impact on the RAB and the risks of further growth in the real RAB value to current and future consumers in its decision on allowed capex.

Recommendation 2

That, in its analysis of Essential's proposal, the AER consider the impact on the future capex productivity performance of Essential and the prudence of any capex/opex substitution plans in the context of future risks.

Recommendation 3

That the AER conduct more detailed scrutiny of the Essential's planned major projects. Where projects would require a RIT-D before proceeding, PIAC recommends that the AER's scrutiny include assessing all Essential's major projects against the RIT-D criteria.

Recommendation 4

That the AER assess the efficiency of Essential's large non-network investments.

Recommendation 5

That the AER require Essential to demonstrate how they will make better use of DER and the DMIA to reduce 2019-24 capex in the revised proposal.

1. Overview of Essential Energy's capex proposal

Note: All figures in the discussion below are presented in \$2018-19 unless otherwise stated

Essential Energy's (Essential) capex proposal is built around its core business vision of "empowering communities to share and use energy for a better tomorrow".¹ Essential sought to include the feedback from its extensive customer engagement program into its current 2019-24 proposal. As a result, Essential states:²

The customer themes of safety, reliability and affordability have driven our capital expenditure planning for 2019-24.

The AER seeks stakeholder views on whether Essential's capex proposal of \$2.1 billion for the period 2019-24 is consistent with Essential's vision, purpose and strategic goal of providing a safe, reliable and affordable network. To this end, Essential states that its regulatory proposal builds on existing efficiency improvements and balances the need to invest in the network while meeting customers' expectations for electricity affordability.³

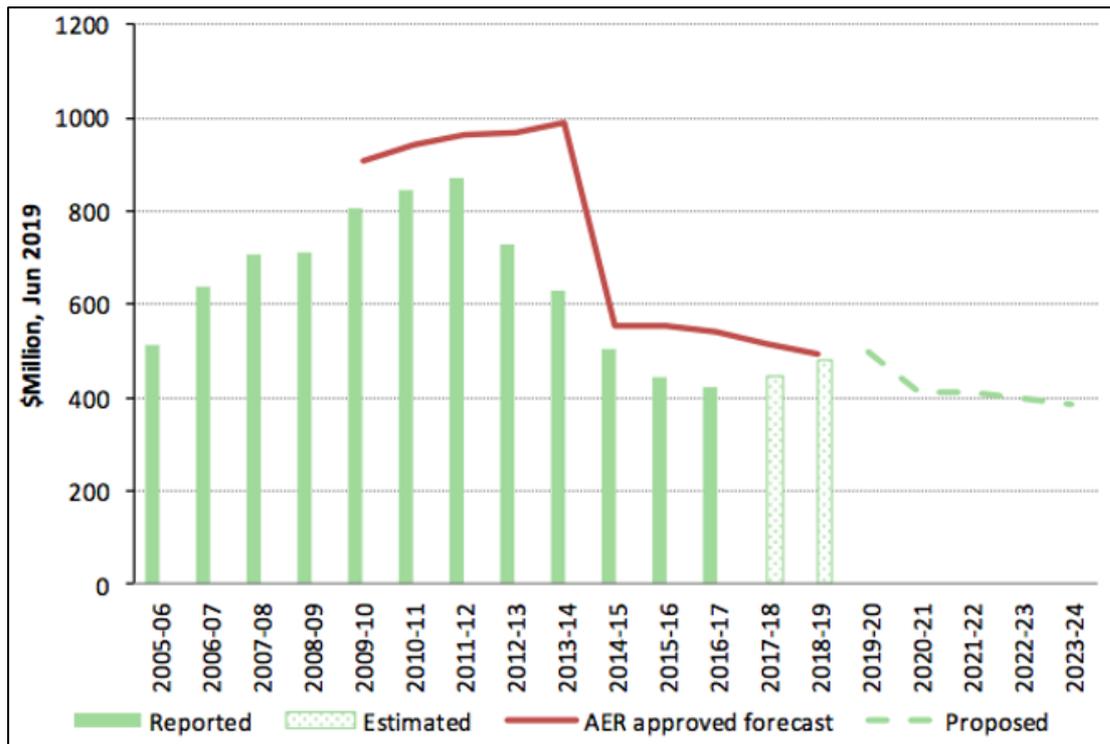
Essential's capex peaked in the 2009-14 period and there has been a significant reduction in capex in the 2014-19 period. Essential's proposed capex for 2019-24 is around 8.5% reduction from its actual capex in 2014-19. Figure 1 illustrates the downward trend in capex across the 2019-24 period.

¹ Essential Energy, *2019-24 Regulatory Proposal*, April 2018, 3.

² Ibid, 63.

³ See *ibid*, 45.

Figure 1 – Essential’s historical and forecast capex



Source: AER, *Issues Paper*, April 2014, Figure 17, 46.

PIAC welcomes Essential’s focus on reducing capex. Given the extremely high levels of network investment since 2009, we consider such reductions necessary for all NSW DNSPs.

However, Essential’s proposal results in real increases in distribution prices of 1.4% per annum from the prices paid in 2018-19.⁴ Given the previous expenditure on capex, particularly in the 2009-14 period, the current levels of reliability and safety, the cost pressures on households and on businesses affordability should be at the centre of all the NSW regulatory proposals.

This price increase is driven by growth of Essential’s Regulatory Asset Base (RAB). While PIAC acknowledges that Essential faces significant challenges in managing its large, diverse network and equivalently large RAB, we do not support any proposal that increases RAB (as outlined in our main submission). To continue to grow Essential’s RAB from an already high base transfers to consumers unnecessary risks of future redundancy in the network and changes in the cost of capital. Therefore, we consider that there is more work to be done in constraining Essential’s capex to minimise RAB growth.

PIAC bases its conclusions on the following:

- **Essential’s RAB increases by 5.7% in real terms:** While this is relatively modest growth, it comes on the back of 40.9% (\$real) in 2009-14 and 10.1%(\$real) estimated growth in the

⁴ AER, [NSW electricity determinations – Issues paper](#), June 2018, 42. Note, the overall revenue for 2019-24 is less than the total revenue under the AER’s remade decision for 2014-19 due to various adjustments to the 2014-19 revenues (see pp 42 - 45 for details). Hence the better point of comparison is the 2018-19 figures.

2014-19 regulatory periods.⁵ Given this previous high growth and the risks around future demand growth in the Essential areas, effectively managing the size of the RAB is critical to the 'future proofing' the network. PIAC recognises that Essential has long term plans to turn this growth around, which is a positive recognition of the future risks and customer impacts. However, we also consider that the process must be advanced in this regulatory determination.

- **Essential's capex productivity has continued to decline:** PIAC recognises that there have been significant improvements in Essential's performance since 2012, particularly in terms of its opex productivity (as measured by the AER). However, over the 2012-2016 period capex productivity was still negative at -11% per annum. One factor in this is the continued growth in expenditure on overhead distribution lines. Economic Insights reports an increase of 44% of this input over 2006 to 2016, compared to an industry-wide increase of 11%.⁶
- **Modelled and Unmodelled capex:** PIAC expects that the AER will review the modelled capex to ensure consistency in the assumptions on asset replacement models. With respect to unmodelled capex, PIAC notes that it makes up 36% of total repex, and that \$230m of this is expenditure on pole top structures. While we understand that improvements in technology might identify more potential faults, this appears to be an area where replacement capex replaces past maintenance opex. PIAC considers the extent of this capex program is not justified given the network was performing well within its licence (including safety) requirements and the expenditure could be spread out over a number of regulatory periods.
- **Growth capex (excluding new connections):** Subject to a review of the demand forecasts, much of Essential's growth capex appears reasonable. However, PIAC does not accept the Black Spot program as presented by Essential. PIAC's experience is that consumers support the principle. However, this support is not always based on assessment of the roles of various authorities in this process. We look to Essential to provide more information on how it has worked with Councils and the Roads and Maritime Authority to decide on this program and the allocation of costs between the parties.
- **Non-network capex:** The two largest items in the non-network program are the expenditure on fleet (\$168m) and ITC (\$164m). We would expect fleet costs to reduce in line with reduction in staff and consolidation of centres. Similarly, where more operational work is outsourced, there should be a proportionate reduction in in-house fleet and plant requirements. With respect to ITC, PIAC accepts the need for increased expenditure on cyber security and improved communication equipment, we acknowledge that Essential has provided more detailed documentation of the expected benefits to consumers. However, it is important that the rate of introduction of ICT is appropriate (given our concerns with RAB growth) even when there is a positive business case – not all programs with a positive business case should necessarily proceed, but rather be prioritised according to the extent to which they are necessitated by the licence standards.

⁵ Ibid, 44.

⁶ Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2017 DNSP Benchmarking Report*, 2017, 96.

- **Demand forecast:** Overall, growth in energy requirements in Essential's area is subdued consistent with Essential's own energy forecasts. However, Essential is predicting growth in peak demand. Economic Insights (2017) report suggests that while peak demand increased in last five years compared to previous periods, maximum demand ('ratcheted peak demand') occurred in 2014. PIAC recognises that growth in peak demand for Essential will be mixed reflecting regional patterns, to the extent it is driving capex, we request that the AER carefully review the assumptions in this forecast. In general, technology will impact on this growth particularly as tariff reform starts to take effect. We would expect that Essential's research plans would have a very strong focus on managing peak demand growth.
- **Capitalised overheads:** The AER's analysis indicates that Essential's expenditure on capitalised overheads is around 28% of its total capex, compared to the other two NSW networks where expenditure is around 20%. PIAC would have expected that there would be greater efficiencies in this area given that many of the reforms in opex regarding labour costs for instance, would flow through to capitalised direct overheads.

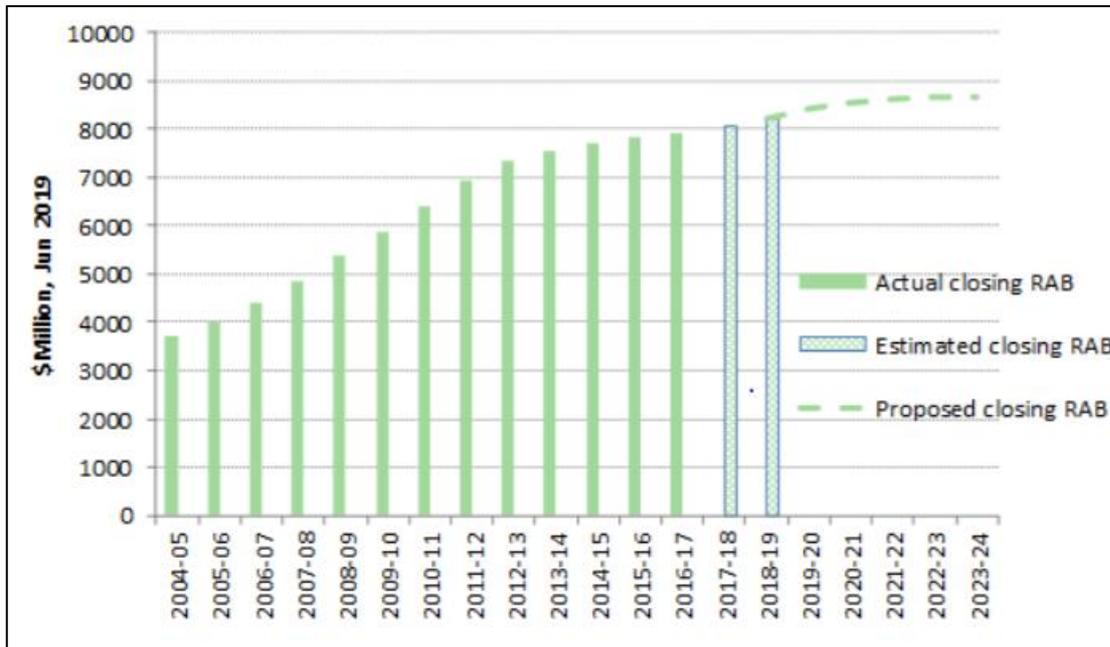
In the discussion below, PIAC makes more detailed comments on several areas of the program, including:

- The continued growth in the RAB (in \$real terms) of 5.7%;
- Continued decline in the AER's capex productivity measure up to 2016;
- Major projects;
- Non-network capex programs; and
- Essential's use of DER and the DMIA.

2. Continuing RAB growth

As indicated above, PIAC does not consider that Essential's capex proposal is capable of being accepted in its current form. A central issue for PIAC is the continued growth in the RAB – up to 5.7% in the forecast period. Moreover, this follows significant cumulative growth of 41% and 10% in 2009-14 and 2014-19 respectively. Based on this forecast, Essential's RAB will have grown by some 64% over 15-year period from 2009 to 2024. Figure 2 below illustrates this point.

Figure 2 – Essential’s historical and forecast RAB value (\$m, 2018/19)



Source: AER, *Issues Paper*, April 2014, Figure 16, 44.

This growth in the RAB carries a significant risk to customers in the context of limited growth in customer numbers, flat or declining energy growth, and considerable uncertainty around the growth in peak demand. It also creates a significant exposure to changes in the cost of capital over the next 10-years from the historically low cost of capital that now prevails.

Essential already has very low utilisation rates, and recovery of the cost of capital and depreciation costs is a significant driver of Essential’s current and future prices.

While PIAC considers there are some positive elements in Essential’s capex proposal, we also believe that more discipline is required to better manage the RAB outcomes in the current period. Only projects with positive NPV’s that contribute directly to improved costs elsewhere and allow Essential to operate within its licence conditions (but not necessarily) better, should be prioritised. This applies across all the categories of Essential’s capex.

Recommendation 1

That the AER’s consider the impact on the RAB and the risks of further growth in the real RAB value to current and future consumers in its decision on allowed capex.

3. Essential’s declining capex productivity

PIAC recognises that Essential has improved its ranking on the AER’s benchmarking table from 12th to 11th position⁷ and has significantly improved its total factor productivity score on the analysis by Economic Insights.⁸

⁷ AER, *Annual Benchmarking Report 2017: Electricity Distribution Network Service Providers*, 9.

⁸ Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator’s 2017 DNSP Benchmarking Report*.

However, as illustrated in Table 1 below, this improvement is based entirely on a major improvement in Essential’s opex productivity. While PIAC supports this improvement in opex productivity, we are very concerned to see a parallel reduction in capex productivity. Improvements in capex productivity contribute directly to all Essential’s goals of improved affordability, reliability and safety.

Table 1 – Essential’s output, input and TFP and partial productivity indexes 2006-2016 (% change per annum)

Period Growth rate (% per annum)	Output Index	Input Index	TFP Index	OPFP Index	CPFP Index
Growth rate 2006-16 pa	1.52%	2.76%	1.26%	0.06%	-1.91%
Growth rate 2006-12 pa	1.43%	6.59%	-5.16%	-7.86%	-3.12%
Growth rate 2012-16 pa	1.65%	-2.94%	4.59%	11.94%	-0.11%

Source: Economic Insights, October 2017, Table 5.19, 94-95.

The extent of the difference between the 11.94% per annum improvement in opex productivity in the 2012-16 period versus the decrease in capex productivity of -0.11% per annum raises questions around the allocation and/or substitution of costs in the current regulatory period from opex to capex. While this results in immediate cost reductions this should not be at the expense of the long-term interests of customers through excessive RAB growth.

Moreover, the current proposal suggests this trend might continue: for example, PIAC has noted an increase in replacement of pole tops (capex) compared to what appears to be greater expenditure in maintenance (opex) in the past. PIAC is not in a position to examine these trends in detail but highlight them to the AER for further examination to assess whether the capex/opex trade-off is efficient, and more particularly, efficient in the current context. That is, to assess if Essential has adequately taken account of the current challenging environment with future risks for capex over-investment and under-utilisation.

Recommendation 2

That, in its analysis of Essential’s proposal, the AER consider the impact on the future capex productivity performance of Essential and the prudence of any capex/opex substitution plans in the context of future risks.

4. Major projects

Under the Rules, Essential will have to undertake a regulatory investment test (RIT-D) process, before proceeding with any project in excess valued over \$5m. PIAC notes that Essential has proposed a number of such projects.

While PIAC is not in a position to scrutinise these individual projects as part of this submission, we stress the importance of the AER considering factors that will ultimately be important

components of any RIT-D review in the regulatory proposal process. This consideration should include, as a minimum, examining the following questions:⁹

- What is the defined 'need' for this project?
- What is the size and scope of the project?
- Does the project pass the 'net benefit' test based on reasonable forecasts, VCR, discount rates and other relevant parameters?
- Is the timing of the project appropriate – is the project required in this regulatory period, or can it be deferred in total, or in part?
- Are there other options that have been adequately explored, to address the problem or defer the project –such as non-network options?

Recommendation 3

That the AER conduct more detailed scrutiny of the Essential's planned major projects. Where projects would require a RIT-D before proceeding, PIAC recommends that the AER's scrutiny include assessing all Essential's major projects against the RIT-D criteria.

5. Non-network capex

As noted in our main submission, PIAC is interested in the high levels of non-network capex proposed by all three NSW DNSPs. Overall, non-network capex accounts for 24% (\$495m) of Essential's total proposed capex, the largest proportion of the NSW DNSPs.¹⁰ This is primarily related to investment in fleet and ICT systems.

Essential is proposing to spend \$168m on fleet in 2019-24. PIAC would expect fleet costs to reduce as a result of the reduction in staff and consolidation of centres. Similarly, where more operational work is outsourced, there should be a proportionate reduction in in-house fleet and plant requirements. However, PIAC understands from information presented to Essential's Customer Advocacy Group that much of Essential's fleet investment is linked to safety and weight regulations for fleet. We request that the AER investigate this issue to ensure that the investment is prudent.

Essential is also proposing significant investment in ICT systems of \$164m, in addition to \$80m spent in the latter years of the 2014-19 period. In particular, the AER highlights the expenditure of \$54m for the LIDAR program and the reported benefits in earlier fault detection across the network. PIAC supports the progressive introduction of technologies that will facilitate management of widely dispersed assets. Further, Essential has done a good job of demonstrating through its proposal that this will have long-term efficiency benefits for consumers. However, this is an area of rapidly changing technology and we welcome a review of whether this is the appropriate time to invest in this program, particularly given that current performance is generally above licence requirements.

⁹ PIAC notes and welcomes the AER's current review of the RIT-D Guidelines, and we believe they will provide a more transparent guide to best practice for the DNSP while assisting consumer participation in the RIT-D process.

¹⁰ AER, *NSW electricity determinations – Issues paper*, 47.

While PIAC is not in a position to provide detailed analysis of individual non-network investment programs, we encourage the AER to assess both the prudence of these investments and the ability of Essential to implement them efficiently.

Recommendation 4

That the AER assess the efficiency of Essential's large non-network investments.

6. DER developments

PIAC considers there is real scope for Essential to encourage further DER. While we acknowledge the lower population density in Essential's jurisdiction compared to the other two NSW distributors, we consider that the relatively poorly served areas of the network would be best supplied by a further examination of DER options. These areas are a driver of Essential's reliability capex, and the increased use of DER could improve security of supply for these areas at lower cost than the alternative capex spend.

PIAC notes from the AER's 2017 DMIA report that Essential had only spent 35% of its total DMIA allowance in the first three years of this regulatory period.¹¹ Clearly, PIAC hopes and expects that Essential has taken full opportunity of its existing regulatory allowances in the 2017-18 and 2018-19 years.

In 2016-17, it is pleasing to note Essential's participation in a joint project with ARENA and the NSW and Victorian governments. The AER reports this project as follows:

This project is an ARENA part-funded industry project with the Institute of Sustainable Futures, Reposit Power, SMA9, United Energy, and New South Wales and Victorian Governments to connect over 1MW of customer and network owned solar systems and battery storage systems. As part of the project around 200 households or equivalent businesses will have a combination of solar and energy storage installed to support the distribution network by storing excess electricity and reducing peak demand on the network. Potentially up to half of the specified households and installed capacity may be connected to Essential Energy's network across two locations. Essential Energy claimed its share of cost contribution to this project of \$81,796 in 2016–17.¹²

PIAC is very interested in seeing how this project (and other DMIA studies relating to DER) can contribute to Essential's development of DER across its networks, and particularly in the poorer serviced sections of the network and in new growth areas.

Recommendation 5

That the AER require Essential to demonstrate how they will make better use of DER and the DMIA to reduce 2019-24 capex in the revised proposal.

¹¹ AER, [Decision – Approval of Demand Management Innovation Allowance \(DMIA\) expenditures by distributors in 2016-17 and 2017](#), July 2018, 6.

¹² Ibid, 30.