

28 October 2019

Dr Paul Paterson  
Chair  
Independent Pricing and Regulatory Tribunal  
PO Box K35  
Haymarket Post Shop, Sydney NSW 1240



Dear Dr Paterson

### **Review of Prices for Sydney Water Corporation from July 2020**

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in New South Wales. Established in 1982, PIAC tackles systemic issues that have a significant impact upon people who are marginalised and facing disadvantage. We ensure basic rights are enjoyed across the community through litigation, public policy development, communication and training. The Energy + Water Consumers' Advocacy Program represents the interests of low-income and other residential consumers, developing policy and advocating in energy and water markets.

PIAC welcomes the opportunity to respond to the Independent Pricing and Regulatory Tribunal's (IPART) *Review of prices for Sydney Water Corporation from July 2020* Issues Paper.

Noting that IPART has reserved its position on some key issues pending a report from an independent consultant, PIAC's response focusses on a number of key stakeholder questions and provides input at a principle level on issues we regard as priorities for IPART consideration. Answers to selected questions from the issues paper are presented in the attached appendix.

We note Sydney Water intends to update to their proposal in response to the ongoing drought conditions. This update may alter material elements of the initial proposal and in doing so, some of the issues raised herein may be addressed. However, we contend the need to update their position highlights the importance of points made in this submission regarding the need for a coordinated response to water scarcity that is supported by pricing structures. As such we have retained our initial comments and incorporated minimal additions in recognition of the altered timeframes.

### **A better framework to respond to climate change and the scarcity of water resources**

Both Sydney and Hunter Water have proposed a range of responses to the current climatic conditions, and recognise that we are in a period of extreme water shortage and sustained higher than average temperatures. PIAC contends that current conditions are more than a cyclical drought and that there is a material and obvious risk that a return to historical average conditions may not occur<sup>1</sup>. Further, any sustained trend of higher than average temperatures, unpredictable rainfall and the resulting accelerated evaporation will happen alongside rapid population growth in the Sydney Catchment.

<sup>1</sup> CSIRO & Australian Bureau of Meteorology. 'State of the Climate 2018'. 2018

PIAC is concerned Sydney Water has, persistently, viewed the management and operation of the system through the lens of prevailing long term historical conditions interspersed with discrete drought events, undermining the interests of water users by failing to develop comprehensive long term strategies for ensuring the supply of secure, sustainable and affordable urban water.

There is a need to respond effectively to the current extreme conditions, and PIAC contends they provide an opportunity to undertake more comprehensive reforms to the management of urban water services. Periods of weather currently considered extreme are likely to be increasingly regular, and intervening periods unlikely to conform to historic average conditions. This will require a fundamental shift in how the interaction between periods of extreme drought, such as those currently being experienced, and intervening periods are understood. This involves pricing structures, investment decisions and operational practices being adapted and better integrated with each other.

Notwithstanding the recently announced intention to update their proposal, PIAC is concerned Sydney Water's proposed approach is not an appropriate or sufficient response. Specifically:

- The current determination period saw actual demand exceed forecasts by 4.9 per cent in 2016-17 and 11.5 per cent in 2017-18<sup>2</sup>. Sydney Water attributed the bulk of this effect to the impact of hotter and drier conditions. This demonstrates the potential impact of climate on demand and sales, even without considering the impact on security of access to water resources should these conditions continue.
- Despite the current year trending towards extremely dry conditions, Sydney water is using demand figures for 2018-19-20 that are much closer to average. Considering the prevailing weather conditions and the prospect of this continuing into 2020, PIAC considers it unlikely that the updated forecasts for the current period will be accurate. Should this be the case, the variance between the forecasts and actual usage/sales for the entire period would be significant.
- Forecasts for the 2020-24 period are similarly predicated on a 'return to average conditions', with some climate adjustments. Sydney Water does not provide justification for this assumption. PIAC requests a re-examination of the demand modelling and justification for the assumption these conditions will prevail throughout the next determination period.
- While modelling seeks to incorporate the impacts of climate change on demand, it alone is not a structural recognition of the ongoing implications of climate change on water supply. This recognition is crucial, not only for modelling demand, but for linking annual modelling with measures to manage demand and ensure that pricing structures support the sustainable, efficient and affordable access to water resources across determination periods. We consider this also has implications for WaterNSW.

### **Pricing that reflects the increasing risk of water scarcity**

PIAC considers the current determination must recognise the long-term trends in climate change and implement structures and practices to deal with the uncertainty of future water resources. Water in NSW can no longer be considered an abundant resource where cost is related mainly to the infrastructure required to transport it. The finite nature of water resources

has implications for the value and cost of water, and price structures should reflect that drought events are not discrete, but have a continuing impact on intervening periods.

PIAC recommends IPART implement an Inclining Block Tariff structure (IBT) as part of an approach that recognises water as a finite resource with increasingly uncertain access, particularly when combined with rapid population growth. PIAC notes that most urban water utilities in Australia operate with an inclining block tariff structure.

PIAC highlights the following arguments in favour of an IBT:

- It clearly and transparently aligns water pricing structures with business and community expectations and messaging regarding conservation and efficiency.
- It responds to customer preferences that pricing be weighted towards volumetric usage charges and improves a household's ability to reduce its bills by managing usage.
- It recognises that at higher levels of usage, units of water have a higher cost to the community, related to the increasing impact of usage on finite water resources.
- It recognises that higher levels of usage contribute disproportionately to the need for expansion and operation of desalination, which is a higher cost means of providing water.
- It creates a simple, transparent framework that can incorporate long and short term cost and supply signals. This flexibility is crucial given the uncertainty of climate change impacts combined with population growth.
- It recognises scarcity is a long-term issue that needs to be signalled on a permanent basis not just in times of extreme conditions. Short term scarcity pricing is considered punitive by water users, and has limited impact as it provides signals at a time when there is little scope for reduced demand to have a material impact.
- It can be better integrated with waste and recycled water services pricing so as to better enable their efficient implementation. This is crucial as currently wastewater re-use and recycled water schemes are often not able to demonstrate an economic case.
- In examining the actual demand against forecasts in the current determination period Sydney Water observed a material increase in demand coinciding with reduced prices. This indicates a price elasticity that can be leveraged by an IBT to enable usage efficiency.

IPART has, historically, expressed concern about the risk that IBT's would negatively impact disadvantaged larger households. PIAC requests that IPART reconsiders this position, noting both that this risk can be effectively minimised in the setting of levels for tariffs and blocks, and that the potential impact is in PIAC's view, trivial compared to the impact of high fixed charges, now and in the future, on small and single-person households.

### ***Recommendation 1***

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*IPART should recognise the limitations of using adjusted long-term average conditions for demand forecasts and revenue requirements for Sydney Water and consider the impact of changing trends in climatic conditions on pricing, investment and operational and decisions.*

## **Recommendation 2**

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*IPART should implement an Inclining Block Tariff for Sydney Water, to align efficient conservation and water resource management practices and messaging with transparent, efficient pricing structures.*

### **Continued engagement**

PIAC would welcome the opportunity to meet with IPART and other stakeholders to discuss these issues in more depth.

Yours sincerely,

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## **Appendix 1 – Responses to consultation questions**

### **1. Do you agree that Sydney Water has improved on its customer engagement since the 2016 Determination? In what ways could Sydney Water’s customer engagement be improved to inform pricing proposals?**

PIAC considers Sydney Water has improved the breadth and quality of engagement with its customers and stakeholders since the 2016 determination. Sydney Water has exhibited a commitment to incorporate the preferences and priorities of their customers into their business practice, not merely to meet the requirements of regulatory processes. PIAC highlights the multiple phases of sequenced engagement in deliberative forums, and other face to face community discussion groups, that have helped move the business beyond previous processes. Of particular note were sessions carried out ‘in language’, in an effort to reach specific communities from culturally and linguistically diverse (CALD) backgrounds.

Using multiple consultative formats over an extended period has allowed Sydney Water to test the validity of their findings and capture a more representative cohort of the customer and stakeholder base. This was not limited to residential customers, and included targeted processes to engage with a representative range of their non-residential customers. We support using wider online surveys to validate results obtained in face to face forums rather than as standalone tools for consultation.

However, we consider there is room and a need for continuous improvement. The consumer engagement through the forums and discussion groups was carried out as ‘one-off’ events. This approach was problematic the time available to deal with complex topics requiring background understanding and meant each phase was not able to build on the participant understanding developed in the previous one. We also noted that the approach of the forums still exhibited a focus that was more appropriate to ‘market research’ than in-depth stakeholder engagement that more openly and accurately elicits consumer preferences.

PIAC considers best practice involves deliberative processes that take small groups through a series of forums, allowing time to build the capacity and understanding of the stakeholders. This format allows for the necessary context and background understanding for the complex issues involved, and gives stakeholders scope to provide well informed perspectives on the issues under consideration. It also allows forums to have a broader focus and to go beyond narrow concepts that are more akin to market research. Building comprehensive understanding amongst stakeholders is particularly important in processes with long term investment and pricing implications. The importance of deliberative engagement can be seen in the variance between the online survey results on pricing preferences and those obtained in the face-to-face forums.

PIAC considers Sydney Water’s substantial improvement demonstrates a genuine commitment to meaningful engagement. Furthermore, we consider the engagement undertaken in the lead up to this proposal provides Sydney Water with valuable lessons regarding how that improvement can continue.

### **2. In future, should Sydney Water’s customer engagement program focus more on environmental outcomes and performance?**

PIAC regards both environmental outcomes and performance as important areas on which Sydney Water should engage with their customers and community stakeholders. However, we do not consider it appropriate that we determine what the priority focus areas for Sydney Water customers should be. At the moment engagement is heavily focussed on regulatory processes

and ensuring that business proposals reflect the priorities and preferences of customers. We do not regard this as the limit of the scope of engagement.

An ongoing engagement program that is integrated into everyday business practices, should be effective in engaging consumers and stakeholders in determining the range of priorities for ongoing engagement. PIAC recommends that IPART encourage Sydney Water to undertake continued improvement to their customer and community stakeholder engagement, with this goal.

**3. How should consumer preferences be considered, alongside economic principles when deciding Sydney Waters' price structures? What other factors should we consider?**

Economic principles of efficiency, simplicity and transparency are key considerations in the determination of pricing structures for monopoly urban water utilities such as Sydney Water. PIAC supports such principles forming the foundation of pricing decisions, but contends that they should not be considered in isolation or given undue focus such that they materially contradict environmental realities, consumer preferences, community expectations and considerations of sustainability.

Notably, flat volumetric charges are not a valid representation of the Long Run Marginal Cost (LRMC) of water supply based on the cost of future investment. Further, flat-tariffs do not align with customer understanding and preferences on the value of water. Further, such pricing does not consider the intrinsic community value of water resources and the fact that they are limited, with usage impacting more significantly as it increases. Where a pricing structure such as the inclining block tariffs (IBT) employed in Melbourne and other major urban areas better represent LRMC, but more effectively reflect consumer preferences, community values and incorporate long term considerations of water resource scarcity, they should be preferred.

**5. Do you have any comments on Sydney Waters' proposed discretionary projects?**

PIAC agrees the discretionary projects proposed were determined through consultation and reflect some consumer preferences. We do not have a perspective on the value of the projects themselves or whether they should proceed.

**6. How should the costs of discretionary expenditure be recovered from customer bills? Should it be identified as a separate charge on the bill?**

In the interests of simplicity, PIAC does not support the inclusion of a separate charge for discretionary expenditure. Transparency of this expenditure can be more appropriately provided through other business mechanisms and communications to the community.

Simplicity and clarity in billing is crucial to ensuring households understand their bills and can use them to control their usage and costs. Charges should only be included separately on bills where the provision of that information assists the household, for instance by providing them with information regarding how to understand and mitigate those costs. Where discretionary charges will be required of all customers, providing separate information on the charges does not provide any additional assistance to consumers and adds to consumer confusion.

Should discretionary costs be allowed, except where they are location specific, they should be incorporated into usage charges, where the household has the ability to mitigate the impact of that charge upon their bills by reducing their usage where possible.

**13. Do you have any comments about Sydney Waters' performance against the output measures in Appendix E?**

PIAC is concerned at the consistent variance between the target output measures and the actual/forecast outputs for the 2016-2020 period. Throughout its proposal, Sydney Water highlights a number of circumstances that have contributed to a significant variation in the operational and capital expenditure over the current period, which has involved a departure from the proposed expenditure program to address unforeseen circumstances. We understand it is possible that a need to accelerate some projects can have an impact on planned project expenditure. However, it is not clear to us how the change in project priorities has resulted in both a short-fall against output measures, and an over-run in operational and capital expenditure.

We recommend IPART seek greater detail from Sydney Water regarding the reasons for variances on each output measure, with specific focus on how those shortfalls relate to the over-runs in capital and operating costs. It is imperative that consumers and the community can have confidence in Sydney Water's cost forecasts, their assessment systems, the assignment of priorities, and their ability to deliver projects reasonably within forecast budgets, particularly given the magnitude of the increased capital and operational expenditure proposed by Sydney Water in the coming determination period.

**16. How should our review account for the risks of drought and support water conservation?**

We note that Sydney Water intend to update their proposal in response to the drought circumstances that have prevailed since their initial proposal. While we understand this update might materially change aspects of the proposal, we believe the need to submit an update highlights the lack of appropriately systematic approaches to the risk of water scarcity.

As note in our introduction, PIAC contends demand modelling should not assume average conditions, but should take a more conservative approach that manages the risk of extreme circumstances and longer-term shortages more prudently. We also reiterate our support for an IBT pricing structure as a crucial framework support for a more prudent, efficient and comprehensive approach to managing short and long-term water resource scarcity. Without a pricing structure that provides a clear, strong, long-term price signal aligned with consumer expectations and resource realities, effective response to drought and increasing water resource scarcity is impossible.

An IBT pricing structure, on its own, will not address all risks. However, it does provide a framework that allows for more effective integration of water usage pricing with catchment management, investment, conservation and the creation of better whole-of-water-resource management. Crucially, we contend that it is a more consistent and effective pricing mechanism that aligns with the nature of water resources, than more discrete measures such as cost pass-throughs.

**21. Is Sydney Waters' adjustment to its demand forecasts to account for climate change appropriate?**

PIAC welcomes Sydney Water's moves to incorporate the impacts of climate change into their operational forecasts. However, we feel that this only partially addresses the impacts of climate change on the operation of Sydney Water. We note that the starting point for the demand forecast trajectory is adjusted down to correct for the seasonal impacts of the current period of drought. While we understand the rationale for this in terms of the accuracy of forecasts for the discrete period of the determination, we do not believe this reflects how water resources and demand interact over time with trends and changes in the climate. Specifically, this model

seems to assume a reset to 'average' conditions adjusted for climate change. We do not see any reasonable basis for this assumption, particularly considering it assumes a return to averages from July 2019 where we know that the extreme conditions have increased.

PIAC recommends Sydney Water reassess its demand modelling and the interaction between periods of drought and climate adjusted 'norms'. We consider that a conservative approach that more closely approximates the reality of the likely demand over the forward period is preferable.

**22. Is Sydney Waters' proposal to return about \$30 million of revenue to customers over the 2020 period, form higher than forecast water sales, reasonable?**

PIAC supports the intent of adjusting Sydney Water's revenues to ensure that consumers are not paying more than is necessary. While we agree any over-recovery should be returned to benefit consumers, we contend there should be further consideration of the most appropriate means of ensuring consumers obtain material benefit from this. In the short term this amount could be returned for consumer benefit by:

- Offsetting discretionary expenditure in the coming period
- Providing additional funds for the benefit of vulnerable consumers or other disadvantaged high-usage customers, particularly if coupled with the introduction of IBTs
- Investing for future consumer benefit

However, we do not consider it appropriate for IPART or Sydney Water to decide how this over-recovery is returned without undertaking a specific process of deliberative engagement to gauge consumer preferences. This instance presents an opportunity to develop an ongoing mechanism that allows customers and stakeholders to deliberate approaches to under and over-recovery. It is important to ensure that consumers are meaningfully consulted on what they consider important, particularly in circumstances such as this where the amount is potentially not significant when spread over the entire customer base.

**26. Is Sydney Waters proposal to maintain the 2019-20 water usage charge reasonable?**

PIAC does not support retention of a flat usage charge. We strongly recommend that IPART implement an inclining block tariff structure for water usage, as part of a co-ordinated reform of water pricing structures. We would like to meet with IPART and Sydney Water to discuss our detailed position on where the appropriate transition points for pricing blocks should be set, or at what price points any inclined blocks should be set. The range of usage prices within LRMC, based on low or very low yield assumptions (as contained within the Sydney Water Pricing proposal appendix 4c), would be reasonable starting points for consideration.

**27. Is the method that Sydney Water has used to estimate the long-run marginal cost (LRMC) of water reasonable?**

PIAC recommends Sydney Water's assumptions for estimating LRMC be reviewed to ensure they reflect fundamental changes to the nature of water supply in the Sydney Catchment, particularly the increasingly insecure and variable access to supply.

In Appendix 4(c) Sydney Water explain they regard system yield as a key variable in the LRMC of water supply, along with the assumed augmentation required to address future demand. PIAC contends long-term changes to climatic conditions are impacting the reliable system yield by:



- Effects the assumed rainfall inputs into the bulk supply system. More frequent and extreme periods of drought, combined with intervening periods of ahistorical rainfall, where restoration of ‘averages’ requires increasingly extreme above average rainfall<sup>3</sup>.
- Impacting the reliability of the yield of existing storage. Sustained higher average temperatures alters the rate of evaporation that impact both the retention of water in storage, and the response of catchments after periods of drought (through decreased soil moisture).

PIAC considers these factors crucial in current and future pricing determinations. The supporting material presented by Sydney Water highlight there was less confidence in the accuracy of the modelling undertaken for low yield scenarios<sup>4</sup> (that is where supply yield is below average assumptions). PIAC considers low yield circumstances are more likely into the future and beyond the current period of extreme drought. We contend that LRMC calculations must be based on conservative assumptions of yield in recognition that historic yields of the existing supply system are unlikely to continue into the future. This is particularly important when overlaid with projections of rapid population growth, and the demand pressures this will place on the system.

**28. Should we make changes to the SDP usage charge uplift to more closely reflect the marginal costs of producing water?**

PIAC prefers structural pricing reform, including the introduction of an IBT price structure, to incremental changes to the SDP usage charge.

**33. To what extent does the direct discharge of wastewater from customers affect capital costs, and how should this be taken into account in estimating the LRMC and setting the wastewater usage charge?**

PIAC has provided comment regarding our perspective on the cost impact and value of wastewater in response to question 34.

**34. Is Sydney Waters proposed wastewater usage charge reasonable?**

While PIAC is not able to comment on the quantum of the proposed wastewater usage charge, we disagree in principle with an approach that is predicated upon fixed wastewater service charges.

While wastewater has historically been regarded as an unwanted bi-product that imposes fixed costs related to its removal and treatment, this perspective is increasingly obsolete. Technology improvements in conjunction with rapid population growth and increasing limitations on secure access to traditional water resources, is leading to a perspective on ‘wastewater’ that will increasingly regard it as a resource to be utilised efficiently. PIAC contends that the current and future costs of wastewater are not ‘fixed’ but related to the cost of transporting and treating wastewater and to the potential value of the wastewater as a ‘raw’ resource. Aligning the cost of wastewater with its actual usage helps to provide a value framework that can incentivise exploration of more efficient means of capturing its value.

We understand there is a significant transition in infrastructure and operational practice required before the value of wastewater can be properly quantified and efficiently priced and realised. We contend current pricing structures for wastewater can provide a foundation for this transition.

<sup>3</sup> SMH <https://www.smh.com.au/environment/sustainability/sydney-needs-a-metre-of-rain-to-break-drought-as-dam-levels-extend-dive-20191022-p53333y.html>

<sup>4</sup> Sydney Water. ‘Pricing Proposal 2020-24: Appendix 4c LRMC.’ 2019. P.9

PIAC recommends IPART consider the role of more reflective wastewater usage pricing in signalling not only the cost, but potential value, of wastewater as a raw water resource. PIAC specifically notes the potential to rebalance charges towards usage, and link deemed rates to a percentage of actual water usage rates, recognising the relationship between the two.

**36. Should we introduce explicit residential wastewater charges?**

With reference to our response to question 34, PIAC contend there is merit in considering wastewater charges that are more effectively integrated with household water usage.

**45. Are Sydney Water's late and declined payments fees reasonable?**

PIAC questions whether such fees are warranted, and whether the quantum fairly reflects the impact upon Sydney Water above and beyond standard operational costs already accounted for.

Appendix 4(b) outlines that any external costs incurred by Sydney Water as a result of declined or dishonoured payments are passed through to customers directly, in addition to Sydney Water's charges. These circumstances often arise as a result of disadvantage and a range of circumstances that are not directly in the customer's control. Where customers are already subject to a penalty from the paying entity, we do not consider it appropriate that they also face a substantial penalty from the withdrawing entity (in this case Sydney Water).

PIAC questions if the indicative costs related to identifying and dealing with dishonoured and declined payments are reasonable when taken in the context of general operational costs that are already incorporated into the customers' bills through the allowance for operational expenditure. Considering the relatively small total cost impact on Sydney Water, relative to the large impact on the customers affected, PIAC recommends that IPART reconsider the appropriateness of the proposed fees.

**49. How long should we set prices for in the 2020 determination?**

PIAC supports Sydney Water's proposal for a 4-year determination period, with this period continuing to be aligned with similar processes for Hunter Water and WaterNSW. The reasoning presented by Sydney Water, accentuated by their need to update their proposal in response to current extreme circumstances, means it is not possible to have any confidence in forecasts and assumptions over a longer timeframe. We strongly recommend IPART proceed with a 4 year period, and retain the alignment with Hunter Water and WaterNSW.

**50. Should the length of Hunter Water's determination period factor into our consideration for Sydney Waters determination period?**

As outlined in response to question 49, PIAC supports continued alignment between the Sydney and Hunter Water determination periods.

**56. If we implement a cost pass-through mechanism for drought related costs in the concurrent WaterNSW price review, should we include a subsequent cost pass-through mechanism for Sydney Water to pass through costs to their customers?**

PIAC cannot provide detailed comment on matters related to WaterNSW and its pricing proposal at this time. In principle, we do not support volatile cost pass-throughs as the most efficient or appropriate means of signalling and recovering costs related to short to long term water resource scarcity. We reiterate our support for pricing reform at a utility level that involves the implementation of an IBT. We consider that a comprehensive review of catchment management and bulk water pricing, that recognises the intrinsic value and scarcity of water

resources, should seek to align with such pricing reform. We note the following issues with pass-throughs of costs related to WaterNSW drought-related costs:

- This recovers direct costs without providing any meaningful mechanism to positively influence systemic efficiency that might mitigate those costs. In effect it could be seen to allow WaterNSW and Sydney Water to operate inefficiently, and effectively pass the risk of water shortages, and the related costs, through to consumers at the point of water shortage.
- The price signal that it provides occurs only after the point at which it may have a meaningful impact. We contend the scarcity value of water should be signalled more consistently in advance of acute periods of shortage. We contend this can help mitigate the need for short term measures and their related costs and recover costs through a beneficiary pays framework

**57. Do you agree that we should maintain the current cost pass-through for SDP-related bulk water costs and Shoalhaven transfer costs?**

PIAC does not support cost pass-throughs as the most effective mechanism for dealing with the costs related to dealing with water resource 'scarcity'. We reiterate our support for an IBT as a more effective means of pricing in the value of resources at risk of scarcity, and signalling costs related to usage above that accounted for within the current LRMC (that is the usage up to the point at which the system yield is sufficient). PIAC recommend that IPART reconsider the current cost pass-through mechanisms.