

**Emerging thinking on incentivising efficient
investment and use of water resources in PR24
Industry Workshop**

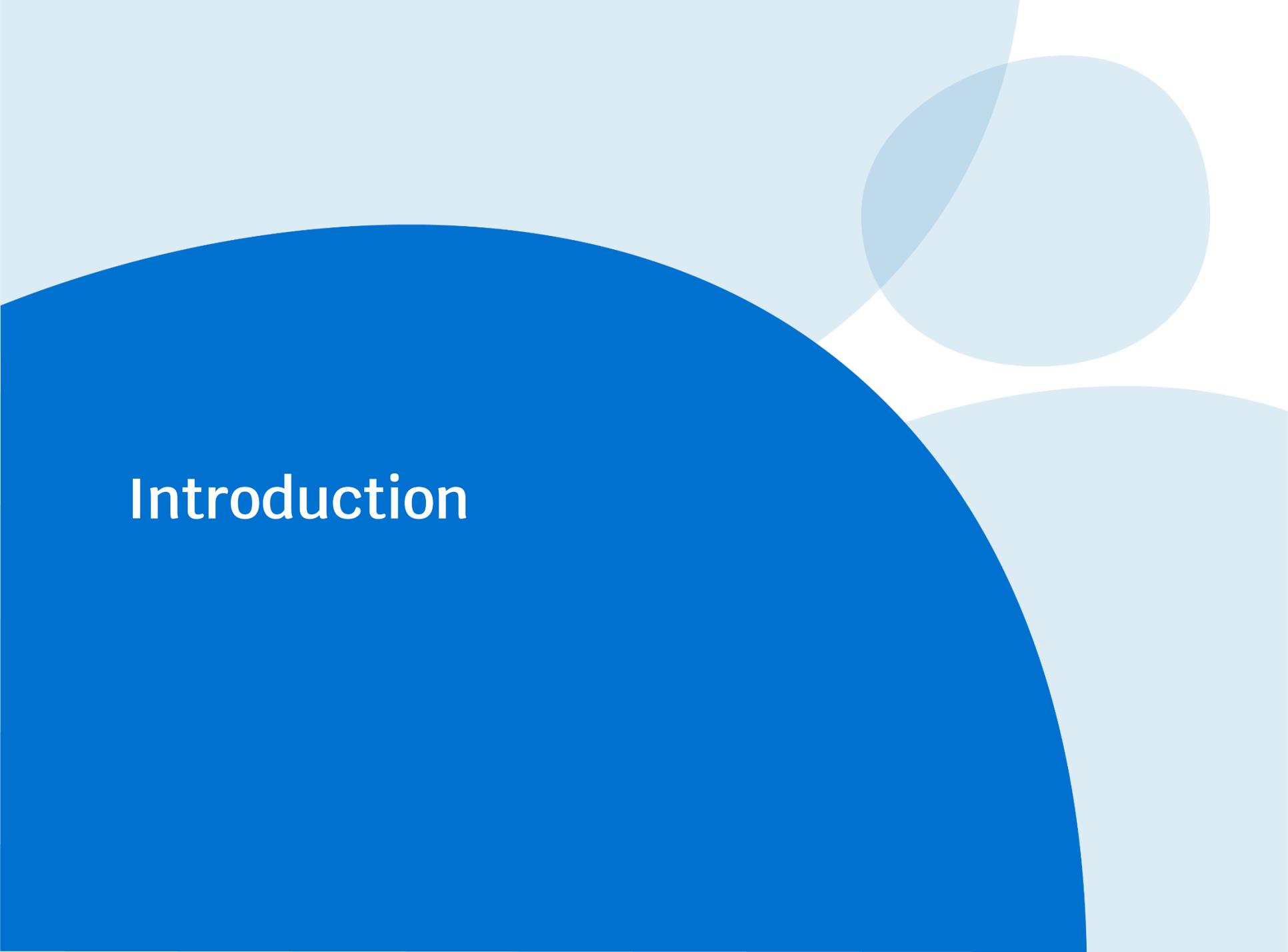
29 March 2022

ofwat

Agenda

| No | Item | Time |
|----|------------------------------------|-----------|
| 1 | Introduction | 1230-1235 |
| 2 | Investment risk in water resources | 1235-1245 |
| 3 | Direct Procurement for Customers | 1245-1300 |
| 4 | Water trading incentives | 1300-1350 |
| 5 | Next steps | 1350-1400 |



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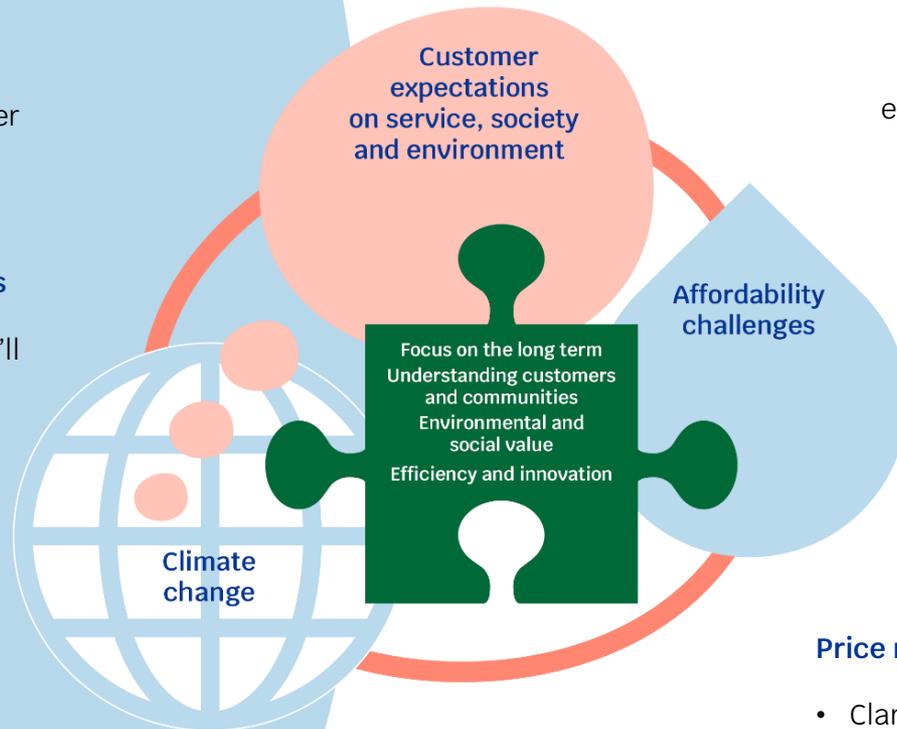
Introduction

Ambitions for PR24

The sector faces **several interrelated challenges:**

- Climate change
- Evolving customer expectations
- Affordability

To help meet them, we've set **four goals for PR24** and considered how we'll **design the price review**



#MoreFromPR24

We'll work with the sector in a way that enables **conversation, collaboration and co-creation**



Price review design

- Clarity for the future vs adaptability
- Sophistication vs simplification
- Regionality vs comparability

Workshop objectives

We would like to use today to build on the progress the industry has made through RAPID and the associated consultations and workshops on pricing, risk and incentives.

The focus of today is to present emerging thinking in key areas of PR24 with a bearing on water resources policy and investment.

We will reflect on your feedback from today as we prepare our draft methodology, on which we will consult in July.

The overall timings for PR24 are set out below.





Investment risk in water resources

Investment risk in water resources

Background

- Ofwat's PR19 methodology described two specific circumstances in which water resources investment after 1 April 2020 might be "at risk":
 - **Bilateral market entry.** Our PR19 methodology included clear formulae for adjusting allowed revenues in the event of bilateral market entry.
 - **Under-utilisation of new assets.** We said that companies proposing large new investments in water resources should put forward risk-sharing arrangements in their business plans to share demand/utilisation risks with customers.

Proposed approach for PR24

- We consider that **water resources investment should remain at risk in the event of future bilateral market entry.** However, we have already said in our May 2021 consultation "PR24 and beyond: Creating tomorrow, together" that we do not expect bilateral markets to come into effect in the next AMP.
- **We propose to no longer require companies to identify utilisation risk-sharing mechanisms for major water resource investments.** This takes account of the fact that the new 1:500 year planning standard in England may require companies to have low-utilisation resilience assets.
- However, to mitigate the risk of companies proposing unnecessary investment in water resource assets, **we will apply elevated scrutiny to draft WRMPs in this regulatory cycle.** This will involve:
 - **Bringing forward into the WRMP process key aspects of our PR24 approach to scrutiny of enhancement capex.**
 - **An additional check on utilisation risk for large water resource investments,** to ensure that the selected solutions represent best value under normal operating conditions (and not just in a 1:500 year drought).
- We are considering **how companies' performance in terms of their WRMP adaptive planning could feed into our PR24 Business Plan Incentives.**





Direct Procurement for Customers

DPC for large, separable projects

Background

- At PR19, we introduced **Direct Procurement for Customers (DPC)** for the provision of separable projects with lifetime totex above £100m, where this yielded value-for-money for customers. DPC involves companies putting such projects out to competitive tender, with the competitively appointed provider (CAP) responsible for designing, building, financing, operating and maintaining the infrastructure. Three "Pathfinder" projects are currently being progressed under our DPC framework.

DPC by default for large, separable projects at PR24

- At PR24, our starting point is that **we would expect companies to use DPC for all projects above our DPC size threshold**. This would apply to all parts of the water and wastewater value chain, apart from bioresources. We would therefore not need to include funding for in-house delivery of such schemes.
- We consider that **the size threshold for DPC should be increased at PR24, potentially to lifetime totex of £150-200m**. This reflects lower net benefits from using DPC for smaller schemes, greater market appetite for larger DPC schemes, and inflation since the threshold was first set in PR19.
- A decision about whether to proceed with DPC will be **supported by evidence on the separability of projects and customer value-for-money from using DPC**.
- We plan to **review our engineering guidance for which projects are sufficiently separable for DPC**.
- **Our starting assumption is that DPC will yield value-for-money (VfM) for customers**. We will continue to require companies to calculate the customer VfM of DPC schemes but we will no longer treat negative company estimates in the early stages as a reason for not doing DPC. We reserve the right to revert to in-house delivery if we consider that a DPC scheme is not in customers' interests.



DPC for large, separable projects (continued)

Link to PR24 Business Plan Incentives

- We anticipate designing our Business Plan Incentives so that companies that attempt to avoid the use of DPC for projects that are eligible would be penalised.

Incentives for doing DPC well

- We propose to implement a **focused incentive package to get companies to deliver DPC schemes well**. This will involve incentivising companies with DPC schemes to run a good procurement process that is delivered on time and creates value-for-money for customers.

DPC licence conditions

- Currently, five companies have licence conditions to enable DPC.
- We propose to **review the DPC licence conditions**. We are considering **adding them to the licences of all companies** for which we set price controls, reflecting our expectation that DPC will now be used more widely across the sector.



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Water trading incentives

Water trading incentives – context

Efficient water trading brings significant benefits to both customers and the environment. It can improve resilience and allow for expensive investment in new water resources to be deferred, reducing pressure on customer bills. It can also improve the allocation of scarce resources between regions.

Our regulatory framework relies on trading incentives to encourage water trading. At PR14 we introduced water trading incentives to allow exporters and importers to financially benefit from trading surplus water. At PR19 we maintained the incentives set at PR14.

We are reviewing our water trading incentives for two key reasons. First, there is limited trade at present, despite the current financial incentives on exporters and importers. Second, large infrastructure investments overseen by RAPID are expected to increase the water available to trade between water companies.

We note linkages with other policy areas:

- Investment risk in water resources.
- Any charging rules for bulk supply. RAPID's December 2021 consultation set out options for charging rules, including principles-based rules, a wholesale-minus approach, and charging analogous to that for DPC.
- Treatment of trades in price review cost assessment.
- Trades between Wales and England: these trades may be subject to distinct arrangements, for example separate charging rules, which we anticipate would be dealt with separately from the water trading incentives.

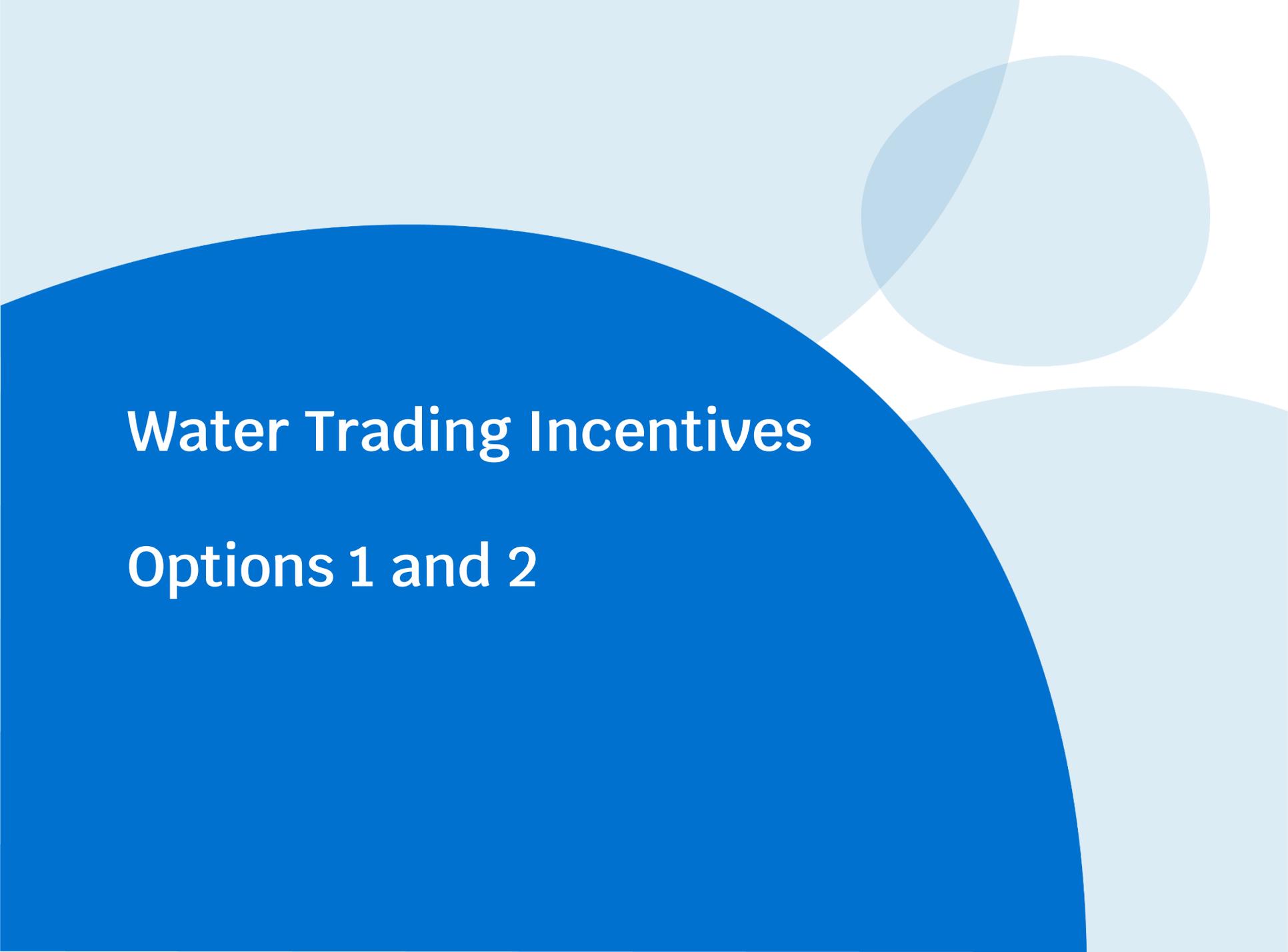
Water trading incentives – Key issues and options

Our review will address three key issues.

- Whether there is still a role for a water trading incentive for PR24 and beyond.
- If we are to retain trading incentives, whether these have to be adapted to work for large scale RAPID type solutions. (Note that we anticipate large separable infrastructure to be delivered by DPC.)
- If water trading incentives need to be adapted, what is the optimal timing for implementation.

Three options for potential future incentives:

| Option 1 Current trading incentives | Option 2 Adjusting current trading incentives | Option 3 LRAIC plus mark-up |
|--|--|---|
| This option maintains our current trading incentives as set out in PR19. | This option retains many of the features of our current scheme, but adjusts it to account for time-lags from new infrastructure build and the consequences of long-term contracts. | This option regulates the price of water transfers as the exporter's long-run average incremental cost plus a mark-up. The mark-up is calculated as a proportion of the economic rent from the trade. |



Water Trading Incentives

Options 1 and 2

Option 1 – Key features

The PR14 and PR19 incentive mechanism would work as follows if carried over into PR24 and beyond:

Export incentive

- Exporters retain 50% of the lifetime economic profits of all new qualifying exports in the Price Review (e.g. PR24). The economic profit is the difference between revenues and costs, which include the return on capital invested. Lifetime economic profits are the sum of the economic profit each year for the duration of the trade, discounted by the cost of capital to reflect the time value of money.
- The export incentive has a cap of 100% of the economic profit for the years the export operates in the Price Review (e.g. PR24). The export incentive is paid through an uplift in allowed revenue in the next Price Review (e.g. PR29). Any amount beyond the cap is rolled forward to the Price Review that follows (e.g. PR35).

Import incentive

- For all new qualifying imports, importers benefit from an incentive that equals 5% of the costs of water imported. All import incentive payments are subject to a cap of 0.1% of the importer's wholesale water turnover in each year of the control period. The import incentive payments are accrued annually during the Price Review (e.g. PR24), with the cap applying in each year. Import incentives are received in the next Price Review (e.g. PR29).

Requirements to benefit from incentives

- To claim incentives for new water trades, incumbents need to submit their claim as part of their business plans. We require incumbents to show that the trade complies with an Ofwat-approved trading and procurement code. This code ensures that only economically and environmentally beneficial trades will receive an incentive payment. This is assessed as part of our Price Review.



Option 2 – Key features

This option retains many of the features of our current trading incentives, but adjusts them to account for time-lags from new infrastructure build and the consequences of long-term contracts.

This option makes three key adaptations to the PR19 current approach:

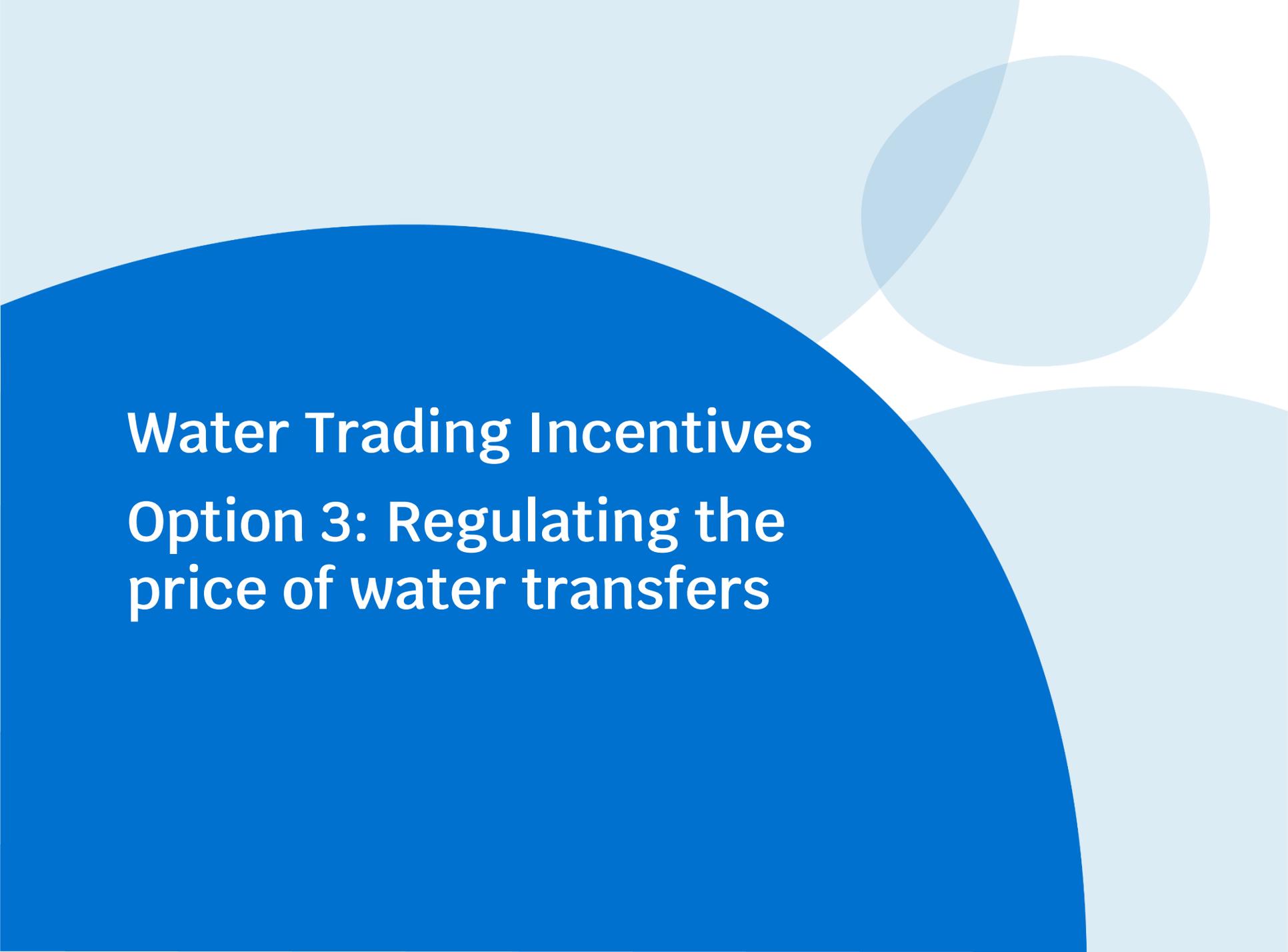
- **Timing of approval.** We would approve a trade as a qualifying trade when we approve the capital expenditure, rather than when the trade becomes operational. This approach seems more suited for trades linked to major capital infrastructure projects, as we expect will be the case going forward. Approval would remain subject to the trade meeting the terms of trading and procurement codes.
- **Export incentive.** The export incentive would equal 50% of revenues less costs, assessed annually. We would require exporters to report revenues (net of any fixed charges) and detailed costs (net of any construction costs) periodically (possibly annually). The exporter would retain 50% of the difference each year. This approach seems more suited to long life trades – where it is more difficult to ex-ante predict costs and revenues through the life of the trade and hence benefits. It is also more aligned with inter-generational equity principles as the exporter does not front-load lifetime profits.
- **Import incentive.** We would raise the cap on import incentives over the importer's wholesale water turnover in each year of the control period. There may be a case for raising this cap as it may be blocking efficient trades that nonetheless generate import incentives above the current cap which is 0.1% of wholesale revenues.

Option 2 would still allow a company that imports water through a trade and separately also exports water through a trade to benefit from both import and export incentives.

The ultimate buyer would in theory have two options: (a) seek trading terms from the intermediate company in the chain or (b) seek trading terms from the original seller and factor in any use of system charges for using the intermediate company as a transit network.

Option 2 – Assessment

| | Option 2. Adjusting current trading incentives |
|--|--|
| Incentives to trade | Provides incentives to trade; better suited to long-term trades. Not getting profits up-front may slightly reduce exporter's incentive; yet front-loading seems less appropriate with long term trades and less aligned with intergenerational equity principles. |
| Market power | Does not address market power (when this is a concern in water trading). Importer protection from market power may be provided to an extent through charging rules; there would be a trade-off between these protections and the effectiveness of the incentive. |
| Customer protection | Includes limits and caps to protect customers; better aligned with intergenerational equity. Raising the cap on import incentive may slightly increase customer payments linked to this incentive, yet these should be imports that contribute to reducing totex. |
| Is the scheme robust to multi-party trades? | It would allow wheeling (e.g. point-to-point transportation) by granting intermediate networks import and export incentives – yet this could face challenges and limits on incentives may reduce third parties' willingness to trade and/or undertake deep reinforcement required by wheeling. |
| Asymmetry of information | May be lower, as revenues and costs would be provided annually and profits from the incentive would not be set on a forecast basis – yet information asymmetry would still be high, in particular for complex schemes, and exporter may still be incentivized to mis-allocate costs. |
| Practicality | Low regulatory burden, since it keeps many of the features of our current scheme – still, information requirements would slightly increase with repeated provision of annual costs and revenues. |



Water Trading Incentives

Option 3: Regulating the price of water transfers

Option 3 – Key features

The basis of Option 3 is an approach proposed by NERA in 2020. [NERA's study on water trading](#) recommends that Ofwat should provide incentives to trade by allowing a mark-up on the pricing of bulk supply contracts above the cost of supply, rather than through a separate water trading incentive. NERA recommends that we base the price of water trades on long-run average incremental cost (LRAIC) plus a mark-up to reflect a proportion of the economic rent associated with the trade.

NERA proposes to calculate the price of a trade as follows:

| | | | | |
|--|---|---|---|--|
| 1. Seller's incremental cost of the trade | = | Total cost of the seller serving its current demand + extra demand from the trade | - | Total costs of the seller serving its current demand |
| 2. LRAIC | = | Seller's incremental cost of the trade | / | Quantity traded |
| 3. Economic rent | = | LRAIC of serving the additional demand by the buyer | - | LRAIC of serving the additional demand by the seller |
| 4. Mark-up | = | Part of the economic rent corresponding to the seller – the rest of the economic rent would go to the buyer and its customers. Mark-up is earned as an additional revenue by the seller throughout the life of the agreement. | | |
| Price of the trade | = | LRAIC | + | Mark-up |

NERA suggests that a LRAIC plus a mark-up approach provides incentives to trade for both buyer and seller and incentivises the buyer to minimise costs.

Option 3 – Some observations on NERA’s proposal

NERA’s proposal does not elaborate much on implementation – it refers to Ofwat ‘allowing a mark-up on the seller’s LRAIC’. The *proportion* of the economic rent that the seller gets could be the same across trades. This would lead to a different *level* of mark-up across trades if the value of the economic rent varies across trades. The seller would share a proportion of the mark-up with its customers. The rest of the economic rent would be divided between the buyer and its customers ‘*through a sharing factor*’. In principle, the mark-up would be set for the life of the agreement (hence it would not be reviewed at each PR). Reviewing the mark-up at each PR seems difficult – for example, the buyer’s outside options are likely to change over the life of the agreement and this would lead to significant fluctuations in the economic rent.

NERA’s proposal may incentivize the buyer to inflate the cost of its second-best alternative so as to increase its profits. The economic rent increases with increases in LRAIC of serving the additional demand by the buyer (i.e. LRAIC of the second-best alternative). The seller earns more with a larger economic rent because the mark-up is higher. The buyer earns more if what it loses from totex performance is outweighed by what it gains from a higher economic rent. Seller and buyer may have a mutual interest in inflating the cost of the second-best alternative to increase the economic rent. There is also the risk that the buyer strategically uses this evidence to try to strengthen submissions in the future and increase its allowed totex, softening our cost challenge.

Setting the buyer’s share at a level that better aligns its incentives to reduce costs could improve this approach – yet setting these rates seems challenging.

A modified NERA approach could mitigate some of these perverse incentives – yet it would raise other concerns:

Option 3. We regulate the price of each trade. We would assess the costs of the second cheapest alternative, estimate the economic rent and set the proportions going to the seller, buyer and customers. However, seller and buyer would still have incentives to game and there are also additional issues. First, it entails a higher regulatory burden. Second, more regulatory oversight may also deter/delay trades. Third, it may increase uncertainty: buyer and seller would not know the value of the economic rent until Ofwat set the price.

Option 3 – Assessment

| | NERA's original proposal | Option 3. Regulated trade prices |
|--|---|---|
| Incentives to trade | It provides incentives to trade - yet there is a significant risk of creating more cost inefficiency. | It provides incentives to trade – although see qualifications under practicality heading below. |
| Market power | Does not address market power (when this is a concern in water trading) | Can be used to address market power (when this is a concern in water trading). |
| Customer protection | There is a risk that customers end up paying more than at present – unless economic rent sharing rates are set appropriately, which may be challenging. | Price regulation would incorporate mechanisms to protect customers + market power could be mitigated – but ‘heavy handed’ approach may deter beneficial trades too. |
| Is the scheme robust to multi-party trades? | It is unclear how the economic rent for a reseller would be calculated? This would affect reseller incentives to engage in trade. | It is unclear how the economic rent for a reseller would be calculated? This would affect reseller incentives to engage in trade. |
| Asymmetry of information | Buyer lacks incentives to reveal true cost of second best alternative - unless economic rent sharing rates are set appropriately, which may be challenging. | Costs are more scrutinized and can be challenged by Ofwat for each trade. |
| Practicality | Medium / high regulatory burden | High regulatory burden, potentially increased uncertainty around incentives - this could delay/deter trades. |

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Next steps