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## The regulatory and commercial framework for strategic water resource solutions – a discussion document

Dear Paul,

Thames Water welcomes the opportunity to respond to this consultation. We broadly agree with the logic and objectives of the proposals and have provided more detailed answers to the questions set in the consultation in the annex to this letter. We would like to take the opportunity to make some general comments about the proposals.

We believe that the development of the SRO projects may be in part, more complex than originally anticipated at the start of the process. This is due to the interplay between the price control, regional planning and the gated process, including the ongoing development of policy that may have a material impact on a number of the SROs. A second source of complexity is the optionality of many of the projects. This includes design issues such as location, capacity, routing and interaction with other SROs. Finally, the projects will be subject to regulatory risk over the lifetime of the asset, particularly regarding environmental regulation. This is not to say we think these issues are insurmountable but rather require careful attention taking us up to Gate 2.

In conclusion, we generally support the general development of the process and endorse RAPID's reasoning. We have also engaged with the All Company Working Group to provide further broad points.

Yours sincerely,

[REDACTED]  
Peter Trafford  
Head of Regulatory & Market Economics

## Annex

### Q1. Which aspects of our initial thinking do you agree with or disagree with? What other approaches would you advocate and why?

Theme	Thinking/ proposal	Comment
Market Design 2.1 p19	We see the market design as an enhanced version of the current model: regional identification of need; water companies and others (in and out of region) putting forward solutions with varying timeframes, regional selection of the best value options.	This is a major strategic choice. We suggest the pricing group should consider the following: <ul style="list-style-type: none"> <li>• complexity issue related to multiple bi-lateral contracts</li> <li>• Intra contract coordination</li> <li>• Timing and contract foreclosure issues for new or competing contracts</li> </ul>
Procurement 2.2 p20	We are considering whether it may be appropriate that the CAP delivering some projects might benefit from being licensed (and therefore be directly subject to regulation by Ofwat and DWI) using the Water Industry Specified Infrastructure Projects regulations (SIPR).	Agree. There are advantages of comprehensively regulated assets owned by third parties including: <ul style="list-style-type: none"> <li>• preventing costly legal action</li> <li>• sharing regulatory risks, and</li> <li>• customer protection</li> </ul>
Financing the RAPID solutions 2.3 p20	To facilitate efficient funding of the RAPID solutions, we will engage with the investor and financing community to build understanding of the commercial delivery models being proposed for the different solutions	Agree. This activity will be critical for attracting funding for infrastructure projects. Need to reassure investors regarding: <ul style="list-style-type: none"> <li>• long term regulatory commitment to SRO</li> <li>• a pipeline of projects</li> <li>• risks associated with rates of return</li> </ul>
Contract standardisation 2.4 p21	Standardising contract terms should reduce costs of establishing (and potentially bidding for) new contracts, help promote the adoption of good practice, and mitigate the risk of future coordination problems. This applies both to bulk supply agreements and other contracts, for example with a CAP. We anticipate that parties would have some freedom to agree to diverge from the standard terms.	Agree, but wonder how realistic will it be in practice? Each of these projects will certainly have some common structure but they will differ in several respects that might make a standard contract only a generalised set of terms. For example: <ul style="list-style-type: none"> <li>• relative capital intensity and scale</li> <li>• different risks from reservoir, transfer schemes and desalination</li> <li>• different utilisation rates</li> <li>• different partners and sources of water</li> </ul>
Drinking water quality 2.5 p22	The contract therefore needs to ensure that there is suitable ongoing monitoring of these risks and mitigations alongside assessment of emerging risk and maintenance of relationships between exporting and importing companies throughout the duration of the agreement.	Agree this is an important issue, although the projects are designed and funded to minimise these risks. This is an area where standardisation of both contract and quality surveillance would be welcome.

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Charges 2.6.1 p24	<p>Fixed charges would ordinarily be passed through from the importing company to its customers' bills. The exporter's customers should be no worse off, and only pay if they receive a share of any new capacity.</p> <p>Volumetric: To give the right signals for utilisation of the water resource, where a water company is paying the fixed charges described above, volumetric charges should be set equal to variable costs.</p> <p>Water trading incentives and returns Key principles underpinning the incentive (and NERA's alternative), that the exporting company should be incentivised to trade, and the importing company should at least be able to recover its costs, are relevant for SROs as well as smaller trades</p>	<p>Agree. Should be straightforward to put into contract. Note these will not vary between high and low demand.</p> <p>Volumetric charges are likely to be low and not vary very much. Could also be small compared to fixed charge. They will not necessarily reflect supply and demand conditions in a drought.</p> <p>Incentive structures to sell may be constrained by statutory requirements for security of supply.</p>
Charges 2.7 p26	<p>Guaranteed rights / best endeavours – rights are firm for the recipient. This is an approach favoured by some water companies.</p> <p>Interruptible supplies approach – the exporter is only required to make water available until such time as maintaining the bulk supply would increase the likelihood of drought measures or interruptions in supply to its own customers.</p> <p>Fair shares approach – the agreement would provide for allocation of water so as to take into account the circumstances in both the exporter's supply area and the importer's supply area with the aim that the customers of the exporter and importer receive a fair (potentially similar or equivalent) level of service</p>	<p>If the sole purpose of the projects is to enhance security of supply, then any contract for water offered to trade would need to consider various drought scenarios.</p> <p>The first two approaches have been used in other sectors and we could also add force majeure into the range of issues.</p> <p>Guaranteed rights and interruptible supplies are legitimate options that should be available to the negotiating parties, recognising that different levels of supply security will result in different prices. However, as these projects are primarily for drought security reasons, it is likely that the fair shares option will be the most equitable solution. If the assets gradually increase their utilisation, then the regime might have to be reviewed.</p>
Environmental regulation 2.8 p29	<p>The Environment Agency, in conjunction with Natural England and RAPID, is setting up a dedicated Environmental Regulation task and finish group with representatives from the water companies developing the SROs and from regional groups.</p>	<p>As plans are based on responsibly abstracting water and preventing ecological damage, the central issue in the commercial arrangement is the regulatory risk associated with material changes in environmental standards and the timing in relationship to regional and WRMP milestones to provide enough of a window to react and review changes to the programme, especially before consultation.</p>
Multi-sector solutions 2.9 p30	<p>It may be possible to address most of the multi-sector commercial issues through side contracts without fundamental change to the main commercial model. However, where the multi-sector aspects are material, this may not be sufficient and involvement in a joint venture may be more appropriate. It would be for the water companies concerned to ensure that they could still meet all their statutory and regulatory obligations and mitigate any risks that changes to the non-water company aspects of the project could impinge on the value to the water sector.</p>	<p>We suggest that RAPID consider how they assess any potential agreements in terms of wider social benefit as highlighted in the PR24 consultation.</p>

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<p>Solution development and delivery beyond 2025 2.10 p30</p>	<p>Current developments in water resources are based on the developments of SROs funded in PR19 through a stage gate process operated by RAPID and through regional planning groups co-ordinated through a process overseen by RAPID. There are questions around what alternative approaches for planning strategic water resources might be effective in future but require less regulatory oversight, and also around the regulatory oversight required for current SROs beyond the existing RAPID gated process.</p>	<p>The implicit assumption is that there will be a long list of large capital-intensive projects in the future. This is probably correct, but they have to be tested against numerous and more “organic” approaches taken to water resource planning that arise out of companies using existing assets for trades. For example, the building of an interconnector will allow further opportunities to trade that may have not been identified within PR19. We note that RAPID would have standardised contracts/framework by the time this will become an issue if they do not take account of this.</p>
<p>Co-ordinated operations 2.11 p31</p>	<p>Over time, to the extent that strategic transfers become more prominent, the benefits from effective coordination are expected to increase. This includes decisions around asset RAPID regulatory and commercial framework discussion document utilisation, access to capacity and volumes of water supplied. Greater coordination of decision making will be required as we move to greater sharing of resources facilitated by the construction and operation of assets specifically designed to be owned and operated for the benefit of multiple parties across multiple sectors.</p>	<p>This is likely to require a system operator across networks. The Thames Tideway project has such arrangements and there is an incentive to conduct such an activity through Performance Commitment “ET05 Establish an effective system operator for the London Tideway Tunnels”</p>
<p>What we disagree with 2.1 Market Design p19</p>	<p>“It is therefore not obvious that an energy-like model is optimal and in any event it is not practically achievable in the medium term. We will therefore not consider it further here, although we note that more interconnection is likely over time and further analysis of these issues may be warranted in a five to ten year horizon.”</p>	<p>We are disappointed to see that energy market and commodity models are explicitly rejected as they solve a lot of the complexity issues.</p> <p>From a regulatory design perspective, the solutions are to common problems and use the same economic theory and reasoning.</p> <p>There are three live issues that could benefit from at least considering</p> <ul style="list-style-type: none"> <li>• Charging methodologies for interconnectors will have to consider the same issues and economic theory. Solutions have been based on “use it or lose it”, different types of capacity auctions, firm or interruptible are tried and tested and should at least be explored.</li> <li>• Water quality. The paper rules out water quality as being a distinct issue from energy but there is the example of gas quality in energy. Gas of different quality calorific value or composition (dry or wet) can be blended with nitrogen or in the future, biogas with hydrogen. Whilst the technical issues are distinct, the economic and regulatory theory is similar. We see no reason why the concept of the “polluter pays” principle used in gas should not be at least considered even if it is ultimately rejected.</li> </ul>

Theme	Thinking/ proposal	Comment
		<ul style="list-style-type: none"> <li>The operation of the bulk supply model is likely to be adopted by RAPID. However, it is an example of a crossover of economic theory and regulatory norm between sectors. It was devised for energy to provide a fair and common price for wholesale electricity from the Central Electricity Generating Board (CEGB) to the Regional Electricity Boards in the 1950's but its origins go further back to the turn of the century<sup>1</sup>.</li> </ul>

## Q2. What have we missed that also needs to be progressed?

We have stated that the alignment of WRMP, regional plans and the gated process is an important issue that need to be progressed quickly. We think however that the timings will ultimately be resolved.

The risks associated with the projects do not just reside in the SRO process but also in development of wider environmental policy related to abstraction. If there is a significant curtailment of abstraction volumes in the South East, the SRO projects will become more important and their economics will change. For example, their utilisation will undoubtedly increase suggesting a move to volumetric over capacity charging, something that we are considering in the pricing group.

We suggest six further issues that need to be progressed over the next year. We think they require urgent attention and they will need to be discussed before the submission of projects at Gate 2:

1. Limits of market solutions under certain extreme conditions for example, drought, force majeure etc.
2. Competition issues in market and contract design i.e. buyer or seller market power.
3. Nature and scope of transaction costs generated by bulk supply contracts including the correct value of trust and enforceability.
4. Dynamic relationship between final price and more or less observable costs.
5. Design of system operator function.
6. Clarity on the timing of regulatory policy changes under discussion and the critical path to key regional, WRMP and Price Review milestones. Can available mitigations in modelling deal with material changes to allow us to make the right choice?

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<sup>1</sup> See Meeks, "The Bulk Supply of electricity" *Oxford Economic Papers* vol.15 1963, Joint Select Committee on Electrical Generation Stations and Supply HofC IX 1898 (The Kitson Committee) recommended power companies supply "in bulk"

### Q3. We welcome views on our proposed next steps, including additional activities that we should be undertaking.

We think the next steps outlined on page 33 seem sensible. Moving the environmental agenda with the task and finish group will be critical for the development of the SRO.

### Q4. We welcome views on NERA's recommendations and our initial thinking on them.

The issue of market power between buyer and seller needs further consideration. Water demand is inelastic for some uses and its demand profile unlikely to be radically shifted over a season. Coupled with statutory obligations to supply customers within its territory it may be that there is an unequal relationship between parties. Exercising market power could occur not only during the design process.

A significant risk associated with the contract it is from changes in environmental requirements and policies. In the nuclear debate this issue received a lot of attention. Government and its agencies do not like fettering their future discretion, but without commitment a power station will not get built. The standardised contract will need some form of commitment reassurance.

Furthermore, NERA do not consider any kind of reward for taking risks, coping with uncertainty and making profit. A neo classical static cost base approach does not reflect this in terms of reward.

The major industry codes of energy have been frequently amended (over 2000 times) and even the European trading codes that are meant to be stable have this facility. It would seem prudent to assume changes will also occur in water trading.

For water to trade two products are required. The volume of water itself and the capacity to transport it to its destination. In the model presented here, water companies are uncertain if it is possible to offer "bundled" capacity and commodity (i.e. water) products as there are differences in title to the water between for example a reservoir and an interconnector.

We note that for true regional trading to occur there are likely to be transit networks where capacity is utilised that is independent of the value of water they are transporting.

This issue has been discussed for both gas and electricity in the development of European codes. The key issue is the social welfare benefit of the cheaper energy transported to importing companies verses the cross subsidy from consumers who are financing the transportation. In the European gas model capacity auctions are used at the point of interconnection and in electricity markets can decouple. The economics of this debate can usefully inform water trading design.