

# Lessons from our approach to setting price limits (PR09)

## Introduction

This report considers the lessons from the 2009 price review (PR09) process. It looks at how we conducted and managed the price review, and how we worked and communicated with stakeholders. The report does not consider whether the outcomes of the price review were the best for all stakeholders, and while we remain entirely satisfied with the outcome, we can only make a final assessment at the end of the price review period. However, from where we are now we think that our approach was a considerable success. We set price limits for the period to 2015 that are, for the first time, lower (on average, in real terms) at the end of the period than they were at the beginning. At the same time, price limits included a record amount of capital investment.

One company challenged our decision at the Competition Commission (CC). The CC's final decision was to allow higher price limits, but these largely related to investment needs identified after our final determination. It is clear now that our decision to put customers at the heart of the review and to take account of the wider economic environment was right; the water and sewerage sectors in England and Wales remain attractive to investors and customers are not paying higher water bills for unnecessary investment.

At the end of PR09, we said we would carry out a review of our process. And we decided to do this in a new way. In the past, we looked to identify lessons and apply them to the existing methodology in an evolutionary or incremental way. This time, as we worked through the PR09 process, we saw that we would not overcome the increasingly more obvious strategic shortcomings of our approach simply by identifying and solving any technical or process problems. So, even before the end of PR09, we started a project to carry out a more comprehensive review of how we could set price limits in the future, in an environment where market mechanisms played a much bigger role.

This report identifies strategic issues we identified in our review of PR09. We will address these in our future regulation programme of work, including our future price limits and regulatory compliance projects. It also identifies the process-related lessons from the price review. In both cases, we set out our response to the lessons, and identify how and where we are tackling these. Importantly, as well as taking on board things we can do better, we will also embed the positive lessons, capturing and building on things that went well in our way of working.

This report does not seek to review PR09 decisions on actual price limits.

## Executive summary

In this report, we identify the important lessons, both positive and negative, from PR09. As part of this process, we have used the:

- Competition Commission's report on Bristol Water's price limit appeal (including third-party submissions);
- results of KPMG's internal audit; and
- letters from the companies in response to the final determinations.

We also asked the Consumer Council for Water (CCWater) and other stakeholders for their views. PR09 was the fourth full price review and we used essentially the same building block approach as in 1999 and 2004. As for previous price reviews, we incorporated the lessons identified at the end of the previous review.

The evolutionary approach has led to a diminishing number of new lessons in the process area. However, over time, the lessons relating to our strategic approach have become clearer to us and to our key stakeholders. We have identified high-level concerns about the following issues.

- The price review process has become increasingly burdensome.
  - The data requirements are ever expanding – we now need special tools to manage the data we collect.
  - The analysis we carry out is not related to risk in a systematic way and is too detailed. This may link to an increasingly risk-averse culture in the broader water and sewerage sectors. Consequently, we risk not targeting our effort or ensuring that effort is proportionate to the potential impact.
  - There are unintended consequences, for example cyclical spending.
  - Resource requirements are disproportionate – the price review takes almost three years to do but only sets price limits for five years. The time requirement diverts stakeholders from the important delivery phases.
- We are concerned that our approach has become increasingly complex, which can reduce transparency. Some of the incentives we have introduced may not send clear and simple signals to the companies and customers.

- The focus on five-year price limits seems to us to discourage long-term planning.
  - The 25-year strategic direction statements were widely welcomed as a good innovation, but there are still some concerns that the price review process does not properly reflect longer-term issues.
  - We want the companies to own their plans, but some stakeholders think we continue to overwrite these with our judgements and decisions.

We have already fed these key strategic concerns into our future price limits and regulatory compliance projects. Our approach to future price limits will address these concerns by developing a more transparent, proportionate and targeted approach that promotes efficiency, furthers social and environmental goals, and encourages the sectors to change their culture to become more customer focused.

At the process level, there were positive and negative lessons.

- A lesson from the 2004 price review (PR04) related to the way we worked with stakeholders. We approached this differently for PR09, focusing on building constructive relationships with stakeholders, who have all commented positively on this aspect. This contributed to improved guidance from Defra and good working relationships with all stakeholders. However, we have identified lessons relating to the timing of other inputs to our process, notably the water resource management plans. There is also a lesson, which the CC highlighted, that relates to the Drinking Water Inspectorate's (DWI) approach to defining and agreeing narrow outputs during the redetermination process.
- Broadly, we have received feedback that the new incentives and requirements for PR09 – including the capital expenditure incentive scheme (CIS), the asset management assessment (AMA), and the strategic direction statements (SDS) – worked well. However, there are some detailed lessons relating to fine-tuning these.
- Transparency and effective communication are essential components of the price review, particularly at draft and final determinations. There were some concerns that the complexity and detail of our work makes communication more difficult, particularly for small companies. There were lessons from our approach to publishing draft determinations when we underestimated the demand on the day of publication for our key web-based publications. However, communication processes were far more sustainable for this price review – nearly all of our communication (including publishing our key documents) was carried out electronically.

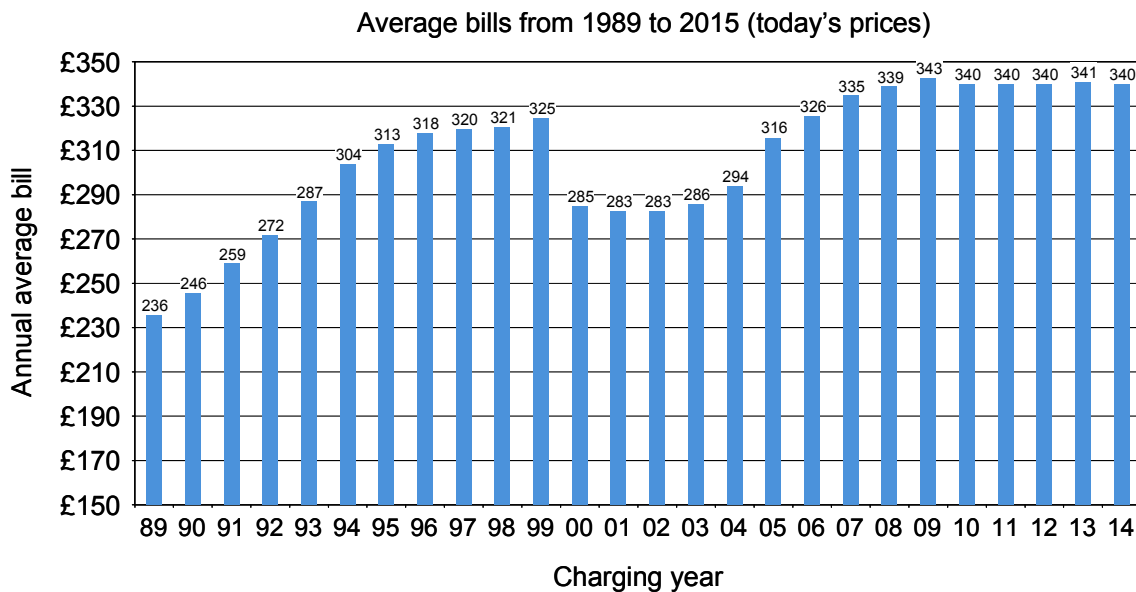
- We improved our data handling to improve quality assurance as one of the lessons from PR04. However, because of delays to the project to develop a new data management system, we were unable to put the whole system in place. Even so, our improved project management structures enabled us to identify the key associated risks and ensure that there was no impact on the outcome of the price review.
- Finally, there were positive lessons from the outcome of the CC price referral. The CC validated our approach to setting price limits, in particular the interpretation of our duties relating to setting price limits. Among other things, it also endorsed our use of assumptions on raising new equity to deal with financeability issues.

## Background and context

### The outcome of PR09

In 2009, we set price limits for the five years from 2010 to 2015. The price limits obliged the water and sewerage companies to keep customers' bills broadly flat on average (before inflation). It included an allowance for a record £22 billion of capital investment – to maintain assets, meet higher standards, improve resilience and make provision for meeting future demand for water and sewerage services. At the same time, we set targets to improve company efficiency, reduce leakage and become more sustainable. Our price limits balance the interests of current and future customers, the environment, and investors. We are sure that the price limits offer customers a good deal – we will work to make sure that the companies deliver.

### Process



We divided PR09 into the five technical stages shown in the jigsaw diagram below.



We started the PR09 process in 2007 when we asked the companies to consult widely with their customers and other stakeholders to produce a 25-year SDS. This aim of this document was to set out each company's vision and broad plans for the longer term.

We set final price limits in November 2009. The companies then had two months to decide whether they wanted to refer our price limits to the CC for redetermination. One company, Bristol Water, took this option. The CC had six months to complete this task and announced its decision in August 2010. With this, the 2009 price review process ended.

## Scope

In this report, we have explored the lessons – positive and negative – emerging from the price review process. We focus on those lessons that have value in relation to both our general regulatory work, and our projects on regulatory compliance and how we set price limits in the future. Where appropriate, we have considered why the issues have arisen and made recommendations for taking them forward now that the price review is complete.

We have used three key sources of information.

- The CC report on its redetermination of Bristol Water's price limits (including third-party submissions).
- The independent internal audit report for Ofwat on the conduct of PR09.
- Letters from the companies in response to our final determinations and the responses to our invitation to comment on the process.

One key group of stakeholders – investors – was under-represented in the feedback on the price review process. Only one of this stakeholder group gave us its views, which related to wider utility regulation rather than our process.

We have also had regard to ‘softer’ information about the review, in particular:

- information and comments from the companies in meetings;
- comments made to Board members; and
- other more informal contacts.

## Lessons

We have considered the lessons from PR09 in two categories. First, we have identified the strategic lessons – those that relate to our overall approach to regulation. Then we have considered the lessons that relate to specific processes that form part of our approach to setting price limits.

### Lessons relating to strategic issues

There are general lessons relating to four strategic areas. The action for these lies mostly with our future price limits project.

- The price review process has become increasingly burdensome, mainly resulting from our own efforts to reduce uncertainty and address risk. We accept that:
  - the data requirements are ever-expanding to the extent that we now need special tools to manage the data we collect;
  - our analysis is very detailed and is not related to risk in a systematic way; this is possibly a response to an increasingly risk-averse culture in the broader water and sewerage sectors;
  - the price review appears to have some unintended consequences, such as cyclical spending, where the timing of the price review appears to have a huge influence (without any real justification) on expenditure patterns across the sectors. While we have put regulatory mechanisms in place to address this (and some companies have responded), most companies seem lack the confidence to make any commitment to their own business plans until we have set price limits; and
  - the price review process uses significant resources – some companies have suggested that it diverts their attention from service delivery. The price review takes almost three years to do, but only sets price limits for five years.

- Our approach has become increasingly complex and this can reduce transparency.
  - Our incentives have become complicated. They may not send clear enough and simple enough signals to the companies and customers.
  - An example of this is the enhanced operating expenditure rolling incentive mechanism. It aims to overcome some of the disincentives arising from the length of the price review period; but it is very complicated. The companies have raised similar comments about other areas – including the revenue correction mechanism.
  
- The focus on five-year price limits discourages long-term planning.
  - The SDS were widely welcomed, but there are still some concerns that the process (and Ofwat in particular) continued to ignore the longer-term issues. CCWater welcomed the SDS, but was disappointed that, in its view, the subsequent business plans did not reflect the long-term aims for some companies. We stand firmly behind the SDS concept. Any business with a long-term interest should assess its strategy intermittently and make plans to achieve this. One of the issues for PR09 was that there was a sea change in the economic environment immediately after the SDS were published. This led to some legitimate inconsistency between the SDS and subsequent business plans, but we do not see this as a basis for criticism on the concept or the process.
  
- The companies still claim that we appear to override their plans with our judgements and decisions. They also say that we have ignored the local nature of water (and water customers), and that we do not listen and have a tendency to think we always know the answer. These comments tend to ignore the reasons why we have had to make changes – which were mostly because the price limits proposed in the companies' business plans were unnecessarily high. We note that there is some considerable divergence among the companies. Some are already good at producing business plans that balance the interests of all stakeholders in a fair and transparent way. And in these cases, we accepted much of their plans. But there are other companies whose views differ considerably from ours. This is clearly not a sustainable approach and we will work to establish an environment where all companies produce good business plans. For PR09, we made changes to encourage this (such as introducing the CIS), which appeared to help. But we will need to do more.

We acknowledge that a complex set of drivers informs these high-level strategic issues and that different stakeholders will place different emphasis on them. In particular, we conducted the price review against a backdrop of extreme economic uncertainty that made long-term planning and decision-making more difficult. However, we note that the issues identified do align with the concerns that prompted us to begin our work on fundamentally reviewing how we set price limits in the future.

We will take these lessons into account in our future price limits and regulatory compliance projects.

## Process issues

### Governance

- The new Ofwat Board structure worked well. The separation of high-level decision making from the regulatory analysis contributed to a better management of risk.

**This is a positive lesson – no further action.**

### Data management

- The projected data requirements for PR09 indicated that we needed a bespoke data handling system. We under-estimated the scale and complexity of this significant IT project, and this posed a risk for PR09. Accordingly, we took an early decision to focus on those parts necessary to deliver the essential elements supporting company business plans and the financial model. We put contingency arrangements in place to deal with other aspects of data handling. Those fallback plans worked well and we were able to handle the data effectively.

**There are negative and positive lessons for action in the knowledge management and compliance areas. We are developing a project to consider the appropriate IT strategy to support our approach to future price reviews.**

- There were some comments about the process for developing and signing off our financial model. Some companies had concerns about working on versions of the model for the draft business plans that our Board had not formally signed off. While the financial model is very similar to that used for PR04 (which had passed through external audit), there are clearly some risks

in developing a financial model so close to its expected in-service date. However, we had contingency plans in place in case of failure. On balance, we considered that the benefits of developing a model that is fitted to and tested in the environment where it must work outweighed the burden of working with a version that was not fully signed off. Also, the only way we could test the model properly was to use full data sets, and these only became available with the draft business plans.

**We will consider how best to do our financial modelling in future as part of our future price limits project, taking these issues into account.**

### **Incentive mechanisms**

- We introduced the CIS to incentivise better ownership by the companies of their business plans and to reduce bidding during the process. The companies were supportive of the aims of the CIS, but they raised concerns about its complexity. Some considered this made it difficult to understand fully the new mechanism; others were concerned with the associated data burden.

The CC supported our use of the CIS and endorsed its aims, including providing incentives to encourage the companies to reveal better information at the business planning stage. We note that the CIS imposes a regulatory and resource burden, but we did streamline our approach to capital efficiency. This meant that we did not require any data for capex econometrics. So, although the new process is data intensive, it is offset by us ending the need for the capital maintenance econometric modelling. As a result, the effect is neutral.

We accept that the timing of the introduction of the CIS was not ideal. It would have had stronger incentive properties had the companies had more time to improve their understanding of how it worked. However, it did offer them the opportunity to take more control of their investment proposals and there is clear evidence that several companies seized this opportunity to good effect. But, for sometimes unknown reasons, some companies did not appear to consider that we would take the action we had clearly explained we would. This was unfortunate for the companies concerned – but it does not mean that the CIS was a poor mechanism.

**The broad support for the aim of the CIS is positive. We consider the need for thorough understanding of the mechanism is important and we expect that this will improve over the current period. However, a full appreciation of the incentive mechanism will not be possible until 2014. We will review it further in the light of experience at that time.**

- The AMA attracted a range of concerns through its development and introduction. We identified several lessons (relating to the challenge to historic investment and the range of possible scores) and addressed these during the price review. The CC endorsed our general approach and identified some further implementation lessons.

**Our future price limits project will review our approach to operating and capital expenditure in early 2011. We will address the points raised as part of this.**

- Some companies considered (as they have in the past) that our use of econometrics to assess relative efficiency in operating costs led to false efficiency assumptions. However, the CC examined and validated our price review work. This is a positive lesson at the process level. But as we have already highlighted, concerns remain about the relatively high regulatory burden and the demands for data and analytical resources.

**We will consider this matter as part of our cost assessment and cost recovery work streams in the future price limits and regulatory compliance projects.**

### **Capital investment and cost-benefit analysis (CBA)**

- Defra and the Environment Agency were concerned about our approach to CBA. The two main challenges were whether there is value at all in using CBA on statutory obligations, and a concern that we had not been sufficiently prescriptive in our guidance. The CC also challenged us to be more consistent in our guidance.

**We continue to believe that the use of CBA is valid for statutory obligations as it provides important information on customer priorities, and the relative merits of the obligations themselves. We are taking forward the concerns about CBA guidance in the context of our wider work on customer engagement, which is part of our future price limits and regulatory compliance projects.**

## Working with stakeholders

- The improvements we put in place for PR09 relating to our approach to working with regulatory stakeholders provides a positive lesson for the future and our wider regulatory work.

Improved stakeholder management contributed to better and timelier guidance from Defra, the Welsh Assembly Government and the Environment Agency. It also involved working closely with CCWater in matters concerning the views of customers. The improved working relationships helped build high levels of trust. The most significant improvement related to the national environment programme, where the better exchange of information enabled all parties to make more timely decisions, reducing uncertainty and improving transparency.

In contrast, the water resource management plan sign-off timetable, which was outside our control, slipped so much that it reduced the quality of our final decisions. While a 'work around' was put in place, it would have been better to keep to the original timetable. We will work with Defra and the Environment Agency to identify scope for improvement here.

Other inputs to PR09 arrived later than expected – such as guidance on the shadow price of carbon, and the UKCP scenarios. However, because these have a much broader application than PR09, it seems unreasonable to criticise the originators for delays. We worked to obtain meaningful advice where possible and put in place risk mitigation mechanisms when necessary. These seem appropriate responses.

**There is a broad lesson concerning timetable management among direct stakeholders. We will address this as we consider how we set price limits in the future.**

- In its final report, the CC said that it found the relationship between its role (where is it acting in our place in making a full determination for the relevant company) and the DWI's role unsatisfactory. The CC set out its concerns in full in its [report](#) on the Bristol Water appeal. We will work with the DWI to deal with the CC's concerns. Our normal approach is to work with the companies and the DWI to make sure that investment decisions use a risk-based analysis. This means that in some water quality areas, a precautionary approach may be necessary. In others, there is reasonable scope to commit resources to investigations to determine the most economic and effective

solution. This approach has worked well for customers in the past and we want to develop it for use in the future.

**We will work with the DWI to address this matter.**

### **Transparency and communication**

- There was a widespread view that increasing complexity was making transparency worse. Some small companies said that they were finding it increasingly difficult to understand our processes. At the same time, CCWater said that our published material did not allow them to understand the detail of our decision-making.

**This links to the strategic lessons we will address through the future price limits and regulatory compliance projects**

- Small companies voiced some concern that the price review process had become too onerous for them in particular. The CC raised a similar point relating to the way we communicate with small companies. In fact, in our experience, effective communication is not dependent on the size of the company. And several companies acknowledged and welcomed the support we gave them. We understand the issues the smaller companies face and we take steps to ensure they can participate in the review process in full. But an objective for both our future price limits and regulatory compliance projects will be to improve the targeting and proportionality of regulation.

**We will take action in the future price limits and regulatory compliance projects and consider whether a different approach to business planning and decision-making is more appropriate for some companies and if so, based on what criteria.**

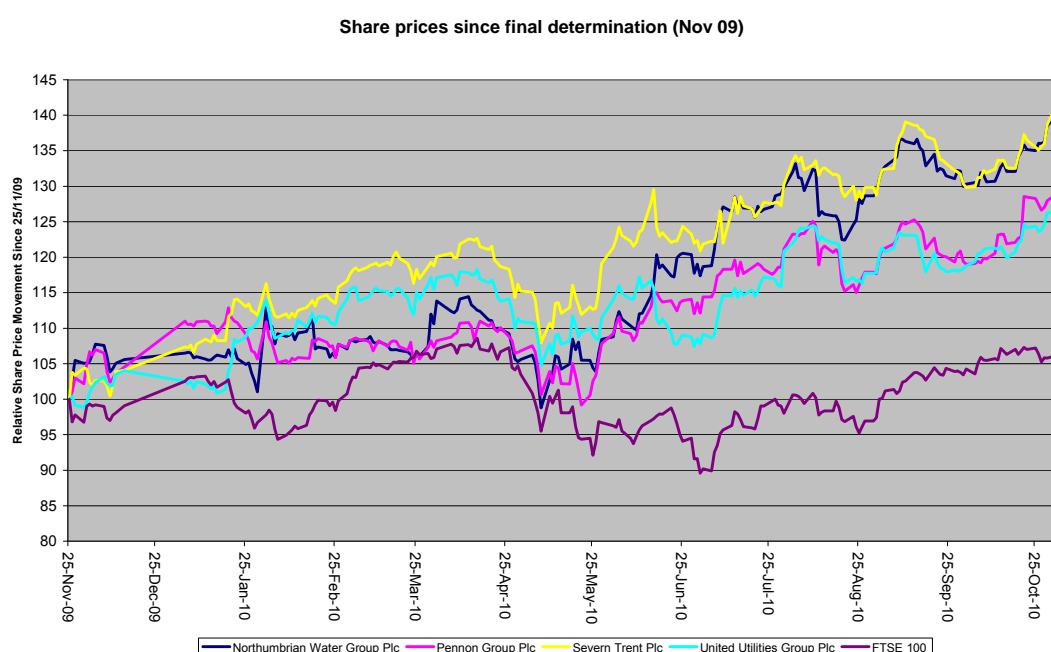
- An aim for PR09 was a lower environmental impact. We wanted to conduct a price review that was visibly more sustainable. An important contribution was paperless communication and publication. But for the draft determinations, we underestimated the ability of our website to cope with demand for the key documentation.

**We addressed this lesson before final determinations. In other respects the paperless approach worked very well – it was a positive lesson from the price review.**

## The cost of capital

One key group of stakeholders – investors – was under-represented in the feedback on the price review process. This is normal. Investors and analysts generally comment on the outcome of the review (which most characterised as ‘broadly neutral’). We did receive one formal comment relating to the price review process and that related to how we made decisions on the return to investors. The same investor made the same point to the CC.

So, as a proxy for investors’ views, we have examined the share prices of quoted water companies (United Utilities, Severn Trent Water, Northumbrian Water and Pennon Group). The graphs show that not only have they outperformed the FTSE 100, they have been far more resilient to external shocks.



Finally, there were positive lessons from the outcome of the CC price referral. The CC validated our general approach to setting price limits, in particular the interpretation of our duties relating to setting price limits.

- The CC looked closely at our approach to our financing functions duty and concurred with our interpretation and approach.

### Positive lesson – no action.

- The CC also considered whether our use of assumptions on equity injection when setting price limits was legitimate and reasonable. The CC endorsed our

approach and concluded that it was appropriate to assume that the companies could raise new equity to deal with financeability issues.

**Positive lesson – no action.**

## Summary of lessons and recommendations for action

PR09 was a successful project. We delivered price limits for all companies in line with the timetable established for the process. We also identified fewer technical lessons than for any previous price review. However, as we worked through the price review, it became clear that there were strategic lessons relating to the overall approach to setting price limits rather than matters of technical detail.

Accordingly, we have started work on projects to carry out a fundamental review of the way we set price limits for the monopoly elements of the water and sewerage businesses and the information we need to secure compliance and service delivery. The table below summarises the lessons we identified in our review of PR09 and indicates where the action to address them lies.

Lesson	Strategic (S) or process (P) lesson	Action
The price limit process is too burdensome	S	Future price limits and regulatory compliance projects
The increasing complexity of the price review process is reducing transparency	S	Future price limits project
Need to encourage longer-term planning	S	Future price limits project
Improve company ownership of business plans	S	Future price limits and regulatory compliance projects
Development of data handling systems that support the analytical task	P	Regulatory compliance project. We have also started a project to consider our future IT needs
Development and acceptance of the price review financial model	P	Future price limits project
Use of the capital expenditure incentive scheme (CIS)	P	Future price limits project

Use of the asset management assessment (AMA) incentive	P	Future price limits project
Approach to assessing future operating efficiency	P	Future price limits project
Using cost-benefit analysis (CBA) to justify investment proposals	P	Future price limits project
Managing stakeholder input into future price reviews	P	Future price limits and regulatory compliance projects
DWI approach to securing drinking water quality outcomes	P	Bilateral discussions with DWI
Proportional approach to business plans for price limits	P	Future price limits and regulatory compliance projects

We will now turn our full attention to the core projects that will provide us with an effective and efficient approach to regulating the water and sewerage sectors in England and Wales. As for PR09, our approach remains focused on customers and the outcomes, including social and environmental change, that matter to them.



Ofwat  
Centre City Tower  
7 Hill Street  
Birmingham B5 4UA

Phone: 0121 644 7500  
Fax: 0121 644 7699  
Website: [www.ofwat.gov.uk](http://www.ofwat.gov.uk)  
Email: [enquiries@ofwat.gsi.gov.uk](mailto:enquiries@ofwat.gsi.gov.uk)  
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