Reverse auctions

Office of the Chief Advisor - Procurement

Queensland Government

Reverse auctions

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Contact us
The Office of the Chief Advisor – Procurement is committed to continuous improvement. If you have any suggestions about how we can improve this guide, or if you have any questions, contact us at betterprocurement@hpw.qld.gov.au.

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Purpose

The purpose of this guidance is to provide agencies with information and recommended practice on the use of reverse auctions, including the types of goods and services that are suitable for this sourcing method.

This guidance should be read together with the Queensland Procurement Policy and the other related Government policies or instruments (by administering agency), and the agency's policies and procedures.

Context

What are reverse auctions?

A reverse auction is a price negotiation tool and is a real time, online auction between a buying agency and a group of pre-qualified/shortlisted suppliers. Short listing is achieved through established means such as an Expression of Interest (EOI), a Request for Quotation/Tender/Offer, or an existing panel of suppliers. Suppliers must be informed in the Invitation to Offer if a reverse auction process will be used. The specifications and the terms and conditions are agreed between the supplier and the buying agency prior to the auction.

During the auction, suppliers lower their prices to compete against each other to win the business of providing goods or services that have clearly defined specifications for design, quantity, quality, delivery, and related terms and conditions. In a reverse auction bids reduce in value as the auction progresses rather than increase as they do in a traditional auction.

The reverse auction is conducted online over the internet. Using specialised software, suppliers submit successively lower bids during a scheduled time period. The supplier with the lowest price wins the reverse auction.

A particular feature is that as suppliers are lowering their bids their rankings/pricing may be revealed (see below). However, their identity is not revealed and all suppliers receive the same information at the same time.

Different types of reverse auctions

There are a number of ways to conduct a reverse auction, with the most common being positional bidding or leading price bidding. During positional bidding the bids are not visible to the participating suppliers; suppliers are only informed of their own positions, for example 1st, 2nd, 3rd. During leading price bidding, suppliers see the lowest (leading) bid without the identity of the leading supplier being revealed to other bidders.

The 'positional bidding' reverse auction is used more often as it improves the motivation of suppliers to bid. If suppliers only know their positions, they are likely to place another bid to see if they can stay in contention for the business, and reduce the gap between them and the lower bidders. The clustering effect that follows reduces the spread of the bids to a lower and narrower value band. This positively affects the value for money score of all participating suppliers, leading to improved choices for the buyer.

In a 'leading price' auction the gap to the leading price is immediately visible. If the gap is large, suppliers may be deterred and decide to not bid further. This limits competition and options for the buyer.

One other important risk in using the leading price method is that of breach of confidentiality. If the leading bidder is awarded the business, confidential line item or total contract pricing may have been revealed to competitors during the negotiation.

When to use reverse auctions

Overview

A reverse auction can be considered in the following situations:

- as a price negotiation strategy for a normal tender process
- as a means of obtaining quotes from suppliers on an established panel or common use contract
- as the second stage of a two-stage tender process, in which other 'value' criteria have already been considered, and price is the remaining consideration.

Recommended practice

When establishing new procurement arrangements that may use reverse auctions, the terms and conditions of offer must clearly state that reverse auctions are to be used.

For existing panel arrangements, the scope should be reviewed to determine if reverse auctions could be used. Reverse auction may be used to obtain quotes for a significant one-off purchase against the items on the panel arrangement. Existing suppliers should be informed of the introduction of reverse auctions before this method of procurement is used.

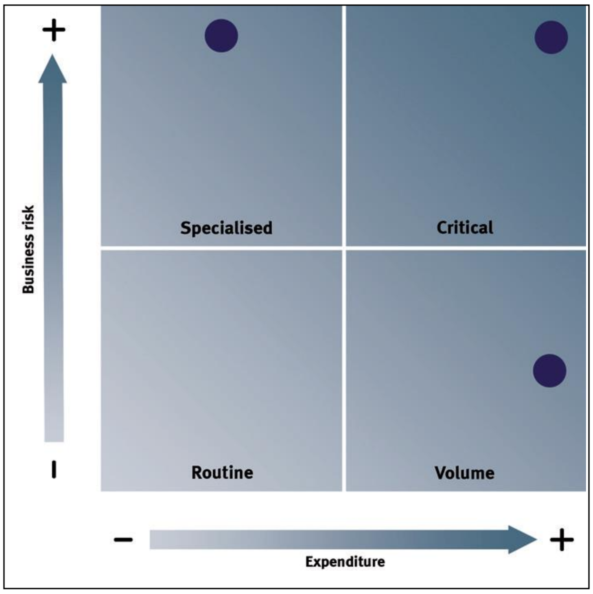
Where there is a panel arrangement in place and reverse auctions are used to select the successful supplier based on price:

- reverse auctions must be restricted to the suppliers on that panel arrangement
- all suppliers on the panel arrangement must be given equal opportunity to participate in the reverse auction
- the arrangement should allow for spot, volume or project pricing.

Suitable goods and services

Using supply positioning, an assessment of suitability can be made in terms of the agency's expenditure on goods and services and the corresponding degree of business risk. The goods and services are segmented into four supply positioning categories, as shown in Figure 1.

Figure 1: Supply positioning categories



Procurement of goods and services in the volume, specialised and critical categories are significant procurements. These procurements:

- represent the majority of an agency's spend
- are generally complex in terms of their demand and/or supply characteristics
- individually, can have a significant impact on an agency's operations.

Goods and services in the volume and routine (low risk) quadrant of the supply position matrix are potentially suitable for reverse auctions. They are typically off-the-shelf type goods and services and have several biddable attributes, listed below.

- There is a strong likelihood that the current price is sufficiently higher than the market price, making the reverse auction event cost-effective.
- The cost involved in switching suppliers is acceptable.
- A competitive market exists with a sufficient number of qualified suppliers who are willing to participate in a reverse auction.
- Buyer-supplier relationships are not likely to be damaged by the use of a reverse auction.
- No added services or benefits are specified in the requirement: for example, there must be no installation component.

Negotiating price via reverse auctions is generally not suitable for goods and services from the specialised and critical (high risk) quadrants of the supply positioning matrix.

Goods and services in the high risk quadrants may have characteristics which prevent them from being suitable for reverse auctions, and these are listed below.

- Products may be custom-made rather than off the shelf.
- There are a number of elements of risk which need to be managed: these may be compromised if focus is shifted too much onto price.
- Long-term relationships with suppliers are highly important: value is secured over the longer term through effective supplier relationship management.
- There may be insufficient suppliers to participate in a reverse auction.
- The cost of switching suppliers is high.

Examples of products or commodities which may be suitable for reverse auctions include:

- primary building products (e.g. timber, steel, iron, concrete, copper tubing)
- standard information technology equipment (e.g. specified desktop computers, shrink-wrapped software, modems, toner cartridges)
- photocopy paper
- chemicals and some common pharmaceutical products
- clothing and uniforms in set sizes, colours and volumes.

Nature of the procurement

Some other factors that could affect the suitability of reverse auctions include:

- the estimated benefits of the auction compared to the effort and/or cost of conducting the auction
- the nature of the supplying industry.

For both agencies and suppliers there are costs associated with conducting and participating in reverse auctions. Agencies should assess whether the value of the goods or services to be procured—and associated benefits generated by conducting a reverse auction—will outweigh the cost, effort and time for both suppliers and buyer. Generally, the higher the value of the procurement, the greater the potential for realising savings.

The nature of the market and industry also affect the potential savings that could be realised in a reverse auction. Consider factors such as the number of suppliers, capacity of suppliers, demand for the product, exchange rates, and the margin structure of the product. If the market works on very low margins, the potential for savings is likely to be minimal (unless countered by a high volume or longer term contract).

Benefits and risks of reverse auctions

Benefits

Under the right circumstances a reverse auction can deliver substantially lower pricing than the normal bidding process of quotations or ‘best and final offers’ without further price negotiations.

Further, reverse auctions are less susceptible to claims of favouritism and breaches of probity. All bids are recorded and cannot be modified, which provides an audit trail of prices offered that can be scrutinised at any time after the auction is completed. And during the auction the buying organisation is an observer and not a participant in the price negotiation process.

Other benefits for agencies include:

- keeping up with changes in technology and business practices in line with the supply market
- achieving a competitive market price, and potentially substantial cost saving, through dynamic and real-time trading; cost savings can be made via increased competition, or by optimising market conditions such as surplus inventory in the marketplace or excess production capacity
- gaining better knowledge of the market
- allowing bidders multiple opportunities to offer a price
- reducing the procurement cycle time and increasing efficiency through real-time process
- reducing administrative and transaction costs for both buyer and supplier
- a clear audit trail of bids
- transparency and fairness as all bidders have knowledge of (the rankings of) the bids being submitted.

Risks

Overview

Being a relatively new process for the Queensland Government, agencies should take a prudent approach to the use of reverse auctions. Agencies need to ensure the reverse auction process complies with their policies.

Below are some of the possible risks that the use of reverse auctions might pose and the approaches that could mitigate the impact of these risks. The following risks should be considered at the procurement strategy stage (during significant procurement planning).

Reverse auctions focus predominantly on price

The Queensland Procurement Policy requires agencies to drive value for money in procurement. The concept of value for money is not restricted to price alone and includes a number of considerations. These include:

- the overall objective of the procurement, and the outcome being sought
- cost-related factors including up-front price, whole-of-life costs and transaction costs associated with acquisition, use, holding, maintenance and disposal

- non-cost factors such as fitness for purpose, quality, delivery, service and support.

Reverse auctions have very limited ability to deal with non-price factors. The use of pre-approval, prequalification or two-stage procurement processes overcomes this issue. During the supplier engagement or pre-qualification of suppliers, non-price criteria can be evaluated. Reverse auctions then become the final stage of the procurement process, when the suppliers from a pre-qualified panel compete on pricing.

Unsuitability for procurement of goods and services

The evaluation of different value-adding services is difficult where the focus is on price. It is also difficult to compare and evaluate offers if there are innovative solutions or more sustainable solutions offered.

Therefore, agencies should only use reverse auctions to procure products that are readily defined, and where price can be the primary or final determinant in the selection process.

Submission of loss leading bids

Reverse auctions will put downward pressure on prices, which may result in some suppliers submitting unsustainably low prices.

Possible reasons for suppliers bidding below a sustainable price:

- as a strategy to gain access to the government market
- wanting to do business at any cost, even if the price only covers the supplier's variable expenses
- the selling of second-grade products
- dumping goods (selling a product to Australia at a lower price than that charged in its home market).

Agencies need to ensure that they understand the supply market and existing cost structures. Personnel should be aware of market prices, and agencies should question any unrealistically low prices. These should be queried as soon as they occur, and the bidding process may need to be terminated.

Reverse auctions may favour large organisations

There may be a perception that in reverse auctions large suppliers have an advantage.

Reverse auctions may cut out the layer of supplier between the manufacturer and the retailer. During procurement strategy development, agencies should seek opportunities for local and regional supplier participation. These considerations should be addressed prior to the reverse auction.

Disadvantaging suppliers with limited infrastructure and internet capacity

Reverse auctions require minimal hardware and software—a personal computer, web browser and internet access. However, if technology is a problem to bidding suppliers, reverse auction providers should offer alternative means and training for them to participate (such as by phone or fax); or an alternative, more appropriate procurement method should be used.

The reverse auction process may disadvantage regional suppliers, due to infrastructure limitations such as internet access, or response times. It may also disadvantage smaller suppliers who do not have the resources to respond to this online form of market.

An agency's market analysis should identify whether a reverse auction is appropriate given any likely infrastructure limitations.

Reliance on information technology

Technical failure on either side is a risk of the reverse auction process. Reverse auctioneers must have back-up systems and contingency plans. Suppliers should have the option of phoning in bids if their computer system fails.

Agencies will need to develop procedures to cover instances of technical failure, to ensure probity and accountability at all times.

Responsibilities related to the conduct of reverse auctions

The reverse auction process may be conducted by the agency itself, using licensed software, or contracted to a provider of reverse auction services selected through a competitive process.

The following section discusses the responsibilities of each party involved in the reverse auction process.

Service provider responsibilities

The responsibilities of the reverse auction provider (outlined below) apply whether an agency uses an external provider of reverse auction services or conducts the auction itself. If the agency is engaging an external provider, then it is essential that the agency is involved in the process from the beginning to ensure accountability and probity is maintained throughout the process. The service provider should not undertake any part of the process without the agency being involved.

Recommended practice

The agency should ensure a document of agreement signed by the agency and the service provider is executed. The agreement should provide details of the responsibilities of both parties. Service provider responsibilities should include:

- inviting suppliers to participate
- providing notice to potential participants
- providing assistance to suppliers on how to participate
- hosting the auction website
- conducting the reverse auction bidding process
- providing support to bidders during the reverse auction
- providing a service to accept phone/fax bids from bidders, which are then entered into the online
- auction process
- maintaining appropriate Information Technology (IT) systems that are secure and have appropriate backup systems, e.g. an alternative website
- notifying participants of outcomes
- maintaining an auditable management reporting system that is capable of providing a transactional report that transpired during the reverse auction (required as part of the agency's record-keeping obligations) and statistics (e.g. number of bids, average decrease of bids, and variance from estimate).

The reverse auction service provider must manage the electronic records. As the provider is managing an aspect of the procurement process on behalf of the agency, and as the process is conducted electronically, it is vital that both the provider and the agency have appropriate systems for managing electronic records.

To ensure the electronic records meet probity and accountability requirements there must be a systematic approach to electronic record-keeping and an adequate security infrastructure for the electronic records.

Commissions

Private sector providers of reverse auction services usually charge a commission for their services. The form of the commission varies. Common examples are:

- a percentage of the total estimated value of the successful bid
- a flat percentage, payable by the agency, which the agency and reverse auction service providers agree to in advance of the anticipated savings
- a flat fee, and/or a percentage commission of the successful reverse auction price.

Recommended practice

Agencies should factor the amount and form of the commission into any analysis of savings. As the commission structure can greatly impact on the price offered or payable, agencies must give this serious consideration when selecting a provider of reverse auction services.

The provider should also be advised that the commission structure is to cover all charges such as advertising, insurance, administrative fees, connection time costs and miscellaneous charges. No charges above the agreed commission should be paid.

Agency responsibilities

If an agency decides to conduct a reverse auction they must ensure that the appropriate safeguards are in place.

Recommended practice

The areas for consideration in developing appropriate safeguards are:

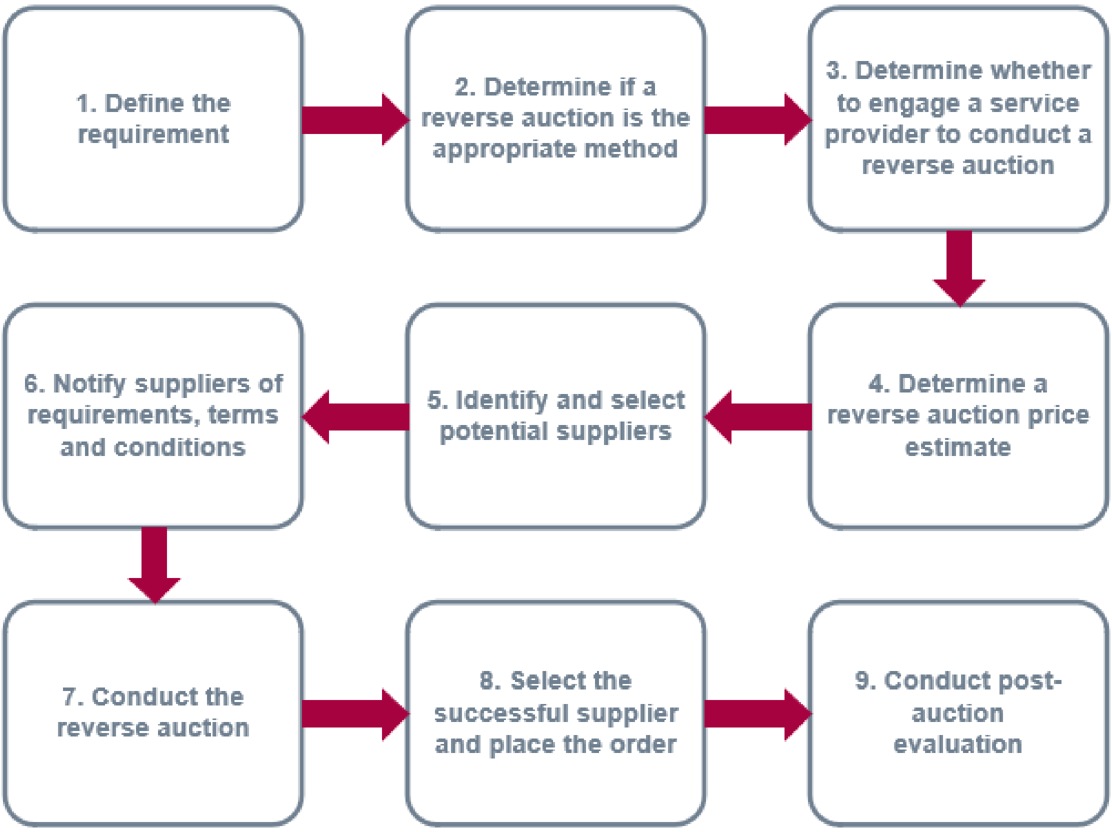
- the agency's financial delegations and approvals process must be clear
- A checklist of steps should be endorsed and followed throughout the auction
- the appropriate software to assist the reverse auction must be in place, including IT systems to ensure software compatibility, cross-platform compatibility, backup, security, and universal access
- accountability and probity must be maintained throughout the process. Depending on the value of the procurement, services from a probity auditor could be used to facilitate this
- the agency must ensure appropriate records are maintained throughout the process (even when an external service provider of auction is engaged)
- timeframes for conducting the auction should be determined and incorporated into the project plans
- there needs to be an appropriate method for determining value for money.

Conducting a reverse auction

Overview

Figure 2 illustrates the key phases in the reverse auction, within a normal procurement process.

Figure 2: Process flow for a reverse auction



Recommended practice

Define the requirement

Before proceeding to the next stage, define the requirement. This is done in the same way as writing a specification: the agency must identify what goods or services must be procured.

Determine if a reverse auction is the appropriate method

After defining the requirement, identify the most appropriate method. Several factors go into the decision on whether to use reverse auctions. These include product specifications, structure of the supply base, market pricing structure, projected lead times, contract status, the costs of switching vendors, the distribution complexity, the savings opportunity, the size of the purchase, the importance of non-cost factors such as sustainability, and the strategic nature of the supplier relationships.

Determine whether to engage a service provider to conduct a reverse auction

The decision to use a service provider or alternatively, conduct the process internally can depend on whether the agency has the necessary software and expertise.

If the agency does not have the software, engaging a service provider would be the next option.

Selecting a service provider

When selecting a service provider to perform the auction, the following issues need to be considered.

- **Cost.** How will costs be calculated? Is the service provider cost-competitive? Are there any costs that the offeror has to bear to participate in the reverse auction?

- **Service requirements.** Can the supplier meet the agency's needs?
- **Confidentiality/information security issues.** Can the supplier meet the agency's confidentiality requirements? What processes/systems does the service provider have in place to ensure confidentiality is maintained at all times?
- **Location.** Where is the service provider based?
- **Laws, policies and guidelines applicable to these service providers.**
- **Reporting.** How does the supplier report the information and how long do they hold these records for?
- **Backup/disaster recovery.** What is the service provider's back up plan if the service goes down during a reverse auction?
- **Value for money.** How do we determine that using this service provider will add value?
- **Accountability and probity issues.**

Determine a reverse auction price estimate

As it does with the traditional offer process, the agency should make an estimate of the price that will eventually be negotiated for the goods to be procured. The estimate should reflect the agency's best assessment of the current market value for the goods. The starting point for the reverse auction is typically based on this pre-auction price estimate.

It is important to do this accurately. Too low a price may result in no offers or a very limited number of offers. It is important for the agency to reserve the right not to accept any offers. If the agency is not satisfied with the best offer, they have the right to enter into a post-offer negotiation.

Identify potential suppliers

The optimum degree of competition (including the number of suppliers invited to participate) will vary with circumstances, such as the nature of the market, and the value of the procurement.

While reverse auctions can be conducted in an open market, this approach is not recommended for government agencies. The preferred approach is a two-staged process where the agency pre-selects or pre-qualifies the suppliers on the ability to comply with non-price criteria such as capability, sustainability requirements and quality standards. The second stage would be the reverse auction itself, where price is the remaining selection criterion.

The selection of suppliers to participate in the reverse auction process is always the responsibility of the procuring agency, and should never be delegated to an external provider of reverse auction services (if one is used). When conducting reverse auctions with suppliers on a panel or common-use contract, then all suppliers on the panel must be given equal opportunity to participate in the reverse auction. Agencies must ensure that the panel or common-use contract has a sufficient base of suppliers to facilitate a competitive process.

Notify suppliers of requirements, terms and conditions

Adequate advance notice of the reverse auction should be provided to enable suppliers to decide whether to participate in the reverse auction, and to determine their pricing strategy. Advance notice should provide the following information:

- the procuring agency contact details
- all requirements, including any about delivery
- the date, time and location (website) of the reverse auction
- the number or name that identifies the procurement (e.g. lot number)

- all terms and conditions of the reverse auction process (e.g. if the reverse auction will make the offered bids known to all the participating suppliers, the potential suppliers should be made aware in advance)
- all terms and conditions of the purchase, including the obligations of buyers and suppliers
- the basis on which offers are evaluated and selected
- that the final decision rests with the agency.

If a supplier decides to participate in the reverse auction, they must ensure the terms and conditions of the reverse auction are signed and returned to the procuring agency within the specified timeframes.

Conduct the reverse auction

Typically, a reverse auction is open for bidding for a predetermined period of time. In some reverse auction formats, the closing time is automatically extended if a bid is received in the last few minutes. This avoids a bidding frenzy at the last minute and ensures that all suppliers have adequate time to respond. Bidders need to be informed that the auction may take longer than the time that was initially set.

The reverse auction process may include a period of 'concealed' bidding towards the end of the auction, whereby pricing or rankings are not revealed to the bidders. For each reverse auction, agencies will determine what will be displayed on the website. This may vary across agencies.

However generally, information should include:

- the number or name that identifies the procurement
- the starting price for the reverse auction (as provided by the agency)
- the number of bidders
- the current bid: either value or relative positioning
- the time remaining for the reverse auction.

The reverse auction system should not identify the bidders to one another. The agency may have this information, but will be unable to influence the bidding in any manner.

If the auction is not done in-house, upon finalisation of the bidding the auctioneer will provide the agency with a report of all transactions—including phone bids—which transpired during the reverse auction (required as part of the agency's record-keeping obligations); and statistics (such as number of bids, average decrease of bids, and variance from estimate), if required.

This information will be used to evaluate the bids and to evaluate the reverse auction process.

Supplier selection

Recommended practice

The agency should only accept an offer if they are satisfied that it offers the best value for money. The terms and conditions of the reverse auction should always indicate that the final decision to accept the offer rests with the agency and that price may not be the only consideration in identifying the successful offer. This will allow the agency to assess whether the product meets the standards required and to select the best value for money proposition.

However, before this decision is made the price bids are incorporated into the overall evaluation of the bids. The agency may need to conduct another negotiation with the selected supplier to finalise the last details and to ensure that the supplier is able to proceed with the supply. If the supplier is unable to proceed in meeting the order, the agency should approach the supplier offering the next best value for money bid. The terms and conditions of the reverse auction should include a statement for this provision.

Evaluation of the reverse auction process

Recommended practice

As the reverse auction process is a relatively new process for the Queensland Government, agencies should ensure that its use is evaluated and its suitability assessed. Areas to evaluate include:

- the variance between the pre-auction estimate and the auction prices
- the performance of the reverse auction service provider
- the performance of the successful bidders in meeting the requirements
- a cost-benefit analysis of using reverse auctions compared to traditional procurement options.