



**Government
of South Australia**

State Procurement
Board

www.spb.sa.gov.au

Supplier Selection Policy

Version	3.6
Date Issued	April 2020
Review Date	April 2021
Principal Contact	State Procurement Board
Telephone	8226 5001

Contents



1. Purpose	3
2. General Principles	3
3. Policy Statement.....	3
4. Policy Scope.....	3
5. Better Customer Charter for Business	4
6. Definitions	4
7. Supplier Selection Process	4
7.1 Preparing Invitation Documents including Specification	5
7.2 Developing the Evaluation Plan	5
7.3 Distribution and Receipt of Offers	10
7.4 Selecting Preferred Supplier/s	12
7.5 Post Sourcing Reviews.....	18
7.6 Debriefing Suppliers	18
8. Life Cycle Costing	21
9. Further Information	22
10. Related Policies and Guidelines	22
11. Templates.....	22
Attachment 1 Example Standard Evaluation Method (Cost Excluded)	23
Attachment 2 Example Standard Evaluation Method (Cost Included).....	25
Attachment 3 Example Scoring Systems.....	27
Attachment 4 Supplier Debriefing Framework	28
Attachment 5 Life Cycle Costing Process	30

1. Purpose

This policy outlines the State Procurement Board's (Board) mandated requirements and advises on the selection of suppliers that represent best value for money.

2. General Principles

The object of the *State Procurement Act 2004* (Act) is to advance government priorities and objectives by a system of procurement for public authorities directed towards:

- a) obtaining value in the expenditure of public money
- b) providing for ethical and fair treatment of participants
- c) ensuring probity, accountability and transparency in procurement operations.

The evaluation of offers and the selection of suppliers are to have regard to, and be consistent with, these objectives.

All expressions defined in the Act have the same meaning in this policy.

The *South Australian Funding Policy for the Not-For-Profit Sector* identifies best practice principles for government and NFP funding relationships across eight categories:

- Robust planning and design
- Collaboration and partnership
- Proportionality
- An outcomes orientation
- Achieving value with relevant money
- Governance and accountability
- Probity and transparency
- Community development principles.

These best practice principles have been incorporated into this policy where relevant.

3. Policy Statement

Public authorities are required to undertake effective supplier selection processes in accordance with the mandated requirements outlined in this policy.

4. Policy Scope

This policy applies to all public authorities as defined in the Act.

This policy applies to procurements greater than \$550,000 and is not intended for procurements valued up to and including \$550,000 undertaken in accordance with the *Simple Procurement Policy*, although the general principles are suitable for all evaluations.

There are additional specific requirements when undertaking procurements with the Not-For-Profit (NFP) sector. These requirements apply for procurements where NFP organisations form the primary supplier base. These requirements are identified in this policy through the use of a shaded text box.

This policy does not apply to grants as defined in Treasurer's Instruction 15.

All dollar values are GST inclusive.

5. Better Customer Charter for Business

The *Better Customer Charter for Business* released in July 2016 outlines the South Australian Government's commitment to being the best public service customer to suppliers and sets out what current and potential suppliers can expect from the government when they bid for procurement opportunities. The *Better Customer Charter for Business* requires that:

- suppliers be treated fairly, equally and with respect
- documents utilised during the supplier selection process use clear, simple and easy to understand language
- consistent information is provided to all suppliers
- feedback from the supplier community is used to identify opportunities for improvement
- barriers to good procurement practice are removed.

6. Definitions

Supplier Selection is the process undertaken to ensure appropriate suppliers are selected to provide the required goods or services, whilst ensuring value is achieved.

Evaluation Criteria refer to the criteria that are used to evaluate offers. These include measures to assess how well offers meet requirements such as criteria to shortlist or rank suppliers.

An *Evaluation Plan* refers to a plan of the process will be followed in evaluating the offers received. It includes timing, the evaluation criteria, membership and weightings (where applicable).

A not-for-profit organisation is an organisation that is operating for its purpose and not for the profit or gain (either direct or indirect) of its individual members.

NFP organisations fall within two broad categories:

- charities, and
- other NFP organisations that are not charities, for example: most sporting and recreational clubs, community service organisations, professional and business associations and social organisations.

Charities must register with the Australian Charities and Not-for-profits Commission (ACNC).

(Refer <https://www.ato.gov.au/Non-profit/Getting-started/Starting-an-NFP0/>)

7. Supplier Selection Process

The goal of supplier selection is to obtain value in the expenditure of public money using a fair, objective and transparent process commensurate with the procurement's value, risk and complexity. Offers are to be evaluated fairly, in accordance with the approved evaluation plan, with suppliers given an opportunity to receive feedback.

Successful supplier selection ensures the most appropriate supplier is selected to meet the public authority's procurement objectives.

The *Acquisition Planning Policy* outlines the requirements in developing an acquisition plan, some of which may impact the supplier selection process, including specification development, probity, life cycle costing and evaluation planning.

The supplier selection process consists of six stages:



Each stage is outlined in more detail below.

7.1 Preparing Invitation Documents including Specification

The invitation/market approach documents are required to seek offers from suppliers. The invitation/market approach documents include the specification that includes relevant information on outcomes, objectives, standards of performance and codes of practice, incentives, disincentives and performance measures.

Invitation documents are to be prepared in accordance with the *Market Approach and Contract Documents Guideline* (where appropriate).

In line with the *Better Customer Charter for Business* public authorities are required to:

- use clear, simple and easy to understand language in procurement documents
- provide consistent information to all suppliers
- only ask for the information that is needed to fairly evaluate offers
- keep suppliers informed of the progress of their offer.

7.2 Developing the Evaluation Plan

Evaluation Plan

The evaluation plan documents the supplier selection process and is tailored to the specific needs and circumstances of the procurement being undertaken. Public authorities **must** ensure that an evaluation plan is developed and approved prior to the opening of offers.

The evaluation plan is to include the following, consistent with information summarised in the acquisition plan:

- procurement objectives
- evaluation criteria and weightings
- evaluation process, methodology and/or techniques to be used
- composition of the evaluation team/s including roles and responsibilities

- verification processes such as site visits, referee checks, licensing checks and independent reports
- evaluation standards (scoring system, evidence sought and basis for scoring)
- evaluation schedule including key timeframes and milestones
- reporting and approval arrangements
- consideration of the debriefing process including roles and responsibilities
- probity arrangements including management of any conflicts of interest
- negotiation strategy
- evaluation report (if required) and purchase recommendation format.

The evaluation plan may also include information on the receipt and opening of offers, the management of late offers, how to manage alternative offers and the process for clarifying offers.

The Board's *Evaluation Plan* template may be used.

Evaluation Team

Diversity of evaluation team members with different skills and abilities provides a greater variety of perspectives. This can result in improved risk identification, alignment of the requirement with the objectives, avoidance of biases, and opportunities for improvement and innovation.

When selecting evaluation team representatives, every endeavour should be made to reflect:

- the breadth and diversity in the needs and views of key customers and stakeholders, impacted agencies and work units
- the value, risk and complexity of the procurement and the matters that need to be examined, including subject matter expertise where required
- the possible number of offers and data to be evaluated
- diversity and inclusion principles, wherever possible.

The inclusion of a procurement professional with relevant procurement experience and skills is highly desirable, especially for more complex, high value procurements.

High risk and complex evaluations may require the use of sub-teams, each looking at a specific aspect of the evaluation criteria. Where this occurs, it is preferable that sub-teams are provided with only their relevant part of the offers. Alternatively, it may be appropriate that one or more evaluation team members review one element of the evaluation criteria. Either approach requires defining how the results of the sub-teams or individual evaluation team members will be consolidated into the evaluation outcome.

Where subject matter experts are required, it is not necessary for them to participate in the selection process outside of their designated area. In less complex and low risk procurements, a small team (three members in most cases but always a minimum of two team members) may handle the complete evaluation.

The evaluation team needs to be:

- trained in the evaluation and scoring process
- instructed in probity arrangements including the need to declare conflicts of interest
- provided with documentation, resources and materials to support their role including,

process guidelines outlined in the invitation documentation, objectives, timeframes and milestones, score sheets and a copy of the evaluation plan

- informed that they need to make professional judgements on the basis of the evidence provided, observed and analysed as part of the process
- required to keep notes of proceedings, for use as the basis for discussion to reach group consensus and supplier debriefings at the end of the procurement process.

A transparent and systematic supplier selection process enhances government, supplier and public confidence in procurement outcomes. Probity and transparency are achieved through procurement decisions that are impartial, appropriately documented, publicly defensible and lawful. The Chair of the evaluation team is responsible for ensuring that an appropriate probity framework is established, with each evaluation team member performing their function in a professional and objective manner.

Public authorities **must** ensure that an appropriate probity and risk management framework is developed to safeguard the integrity of the selection process.

Specific probity and governance issues to consider include:

- probity risks including potential, perceived or actual conflict of interest
- the physical and online security of documentation
- the use of a probity auditor and/or probity advisor
- the development of a probity plan.

Further information is provided in the *Probity and Ethical Procurement Guideline*.

Evaluation Teams for the Not-For-Profit (NFP) Sector

When evaluating procurements where the majority of potential suppliers are from the NFP sector, consideration is to be given to having an evaluation team member from the NFP sector with relevant expertise to the procurement. This aligns with co-design and community development principles. Such a representative evaluation team member can be nominated by a relevant peak body, but the representative is not to have substantial ties to any respondents being evaluated. Probity requirements need to be considered and managed as appropriate including conflict of interest considerations. Other considerations include ensuring the evaluation team member has appropriate expertise and is available during the evaluation period.

Evaluation Criteria

The evaluation criteria, either mandatory or qualitative, provide a standard against which to evaluate cost and non-cost elements of suppliers' offers to identify the best value for money solution that meets the public authority's procurement requirements and objectives.

The evaluation criteria are determined by the public authority but are typically related to:

- prior performance and demonstrated experience
- level of compliance with specification and statement of requirements.
- management approach, capability and capacity
- price / cost
- level of agreement with draft contract
- compliance with the Industry Participation Policy



These criteria can be modified as appropriate to suit the public authority's needs.

Mandatory criteria are to be kept to a minimum, be easily assessed without being open to subjective judgement (for example, yes/no) and reflect the minimum requirements for the supplier to be considered further.

Public authorities **must** ensure that the evaluation criteria are released to the market and that mandatory criteria are outlined clearly in the market approach documentation.

The *South Australian Industry Participation Policy* (IPP) outlines requirements related to evaluation criteria to be applied when undertaking procurements. Public authorities **must** ensure that IPP requirements are applied.

Value Range	IPP Requirement
All procurements	<ul style="list-style-type: none"> All procurements will consider opportunities for South Australian small and start-up businesses to provide a quote or tender with at least one local business invited.
Procurements over \$550,000 (GST inclusive)	<ul style="list-style-type: none"> Mandatory standard IPP plans are required. Minimum weighting of 15% is applied as a component of the overall evaluation criteria. Tailored IPP Plans should be considered where there is opportunity for expanded economic benefit to the State. A minimum of one local business must be invited to quote or tender. <p>NOTE: Under the functions of the <i>Industry Advocate Act 2017</i> the Industry Advocate has the discretion to review and assist in the negotiations for Industry Participation Plans to ensure that they comply with the SAIPP prior to the finalisation of contract conditions.</p> <p><i>Contact the Office of the Industry Advocate to determine the most appropriate industry participation requirement on a case by case basis</i></p>
Procurements of \$50 million and over	<ul style="list-style-type: none"> Tailored IPP Plans are a mandatory requirement. Minimum weighting of 15% is applied as a component of the overall evaluation criteria. A minimum 20 per cent industry participation weighting must form part of the overall evaluation where the purchase of structural/reinforcing steel and fabrication of structural steelwork is involved. A Statement of Intent will form Stage 1 of the Industry Participation process and the information



Value Range	IPP Requirement
	<p>provided will be used to benchmark a Tailored Industry Participation Plan submitted at Stage 2.</p> <p>NOTE: Under the functions of the <i>Industry Advocate Act 2017</i> the Industry Advocate has the discretion to review and assist in the negotiations for Industry Participation Plans to ensure that they comply with the SAIPP prior to the finalisation of contract conditions.</p> <p><i>Contact the Office of the Industry Advocate to determine the most appropriate industry participation requirement on a case by case basis</i></p>
Direct Negotiation	<ul style="list-style-type: none">• All Industry Participation Policy requirements apply to direct negotiations above \$550,000 (GST inclusive)• No IPP weighting is necessary. <p>NOTE: Under the functions of the <i>Industry Advocate Act 2017</i> the Industry Advocate has the discretion to review and assist in the negotiations for Industry Participation Plans to ensure that they comply with the SAIPP prior to the finalisation of contract conditions.</p> <p><i>Contact the Office of the Industry Advocate to determine the most appropriate industry participation requirement on a case by case basis.</i></p>
Panel contracts	<ul style="list-style-type: none">• Industry Participation Policy applies to all panel contracts.• A Tailored IPP process is a mandatory requirement.• A Statement of Intent will form Stage 1 of the Tailored Industry Participation process and the information provided will be used to benchmark a Tailored Industry Participation Plan submitted at Stage 2 (secondary procurements from the panel).• A Tailored IPP Plan is required for any secondary procurement over and equal to \$550,000 (GST inclusive) and IPP weightings will apply.• A minimum weighting of 15% is applied as a component of the overall evaluation criteria to the competitive secondary procurements from the panel. <p>NOTE: Under the functions of the <i>Industry Advocate Act 2017</i> the Industry Advocate has the discretion to</p>

Value Range	IPP Requirement
	<p>review and assist in the negotiations for Industry Participation Plans to ensure that they comply with the SAIPP prior to the finalisation of contract conditions.</p> <p><i>Contact the Office of the Industry Advocate to determine the most appropriate industry participation requirement on a case by case basis</i></p>

The specific IPP requirements and evaluation weightings are determined in the acquisition plan and included in the invitation and response documentation.

Evaluation Criteria for Not-for-Profit Sector Procurements

Procurements involving the not-for-profit sector may require specific evaluation criteria such as the following:

- service delivery model (suitability of methodology to achieve required outcomes)
- organisational experience (demonstrated experience to provide services)
- time-frames (demonstrated ability to meet timeframes in relation to the services)
- qualifications and recruitment of staff
- organisational capacity and quality management system
- level of stakeholder engagement
- engagement with Aboriginal and Torres Strait Islanders or other culturally and linguistically diverse groups
- transition management.

7.3 Distribution and Receipt of Offers

Inviting Offers

In accordance with the approved acquisition plan, offers are to be invited from suppliers selectively or by advertising the requirement.

Wherever possible, for publicly advertised market approaches, a minimum period of 30 days is to be allowed for the receipt of offers. The minimum of 30 days provides suppliers with sufficient time to respond effectively to the invitation and provide higher quality offers.

For procurements in scope of the various free trade agreements that South Australia is a signatory to, a minimum period of 30 (calendar) days is required to elapse between the advertising of a requirement and the closing date. This period may be reduced where specific conditions exist - refer to the Government Procurement chapter for each trade agreement. Further information is available in the Board's *International Obligations Policy*.

It is critical that prior to the invitation of offers, that the public authority is committed to the procurement. Public authorities **must** be respectful of the time and cost to suppliers to prepare and submit offers and not withdraw or terminate any procurement process after seeking offers, except under very rare and unpredictable circumstances.

Industry Briefings

Industry briefings may be necessary for procurements that are a unique, new government requirement, multifaceted, complex or high risk. Industry briefings provide potential suppliers with an opportunity to increase their understanding of the procurement, potentially enabling better value and greater innovation in the supplier's response.

Industry briefings:

- may be mandatory or optional
- can be undertaken before the market approach or during the market approach after the procurement has been released to the market
- are to be scheduled to allow sufficient time for potential suppliers to organise to attend the briefing session
- need to allow adequate time following the briefing session to provide potential suppliers with the opportunity to clarify issues prior to the closing time of the market approach
- require an agenda or session plan be developed to ensure that key matters are addressed including an explanation of the market approach documents.

A record of the attendees and notes on issues raised and matters discussed is to be prepared.

All questions received post briefing should be directed to the relevant "contact person" named in the invitation document. If a potential supplier has a specific query that could provide them with an advantage during the procurement process, then that information needs to be made available to other suppliers.

Acknowledging Offers Received

Offers need to be formally received, scheduled and acknowledged. A process needs to be in place to inform respondents that their offer has been successfully received.

The process of receiving, receipting, opening and registering offers **must** be secure and ensure confidentiality, whether offers are physically or electronically received.

The Board's *Letter Acknowledging Receipt of Response template* can be used to acknowledge receipt of offers.

Suppliers **must** be kept informed of the status of their offer throughout the evaluation process, especially if there are delays.

Late Offers

Late offers can be considered when exceptional circumstances have arisen such as a:

- fault in the public authority's receiving arrangements for offers or
- fault or incident outside the control of the supplier (e.g. natural disaster, mishandling by the public authority, significant postal or courier service delay, major security incident, e-delivery system downtime).

Arrangements need to be in place to verify the date and time that offers are received at the nominated place of delivery. Late offers are to be processed separately to offers received prior

to the closing time, clearly marked with the time received and method of delivery (i.e. by hand, email, post, fax etc.) and recorded appropriately. If the evaluation process has commenced when a late offer is received, the process is to be halted and recommenced only after a decision regarding the acceptance (or otherwise) of the late offer has been made.

Suppliers who submit late offers are to be advised immediately once a decision has been made on the acceptance or otherwise of their offer. If not accepted, late offers are not to be opened except where the supplier's contact details cannot otherwise be identified.

Public authorities **must** ensure that:

- prior to approving the admissibility of a late offer, that the reasons for accepting the late offer are satisfactory and that accepting a late offer will not compromise the integrity of the procurement process
- appropriate management controls are in place regarding the handling of late offers
- offers received after the designated closing time are identified as late and managed separately to offers received prior to the closing time
- late offers are not accepted for consideration unless approved by the principal officer (or delegate).

7.4 Selecting Preferred Supplier/s

Public authorities **must** ensure that evaluation approaches are fit for purpose and resources are allocated to the process to facilitate timely, efficient and effective decision making, consistent with the specified requirements and the procurement objectives.

Evaluating Offers

The evaluation process is to be conducted in line with the approved evaluation plan and documented to support the decisions made during the evaluation process.

The evaluation team needs to review and evaluate the offers individually. The outcome of the evaluation process is generally determined on the basis of consensus, reached after evaluation team members have discussed their differences, rather than through the averaging of individual scores. Only where this approach has failed would a casting vote by the Chair or a minority report (for example) be considered.

The IPP requires public authorities to:

- verify Standard Industry Participation scores
- score the Tailored Industry Participation Plan
- provide copy of signed IPP Plans to OIA for final negotiation as per Industry Advocate Act 2017 s6 (e) for assessment
- preclude tenders that have not submitted IPP Plans from contract award (on advice from OIA).

Clarify matters arising with suppliers

Clarification from potential suppliers may be sought if an offer is ambiguous or unclear and clarification is required to enable a fair judgement to be made unclear. Any clarification sought and the answers obtained need to be documented. Suppliers are to be provided with sufficient time to provide an adequate response.

Evaluation Methodologies

Attachment 1 and 2 provide examples of the standard evaluation method, one with the cost included as an evaluation criteria and the other with the cost excluded from the primary evaluation criteria but considered following the qualitative assessment.

Attachment 3 provides several examples of scoring systems that can be used.

Other alternative weighting and scoring systems can also be considered to ensure the process is commensurate with the value, risk and complexity of the procurement.

A scoring guide or evaluation standards may be developed to provide greater objectivity and consistency in the evaluation process and could include narrative descriptions explaining the requirements of each scoring level.

The consideration of risk can be added to the standard evaluation method where criteria related to risk are considered separately. This approach requires the criteria to be separated into three components: value, risk and cost, and assessed separately.

Value factors may have a weighting assigned to them in accordance with the standard evaluation method.

Risk factors will not have a weighting. They can be assigned a rating of low, medium and high based on the supplier's ability to manage the risks. The rating identifies the key risk issues that need to be addressed prior to contract award.

Variations to the Standard Evaluation Method

The following methods may be useful or appropriate in some circumstances to supplement or modify the standard evaluation method.

Evaluation Methods	Description
Least Cost Approach	This methodology is often called the 'first past the post' model and selects the lowest reasonably costed supplier that meets all the mandatory requirements (usually assessed as pass/fail or yes/no). This approach is generally suitable where cost is the most important consideration and is generally not suitable for evaluations that involve important qualitative attributes.
Paired Comparison	<p>This methodology determines the relative merit of an offer by comparing it against every other offer on a one to one basis.</p> <p>For example, in the case of three suppliers (A, B and C), supplier A's offer for criterion 1 would be compared to supplier B's offer for criterion 1. A rating would be assigned based on a scoring system (e.g. 1, better, 2 significantly better). This process is repeated for each other supplier pairing, i.e. Supplier A's offer for criterion 1 would be compared to supplier C's offer for criterion 1, and then finally supplier B's offer for criterion 1 to supplier C's, completing the possible permutations. This process is repeated for each criteria, with the supplier allocated the most points deemed the preferred supplier.</p> <p>The advantage of this process is that the quality of the offer is</p>

Evaluation Methods	Description
	determined in comparison to other offers. In complex evaluations or where there are many offers, it can be easier for an evaluation team member to determine which of two options is preferred to arrive at a ranking of suppliers.

Where innovative solutions are sought, it may be difficult to use a quantitative evaluation method, to make a like for like comparison of very different solutions. When looking for innovative solutions, a qualitative evaluation may be more effective than a quantitative evaluation.

Negotiation

Negotiation is an optional process in which, through dialogue, both parties move from their initial positions to achieve a mutually agreed improvement in the procurement outcome. Negotiation is differentiated from 'clarification', which is a normal part of the supplier selection process.

The negotiation process may include discussion on contractual clauses that a supplier has indicated it wants changed, rectify aspects of an offer that present unacceptable risk for the public authority or explore opportunities for the creation of additional value.

The negotiation process commences by developing broad negotiation strategies at the acquisition planning stage, which can be further developed once the main evaluation process has concluded. At this stage, a more detailed negotiation plan can be developed to include relevant and specific issues to be negotiated, objectives and priorities specific to the suppliers selected for negotiation. The strategy would include the composition of the negotiation team and define the issues to be negotiated, the approach and positions to be taken and possible concessions to be made.

The negotiation plan may be approved by an appropriate authorising officer within the public authority before the negotiation process commences.

Negotiation proceedings **must** be documented to provide a clear audit trail, with the results of any negotiation updating the selection process and scoring model (where relevant) to confirm the preferred supplier. The Board's *Negotiation Plan* template can be used.

Public authorities are to ensure that sufficient time is allowed for the successful supplier to exercise due diligence in understanding and negotiating the clauses of the contract.

Managing Deviations from the Approved Acquisition Plan

Deviations occur where there is a material departure from the strategy approved in the Acquisition Plan that occurs prior to contract execution. Deviations may relate to:

- the evaluation team or evaluation criteria and weightings
- the method of approaching the market
- timeframes
- the procurement scope.

Deviations from approved acquisition plans **must** be approved by the appropriate approving authority, except where the deviation is assessed as low level (refer level of deviation matrix).

Where an acquisition plan can only be approved by the Board due to its value, the public authority is to assess whether the deviation is significant enough to require consideration by the Board. If the deviation raises the acquisition plan value above the procurement authority of the public authority, the deviation **must** be approved by the Board.

Acquisition plan deviations relating to a high risk procurement, or one that has a potential across-government impact, can be referred to the secretariat for advice in relation to approval requirements.

Deviations occur where there is a material departure from the strategy approved in the Acquisition Plan that occurs prior to contract execution.

An **assessment of the deviation** is to determine the type of approval required by considering:

- the potential impact on the procurement strategy, probity and/or the procurement outcome
- stage in the procurement process
- level of deviation.

The **measures of impact** for deviations are categorised as follows:

Measure	Description
Insignificant	No potential to impact the strategy and/or the outcome. No risk to perceived or actual probity of the process from the deviation.
Minor	Limited potential to impact the process and/or the outcome. Limited risk to perceived or actual probity of the process.
Moderate	Moderate potential to impact the strategy and/or the outcome. Moderate level of risk to perceived or actual probity of the process from the deviation.
Major	High potential to impact the strategy and/or the outcome. Major risk to perceived or actual probity of the process from the deviation.

The **stage in the procurement process** when the deviation occurs needs to be identified.

Stage	Description of when the deviation occurs
Prior to Market Approach	After approval of the acquisition plan but prior to approaching the market.
During Invitation Call	During market approach but prior to opening offers.
During Evaluation	During the evaluation period but prior to the purchase recommendation.
Post Purchase Recommendation	After purchase recommendation approval but prior to contract execution.

The **level of deviation** can be determined by using the following matrix:

		Stage in the Process			
		Prior Market Approach	During Invitation Call	During Evaluation	Post Purchase Recommendation
Measure of Impact	Major	High	Extreme	Extreme	Extreme
	Moderate	Medium	High	Extreme	Extreme
	Minor	Low	Medium	High	High
	Insignificant	Low	Low	Medium	Medium

Action Required

For each level of deviation, the following action is required:

Deviation Level	Description
Low	Maintain a record of the deviation*.
Medium	Maintain record of deviation and report the deviation to the approving authority in the final purchase recommendation*.
High/Extreme	Approval of the deviation is to be obtained from the approving authority of the acquisition plan prior to progressing further.

* For low and medium level deviations, approval requirements are at the discretion of the public authority, depending on the type of procurement and the approval processes outlined in the acquisition plan.

Any risks associated with the deviation are to be documented to assist the assessment/approval process.

Purchase Recommendation

A purchase recommendation details the selection process and the relevant findings of the evaluation. The purchase recommendation is to refer to, and not duplicate, information previously outlined in the acquisition plan and related documents (such as the evaluation plan or probity plan).

The purchase recommendation **must** be approved prior to awarding the contract by the designated delegate in the approved acquisition plan, and documented to a level of detail commensurate with the requirement.

The following table documents issues to be addressed in a purchase recommendation. The Board's *Purchase Recommendation* template can be used.

Heading	Description
Linkage to the Acquisition Plan	<ul style="list-style-type: none"> • key recommendation(s) • reference to the acquisition plan/evaluation plan • alignment of the purchase recommendation to the acquisition plan and any deviations or amendments from the acquisition plan • technical or legal advice relevant to the recommendation
Market Approach	<ul style="list-style-type: none"> • details of pre-invitation meetings with potential suppliers • market approach used • details of timing and when the offers were opened and closed
Response summary	<ul style="list-style-type: none"> • supplier names, value of offer, including options
Evaluation	<ul style="list-style-type: none"> • brief description of evaluation process including evaluation criteria • summary of offers and each supplier's capability and weaknesses • minority views (if applicable) • financial viability checks undertaken • shortlist of suppliers, criteria applied and reasons for shortlisting • reasons for not shortlisting suppliers • information on site visits, referee checks, communications, discussions with suppliers and requests for clarification • additional information used to arrive at final value for money conclusions
Negotiations	<ul style="list-style-type: none"> • negotiations undertaken with suppliers and outcomes of these proceedings • variations to specifications and management strategies • risks identified and management strategies developed. • summary of final offer costs and benefits (for example, cost reductions or value adds) achieved by negotiations
Contractual Arrangements	<ul style="list-style-type: none"> • proposed contract terms, conditions and arrangements • pricing and payment arrangements • inflationary and currency issues attached to pricing • provision for variations to the contract • performance indicators and how they will be measured including information systems in place • legal advice received, particularly for high value, high risk non-standard contracts
Risk and Insurance	<ul style="list-style-type: none"> • areas and level to be indemnified • securities specified • impact, if any, on departures from the specified deliverables and commercial requirements • critical issues and risks associated with the recommendation(s) • conflict of interests declared and how they have been resolved
Contract Management	<ul style="list-style-type: none"> • how deliverables are to be managed and controlled • if a contract management plan has been/is being developed • person/s responsible for managing the contract • transitional arrangements, strategies and risks

Heading	Description
Recommendation	<ul style="list-style-type: none">• brief purpose and description of the goods and/or services• scope and type of contract• recommended supplier/s and who is party to the contract• contract value, contract period

For high value or high risk procurements, it may also be appropriate to prepare a detailed evaluation report at the end of the selection process and attach a copy to the purchase recommendation.

The purchase recommendation (or evaluation report) **must** be signed by all members of the evaluation team demonstrating that it is a true reflection of the selection process.

It is preferable that the purchase recommendation is the result of a consensus opinion. Where a unanimous agreement is not possible, the purchase recommendation is to explain the key positions and points of variance.

Once the Purchase Recommendation has been approved, the successful supplier/s can be notified. The Board's Letter templates can be used as appropriate:

- *Letter to Preferred Respondent*
- *Letter to Unsuccessful Respondent.*

7.5 Post Sourcing Reviews

Public authorities **must** undertake a 'post sourcing review' for procurements valued at or above \$4.4 million and for significant contracts below \$4.4 million (as determined by the public authority).

The review is to be undertaken on completion of the supplier selection process to:

- confirm if the objectives of the procurement were achieved
- identify key aspects of the selection process which worked well (strengths)
- identify key aspects of the selection process which could be improved (weaknesses)
- seek internal stakeholder feedback regarding the process undertaken
- consider supplier feedback from the debriefing sessions as appropriate
- make recommendations for improvement of future processes if applicable (lessons learned).

The primary benefit of undertaking post sourcing reviews is to formally assess the process undertaken and to identify potential improvements for future processes. Identified improvement opportunities need to be considered by public authority procurement units to ensure findings are implemented as appropriate.

7.6 Debriefing Suppliers

In accordance with the *Better Customer Charter for Business*, suppliers **must** be offered a supplier debriefing at the conclusion of a procurement process, to receive feedback on their offer. Supplier debriefings support the *Better Customer Charter for Business*, fostering a culture of engagement with the supplier community to identify opportunities for improvement and the removal of barriers to good procurement practice.

Purpose and Benefits of Supplier Debriefing

The primary purpose of a supplier debriefing is to provide the supplier with an accurate and detailed understanding of the selection process and the reasons their offer was not successful.

Benefits of a well prepared and considered supplier debriefing include:

- improved quality and competitiveness of future offers
- increased supplier confidence in Government procurement processes and the methodology behind the decision making
- a reduced likelihood of supplier complaints
- an opportunity to receive feedback from suppliers regarding the selection process with a view to process improvement.

Supplier debriefings are an important element of the supplier selection process and are to be given due consideration prior to commencement of the evaluation, appropriate to the risk and value of the procurement.

Suppliers often put significant time and effort into preparing an offer and it is important to provide specific, quality feedback that is well considered, structured and adequately prepared.

General Requirements

Debriefings are to be completed in a timely manner, after contract execution, and without unreasonable delay. For long and/or complex procurement processes, a debriefing may be provided at the end of the short-listing phase when the public authority notifies suppliers who have not been short listed.

When advising suppliers in writing on their unsuccessful offer, the supplier is to be offered a debriefing session and requested to respond within 30 days indicating their intention to attend, and invited to submit questions regarding the procurement prior to the debriefing.

Debriefings are best conducted via a face to face meeting (where practicable) or phone or video link.

Supplier Debriefing Preparation

The debriefing process has a degree of risk depending on the value and type of the procurement. It is therefore important that appropriate preparation is undertaken including:

- addressing supplier debriefing in the evaluation plan by identifying the roles and responsibilities of those undertaking supplier debriefings
- assessing in the evaluation plan how the risk and value of the procurement may impact the debriefing process (e.g. politically sensitive or high visibility procurements)
- ensuring rigour in evaluation documentation and during the selection process in recording the rationale for decisions
- ensuring evaluation team members understand the debriefing process and their role in contributing to the preparation of debriefing documentation

In certain circumstances, where there is a perceived high level of risk or complexity with the procurement, legal advice may be required on the content of the debrief (either written or verbal).

Once the selection process is completed, a written debriefing document is to be prepared and agreed by the evaluation team, for each supplier requesting a debriefing. The debriefing document is to follow a predetermined format to ensure consistency across the type of information and level of debriefing provided to suppliers. Public authorities are encouraged to develop a template or framework to be used to guide supplier debriefing sessions.

Attachment 4 provides a framework to guide the supplier debriefing process.

Supplier Debriefing Meeting Conduct

Depending on the type and value of the procurement, at least two representatives from the public authority are to be present, their roles consistent with those outlined in the evaluation plan. The representatives are to be members of the evaluation team who have appropriate skill and experience to conduct and/or participate in a supplier debriefing and have a thorough knowledge of the selection process and reasoning behind decisions made throughout the process.

A probity advisor may be included in the debriefing if the procurement is high risk or there is likelihood of a supplier complaint.

Supplier debriefings are to be minuted, where appropriate, and copies of both the debriefing documentation and meeting minutes kept with procurement records.

What to Discuss and Not to Discuss

The supplier debriefing is to be specific, well considered and tailored to focus on providing:

- a detailed explanation of the selection process undertaken
- feedback specifically about the supplier's offer (only) in relation to the evaluation criteria and the rationale for the evaluation team's decisions.

It may also be appropriate to identify the number of offers received and the overall ranking of the supplier's offer within the field.

The supplier could be provided general feedback regarding the overall presentation of their offer, how it met requirements specified and if process guidelines issued in the market approach documentation were followed. Any areas of non-compliance could also be identified and discussed.

Suppliers often request feedback on pricing and it is acceptable to indicate generally if their offer was considered competitive or uncompetitive from a financial point of view. In this instance, it is important to reiterate the 'value for money' consideration not just being about price. Specifics regarding other supplier's offers or direct comparisons with other offers are not to be disclosed.

Advise the supplier of the Industry Participation Plan (IPP) or Economic Contribution Test (ECT) score of their offer. It is not appropriate to provide the ECT/IPP scores of other suppliers.

To conclude feedback to the supplier, a summary of strengths and weaknesses could be

provided and 'key opportunities for improvement' identified for future processes.

Information that may compromise confidentiality or the commercial interests of any stakeholder, which is not already publicly available, shall not be disclosed, such as:

- commercial in confidence information
- details about any other supplier's offer
- the successful supplier's price
- general or specific comparison of the debriefed supplier's offer to any other single offer.

Actual scoring results against evaluation criteria or the merits of decisions made by the evaluation team are generally not for discussion in the supplier debriefing forum.

8. Life Cycle Costing

Life cycle costing (LCC) is a methodology for identifying and calculating the total costs and expenses associated with the purchase of goods, services or integrated projects. Life cycle costs includes all initial and future costs related to the entire life cycle, including design, planning, acquisition, installation, operation, maintenance, refurbishment and disposal costs.

The supplier selection process **must** utilise life cycle costing, where appropriate, to ensure the best value goods and services are procured.

The acquisition cost of goods or some services is only one part of the cost. In reality the immediate costs may represent only a small part of the total costs incurred over the entire life cycle. In some cases, operating and maintenance costs may be the majority of life cycle costs.

Goods can have differing cost patterns or elements. For example, some goods may have a higher energy consumption rating, require a lower frequency of servicing or have more expensive costs associated with their disposal. LCC identifies these anticipated costs, enabling an informed procurement decision to be made including a more comprehensive assessment of value for money, consistent with the object of the Act.

LCC is particularly applicable to high value procurements and can also be applied to low value procurements when competing procurement options have markedly differing cost structures or usage patterns.

The four key steps in calculating the life cycle costs of a proposed procurement are to:

- develop a plan
- identify the cost elements
- create a cost structure
- discount the future costs.

This process is explained in more detail in **Attachment 5**.

There can be limitations or constraints to applying LCC. While it is relatively simple to establish the acquisition cost of a good, it can be more difficult to estimate the operational and maintenance costs incurred during its life. Similarly, choosing the 'correct' discount rate can be equally contentious. Consideration is also to be given to likely cost increases that may occur over this period.



It is important that identified costs for each year of the cycle be matched to the budget provided before an option is chosen. In some cases, different options will have budgeting implications beyond the initial purchase price which need to be considered before a supplier is selected.

9. Further Information

State Procurement Board Secretariat
Phone: (08) 8226 5001
Email: stateprocurementboard@sa.gov.au
www.spb.sa.gov.au

10. Related Policies and Guidelines

Simple Procurement Policy
Acquisition Planning Policy
Standard Market Approach and Contract Documents Guideline
International Obligations Policy
Probity and Ethical Procurement Guideline
Sustainable Procurement Guideline
South Australian Industry Participation Policy
South Australian Industry Participation Policy – Procedural Guidelines
Better Customer Charter for Business

11. Templates

Evaluation Plan
Negotiation Plan
Purchase Recommendation
Letter Acknowledging Receipt of Response
Letter to Preferred Respondent
Letter to Unsuccessful Respondent

Attachment 1 Example Standard Evaluation Method (Cost Excluded)

In this example, cost is not a component of the criteria but is used to determine a value for money ratio.

Step 1 Identify the evaluation criteria

Mandatory	Qualitative
Compliance with industry standards Qualified staff (eg holding a particular qualification or licence)	Prior Performance and Experience Capability and capacity Industry Participation Policy Delivery and response times Level of compliance with specification

Step 2 Determine the weighting for each qualitative criterion

Criterion	Weighting
Prior Performance and Experience	25%
Capability and capacity	25%
Industry Participation Policy	20%
Delivery and response times	10%
Level of compliance with specification and statement of requirements	20%

Step 3 Determine the scoring system

Rating	Definition
5	Response demonstrates that all requirements have been met in full and at least some of the requirements will be exceeded.
4	Response demonstrates that all requirements have been met in full.
3	Response demonstrates that most major and minor requirements have been met.
2	Response demonstrates that some major and minor requirements have been met.
1	Response demonstrates that only minor requirements have been met.
0	Response fails to demonstrate that any requirements have been met.

Step 4 Apply a rating and calculate the weighted scores

Criterion	Weighting	Offer 1		Offer 2		Offer 3	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Prior Performance and Experience	25%	2	50	3	75	4	100
Capability and capacity	25%	3	75	2	50	4	100
Industry Participation Policy	20%	4	80	3	60	3	60
Delivery and response times	10%	1	10	3	30	4	40
Level of compliance with specification	20%	4	80	3	60	4	80
Totals	100%		295/500		275/500		380/500
Percentage Weighted Score	100%		59		55		76

Step 5 Calculate a value for money ratio

Offer	1	2	3
Offer Cost	\$100	\$75	\$80
Percentage Weighted Score	59	55	76
Value for Money Ratio	1.69	1.36	1.05

The Value for Money ratio is calculated as follows: Offer Cost/Percentage Weighted Score

In this example, Offer 3 represents the greatest value for money against the other offers (i.e. the lowest cost for each unit of value obtained).

Note that any risks associated with the highest scoring offer are to also be considered as these may affect the purchase recommendation.

Attachment 2 Example Standard Evaluation Method (Cost Included)

Step 1 Identify the evaluation criteria

In this example, cost is a component of the criteria and is weighted and evaluated in a manner similar to other criterion.

Mandatory	Qualitative
Compliance with industry standards Qualified staff (eg holding a particular qualification or licence)	Prior Performance and Experience Capability and capacity Industry Participation Policy Delivery and response times Level of compliance with specification

Step 2 Determine the weighting for each qualitative criteria

Criterion	Weighting
Prior Performance and Experience	20%
Capability and capacity	20%
Industry Participation Policy	15%
Delivery and response times	10%
Level of compliance with specification	15%
Cost	20%

Step 3 Determine the scoring system

In addition to the general scoring system used for non-cost criteria, this example uses a separate approach for scoring the cost component.

Rating	Definition
5	Response demonstrates that all requirements have been met in full and at least some of the requirements will be exceeded.
4	Response demonstrates that all requirements have been met in full.
3	Response demonstrates that most major and minor requirements have been met.
2	Response demonstrates that some major and minor requirements have been met.
1	Response demonstrates that only minor requirements have been met.
0	Response fails to demonstrate that any requirements have been met.

Cost Score
Each offer's cost is scored by comparing it to the lowest offer using the following formula: Score for Offer 1 = (Cost of Lowest Offer) / (Cost of Offer 1) x (the highest possible non-price score).

Note that using the highest possible non-cost score (in this example 5) ensures that the cost



component is appropriate as a ratio of the total score.

Step 4 Apply a rating and calculate the weighted scores

Offer	1	2	3
Offer Cost	\$100	\$75	\$80
Cost Score	$75 / 100 \times 5 = 3.75$	$75 / 75 \times 5 = 5$	$75 / 80 \times 5 = 4.7$

Criterion	Weighting	Offer 1		Offer 2		Offer 3	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Prior Performance and Experience	20%	2	40	3	60	4	80
Capability and capacity	20%	3	60	2	40	4	80
Industry Participation Policy	15%	4	60	3	45	3	45
Delivery and response times	10%	1	10	3	30	4	40
Level of compliance with specification	15%	4	60	3	45	4	60
Cost	20%	3.75	75	5	100	4.7	94
Totals	100%		305/500		320/500		399/500
Percentage Weighted Score			61		64		79.8

Where a specific weighting is assigned for cost, Offer 3 represents the best value for money outcome (highest score). Note that any risks associated with the highest scoring offer are to also be considered as these may affect the purchase recommendation.

Attachment 3 Example Scoring Systems

Rating	Definition
5	Response demonstrates that all requirements have been met in full and at least some of the requirements will be exceeded.
4	Response demonstrates that all requirements have been met in full.
3	Response demonstrates that most major and minor requirements have been met.
2	Response demonstrates that some major and minor requirements have been met.
1	Response demonstrates that only minor requirements have been met.
0	Response fails to demonstrate that any requirements have been met.

Rating	Definition
10	Exceeds requirement
9	Meets requirement fully
8	Misses requirement on some minor aspects
7	Misses requirement on one key element
6	Misses requirement on a couple of key element
5	Has as many good elements as it has bad elements
4	Meets some elements well but mainly misses
3	Addresses some elements but mainly misses
2	Has only minor elements of the requirement
1	Has only very minor elements of the requirement
0	Doesn't have the requirement

Rating	Definition
10	The supplier has demonstrated that all requirements of the Specification will be met and it is highly unlikely that they will not be achieved and that some requirements can be exceeded.
8	The supplier has demonstrated that they have the ability to meet all the requirements of the Specification. There is minimal risk in not achieving the requirements.
6	The supplier has demonstrated that they have the ability to meet all the requirements of the Specification. There is an average risk in not achieving the requirements.
4	The supplier meets some of the requirements of the Specification; however, significant deficiencies are apparent.
2	There is evidence the physical constraints of the Specification could be met but there is a risk that the supplier will not meet the remaining requirements of the Specification.
0	There is limited or no evidence or reasonable doubt that the Specification can or will be met by the supplier.

Attachment 4 Supplier Debriefing Framework

The following table identifies suggested information to cover in supplier debriefings.

1. Welcome and Introductions
<ul style="list-style-type: none">• Introductions of public authority representatives, including the role played in the evaluation (chair, team member, probity advisor etc).• Supplier representatives to be introduced and detail their position in the organisation and involvement in the offer submitted.
2. Purpose of the Debrief
<ul style="list-style-type: none">• Outline the purpose of the debriefing, that is, to provide the supplier with information about the evaluation process and feedback about their offer in relation to the evaluation criteria, areas of strength and areas for improvement and why they were not selected as being the best value outcome.• Acknowledge the supplier's efforts in submitting an offer and that the intention of the debriefing session is to be open and frank, providing valuable feedback for both the supplier and the public authority.• Describe what will not be discussed during the debrief, such as, the merits of the decision process or the outcome, commercial in confidence information or specifics of any other offer.
3. Selection Process
<ul style="list-style-type: none">• Outline that development and approval of the evaluation plan was prior to market approach/receipt of offers.• Provide relevant information on how the evaluation was conducted, such as:<ul style="list-style-type: none">○ stages of the selection process;○ overall criteria and weightings (if appropriate); and○ scoring definitions used.• Describe the decision making methodology (such as, scoring agreed by consensus of the evaluation team).• Note the use of a probity advisor if applicable.
4. Feedback on Offers Received
<ul style="list-style-type: none">• Provide general information on the number of offers and the supplier's overall 'value for money' ranking following selection (i.e. 3rd out of 5) if appropriate.• The identity of the successful supplier may be revealed but not the price.• If the contract is subject to disclosure, provide details on where the supplier can obtain the disclosed information.
5. Feedback on Supplier's Offer
<ul style="list-style-type: none">• Provide general feedback on the offer submitted, if it complied with requirements specified and if there were any areas of non-compliance.• Following the evaluation criteria as published in the market approach documentation, provide a summary of the supplier's performance for each 'subset' of evaluation criteria



(eg Organisational Capability). Where applicable, it is to be noted when individual criteria, within the subset, stood out as being particularly high or low scoring - that is, identifying key strengths and weaknesses relating to the criteria.

- Provide the supplier's allocated IPP score.
- Comparisons in terms of the entire field of offers may be provided, for example:
 - "your response to this criteria was considered below average in relation to the field of responses"
 - "the financial aspect of your offer was strong within the field of responses"
 - "the technical solution proposed was deemed very poor compared to the quality of responses received".

Direct comparison with any other single offers is not permitted.

- Summarise 'key areas for improvement' if the supplier wishes to submit a future offer.

6. Address Specific Questions

- Provide a response to questions submitted in advance from the supplier, or give reasons why the question may not be answered.

7. Feedback to the Public Authority

- The supplier is to be invited to provide feedback on the process.

8. Meeting Close

Attachment 5 Life Cycle Costing Process

1. Develop a Plan

A life cycle costing plan is to be developed, commensurate with the value, risk and complexity of the goods and services being procured, which:

- defines the expected outputs and outcomes of the proposed LCC analysis
- delineates the scope of the proposed LCC analysis
- identifies any underlying conditions, assumptions, limitations or constraints.

2. Identify the cost elements

Five cost categories can be adopted, each comprising individual cost elements. These cost categories are:

- Acquisition costs – the initial cost of obtaining the completed goods, including the purchase price, design, planning, freight, installation and initial training costs.
- Lifetime operating costs – the costs (excluding maintenance costs) incurred during the life of the goods and services, including energy consumption, quality and safety, contract and supplier management, and insurance.
- Lifetime maintenance costs – the costs incurred in maintaining the dependability of the goods and services during their life, including performance management, consumables, spare parts, minor repairs or labour.
- Disposal costs – the costs of removing or disposing of a good after its economic life has ended, including costs to decommission, dismantle, transport, dump or transition.
- Residual value – the expected value of the good at the time it is sold or disposed of.

Each cost category contains several cost elements that determine the total costs over the life of the goods or services. These elements can be identified and estimated from analysis of historic data or previous usage patterns, the advice of experts or industry sources, or advice and data from manufacturers or suppliers.

Each cost element is to be defined, with an estimated value, for a defined number of years in which the costs are expected to occur. The time spent on estimating the cost is to be commensurate with the value, risk and complexity of the procurement. Anticipated costs relating to the procurement are to be included, such as any automatic cost of living increases or indexed costs that potentially impact on the cost of the procurement over its life.

3. Create a cost structure

Once the cost elements have been identified against each cost category, they can be placed into a LCC structure.

An example LCC structure comparing two options is discussed in section 5.

4. Discount the future costs

Procurement related costs are generally incurred over the defined life of the goods and services. While the majority of acquisition costs are generally incurred in year 0, operating and maintenance costs usually extend into the future.

In general, a dollar spent in the future is worth less than a dollar spent now. Discounting these anticipated future costs by applying an appropriate discount rate enables all costs to be reflected back to their present value (known as Net Present Value or NPV). Discounting future costs to an NPV allows meaningful comparison of purchase options with different future costs.

The discount rate is usually a combination of the current long-term expected interest rate minus the current long term expected inflation rate. However, it is important that specialist financial advice be sought before a particular discount rate is adopted. Department of Treasury and Finance can advise on the appropriate discount rate.

For the purpose of approving acquisition plans and purchase recommendations, the actual proposed expenditure of the procurement (including the value of any extension options) is to be adopted, not the NPV.

The scope of this policy does not preclude consideration of more complex evaluation methodologies, such as, for example, sensitivity analysis and Equivalent Annualised Value (EAV). The Australian/New Zealand Standard Life Cycle Costing – An Application Guide (AS/NZS 4536:1999) outlines these options in greater detail and is a useful supplement to this policy, especially when undertaking LCC analysis for more complex procurements.

5. Life Cycle Costing Analysis Example

This example uses the purchase of a new hot water unit and compares two options (A and B). In this example, the purchase price and installation costs are included as an initial one off cost, with other costs, such as service costs and energy consumption, occurring annually until the end of the estimated life of the goods.

The discount rate used to illustrate this case study is 10%. Each cost from year one to six has been discounted according to the number of years that will have elapsed since year 0.

Year 0's multiplier rate is 1. Each subsequent year's multiplier rate can be calculated as follows:

$$f = 1/(1+dr)^y \text{ where:}$$

dr = the discount rate per year (expressed as a decimal percentage)
^y = raised to the power of the year being considered (year 1=1, year 2=2 etc)

The example shows that the cost structure and effect of discounting enables a meaningful comparison between the two options, regardless of the varying costs. The example shows that although the initial purchase price of Option A is less than Option B, the total life cycle costs indicates that Option B presents better value for money.



Hot Water System Option A:

Cost Element/Cost Category	Totals (\$000)	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Multiplier Rate		1.0	0.91	0.83	0.75	0.68	0.62	0.56
1 Acquisition Costs								
Purchase Price	45	45						
Installation	5	5						
2 Lifetime Maintenance Costs								
Annual service	28	4	4	4	4	4	4	4
Programmed maintenance	6			6				
3 Lifetime Operating Costs								
Energy Consumption	14	2	2	2	2	2	2	2
4 Disposal Costs								
Removal of Unit	10							10
5 Income from Residual Value								
Scrap metal value only	(1)							(1)
TOTALS	107	56	6	12	6	6	6	15
Net Present Value	92.12	56	5.46	9.96	4.5	4.08	3.72	8.4

- The residual value amount is treated as a negative for the purpose of calculating the total (\$1K in year 6).
- The total (\$107K) is calculated by adding up each of the individual yearly totals. This total can be validated by adding up the amounts for each item listed in the row above.
- Individual NPV amounts are calculated by multiplying the individual year total by the multiplier rate (e.g. $12 \times 0.83 = 9.96$ for year 2).
- The NPV total is calculated by adding up each of the individual yearly totals (92.12).

Hot Water System Option B:

Cost Element/Cost Category	Totals (\$000)	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Multiplier Rate		1.0	0.91	0.83	0.75	0.68	0.62	0.56
1 Acquisition Costs								
Purchase Price	58	58						
Installation	10	10						
2 Lifetime Maintenance Costs								
Annual service	14	2	2	2	2	2	2	2
Programmed maintenance	3			3				
3 Lifetime Operating Costs								
Energy Consumption	7	1	1	1	1	1	1	1
4 Disposal Costs								
Removal of Unit	5							5
5 Income from Residual Value								
Scrap metal value only	(1)							(1)
TOTALS	96	71	3	6	3	3	3	7
Net Present Value	88.78	71	2.73	4.98	2.25	2.04	1.86	3.92