

Best Practice for the Maintenance of Building Assets

Procurement Practices Manual

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BACKGROUND

Physical assets comprise a significant segment of public sector resources. Those assets under the control and stewardship of public sector agencies are held and used to meet Government policy objectives through the provision of services.

The publication *Strategic Asset Management Framework* issued by Treasury in May 1997 identifies the strong link between strategic asset management and the corporate planning process within agencies, to emphasise the relationship between the quality of service delivery and the performance of assets.

Treasury has developed a suite of publications which together comprise a *Procurement Practices Manual* to assist agencies with all aspects of asset management. A list of the publications is at Appendix E.

Asset maintenance has a direct relationship to the performance of assets and, therefore, with the quality of service delivery. It is a factor that requires consideration at the time an asset is procured, throughout the operational life of the asset and finally has an impact when the time comes to dispose of the asset.

Government's assets are an investment in the State's future if managed correctly, and a potential source of future liabilities if poorly managed.

The aim of this document is to provide information that will assist agencies to manage the Government's "asset maintenance risk" and to present a consistent view to industry for all Government building asset maintenance activities.

Effective management of asset maintenance will provide better value for money and facilitate improved delivery of services for Government.

I. INTRODUCTION

I.1 Strategic Asset Management Plan

Strategic asset management is the planned alignment of assets with service demand, to achieve the best possible match of assets with agency service delivery strategies. This involves the process of controlled acquisition, use and disposal of assets to make the most of their service delivery potential and management of the risks and costs over the asset life.

The strategic management of assets is achieved by the systematic management of all decision making processes taken throughout the useful life of assets.

Asset maintenance is an essential factor in establishing and managing the Strategic Asset Management Plan.

I.2 Asset Maintenance

Because building assets deteriorate or wear out over time, they need to be maintained if they are to continue to provide a satisfactory level of service to the Government and the community. Currently, it is estimated that in the order of \$25 million per annum is spent by agencies on building asset maintenance. Improvements in the delivery of asset maintenance will improve the effectiveness and efficiency of service delivery and ensure greater returns from expenditure of maintenance budgets.

Notwithstanding the current level of expenditure by agencies, building maintenance has consistently attracted only tacit recognition of its importance. This has manifested itself in a general lack of understanding of both its scope and its significance to the building procurement and management processes. As a consequence, a backlog of repair and maintenance work has accumulated. The expenditure required to maintain the State's building assets continues to grow at an unacceptable rate. Maintenance neglected or deferred is not maintenance avoided; it simply transfers greater and sometimes unexpected financial burdens onto later budgets.

Management of asset maintenance requires agencies to develop effective asset maintenance policies. These policies must integrate and quantify the asset maintenance with service strategies and required asset performance standards. They must result in the provision of maintenance appropriate to the overall portfolio management and individual facility needs. Asset maintenance must always relate directly to service delivery needs.

Asset maintenance must be considered at every stage in the life cycle of a building, from the initial acquisition and then throughout the building's operational life until disposal.

2. ASSET ACQUISITION, REDEVELOPMENT AND LIFE CYLCES

2.1 Project Initiation Process

The *Project Initiation Process*, issued by Treasury in April 1997, requires agencies to relate the acquisition or redevelopment of their assets to the delivery of their outputs. This is a significant component of strategic asset management. It also ensures that new investments in building assets are made only where they are the most appropriate means to support improved service delivery.

In generating options under the *Project Initiation Process*, it is essential that the lifetime cost of asset maintenance is quantified and takes into account deferred and current maintenance liabilities on existing properties. Only when the maintenance is identified and costed for each option, is it possible to make effective comparison with alternative service delivery options.

2.2 Relationship between Design and Asset Maintenance

Maintenance and design are frequently treated as two separate activities that have no interrelationship. However, the impact that conceptual and detailed design of a building and its components will make on the lifetime cost of asset maintenance is significant.

A design may be executed within the terms of the brief but fail to perform properly if the brief is inadequate. Furthermore, even if the perfect design is executed from an ideal brief, this design has to be developed and constructed effectively. The briefing, design and construction processes therefore have a direct impact on the long term asset maintenance of any built asset.

Optimal lifetime asset maintenance costs will only be achieved if there exists a clear set of objectives that are mandatory throughout the life cycle of the building. These objectives need to be stated in the project brief, then implemented through design, construction and ongoing management of the asset. Experience gained with asset maintenance needs to be reflected in future project briefing, to achieve continuous improvement.

2.3 Life Cycles, Obsolescence and Value

Buildings are, in general terms, very durable and, if properly maintained, the structures may last for centuries. Even if maintenance is indifferent, a life exceeding 50 years is quite realistic. However, during the life cycle of the building many components will need replacement, some of them several times. Whether it is worthwhile to continue to repair and renew parts of the building will depend on how well the building continues to satisfy the service delivery needs for which it is being used.

In economic terms, past expenditure on asset maintenance is not relevant to the assessment, and only the relationship between future costs and service delivery is significant. Any consideration of building life must take account of the notion of obsolescence, which relates to economic considerations, directly or indirectly.

2.4 Net Present Value

Assessment of lifetime costing between alternative asset maintenance strategies requires that a financial assessment be undertaken. The Net Present Value technique set out in the publication *Project Initiation Process* is suitable for this purpose.

All discounting techniques require that an assumption be made about the maintenance lifespan of the materials and equipment used in the building. It is essential that these assumptions are realistic if viable comparisons are to be made and lifetime costs optimised.



3. LEGISLATIVE OBLIGATIONS

The legislative framework for building standards is principally concerned with matters affecting health and safety, and is set out in legislation supplemented by detailed regulations.

Legislative provisions can be divided into those which control the design and physical requirements of new buildings, alterations and extensions, such as the *Building Code of Australia* and the *Construction Work Code of Practice*, and those which relate to the safety of the workplace itself. The latter mainly come under the provisions of the *Work Health and Safety Act 2012* which imposes mandatory health and safety obligations on persons conducting a business or undertaking, officers, workers as well as other persons at the workplace (including visitors, guests and customers).

In particular, that Act imposes a duty to:

- provide and maintain a work environment that is without risks to health or safety;
- provide and maintain safe plant, structures and systems of work;
- ensure safe use, handling and storage of plant, structures and substances;
- provide information, training, instruction and supervision;
- provide adequate facilities for the welfare of workers;
- monitor health of workers and conditions of the workplace; and
- where applicable, eliminate risks to health and safety so far as is reasonably practicable and where this is not possible, to minimise those risks.

The *Work Health and Safety Regulations* as well as various Codes of Practice and Interpretive Guidelines detail specific requirements for specific industries and/or risk areas.

A breach of the requirements of the Act, its regulations or Codes of Practice can result in persons being personally liable and subject to significant penalties.

It is therefore essential that agencies (including relevant officers) exercise due diligence to ensure compliance with health and safety obligations. Agencies should ensure that management of asset maintenance is at all times the direct responsibility of persons thoroughly experienced in the field of asset maintenance and that adequate funding is always available to fulfil necessary statutory obligations.

4. ASSET MAINTENANCE STRATEGIES

4.1 General

Asset maintenance is an essential component in all phases of the life of the asset, from decisions that are made in the procurement process through to the assessed value of the asset when it is no longer required for service delivery.

Asset maintenance needs to be considered within a framework that includes:

- Standards, in new construction or redevelopment projects, that optimise the lifetime costs of asset maintenance;
- criteria for the control and management of asset maintenance on existing buildings;
- priorities that direct resources to the areas of greatest risk; and
- strategies to optimise the disposal value of the asset.

Agencies must develop and adopt adequate asset maintenance strategies and allocate sufficient resources to allow these strategies to be put into effect.

Critical factors in the delivery of asset maintenance include the assessment of the assets, maintenance budgets, risk management and benchmarks.

4.2 Assessment of Assets

Maintenance management of a portfolio of assets requires an adequate understanding of what the portfolio comprises, the nature of the assets and their condition. Management imperatives and attitudes to asset maintenance will determine how comprehensive such information needs to be.

Management of the asset assessment process needs to focus on the agency Corporate Plan, Strategic Asset Management Plan and service delivery. It requires the ability to make strategic decisions and value judgements about issues and how they impact on the agency, as well as the ability to prepare the asset assessment brief and manage the maintenance contracts.

The strategic approach to the utilisation of assets to achieve the delivery of outputs should be undertaken by agencies. Management of the asset assessment process should, therefore, be retained within the agency.

The task of assessing assets is not considered to be the core business of agencies and it can be undertaken by consultants from the private sector. Assessments, and ongoing update of those assessments from year to year, constitute a task that should be defined in a comprehensive assessment brief. The brief should ensure that each assessment encompasses all the practical aspects of asset maintenance needed for each building and identifies the financial and operational risks.

The extent of assessment data collected should be sufficient only to achieve the asset maintenance objectives. Expenditure of resources on collecting large quantities of data can be counterproductive: it can obscure the objectives and result in the need for considerable resources each year to update the data as work is undertaken and/or additional demands for maintenance arise.

4.3 Maintenance Budgets

Agencies must budget for sufficient funding to achieve their asset maintenance strategies. Budgets must include for all statutory and other maintenance that is required to maintain the value of Government's built assets and to meet legislative obligations. Inadequate funding will result in lowered property values and an increased risk to the agency and to Government.

Budgets required for maintenance are dependent on the process used to control that expenditure. Achieving a balance between quality and cost is the challenge for every agency.

Historically, asset maintenance budgets have been based on routine and breakdown maintenance and have not been linked to the agency's Corporate Plan, the Strategic Asset Management Plan, or service delivery. The funding available has not always been directed in a planned manner to the area of greatest need, and this has resulted in wasteful expenditure.

Realistic asset maintenance budgets cannot be set until the agency's asset maintenance objectives have been established and an assessment of the building assets has been completed.

Some risks associated with asset management are unpredictable and, when they are realised, require that significant expenditures be incurred. Asset maintenance budgets need to be planned to take these risks into consideration.

The potential financial impact of unforeseen major expenditure on asset maintenance in any one financial year will reduce as the financial year progresses. The asset maintenance budget has to be managed to take this factor into account.

It is essential that agencies allocate to asset maintenance sufficient funds to ensure that both the required quality of service delivery and the value of the asset are maintained.

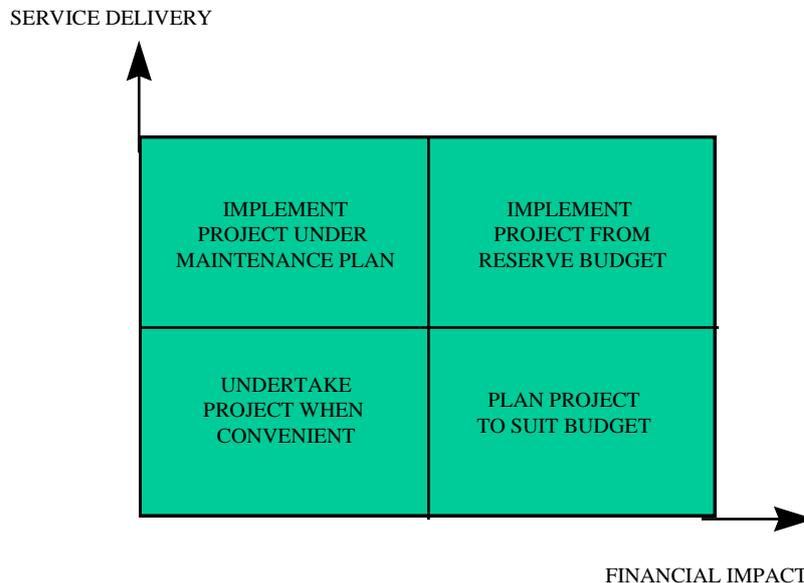
4.4 Risk Management

A risk management strategy is essential to ensure continuity of service delivery and, at the same time, ensure that financial expenditure is contained within the asset maintenance budget.

The asset assessment process will identify the level of threat to service delivery and the potential financial impact. These risks require analysis to establish means by which they may be minimised. Reduction of these risks may be achieved by expenditure on the assets and/or by changes in service delivery.

Major expenditure to manage asset maintenance risks needs to be included in the asset maintenance budget planning process.

The asset maintenance risks, expressed in terms of service delivery and financial impact, can be represented diagrammatically as follows:



Agencies need to have a budget strategy to manage asset maintenance issues that could have a significant impact on service delivery, as well as a high financial impact.

Risk can be managed under specific contractual arrangements. This is discussed in Section 5, Management of Maintenance.

4.5 Benchmarks

Asset maintenance activities need to be measured to ensure that resources that are being utilised are appropriate to the service delivery being provided. Benchmarks are used for this purpose.

Benchmarks are a tool to assist agencies to establish that their assets are being effectively managed. The minimum number of benchmarks should be used for the agency to achieve accountability.

Benchmarks should always be specific to the activity, the application and the location of a building asset. Published benchmarks are useful as a guide, but, each agency should develop its own asset maintenance benchmarks for its own assets and activities.

Initial benchmarks should be established at the asset assessment stage and refined as knowledge of the asset is developed.

Performance against all benchmarks should be reviewed on a routine basis to allow prompt remedial action.

5. MANAGEMENT OF MAINTENANCE

5.1 General

Effective management of asset maintenance occurs at three hierarchical levels:

- strategic overview - ensures that asset maintenance objectives are consistent with the agency Corporate Plan and Strategic Asset Management Plan. Asset maintenance objectives are established and reviewed at this level and include a strategic involvement throughout the life cycle of the building. These objectives must be established by the agency. Typical asset management objectives that an agency may have are included under Appendix A;
- management of asset maintenance strategies - involves management of asset maintenance tasks to achieve objectives. This management is normally undertaken by a consultant. Performance at this level is reviewed against objectives; and
- asset maintenance management - incorporates the assessment and review of assets and the execution of the maintenance tasks. Maintenance management is normally undertaken by a contractor. Typical asset maintenance management tasks are included under Appendix B. Performance at this level is reviewed against benchmarks.

5.2 Maintenance Organisation

The maintenance organisation is responsible for the planning, control and execution of maintenance operations. This may be wholly in-house or, as is now more likely, it may include external bodies, such as consultants and contractors. In considering the maintenance-management organisation to be used, the relationship that this body will have with the agency must be carefully taken into account. The nature of this interface will profoundly influence operational methods and management systems.

Establishing maintenance strategies and management of maintenance activities can be carried out either in-house or under contract with the private sector. However the strategic overview of asset maintenance should always be retained in-house. This function allows the agency to exercise final control over the asset maintenance process and review the objectives as necessary.

Maintenance management must be recognised as a specialised field and should not be undertaken by persons without appropriate qualifications and experience. Agencies should, therefore, seek professional advice about their asset maintenance needs before attempting to establish a maintenance-management regime.

5.3 Consultants and Contractors

The increasing trend to contract the management of maintenance has led to the rise of organisations that are able to provide clients with the maintenance-management service that they require.

Many maintenance contractors have embraced the concept of strategic asset management and offer complete maintenance services, ranging from the preparation of a Strategic Asset Maintenance Plans to the management of day to day maintenance. Agencies should deal only with contractors that are professional in their approach to asset maintenance, that employ staff thoroughly experienced in the management of maintenance and are quality assured.

Agencies that have in-house staff experienced in asset maintenance may wish to employ external contractors. Agencies that do not have maintenance management staff will require a consultant to manage maintenance strategies and the selection and management of the contractor.

The publication *Best Practice for Engagement of Consultants* was issued by Treasury in March 1998. This publication will assist agencies in the processes involved in the selection and engagement of suitable consultants to undertake the management of asset maintenance strategies. Reference should also be had to the Treasurer's Instruction 1216 on the Use and Engagement of Consultants.

When engaging consultants and contractors to either oversee or undertake maintenance works, agencies should note the requirements of the *Work Health and Safety Act 2012*, the *Work Health and Safety Regulations* and the various Codes of Practice and Interpretive Guidelines that detail specific requirements for specific industries and/or risk areas.

In particular agencies should be aware of the obligations imposed by the *Construction Work Code of Practice* on the "principal contractor" of a construction project as well as the obligations and requirements imposed on other involved parties. In this regard it should be noted that the *Construction Work Code of Practice* states that the "principal contractor" for the purposes of the Regulations is to be the person conducting a business or undertaking that commissions a construction project unless that person appoints another person to be the principal contractor and authorises such person to have management or control of the workplace and discharges the duties of the principal contractor.

If an agency is in doubt about its legal obligations under the Act, Regulations or Codes, or has any questions in relation to these matters, it should seek advice from Crown Law.

Agencies should also be aware of the requirements of others codes of practice on specific hazards and control measures relevant to the construction industry including:

- Demolition Work;
- Excavation Work;
- Managing the Risk of Falls at Workplaces;
- Managing Noise and Preventing Hearing Loss at Work;
- Preventing Falls in Housing Construction;
- Confined Spaces;
- Hazardous Manual Tasks;
- How to Manage and Control Asbestos in the Workplace; and
- How to Safely Remove Asbestos.

Detailed information on these requirements is available from the Worksafe Tasmania website at www.worksafe.tas.gov.au.

5.4 Quality Based Selection

Traditionally, the roles of the client and the consultant were viewed as symbiotic, and the roles of the client and the contractor as adversarial. Relationships between the client and consultant have also sometimes become adversarial, particularly when the project brief has been inadequate.

Maintenance management of Government built assets must be structured to ensure that consultants and contractors identify with the needs of the agency. The consultants and contractors must be prepared to develop a relationship that ensures that the long-term best interests of the agency are served.

Consultant commissions must be based on comprehensive briefing documentation and selection must be based on merit. A quality based selection process is set out in the publication *Best Practice for Engagement of Consultants*.

Contract specifications for asset maintenance must also include criteria that allow selection on quality as well as price. The quality of asset maintenance is of paramount importance when the contractor is made responsible for ensuring that building assets are fit for delivery of client services.

5.5 Types of Contract

Management of the different trade contractors involved in asset maintenance can be undertaken either by in-house staff, by the consultant or by the maintenance contractor. Each option is viable, but each has a different impact on accountability.

Should an agency decide to manage individual trade contractors in-house, or through a consultant, then each trade contractor will require a separate contract and the coordination of maintenance activities will be the responsibility of the agency or the consultant. The different trade contractors need to be controlled, decisions made on issues as they arise and adequate staff must be available to review the work undertaken and manage the payments. All costs are met by the agency, including the cost of equipment failure, therefore all the risks are taken by the agency. This type of maintenance contract is best suited to those agencies with assets that are few in number and which are not served by complex building services.

An alternative is for the agency and/or a consultant to set out performance parameters for all trades and tender the work to contractors who specialise in comprehensive asset maintenance. The contractor then undertakes all the coordination of trades to achieve the required outcome. This form of contract is normally long term in order to encourage the contractor to provide a quality service. The agency reviews performance and receives consolidated accounts for the maintenance performed either direct or through the consultant. The cost of equipment failure can be borne by the contractor or by both the contractor and the agency under a risk sharing arrangement. This type of maintenance contract is best suited to agencies with a large number of assets and assets of a complex nature.

Between these two forms of contract there is a series of options which agencies may wish to adopt, consisting of combinations of maintenance managed by trade and maintenance based on performance.

5.6 Performance Contracts Based on Energy Savings

Private industry is currently offering agencies capital funding for upgrading of building assets. The capital expenditure provides for asset improvements and changes to equipment and controls that result in reductions in energy use and lower building operating costs.

These offers are also subject to agencies committing to long term operation and maintenance contracts on the building with the service provider.

Energy cost savings are guaranteed and provide the cash flow to service capital repayments and the operation and maintenance costs. When the capital sum has been repaid, the energy savings are available to the agency less the ongoing cost of operation and maintenance.

Some of the risks associated with these forms of contract are discussed in Appendix C.

It is normal to engage a consultant that specialises in the review of performance contracts, to identify the risks and assess the potential financial and other benefits that will accrue to the agency. On projects exceeding \$100 000 in capital value, the financial analysis shall be submitted to the Budget Management Branch of Treasury for review before proceeding.

Agencies should also ensure that the performance contract is not construed as a finance lease. Treasurer's Instruction *TI 502 Leases* specifically precludes heads of agencies from entering into arrangements which could be classified as a finance lease. Only the Treasurer is empowered to enter into a finance lease.

5.7 Management of Maintenance Budget

Budgets for asset maintenance have traditionally been difficult to control. If the maintenance budget has been found to be inadequate during the financial year, agencies have had to source more funding to meet expenditure. This approach is no longer appropriate.

Expenditure on routine and planned maintenance is quantifiable, however expenditure on breakdown maintenance and other risks is not. Funding for these risks needs to be identified in the maintenance budget. Agencies should develop strategies that address the most urgent issues early in the financial year. As the financial year progresses, this strategy needs to allow for the budget to be progressively reduced such that, as the need for breakdown funds declines, expenditure on addressing other risks can be increased.

Generally, management of expenditure on routine maintenance is undertaken by the maintenance contractor, with consolidated billing at periods to suit the agency. Expenditure on all other forms of maintenance, planned and breakdown alike, is managed by the agency, or the consultant, to ensure that the budget is not exceeded.

In other circumstances, where all maintenance risks have been transferred to the maintenance contractor for a fixed contractual sum, maintenance expenditure is fixed.

Routine reports on the asset maintenance budget must be prepared together with an assessment of the risks and how those risks are being managed.

5.8 Accountability

Management of asset maintenance must allow for delegation of authority and for accountability, whether that work is being managed in-house, by a consultant or by a contractor.

When an asset maintenance strategy is based on performance criteria, the selected contractor should be given the authority to take actions that will allow that performance to be delivered, and be held accountable for that performance. Similarly, when an asset maintenance strategy is based on day to day management by in-house staff or a consultant, then the maintenance manager must be given the authority to take action and be held accountable for the performance of the asset.

Agencies must clearly define where accountability rests in the asset maintenance management regime.

6. ENVIRONMENTAL AND ENERGY MANAGEMENT

6.1 Building Environmental Conditions

It is now generally accepted that the health and comfort of a building's occupants is directly linked to the quality of indoor environment. However, it is unlikely that problems with the indoor environment will ever be eradicated. It is, therefore, important to understand the issues in order that management strategies can be implemented to minimise occupant dissatisfaction.

Indoor air quality is not the only issue which can cause dissatisfaction with the indoor environment. Appendix D provides a list of potential causes for dissatisfaction with the indoor environment.

Agencies should establish processes for handling complaints from building occupants about the indoor environmental conditions. These processes should address the issues in a structured manner. Agencies may choose to use the services of a consultant to manage these issues.

6.2 Energy Management

The Government is committed to the economical use of energy in all its buildings, both owned and leased.

Nearly every building uses more energy than it needs to meet its objectives. The reasons for this are both technical and managerial. The building itself can be poorly designed, engineering services inefficient, control systems wasteful, operation maintenance poor, and occupants, by their actions, can cause energy to be wasted.

In new buildings and major redevelopments, there is an opportunity to make substantial improvements to the energy performance of a building and its resultant energy consumption. When seeking to make improvements in existing buildings, however, the opportunities are more limited.

The process of identifying opportunities for energy savings in existing buildings involves a structured review of energy use. This is known as an energy audit. An energy audit encompasses the following:

- survey of energy use;
- detailed evaluation of building and services;
- identification of energy saving opportunities; and
- cost benefit analysis.

A full energy audit can recommend measures that save up to 20 per cent of the annual energy bill with a simple payback period of two years or less.

Full energy audits will be required only occasionally. They are an invaluable way of giving management a strategic understanding of energy utilisation, the scope for savings and how these savings would best be achieved.

Agencies are advised to retain consultants to conduct an energy audit on each of their building assets and review the use of energy, on an annual basis, to ensure that improved performance is maintained.

Responsibility for energy management should be placed with those charged with the responsibility for the management of asset maintenance. This may be determined by in-house resources or be part of a consultant commission for the management of maintenance.

7. APPENDIX A – ASSET MAINTENANCE MANAGEMENT – OBJECTIVES

The objectives of asset maintenance may include, but not necessarily be limited to, the following:

- establish a client focus for asset maintenance;
- optimise investment in new or redeveloped assets;
- meet operational needs through effective maintenance strategies;
- satisfy the requirements of asset planning;
- establish and monitor the condition of all buildings and their services;
- minimise risks associated with the asset portfolio, including:
 - *Work Health and Safety Act 2012* risks;
 - *Disability Discrimination Act 1992 (Commonwealth)* risks;
 - service failure risks; and
 - financial risks associated with the budget and property values;
- contain maintenance expenditure within the budget;
- generate efficiencies through maintenance management and innovation; and
- optimise the disposal value of the asset.

8. APPENDIX B – ASSET MAINTENANCE MANAGEMENT – TASKS

Tasks associated with the management of asset management strategies include, but are not necessarily limited to, the following tasks:

- manage maintenance to achieve the asset maintenance objectives;
- establish, monitor, and report on asset performance benchmarks;
- overview operation of the buildings services and systems;
- provide strategic advice;
- preparation of maintenance contract documentation;
- management of the tender process to achieve probity and fairness;
- adoption of a Quality Based Selection process leading to the selection of the maintenance contractors;
- provide contract administration services;
- overview maintenance contractors' quality assurance processes;
- manage asset maintenance accounts to achieve consolidated billing;
- manage the use of energy;
- provide a quarterly report on the following for each asset :
 - significant achievements;
 - significant risks and risk management responses;
 - maintenance expenditure against budget;
 - performance against benchmarks; and
 - energy management.
- provide an annual report on 30 June each year on how the objectives of the commission have been satisfied, including the following for each asset:
 - asset condition;
 - asset valuation;
 - performance of contractors;
 - energy use and efficiency;
 - management initiatives to be considered;
 - maintenance expenditure; and
 - upgrading expenditure.

9. APPENDIX C – ENERGY PERFORMANCE CONTRACTS – RISKS

General

The Government is promoting agencies to engage in strategic asset management and best practice in facilities management. It follows that private industry initiatives, designed to improve assets while reducing operating and maintenance costs are, in principle, supported by Government. Performance contracts based on energy savings represent one of those initiatives

These initiatives must be thoroughly assessed to ensure that risks to agencies and Government are appropriately managed. Some of those risks are set out below.

Probity

Performance contracts do not normally involve traditional tendering procedures. This results in the need for processes that ensure that the market place is treated fairly, that Treasurer's Instructions and the Government policy guidelines are complied with and that value for money is achieved.

Agencies will need to assure themselves, through the use of advisers, that in every case the interests of Government and the agency are being met.

Processes for entering into performance contracts, together with criteria to assess the proposals, need to be developed by an agency to ensure that acceptable levels of probity are achieved.

The preferred contractor must also recognise that it will need to audit, assess and present its proposals in a manner that achieves acceptable levels of probity.

Strategic Asset Management

All significant proposals for performance contracts must directly relate to an agency's Strategic Asset Management Plan and outputs. It is, therefore, necessary for proposals exceeding \$100 000 in capital value to be tested under the Project Initiation Process (PIP).

Agency Output Changes

Changes in outputs, or the way in which outputs are delivered, may have a significant impact on the manner in which assets are used to deliver the outputs. Performance contracts and the energy saved are directly impacted by changes to building-space utilisation and/or hours of building use. In addition, if existing equipment is replaced, or new equipment installed in the building, energy use will either rise or fall. As the period of the operation and maintenance contract is usually of a long term nature (normally five years), the likelihood of these changes occurring is high, and therefore the impact on the contract is high.

Agencies will not normally have the expertise to assess the impact of such changes to service delivery, therefore a formal independent arbitration process to assess the impact of any changes is essential.

Project Briefs

Contractors specialising in performance contracts tend to concentrate expenditure in areas which will show the greatest financial return and minimise risk to the contractor.

Expenditure priorities should relate directly to the agency asset and service delivery needs, with the addition of those areas that show adequate financial return to service the capital investment.

Agencies must prepare a project brief specifically related to their needs and ensure that the proposal satisfies the brief.

Financial

The PIP ensures that a rigorous financial analysis is made of alternative asset improvement strategies. Agencies should undertake a financial analysis of any performance contract. On projects exceeding \$100 000 in capital value, the financial analysis should be submitted to the Budget Management Branch of Treasury for review before proceeding.

A detailed breakdown of the capital, operation and maintenance expenditure is essential to ensure that value is being provided in each component. The procurement process may sometimes require the adoption of an “open book” disclosure of costs incurred by the contractor to ensure that value for money is being provided.

Agencies should also ensure that the performance contract is not construed in a form which would be classified as a finance lease. Treasurer’s Instruction *TI 502 Leases* specifically precludes heads of agencies from entering into arrangements which could be classified as a finance lease.

Contractors

Contractors must have extensive experience and a proven track record in the field of undertaking performance contracts. Risks include:

- default by the contractor, after a number of years, which may leave the agency with a seriously deteriorated asset;
- shell companies which are formed by consortia and have minimal capital backing. Should a company failure occur, this can result in a financial loss to the agency;
- loss of key contractor or agency personnel which leads to a loss of intelligence and goodwill during the period of the operation and maintenance contract; and
- unrealistic expectations by agencies of what performance contracts should deliver.

Contracts

The total capital expenditure includes costs of preparing the original proposal, project management costs, design costs and contingency allowances. These components need to be assessed to ensure that they represent value for money.

Conditions of contract that apply to normal projects are not adequate to manage the risks associated with performance contracts.

Contract risks will differ between contracts. They need to be identified and suitable conditions of contract developed to ensure that agencies are able to manage those risks for the duration of the contract. Consultants engaged by agencies should be able to provide advice on the appropriate forms of contract.

Operation and Maintenance

All performance contracts have clauses that commit the agency to an operation and maintenance contract, the duration of which may be based on the payback of the initial capital investment. Throughout this period, the contractor will have responsibility for operation and maintenance and will make a separate charge for this service.

The financial success of a performance contract is almost wholly dependant on the contractor controlling environmental conditions in the building in order to achieve operational energy savings. Risks exist that acceptable conditions will not be maintained which can result in increased levels of complaint. Definitions of acceptable conditions must be established by agencies for each performance contract.

Maintenance of an asset includes one or more of the following:

- statutory maintenance;
- breakdown maintenance;
- routine preventative maintenance; and
- comprehensive maintenance.

Estimating the value of a maintenance contract is difficult because much depends on the quality of the service delivered. Furthermore, the contractor will want to minimise risk in any long term contract by transferring financial responsibility for unpredictable major maintenance costs onto the agency.

Agencies must address risks associated with operation of services, the valuation of maintenance contracts and the management of major maintenance costs.

10. APPENDIX D – BUILDING ENVIRONMENTAL CONDITIONS

Potential causes of dissatisfaction with the indoor environment include:

- natural light;
- external views;
- work station comfort;
- space and privacy;
- air pollutants;
- body odour;
- draughts;
- quantities of fresh air;
- contaminated fresh air;
- microbial growth;
- volatile organic compounds;
- dust;
- office aesthetics;
- temperature and humidity;
- noise and vibration;
- lighting;
- personal relationships; and
- type of work.

II. APPENDIX E – ASSET MANAGEMENT PRACTICE MANUALS

The following documents relate to the contents of this

Published Booklets

Project Initiation Process, April 1997

Best practice for the Engagement of Consultants, March 1998

Best Practice for the Maintenance of Building Assets, June 1998

Contractual Documentation, Delegation and Risk, December 1998

Tasmanian Annexure to the National Code of Practice for the Construction Industry

Related Booklets

Guidelines for the Recording, Valuation and Reporting of Non-Current Physical Assets in Tasmanian Government Departments, June 1995

Strategic Asset Management Framework, May 1997

Tasmania's Financial Management Reform Strategy, July 1996 and September 1997

