Parkes Shire Council

Special Variation Application
Part B

Criterion 5
Annexures

Productivity Improvements and Cost Containment Strategies

Annexure 5.a

Parkes Shire Council
Risk Review Committee
Charter

PARKES SHIRE COUNCIL

Risk Review Committee Charter

1. Objective:

The Objective of the Risk Review Committee (Committee) is to provide independent assurance and assistance to Parkes Shire Council on risk management, control, governance and external accountability responsibilities.

2. Authority

The Council authorises the Committee to act within the scope of its role and responsibilities as set out in this Charter.

3. Composition and Tenure

The Committee structure will be reviewed at the completion of 2011/2012 to ensure it is meeting the needs of Council however this would not be to reduce its size as the current model is essentially at a minimum and will consist of:

3.1 Members (voting)

- Chair Mr Grahame Marchant
- Deputy Mayor Councillor John Magill
- Alternate Cr Rep Councillor Robert Haddin (In absence of Deputy Mayor)
- Independent Mr Tony Perry

3.2 Attendees (non-voting) - Parkes Shire Council

- Kent Boyd, General Manager
- Cr Robert Haddin (When not acting as Alternate Cr Rep)
- Les Finn, Director of Information and Corporate Services
- Peter McFarlane, Finance Manager
- Brad Byrnes, Manager Governance and Corporate Planning

3.3 Invitees (non-voting) for specific Agenda items - as requested by the Committee

- Council's External Auditor
- Other Councillors and/or Officers of Parkes Shire Council as required

4. Role and Responsibilities

The Committee has no executive powers, except those expressly provided by the Council.

In carrying out its responsibilities, the Committee must at all times recognise that primary responsibility for management of Council rests with the Council and the General Manager as defined by the Local Government Act.

The responsibilities of the Committee may be revised or expanded by the Council from time to time. The Committee's responsibilities are:

4.1 Risk Management

- Review whether management has in place a current and comprehensive risk management framework and associated procedures for effective identification and management of business and financial risks, including fraud.
- Review whether a sound and effective approach has been followed in developing strategic risk management plans for major projects or undertakings.
- Review the impact of the risk management framework on its control environment and insurance arrangements; and
- Review whether a sound and effective approach has been followed in establishing business continuity planning arrangements, including whether plans have been tested periodically.

4.2 Control Framework

- Review whether management has adequate internal controls in place, including over external parties such as contractors and advisors.
- Review whether management has in place relevant policies and procedures, and these are periodically reviewed and updated.
- Progressively review whether appropriate processes are in place to assess whether policies and procedures are complied with.
- Review whether appropriate policies and procedures are in place for the management and exercise of delegations; and
- Review whether management has taken steps to embed a culture which is committed to ethical and lawful behaviour.

4.3 External Accountability

- Satisfy itself the annual financial reports comply with applicable Australian Accounting Standards and supported by appropriate management sign-off on the statements and the adequacy of internal controls.
- Review the external audit opinion, including whether appropriate action has been taken in response to audit recommendations and adjustments.
- To consider contentious financial reporting matters in conjunction with Council's management and external auditors.
- Review the process in place designed to ensure financial information included in the annual report is consistent with the signed financial statements.
- Satisfy itself there are appropriate mechanisms in place to review and implement, where appropriate, relevant State Government reports and recommendations.
- Satisfy itself there is a performance management framework linked to organisational objectives and outcomes.

4.4 Legislative Compliance

- Determine whether management has appropriately considered legal and compliance risks as part of risk assessment and management arrangements.
- Review the effectiveness of the system for monitoring compliance with relevant laws, regulations and associated government policies.

4.5 Internal Audit

- Review the internal audit coverage and Internal Audit Function Strategic Plan, ensure the plan has considered the Enterprise Risk Management Implementation Plan and monitor and review the plan.
- Consider the adequacy of internal audit resources to carry out its responsibilities, including completion of the approved Internal Audit Function Strategic Plan.
- Review all audit reports and consider significant issues identified in audit reports and action taken on issues raised, including identification and dissemination of better practices.
- Monitor the implementation of internal audit recommendations by management.
- Periodically review this Risk Review Committee Charter to ensure appropriate organisations structures, authority, access and reporting arrangements are in place.
- Periodically review the performance of Internal Audit.

4.6 External Audit

- Provide input and feedback on the financial statement and performance audit coverage proposed by external audit and provide feedback on the external audit services provided.
- Review all external plans and reports in respect of planned or completed external audits and monitor the implementation of audit recommendations by management.
- Consider significant issues raised in relevant external audit reports and better practice guides and ensure appropriate action is taken.

4.7 Responsibilities of Members

Members of the Committee are expected to:

- Understand the relevant legislative and regulatory requirements appropriate to Parkes Shire Council.
- Contribute the time needed to study and understand the papers provided.
- Apply good analytical skills, objectivity and good judgement.
- Express opinions frankly, ask questions that go to the fundamental core of issues and pursue independent lines of enquiry.

5. REPORTING

At the first Committee meeting after 30 June each year (Excluding 2011), Internal Audit will provide a performance report of:

- The performance of the Internal Audit Function for the financial year as measured against agreed key performance indicators.
- The approved Internal Audit Function Strategic Plan of work for the previous financial year showing the current status of each audit.

The Committee may, at any time, consider any other matter it deems of sufficient importance to do so. In addition, at any time an individual Committee member may request a meeting with the Chair of the Committee.

6. ADMINISTRATIVE ARRANGEMENTS

6.1 Meetings

The Committee will meet at least four times per year, with one of these meetings to include review and endorsement of the annual audited financial reports and external audit opinion.

The need for any additional meetings will be decided by the Chair of the Committee, though other Committee members may make requests to the Chair for additional meetings.

A forward meeting schedule, including meeting dates and agenda items, will be agreed by the Committee each year. The forward meeting schedule will cover all Committee responsibilities as detailed in this Audit Committee Charter.

6.2 Attendance at Meetings and Quorums

A quorum will consist of all voting Committee members, and a majority of the non-voting members including at least one member of the Executive.

The Committee may request the Manager Finance or any other employees to participate for certain agenda items, as well as the External Auditor.

6.3 Secretariat

Secretariat support will be provided to the Committee. The Secretariat will ensure the agenda for each meeting and supporting papers are circulated, at least one week before the meeting, and ensure minutes of the meetings are prepared and maintained. Minutes shall be circulated to each member within three weeks of the meeting being held and forwarded to Council's Executive notation. Minutes shall then be reported to Council for endorsement.

6.4 Conflicts of Interest

Committee members must declare any conflicts of interest at the start of each meeting or before discussion of a relevant agenda item or topic. Details of any conflicts of interest should be appropriately minuted.

Where members or invitees at Committee meetings are deemed to have a real or perceived conflict of interest, it may be appropriate they be excused from Committee deliberations on the issue where the conflict of interest may exist. The final arbiter of such a decision is the Chair of the Committee.

6.5 Induction

New members will receive relevant information and briefings on their appointment to assist them to meet their Committee responsibilities.

6.6 Assessment Arrangements

The Chair of the Committee will initiate a review of the performance of the Committee at least once every two years. The review will be conducted on a self-assessment basis (unless otherwise determined by the Chair), with appropriate input from management and any other relevant stakeholders, as determined by the Chair.

6.7 Review of Audit Committee Charter

At least once every two years the Risk Review Committee will review this Risk Review Committee Charter.

The Risk Review Committee will approve any changes to this Risk Review Committee Charter.

Annexure 5.b

Parkes Shire Council
Project Implementation
& Management Program

Methodology Guide

PARKES SHIRE COUNCIL

PROJECT IMPLEMENTATION & MANAGEMENT PROGRAM (PIMP)

METHODOLOGY GUIDE

Disclaimer & Reference to PMCOR

1. Scope

The City of Ryde (hereafter referred to as COR) and Parkes Council (hereafter referred to as PC) acknowledges the following by entering into this agreement:

(a) PC wish to use the "Project Management – City of Ryde" (PMCOR) Project Management templates, developed by the COR for Council's projects.
(b) The COR is prepared to licence PC for the use and adaptation of the PMCOR templates to aid in the management of PC projects by its employees and / or contractors.

2. Term:

The purchase and use of material is outright with no defined term.

3. Acquired Material:

The following items will be provided by COR to PC:

(a) Project Management templates, including Project Brief, Project Management Plan, Status Report, Post Implementation Review, Risk & Issues Register, Change Register, Quality Log and Business Case.
(b) Project Register spreadsheet template and guide.
(c) Project Management Policy and Policy Guide.
(d) Methodology Guidelines.
(e) Design Process Flow Chart.
(f) Construction Process Flow Chart.

4. Advice Services:

COR will provide a contact (at least (one) 1 key staff member) who can be made available on a casual basis of up to 14 hours over a number of weeks to provide consultative advice to PC for the implementation, customisation and use of the PMCOR System. The extent of services would be limited to advice only and where possible communication made via email or phone.

5. Services Not Included:

The gaining of PC corporate acceptance, compliance, customisation or user training will not be provided by COR.

6. Pricing:

The Acquired Material and Advice Services will be provided to PC at a cost of $6,000 (ex GST). Payment is to be made within fourteen (14) days upon receipt of invoice by PC.

7. Branding:

COR references on all acquired material may be removed or re-branded to a designated PC brand, except that in doing so PC must recognise at least once in its documented Project Management Policy or Guidelines, that the templates were developed from the COR Project Management system, which is the copyright of COR.

8. Copyright and Licence:

COR retains ownership of the copyright on the Acquired Material.

COR grants PC a license to use the Acquired Material for use and adaptation to aid in the management of PC projects by its employees and / or contractors. PC must not on-sell any of the Acquired Material or its adaptation to any third party.

DOCUMENT VERSION CONTROL

Ref No.	Created by	First Adopted	Last Modified	Review Period
PIMP No: 2010001	City of Ryde July 2009		Phil King April 2011	Twelve months

PIMP Methodology Guide

Introduction to Project Management at Parkes Shire Council

Aim of methodology

Parkes Shire Council undertakes a large volume of projects each year (2011/2012 snapshot below). Given this investment of staff time and budget it is important that each project is best positioned for success. Project delivery has also been identified as a core organisational risk to Council. One of the best ways to assist this is to provide staff with a clear roadmap of how to manage projects – hence this methodology.

Estimated Number of Projects in 2009/10	Total Number	%
Less than $50k	*172*	*52%*
$50k to $150k	*94*	*28%*
Over $150k	*68*	*20%*
Total Projects	***334***	***100%***

There are multiple benefits of having the methodology, for staff and for the Council:

- Provide a consistent approach to managing projects
- Consistent terminology
- Provide staff with simple and practical tools to do their work
- Build staff knowledge and skills
- Helps build a team approach on projects – collaborative decision making and support
- Increased awareness of projects and improved communication
- Provides a corporate snapshot of projects
- More likely to improve project deliverables
- Provides a mechanism for delegating project roles and responsibilities
- Shared responsibility for risk
- Documents the journey so lessons (positive and negative) can be learned by many – not just the project manager

Where can I get further help?

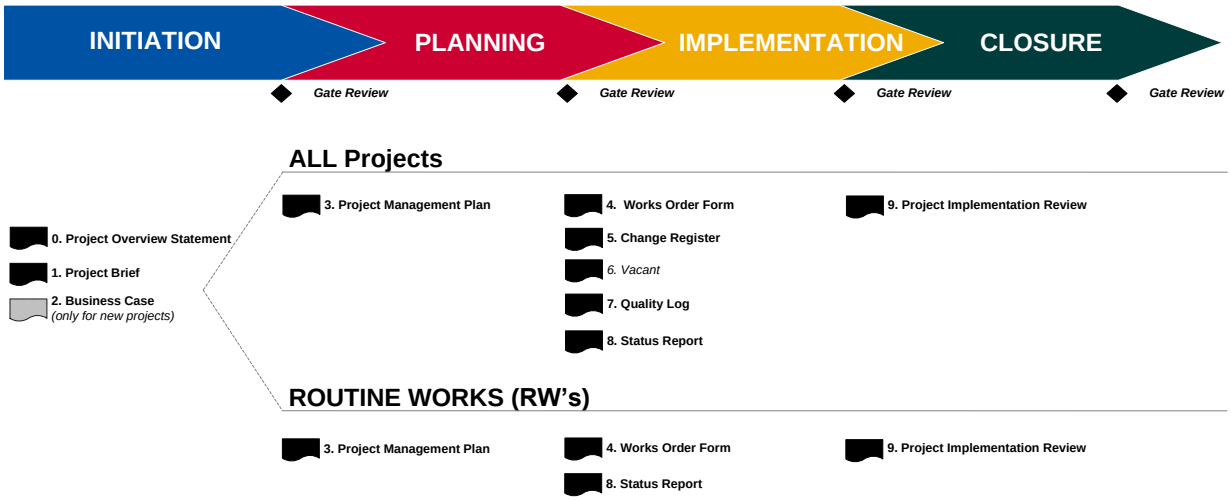
There are multiple ways to get help with managing projects and using the PIMP methodology. You can:

- Ask colleagues who are using the methodology
- Check this guide (for methodology related questions)
- Check the PIMP Interface for completed documents from other projects
- Ask your own manager or supervisor for guidance
- Ask Council's IT Manager – Anthony McGrath
- Ask Council's Manager Design – Phil King

What is the Project Lifecycle?

The Project lifecycle consists of four phases, as the diagram below shows. Each phase ends with a Gate Review – which enables the Project Steering Committee to stop and evaluate the progress formally, ensuring that the next phase is not commenced until the current phase has been properly completed.

For example, you cannot go past the Initiation 'Gate' unless you have a completed and approved ***Project Brief (1)*** (and, in some cases, a completed and signed ***Business Case (2)*** as well).



Once the Project Brief has been approved the project will progress through each phase, using the documents listed in the above diagram. Each year the first 10 initial projects will be created to capture works that are considered to be minor works and regular council maintenance, collectively these will be known as Routine Works (RW's).

The key difference between a project and an RW is defined during the initiation phase. Projects will have a clearly defined sponsor or client or funding source or may contain a risk to Council. Whereas Routine Works (RW's) will capture the typical day to day works and maintenance that council staff undertake and will generally only utilise ***Works Order Form (4)*** and ***Status Report (8)***.

This is possible as RW's tend to be regular, smaller, and clearly defined unconnected works. RW's can be reactionary works to satisfy a CAIR's or routine maintenance and in this sense managing these works requires a ***Status Report (8)*** that states if works have been satisfactorily completed.

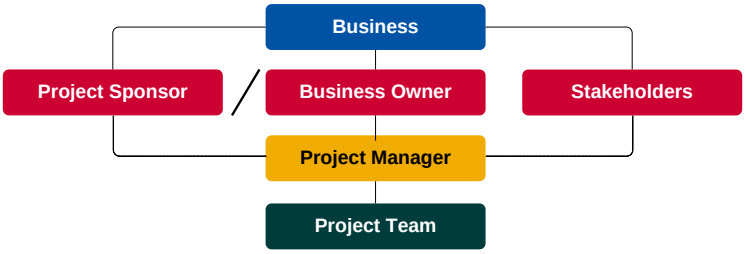
Each of these phases and the documents are explained in detail later in this guide.

Note: Each document in the project lifecycle has a unique number as part of its title – and all headings in each document start with that number (e.g. 3.1, 3.1.1, etc) – with the purpose of being able to refer to a specific point in the document readily, and provide guidance at the same time as to what part of the project lifecycle is being referred to.

Roles and Governance

What are the project roles?

The diagram to the right shows typical roles for a project. The Business is shown to highlight that projects need to be aligned to Business needs (in this case Council's needs).



The next level down shows how the project is owned and aligned to those needs, with the Project Sponsor championing the project and the Business Owner managing the benefits and outcomes of the project. Note that there may also be key stakeholders (e.g. IT, HR, General Manager) who are involved in the project.

The project manager and their team are responsible for delivering the project itself and are clearly separated from the Project Sponsor / Business Owner and Stakeholders. A key description of each of these roles follows on the table below.

Role	Key Responsibilities
Project Manager	The Project Manager manages the total project process and the team. The Project Manager's responsibilities are to: 1. Develop ***Project Brief (1)*** or ***Business Case (2)***, in conjunction with the Business Owner 2. Define the project further during the planning phase, in terms of scope, objectives, constraints, assumptions, benefits, issues and risks by completing a ***Project Management Plan (3)***. 3. Define the project's structure, roles and responsibilities 4. Manage the project plan and budget and costs 5. Resource the project team sufficiently, in conjunction with the Business Owner and manage the performance of the project team 6. Monitor progress against the project plan and provide project ***Status Reports (8)*** to the Project Sponsor. 7. Manage and record changes to the project's scope in the project ***Change Register (5)*** 8. Manage and motivate the project team 9. Manage and record the quality of the deliverables in the project ***Quality Log (7)*** 10. Communicate and consult with stakeholders and the project team 11. Assess issues and risks, manage their resolution or ensure they are escalated to Project Sponsor and Project Steering Committee 12. Ensure the project meets its objectives 13. Manage contracts and vendors, as principal contact, where required 14. Maintenance and hand over of project documentation including a ***Post Implementation Review (9)*** **Note:** The Project Manager cannot also be the Project Sponsor. There must be a clear separation of roles for effective governance and independent reviews.

Role	Key Responsibilities
Business Owner	The Business Owner owns the project outcomes and ensures that the business benefits are delivered. Key responsibilities of the Business Owner include: 1. Develops ***Project Overview Statement (0)***, ***Project Brief(1)*** and or ***Business Case (2)***, in conjunction with Project Manager 2. Signs off on ***Project Overview Statement (0)***, ***Project Brief(1)*** and or ***Business Case (2)*** 3. Sets the goals, direction and priorities that drive the project in line with Council's Strategic and Delivery Plans 4. Ensures that the Project Manager has the necessary resources (team members, prioritised time, budget, etc) to meet commitments under the project plan 5. Monitors the project's progress against plan through project status reporting 6. Reviews the achievement of important milestones and project deliverables 7. Ensures benefits are identified and measurable and realised as a result of the project 8. Manages escalated issues and risks, assisting in the resolution of major project related issues (including Stakeholder issues) & risks 9. Positively champions project aims and progress with stakeholders
Project Sponsor	The Project Sponsor 'champions' the project. The Sponsor's role is primarily in being visible in emphasising and promoting project importance and benefits. The Project Sponsor provides the funds for the project. 1. Accountable for the business outcomes of the project 2. Monitor project goals, scope, cost and timing and approve any subsequent high level changes that affect these 3. Continuously communicate to the target audience and the stakeholders on the rationale, benefits and status of the project 4. Support Business Owner and Project Manager in implementation of the project 5. Ensure the project achieves the business benefits 6. Manage resolution of escalated issues from Project Manager 7. Project representative to Executive Team / Councilors, as required 8. Positively champions project aims and progress with stakeholders **Note:** the dotted line above is intended to show that the roles of Project Sponsor and Business Sponsor may be combined for some projects, as appropriate.

Role	Key Responsibilities
Project Steering Committee	The Project Steering Committee drives the project process to achieve the agreed outcomes for all projects (Currently this is the Project Management Working Party). The Committee will meet regularly to carry out the following responsibilities: 1. Consider ***Project Overview Statements (0)*** for approval 2. Approve the project scope and any changes to the scope 3. Guide, direct and review the projects from a strategic perspective 4. Monitor projects progress against their plan, particularly important milestones and project deliverables 5. Provide approval to proceed through each phase gate review 6. Assist in the resolution of major project related issues or risks 7. Assist in the resolution of inter and intra organisational conflicts within the project **Note:** RW's should be reported to the Project Steering Committee at regular intervals particularly concerning financial objectives and completing the objectives of Council's Delivery Plan. Business Owners / Project Sponsors can be invited to meet with the Project Steering Committee along with other key stakeholders on occasions when required.
Project Team Member	Project Teams are usually formed from specialists (e.g. Engineers, Planners, HR, IT, Legal, etc) within Council, each of whom brings unique skills and/or experience to the project. The composition of the project team varies from project to project and may vary between phases of the project. In some situations a team member will also be involved in operational responsibilities, issued using ***Works Order Form (4)***. The project team performs all tasks needed to complete the project. The team's responsibilities and membership of the team will vary depending on the size and complexity and types of the project. To ensure that there is agreement and clarity of roles within the team, tasks are assigned to individuals to be completed within a certain time frames agreed to by the project team. These tasks are best managed using the PIMP Interface. Broadly, the responsibilities of the project team include: 1. Participate in regular project meetings. 2. Understand individual tasks, including completion dates and deliverables and how these support the total project goals. 3. Complete assigned work/tasks within agreed levels of quality and to agreed schedules. 4. Report actual time and estimated time to complete tasks on a regular basis. 5. Notifying the Project Manager of issues / barriers to completing project work on a timely basis. 6. Understanding and following Council's Project Management Methodology, policies and standards. 7. Understanding the team structure and each team member's roles and responsibilities. 8. Understands and manages the impact of each project and task on their normal area of responsibility, and vice-versa.

Why projects need Steering and Gate Reviews

The Gate Reviews shown in the PIMP Project lifecycle at the end of each phase, will be undertaken at the Project Steering Committee meetings. The purpose of each review is to ensure that necessary and sufficient work has been done (with processes being followed) so the project can be approved to move into the next phase. Each Gate Review is simply a 'do not pass go' point until the project is suitably prepared.

Without this review it is far too easy for a project manager and the team to progress with work that may be the wrong direction for Council, or which may conflict with other project priorities.

The table below indicates the members of the Project Steering Committee, and generally which phase they will be involved in for each project, and what their roles might be:

POSITION	PHASE	ROLE
General Manager *Not required to attend all Project Steering Committee meetings*	▪ Initiation ▪ Closure	▪ Project Sponsor
Director Corporate Services **Director Operations** **Director Infrastructure** **Director Planning Environment** *Not required to attend all Project Steering Committee meetings*	▪ Initiation ▪ Planning ▪ Closure	▪ Project Sponsor ▪ Business Owner ▪ Project Manager
Manager Administration **Manager Assets** **Manager Development Services** **Manager Design** **Manager IT** **Manager Natural Resources** **Manager Works** **Note:** RW governance is managed by Infrastructure / Operations staff and reported to the committee, in lieu of gate reviews.	▪ Initiation ▪ Planning ▪ Implementation ▪ Closure	▪ Project Manager ▪ Project Team Member ▪ Other core business functions (e.g. Governance, Risk, Planning requirements Standards & specifications, Environmental Obligations, etc), as required
Manager IT **Manager Finance** *Not required to attend all Project Steering Committee meetings*	▪ Initiation ▪ Planning ▪ Implementation ▪ Closure	▪ Provide support for PIMP Interface ▪ Report to project steering committee meetings when required

Managing the Initiation Phase

Aim

The aim of the initiation phase is to ensure that projects ideas are properly defined and their worth is evaluated before any detailed planning is commenced on them. This also allows Council to check if the project aligns to the Strategic and Delivery Plans, before committing to a project.

Key Responsibilities for Initiation

The Business Owner, in conjunction with the Project Manager is responsible for initiating the project. The ***Project Overview Statement (0)*** is utilised for this purpose. If the Project Steering Committee decide that the project does not have the grounds for commencement, then it can be halted at this stage without further progression. It is acceptable if the Project Sponsor is not appointed until the Planning phase.

Note: It is crucial that key stakeholders are identified at this stage, so that their input can be included into the ***Project Brief (1)*** and where required ***Business Case (2)***.

Key Documents

Key documents in this phase include:

- 0. Project Overview Statement (POS)
- 1. Project Brief
- 2. Business Case

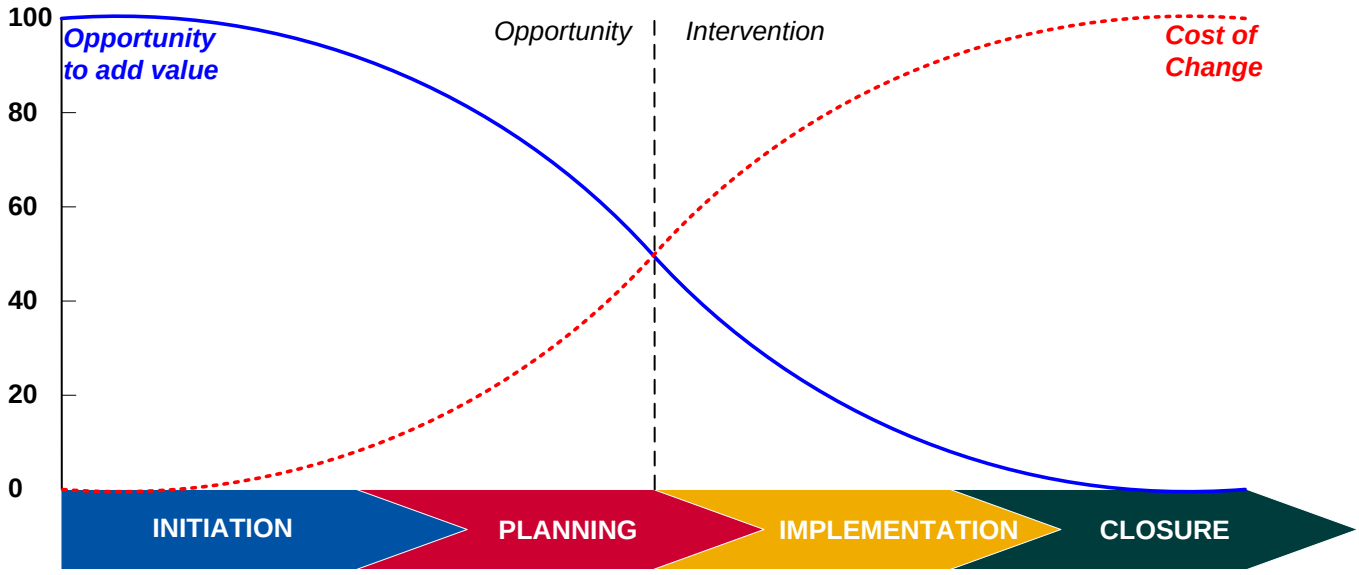
Gateway review for Initiation

Once the ***Project Overview Statement (0)***, ***Project Brief(1)*** and (if required) ***Business Case(2)*** have been completed by the Business Owner and Project Manager, and the Business Owner is satisfied that the project idea is realistic and achievable the Business Owner should sign off on the Business Case. The Project Steering Committee will briefly review these documents and issue approval to proceed to the Planning phase. Without the Project Steering Committee approval the project cannot proceed into Planning Phase.

Managing the Planning Phase

Aim

Why have a phase to plan projects? The opportunity to effectively control and manage the success of a project rapidly diminishes, as the following graph shows:



It is clear that the best chance to add value through changes to a project (and the least expensive) is during the initial stages of a project. A strong ***Project Management Plan (3)*** (including schedule or gantt chart) guides and sets the roadmap for the Implementation and Closure phases. Staff will be able to effectively measure progress during the implementation of the project and take corrective action when the project is 'going off the rails'.

Without a detailed plan the chance of the project not delivering all of the requirements on time and on budget, and to the correct quality is extremely high.

Key Responsibilities for Planning

The project manager is responsible for managing the Planning phase. Key participants are:

- Project Sponsor
- Business Owner
- Project Team members
- Other key stakeholders, as appropriate

Important Note: The essential element is to produce a ***Project Management Plan (3) PMP*** (including schedule) that provides the Project Sponsor and Business Owner and the Project Steering Committee members that the project idea approved in the Initiation phase (the 'what') can be effectively delivered by following the ***Project Management Plan (3)***.

Key Documents

Key documents in this phase include:

- 3. Project Management Plan

Gateway review for Planning

Once the 3.Project Management Plan has been completed by the Project Manager and Business Owner it is submitted to the Project Sponsor and Business Owner for review and approval. If they are satisfied that the 3.Project Management Plan realistically depicts how the project will be delivered then they sign off the front of the document, indicating approval to proceed to the Implementation phase.

Without both the Business Owner and Project Sponsor's approval the project cannot proceed into the Implementation phase.

Managing the Implementation Phase

Aim

The aim of the implementation phase is to perform the planned activities and tasks captured in the 3.Project Management Plan, so that the project is delivered. This is the 'doing' of the project, as opposed to the 'what' and 'how' of the previous phases.

The progress and reporting of the project is the responsibility of the Project Manager – but they are assisted by their project team members, as well as the Project Sponsor (and Steering Committee, where appropriate). Progress is measured against planned progress (captured in 3.Project Management Plan).

Important Note: The Project Manager's role is not to perform the work them selves (save for very small projects where there may not be a team) but to *manage* the project - to ensure that it remains on track in accordance with the agreed plan.

Key Responsibilities for Implementation

The project manager is responsible for managing the Implementation phase, with the Project Sponsor (and Steering Committee) helping them remove roadblocks to project success and to make strategic decisions, where additional authority is required. Key participants are:

- Project Sponsor
- Business Owner
- Project Team members
- Other key stakeholders, as appropriate

Key Documents

Key documents in this phase include:

- 4. Project Works Order Form
- 5. Project Change Register
- 7. Quality Log
- 8. Project Status Report

Gateway review for Implementation

Once the project has been completed (or has been stopped by the Project Sponsor / Business Owner or Steering Committee) the project documentation needs to be assembled for a review of the project's successes and failures. This review ensures that the project is actually ready to be formally closed (proceed into the closure phase).Without both the Business Owner or Project Sponsor's approval the project cannot proceed into the Closure phase.

Managing the Closure Phase

Aim

The aim of having a phase to formally closing projects is to ensure that:

1. Projects are actually completed
2. Outcomes are properly handed over to Assets for capture.
3. Responsibilities for tracking and reviewing any remaining benefits are clearly owned and accepted by the Business Owner
4. The project is reviewed for 'Lessons Learned' and these are captured and passed on to team members and the Council to benefit others and improve project performance generally
5. The project documentation is formally captured and worked examples can be used on the intranet for the reference of other staff.

Key Responsibilities for Closure

The project manager is responsible for organising the closure review. Key participants are:

- Project Sponsor
- Business Owner
- Project Team members
- Other key stakeholders, as appropriate

Key Documents

Key documents in this phase include:

- 9. Project Implementation Review (PIR)

Gateway review for Closure

Once the 9.Project Implementation Review has been completed by the Project Manager and Business Owner it is submitted to the Project Sponsor and Business Owner for review and approval.
If they are satisfied that:

1. The project has delivered the scope agreed
2. All administrative matters (invoice payments, formal communications, record keeping, etc) have been closed off
3. The project has been reviewed for 'lessons learned'

… then they sign off the front of the document, indicating approval to formally close the project.

Without both the Business Owner or Project Sponsor's approval the project cannot be formally closed.

Guide to Completing Project Documentation

Guide to Completing *Project Overview Statement (0)*

The purpose of the Project Overview Statement (POS) is to launch the idea of a project and consider the objectives of the project. Generally a POS will position a project with in Council's Delivery Plan. Approval of the POS from the Project Steering Committee allows a project to be registered in the PIMP Interface and have a project number issued with a folder created.

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference		Guide for completion
0.1	POS Authorisation	▪ The Project Sponsor is identified as championing the project and will almost always be the General Manager Council. ▪ The Business Owner manages the benefits and outcomes of the project and will generally be a Director of Council ▪ The Project Client may be the Director's department or an external organisation ▪ The Project Manager should be identified early to assist with the Initiation phase of the project
0.2	Problem / Opportunity	What initiated this project – what are the drivers or needs that this project will address? Recommended 1 Paragraph. This will most likely be the same as 1.2.0 in ***Project Brief (1)*** and utilised for the Project Description
0.3	Goal	What is the desired outcome of the Project? Recommended 10 words
0.4	Success Criteria	How will the project be measured as being complete or successful?
0.5	Assumptions	What information is assumed regarding the project?
0.6	Approval	The Project Steering Committee will either approve or not approve a project from the POS. The decision should be recorded in the minutes of the meeting and noted on the POS.

Guide to Completing *Project Brief (1)*

The purpose of the Project Brief is to outline and provide the details for lodgment of the project into the PIMP Interface once a project has been approved by the Project Steering Committee. This brief will also allow for greater consideration of the scope, risks, tasks, and budget while still in the initiation phase.

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference	Guide for completion
1.1 Project Authorisation	Once the POS has been approved the Project Brief is require to be authorised.
1.2. Project Brief 1.2.0. Project Background	What initiated this project – what are the drivers or needs that this project will address? Recommended 1 paragraph. This should be very similar to 0.2 in ***Project Overview Statement (0)***
1.2.1 Total Budget	The budget of the project will be an estimation of the total cost including contingency, and may have an outline attached to this document. The budget may be allocated from Operational Plan, or also have capital funds allocated by way of a grant. A job number shall be sourced from the finance department and this will ensure that they are aware of each project.
1.2.2 What is in Scope	The deliverables of the project are the necessary packages of work (activities) that have to be accomplished in order to achieve the outcomes of a project – not every single task. For example, a deliverable might be: • Conduct a Stakeholder survey • Design a playground layout • Release a request for Tender • Create the Project Management Plan (PMP) **Note** that deliverables are both what you need to do to achieve the outcomes of the project, but are also what you need to do to manage the project (the project management deliverables, like completing a PMP). All deliverables must be shown in the Project Schedule that is created alongside this Plan).

Section reference	Guide for completion
	Make sure that each deliverable is **SMART**: • **S**pecific in it's description • **M**easurable as to whether it is completed • **A**greed with the Business Owner • **R**ealistic as to its aims • **T**ime-bound so there is a clear date when this must be completed …in order to be able to readily manage the project.
1.2.3 What is out of Scope	It is just as important to clarify what is not part of the proposed solution at this time. For example, a building design solution may not be factoring in landscaping around the building. Listing these exceptions helps clarify the solution and ensure that that there are no surprises mid-way through the project.
1.2.4 Major Risks Constraints	What factors are going to limit what can be achieved on the project, over and above the timeline and budget? Constraints might be limited availability of resources, appropriately skilled staff available, conflicts with the timing of other initiatives, regulatory requirements, etc.
1.2.5 Project Type	Projects are categorised in to 6 key areas of Council.
1.2.6 Related Projects	Related projects are projects that have some impact on this project, in some way. For example, a project may be related because this project is a necessary first step to complete, before that other project can begin (such as a planning project, before construction begins). Another way projects might be related is that they are competing for the same resources you need on your project team, at some point during the project.
1.2.7 Level of Community Consultation	Select one of the four options; Not Required, Information Only, Consultation or Participation

Section reference	Guide for completion
1.2.8 Internal Consultation and or External Government Authorities	Consultation may be required with other internal Council departments e.g. May require a DA to be lodged. Consultation may also be required with other Government departments e.g. RTA, neighboring councils, EPA, etc.
1.2.9 External resources or detailed plans	Identify the need for external consultants or contractors in the projects infancy to ensure that delivery isn't unnecessarily delayed.
1.2.10 Project Team	Identify members of the Project Team and seek permission from their managers if works required them to be doing something unusual.
1.2.11 Expected Timeframe	What is the high-level timeframe for the project to be completed? When will it commence if approved? Note that this includes the planning phase time as well - not just the implementation phase of the project.
1.2.12 Project Schedule	Attempt to identify the main tasks required to be completed for the project to be successful.

Guide to Completing *Business Case (2)* *(where required)*

The purpose of the Business Case is to ensure that the initial idea for a project has been checked and confirmed as suitable to proceed. It also confirms that the funding for the project is available and puts the onus onto the elected Council to proceed knowing full well that other areas of council works may be delayed.

It summarises the high level scope and approach of the project (e.g. *what* the project is about). It is not intended as a full project management plan (which explains '*How* we will deliver the project').

Note: 2. Business Case is only to be completed for projects not clearly in specified in Council's Strategic or Delivery Plans

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference	Guide for completion
2.2 Executive Summary	Explained on form.
2.3.1 What is in Scope for this Project?	Part of Project Brief already
2.3.2 Is this the entire estimated scope of the project?	Explained on form.
2.3.3 What is not in Scope for this project?	Part of Project Brief already
2.3.4 What human resources will be required?	A high level estimate of resource requirements is needed in the Business Case as this impacts the cost and timing of the project. The timeline has a dedicated section for project roles. Add the names of the roles (and proposed individuals, if known) under each project phase. Project roles have already been entered for your convenience. Where a resource is likely to be a contractor put [C] after the role title (or name of the proposed individual, if known).

Section reference	Guide for completion
2.3.5 Proposed Timeline	A high level estimate of the timeline for the project is needed in the Business Case, to clarify the timings of key deliverables for the project, and whether they are reasonably estimated. The timeline is split into project phases across the lifecycle. Each phase column has an anticipated start and end date underneath it. Update the start and end dates for each phase in the table to provide a high-level timeline for review.
2.3.6 Are there any alternative solutions for this project?	Most projects have alternative solutions. For example, a necessary contractor may only be necessary because there are no staff with the requisite skills. An alternative to hiring the contractor for the work might be hiring them for training and coaching of staff, to up skill them for the work required. Use this section to capture any alternatives considered.
2.3.7 Are there any other projects that are either dependant on this project or which have an impact on this project?	Part of Project Brief already as 'related projects'.
2.3.8 Who are the key stakeholders of this Project?	It is important to understand who else at the Council and in the Community will be impacted by this project – either during the project or as a direct result of an outcome of the project. Using the table, capture the main stakeholder groups for the project (internal and external to the Council) and whether they have been consulted and have had an input into this Business Case. A fuller stakeholder analysis will be undertaken on the basis of these groups during the Planning phase. **Note:** It is important to identify the key stakeholders prior to project planning, so they have a chance to have an input into the planning process, thereby ensuring alignment to their needs – and avoiding rework on the project.

Section reference	Guide for completion
2.3.9 What are the significant risks for this project?	A high-level risk analysis is necessary to clarify what significant risks there may be when undertaking the project (e.g. that would threaten the success of the Project's outcomes described in this section). Using the table, capture the significant risks to the project and what the proposed mitigation of those risks is.
2.4.1 Is this project either a regulatory compliance project or a project undertaken 'for the Public Good'?	Explained on form.
2.4.2 Why fund this project?	As this project is not already within the Management Plan, Capital Works budget or any other Operating budget use this section to explain why this project should be funded and what the nature of that funding would involve (particularly if external funding is part of the proposed solution, or if the project would involve a Public/Private Partnership – a PPP):
2.4.3 What are the financial assumptions made for this project?	To understand the context of the costs listed it is important to capture any assumptions made about those costs. List the assumptions (e.g. current market price for services, contract rates, etc) in this section.
2.4.4 Return on Investment Summary	Explained on form.
2.4.5 Are there any other benefits arising from this project for the Council or Community?	Projects frequently have benefits other than financial returns. This section is designed to capture those (soft) benefits and factor them into the Business Case for consideration. If there is more than one solution, copy and paste the table, change the table title to clearly state which alternative it relates to and complete per alternative solution.

Guide to Completing Project Management Plan (3)

The purpose of Project Management Plan (PMP) is to take the approved idea (the 'what') from the Business Case and describe how the project is going to be achieved. This will also include how the project will be controlled and reviewed, to ensure that the right results are achieved and that the project stays 'on the rails'.

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference	Guide for completion
3.1 Authorisation to proceed to Implementation	Once the PMP is completed, reviewed by the Project Steering Committee and deemed acceptable, it can be signed off and the project can proceed to the Implementation Phase.
3.2 Project Brief	Expand the project background from 1.2.0 ***Project Brief (1)***
3.2.1 Scope	Expand the project scope from 1.2.0 ***Project Brief (1)***
3.2.2 Cost breakdown	Note that staff time needs to be included as a cost factor. For RW's the budget is entirely controlled by monitoring staff time, and purchase orders against activities.
3.3 Project Team	Member acceptance denotes that they have been consulted and informed about the role.
3.4 Steering Committee	Where a project significantly involves more than 1 group or function (e.g. HR, IT) at the Council there should be at least 1 representative from each area in addition to the Project Sponsor and Business Owner. RW's only involve the Project Sponsor (who is likely to also be the Business Owner)
3.5.1 Scope change management	Explained on form.
3.5.2 Time management	
3.5.3 Cost management	
3.5.4 Status Reporting	
3.5.5 Project Documentation	
3.6 Stakeholder Analysis	This also forms the basis for any initial communications planning for Stakeholders, so such activities can be factored into the timeline and scope.

Section reference	Guide for completion
3.7 Quality Management	This section ensures that each deliverable on the project has a set standard from the outset (usually agreed with key stakeholders) – so that such quality checking activities can be factored into the timeline and scope.
3.8 Risks and Issues management	This section ensures that risks identified with stakeholders have agreed mitigations and contingencies so that such activities and tasks can be factored into the timeline and scope. The significant risks captured in the Business Case or Project Brief form the basis of the risk management of this project. For planning purposes and to ensure that any mitigations and contingencies are built into the Plan, copy each identified risk into the risk table and: • Add any new risks that are identified when putting together this plan. • Estimate each risk's consequence, likelihood and overall rating. • Determine where possible what would effectively reduce the consequence (if anything) of the risk – should it occur (Contingency Plan). • Then determine what would effectively reduce the likelihood of the risk occurring *with that consequence* (themitigation strategy) Risks (and any arising issues) are reviewed on a regular basis by the Project Manager. This is to ensure that they are monitored and actioned appropriately, and so any new risks can be captured in the 4.Risk and Issues register (which utilises all of the information in and is introduced in the Implementation phase). Minor projects will utilise 8. Project Status Report to capture and report on risks.
3.9 Project Schedule	This Project Schedule is used to align key

Section reference	Guide for completion
	actions that need to be completed on the project. It also aligns activities with the people responsible for those activities and provides a space for key progress comments to be captured. **Important Note:** If preferred (and appropriate), the Excel (document 3a) or MS Project (document 3b) version of this schedule may be used instead of the table.
3.10 Procurement management	Explained on form.

Guide to completing Project Works Order Form (4)

The purpose of Project Works Order Form is to provide clear instructions to the operations staff or contractors about the various works that are to be undertaken to complete a project. The works order will usually be attached to documents including construction drawings, DBYD (Dial Before You Dig), TCP (Traffic Control Plan). An essential part of the Works Order, is the completion statement, providing a record of construction, and also an opportunity for feedback regarding design, changes, conformance and quality.

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference	Guide for completion
4.1 Project Description Scope Authorisation	The Project Description comes from the PIMP data base and will also be in 1.2.0 in the ***Project Brief (1)*** The project Scope also comes from 1.2.2 in the ***Project Brief (1)*** The works
4.2 Budget	Each component of works must be accounted to a Job Cost Number, and at times there will be a multiple numbers for different aspects of the works to be complete. Listing the overall project funding source and total budget will allow each works order to be treated in perspective of the project as a whole Indicating renewal, capital upgrade or capital will keep the works focus in mind, particularly for RW's, and assist asset collection.
4.3 Location	Details of the location of the works are outlined in this section, this will be particularly relevant for RW's and smaller works. By clicking the create map icon in MapInfo, places a map on the clipboard that can be "Double Clicked" into the form.
4.4 Description of Works	Comprehensive outline of works to be undertaken, referencing construction drawings, services, DBYD, TCP's, standards, RTA guides, AUS-SPEC etc.
4.5 Reference Documents	List all the documents related to the implementation of the project, with a reminder to complete the daily reporting documents such as worksite inductions and risk assessments
4.6 Timeframe	Planned start and completion dates

4.7 Completion	The completion statement allows for a record of construction to be made by the supervisor or ganger overseeing each works component of a particular project. It is essential that each component of works is inspected for conformance with design plans, and is also included on the asset register. At a managerial level both the Works Manager and Assets Manager are required to "sign" off the works order.
4.8 Comments	Feedback is essential on each stage of works to ensure that the objectives of the project are being met, and that the operations staff are communicating any issues to the Project Manager. Comments can be made here and records of the various comments and works modifications must be kept in the ***Project Change Register (5)***.

Guide to Completing the Project Change Register (5)

Any significant changes made to the scope of the project need to be reviewed and approved by the appropriate parties, before they are committed to. This helps ensure that the scope of the project remains clear, achievable and reasonable…and that there are no surprises for Stakeholders as to the outcomes of the project. The table headings provide descriptions for each column to be completed.

Generally this form will be completed by hand within the PIMP folder, and scanned into the PIMP project by the engineers clerk.

Important Note: Not all changes are captured in the log – only significant changes need to be approved. For example, if a project is going to be delayed by 1-2 days, and there is no critical date it must be completed by, this would not be a significant change. Alternatively, if a project outcome went from 'design the building' to include 'design the surrounding landscaped gardens' this would be a significant change that must be reviewed and approved, given the impact on the cost and timeline of the project.

Guide to Completing the Quality Log (7)

Project Management Plan (3) (or PMP) contains a section 3.6 indicating how the quality of the project will be measured, throughout the project. This is important as it helps ensure that the deliverables of the project are the desired ones, and that the stakeholders will agree that the project has produced something of use.

To start the log copy and paste the contents from the ***PMP (3)*** section 3.6 into the Quality table. The table headings provide descriptions for each column to be completed. Generally this form will be printed off once the Deliverables have been filled in, completed by hand within the PIMP folder and scanned into the PIMP project by the engineers clerk.

Important Note: Please note that the last column on the table provides a space for the accepter to sign off that the project has met expectations of quality for each deliverable. This is used as evidence that the deliverables have been approved by the Steering Committee, at the Gate review at the end of the Implementation phase.

Guide to Completing the Project Status Report (8)

The project report is a snapshot of how the project is progressing, shared with the Project Sponsor and the Business Owner. It also provides an opportunity to 'flag' any need for additional assistance, so that the project remains on track.

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference	Guide for completion
8.1 Project Scope	Explained on form.
8.2 How is the project progressing 8.2.1 Budget vs. Spend (<Insert Cost Code, where applicable>)	Explained on form. Fill in the table
8.2.2 How is the project progressing against the timeline?	Explained on form.
8.2.3 What are the next steps?	Referring to the Project Schedule, capture the main activities coming up over the next month in this section. Milestones and main activities in sufficient detail here.
8.3 Changes and variations in Scope or Deliverables	Explained on form. Utilise the ***Change Register (5)*** to complete this section.
8.4 What are the main issues for the project?	Use this section to capture what are the current issues impacting the project, as well as for reporting which issues have been closed off since the last report. This information can be completed from the completed and returned ***Works Order Forms (4)***
8.5 What are the current risks for the project?	Use this section to capture what are the current project risks (and their mitigations), as well as for reporting which risks have been closed off since the last report. RW's capture risks just in this document.
8.6 Other key project information	Explained on form.

Guide to Completing the Project Implementation Review (9)

The Project Implementation Review (PIR for short) is where the closure of the project is formally recorded, and where the transfer of ownership from the Project Manager to the Business Owner formally occurs.

It provides a log of what occurred during the project, using the ***Project Status Reports (8)*** produced throughout the project. Any areas that worked well, as well as any that did not are recorded so the lessons can be genuinely learned and transferred to others (they do not just remain in the Project Manager or Team member's heads). Without such a capture there is no formal way of ensuring that the Council will continue to improve the project management methodology and success at projects in general.

The table below is designed to provide key tips for completing each section – not to provide a comprehensive guide for each possible contingency. This document should be completed with the input of other project stakeholders to ensure it is representative.

Section reference	Guide for completion
9.1 Authorisation to close project	The project must be signed out, to ensure that the PIR has been completed.
9.2 Project Implementation Review 9.2.1 Project Closure Checklist	This section is a checklist to ensure that the project is correctly closed off – use this to ensure that each area of the project has actually been completed
9.2.2 Project Management Lessons Learned	Review the ***Project Status Reports (8)*** and look for changes and where issues have arisen, and also check the completed ***Works Order Form (4)*** for any feedback on the project.
9.3 Benefits Plan – Required where business case was completed	Some projects (particularly change management projects) may have financial or other benefits that are not realised at the end of the project – but can only be measured after a period of time (e.g. 3-12 months after project closure). To prove the success of the project it is therefore necessary in such cases to have an owner appointed (usually the Business Owner) to ensure that these are actually measured and reported on, after the project has been completed.

Project Management Glossary

Term	Definition
Activity	An element of work performed during the course of a project. An activity normally has an expected duration, an expected cost and expected resource requirements. Activities are usually sub-divided into Tasks. Each activity has a deliverable at the end of it.
Activity Definition	Identifying the specific activities that must be performed in order to produce the various project deliverables.
Activity Description	A short phrase describing the scope of work of the activity.
Benefits	The positive outcomes (usually planned) of the project. For example, save $50,000 in stationery costs, confirm the Community's view on a new building proposal, etc.
Benefits Plan	A table listing the benefits expected from completing the project, how they will be measured and who is responsible for measuring them.
Baseline	The original plan (for a project or an activity), plus or minus approved changes. Usually used with a modifier (e.g. cost, baseline, schedule baseline, performance measurement baseline).
Budget	What the total amount of funds allowed for the project is
Business Case	The purpose of the Business Case is to ensure that the initial idea for a project has been checked and confirmed as suitable to proceed. It also confirms that the funding for the project is available. In conjunction with the Project Brief it summarises the high level scope and approach of the project (e.g. what the project is about). It is not intended as a full project management plan (the PMP - which explains 'How we will deliver the project').
Business Owner	See Roles and Responsibilities section at front of this manual
Constraints	What factors limit what can be achieved on the project. For example, there may be regulatory requirements that force a particular approach, key deadlines, limited staff time to help, current levels of technology, etc
Contingency Planning	The development of alternative strategies to be used to ensure project success, if specified risk events occur.
Control	The process of comparing actual performance with planned performance, analysing variances, evaluating possible alternatives and taking appropriate corrective action as needed.
Consequences	What the impact on the project will be if a risk occurs
Corrective Action	Changes needed to bring expected future performance of the project into line with the plan.
Cost Budgeting	Allocating the cost estimates to individual project components.
Cost Centre	Where the costs of the project are charged to within the Council

Term	Definition
Cost Estimating	Estimating the cost of the resources needed to complete project activities.
Cost of Quality	The costs incurred to ensure quality. The cost of quality includes quality planning, quality control, quality assurance and rework.
Critical Activity	Any activity on the critical path. Most commonly determined by using the critical path method. Although some activities are 'critical' in the dictionary sense without being on the critical path, this meaning is seldom used in the project context.
Critical Path	In a project network diagram the series of activities which determines the earliest completion of the project. The critical path will generally change from time to time as activities are completed ahead of or behind schedule. Although normally calculated for the entire project, the critical path can also be determined for a milestone or subproject. The critical path is usually defined as those activities with a float less than a specified value, often zero.
Critical Path Method (CPM)	A network analysis technique used to predict project duration by analysing which sequence of activities (which path) has the least amount of scheduling flexibility (the least amount of float.)
Deliverable	Any measurable, tangible, result that must be produced to complete a project or part of a project. Not to be confused with a project outcome, which is the result for the Council at the end of the project.
Duration	The number of work periods (not including holidays or other non-working days) required to complete an activity or other project element. Usually expressed as workdays or work weeks.
Duration Estimating	Estimating the number of work periods that will be needed to complete individual activities.
Early Finish Date (EF)	In the critical path method, the earliest possible point in time at which the unfinished portions of an activity (or project) can finish, based on the network logic and any schedule constraints.
Early Start Date	In the critical path method, the earliest possible point in time at which the unfinished portions of an activity (or project) can start, based on the network logic and any schedule constraints.
Effort	The number of labour units required to complete an activity or other project element. Usually expressed as staff-hours, staff-days, or staff-weeks. Should not be confused with duration.

Term	Definition
Estimate To Complete (ETC)	The expected additional cost needed to complete an activity, a group of activities, or the project. Most techniques for forecasting ETC include some adjustment to the original estimate based on project performance to date.
Exception Report	Document that includes only major variations from plan (rather than all variations).
Fast Tracking	Compressing the project schedule by overlapping activities that would normally be done in sequence, such as design and construction.
Finish Date	A point in time associated with an activity's completion. Usually qualified by one of the following: actual, planned, estimated, scheduled, early, late baseline, target or current.
Finish-to-Finish (FF)	See logical relationship.
Finish-to-Start (FS)	See logical relationship.
Float	The amount of time that an activity may be delayed from its early start without delaying the project finish date. Float is a mathematical calculation and can change as the project progresses and changes are made to the project plan. Also called slack, total float, and path float. See also free float.
Free Float (FF)	The amount of time an activity can be delayed without delaying the early start of any immediately following activities. See also float.
Functional Organisation	An organisation structure in which staff are grouped hierarchically by speciality (e.g. production, marketing, engineering, and accounting at the top level; with engineering, further divided into mechanical, electrical, and others).
Gantt Chart	A simple horizontal bar chart showing the relationship between tasks and their timings
Governance	See Steering Committee
High level solution	A simple outline of what the solution is that the project will be delivering. Usually used to help orientate project stakeholders and members to what the project is about.
Initiation Phase	Committing the organisation to begin a project phase.
Issues	An event or set of circumstances that is currently impacting on the project. Not to be confused with Risks, with are *potential* issues.
Late Finish Date (LF)	In the critical path method, the latest possible point in time that an activity may be completed without delaying a specified milestone (usually the project finish date).
Late Start Date (LS)	In the critical path method, the latest possible point in time that an activity may begin without delaying a specified milestone (usually the project finish date).

Term	Definition
Lead time	A modification of logical relationship that allows an acceleration of the successor task. For example, a finish-to-start dependency with a 10-day lead, the successor activity can start 10 days before the predecessor has finished. See also lag.
Lessons Learned	Any lesson (positive or negative) reviewed and captured so that future projects do not repeat the mistakes but do repeat successful approaches
Levelling	See resource levelling.
Lifecycle	The four phases of the Council project management methodology – Initiation, Planning, Implementation, Closure – taken together
Likelihood	How likely a risk is to occur
Logical Relationship, Tasks	A dependency between two project activities, or between a project activity and a milestone. See also precedence relationship. The three main types of logical relationships are: ▪ Finish-to-start - the 'first' activity must finish before the 'second' activity can start. ▪ Finish-to-finish - the 'first' activity must finish before the 'second' activity can finish. ▪ Start-to-start - the 'first' activity must start before the 'second' activity can start.
Matrix Organisation	Any organisational structure in which the project manager shares responsibility with the functional managers for assigning priorities and for directing the work of individuals assigned to the project.
Milestone	A significant event in the project, usually completion of a major deliverable.
Mitigation	Taking steps to lessen risk by lowering the likelihood of a risk event's occurrence. Not to be confused with contingency planning which reduces the consequences of a risk, should it occur.
Near-Critical Activity	An activity that has low total float.
Network Analysis	The process of identifying early and late start and finish dates for the incomplete portions of project activities. See also Critical Path Method, Program Evaluation and Review Technique, and Graphical Evaluation and Review Technique.
Organisational Breakdown Structure (OBS)	A depiction of the project organisation arranged so as to relate work packages to organisational units.
Outcome	A result at the end of the project, once completed or closed off. Not be confused with a deliverable which is a smaller step towards project completion.
Overall Change Control	Coordinating changes across the entire project.

Term	Definition
Overlap	See lead.
Parametric Estimating	An estimating technique that uses a statistical relationship between historical data and other variables (e.g. square footage in construction, lines of code in software development) to calculate an estimate.
Pareto Diagram	A histogram ordered by frequency of occurrence, which shows how many results were generated by each identified cause.
Path Float	See float.
Percent Complete (PC)	An estimate expressed as a percent of the amount of work that has been completed on an activity or group of activities.
Performance Reporting	Collecting and disseminating information about project performance to help ensure project progress.
PERT Chart	A specific type of project network diagram. See Program Evaluation and Review Technique.
Phase	See project phase.
Planned Finish Date (PF)	See scheduled finish date.
Planned Start Date (PS)	See scheduled finish date.
Program	A group of related projects managed in a coordinated way. Programs usually include an element of ongoing activity.
Program Evaluation and Review Technique (PERT)	An event-oriented network analysis technique used to estimate project duration when there is a high degree of uncertainty with the individual activity duration estimates. PERT applies the critical path method to a weighted average duration estimate. Also given as Program Evaluation and Review Technique.
Project	A temporary endeavour undertaken to create a unique product or service.
Project Communications Management	A subset of project management that includes the processes required to ensure proper collection and dissemination of project information. It consists of communications planning, information distribution, performance reporting, and administrative closure.
Project Cost Management	A subset of project management that includes the processes required to ensure that the project is completed within the approved budget. It consists of resource planning, cost estimating, cost budgeting and cost control.
Project Human Resource Management	A subset of project management that includes the processes required to ensure that the project is resourced with the right people at the right time and that they are developed into a cohesive team. It consists of resource planning, staff acquisition, and team development.
Project Implementation	A formal review at the end of the project to ensure that the project has been completed and signed off. Also contains a review of the lessons learned

Term	Definition
Review (PIR)	during the project, for the benefit of future projects
Project Integration Management	A subset of project management that includes the processes required to ensure that the various elements of the project are properly coordinated. It consists of project planning, implementation, and project control.
Project Life Cycle	A subset of project management that includes the processes required to ensure that the various elements of the project are properly coordinated. It consists of project planning, implementation, and project control.
Project Management (PM)	The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project.
Project Management Body of Knowledge (PMBOK)	An inclusive term that describes the sum of knowledge within the profession of project management. As with other professions such as law, medicine, and accounting, the body of knowledge rests with the practitioners and academics that apply and advance it. The PMBOK includes proven traditional practices that are widely applied as well as innovative and advanced ones that have seen more limited use.
Project Management Plan (PMP)	A document that outlines the scope of the project (also known as a scope statement) and defines what is in and what is not in the project. It outlines the objectives of the project, defines constraints and assumptions as well as how the project will be organised.
Project Management Software	A class of computer applications specifically designed to aid with planning and controlling project costs and schedules. Microsoft Project is the most common example.
Project Management Team	The members of the project team who are directly involved in project management activities. On some smaller projects, the project management team may include virtually all of the project team members.
Project Manager (PM)	See Roles and Responsibilities section at front of this manual
Project Management Plan (PMP)	A formal, approved document used to guide both project implementation and project control. The primary uses of the project management plan (PMP) are to document planning assumptions and decisions, to facilitate communication among stakeholders, and to document approved scope, cost, and schedule baselines. A PMP) may be summary or detailed.
Project Phase	A collection of logically related project activities, with a gate review at the end of each phase. There are four phases in the Lifecycle – Initiation, Planning, Implementation and Closure
Project Plan Development	Taking the results of other planning processes and putting them into a consistent, coherent document.
Project Plan Implementation	Carrying out the project management plan (PMP) by performing the activities included therein.
Project Planning	The development and maintenance of the project plan.

Term	Definition
Project Procurement Management	A subset of project management that includes the processes required to acquire goods and services from outside the performing organisation. It consists of procurement planning, solicitation planning, solicitation, source selection, contract administration, and contract closeout.
Project Quality Management	A subset of project management that includes the processes required to ensure that the project would satisfy the needs for which it was undertaken. It consists of quality planning, quality assurance, and quality control.
Project Risk Management	A subset of project management that includes the processes concerned with identifying, analysing, and responding to project risk. It consists of risk identification, risk quantification, risk response development, and risk response control.
Project Schedule	The planned dates for performing activities and the planned dates for meeting milestones.
Project Scope Management	A subset of project management that includes the processes required to ensure that the project includes all of the work required, and only the work required, to complete the project successfully. It consists of initiation, scope planning, scope definition, scope verification, and scope change control.
Project Sponsor	See Roles and Responsibilities section at front of this manual
Project Team Members	See Roles and Responsibilities section at front of this manual
Project Time Management	A subset of project management that includes the processes to ensure timely completion of the project. It consists of activity definition, activity sequencing, activity duration estimating, schedule development, and schedule control.
Quality Assurance (QA)	The process of evaluation overall project performance on a regular basis to provide confidence that he project will satisfy the relevant quality standards. The organisational unit that is assigned responsibility for quality assurance.
Quality Control (QC)	The process of monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance. The organisational unit that is assigned responsibility for quality control.
Quality Planning	Identifying which quality standards are relevant to the project and determining how to satisfy them.
Regulatory Compliance	Any standard or law that the Council needs to comply with when developing and implementing project solutions. For example, there may be constraints around disabled access to buildings or tax requirements.
Related Projects	Related projects are projects that have some impact on this project, in some way. For example, a project may be related because this project is a necessary first step to complete, before that other project can begin (such as a planning project, before construction begins). Another way projects

Term	Definition
	might be related is that they are competing for the same resources you need on your project team, at some points in the project
Remaining Duration (RDU)	The time needed to complete an activity.
Resource Constraints/Rules	Any form of network analysis in which scheduling decisions (start and finish dates) are driven by resource management concerns (e.g. limited resource availability or difficult-to-manage changes in resource levels).
Resource-Limited Schedule	A project schedule whose start and finish dates reflect expected resource availability. The final project schedule should always be resource-limited.
Resource Planning	Determining what resources (people, equipment, and materials) are needed in what quantities to perform project activities.
Return on Investment (ROI)	The net saving of the project divided by the total cost of the project
Risks	Not be confused with Business risk – project risk is defined as any event that can potentially threaten or impact the success of the project
Risk Control	Responding to changes in risk over the course of the project.
Risk Event	An occurrence that *may* affect the project.
Risk Identification	Determining which risk events are likely to affect the project.
Risk Measurement	Evaluating the probability of risk event occurrence and effect.
Risk Rating	The rating is obtained by multiplying the likelihood of the project by the Consequence rating – this rating can then be used to prioritise the way risks are addressed, with higher ratings requiring greater attention
Risk Response	Defining steps for opportunities and mitigation steps for threats.
Schedule Control	Controlling changes to the project schedule.
Schedule Development	Analysing activity sequences, activity durations, and resource requirements to create the project schedule.
Scheduled Finish Date (SF)	The point in time that work was scheduled to finish This date is normally within the range of dates delimited by the early finish date and the late finish date.
Scheduled Start Date (SS)	The point in time that work was scheduled to start on an activity. The scheduled start date is normally within the range of dates delimited by the early start date and the late start date.
Scope	The sum of the products and services to be provided as a project.
Scope Baseline	See baseline.
Scope Change	Any change to the project scope. A scope change almost always requires an adjustment to the project cost or schedule.

Term	Definition
Scope Change Control	Controlling changes to project scope.
Scope Creep	The process (usually ad-hoc) of adding to the scope without properly considering the value or impact of the changes overall
Scope Definition	Decomposing the major deliverables into smaller, more manageable components to provide better control.
Scope Planning	Developing a written scope statement that includes the project justification, the major deliverables, and the project objectives.
Scope Review	Ensuring that all identified project deliverables have been completed satisfactorily.
SMART acronym	Scope statements need to be SMART so they can be controlled properly: ▪ Specific in it's description ▪ Measurable as to whether it is completed ▪ Agreed with the Business Owner ▪ Realistic as to its aims ▪ Time-bound so there is a clear date when this must be completed
Stakeholders	Anyone at the Council, in other organisations or in the Community will be impacted by this project – either during the project or as a direct result of an outcome of the project.
Start Date	A point in time associated with an activity's start, usually qualified by one of the following: actual, planned, estimated, scheduled, early, late target, baseline, or current.
Start-to-Finish	See logical relationship.
Start-to-Start	See logical relationship.
Status Reports	A snapshot of project progress, produced by the second Wednesday of every month for major projects. Minor projects may require weekly reporting – if the timescale is shorter.
Steering Committee (SC)	The Governing body of a project. For Major projects this will involve the Business Owner and Project Sponsor, as well as any other appropriate representatives for the Council. Minor projects will typically be governed by the Business Owner. Note that the Project Manager is not a member of the Steering Committee – but participates in the meetings and is responsible for reporting to it.
Subject Matter Expert	A person who brings expertise to a particular area of the project and is used as a reference point to validate decisions, seek clarity and explain key terms.
Task	An element of work under an activity.
Timeline	The overall time at project takes, from Initiation through to closure. Often shown graphically, with major events (milestones) occurring along the

Term	Definition
	timeline. Also see Gantt Chart.
Total Float (TF)	See Float.
Workaround	A response to a risk event. Distinguished from a contingency plan in that a work-around is not planned in advance of the occurrence of the risk event.
Work Breakdown Structure (WBS)	A deliverable-oriented grouping of project elements which organises and defines the total scope of the project. Each descending level represents an increasingly detailed definition of a project component. Project components may be products or services.
Work Item	See activity.
Work Package	A deliverable at the lowest level of the work breakdown structure. A work package may be divided into activities.

Annexure 5.c

Parkes Shire Council
MANEX

Critical Services Review

MANEX Critical Activity Review Brief

For each activity…

Is it Core Business?	- Is it identified in the Operation Plan? - Is it necessary for fundamental provision of Services? - Will it generate future income?
Income	- Identify & review all existing and potential income sources. - Can existing income be increased (ie impact of increasing fees/charges, doing more etc)? - Sell surplus assets - What impact would a 5% income reduction have? (ie on staffing & delivery of service) - how would you adapt to this? - What impact would a 10% income reduction have? (ie on staffing & delivery of service) - how would you adapt to this?
Expenditure	- Review each expenditure line item - Is electricity a major component? Consider renewables - What is level of Overtime payments - can OT be reduced?
Dividends	- For Business units of Council, can a dividend be paid to General Fund? - Water Fund - Sewer Fund - Domestic Waste - Other Waste Services - Caravan Park - Family Day Care
Strategic Initiatives	- Are there projects, initiatives etc which have the potential to produce income or reduce costs in the medium to longer term

Timeframe - All reviews to be returned to the GM by Monday 10 October 2011, with the above questions considered.

Annexure 5.d

Parkes Shire Council

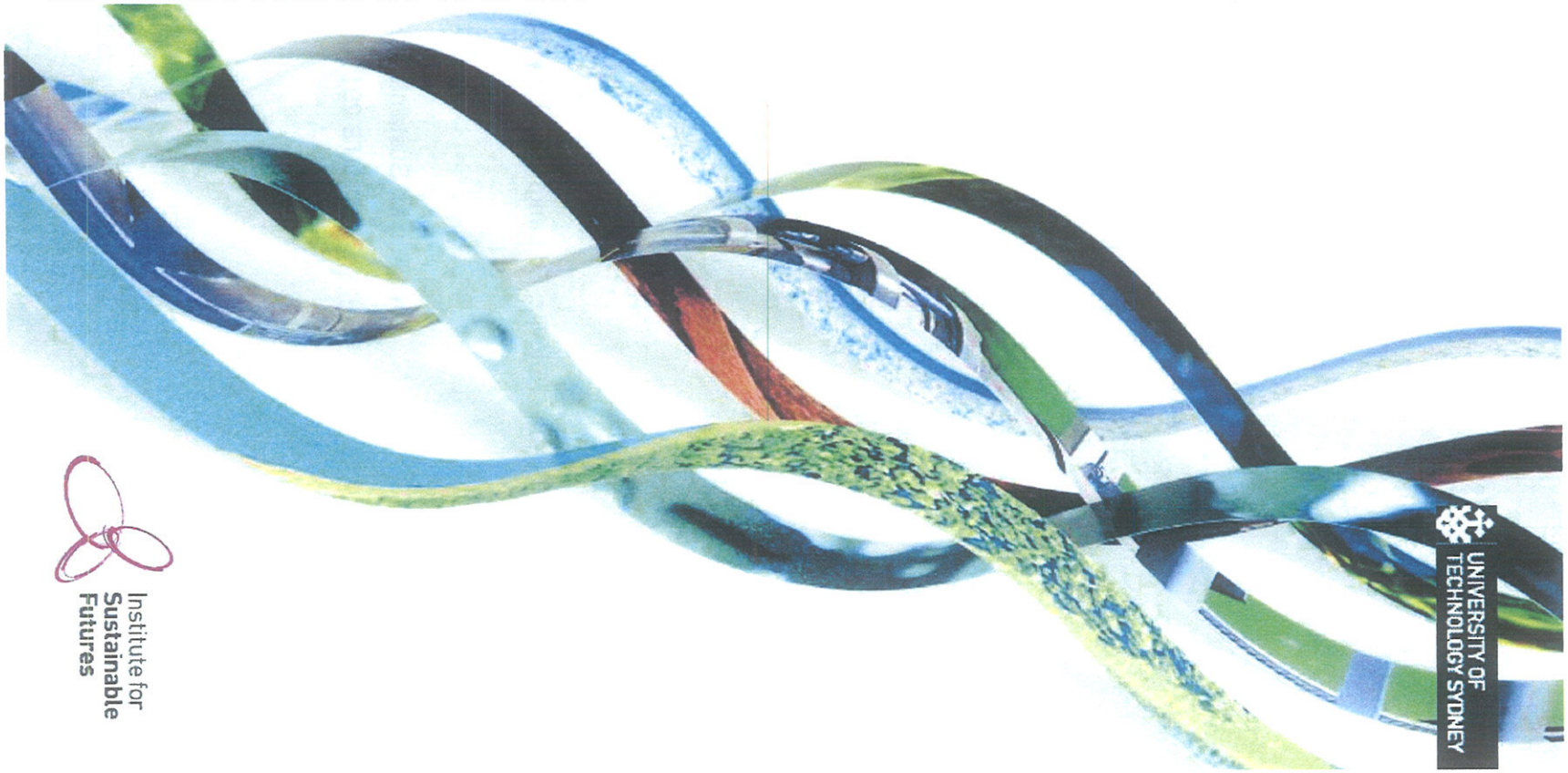
Distributed Energy Plan

INSTITUTE FOR SUSTAINABLE FUTURES

THINK.
CHANGE.
DO

ISF: RESEARCH

PARKES SHIRE COUNCIL: DISTRIBUTED ENERGY PLAN EXECUTIVE SUMMARY



Institute for Sustainable Futures

UNIVERSITY OF TECHNOLOGY SYDNEY

PARKES SHIRE COUNCIL:
DISTRIBUTED ENERGY PLAN
EXECUTIVE SUMMARY

For Parkes Shire Council

Authors
Jay Rutovitz, Ed Langham, Nicky Ison, Chris Dunstan

Institute for Sustainable Futures

Disclaimer

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Abbreviations

c/kWh	cents per kilowatt hour
CBD	Central business district
CST	Concentrating Solar Thermal
DCODE	Description and Costs of Distributed Energy
DSR	Demand Side Response
FiT	Feed-in Tariff
GWh	Gigawatt hour
ISF	Institute for Sustainable Futures
kW	Kilowatt
kWh	Kilowatt hour
MW	Megawatt
MWh	Megawatt hour
PSC	Parkes Shire Council
REC	Renewable Energy Certificate
SWEP	Sustainable Water and Energy Plan

Executive Summary

Parkes Shire Council (PSC) is investigating the options to reduce energy use and generate local energy from renewable or low carbon sources, with the aim of delivering significant financial and environmental benefits. To this end, PSC commissioned the Institute for Sustainable Futures to produce a Distributed Energy Plan to form part of PSC's Sustainable Water and Energy Plan (SWEP).

ISF undertook a high level assessment of the energy options by assigning indicative costs and comparing them with projected increases in NSW electricity prices, and assessing risks and benefits in the Parkes context. Six options were selected for further investigation in consultation with PSC.

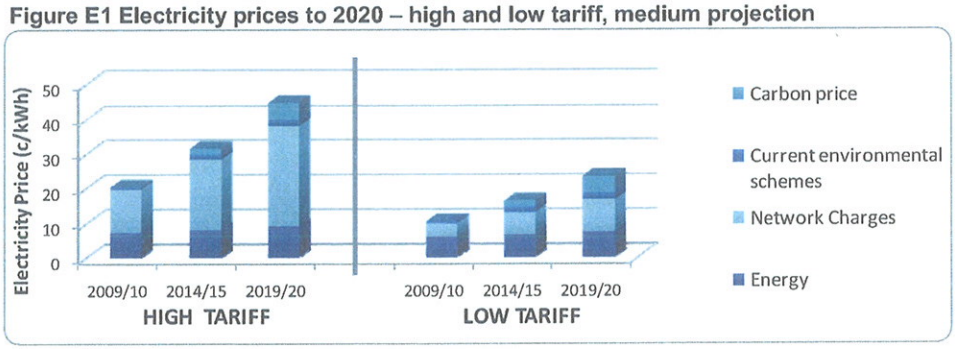
Implementing the proposed Distributed Energy Plan could provide significant economic, social and environmental benefit to both PSC and the wider Parkes community, enabling PSC to invest more in other essential community services and programs. It will directly reduce council's own emissions and costs, and increase the profile of sustainable and low carbon technologies. An important element of the plan is to ensure that the Parkes community is informed about the energy actions implemented, enabling businesses, organisations and residents to learn from the Council's experience. There may be potential in the future to facilitate community implementation of distributed energy, for example by arranging or facilitating bulk purchase co-operatives, so that residents can gain access to the same cost effective solutions as PSC itself.

The context

Parkes Shire Council spent $1.3 million on electricity in 2010, used 9,600 MWh of electricity, which resulted in 10 thousand tonnes of greenhouse gases. Pumps account for by far the greatest proportion (83% of electricity, and 72% of the cost). Street lighting is the next largest use, followed closely by buildings. Unless PSC takes action, bills are likely to reach at least $2.6 million by 2020, as electricity prices are expected to double in the next ten years.

PSC has two electricity tariffs, a high one for buildings, and a lower which covers the major pump sites. The current variable component of the two tariffs is shown in Figure E1 below, along with the projection to 2020. Pump sites also pay a fixed capacity charge according to the size of the load[1]. The high tariff has currently has an average rate of just over 20 c/kWh, while the low tariff average rate is only 10 c/kWh, so the economics of energy options depends strongly on whether they offset electricity at high or low tariff sites.

Figure E1 Electricity prices to 2020 – high and low tariff, medium projection



[1] Both tariffs comprise peak, off peak, and shoulder times of day, and the values shown are the averages of actual use at each rate.

Energy options and scoping exercise outcomes

The options listed below were investigated in the initial scoping exercise. Six options were selected in consultation with PSC staff and Councillors for further investigation and development of a business case. Two options were not included in the business case because they were clearly economic and PSC was going to pursue them in any case, and three options were not taken further because they were unlikely to be effective under current or expected conditions.

Options investigated further and business case developed

- Gas engines at major pumps [investigated for High Street]
- Demand side response [investigated further]
- Wind energy [investigated for remote pump sites]
- Solar PV [investigated for buildings, without a feed in tariff]
- Solar pool heating [investigated for Olympic Pool]
- Concentrating solar thermal [investigated for the Water Factory site]

Options not investigated further, because PSC will pursue as clearly cost effective

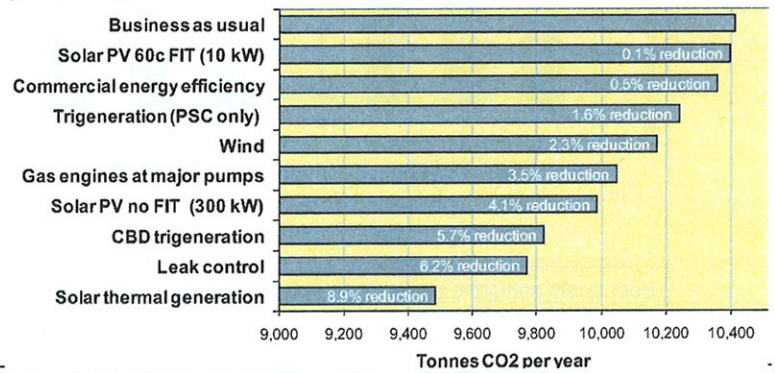
- Water use and leak reduction
- Building energy efficiency

Options not investigated further, as unlikely to prove economic in current conditions, or significant obstacles for implementation

- Cogeneration/ trigeneration in Council buildings only, and on a CBD scale. CBD scale cogeneration very difficult to implement, and economics of Council buildings cogeneration unlikely to prove positive.
- Pump efficiency was not investigated because PSC has already carried out significant pump upgrades. PSC to keep under review.
- Bioenergy not investigated further because unlikely to be economic in the Parkes region because of extensive use of no till farming.

The energy supply and efficiency options described could reduce Parkes Shire Council annual greenhouse emissions by more than 30% per year. Some are zero emission options (energy efficiency, leak control, solar PV, solar thermal generation, and wind energy), while trigeneration and gas engines reduce emissions by about 30% for each unit of electricity displaced. The potential reduction in greenhouse gas emissions achieved by the outlined energy supply options are shown below. The emissions reduction is directly proportional to the amount of electricity displaced,

Figure E2 Greenhouse emissions reduction from selected energy options



Risks and benefits of different technologies

	POTENTIAL RISKS		BENEFIT	
Leak control	Savings may be reduced by rebound effect if water use was cost limited	VERY LOW	Reduces energy use and improves environmental indicators for water	HIGH
Solar pool heating	Savings may not be as high as anticipated	LOW	Very cost effective, but relatively small scale	HIGH (LIMITED SCALE)
Energy efficiency (buildings)	Savings may not be as high as anticipated	LOW	Generally increases comfort and reduces cost	HIGH (LIMITED SCALE)
Gas engines at major pump sites	Profitability hinges strongly on a large number of variables that could vary significantly from estimates provided	LOW-MODERATE	Relatively large volume of electricity offset compared to PV	MODERATE
CBD trigeneration	Very significant investment in facilitation without certainty of project go-ahead	HIGH	Potentially more cost-effective than small-scale cogeneration.	HIGH
Wind	Possible Community opposition, or planning issues re siting wind turbines, Wind monitoring may show output to be lower than expected. REC price fluctuations	MODERATE	Large potential to offset electricity use. Zero emission technology.	MODERATE
Solar thermal generation	Technology not well established, leading to delays and/ or price increases	MODERATE - HIGH	Large potential to offset electricity use. Zero emission technology	MODERATE
Solar PV with 60c/kWh FIT	Availability finished, so limited to small scale	VERY LOW	Economic return guaranteed by FIT Zero emission technology	MODERATE
PSC only Trigeneration	Relatively high cost of feasibility, design and capital investment for potentially low utilisation Value undercut if very cost effective options like solar water heating and building efficiency are undertaken, and site load is offset by large scale solar PV as currently planned by PSC	MODERATE	Improve efficiency of energy supply and use (reduce emissions)	MODERATE
Solar PV without FIT (at $4.5/ Watt)	Capital cost from tender may be higher than expected, but known prior to expenditure.	LOW	Modular technology, can be sited to correspond with PSC usage	HIGH

Business case

ISF produced a twenty five year cash flow for the selected options, which forms the basis for the Distributed Energy Plan. The Net Present Value (NPV) , the Internal Rate of Return (IRR), the Lifetime Benefit with no discounting applied to the future savings, and the simple payback are calculated (the simple payback is the number of years until energy cost savings repay the capital sum). The calculations assume that repayment is made over 10 years, with an interest rate on borrowing of 8.1%, and a discount rate of 7% used for the NPV calculation.

The economics of the all options selected for business case are highly dependent on the projection for the energy prices, as these determine the avoided costs. These are relatively certain until 2015, but become increasingly hard to predict after that.

Figure E2 shows the options selected for analysis in the business case, at the scale designed to use all or most generation on site, and using the best guess of the capital cost. PV is assumed to be installed at sites using the high electricity tariff, while Solar CST, wind energy, and gas engines are assumed to be at sites using the low tariff. Table E2 gives detailed outcomes from the listed options.

Solar pool heating has an excellent rate of return, although the scale of the option is small, so the savings are small compared to PSC total energy expenditure. PV without a FIT, at a capital cost of $4,500 per kW, also has an excellent rate of return, as does PV with a 60-cent FiT.

The gas engine at 160 kW has a reasonable rate of return, but a slightly negative positive net present value. The outcome is heavily dependent upon a number of variables which require further investigation. The other three options (gas engines at 320 kW), solar thermal and wind all have positive rates of return, but negative net present values. The economics in these cases warrant further review, with investment decisions deferred until more accurate cost and output information is available. In each case, the business case could improve (or worsen) once actual costs are obtained.

Figure E2 Energy options: Internal Rate of Return and simple payback

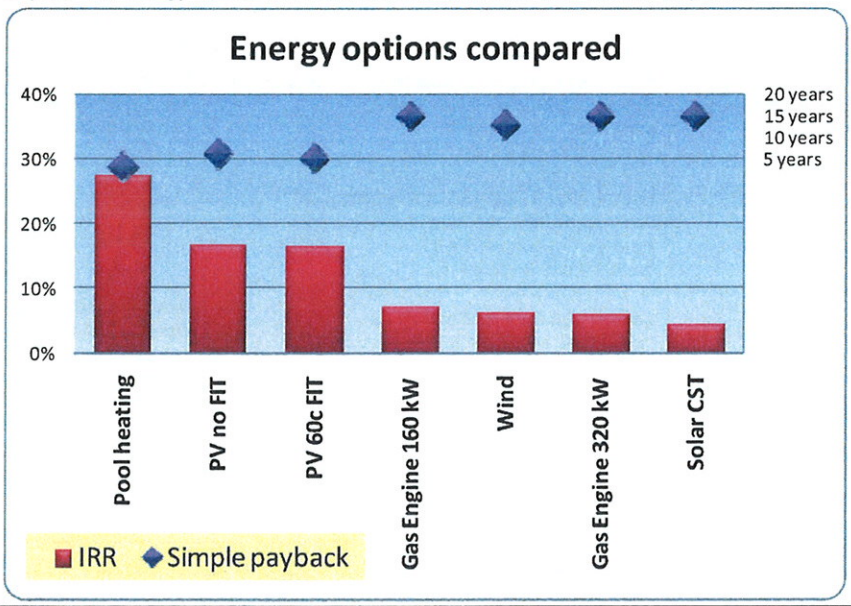


Table E1 Energy options – business case results

TECHNOLOGY	Pool heating	PV no FIT	PV 60c FIT	Gas Engine 160 kW	Gas Engine 320 kW	Wind	Solar CST
Year of installation	2012	2012	2011	2012	2012	2014	2016
Cost per kW assumed ($'000)	n/a	$4.5	$6.0	$1.7	$1.7	$7.0	$7.5
Installed capacity (kW)	n/a	330 kW	10 kW	160 kW	320 kW	100 kW	300 kW
Total capital expenditure ($'000)	$54	$854	$39	$279	$548	$700	$2,250
Net Present Value (NPV) ($'000)	$154	$1,074	$34	-$14	-$99.1	-$96.1	-$656.7
IRR	27.6%	16.7%	16.4%	7.0%	6.0%	6.2%	4.4%
Lifetime benefit (no discount) ($'000)	$429	$3,538	$105	$507	$566	$491	$583
Simple payback	3	6	5	15	15	13	15
1st year of positive return	Year 3	Year 2	Year 2	Year 11	Year 11	Year 11	Year 11
Greenhouse savings per year	46 tonnes	486 tonnes	15 tonnes	367 tonnes	367 tonnes	240 tonnes	928 tonnes

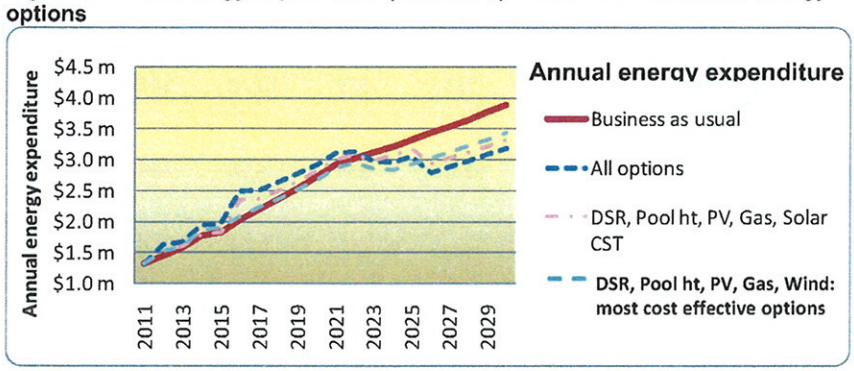
Energy expenditure

PSC energy expenditure is set to rise steeply over the next twenty years. The energy options modelled are not sufficient to offset the price rises, but could mitigate them.

The effect of the combined energy options on PSC energy expenditure are shown in Figure E2. The most cost effective options are pool heating, demand side response PV at $4500 per kW, the smaller gas engine, and wind turbines. This package of options is virtually cost neutral cost until 2021. After that there are significant cost savings, amounting to $500,000 per year by 2030.

The effect of including solar CST in the package and an "all options" scenario, in which solar CST, the second gas engine, and an additional 100 kW of PV at a lower support level are included, are shown in Figure E2. Solar CST increases the energy expenditure considerably during the period to 2020, but from 2023 PSC is better off. After 2026 savings are about $600,000 per year.

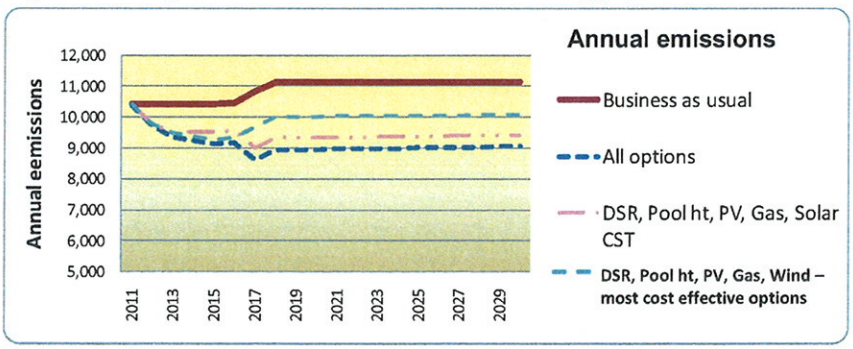
Figure E2 PSC energy expenditure (nominal $) – BAU and distributed energy options



Greenhouse emissions

All of the options modelled reduce PSC emissions, but the scale of reduction varies considerably, from 29 tonnes in the case of 20 kW PV installed with a 60-cent FIT, to nearly 640 tonnes savings per year for 300 kW of solar CST. Figure E2 shows the effect of the different options on PSC's business as usual carbon emissions. Pool heating and DSR demand side response are included in all options. Implementation of all options has the greatest effect, with a reduction of nearly 18%. Installation of 300 kW of PV alone reduces emissions by just over 4%. Implementing pool heating, 300 kW of PV, a single gas engine, and wind energy reduces emissions by 10%.

Figure E3 PSC greenhouse emissions – BAU and energy options



Distributed energy plan – recommendations and next steps

ISF recommends that Parkes Shire Council implement the most cost effective package of options as soon as possible, and obtain further information on the options with positive returns but internal rates of return less than 10. The recommended Distributed Energy Plan is given below.

The most cost effective package of options from the business plan includes: Demand Side Response using PSC pump sites, solar pool heating, and PV at multiple sites at up to 100 kW per site (actual capacity to be determined by what is used at the site).

The next options for consideration are installation of 150 – 300 kW gas engine/s at the High Street pump site, 2 x 50 kW wind turbines at Back Yamma pump site, and a 300 kW of concentrating solar thermal facility at the new Water Factory site.

The Plan has the potential to reduce PSC's long term energy expenditure and greenhouse gas emissions by 18%, equivalent to $700,000 and 2 million tonnes of CO_2 per year.

Parkes Shire Council Distributed Energy Plan

	ACTION	TARGET DATE
1)	**Implement the planned program of leak control, and investigate further opportunities to reduce water use.**	2011
2)	**Investigate & implement a program of building energy efficiency options**	2011
3)	**Obtain quotations & implement solar pool heating**	2011
4)	**Commence negotiations for a Demand Side Response scheme**	2011/12
5)	**Install 10 kW PV systems at the agreed 60 cent FIT site**	2011
6)	**Install 290 kW on buildings** provided suitable prices are obtained.	2011/12
7)	**Install public display for implemented Distributed Energy options,**	2012
8)	**Initiate discussions with Essential Energy** about the potential to offset street lighting or other PSC energy costs under a 'contractual net metering' arrangement, and the potential for PSC energy measures to be eligible for Network Support Payments.	2011
9)	**Install 150 kW gas engine at High Street pump site**, conditional on the outcomes for capital cost, gas price, and network payments.	2012/13
10)	**Install 100 kW wind at Back Yamma Pump site**, depending on the outcome of wind monitoring, capital cost, and annual energy output.	2012/13
11)	**Install solar CST at the Water Factory site**, dependent on the further costing, and availability of equipment with suitable warranties.	2016/17