

# Why is an energy Management Action Plan Required?

An energy management policy provides a strategic statement on how energy should be managed in a municipality

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graph TD; A[An energy management policy provides a strategic statement on how energy should be managed in a municipality] --> B[For the implementation of the policy to take place, a clear plan is required on how to implement the policy]; B --> C[An energy management action plan bridges the gap between policy and implementation on the ground];
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For the implementation of the policy to take place, a clear plan is required on how to implement the policy

An energy management action plan bridges the gap between policy and implementation on the ground

# Key Elements of an Energy Management Action Plan



Targets for energy use and energy generation in different areas of municipal operation



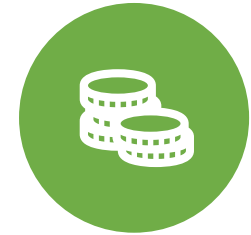
A clear list of tasks and activities to achieve the targets



A clear allocation of responsibilities



A clear system for monitoring and evaluation of actions



An allocation of human and financial resources

An energy  
Management  
Action plan should  
include Actions for  
each element of  
the Municipal  
Energy  
Management  
System



Policy: Actions related to establishing and reviewing the policy



Organisation: Actions related to setting up and managing organisational structures



Skills and Knowledge: Action related to building capacity and knowledge



Information Systems: Actions related to developing systems to measure energy usage and savings



Marketing and Communication: Actions related to communicating and marketing energy implementation



Investment: Actions related to securing energy management investments



Implementation: Actions related to implementing energy management interventions

Title	<ul style="list-style-type: none"> <li>• Development and rolling out of an energy management skills-development and knowledge-sharing program</li> </ul>
Description	<ul style="list-style-type: none"> <li>• The purpose of this action is to better understand the current energy management skills and knowledge of the staff working in this area and to develop and implement capacity building activities to address any gaps</li> </ul>
Indicators of success	<ul style="list-style-type: none"> <li>• A continuous, multi-year energy-management staff-training programme is implemented and tailored to identified energy management needs</li> <li>• The effectiveness of the training program is adjusted through ongoing evaluations</li> </ul>
Activities and time frame	<ul style="list-style-type: none"> <li>• Conduct an energy-management-capacity needs assessment (First Quarter 2021)</li> <li>• Draft a capacity-building plan (First Quarter 2021)</li> <li>• Facilitate adoption of the capacity-building plan (Second Quarter 2021)</li> <li>• Implement the adopted capacity-building plan (Third and Fourth Quarter 2021)</li> <li>• Review the capacity-building plan annually (First Quarter 2022)</li> </ul>
Budget	<ul style="list-style-type: none"> <li>• R100,000 for initial assessment, thereafter capacity building efforts will be handled internally</li> </ul>

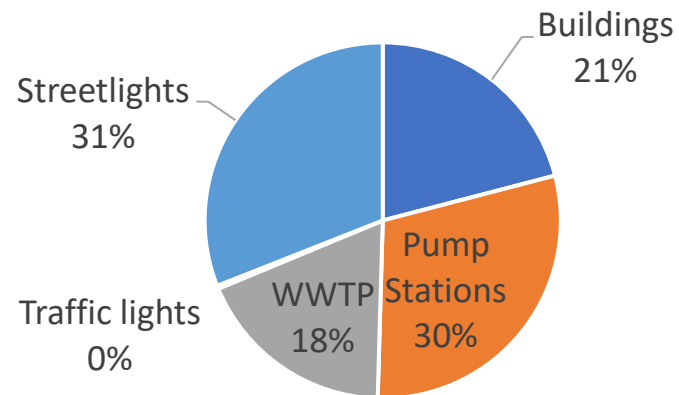
# Example of an Action from an energy Management Action Plan

<b>Implementation Action 6: Municipal Electricity Accounts Tariff Analysis</b>	<b>From</b>	<b>To</b>	<b>Responsible Person</b>	<b>Budget Year 1</b>	<b>Budget Year 2</b>	<b>Budget Year 3</b>	<b>Status</b>
Assessment of the City Hall HVAC system	Jul 2021	Sep 2021	General Manager: Energy	Done internally			Complete
A cost benefit analysis comparing the cost of repairing the HVAC system with the replacement by a new more energy efficiency system	Sep 2021	Nov 2021	External consultant	R200,000			Complete
Reviewing of the assessment and cost benefit analysis by senior management and selection of the best way forward	Dec 2021	Dec 2021	General Manager: Energy	Done internally			In progress
Development of an implementation plan for selected approach	Jan 2022	Mar 2022	General Manager: Energy	Done internally			To be initiated
Secure internal or external financing for the selected approach	Apr 2022	Jun 2022	General Manager: Energy	Done internally			To be initiated
Implement selected approach	Jul 2022	Dec 2022	General Manager: Energy		R5 Million		To be initiated

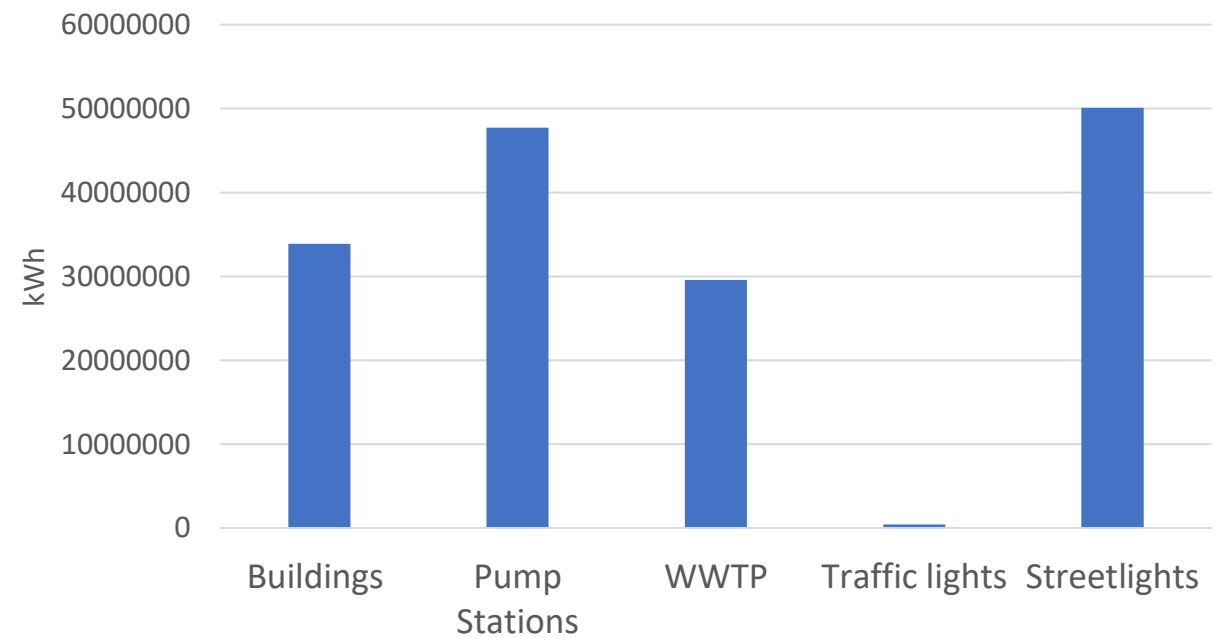
- Action Plan template
- Prioritising energy management interventions
- MEMS matrix and assessment
- Checking the success of implemented interventions

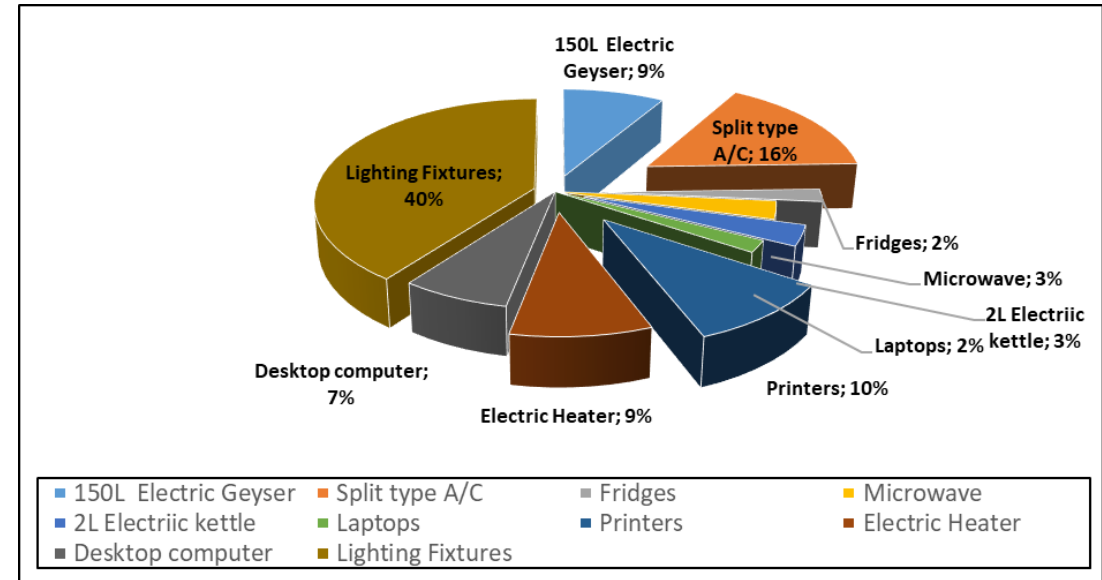
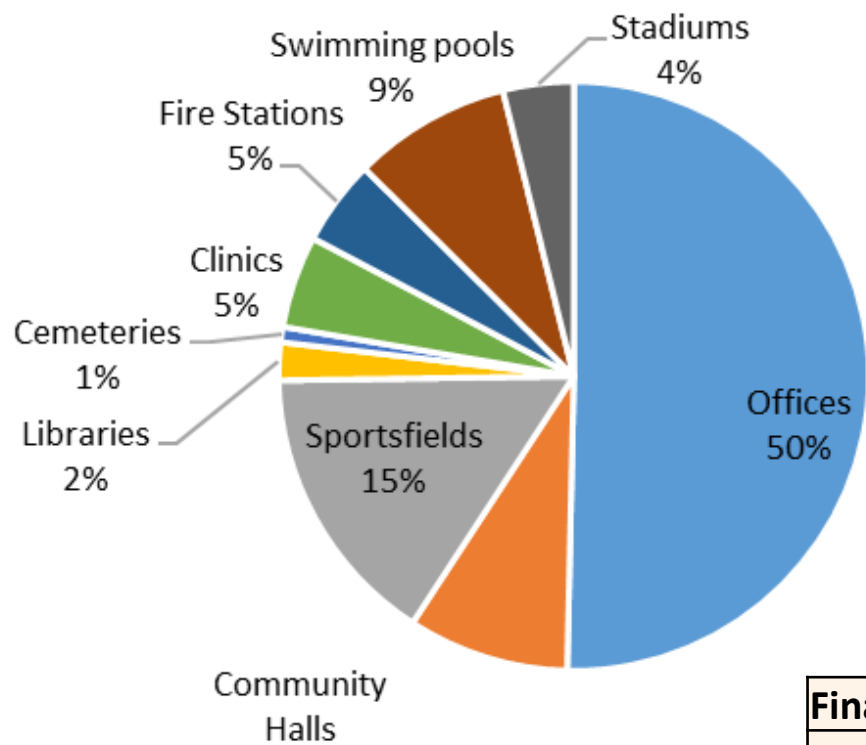
# Identifying retrofit actions

Estimated electricity consumption by facility type



Estimated electricity consumption by facility type





Financial savings and carbon reduction from lighting and HVAC retrofitting				
	Energy Savings (kWh/Year)	Rand Savings/Year	Cost	CO2 Reduction (kg)
	44 379,26	R72 702,11	R255 488,34	43 491,68
% savings	11			
Simple Pay Back Period (Years)	3,5			