



SERVICE DELIVERY PARTY

ENERGY POLICY 2026

SDP Energy Plan for Cape Town

Affordable, Reliable and Accountable Electricity

"Know the plan. Know the cost. Know how it will be measured."

2026 LOCAL GOVERNMENT ELECTIONS

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EXECUTIVE SUMMARY

Electricity is not simply another municipal service. It is the foundation on which modern Cape Town operates.

Water pumping depends on electricity. Wastewater treatment depends on electricity. Health services depend on electricity. Schools, businesses, manufacturing, retail and communications all depend on reliable electricity.

The Service Delivery Party believes Cape Town's energy policy must therefore be judged against a straightforward test:

DOES IT MAKE ELECTRICITY CHEAPER AND MORE RELIABLE?

Affordable electricity is about more than reducing a household bill.

Affordable electricity is about making Cape Town cheaper to live in, cheaper to operate a business in and more attractive to invest in.

Lower electricity costs can improve household disposable income. Lower electricity costs can strengthen small businesses. Lower electricity costs can improve industrial competitiveness. Lower electricity costs can make Cape Town a more attractive destination for investment.

The SDP therefore treats affordable electricity as economic infrastructure.

Cape Town already possesses significant energy assets. These include Steenbras pumped storage, landfill gas facilities, municipal buildings, water and wastewater infrastructure, the electricity distribution network, small-scale embedded generation and existing demand management capabilities.

The SDP will begin with what Cape Town already has.

The order of priorities is as follows:

- First, optimise existing assets.
- Second, eliminate avoidable municipal electricity costs.
- Third, buy electricity more intelligently.
- Fourth, unlock existing grid capacity.
- Fifth, scale proven local generation, storage and demand response.
- Sixth, mobilise private capital where private finance can deliver infrastructure without placing unnecessary pressure on the municipal balance sheet.
- Seventh, protect households and businesses during the transition to a more sustainable electricity revenue model.
- Eighth, investigate emerging technologies without exposing ratepayers to unproven commercial risk.

The SDP does not promise complete energy independence from Eskom. Cape Town cannot responsibly assume that it can replace the national electricity system.

The objective is energy security and affordability.

Cape Town should become less vulnerable to supply disruption, more capable of managing its own electricity system and more effective at securing the lowest reliable whole-system cost.

The central procurement question will be:

"IS THIS THE CHEAPEST RELIABLE ELECTRICITY AVAILABLE TO CAPE TOWN AT THE LOWEST PRACTICAL WHOLE-SYSTEM COST?"

Cost alone will not determine the answer. Every major electricity decision must also consider reliability, network requirements, environmental impact, financial sustainability and measurable public value.

The SDP will establish a Cape Town Energy and Affordability Office to coordinate delivery. The Office will operate through four divisions:

The four divisions of the Office are:

- Procurement and Cost
- Grid and Infrastructure
- Distributed Energy
- Affordability and Reporting

The Office will not replace existing municipal departments. It will coordinate delivery, monitor performance, escalate blockages and provide a single accountable point for the City's energy strategy.

The SDP will establish a four-gate validation system. No major target will become a funded commitment until it has passed:

The four validation gates are:

- Feasibility
- Costing
- Value
- Independent review

The public will never be asked to treat an aspiration as a completed project.

The City will publish a quarterly Cape Town Energy Balance Sheet supported by an independent annual review. The first Energy Balance Sheet will establish the baseline against which future cost and reliability improvements will be measured.

**MAKE CAPE TOWN'S ELECTRICITY SYSTEM CHEAPER, MORE RELIABLE,
MORE EFFICIENT AND MORE ACCOUNTABLE.**

PART ONE

Why Affordable Electricity Matters

1.1 Electricity as Economic Infrastructure

Electricity is a basic service. Electricity is also an economic input.

A household that spends less on electricity has more money available for food, transport, education and other household needs.

A small business that spends less on electricity has more money available for wages, stock, equipment and expansion.

An industrial operation with competitive electricity costs is better positioned to attract investment and create employment.

Affordable electricity therefore contributes directly to the economic development of Cape Town.

The SDP will measure the success of its energy strategy partly through its effect on electricity costs for households, businesses and the wider economy. The strategic objective is to make Cape Town:

The strategic objective is to make Cape Town:

- Cheaper to live in.
- Cheaper to operate a business in.
- More attractive to invest in.

1.2 The Municipal Mandate

The SDP will apply a five-part test to every major municipal energy proposal:

The five-part test asks:

- Does it improve sustainable service delivery?
- Does it promote social development?
- Does it promote economic development?
- Does it protect municipal financial sustainability?
- Does it contribute to cheaper or more reliable electricity?

A proposal that fails this test should not receive municipal priority simply because it is technically attractive.

PART TWO

Start with What Cape Town Already Has

2.1 The Existing Energy Asset Base

Cape Town should not begin its energy strategy by assuming that new infrastructure is always the answer. The municipality already possesses significant energy assets. The strategy will therefore begin with an asset audit covering:

The asset audit will cover:

- Steenbras pumped storage.
- Landfill gas facilities.
- Municipal solar installations.
- Municipal buildings.
- Water treatment infrastructure.
- Wastewater treatment infrastructure.
- The electricity distribution network.
- Substations and transformers.
- Small-scale embedded generation.
- Existing demand management systems.
- Municipal fleet infrastructure.

The objective will be to determine what each existing asset can contribute to affordability, reliability and system flexibility.

2.2 Steenbras Strategic Asset Programme

Steenbras pumped storage is one of Cape Town's most strategically important electricity assets. It provides dispatchable peak capacity and electricity storage capability. It can complement variable renewable generation by storing electricity when supply is available and releasing electricity when demand is high.

The SDP will establish a Steenbras Strategic Asset Programme covering:

The programme will cover:

- Completion and monitoring of the current refurbishment programme.
- Lifecycle management.
- Efficiency optimisation.
- Availability and reliability.
- Peak-period operating strategy.
- Integration with solar generation.
- Integration with battery storage.

- Coordination with demand response.
- Long-term asset replacement planning.
- Post-2040 strategic planning.

Steenbras will be treated as a strategic municipal asset rather than simply as another electricity generation facility. The City will publish annual information on Steenbras availability, utilisation, operating performance and contribution to peak demand management.

2.3 Landfill Gas

Landfill gas is an existing energy resource. The SDP will investigate the expansion and optimisation of landfill gas recovery at existing municipal facilities. The first priority will be to establish verified output, operating cost, remaining resource potential and opportunities for expansion. Existing landfill gas infrastructure should be optimised before the City commits to more expensive new generation.

2.4 Water and Wastewater Assets

Water and wastewater infrastructure represents a significant controllable electricity load. The City already has sophisticated operational systems within these services. The SDP will investigate demand response opportunities across:

Demand response opportunities will be investigated across:

- Water treatment.
- Wastewater treatment.
- Pumping.
- Reservoir operations.
- Other controllable municipal loads.

The objective is to shift flexible electricity consumption away from expensive peak periods without compromising water security or service quality.

2.5 Distribution Network

The distribution network is one of Cape Town's most valuable energy assets. The network must be treated as strategic economic infrastructure. The SDP will establish a Substation Capacity Register covering:

The Substation Capacity Register will cover:

- Current capacity.
- Peak demand.
- Available headroom.
- Transformer age.
- Asset condition.
- Fault history.
- Planned upgrades.
- Estimated upgrade cost.
- Additional reliable capacity expected to be unlocked.

2.6 Transmission Constraints

Cape Town cannot assume unlimited access to new national transmission capacity. Transmission constraints affecting the Western Cape must therefore be treated as a planning parameter. The City will engage continuously with Eskom Transmission and the National Transmission Company of South Africa.

Every major municipal generation or storage proposal will include a documented grid connection assessment before it becomes a funded municipal commitment. Distributed generation, storage and demand response will be prioritised where they can reduce dependence on constrained transmission capacity.

PART THREE

The First 180 Days

The SDP recognises that residents cannot be asked to wait several years before seeing evidence of action. The first 180 days will therefore focus on practical measures that can begin without waiting for major tariff reform.

3.1 Municipal Energy Efficiency

The City will conduct an energy efficiency audit of its largest electricity-consuming facilities. The audit will identify:

The audit will identify:

- Avoidable consumption.
- Poorly controlled loads.
- Inefficient equipment.
- Maintenance-related energy losses.
- Peak demand opportunities.
- Immediate efficiency measures.

3.2 LED Acceleration

The City will accelerate the conversion of inefficient municipal lighting to LED technology where lifecycle costing demonstrates value. Energy performance contracting will be investigated where private finance can accelerate implementation without compromising municipal value.

3.3 Water and Wastewater Demand Response

The City will identify immediate opportunities to shift flexible pumping and treatment loads away from expensive peak periods. No demand response measure may compromise water security or wastewater compliance.

3.4 SSEG Applications

The City will review its small-scale embedded generation application process. The objective will be to reduce avoidable delays, improve transparency and ensure that applications are processed consistently.

3.5 Municipal Procurement Review

Existing electricity procurement arrangements will be reviewed for lawful opportunities to reduce avoidable costs. The review will consider:

The review will consider:

- Contract terms.
- Procurement prices.

- Peak-period costs.
- Wheeling opportunities.
- Storage opportunities.
- Demand response.
- Alternative supply options.

3.6 Municipal Electricity Losses

The City will begin an electricity loss assessment covering technical and non-technical losses.

3.7 Energy Cost Baseline

Within the first six months, the City will publish a baseline Energy Cost Index. The baseline will establish:

The baseline will establish:

- Average system cost per kWh.
- Average residential electricity cost.
- Average commercial electricity cost.
- Municipal electricity procurement cost.
- Peak electricity cost.
- Network cost.
- Relevant municipal electricity losses.

The baseline will provide the foundation for future cost-reduction targets.

3.8 First 180-Day Report

The first 180-day report will identify:

The report will identify:

- Actions completed.
- Savings achieved.
- Savings under investigation.
- Outstanding blockages.
- Regulatory dependencies.
- Capital requirements.
- Next-stage priorities.

The objective is to demonstrate that the energy strategy begins with delivery rather than administration.

PART FOUR

The Electricity Revenue Transition

4.1 The Structural Problem

Cape Town's electricity revenue model faces a long-term structural challenge. Customers who can afford solar generation, batteries and energy management systems can reduce their purchases from the municipal grid. The physical network remains necessary even when customers purchase less electricity. Substations, transformers, cables, meters and control systems still require investment and maintenance.

If network costs are recovered predominantly through volumetric electricity sales, a shrinking electricity sales base can place upward pressure on tariffs. That can create a utility death spiral. The SDP will address this risk without transferring excessive costs onto households that consume relatively little electricity.

4.2 Revenue Transition Principles

The electricity revenue model must evolve as electricity consumption patterns change. A greater proportion of network costs may need to be recovered through fixed, capacity-related or other network charges rather than solely through volumetric electricity sales.

The SDP will not impose a predetermined tariff structure before the evidence has been established. The City will assess the most appropriate combination of:

The City will assess the most appropriate combination of:

- Electricity consumption charges.
- Network charges.
- Capacity charges.
- Fixed charges.
- Metering charges.
- Wheeling charges.
- Storage services.
- Demand response services.
- Other lawful electricity system revenues.

The final structure will be subject to the appropriate regulatory process.

4.3 No Tariff Reform Without Distributional Modelling

No major electricity tariff restructuring will proceed without demonstrating its effect on different customer groups. The City will model the effect on:

The City will model the effect on:

- Low-income households.
- Working households.

- Low-consumption households.
- Average households.
- High-consumption households.
- SMMEs.
- Commercial customers.
- Industrial customers.
- Customers with solar.
- Customers with batteries.
- Customers without distributed generation.

The modelling must show both the average impact and the distribution of impacts. The electricity tariff must recover legitimate network costs without making essential electricity unaffordable.

4.4 Protecting Low-Consumption Households

A cost-reflective electricity system must not become a mechanism for disproportionately increasing the bills of low-consumption households. The City will therefore model the distributional impact of any fixed or capacity-related charge. The affordability programme will be designed alongside tariff reform rather than after it.

4.5 Revenue Transition Roadmap

Phase	Focus
Year One	Establish the electricity revenue baseline. Complete the cost-of-supply study, household impact modelling and revenue modelling. Identify tariff design options and alternative revenue streams.
Year Two	Conduct public consultation. Develop the preferred tariff structure. Complete regulatory preparation and engage with NERSA.
Year Two to Three	Submit the required regulatory applications. Implement approved reforms subject to the applicable regulatory process.
Ongoing	Review the tariff structure annually against actual electricity consumption, distributed generation, network costs and affordability.

4.6 Alternative Revenue

The City will investigate lawful revenue opportunities arising from:

Alternative revenue opportunities include:

- Wheeling.
- Network access.
- Storage services.
- Demand response.
- Virtual Power Plant services.
- Metering services.

- Energy-related municipal assets.

These revenue streams must support network sustainability without creating unnecessary barriers to electricity competition.

4.7 NERSA and Cost of Supply

Any material tariff reform will be supported by an appropriate cost-of-supply study. The study will examine:

The study will examine:

- Network costs.
- Generation costs.
- Customer profiles.
- Fixed costs.
- Variable costs.
- Capacity requirements.
- Cross-subsidies.
- Affordability.
- Distributed generation.
- Storage.
- Demand response.
- Wheeling.

The SDP will publish the principles underlying the proposed tariff structure. The City will not assume that regulatory approval is automatic. The City will plan for the regulatory timetable and continue delivering non-tariff cost reductions while tariff reform is being considered.

PART FIVE

The Cape Town Energy and Affordability Office

5.1 A Single Accountable Institution

The SDP will establish a Cape Town Energy and Affordability Office. The Office will coordinate energy policy across municipal departments. The Office will report through the relevant energy portfolio to the Mayor and Council. The Office will have a defined operating budget, approved staffing structure and measurable annual performance requirements.

5.2 Four Divisions

Division	Responsible for
Procurement & Cost	Electricity procurement, independent power procurement, wheeling, storage arbitrage, demand response procurement, procurement analysis and the Annual Municipal Electricity Procurement Report.
Grid & Infrastructure	Substation capacity, network planning, grid reinforcement, smart infrastructure, transmission engagement, Steenbras integration and grid connection assessments.
Distributed Energy	SSEG, bidirectional meters, the Virtual Power Plant, Power to Earn, distributed storage, demand response and technology pilots.
Affordability & Reporting	Household affordability, Working Household Relief, tariff reform coordination, cost-of-supply studies, NERSA coordination, the Energy Balance Sheet and public reporting.

5.3 Authority and Escalation

The Office will not replace line departments. It will have authority to monitor agreed energy-related milestones, request information, identify blockages and escalate unresolved matters through the appropriate executive and Council structures. An unresolved interdepartmental blockage must have a defined escalation pathway.

The Office must not become another layer of administration. Its performance will be judged by delivery.

PART SIX

Municipal Electricity Efficiency and Revenue Protection

6.1 Efficiency Before Tariff Pressure

Before asking residents to carry higher electricity costs, the municipality must demonstrate that it is reducing avoidable losses. The Municipal Electricity Efficiency and Revenue Protection Programme will address:

The Programme will address:

- Technical losses.
- Non-technical losses.
- Illegal connections.
- Meter tampering.
- Incorrect metering.
- Cable theft.
- Transformer theft.
- Vandalism.
- Maintenance backlogs.
- Substation security.
- Revenue collection.
- Municipal building consumption.

6.2 Technical Losses

The City will establish a technical loss baseline for the distribution network. Substation-level data will be used to identify areas where infrastructure upgrades can produce measurable reductions in losses.

6.3 Non-Technical Losses

The City will establish a programme to identify and reduce electricity theft and other non-technical losses. The programme will combine metering, enforcement, customer engagement and infrastructure security.

6.4 Revenue Collection

Revenue collection performance will be measured separately from electricity consumption. The objective is to distinguish affordability problems from avoidable non-payment and administrative failure.

6.5 Safety

Electricity safety will be treated as an essential service delivery priority. The City will address dangerous connections, damaged infrastructure and unsafe electrical installations within its jurisdiction. The programme will prioritise safety without treating poor households as an enforcement problem alone.

6.6 Substation Security

Critical electricity infrastructure will receive risk-based security assessments. The City will identify opportunities for technology, physical security and community-based measures that reduce theft and vandalism.

The City must reduce waste before it expects residents to carry additional cost.

PART SEVEN

The Cheaper Electricity Programme

The Cheaper Electricity Programme is the central cost-reduction programme of the SDP Energy Plan. It will pursue the lowest reliable whole-system cost.

7.1 Procurement

Every major procurement decision will assess:

Every major procurement decision will assess:

- Price.
- Reliability.
- Contract duration.
- Peak costs.
- Network costs.
- Transmission requirements.
- Distribution requirements.
- Wheeling.
- Storage.
- Demand response.
- Counterparty risk.
- Long-term system value.

7.2 Whole-System Cost

The cheapest generation price is not necessarily the cheapest electricity. The City will assess the complete cost of supplying reliable electricity. The assessment will include generation, transmission, distribution, storage, peak demand, network reinforcement, losses and reliability.

7.3 Grid Capacity

Infrastructure investment will be assessed partly according to reliable megawatts unlocked per rand invested. Where storage, distributed generation or demand response can provide equivalent reliable capacity at lower whole-system cost, those options must be assessed alongside conventional network reinforcement.

7.4 Peak Demand

The City will actively reduce expensive peak demand through:

The City will actively reduce expensive peak demand through:

- Battery storage.
- Demand response.
- Municipal load shifting.

- Water infrastructure.
- Wastewater infrastructure.
- Commercial flexibility.
- Industrial flexibility.
- Smart charging.
- Virtual Power Plant resources.

7.5 Public Procurement Report

The annual Municipal Electricity Procurement Report will disclose:

The report will disclose:

- What electricity was purchased.
- From whom it was purchased.
- The average cost.
- Relevant contract duration.
- Major system costs.
- Alternatives considered.

The purpose is to allow residents to see whether the City is buying electricity intelligently.

PART EIGHT

Distributed Energy Access

8.1 Small-Scale Embedded Generation

Cape Town's existing SSEG framework provides a foundation for broader distributed energy participation. The SDP will pursue:

The SDP will pursue:

- Simpler applications.
- Predictable technical requirements.
- Transparent costs.
- Efficient connection processes.
- Fair feed-in compensation.
- Improved use of customer generation.

8.2 Bidirectional Meters

The City will investigate:

The City will investigate:

- Bulk procurement.
- Municipal financing.
- Targetted subsidies.
- Municipal meter ownership.

Every support mechanism must be linked to measurable system value.

8.3 Virtual Power Plant

The Cape Town Virtual Power Plant will aggregate:

The Virtual Power Plant will aggregate:

- Household solar.
- Household batteries.
- Commercial batteries.
- Municipal buildings.
- Cold storage.
- Water infrastructure.
- Wastewater infrastructure.
- Flexible commercial loads.
- Demand response resources.

Participants will be paid for verified services. Services can include:

Services can include:

- Energy supplied.
- Peak demand reduction.
- Demand response.
- Verified capacity availability.
- Grid support.

Payment will be linked to measurable performance.

8.4 Power to Earn

Power to Earn will allow SMMEs to earn income by providing verified electricity system services. The initial pilot will be deliberately limited. The programme will expand only if the pilot demonstrates measurable economic and electricity system value.

8.5 Battery-as-a-Service

The City will investigate battery-as-a-service procurement models. Where private capital can finance storage without transferring unreasonable cost or performance risk to the municipality, such structures should be considered. Every proposal must still pass the four-gate validation process.

PART NINE

Steenbras, Storage and Grid Flexibility

Cape Town needs flexible electricity resources as variable generation expands. Steenbras pumped storage provides an existing foundation. Battery storage can provide additional flexibility. Demand response can reduce the need for additional peak generation.

The City will therefore establish an integrated flexibility strategy. The strategy will coordinate:

The strategy will coordinate:

- Steenbras.
- Municipal batteries.
- Private batteries.
- The Virtual Power Plant.
- Demand response.
- Distributed generation.
- Water infrastructure.
- Wastewater infrastructure.
- Other flexible loads.

The objective is to reduce peak electricity costs and improve system resilience.

Steenbras will remain the strategic anchor of Cape Town's municipal storage capability. Battery projects will complement Steenbras rather than simply duplicate its function. The City will assess the combined system value of storage before committing to additional capacity.

A battery project must demonstrate why the battery provides value that cannot be achieved more cheaply through existing storage, demand response or network investment.

PART TEN

Household and Small Business Affordability

10.1 Cape Town Affordable Electricity Programme

The ultimate beneficiary of this plan must be the resident and the small business owner. The programme will have five pillars:

The programme will have five pillars:

- Essential Electricity.
- Working Household Relief.
- Household Efficiency.
- Distributed Energy Access.
- Tariff Transparency.

10.2 Essential Electricity

Essential household consumption must be protected from disproportionate cost increases. The structure of support will be determined through affordability modelling.

10.3 Working Household Relief

The SDP recognises the affordability gap experienced by households that do not qualify for indigent support but remain under significant electricity cost pressure. A Working Household Electricity Relief Programme will be designed following the first Energy Affordability Study. The study will establish:

The study will establish:

- Potential eligibility.
- Estimated number of households.
- Average support required.
- Total programme cost.
- Funding options.
- Interaction with existing support.
- Interaction with electricity tariffs.
- Interaction with rates revenue.
- Interaction with the equitable share.

No unfunded affordability commitment will be made.

10.4 Funding Affordability

Affordability support must have a transparent funding source. Possible funding mechanisms will be assessed through the municipal budgetting process. The City will distinguish clearly between:

The City will distinguish clearly between:

- Electricity network costs.
- Electricity consumption costs.
- Social affordability support.
- General municipal services.

Residents should be able to see what they are paying for.

10.5 Small Businesses

Small businesses must be treated as an important part of the electricity affordability strategy. The City will investigate:

The City will investigate:

- SMME energy efficiency.
- Power to Earn.
- Affordable metering.
- Distributed generation.
- Demand response.
- Financing access.
- Transparent tariffs.

The objective is to reduce avoidable electricity costs without compromising the financial sustainability of the electricity network.

PART ELEVEN

Informal Settlements and Universal Safe Electricity Access

Electricity policy must include residents who live in informal settlements. The objective is universal safe electricity access within the limits of technical and financial feasibility. The City will distinguish between:

The City will distinguish between:

- Settlements already connected to the grid.
- Settlements with feasible outstanding connections.
- Areas where conventional connection is temporarily impractical.

11.1 Safe and Legal Connections

The objective is not simply to provide electricity. The objective is to provide safe, legal, metered and reliable electricity access.

11.2 Electrification Backlog

The City will publish an electrification backlog identifying:

The backlog will identify:

- Location.
- Number of households.
- Connection feasibility.
- Estimated cost.
- Expected timeframe.
- Infrastructure requirements.

11.3 Energy Safety

The City will prioritise dangerous electrical connections and unsafe infrastructure.

11.4 Grid-Edge Participation

Where appropriate, electrified informal settlements should eventually be incorporated into demand management, metering and distributed energy programmes. No resident should be excluded from future energy participation simply because their household was historically underserved.

PART TWELVE

Major Electricity Users and Investment

Cape Town must remain open to investment. Large developments can create jobs, expand the tax base and support economic growth. Large developments must also pay fairly for infrastructure that exists primarily to serve them.

12.1 Major Load Energy Compact

The City will establish a published Major Load Energy Compact. The methodology will specify:

The methodology will specify:

- Direct connection costs.
- Dedicated infrastructure costs.
- Shared network reinforcement.
- Infrastructure contribution principles.
- Payment schedules.
- Connection timeframes.
- Strategic development considerations.
- Appeal rights.

12.2 Strategic Investment

Strategic developments that provide substantial employment or social value may qualify for defined support. Any exemption or contribution reduction must be based on published criteria. The process must not depend on discretionary negotiation.

12.3 Investment Certainty

Investors should know:

Investors should know:

- What information is required.
- What infrastructure they must fund.
- What the City will fund.
- How long the process should take.
- How decisions can be appealed.

The objective is to prevent both municipal over-subsidisation and unnecessary barriers to investment.

PART THIRTEEN

Waste, Water and Resource Recovery

13.1 Integrated Resource Management

Energy, water, wastewater and waste should be planned as connected municipal systems. The Energy and Affordability Office will coordinate opportunities where one municipal service can reduce the energy cost of another.

13.2 Waste Hierarchy

The SDP will follow the hierarchy:

The SDP will follow the hierarchy:

- Reduce.
- Reuse.
- Recycle.
- Recover material value.
- Recover energy from unavoidable residual waste.
- Dispose of remaining residue responsibly.

This is not a burn-everything strategy. Recycling and material recovery must remain priorities.

13.3 Landfill Gas

Existing landfill gas resources should be expanded where technical and financial assessments demonstrate value.

13.4 Anaerobic Digestion

Anaerobic digestion should be considered for appropriate organic waste streams.

13.5 Waste-to-Energy

Large-scale residual waste energy recovery will not be treated as an automatic municipal commitment. Before any procurement begins, the City will undertake a transaction feasibility assessment covering:

The transaction feasibility assessment will cover:

- Available waste volumes.
- Waste composition.
- Recyclable and recoverable material.
- Long-term residual waste availability.
- Gate fees.
- Electricity offtake arrangements.
- Grid connection.

- Environmental requirements.
- Capital cost.
- Operating cost.
- Financing requirements.
- Potential concession structure.
- Performance guarantees.
- Risk allocation.
- Municipal obligations.
- Potential revenue guarantees.

The City will first assess whether an economically viable project can be structured without exposing ratepayers to disproportionate construction, operational or market risk. Private participation will be preferred where it can transfer appropriate construction and performance risk while delivering demonstrable value to the municipality. Private finance does not eliminate project risk. The City will therefore identify who carries:

The City will identify who carries:

- Construction risk.
- Operating risk.
- Demand risk.
- Electricity price risk.
- Waste volume risk.
- Regulatory risk.
- Performance risk.
- Environmental risk.

The City will not provide an open-ended revenue or electricity purchase guarantee simply to make an otherwise uneconomic project bankable.

Where a concession requires municipal commitments, those commitments must be transparently costed and independently assessed before approval. The City should audit existing waste-to-energy operations before committing to a major new facility. No major waste-to-energy project will become a load-bearing component of the Cape Town electricity strategy until its technical, environmental, financial and contractual viability has been demonstrated.

13.6 Pressure-Reducing Valve Micro-Hydro

The City will investigate micro-hydro opportunities at suitable pressure-reducing valve sites. The programme will begin with site audits. Each site will be assessed for:

Each site will be assessed for:

- Available pressure.
- Flow.
- Generation potential.

- Capital cost.
- Operating cost.
- Maintenance.
- South African manufacturing potential.
- Grid connection.
- Payback.

Sites will be prioritised according to whole-system value. The programme will be scaled only where the evidence supports expansion.

PART FOURTEEN

Private Capital and Municipal Finance

The City cannot and should not finance every energy project from its own balance sheet. Private capital should be used where it can reduce municipal capital requirements while maintaining public value.

14.1 Power Purchase Agreements

Large-scale solar and other proven generation may be procured through appropriately structured power purchase agreements.

14.2 Battery-as-a-Service

Battery storage may be procured through service-based models where the private sector finances equipment and receives payment for verified services.

14.3 Green Finance

The City will investigate green bonds and other appropriate financing instruments where revenue streams and project economics provide sufficient security.

14.4 Development Finance

Concessional finance from development finance institutions may be investigated for projects that deliver measurable grid stability, energy access or economic development benefits.

14.5 Municipal Capital

Municipal capital will be prioritised for projects where:

Municipal capital will be prioritised for projects where:

- Public ownership creates clear value.
- Private finance is uneconomic.
- The project delivers strategic municipal benefits.
- The investment passes the four-gate test.
- The City can demonstrate the required lifecycle affordability.

The objective is not to maximise municipal ownership. The objective is to maximise public value.

14.6 No Private Concession Without Risk Allocation

Private finance does not remove risk from an infrastructure project. Every concession must identify construction, operating, demand, price, regulatory and performance risks. The party best positioned to manage each risk should carry that risk. Municipal guarantees must be explicitly costed. Any contingent liability must be disclosed. No concession should be approved simply because it removes capital expenditure from the municipal budget. The test remains public value.

14.7 No Municipal Guarantee Without a Public Value Test

Where the municipality is asked to provide an offtake commitment, revenue guarantee or other financial support, the full contingent liability must be disclosed and independently assessed. The City must demonstrate that the proposed public support produces sufficient public value to justify the risk.

PART FIFTEEN

Technology Innovation and Risk

Cape Town should remain open to innovation. Innovation must not become a justification for placing unproven commercial risk onto ratepayers.

15.1 Four Tiers of Technology

Tier	Description	Examples
1 — Proven & Operating	Existing assets and technologies that can be optimised or scaled.	Steenbras, landfill gas, LED efficiency, municipal rooftop solar, demand response, existing SSEG.
2 — Proven but Requiring Scale	Technically established technologies requiring site-specific validation.	Battery storage, PRV micro-hydro, water demand response, additional municipal solar.
3 — Suitable for Private Finance	Proven projects procured without placing unnecessary capital pressure on the City.	Utility-scale solar, large battery systems, appropriately structured waste recovery, wheeling-linked generation.
4 — Emerging / Speculative	Immature or commercially unproven technology; never a load-bearing assumption.	Wave energy, full vehicle-to-grid integration, other pre-commercial technologies.

15.2 Dassie and Electric Mobility

The SDP will not impose an immediate city-wide electric taxi mandate. The City will instead support a limited Dassie pilot involving willing participants where the economics can be properly tested. The pilot will assess:

The pilot will assess:

- Vehicle cost.
- Financing.
- Operating cost.
- Charging cost.
- Range.
- Downtime.
- Driver income.
- Maintenance.
- Battery performance.
- Charging infrastructure.
- Grid impact.
- Passenger economics.

The programme will expand only if the evidence demonstrates a clear economic benefit for participating operators. The objective is to prove the economics before considering wider implementation.

15.3 Technology Pilots

No pilot may proceed without independent assessment. No pilot may transfer technology performance risk to ratepayers. Performance-based payments should be used where appropriate. Every pilot must independently measure:

Every pilot must independently measure:

- Installed capacity.
- Actual production.
- Availability.
- Capacity factor.
- Maintenance.
- Operating cost.
- Cost per kWh.
- Grid impact.
- Environmental impact.

A pilot will remain a test until the evidence supports scaling. Failure will be reported honestly. A failed pilot will not be treated as a policy embarrassment.

The purpose of a pilot is to discover whether a proposition works before the public commits substantial capital.

PART SIXTEEN

Costing, Validation and Environmental Tests

16.1 Four-Gate Validation

Gate	Tests
1 — Feasibility	Engineering, land, grid, technology and environmental feasibility.
2 — Costing	Capital expenditure, operating expenditure, financing, maintenance, replacement and lifecycle cost.
3 — Value	Savings, avoided costs, additional revenue, reliability benefits, capacity benefits and other measurable system value.
4 — Independent Review	External technical or financial review.

Only programmes that pass all four gates may become funded commitments.

16.2 Environmental Screen

Every major energy proposal must meet applicable environmental requirements. The assessment must consider:

The assessment must consider:

- Environmental impact.
- Resource use.
- Waste.
- Emissions.
- Land requirements.
- Water requirements.
- Community impact.
- Lifecycle environmental cost.

The SDP will seek electricity that is affordable, reliable and environmentally responsible. Environmental responsibility must be integrated into the economic assessment rather than treated as a separate afterthought.

16.3 Cost Reduction Targets

The SDP will not invent an arbitrary percentage reduction in electricity prices before the baseline is established. Within six months, the City will publish the Energy Cost Index. Following publication of the baseline, the City will establish annual indicative cost-reduction targets through the municipal budgeting and cost-of-supply process. Targets will cover:

Targets will cover:

- Total system cost per kWh.
- Residential electricity cost.
- Commercial electricity cost.
- Municipal procurement cost.
- Peak electricity cost.
- Network cost.
- Avoidable electricity losses.

THE REAL COST OF ELECTRICITY SHOULD FALL OVER TIME.

Where external factors prevent a nominal reduction in customer tariffs, the City must still demonstrate progress in reducing avoidable system costs.

16.4 Planning Targets

Long-term targets may include Virtual Power Plant capacity, battery storage, municipal solar, distributed generation, demand response and other validated technologies. Such targets remain planning targets until they pass the four-gate process. The City will distinguish:

The City will distinguish:

- Planning target.
- Validated target.
- Funded programme.
- Delivered capacity.

PART SEVENTEEN

Public Accountability

17.1 Quarterly Energy Balance Sheet

The Cape Town Energy and Affordability Office will publish a quarterly Energy Balance Sheet. It will report:

The Energy Balance Sheet will report:

- Average system cost per kWh.
- Residential and commercial electricity cost.
- Municipal procurement and peak electricity cost.
- MW of new reliable capacity and grid capacity unlocked.
- MW of verified VPP and battery power capacity, and MWh of battery storage.
- Peak demand reduction achieved.
- SSEG connections, customer exports and bidirectional meters issued.
- Cost of meter support and measured system value from supported participants.
- Substation upgrades and MW unlocked per upgrade.
- Waste processed and electricity generated from energy recovery and landfill gas.
- Water demand response capacity.
- Households and working households receiving affordability support.
- SMMEs participating in Power to Earn.
- Informal households connected.
- Electricity losses and revenue recovery.

17.2 Independent Annual Review

The Energy Balance Sheet will undergo an independent annual review by a body external to the Energy and Affordability Office. The review will examine:

The review will examine:

- Data integrity.
- Cost calculations.
- Procurement reporting.
- Capacity claims.
- Savings claims.
- Affordability expenditure.
- Subsidies.
- System value.
- Programme delivery.
- Target performance.

The independent review will be published.

17.3 Public Reporting of Failure

Every programme awaiting final validation will be identified as such. Every technology pilot will report its performance. Every material failure will be disclosed.

Public accountability is not the process of making every programme appear successful. Public accountability is the process of making success and failure measurable.

PART EIGHTEEN

Regulatory and Intergovernmental Strategy

Cape Town cannot transform its electricity system alone. The SDP will establish an Intergovernmental Energy Compact. The Compact will provide a structured engagement mechanism with:

The Compact will engage with:

- Eskom.
- The National Transmission Company of South Africa.
- NERSA.
- National government energy authorities.
- National Treasury.
- Western Cape Government.
- Neighbouring municipalities.
- Relevant public entities.

The objective will be to identify:

The objective will be to identify:

- What Cape Town controls.
- What requires intergovernmental cooperation.
- What requires regulatory approval.
- What requires national infrastructure.
- What requires legislative reform.

The City will not build its strategy around powers it does not possess. The City will use its available powers aggressively while pursuing cooperation where national or provincial decisions affect Cape Town's electricity system.

18.1 NERSA

Tariff reform, feed-in compensation and other regulated matters will follow the applicable NERSA process.

18.2 National Treasury

Major municipal infrastructure programmes will be aligned with applicable municipal finance requirements.

18.3 National Energy Policy

The City will monitor changes to national electricity legislation and regulation.

18.4 Provincial Government

The Western Cape Government will be engaged on matters involving economic development, energy planning, transport, environmental management and infrastructure.

18.5 Regional Cooperation

The City will investigate opportunities for cooperation with neighbouring municipalities where regional energy projects can reduce cost or improve resilience.

PART NINETEEN

Delivery Roadmap

Year One: Establish the Foundation

The first year will establish the foundation:

- Establish the Cape Town Energy and Affordability Office.
- Approve the Office's staffing structure and operating budget.
- Complete the metropolitan substation capacity audit and publish the Substation Capacity Register.
- Establish the Energy Cost Index.
- Begin the cost-of-supply study and tariff revenue transition modelling.
- Begin the household affordability study.
- Launch the Municipal Electricity Efficiency and Revenue Protection Programme.
- Audit major municipal electricity-consuming facilities.
- Accelerate municipal LED efficiency measures.
- Begin water and wastewater demand response implementation.
- Review SSEG application processing and existing electricity procurement arrangements.
- Establish the Steenbras Strategic Asset Programme.
- Assess landfill gas expansion opportunities.
- Audit priority PRV micro-hydro sites.
- Begin bidirectional meter procurement and financing investigations.
- Launch a limited Virtual Power Plant pilot and the Power to Earn pilot.
- Begin the informal electricity access and safety audit.
- Establish the Major Load Energy Compact methodology.
- Establish the Intergovernmental Energy Compact.
- Publish the first quarterly Energy Balance Sheet.
- Publish the first 180-day Energy Action Report.

Year Two to Three: Scaled Implementation

The City will move from foundation to scaled implementation. Priorities will include completion of the Steenbras refurbishment programme where applicable, expansion of landfill gas recovery where justified, municipal rooftop solar, additional LED efficiency, water and wastewater demand response, initial battery storage projects, PRV micro-hydro pilots, informal electrification, electricity loss reduction, revenue protection, SSEG process improvement, private-financed storage, competitive solar procurement, development of wheeling opportunities and progression of the revenue transition through the appropriate NERSA process.

Year Four to Six: Scaling Success

The City will scale successful programmes. Priorities will include expanded battery storage, expanded demand response, Virtual Power Plant deployment, Power to Earn expansion, additional municipal solar, additional PRV micro-hydro, private-financed generation, wheeling-linked procurement, expanded landfill gas, continued electricity loss reduction, mature affordability support and validated tariff revenue transition.

Year Seven to Ten: Operational Maturity

The City will focus on operational maturity. Priorities will include optimisation of the integrated electricity system, further Steenbras integration, large-scale storage where justified, expanded VPP participation, regional energy cooperation, continued private investment, assessment of emerging technologies, long-term asset replacement and post-2035 energy system planning.

No speculative technology will become a load-bearing component of the municipal electricity system simply because it has political appeal.

PART TWENTY

2030, 2035 and 2040 Outcomes

By 2030

Cape Town should have:

By 2030, Cape Town should have:

- A functioning Energy and Affordability Office.
- A transparent electricity procurement system.
- A published electricity cost baseline.
- A functioning Substation Capacity Register.
- A measurable programme for unlocking grid capacity.
- A functioning Steenbras integration strategy.
- A mature SSEG framework.
- A functioning demand response programme.
- A growing Virtual Power Plant.
- A working Power to Earn programme.
- A municipal efficiency and revenue protection programme.
- A transparent affordability programme.
- A quarterly Energy Balance Sheet with independent annual verification.
- A demonstrated reduction in avoidable electricity system costs.

By 2035

Cape Town should have an integrated electricity system combining:

By 2035, Cape Town should have an integrated system combining:

- National electricity and independent power.
- Municipal, household and commercial generation.
- Steenbras storage and battery storage.
- Demand response and Virtual Power Plant capacity.
- Landfill gas.
- Water and wastewater flexibility.
- Waste and resource recovery.

The precise capacity of each component will depend on validated technical and financial assessments.

By 2040

Cape Town should operate as an integrated energy platform rather than simply as a conventional electricity distributor. Residents should be able to:

Residents should be able to:

- Consume electricity.
- Generate electricity.
- Store electricity.
- Export electricity.
- Shift electricity use.
- Earn from verified electricity services.

Businesses should be able to participate in electricity markets where regulation permits. The municipality should be able to procure electricity from the cheapest reliable sources available to the metropolitan system. The grid should be managed as an active platform.

The national grid should remain an important component of the system. Cape Town should nevertheless be significantly more resilient and flexible than it is today.

The objective is not complete independence. The objective is energy security.

PART TWENTY-ONE

What the SDP Approach Does Differently

The SDP's difference lies in method, sequencing and accountability.

21.1 Start With What Cape Town Has

The SDP will optimise existing assets before prioritising new infrastructure. Steenbras will be treated as a strategic asset, landfill gas will be optimised, water and wastewater infrastructure will become active energy resources, the existing electricity network will be audited and municipal buildings will become energy efficiency and generation assets.

21.2 Reduce Waste Before Increasing Costs

The City must address electricity losses, theft, inefficient infrastructure and avoidable municipal consumption before asking residents to carry additional system costs.

21.3 Buy Electricity Intelligently

The City will procure the cheapest reliable electricity at the lowest practical whole-system cost.

21.4 Protect the Revenue Base Without Punishing the Poor

The electricity revenue model will evolve as distributed generation grows. The transition will be transparent. Affordability support will be explicit. Low-consumption households will be protected from disproportionate cost increases. No tariff reform will proceed without distributional modelling.

21.5 Use Private Capital

The City will not automatically place every infrastructure requirement on the municipal balance sheet. Private capital will be used where it can provide infrastructure at acceptable public cost and risk. Private finance will not be treated as risk-free.

21.6 Validate Before Funding

No major target becomes a funded commitment before it passes feasibility, costing, value and independent review.

21.7 Keep Speculation Out of the Load-Bearing System

Emerging technologies can be tested. Emerging technologies cannot be assumed to solve Cape Town's electricity needs before they are proven.

21.8 Measure Results

The Energy Balance Sheet will show residents whether the strategy is working. Independent annual review will provide an additional layer of accountability.

21.9 Deliver Early

The first 180 days will contain visible measures that can begin without waiting for major regulatory reform. The strategy will therefore combine immediate action with long-term transformation.

PART TWENTY-TWO

The SDP's Five Non-Negotiable Rules

Rule	Commitment
1 — No Unfunded Promises	The SDP will not announce major programmes without identifying their likely cost, funding mechanism and implementation requirements.
2 — No Tariff Reform Without Distributional Modelling	No major tariff restructuring will proceed without demonstrating its effect on low-income households, working households, SMMEs and other customer groups.
3 — No Private Concession Without Risk Allocation	Private finance does not eliminate risk. Every concession must identify who carries construction, operating, demand, price, regulatory and performance risk.
4 — No Municipal Guarantee Without a Public Value Test	Any municipal guarantee, offtake commitment or other financial support must have a transparent cost and an independently assessed public value.
5 — No Aspiration Presented as Delivery	The City will distinguish between a planning target, a validated target, a funded programme and delivered capacity. Residents will know the difference.

CONCLUSION

Cape Town's energy challenge is not simply about finding the next megawatt. It is about making the entire electricity system work better.

The SDP believes Cape Town should begin with what it already has:

The SDP believes Cape Town should begin with what it already has:

- Optimise Steenbras.
- Expand proven landfill gas recovery.
- Reduce municipal electricity waste.
- Improve water and wastewater demand management.
- Accelerate energy efficiency.
- Protect the electricity network and reduce losses.
- Improve revenue collection.
- Buy electricity intelligently.
- Unlock existing grid capacity.
- Scale proven generation and storage.
- Use private capital where appropriate.
- Give households and businesses opportunities to participate in the electricity system.
- Protect working households through a transparent affordability programme.
- Test emerging technologies without exposing ratepayers to unproven commercial risk.

The SDP does not promise that Cape Town can replace Eskom. The SDP does not promise that every electricity bill will immediately fall.

The SDP does promise that the City will establish a measurable baseline, identify avoidable costs, reduce system inefficiencies and pursue lower electricity costs through every lawful and financially responsible mechanism available to it.

The SDP will not:

- Invent figures to make the plan look more impressive.
- Present an aspiration as a funded commitment.
- Claim that installed capacity automatically equals value.
- Hide the cost of affordability programmes.
- Allow unproven technologies to become load-bearing assumptions.
- Ask residents to accept higher costs without first demonstrating that the municipality has addressed avoidable waste and inefficiency.

AFFORDABLE ELECTRICITY IS ECONOMIC INFRASTRUCTURE.

What a better electricity system looks like:

- Cheaper electricity makes Cape Town cheaper to live in, cheaper to operate a business in and more attractive to invest in.
- Reliable electricity protects economic activity.
- Flexible electricity improves resilience.
- Efficient electricity infrastructure reduces unnecessary costs.
- A competitive electricity market creates opportunities for residents and businesses.
- A transparent electricity system creates accountability.

The ultimate test of the SDP Energy Plan is not the number of megawatts written into a document. The test is whether Cape Town's residents and businesses experience a better electricity system: one that costs less to operate, wastes less, uses existing assets intelligently, attracts private investment without surrendering public value, protects vulnerable households, supports economic growth, can be measured, and for which somebody is accountable.

The SDP's Commitment to Cape Town

The SDP's commitment to Cape Town is therefore:

- We will know what the system costs.
- We will know where the money goes.
- We will know what assets Cape Town already has.
- We will know what each investment is expected to deliver.
- We will know when a target has been validated.
- We will know when a project has been funded.
- We will know when capacity has actually been delivered.
- We will know whether electricity is becoming cheaper and more reliable.
- We will know who is accountable.

AFFORDABLE ELECTRICITY IS ABOUT MAKING CAPE TOWN CHEAPER TO LIVE IN, CHEAPER TO OPERATE A BUSINESS IN AND MORE ATTRACTIVE TO INVEST IN.

That is the SDP Energy Plan for Cape Town.

Know the plan. Know the cost. Know how it will be measured.