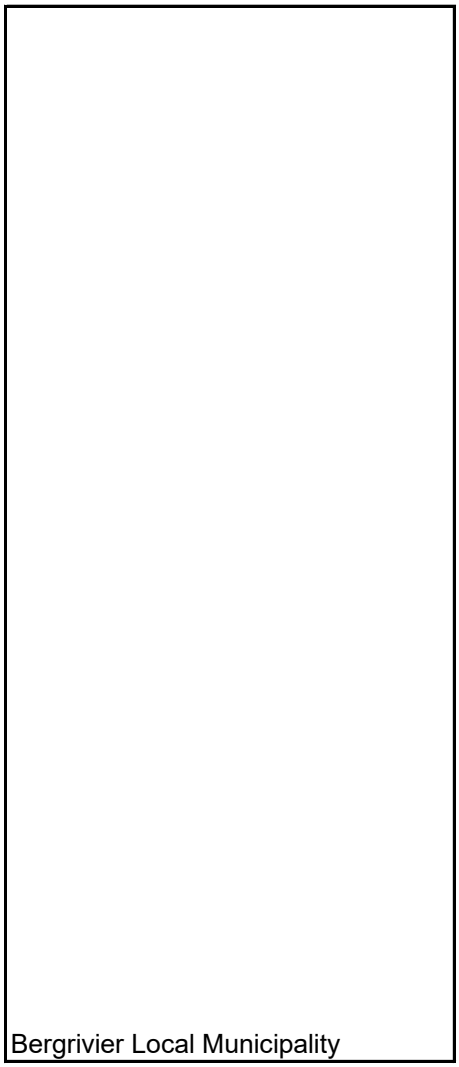
Municipality
Beaufort West Local Municipality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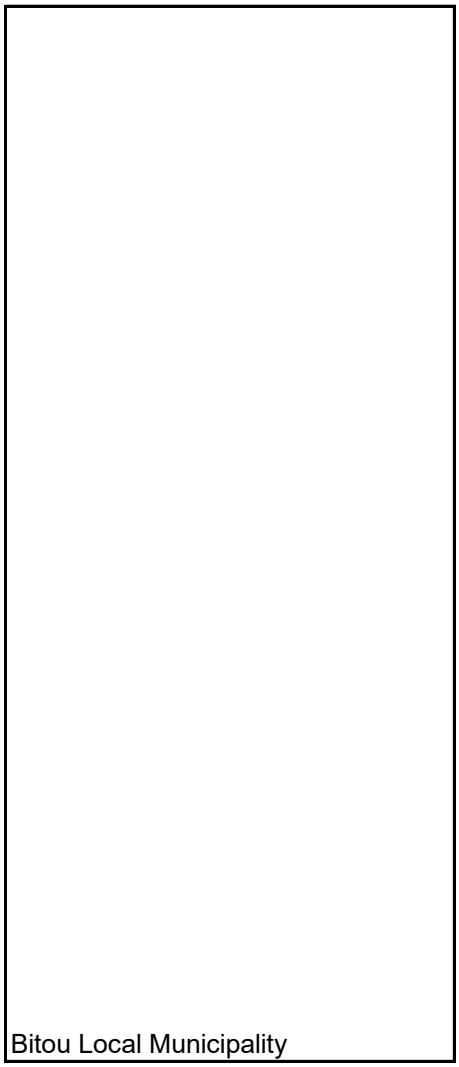
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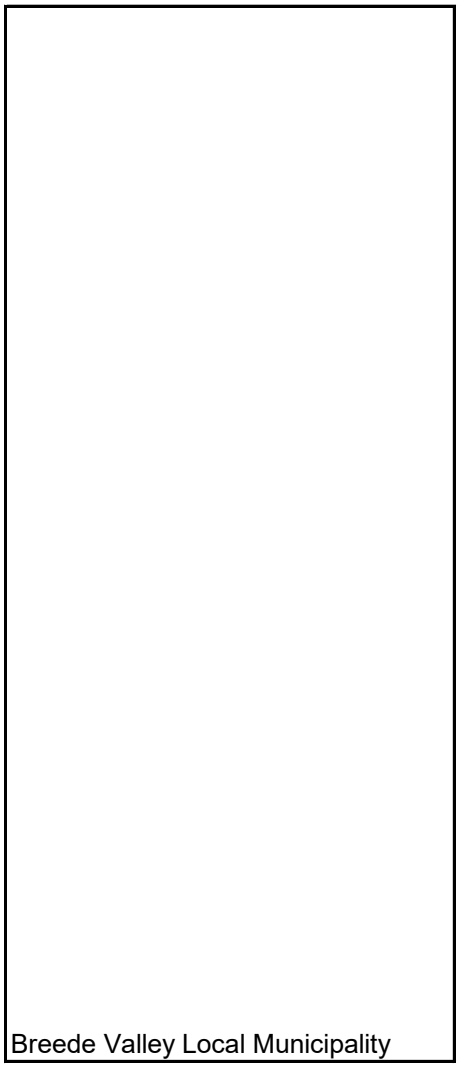
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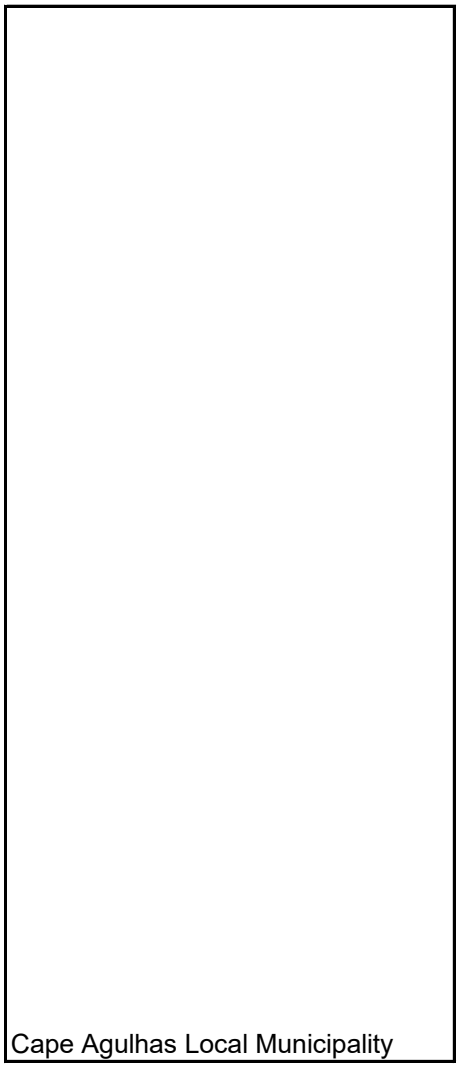
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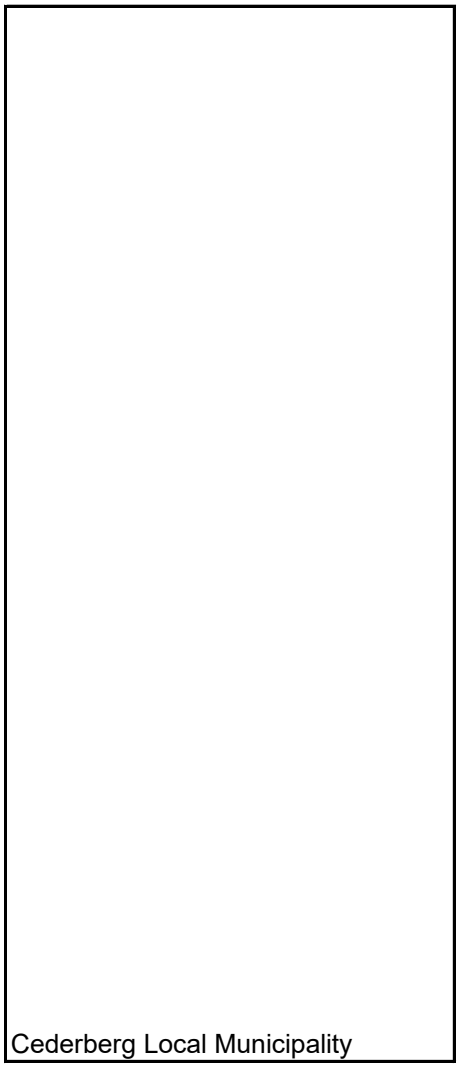
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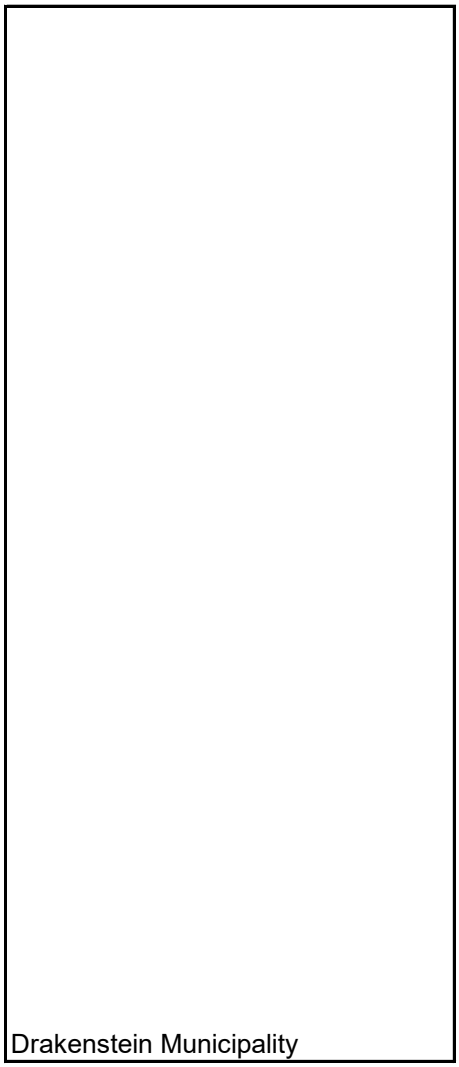
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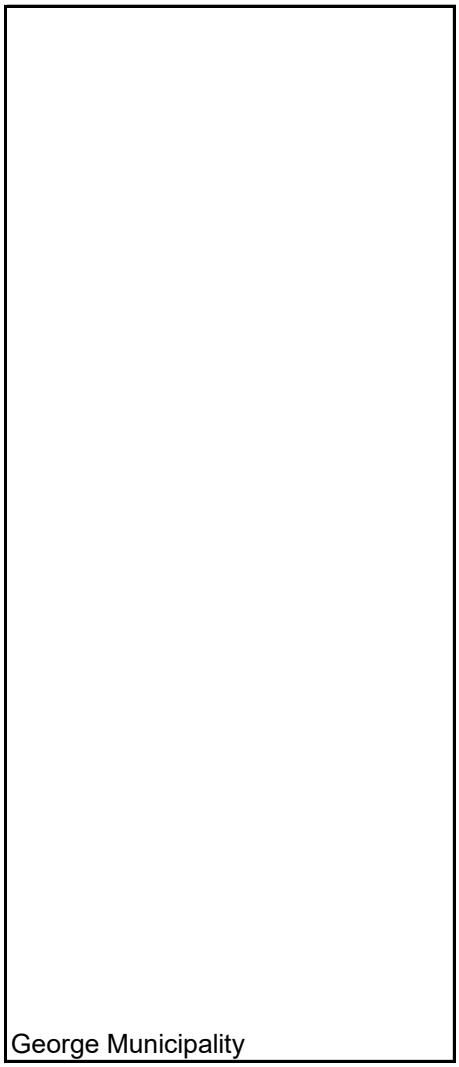
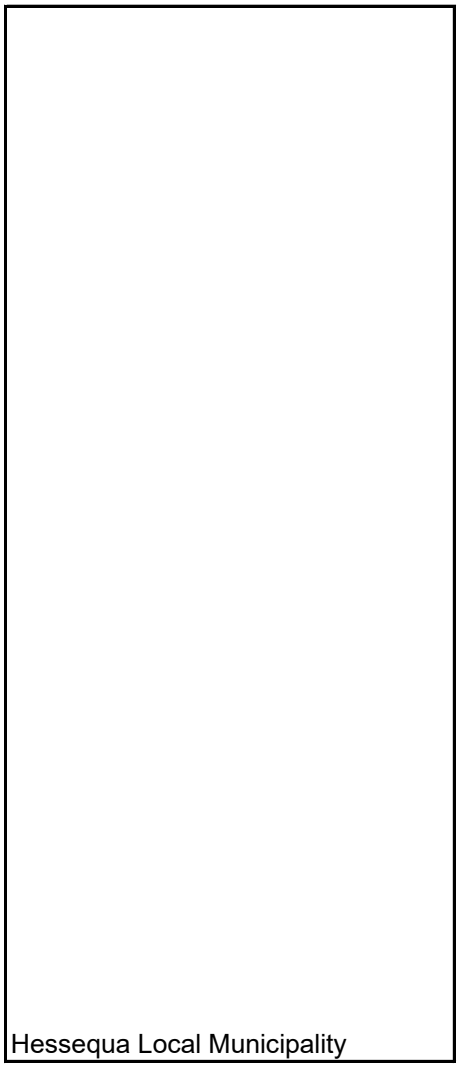

George Municipality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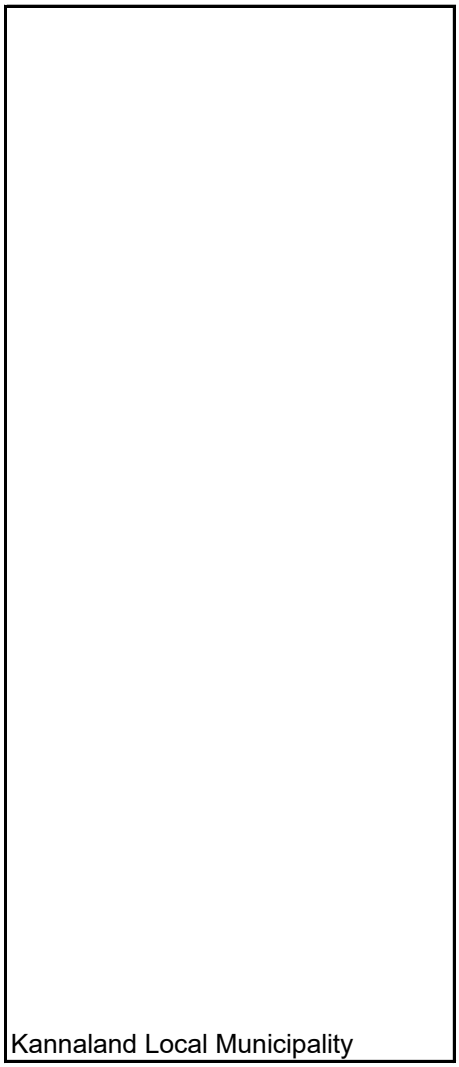
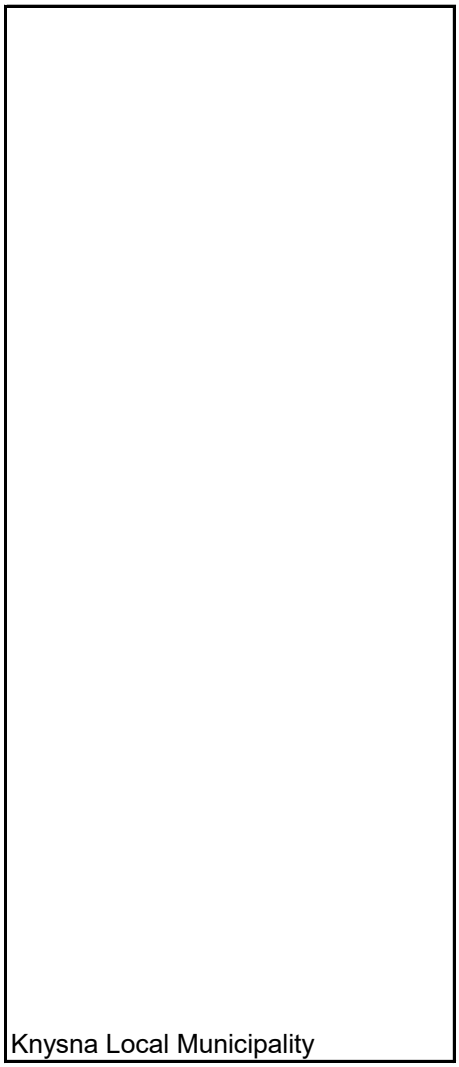
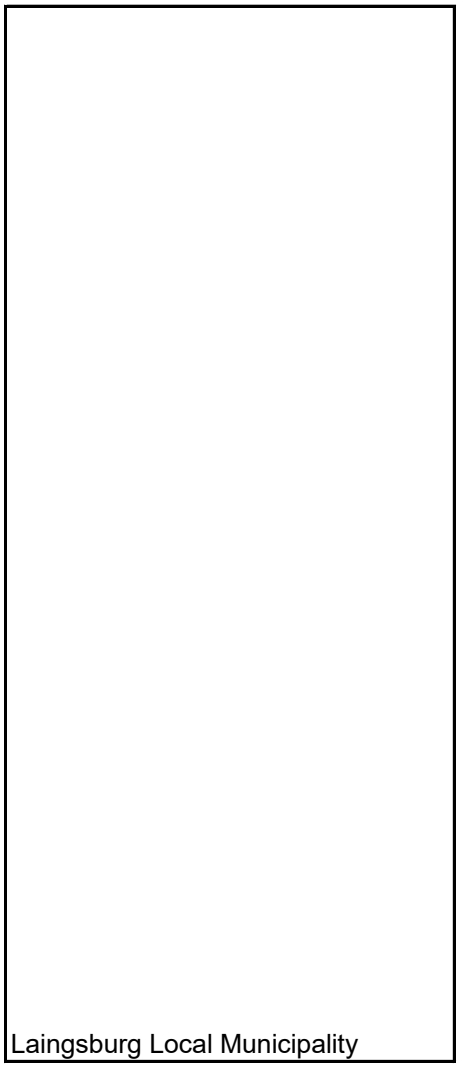

Kannaland Local Municipality


Knysna Local Municipality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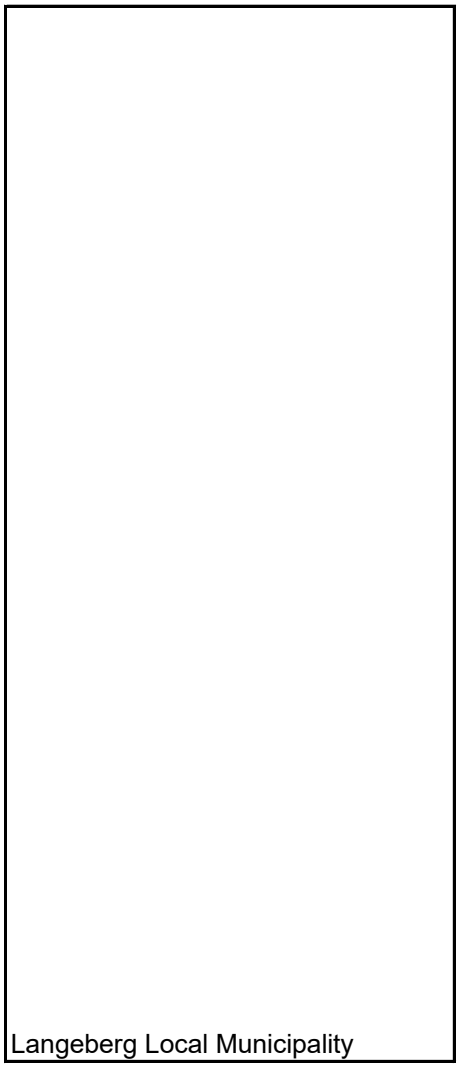
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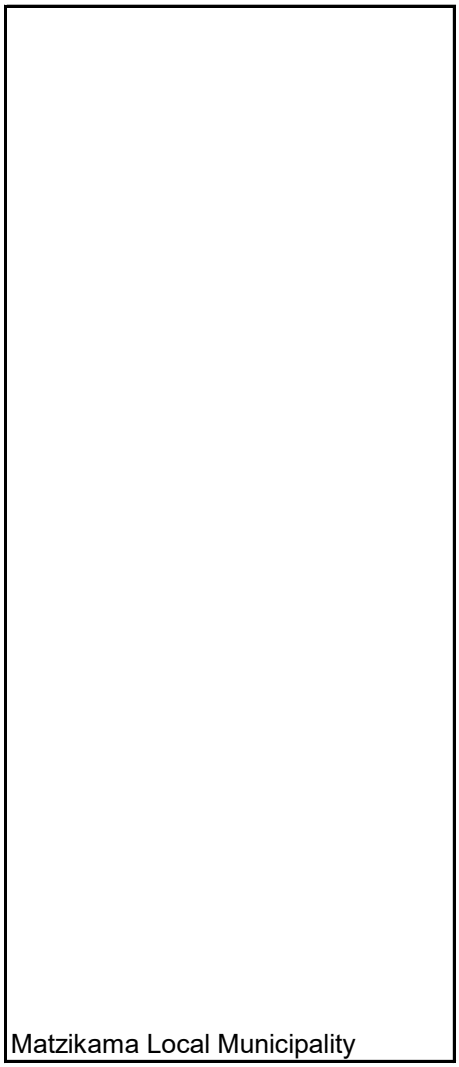
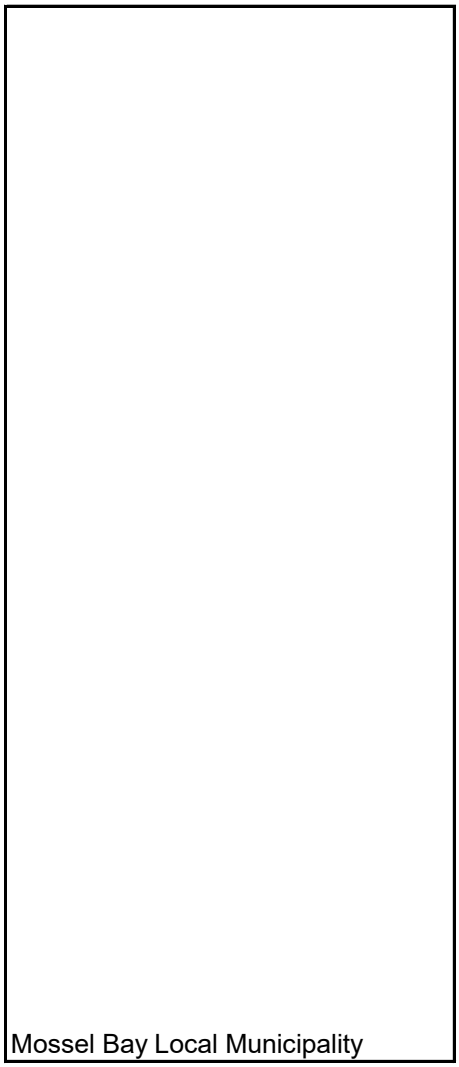
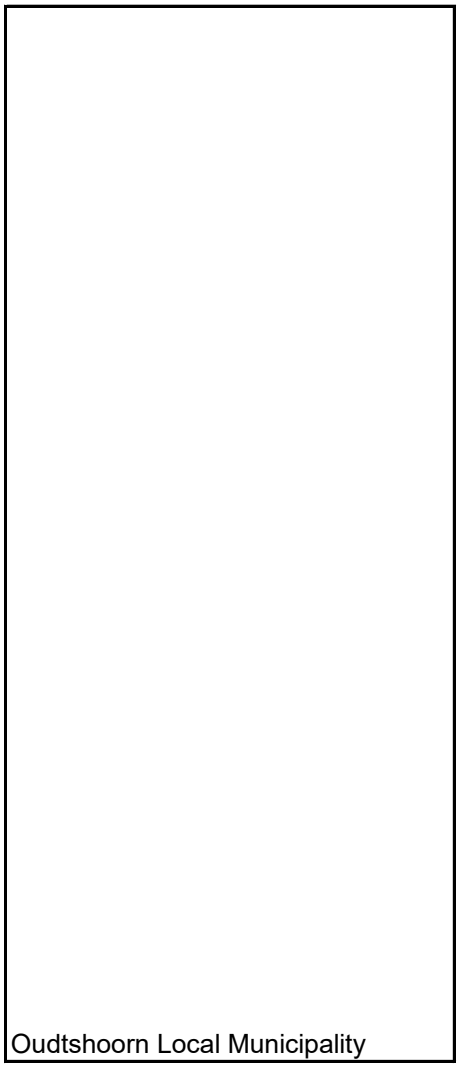
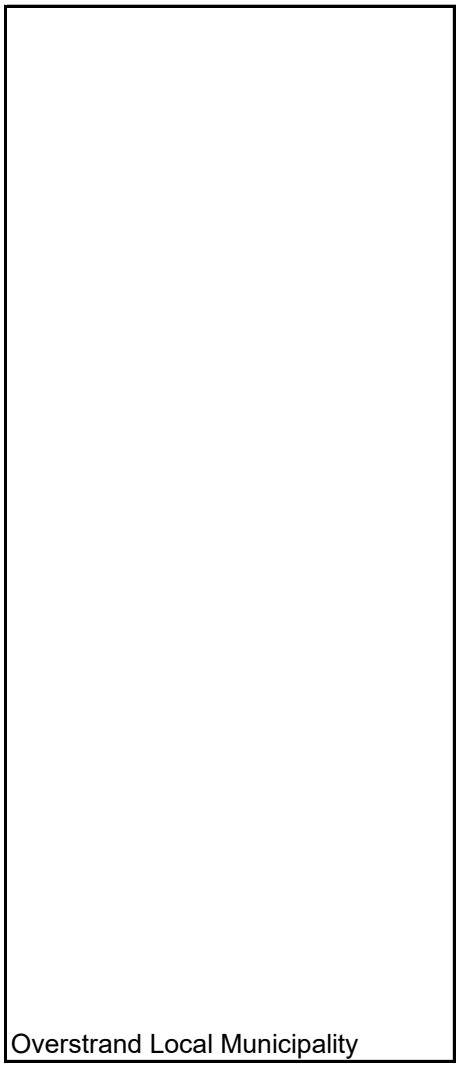

Matzikama Local Municipality


Mossel Bay Local Municipality


Oudtshoorn Local Municipality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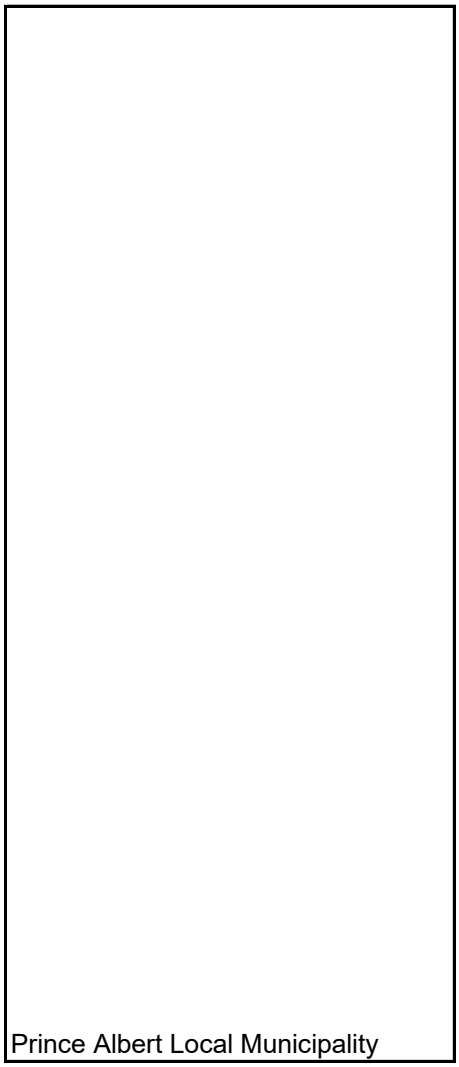
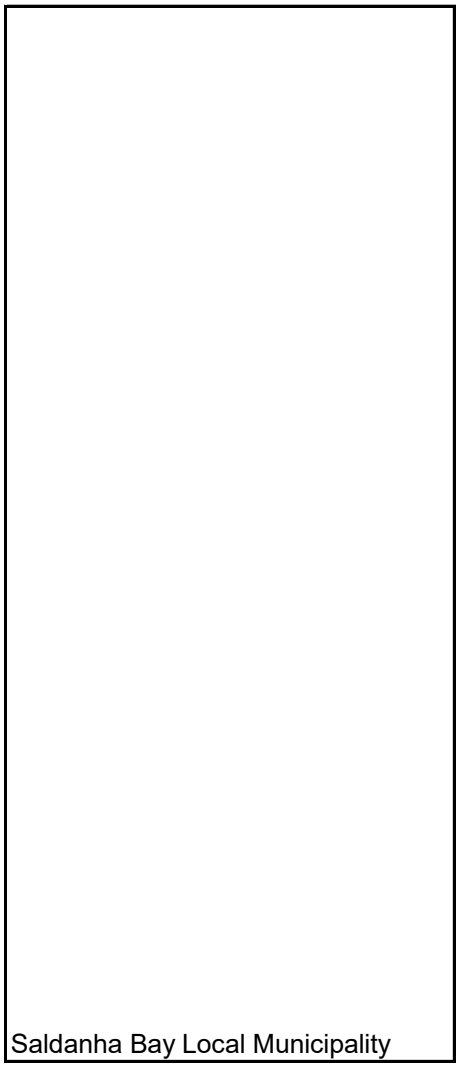

Prince Albert Local Municipality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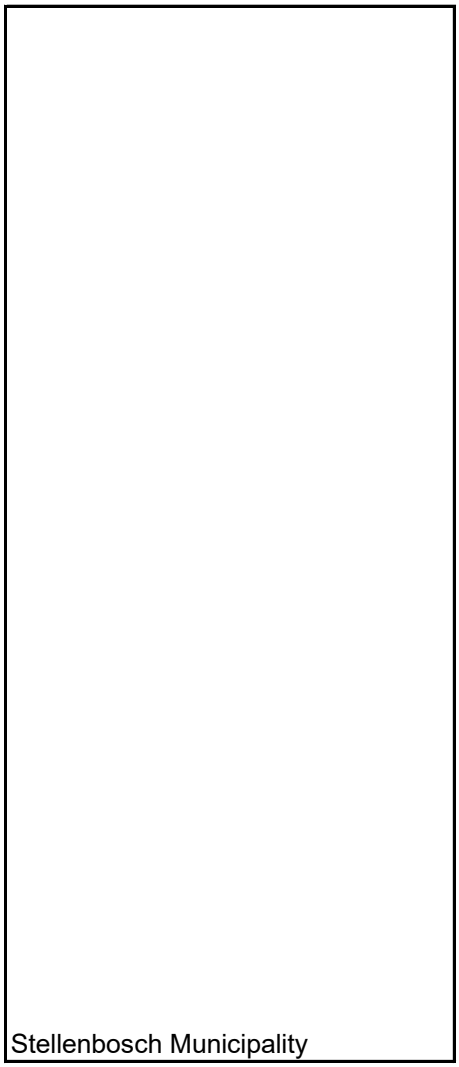
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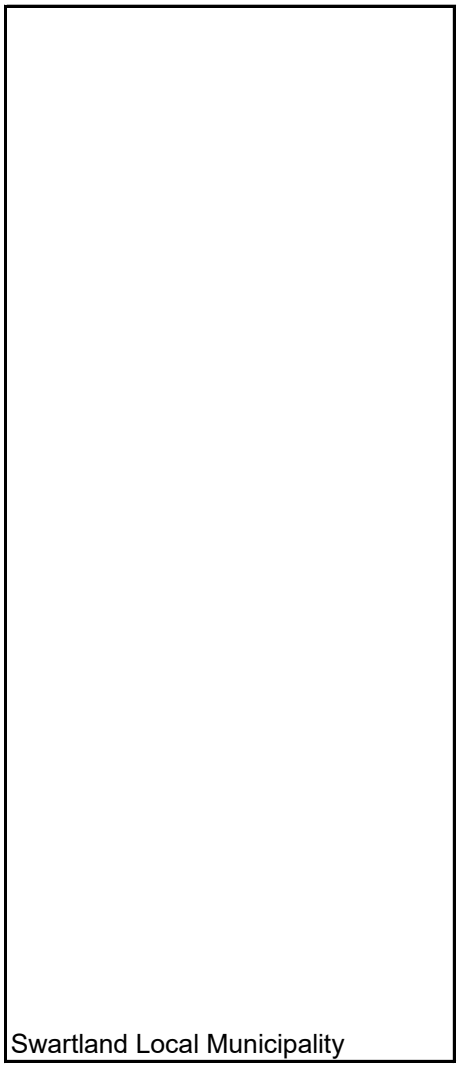
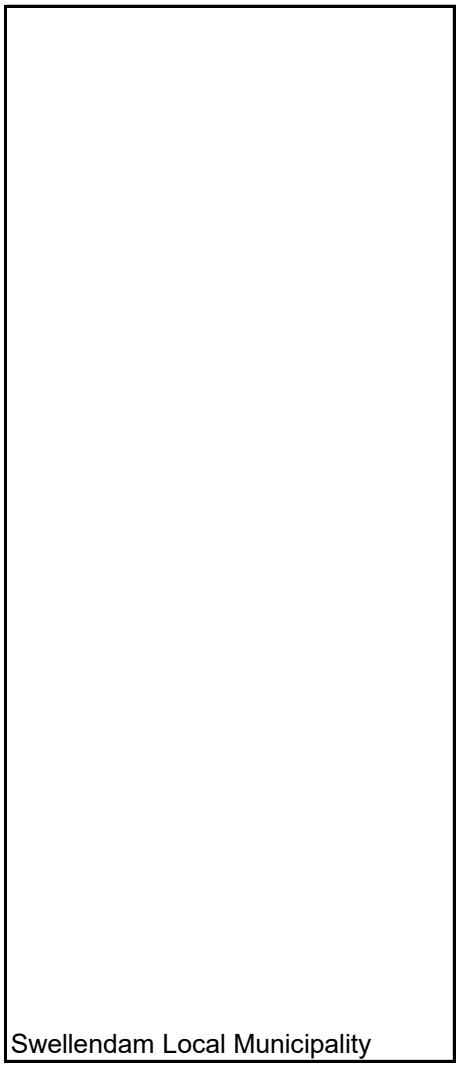
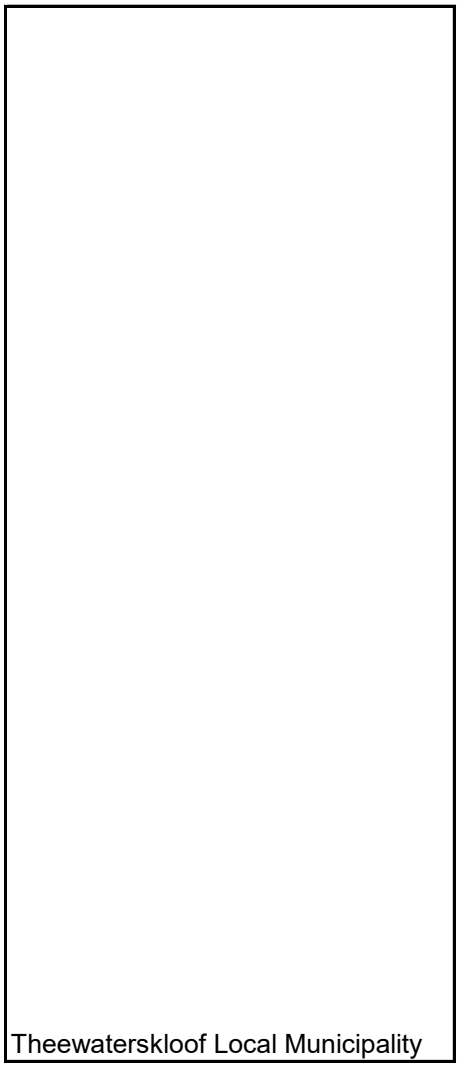

Swartland Local Municipality



Swellendam Local Municipality


Theewaterskloof Local Municipality

Witzenberg Local Municipality
Number of enagements

General insights

Activities that would be beneficial for all municipalities

Insights
SSEG Application • The application process is manual, using the SALGA application form. Most applications come from installers rather than individual residents or businesses. • The municipality has received training on transitioning to an online application system, though capacity issues are slowing progress. Installers from outside the municipality are advocating for the shift to an online platform. • The volume of applications is relatively low, with approximately 3 MVA of registered capacity (mainly from businesses and malls) and 1.4 MVA of unregistered systems. • There is no penalty for unregistered systems, but the municipality is working toward ensuring all systems are registered. • They are looking for assistance on streamlining the application process, and they've found that some CCT and GC work has been helpful. • The municipality conducts inspections at no additional cost and the quality of systems installed is generally good. While they don't have a list of approved inverters, they rely on the NRS certification for compliance. Feed-in Tariff • Customers participating in SSEG must be on the TOU tariff, with the cost of the meter covered by the customer. • They are exploring the use of the RT 29 meter for smart metering, linked to their debt relief program. They have funds allocated for smart metering, but financial management issues are hindering progress. • The municipality has had an SSEG feed-in tariff in place since 2018, but it is not yet active. They need support for the finance department to understand its functionality and have not yet developed a financial system to balance export and import. Currently, most clients are not interested in feeding back into the grid. Wheeling and EV There is no interest in wheeling at the moment The municipality is not currently involved in the EV charging space, but there are two charging stations within their jurisdiction. Project Procurement: They are working on a significant project to reduce their electricity bill and NMD, with plans for a 40 MVA

SSEG program is progressing well. They are using the SEA online application platform. They have roughly 3.3MW of registered SSEG, expecting double that in unregistered SSEG.
The cost of supply has recently been completed, and there will be an overall increase in tariffs. roughly 20% on large power users
Automated meter reading tender, will look at the meter installation and a smart meter tender.
Need support with funding for Grid studies for IPP projects, they have already cleared the erf to be build-ready
Challenges with the capacity to implement various activities at the municipality.
Have challenges with Notified Maximum Demand, have investigated Energy storage but the capital cost is to high.

AMEU Presentation

- Capacity challenges to process all the new SSEG installations, keeping up with the commercial installations, challenge in keeping up with the Residential customers
- Require a review of their existing SSEG documentation and contracts
- Have noticed many unregistered installations, 170 applications, 144 approved up to 800 systems in the networks
- Technical training for field workers on how inverters and systems should be installed
- Using the SEA online application tool, seeing some discrepancies with their processes and the online tool, their ICT manager will share some of his concerns with regards to the portal
- Currently no plans to engage with wheeling, but keen to make their customers use virtual wheeling

They have increased their SSEG fixed charges significantly and are receiving pushback from their customers; GreenCape can support in reassessing the impact of fixed charge increases on all stakeholders, and support in motivatiing adjustment if needed

- Have challenges with installers who apply to get a PTI, but there is then the installer does the installation but disappear for the commissioning, leaving the customer with challenges
- Many illegal installations, but enforcing process of disconnection for customers to become registered
- NMD and cold pick up load challenges, pushing to get all unregistered installations registered to mitigate (charging current ect), also doing audits on the towns
- On the Municipal debt relief program
- Planning to do a metering tender for bi-directional metering, currently doing it ad hoc, but it isn't cost-effective (GreenCape will share details on the National Treasury transversal metering tender)
- Have capacity challenges, in the process of reviewing the org structure to add additional resources
- GreenCape can review their existing RE Policy for input

Have a very comprehensive SSEG application process, up to an equipment data set. Installers find it onerous, but they feel strongly that they have to ensure their grid is protected.
Planning a smart meter tender
Challenges with customers using the requirements and legislation to only comply with the minimum requirements and almost leveraging gaps in the documentation (specifically for bulk connection points)
Need support with funding and capacity to do all the various activities.
Planning a floating solar system on the mountain dams
Waiting to learn from Saldanha's IPP tender before they continue with their larger plans, but most of the groundwork has been done.
Looking for funding for:
- Greening municipal buildings
- Rolling out energy storage (We have a model we can share with them)
- LED lighting
- Motion sensors
- Additional funding/ grants for gap funding infrastructure upgrades
Would appreciate a review of the impact of SSEG on municipal revenue (this was not covered in the COS)
They would want to implement curtailment to their customers.

George has many initiatives underway:
- 12MW Solar plant
- 3 x 1MW battery storage projects
- Feasibility studies for Demand response, Energy storage and renewable energy.

Support required:
- Review of their entire suite of renewable documents (SSEG and Wheeling)
- Review of the DSM tender that has gone out along with the updated NRS 048-9 loadshedding rules

- SSEG Application

The municipality has an online application process, but manual processing remains active due to their customer base. Installers often apply on behalf of residents and businesses.
The approval process typically takes one week.
Registration rates are low at 20%, and enforcement is not a priority as the municipality recognizes the need for improved communication regarding registration requirements.

- Feed-in Tariff

A feed-in tariff is in place, primarily benefiting commercial customers by offering credits

- Wheeling and EV

The municipality’s masterplan will look at exploring an EV business case and establishing a solar-powered charging hub.
Wheeling is not currently a priority due to limited interest, but its feasibility will be examined.

- Project Procurement

A 10 MW solar plant is under development, expected to meet 60% of the municipality’s base load. This project is significant as its capacity exceeds the municipality's NMD

Kannaland Municipality is facing capacity limitations, which is hindering progress in the adoption of renewable energy, particularly SSEG

- SSEG

The municipality is in the process of updating its SSEG procedures, including application processes, feed-in tariffs, and overall policies, in order to improve participation and align with current energy demands.
There is limited activity in the SSEG space, with few customers engaging in solar generation.
There is no feed-in tariff and customers are reluctant to feed back into the grid, primarily due to concerns over grid instability.

- SSEG Applications

Knysna has an online application system in place
While there is an ongoing amnesty period for unregistered systems, the municipality plans to disconnect unregistered systems once the period ends.
Inspections are typically conducted for larger, commercial systems
They require an engineering sign-off from a reputable and traceable professional, along with a CoC

- Feed-in Tariff

Knysna has a feed-in tariff, but it is not currently active due to instability within the municipal council which slows down approval processes and due to the lack of smart meters
The municipality is exploring the use of RT 29 meters to enable feeding back to the grid but they have not yet conducted a grid impact study

- Wheeling and EV

There is currently no interest in wheeling.
While Knysna is not focusing on EV charging at the moment, there are two existing charging stations operated by Jaguar

- Project Procurement

They face difficulties in procuring renewable energy projects, primarily because the municipality does not own land. Alternative options being considered include hydropower or wind energy, as opposed to solar energy.

Laingsburg has a graduate Elecrtrical trainee through Misa, supporting SSEG applications. They currently have an estimated 114kVA of registered SSEG, and is making use of the SEA online application tool.
They have the following challenges:
- With cold load pick up from trolley invertors and NMD exceedences
They require support with:
- SSEG feed in tariffs (They currently take the excess at no cost). GreenCape can support with feed in and fixed charge calucaltions
- Links to financing for their planned 3 - 5 MW municipal owned generation

- Have roughly 16MVA of registered SSEG installations
- Capacity to process, inspect/commission all the applications they receive, challenges with non-registered systems.
- Need support on installations larger than 1MVA, internal capacity and network studies
- Have challenges with Notified Maximum Demand due to growth in towns, had to invest R50m to only unlock 3MVA due to Eskom delays in upgrading upstream infrastructure. The upgrade has been deferred to 2028 (investment of R200 - R250)
- Some gaps in their Masterplan and new rural areas have not been added. Support needed with access to Retic Master to do technical studies and update their networks as they grow
- They are in process with their wheeling frameworks, will first try and get it over the line internally before requiring additional support from GC

- SSEG Application

Matzikama has recently launched an online application system for SSEG, which does not include an application fee. However, clients are responsible for covering the costs of the smart meter. The majority of applications are for retrofit systems, where customers already have an installed setup. Unregistered systems are not a priority until smart meters are fully implemented.
The municipality is considering the Kumstrup meter for its smart metering needs, despite being a distressed municipality that should ideally use the RT29 smart meter, as recommended by National Treasury. Their preference for Kumstrup meters is because they want to perform daily reconciliation of export and import readings aligned with TOU tariffs.

- Wheeling

Wheeling is currently not a priority for Matzikama due to limited capacity and there has been no interest from stakeholders in the area.

- Support for Electricity Supply By-Laws:

Matzikama needs assistance with the translation of their electricity supply by-law, which is based on the City of Cape Town's by-law. For approval and implementation, they require it in additional languages. They have reached out to the Western Cape government for support but have not yet received a response.

•SSEG Applications
The municipality has received applications of approximately 15 MVA, of which 10 MVA have been approved.
No application fee is charged, but larger systems incur a building control fee.
Currently, there is no active enforcement or monitoring of unregistered systems, though this will be addressed in the near future.
Documentation for registered systems is emerging as a need, particularly for insurance purposes.

•Feed-in Tariff
A feed-in tariff exists, but residential participation is declining, and there is no additional charge for feeding in.
Rules restrict smaller systems (below 30 kVA) from feeding into the grid.
Smaller systems do not require engineering sign-off, but installation must be performed by an accredited installer

•Wheeling
No wheeling policy or tariff is currently in place, though the municipality is exploring medium-voltage wheeling.
There is interest from a client in pursuing wheeling, and the municipality requires assistance to develop scenarios and understand the necessary frameworks for implementation.

Project Procurement
A 2.1 MW BESS is under development for the water works (closed tender)
Efforts are underway to green municipal buildings

AMEU Presentation

SSEG working without issues. No real movement around wheeling. Will require wheeling support around August when they have additional resources

•Project Procurement
Prince Albert faced an electricity outage lasting two weeks, which has prompted the municipality to explore alternative energy generation options, particularly solar and battery storage for off-grid solutions. They are still in the early stages of assessing the feasibility of these solutions.

•SSEG Applications:
Currently, a manual application process is in place, but the municipality has undertaken training to transition to an online platform.
The application fee is R2800, which includes the cost of inspection.
The regulation of SSEG is not fully established, and progress has been slow with a number of unregistered systems.

•Feed-in Tariff
A feed-in tariff is in place, but the municipality lacks the necessary meters for proper implementation.
They also have challenges with the cost of supply study required to finalize this process and are facing challenges in coordinating this with NERSA

•Wheeling:
There is little interest in wheeling at this stage.

AMEU Presentation

SSEG process is working fine.
Request wheeling support, suggested that we have specific wheeling engagements to focus on updating their tariffs and documentation.
They also requested support with curtailment options for Loadshedding; they have submitted an application to Eskom and would appreciate support with closing some of the gaps. (We will discuss this with Clarens LM, who has successfully implemented curtailment to protect residents from loadshedding)

Like the ESA amendments, Swartland needs support with wheeling agreements between the customer and municipality. Currently, they don't have customer contracts, they work on a quote and a signed quote is essentially the contract between the customer and the munic

Swartland has an innovative model for off-take private generation. They have signed a PPA for 1 MW of renewable energy for three years; after the first three years, the renewable energy will be for own use by a lifestyle estate which is currently under construction; the completion of the estate is estimated to take 3 years. With this model, the municipality is protected from the long-term risk of new renewable energy and the administrative burden of contracts of longer than 3 years. The private power producer can catalyse their new development with an anchor off-taker while they complete their development.

Wheeling framework general support.

We will share our generic renewable energy policy for them to review, they will give feedback if they want to support with implementation.

Has implemented an online application system to register SSEG systems and have an approved feed-in tariff. Registration is still voluntary and customers/residents currently lack the necessary metering infrastructure for feed-in.

They have identified a need for funding to implement smart metering solutions and are currently awaiting approval from National Treasury for RT meters that were procured under the Transversal tender, which would enable feed-in capabilities. They also have strong plans for pushing smart grids with the new meters.
The municipality has a potential client interested in wheeling and has started developing frameworks to support this. They are open to discussions around wheeling to explore further commercial opportunities and ensure readiness as the framework takes shape.

They are conducting a public participation study to assess TOU for residential areas. Their approach with SSEG systems requires these to be grid-tied and equipped with backup power, which supports the municipality's strategy to manage peak consumption more effectively.

Munic would like to capitalize on its strategic position as being central to Cape Town and George and charge electric vehicles. Looking at landing 3 charging stations with multiple charging points.

They are exploring 1.8MW waste-to-energy plant to off set 15-20% of their baseload

Currently, no renewable energy projects are active due to a lack of funding. They are currently engaged in a new cost-of-supply study. The munic aims to electrify a housing project intended to serve local homes where Eskom has been unable to extend power supply.

They have an online SSEG application process with a fee of R2800, which includes inspection costs and making the SSEG total cost of the system. Clients have to now pay for 3 inspections for the same solar system (COC, Eng Sign Off and Munic). This has resulted in 20% of the solar system not being registered, and there are no current enforcement measures aside from disconnection if the municipal notices an issue. The turnaround time for SSEG is 1 day, this is also because of slow uptake of solar in the area. They have a potential 1 application every 2 week.

Although they considered penalties for unregistered systems, legal team challenges have delayed the finalization of these measures. There has been no significant impact on the grid observed thus far.

They would benefit from training programs focused on SSEG to ensure staff are well-versed in overseeing these systems, and for installers to be informed of required certifications such as the PV GreenCard. 90% of the people installing systems in Caledon are from Capetown and Hermanus and there is need for growing local entrepreneurs to take part in the sector.

Recently, they have revised their SSEG policies, but they are not currently pursuing wheeling as an option. Additionally, they are seeking funding sources to support their renewable energy goals and further electrification projects.

SSEG Buy-Back Tariffs:
• Witzenberg requested approval for SSEG buy-back tariffs in this year's budget but did not succeed. They plan to re-apply next year through the council chamber, as NERSA currently lacks a mandate to regulate SSEG and wheeling.
• There is a lack of public understanding of SSEG tariffs, the advantages of smart meters, and how customers can benefit from PV systems. Improved awareness efforts could boost customer engagement.

Metering and System Registration:
• The municipality requires smart meters capable of bidirectional reading for accurate TOU billing.
• A reliable database is needed to track all registered SSEG systems, especially as unregistered and prepaid-meter systems pose monitoring challenges. Unregistered systems are challenging to monitor due to limited staff capacity, application backlogs, and limited awareness among the public and installers.
• Presently, applications for SSEG systems are handled manually, without application or pre-inspection fees. However, smart meters incur a cost of around R2,000 to R3,500, including installation and monitoring fees.

Wheeling and Electricity Supply Agreements:
• Witzenberg sees an increasing interest in wheeling, particularly from the agricultural sector, and is in need of a wheeling framework.
• The municipality is looking at updating its electricity supply agreement to include wheeling. Currently, they rely on the connection application form as a makeshift supply agreement. Different wheeling scenarios need to be considered and analyzed.

Buy-Back Rates and Supply Contracts:
• The municipality's current buy-back rates are not based on TOU, and there's a need to review these rates.
• There's a requirement for an assessment of how buy-back rates may impact the municipality's electricity supply contract with Eskom.

Project Procurement:
• Witzenberg is working on a 19.5 MW solar plant, which is in the planning phase with an EIA underway. This project aims to help manage demand peaks and address the challenges of exceeding the NMD, as the municipality awaits Eskom's infrastructure upgrades.

Status

Closed - Municipalities have back-end access to customise the forms

Next steps GreenCape To be taken forward as part of GEER	Other support they need	Comment
Support with engaging with their finance department to operationalise their SSEG feed in tariff		

Specific support as part of GEER	General technical support with IPP projects	

Focus to have an inperson engagement		

SSEG documentation review There is demand for wheeling from private sector, we will engage with them on Wheeling again	Techncial training for their team (Inverter specific)	We could contact one of the training schools/inverter manufacturers and do a site visit on inverters specifically. Will also see if the SEA training courses does cover details on inverters

SSEG tariff review		

Review their exisiting RE policy		

SSEG tariff review Battery energy storage support		

Review all existing SSEG documentation (they require updating) Review their DSM scope of work (Completed)		

Invited to the inverter training		

Invited to the inverter training		

Support with engaging with council to operationalise their SSEG tariff		

SSEG tariff review		

Wheeling support	Access to tool to update masterplanning	

Support with SSEG by law		

Wheeling support		

In person engagement prioritised		

Wheeling - Review their exisitng documentation		

SSEG process support		

In person engagement prioritised		

Wheeling support	Curtailment	

Shared RE policy Wheeling support Case study on Darling Green Utility project		

Support on Waste to Energy, faciliated an engagement with our Waste Sector Expert		

Invited to the inverter training SSEG knowledge share with broader TWK team		

In person engagement prioritised, support with design and operationalise their SSEG feed in tariff		

SSEG Application process SALGA 2023	SSEG Tariff SALGA 2023	DOTP	DEA&DP
Yes	Yes		

Yes	No		

Yes	Yes		

Yes	Yes	Selected for municipal DSM advisory support (4 munis - kick off Jan '25) 1 of 5 municipalities being provided with hot water load control modeling support (dunded through USAID & DMRE)	

Yes	Yes		

Yes	Yes		

Yes	Yes	1 of 5 municipalities being provided with hot water load control modeling support (dunded through USAID & DMRE)	

Yes	Yes		

Yes	Yes		

Yes	Yes		

Yes	Yes		

Yes	No		

Yes	Yes		

?	Yes	Selected for municipal DSM advisory support (4 munis - kick off Jan '25)	

Yes	Yes	1 of 5 municipalities being provided with hot water load control modeling support (dunded through USAID & DMRE)	

Yes	Yes	Selected for municipal DSM advisory support (4 munis - kick off Jan '25)	

Yes	Yes	1 of 5 municipalities being provided with hot water load control modeling support (dunded through USAID & DMRE)	

?	no		

Yes	Yes		

Yes	Yes	1 of 5 municipalities being provided with hot water load control modeling support (dunded through USAID & DMRE)	

Yes	Yes		

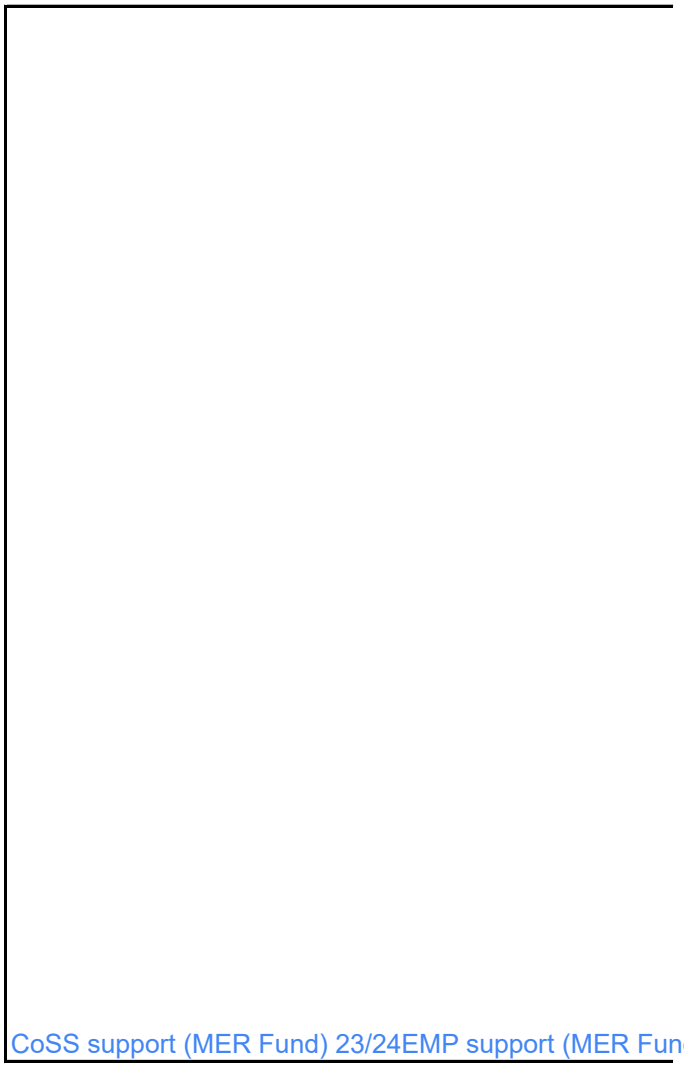
Yes	Yes	Selected for municipal DSM advisory support (4 munis - kick off Jan '25)	

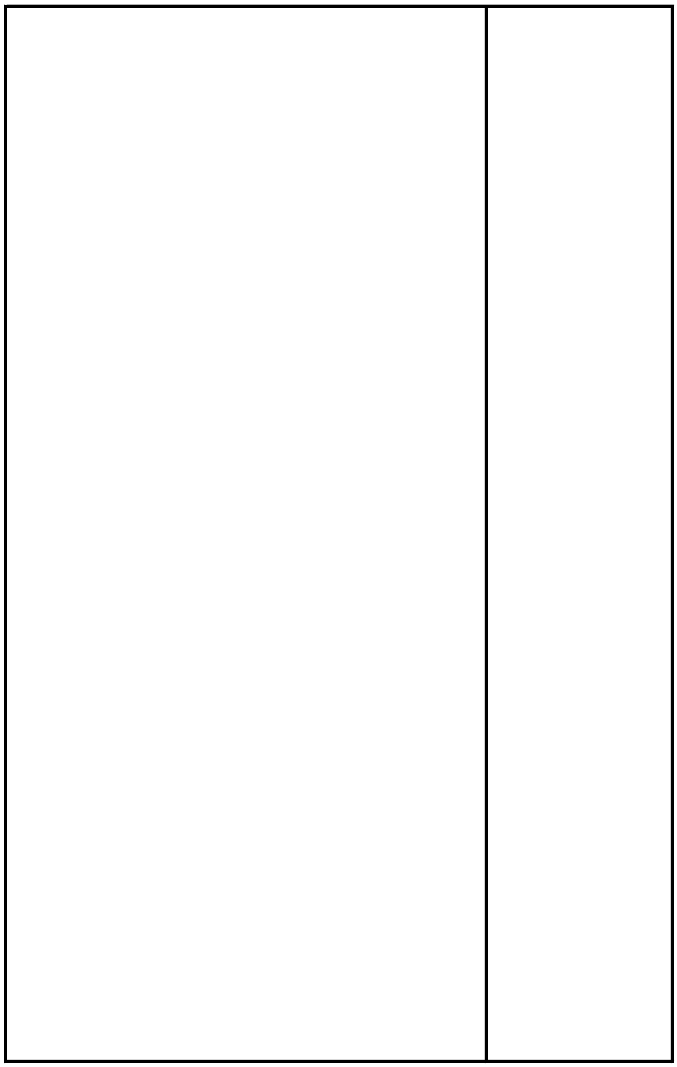
Yes	Yes		

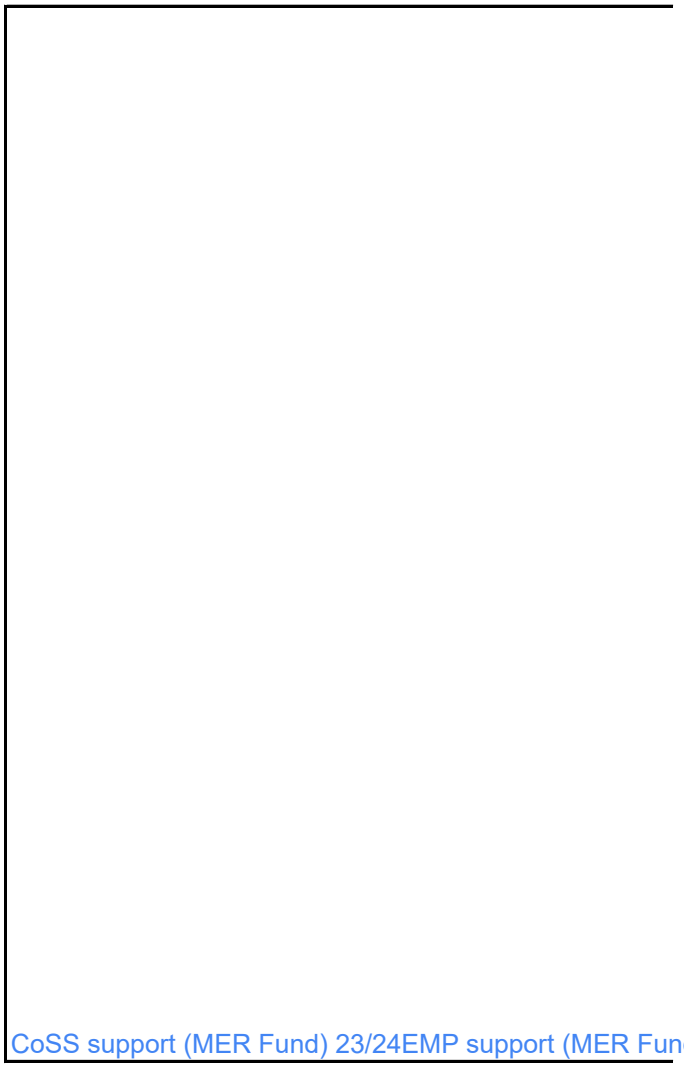
Yes	No	Selected for municipal DSM advisory support (4 munis - kick off Jan '25)	

DLG (note MER Fund was run under DEDAT)	DOI	DEDAT
EMP support 23/24 Municipality has requested to utilise a portion (R250k) of DLG funding towards site preparation of PV solar project		

	Municipality has applied for Project Preparation Facility (PPF) support


CoSS support (MER Fund) 23/24EMP support (MER Fund) 23/24




CoSS support (MER Fund) 23/24EMP support (MER Fund) 23/24

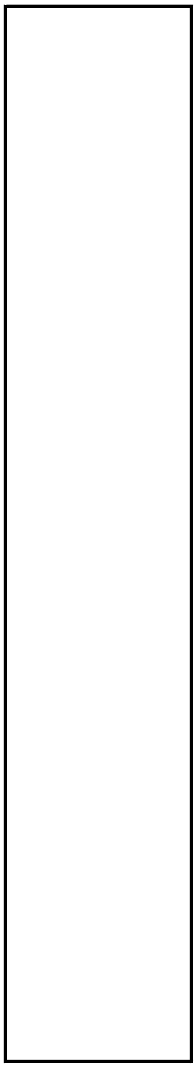
CoSS support (SEA facilitated through PT)	

EMP support 23/24	Municipality has applied for Project Preparation Facility (PPF) support

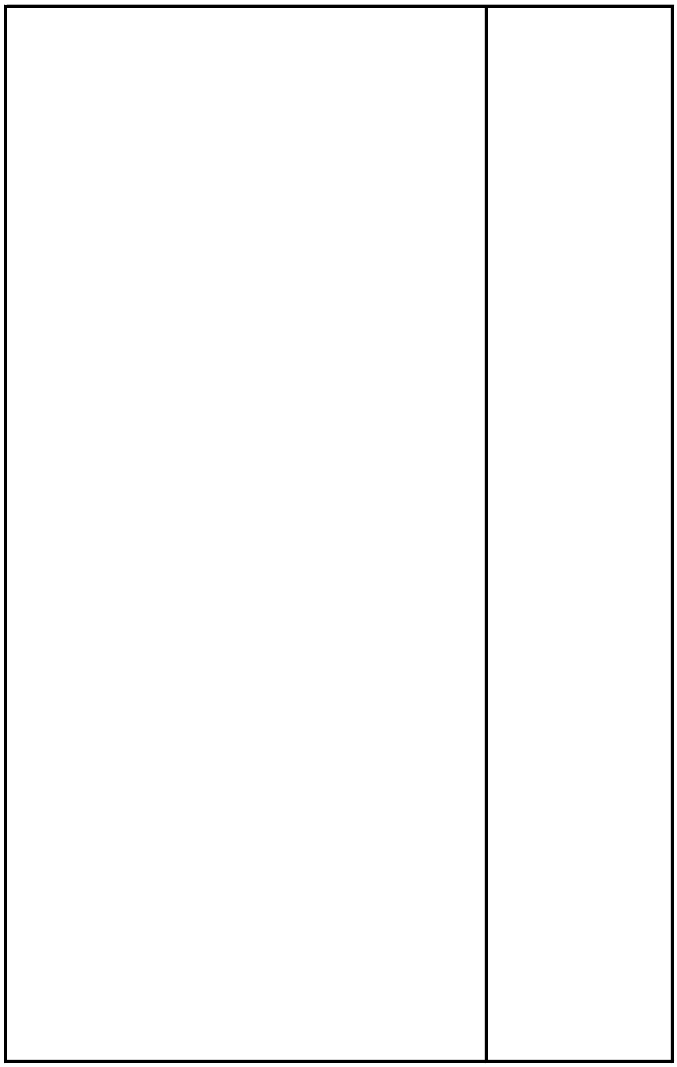
EMP support (MER Fund) 23/24	Municipality has applied for Project Preparation Facility (PPF) support

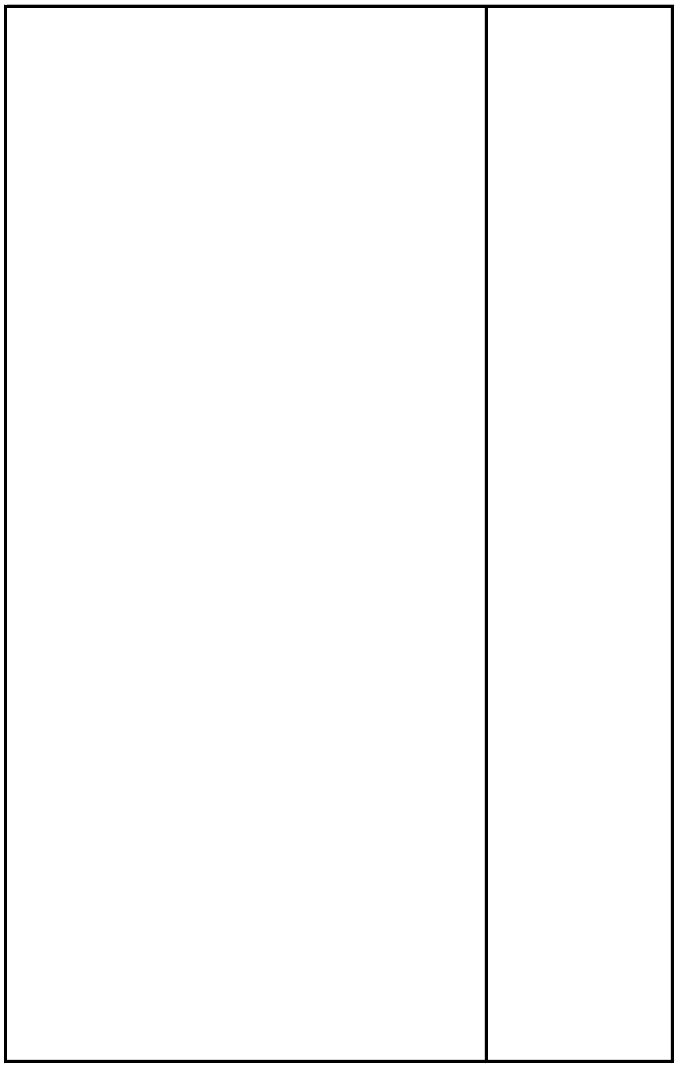
CoSS support (24/25) Financial & technical support for 10MW PV plant with 10 MWh BESS - being constructed over 3 yrs.	

CoSS support provided (SEA facilitated through PT) EMP support 24/25	



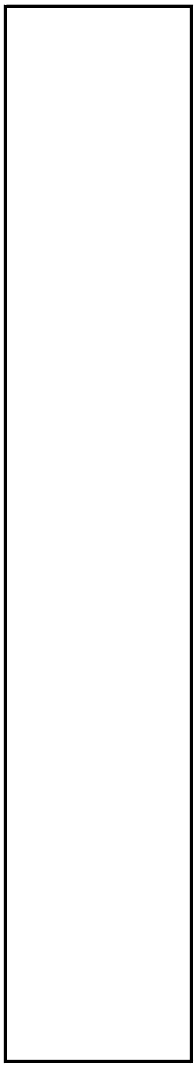
CoSS support underway (SEA facilitated through PT)
Waste to energy IPP prep



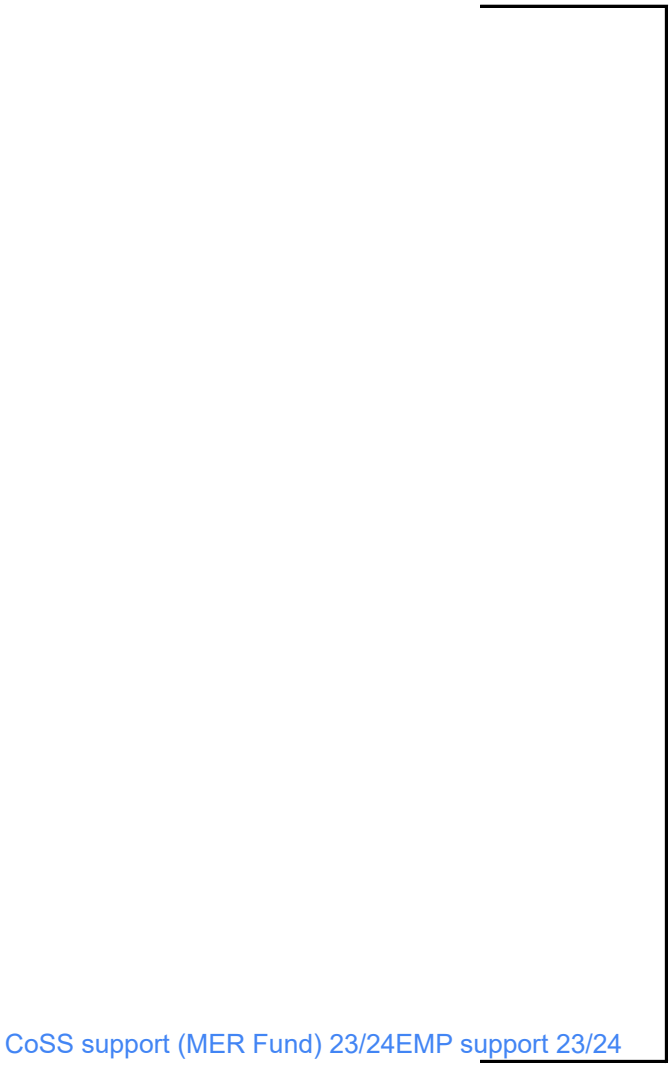


CoSS support underway (PT funded)	

CoSS support (MER Fund) 22/23 EMP support 23/24	

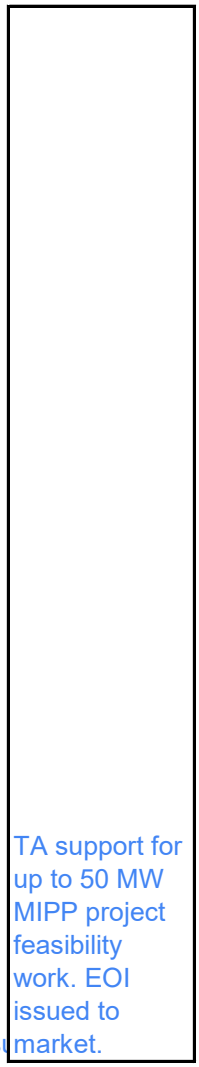


EMP support 23/24


CoSS support (MER Fund) 23/24EMP support 23/24

EMP support 23/24Have requested IPP s	Municipality has applied for Project Preparation Facility (PPF) support

	Received TA support for IPP tender. Further support required for next hase.	Focus of GH2 hub



CoSS support (MER Fund) 23/24EMP su

CoSS support 23/24EMP support (MER	Municipality has applied for Project Preparation Facility (PPF) support

	Municipality has applied for Project Preparation Facility (PPF) support

EMP support 23/24	

CoSS support (MER Fund) 23/24EMP support (24/25)
