



REPORT TO: CITY MANAGER

TO BE REFERRED BY THE OFFICIAL TO MAYCO VIA THE RELEVANT ENERGY SECTION
79 COMMITTEE [AFTER CONSIDERATION BY CITY MANAGER]
[OFFICIALS TRAVELLING OVERSEAS FOR COUNCIL RELATED ACTIVITIES]

1. ITEM NUMBER

2. SUBJECT

**FEEDBACK ON THE INTERNATIONAL/OUTSIDE THE BORDERS OF THE
RSA TRIP UNDERTAKEN FROM 15 – 17 MARCH 2023 TO ATTEND THE
OFF-GRID SOLAR ENERGY AND COMMUNITIES' WORKSHOP EXETER IN
UNITED KINGDOM (UK)**

ISIHLOKO

**INGXELO ESEMVA KOHAMBO KUMAZWE APHESHEYA/ KWIMIDA
ENGAPHANDLE KWASEMZANTSI AFRIKA EQHUTYWE UKUSUSELA
NGOWE15 UKUYA KOWE17 KWEYOKWINDLA UKUZIMASA EZAMANDLA
OMBANE OSEBENZA NGEMITHA YELANGA UKUSUSELA KWIGRIDI (OFF-
GRID SOLAR ENERGY) NECOMMUNITIES' WORKSHOP EXETER, ESE
UNITED KINGDOM (UK)**

ONDERWERP

**TERUGVOERING OOR DIE REIS NA DIE BUITELAND WAT VANAF 15 TOT
17 MAART 2023 ONDERNEEM IS OM DIE WERKSWINKEL OOR
BUITENETWERK-SONKRAG EN -GEMEENSKAPPE IN EXETER IN DIE
VERENIGDE KONINKRYK (VK) BY TE WOON**

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3. EVENT SUMMARY

EVENT DETAILS	
CONFERENCE/SEMINAR	Off-Grid Solar Energy And Communities' Workshop
OTHER	Explore Approaches For Providing Energy Services in Informal Settlements and Models For Addressing Energy Poverty
DATE	15 -17 March 2023
VENUE	Mercure Rougemont Hotel, Exeter
TOTAL COST TO THE CITY	R 276.50
CITY	Exeter
COUNTRY	United Kingdom

ATTENDEE DETAILS	
NAME AND SURNAME	DESIGNATION
Thandeka Tshabalala	SPO: Energy Poverty Alleviation
PROVIDE SUMMARY OF HOST ORGANISATION / CITY	
<p>The department of Human Geography at the University of Exeter and the University of Cape Town's ACDI have teamed up for a joint project known as the Umbane project. The project has been implemented in Qandu qandu, an informal settlement located in Khayelitsha. Its primary objective is to offer energy access to the community through a mini grid system. Additionally, the project has provided business training and refrigeration facilities to enable the community's businesses to utilize the energy effectively.</p>	

4. OBJECTIVE

The off-grid communities workshop involved participants from the Qandu community in Khayelitsha, which recently had a minigrid system installed. In addition to community members, academics from several universities, including the University of Exeter, Plymouth University, University of Cape Town, and University College London (UCL), were also in attendance. As a policy practitioner with the City of Cape Town, I was invited to broaden my understanding of the energy poverty alleviation debate, strategies for mitigating energy poverty, and the impact of the minigrid project on community well-being. The workshop also highlighted the growing trend of decentralized energy infrastructure, particularly in the global south, with a case study presented by the Eswatini Electricity Company. The ultimate goal of the workshop was to foster knowledge exchange and collaboration on policy perspectives and community practices between South Africa and the UK.

From a policy perspective, energy poverty is a relatively well-defined concept in the UK, although there are ongoing challenges regarding its definition. However, there is a general consensus that the definition should evolve as the issues surrounding energy poverty evolve. Currently, the focus is on improving the energy efficiency of homes due to the increase in premature deaths caused by unfavorable living conditions. As a result, the government has implemented various measures, such as Energy Performance Certificates (EPCs) for residential homes, which are gaining traction among real estate agents. Additionally, the government has allocated funding to improve the energy efficiency of low-income homes.

Compared to South Africa, energy communities in the UK operate on a different scale from a project perspective. In the UK, several organizations establish community-owned solar plants that feed back into the grid with the objective of using the profits to combat energy poverty. The Plymouth community launched a solar farm community project (<https://plymouthenergycommunity.com/residents/advice-guides>), which invited individuals to invest in the solar farm and partnered with the municipality to identify suitable land for the solar farm. The project utilizes the profits generated to hire qualified energy advisers who educate communities on various energy-related subjects, such as renovating a house to meet a specific energy performance level. Additionally, they offer grants to households unable to cover refurbishment expenses and waive energy bills for households unable to afford energy costs.

Attending the workshop proved to be beneficial for me as an official involved in alleviating energy poverty. It provided me with a better understanding of how to define energy poverty

within the context of Cape Town, which is crucial for our department as we work on developing the energy strategy. The insights gained from the workshop were essential in clarifying what energy poverty means for the city.

Moreover, the workshop also presented an opportunity to witness how the local government can collaborate with private organizations to alleviate energy poverty. This exchange was particularly valuable as it showed how companies can potentially use their profits to address energy poverty while simultaneously addressing generation capacity issues, especially as we consider implementing IPPs in the City.

5. OUTCOMES

The workshop facilitated connections between the City and academics who are studying energy poverty alleviation policies in the UK, offering insights into the formulation and definition of such policies. As someone who works in the field, I found the workshop to be particularly valuable in deepening my understanding of energy poverty as a concept that is still emerging in many parts of the world. The workshop also explored the potential of decentralized energy infrastructure to improve energy access within communities, which was informative for practitioners like myself.

Furthermore, the workshop helped to strengthen the relationship between the Khayelitsha project team and the City by creating opportunities for both sides to exchange information about challenges and potential collaborations related to energy poverty alleviation projects. The pilot project involving mini-grids provided useful evidence for decision-making, as the City considers the possibility of providing subsidies for alternative energy services to residents who are not connected to the grid.

The workshop also shed light on how the energy generated from mini-grids, although less than that provided by the main grid, has been instrumental in providing basic energy services such as lighting, media access, and refrigeration. This has enabled residents to store food for longer periods, start businesses requiring refrigeration, and extend business hours due to reliable lighting.

6. ACTIONS REQUIRED

No further actions are necessary, but the project team may consider investigating the feasibility of implementing a grid-tied mini grid system in Qandu Qandu. This would allow the mini grid service providers to provide more energy to the community and reduce their reliance on batteries, which are a costly investment and susceptible to theft or damage from fires.

7. IMPLICATIONS

7.1	Constitutional and Policy Implications	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
7.2	Environmental implications	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
7.3	Financial Implications	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
7.4	Legal Implications	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
7.5	Staff Implications	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>

7.6 Risk Implications

No ☒

Yes ☐

7.7 POPIA Compliance

- ☒ It is confirmed that this report has been checked and considered for POPIA Compliance.

NOTE: POPIA Section MUST be completed otherwise the report will be returned to the author for revision.

Contact your Directorate POPIA Stewards should you require assistance.

The City has a contract in place with XL Embassy Travel for the safe-keeping of Traveller's personal information as required by the POPI Act.

8. RECOMMENDATIONS

It is recommended that the feedback report on the trip Off-Grid Solar Energy and Communities' Workshop Exeter, United Kingdom (UK) undertaken by Thandeka Tshabalala on 15 March 2023 be considered and noted.

IZINDULULO

Kundululwe ukuba makuthathelwe ingqalelo kwaye kuqwalaselwe ingxelo yasemva kohambo olungezaMandla oMbane osebenza ngemitha yelanga (Off-Grid Sola Energy) neyeCommunities' Workshop Exeter, eseUnited Kingdom (UK), oluqhutywe nguThandeka Tshabalala ngowe15 kweyoKwindla 2023.

AANBEVELINGS

Daar word aanbeveel die terugvoerverslag oor die reis onderneem deur Thandeka Tshabalala op 15 Maart 2023 om die werkswinkel oor buitenetwerk-sonkrag en -gemeenskappe in Exeter in die Verenigde Koninkryk (VK) by te woon, oorweeg word en daarvan kennis geneem word.

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9. GENERAL DISCUSSION

The Umbane project, a collaboration between Zonke Energy, the University of Exeter, and the University of Cape Town, serves as a model for addressing energy poverty and supports the efforts of the Sustainable Energy Facilitation Branch (Sustainable energy Markets department) in exploring methods for supplying energy to low-income households. The project was implemented in the Qandu Qandu informal settlement in Khayelitsha, home to about 3500 households, and provides clean energy through the use of mini-grids to residents without access to grid electricity. Over time, the project has expanded to include the provision of appliances such as refrigeration to 21 women entrepreneurs, aimed at enhancing the productive use of energy for residents without grid access.

Lessons learned from this workshop show the benefits of providing alternative energy services to communities while they wait for grid connection or relocation. During the workshop, women entrepreneurs shared how having access to refrigeration helped them store their products, increase sales, and grow their businesses, ultimately contributing to the community's well-being. Although the City was not directly involved in the Umbane project, it has supported the initiative by writing letters of endorsement, citing the project's alignment with the City's strategic goals of reducing energy poverty and improving access to safe and clean energy for residents without grid connection.

The team behind the Mini-grids project is now exploring the possibility of implementing a similar initiative in the City's supply area. This move could potentially enable the City to contribute to innovative approaches in providing alternative energy services. The workshop proved helpful in shedding light on the fact that with the increasing migration to urban areas, local governments must consider alternative technologies, such as decentralized energy infrastructure, to quickly meet the energy needs of urban residents as they await grid connection. Additionally, the workshop emphasized the benefits of this approach for the well-being of local residents and the overall socioeconomic environment of the City, as energy poverty impacts various aspects, such as health.

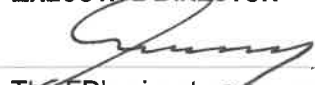
10. ANNEXURES

None

FOR FURTHER DETAILS, CONTACT:

DATE	27 March 2023		
NAME	Thandeka Tshabalala	CONTACT NUMBER	0789322420
E-MAIL ADDRESS	Thandeka.Tshabalala@capeTown.gov.co.za		
DIRECTORATE	Energy	FILE REF NO	232/23
SIGNATURE :	Thandeka Tshabalala	<small>Digitally signed by Thandeka Tshabalala Date: 2023.03.31 08:38:59 +02'00'</small>	

EXECUTIVE DIRECTOR



The ED's signature represents support for report content and confirms POPIA compliance.

SIGNATURE:

NAME KADRI NASSIEP

DATE 31 MAR 2023

COMMENT:

WOULD BE BENEFICIAL TO TAKE LEARNINGS FROM UK & OTHER COUNTRIES & APPLY THAT HERE IN THE CITY TO COMBAT ENERGY POVERTY. THERE MUST BE EXAMPLES OF GOOD PRACTICE ABROAD THAT CAN BE APPLIED HERE.

MANAGER: INTERNATIONAL RELATIONS

COMMENT:

DR. DENVER VAN SCHALKWYK

SIGNATURE:

DATE

☐ REPORT COMPLIANT WITH THE PROVISIONS OF COUNCIL'S DELEGATIONS, POLICIES, BY-LAWS AND ALL LEGISLATION RELATING TO THE MATTER UNDER CONSIDERATION.

LEGAL COMPLIANCE

☐ NON-COMPLIANT

COMMENT:

NAME

TEL

DATE

Certified as legally compliant based on the content of the report.

CITY MANAGER

☒ NOTED

☒ REFER TO THE MAYORAL COMMITTEE VIA THE RELEVANT SECTION 79 COMMITTEE

DATE

COMMENT: