



**REPORT TO: CITY MANAGER**

**TO BE REFERRED BY THE OFFICIAL TO MAYCO VIA THE RELEVANT ENERGY  
PORTFOLIO 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 29 OCTOBER TO 6 NOVEMBER 2024 TO  
ATTEND THE ENERGY SECTOR MANAGEMENT ASSISTANCE  
PROGRAM (ESMAP) SMART ENERGY INFRASTRUCTURE STUDY TOUR  
IN SOUTH KOREA**

**ONDERWERP**

**TERUGVOERING OOR DIE REIS NA DIE BUITELAND/BUITE DIE GRENSE  
VAN DIE RSA ONDERNEEM VAN 29 OKTOBER TOT 6 NOVEMBER 2024  
OM DIE ENERGIESEKTORBESTUURSBYSTANDSPROGRAM (ESMAP)  
SE SLIMENERGIE-INFRASTRUKTUURSTUDIETOER IN SUID-KOREA BY  
TE WOON**

**ISIHLOKO:**

**INGXELO ENGASEMVA KOHAMBO KUMAZWE APHESHEYA/  
ANGAPHANDLE KWEMIDA YASEMZANTSI AFRIKA, EQHUTYWE  
UKUSUSELA NGOWAMA29 KWEYEDWARHA UKUYA KOWE6  
KWEYENKANGA 2024 UKUZIMASA INKQUBO ENGOKUNCEDISA  
ICANDELO LOLAWULO LEAMANDLA OMBANE (ESMAP) UHAMBO  
OLUNGEZOPHANDO NGEZAKHEKO EZINGUNDOQO  
EZINGEZAMANDLA OMBANE NGOKUPHAPHILEYO, ESE SOUTH  
KOREA**

**LSU: R1857**

### 3. EVENT SUMMARY

EVENT DETAILS	
CONFERENCE/SEMINAR	N/A
OTHER	ESMAP Smart Energy Infrastructure Study Tour
DATE	29 OCTOBER TO 6 NOVEMBER 2024
VENUE	Various locations accross Seoul and Jeju Island
TOTAL COST TO THE CITY	R 13 964.36
CITY	Seoul
COUNTRY	Republic of Korea (South Korea)

ATTENDEE DETAILS	
NAME AND SURNAME	DESIGNATION
Gerhard Brown	Principal Professional Officer

PROVIDE SUMMARY OF HOST ORGANISATION / CITY
<p>The Energy Sector Management Assistance Program (ESMAP) is a global partnership program under the World Bank that focuses on advancing sustainable energy solutions to reduce poverty and support economic growth. Established in 1983, ESMAP provides technical assistance, advisory services, and funding to developing countries to enhance their energy systems, primarily in areas such as energy access, renewable energy, energy efficiency, and resilience. ESMAP's key objectives are to expand access to energy, promote clean energy and energy efficiency, strengthen energy sector resilience and support data and innovation. ESMAP collaborates with governments, financial institutions, and the private sector, offering both financial and technical support to drive projects and initiatives that align with its goals. Through its work, ESMAP aims to help countries achieve Sustainable Development Goal 7, which is to ensure access to affordable, reliable, sustainable, and modern energy for all.</p> <p>South Korea has established itself as a global leader in smart grid technology, driven by its substantial government-backed investments, innovative pilot projects and commitment to renewable energy integration. Starting with the Jeju Island Smart Grid Demonstration Project in 2009, South Korea set a precedent for large-scale smart grid testing, focusing on renewable energy, electric vehicles, smart meters, and energy management systems. This project catalysed the national vision of creating a smart grid by 2030, aiming to enhance energy efficiency, reduce greenhouse gas emissions, and achieve energy independence. With policies that encourage public-private partnerships, South Korea has developed an advanced regulatory framework that supports the seamless integration of technology and renewable energy sources into the grid. This approach has positioned South Korea as a model for countries seeking to modernise their power infrastructure and reduce carbon emissions through smart grid solutions.</p>

#### **4. OBJECTIVE**

Smart grid is a collection of power grid modernisation technologies and applications that can be key enabler for the transition to a safe and energy secure City. Through the use of smart grid the City will be in a better position to achieve the following objectives:

- Development of additional generation capacity, especially renewable energy that can improve the overall grid operations and security in providing electricity services on an ongoing basis, especially during periods of load shedding as experienced over the past decade.
- Decreased carbon emissions by supporting renewable energy sources, thus mitigating the effects of climate change.
- Improved electricity supply resilience through improvements in operational and asset management systems that will create further opportunities for economic growth and jobs.
- Development of Electric Vehicle infrastructure.
- Increasing energy security by diversifying the CCT energy mix and reducing purchases from Eskom, therefore improving financial resilience against Eskom's high tariff increases.

Through this study tour organised by the ESMAP, experts and industry leaders from South Korea shared their knowledge and experience with delegates from developing economies around the globe. Through these discussions and relationship that were built during the tour, CCT now has access to information and expertise that can support its own smart grid strategy, plans and implementations.

#### **5. OUTCOMES**

City has made great strides in implementing systems that support various grid objectives such as improving grid operation, asset management and distributed (renewable) energy resource integration. However, there is still a lot of planning and work that needs to go into integrating these systems and expanding their capabilities in order to realise the full potential of smart grid.

The knowledge gained during this tour will be instrumental in the development of the City's smart grid landscape and roadmap, as well as the planning for a Distributed Energy Resource Management System (DERMS). Both of these deliverables are currently part of the Mayor's Priority Programme for Utility Reform and will be supported by the World Bank through the provision of further technical assistance.

#### **6. ACTIONS REQUIRED**

It is recommended that the participant share and incorporate the knowledge and lessons learnt during this tour in the work of the Network Modernisation work stream under the Mayor's Priority Programme for Utility Reform. This will be through contributions in work group meetings as well participation as in drafting of the relevant reports and other deliverables.

It is also recommended that the participant present his experiences and lessons learnt from this tour at the monthly Energy Communication Sessions where the Executive Director, Directors and Mayco Member will be present.

## 7. IMPLICATIONS

7.1 Constitutional and Policy Implications No ☒ Yes ☐

7.2 Environmental implications No ☒ Yes ☐

7.3 Financial Implications No ☒ Yes ☐

7.4 Legal Implications No ☒ Yes ☐

7.5 Staff Implications No ☒ Yes ☐

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 Izani Embassy Joint Venture 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 Energy Sector Management Assistance Program (ESMAP) Smart Energy Infrastructure Study Tour undertaken by Gerhard Brown on 29 October to 6 November 2024 be considered and noted.

### AANBEVELINGS

Daar word aanbeveel dat die terugvoeringsverslag oor die energiesektorbestuursbystandsprogram (ESMAP) se slimenergieinfrastruktuurstudietoer onderneem deur Gerhard Brown op 29

Oktober tot 6 November 2024 oorweeg word en daarvan kennis geneem word.

## IZINDULULO

Kundululwe ukuba makuthathelwe ingqalelo kwaye kuqwalaselwe ingxelo engasemva kohambo ebijoliswe kwiNkqubo enoNcediso kuLawulo lweCandelo lezaMandla oMbane (ESMAP) enoPhando kwiZakheko ezinguNdoqo zezaMandla oMbane ngokuphaphileyo, eqhutywe nguGerhard Brown ngowama29 kweyeDwarha ukuya kowe6 kweyeNkanga 2024.

## 9. GENERAL DISCUSSION

None

## 10. ANNEXURES

### FOR FURTHER DETAILS, CONTACT:

DATE	26 November 2024		
NAME	Gerhard Brown	CONTACT NUMBER	021 444 0072
E-MAIL ADDRESS	Gerhard.Brown@capeto wn.gov.za		
DIRECTORATE	Energy	FILE REF NO	
SIGNATURE :	Gerhard Brown <small>Digitally signed by Gerhard Brown Date: 2024.11.26 16:16:01 +02'00'</small>		

Jean Jonker 10048856  
Digitally signed by Jean Jonker  
10048856  
Date: 2024.11.27 12:43:19 +02'00'

Edgar Capes  
Digitally signed by Edgar Capes  
Date: 2024.11.28 10:27:44 +02'00'

### EXECUTIVE DIRECTOR

[KADRI NASSIEP]

### COMMENT:

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

SIGNATURE:

NAME

DATE

  
Kadri Nassiep  
02 DEC 2024

**MANAGER: INTERNATIONAL RELATIONS**

**COMMENT:**    Actions noted

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 contents of the report.

**CITY MANAGER**

☐ NOTED

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

DATE \_\_\_\_\_

COMMENT:

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\_\_\_\_\_