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Dealing with Illegal DG/EG Installations

*DG Support Workshop for Regulators and Utilities
Cape Town, South Africa: 22 - 26 June 2026*

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CONTENT

1. When DG/EG system illegal?
2. How to identify illegal DG/EG systems
3. Getting illegal DG/EG registered
4. How to deal with non-compliant DG/EG



When is a DG/EG illegal?



WHEN IS A DG/EG ILLEGAL?

Definition of illegal:

“Not allowed by law” – Cambridge Dictionary

Definition of noncompliance

“Failure to act in accordance with a wish or command” – Oxford Dictionary

Need to distinguish between the two

- Electrical installation not installed according to national law enacted by laws
= **illegal**
- Inverter not adhering to the NRS/IEC/IEEE/VDE or other specifications
= **Noncompliance**

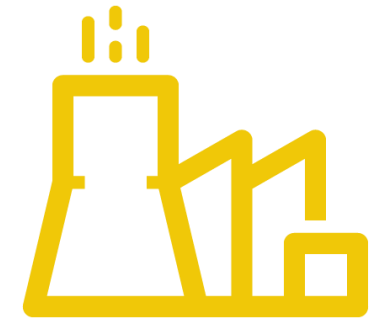
WHEN IS DG/EG ILLEGAL?

- Hazardous or dangerous DG/EG installation
- Utility electricity meter tampered with (running backwards)
- Not installed according to the national wiring code or standard
- Other?





How to identify illegal DG systems



HOW TO IDENTIFY ILLEGAL DG SYSTEMS

- Physical on-site inspections
- Aerial footage
- Billing inconsistencies or drastic changes
- Non-compliant equipment on DG application





Getting illegal DG registered



GETTING ILLEGAL DG REGISTERED

- Establish DG application process and requirements
- Request for consumers to apply and register their DG system
- Properly inform the public and provide grace (amnesty) period



GETTING ILLEGAL DG REGISTERED

- Process applications according to DG requirements and policy
- Get connection agreement/contract and relevant laws in place
- Making DG application documents and contact details available



GETTING ILLEGAL EG REGISTERED

Industry's motivation for registration



What would encourage you most to register your solar PV SSEG system at the Municipality or Eskom?

- ☐ No need, I always register my SSEG systems  3
- ☐ Easier and more lenient requirements 0
- ☒ Streamlined registration process  25
- ☐ Knowing there might be a fine or criminal implications  7
- ☒ Being allowed to export excess energy with some form of compensation  36

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SSEG Applications 2020-2023

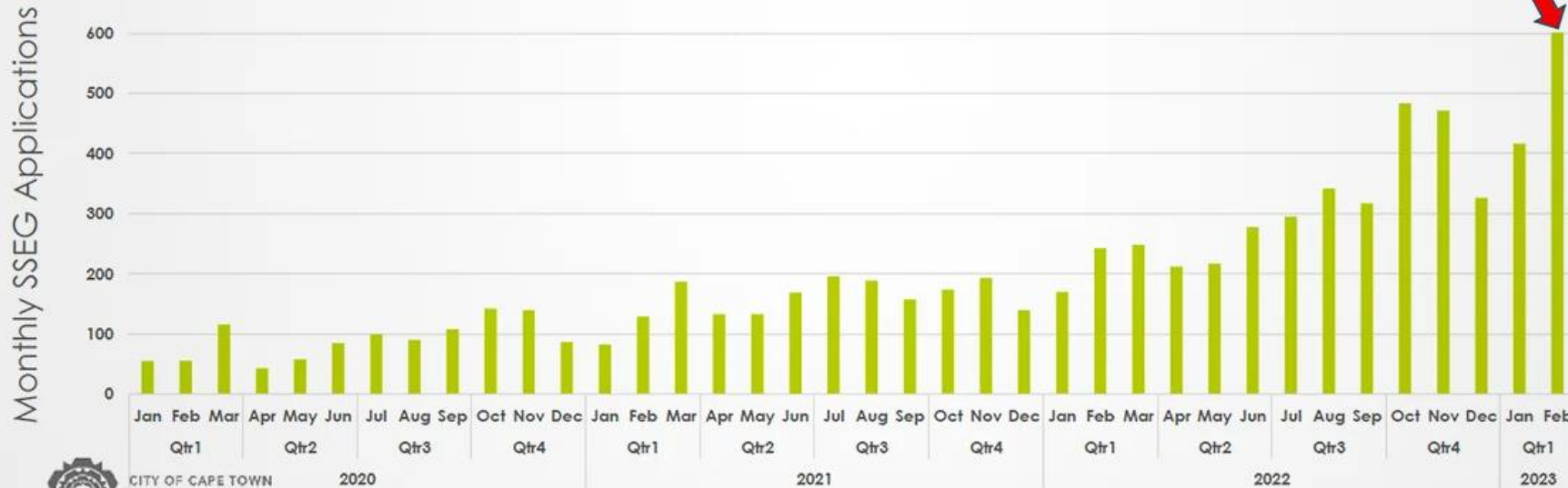
SSEG Key Stats

- SSEG Commissioned = 5078
- SSEG applications received = 9700 (since 2018)
- SSEG 2023 Applications so far = **1040 (1 March 2023)**

SSEG Applications

- Experiencing exponential growth
- Majority of applications are **Residential**
- Majority of installed capacity is **Commercial**

Monthly SSEG Applications



SSEG:
Small Scale
Embedded
Generation,
South Africa



GETTING ILLEGAL DG REGISTERED

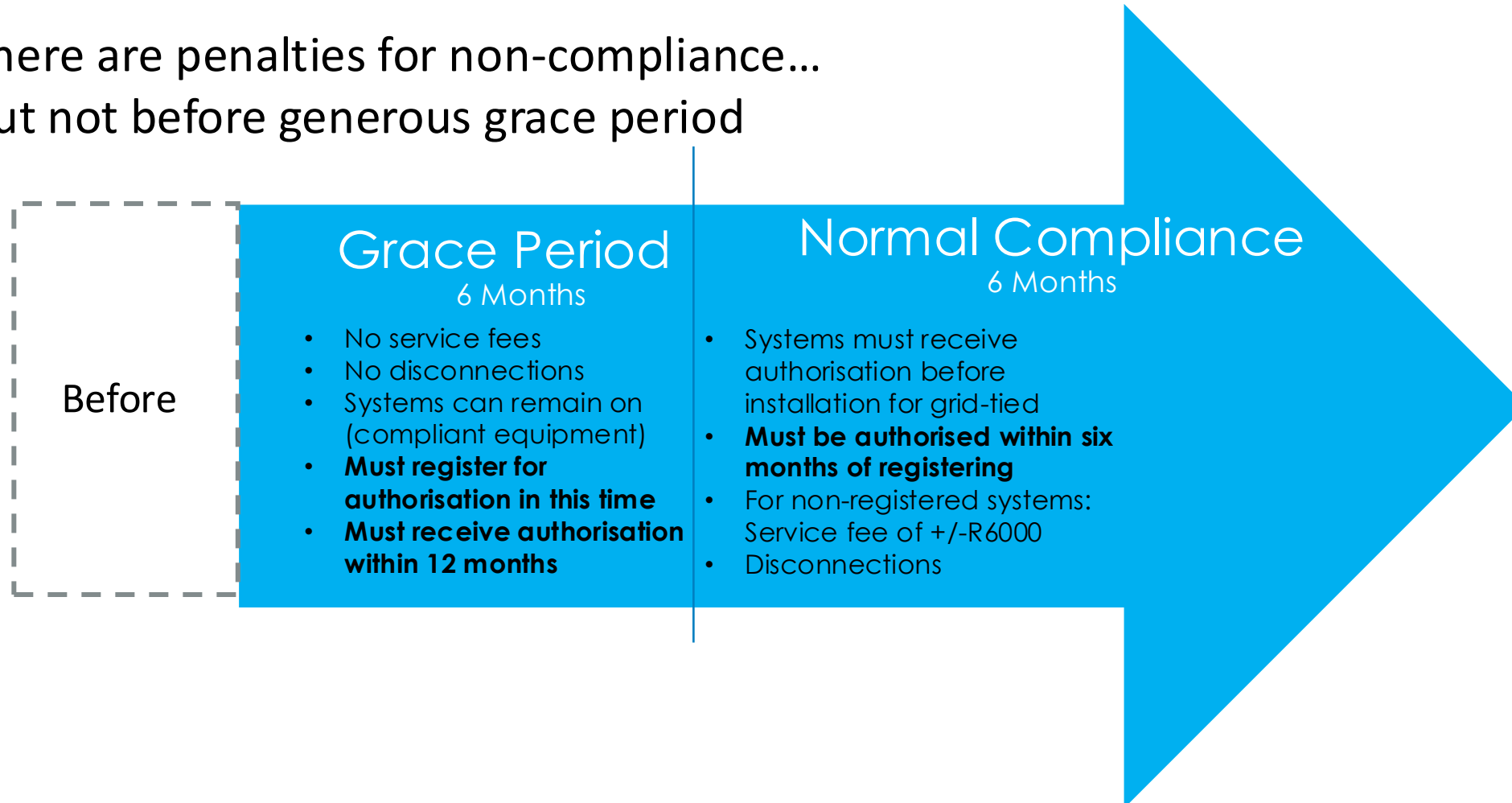
- Switch off/disconnect any hazardous installations
- Issue warning for installations not compliant after grace period
- Issue notice of disconnection with reconnection fee if not compliance within 90 days.



Go to www.capetown.gov.za/solarPV to find out how to register your system

Grace period (City of Cape Town Example)

There are penalties for non-compliance...
But not before generous grace period





WHAT SHOULD THE UTILITY DO

- Utility address and contact details should be available
- Have a dedicated person and allocate resources to process DG applications
- Installers will at times provide incomplete applications...then disappear
 - Set time limit on application period
- Have bi-directional meters installed to monitor DG operation





How to deal with non compliant systems

Possible solutions for generators that cannot be registered

Non-compliance	
DG too large	- Decrease DG Size - Increase UIC - Program and lockout maximum inverter generation - Operate system as alternative supply with external changeover Switch
DG not NRS/IEC/IEEE certified	- Install external Anti-islanding device - Operate system as alternative supply with external changeover Switch - Request inverter replacement



How to deal with non compliant systems

Possible solutions for generators that cannot be registered

Non-compliance	
MEC too high	- Reduce MEC - Tentatively allow higher MEC, until capacity is needed in future.
Illegally Exporting	- Install Prepayment meter that will deduct units when exporting - Install an external reverse feed blocking relay
Maintain bad power factor	- Encourage Power Factor Correction - Charge for kVArh and impose penalty charges



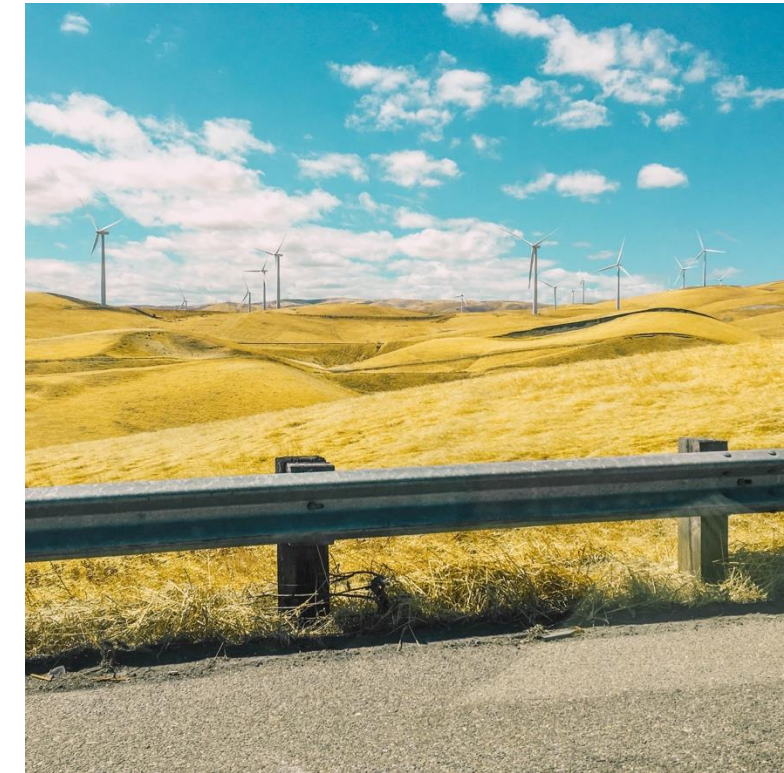
Take Home Messages



TAKE HOME MESSAGES

Dealing with illegal DG installations

1. Different ways to identify noncompliant installations
2. Importance of having a functional DG application system in place
3. Educate and inform the public





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–Questions?



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