

**Theo Madatt**

*Infrastructure and Engineering Manager  
Kouga Municipality*

Theodore Madatt, Director Electro-Mechanical Services, Kouga Local Municipality. I manage the electrical, mechanical (pumpstations) and the municipal fleet departments. The portfolio is strategic as the most critical infrastructure is being managed by my team and me. The most recent venture is the renewable energy market; the positions to drive this will be filled soon and further research will be conducted to find the best option for Kouga to build our own plant. I'm with the institution for almost 16 years; started with the position as Area Engineer: Electricity. In 2018 I was promoted to Manager: Electrical Services, and in 2022 I acted as Director: Infrastructure & Engineering for 7 months. A new directorate was formed, namely the Electro-Mechanical Directorate where I was appointed as the Director: Electro-Mechanical February 2024. During the period I was acting in the infrastructure & engineering directorate, I managed an 8-year prolonged drought whereby day zero was looming. My exposure to water and sanitation was because of my operations in that directorate at the time, handling a crisis was interesting and I believe we made a success of what had to be a dire situation and at no stage was communities without safe drinking water as out of the box thinking was inevitable.

I was previously employed at Nelson Mandela Bay Municipality as Senior Artisan Transmission, where I managed up to a 132kV electrical network. Two major crisis's I was part of resolving where 132kv pilons were vandalized and crashed, in both instances by-pass networks were built within short periods to restore electricity.

- My current qualifications are:
- National Diploma: Electrical Engineering HV.
- Post Grad Diploma: Programme Management
- I am currently fulfilling my Masters: Project Management, and my research proposal's topic is "The impact of inverter batteries on electrical networks". I am also fulfilling to complete my GCC qualification in the interim.

**Organization Overview:** A local municipality which supplies approximately 110 000 residents with services. The hierarchy starts politically, with an Executive Mayor, Deputy





# SOUTH AFRICA MUNICIPAL ENERGY REVERSE TRADE MISSION

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Executive Mayor and Mayoral Committee members. Administratively the Municipal Manager is the accounting officer, with Directors reporting directly to the Municipal Manager. Managers and general staff report to the Directors.

## Interests:

- Solar Power Generation
- Hydropower Generation
- Other Renewable Energy Generation Sources
- Supervisory Control and Data Acquisition (SCADA) Systems
- Advanced Metering Infrastructure (Ami)
- Other Data Monitoring and Management Technology
- AI Technology for Grid Optimization
- Energy Forecasting Tools
- Virtual Power Plants (VPP)
- Other Digitization Technology for Grid Optimization
- Smart Meters
- Microgrid Technology
- Energy Efficiency Technologies
- Economic Modeling Tools
- Innovative Energy Storage Solutions