



# NEWS ENERGY PROJECTS

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DHEVAN GOVENDER





# MINI-HYDROPOWER AT UMHLANGA RESERVOIR 2

[www.durban.gov.za](http://www.durban.gov.za)

## Project Objective

To maximise resource recovery at reservoir sites and to demonstrate the mini-hydro turbine technology

## Project History

2019 – Application to French Ministry for funding

2020 – EWS was appointed as the beneficiary of the mini-hydro turbine demonstrator by French Implementing Agent i.e. Alterelec

2023 – 13 Feb Commencement of construction phase

2023 – 12 May Plant commissioned

## Project Site

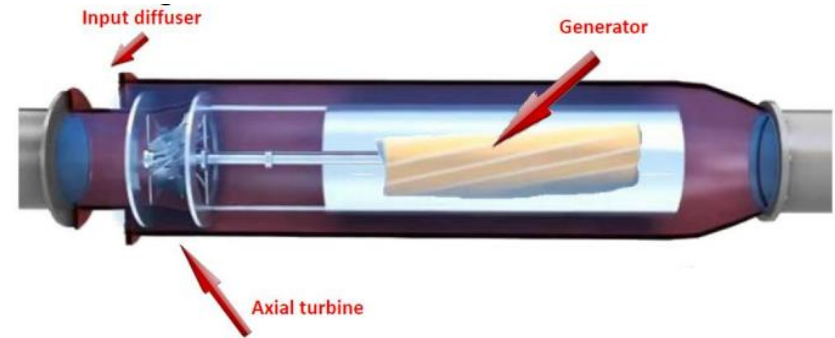
Umhlanga Reservoir 2

**Capacity of Hydropower on Site:**

56 kW

## Current Status of Project

Demonstration phase





# SOLAR PANELS ON RESERVOIRS PPP

[www.durban.gov.za](http://www.durban.gov.za)

## **Project Objective**

To maximise resource recovery at reservoir sites

## **Project History**

- 2019 - Feasibility study completed
- 2022 – Project implementation initiated
- 2023 – Council authority to procure

## **Type of Procurement**

Public Private Partnership (PPP)

## **Project Sites**

16 reservoir sites within the City  
**Capacity of Solar Power at Sites:**  
6.4 MWh

## **Current Status of Project**

Finalising procurement documents  
Awaiting TVR2A from National Treasury GTAC





# HYDROPOWER WESTERN AQUEDUCT PPP

[www.durban.gov.za](http://www.durban.gov.za)

## Project Objective

To maximise resource recovery and redeem energy from Western Aqueduct

## Project History

2019 - Feasibility study completed

2022 – Project implementation initiated

2023 – Council authority to procure

## Type of Procurement

Public Private Partnership (PPP)

## Project Sites

Ashley Drive Pump Station

Wyebank Road Pump Station

## Capacity of Hydropower Generation at Sites:

3.4 – 3.8 MWh

## Current Status of Project

Finalising procurement documents

Received TVR2A from National Treasury GTAC





# REMIX WATER DEMONSTRATION

[www.durban.gov.za](http://www.durban.gov.za)



## Project History

November 2016 – MOU Signed between eThekweni Municipality and NEDO

August 2018 – EIA, WULA, CWDP and Design Drawings Completed

October 2018 – Construction Commenced

February 2020 – Plant Commissioned

March 2022 Demonstration Period completed (Delays due to covid-19)



BY 2030 ETHEKWINI WILL BE AFRICA'S MOST LIVEABLE CITY



# MABR AND WATER REUSE PILOT AT KWAMASHU WWTW

[www.durban.gov.za](http://www.durban.gov.za)

## Project Objective

To pilot water reuse plant at KwaMashu WWTW

To demonstrate the MABR Technology - low energy advanced aerobic biological treatment

The Pilot plant will be containerized and designed to produce up to 30 m<sup>3</sup>/day of drinking water out of the raw domestic wastewater.

## Project History

October 2020 – Construction Commenced

February 2021 – Plant Commissioned

May 2021 – Dec 2023 Demonstration Period

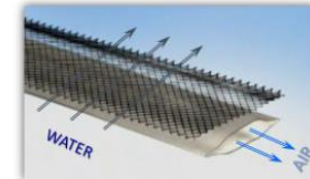
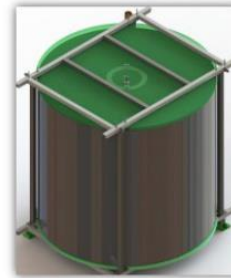
## Current Status of Project

Demonstration phase



## The MABR Technology

- Wastewater is contacted with the surface of an aerated sleeve of oxygen permeable material
- Aerobic bacteria that develop on the surface of the sleeve treat the wastewater



One spirally wound long sleeve





# THANK YOU

## QUESTIONS?

BY 2030 ETHEKWINI WILL BE AFRICA'S MOST LIVEABLE CITY