

# Community water provision

Reliable, safe and affordable drinking water for Harare, Zimbabwe



<b>Subject</b>	Harare Water Kiosk	<b>Location</b>	Budiro, Harare, Zimbabwe
<b>Application</b>	Drinking water	<b>Project Partner</b>	Western Solar, UNICEF and Oxfam
<b>Size</b>	50 m <sup>3</sup> /day for about 1,000 families	<b>Installation</b>	2020

Budiro is a typical high density suburb located in the southwestern area of Harare, Zimbabwe. Like many communities in this region, Budiro has faced significant challenges related to adequate drinking water. This has included various water borne diseases such as the 2018 typhoid outbreak where the suburb was especially hit hard with 10,000 reported cases and 55 deaths.

The challenge of securing clean, safe and reliable drinking

water has inspired several non-governmental organizations to look for a long lasting, sustainable solution that will ensure a healthy future for the community of Budiro.

With support from LORENTZ Partner Western Solar, UNICEF has partnered with UNDP and Oxfam to build a water kiosk in order to supply safe and clean drinking water. LORENTZ equipment including 4 smartTAP Water Dispensers have been chosen as part of this solution.

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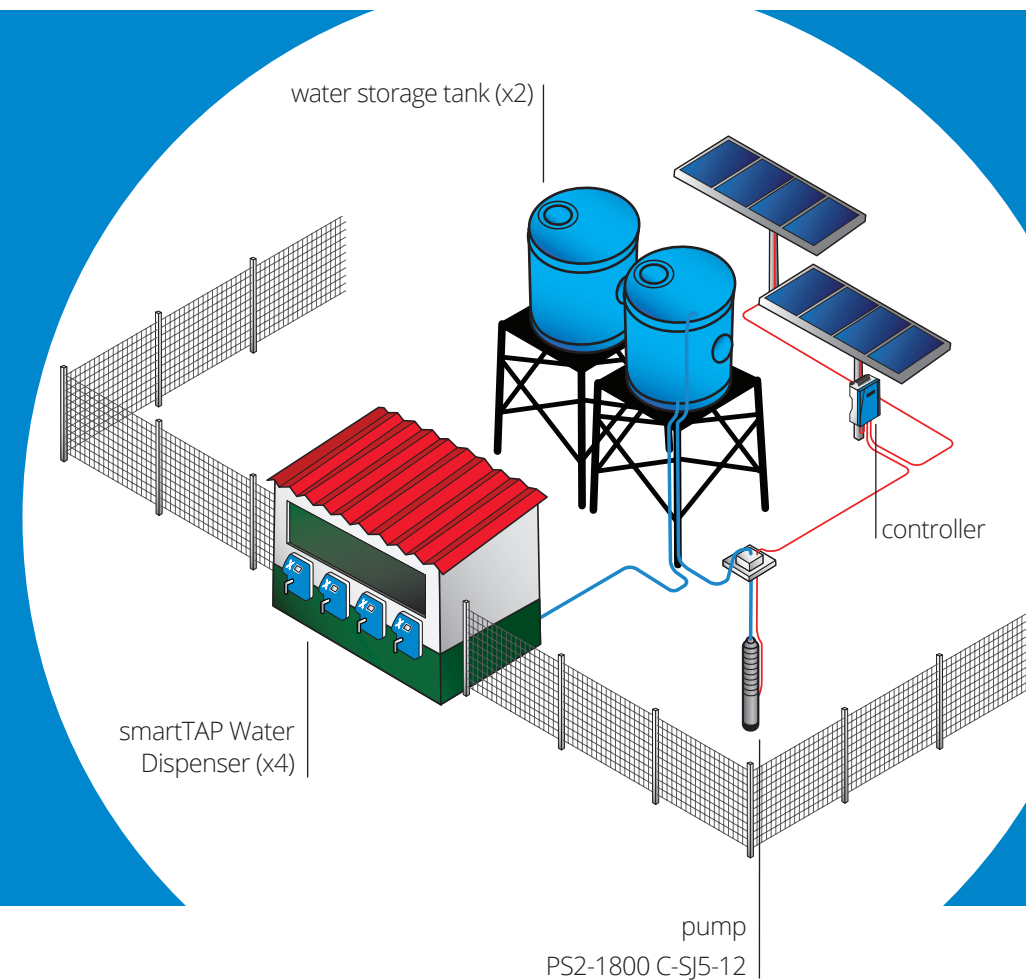
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# Solution

The solution includes a LORENTZ PS2-1800 C-SJ5-12 solar powered pump which provides 50 m<sup>3</sup> (13,200 US gal.) of raw water per day, serving almost 1,000 families. As many of the boreholes have traditionally faced contamination, water is chlorinated before delivery. Four LORENTZ smartTAP Water Dispensers have been integrated into the system as an easy, secure and affordable solution for dispensing water.

The smartTAP Water Dispensers serve as an off-grid water dispensing and management system which enables revenue collection, water entitlement and sustainable water provision.

Users of the smartTAP access water using a tag. The tag has NFC capabilities and is precharged with water credits at a local shop or directly via mobile money.



Adding credit to a tag is possible through the smartTAP App, providing a simple point of sale service without complex and expensive infrastructure.

The water will cost residents 40 ZWL (around 0.12 USD) for 400 liters which goes directly back into maintaining the system and supporting future infrastructure.

Together with the City of Harare, the members of the community are responsible for managing the water kiosk and its daily actions.

This solution supports the entire community as it provides affordable and clean water which is accessible 24 hrs a day.

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# Community focused

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## Reliable and accountable water

Women, men and youth manage the water point together with the city of Harare allowing for inclusion and a high level of civil engagement.

Giving water a value reduces waste and provides a method to include vulnerable community members. This includes the option to provide personal daily water entitlement (i.e. reduced or free of charge).

## Inclusion and equality

All smartTAP actions are auditable, accountable and entail secure revenue collection as every transaction is monitored.

By using a mixture of free water entitlement for those that need it and affordable charges for others, water is respected and fairly distributed.



## Locally maintained and future secured

smartTAPs are designed for simple servicing by local technicians. As the solution enables revenue collection, investments can be returned and put towards maintenance and infrastructure development for the community.

The local Oxfam team commented on the project stating, "It's a concept that makes money for the community to be able to help them resist any shocks, economic shocks especially that can come after a disaster case".

## Achieving SDGs

In this system, the need for women and children to travel long distances to collect water is greatly reduced. This achievement, along with the fact that the smartTAP provides fair access to water while reducing water waste ensures sustainability.

These achievements address the UN Sustainable Development Goals (SDGs) such as SDG 6 (clean water and sanitation), SDG 5 (gender equality), SDG13 (climate action) and SDG 7 (renewable energy).



# Contact

## About Western Solar

Western Solar was founded in 2007 as a supplier of solar powered systems and related equipment to private, public and commercial clientele. Western Solar is one of the leading suppliers and installers of solar systems to customers in Zimbabwe, Zambia and Mozambique and is specialized in delivering integrated sustainable energy production solutions.

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## About LORENTZ

LORENTZ is the global market leader in solar powered water pumping solutions. Founded in Germany during 1993 LORENTZ has pioneered, innovated and excelled in the engineering and manufacturing of solar powered water pumping. Today LORENTZ is active in over 130 countries through a dedicated network of professional partners. LORENTZ technology uses the power of the sun to pump water, sustaining and enhancing the life of millions of people, their livestock and crops.

Simply - **Sun. Water. Life.**



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