



Smart Water Systems Introduction and Selected Reference List

The management and technical team of Smart Water Systems has been in the water industry for over 27 years of which +13 years has been in Uganda. We work with wastewater and sewage treatment as well as water purification solutions for industrial and commercial applications.

We cooperate closely with our partners in Europe for extended technical expertise and knowhow to provide our clients with sound solutions specifically made for the East African Market. We always aim at supplying long lasting solutions why we solely work with European manufactured components and equipment of well reputed brands.

Smart Water Systems is a limited company owned and managed by Martin Sonderby Nielsen who is of Danish heritage. MSN has lived and operated businesses in East Africa since 1999. He resides in Kampala with his family.

This List of References aims to display some of the more interesting projects we have been involved in over the last 13 years in Africa and mainly Uganda.

Name of Client	Country	System specifications	Client's requirement	Water remarks	Comments
Wastewater Treatment Projects					
Crown Beverages (Pepsi Cola)	Uganda	Fully automatic 400m ³ /day SBR Biological Wastewater Treatment Plant w. extended sophisticated monitoring facilities.	Treatment of highly loaded industrial wastewater biologically with no use of chemicals	COD in: 2,700 mg/L. COD out: 30-40 mg/L BOD in: 1,250 mg/L. BOD out: 15-25 mg/L	Turn key solution w. large benefits for the facility
TotalEnergies & MSL Bugungu	Uganda	Fully automatic 300m ³ /day SBR Biological Sewage Treatment Plant	Treatment of domestic sewage water	COD in: 1,200-700 mg/L. COD out: 45 mg/L BOD in: 4-500 mg/L. BOD out: 15 mg/L	Resolved the sewage water issue
Ministry of Energy & Mineral Development & PAU Offices	Uganda	Fully automatic 56m ³ /day SBR Biological Sewage Treatment Plant	Treatment of domestic sewage water	COD in: 700 mg/L. COD out: 55 mg/L BOD in: 400 mg/L. BOD out: 30 mg/L	Resolved the sewage water issue
Jesa Farm Dairy	Uganda	Fully automatic 450m ³ /day SBR Biological Wastewater Treatment Plant expandable	Treatment of highly loaded dairy wastewater biologically with no use of chemicals	COD in: 2,750 mg/L. COD out: 40-50 mg/L BOD in: 1,250 mg/L. BOD out: 25-30 mg/L	Resolved large dairy's wastewater issue
Crown Beverages (Pepsi Cola)	Uganda	Fully automatic 66m ³ /day SBR Biological Sewage Treatment Plant	Treatment of domestic sewage water	COD in: 700 mg/L. COD out: 50-55 mg/L BOD in: 300 mg/L. BOD out: 15-20 mg/L	Resolved the sewage water issue
TotalEnergies & MSL Tangi	Uganda	Fully automatic 150m ³ /day SBR Biological Sewage Treatment Plant	Treatment of domestic sewage water	COD in: 9-700 mg/L. COD out: 45 mg/L BOD in: 4-500 mg/L. BOD out: 15 mg/L	Resolved the sewage water issue
Kiira Motors Corporation	Uganda	Fully automatic 565m ³ /day SBR Biological Wastewater Treatment Plant expandable	Treatment of domestic and organic industrial wastewater - Phase 1	COD in: 3,000 mg/L. COD out: 55mg/L BOD in: 1,600 mg/L. BOD out: 30 mg/L	Will resolve large vehicle production's wastewater issue
Kansai Plascon Paint (Previous Sadolin Paint)	Uganda	Fully automatic AquaMec Chemical Wastewater Treatment Plant w. coagulation/neutralization/flocculation. Hourly capacity 2m ³ . Pre-treatment 1st of 2 phases	Treatment of industrial paint rich wastewater	COD in: 11,700 mg/L. COD out: 1,500 mg/L BOD in: 6,000 mg/L. BOD out: 5-800 mg/L	Resolved East Africa's largest paint factory wastewater issue
Kansai Plascon Paint (Previous Sadolin Paint)	Uganda	Fully automatic 30m ³ /day SBR Biological Wastewater Treatment Plant. Mixing industrial (2nd phase) and domestic sewage water	Treatment of 2nd Phase Industrial wastewater in combination with Domestic wastewater	COD in: 1500 mg/L. COD out: 50-70 mg/L BOD in: 5-800 mg/L. BOD out: 30-35 mg/L	Resolved East Africa's largest paint factory wastewater issue
Biyizika Poultry International	Uganda	Fully automatic 90m ³ /day SBR Biological Wastewater Treatment Plant. Later expanded to 300m ³ /day	Treatment of highly loaded abattoir wastewater biologically with no use of chemicals	COD in: 3,000 mg/L. COD out: 35-50 mg/L BOD in: 1,450 mg/L. BOD out: 20-30 mg/L	Resolved abattoir wastewater issue. Expanded after 2 years of operation



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TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Fully automatic 600m3/day MBR Biological Wastewater Treatment Plant	Treatment of domestic sewage water	COD in: 700 mg/L COD out: 45 mg/L BOD in: 400 mg/L BOD out: 15 mg/L	Resolved the sewage water issue
TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Fully automatic 300m3/day SBR Biological Wastewater Treatment Plant	Treatment of domestic sewage water	COD in: 700 mg/L COD out: 45 mg/L BOD in: 400 mg/L BOD out: 15 mg/L	Resolved the sewage water issue
GBK Dairy	Uganda	Fully automatic 50m3/day SBR Biological Wastewater Treatment Plant	Treatment of highly loaded dairy wastewater biologically with no use of chemicals	BOD in: 2,750 mg/L COD out: 40-50 mg/L BOD in: 1,250 mg/L COD out: 25-30 mg/L	Resolved dairy's wastewater issue
TotalEnergies & MSL DSB (Drilling Service Base)	Uganda	Fully automatic 100m3/day SBR Biological Sewage Treatment Plant	Treatment of domestic sewage water	COD in: 700 mg/L COD out: 45 mg/L BOD in: 400 mg/L BOD out: 15 mg/L	Resolved the sewage water issue
East Africa Packaging Solutions	Uganda	Fully automatic batch AquaMed WWTP w. coagulation/ neutralization/flocculation, Post treatment with SBR and RO. Capacity 6m3/day	Wastewater Treatment of ink rich water	COD in: 35,000 mg/L COD out: 60-70 mg/L BOD in: 15,000 mg/L BOD out: 30-35 mg/L	Resolved Uganda's largest carbon factory wastewater issue
Excel Construction Kingfisher	Uganda	AquaKlar Biological SBR Wastewater Treatment Plant 30m3/day	Treatment of domestic wastewater	COD in: 700 mg/L COD out: 55 mg/L BOD in: 380 mg/L BOD out: 35 mg/L	Resolved the sewage water issue
Greenhill Academy	Uganda	AquaCell 50m3/day Biological Sewage water Treatment Plant	Treatment of domestic sewage water	COD in: 450 mg/L COD out: 30 mg/L BOD in: 250 mg/L BOD out: 10-20 mg/L	1st Project. Resolved the school's sewage water issue
Graphic Systems	Uganda	AquaKlar Biological SBR Wastewater Treatment Plant 30m3/day	Treatment of domestic wastewater	COD in: 450 mg/L COD out: 20-35 mg/L BOD in: 200 mg/L BOD out: 15-20 mg/L	Resolved the factory's wastewater issue
Greenhill Academy	Uganda	AquaKlar 30m3/day Biological SBR Sewage water Treatment Plant 30m3/day	Treatment of domestic sewage water	COD in: 450 mg/L COD out: 50 mg/L BOD in: 250 mg/L BOD out: 20-25 mg/L	2nd Project (expansion). Resolved the school's sewage water issue
Apartment Complex	Uganda	AquaKlar Biological SBR Wastewater Treatment Plant 18m3/day	Treatment of domestic wastewater	COD in: 600 mg/L COD out: 20-35 mg/L BOD in: 350 mg/L BOD out: 15-20 mg/L	Resolved the sewage water issue
Apartment Complex	Uganda	AquaKlar Biological SBR Wastewater Treatment Plant 15m3/day	Treatment of domestic sewage water	COD in: 750 mg/L COD out: 50 mg/L BOD in: 350 mg/L BOD out: 20-25 mg/L	Resolved the sewage water issue

Sludge Dewatering Projects

Crown Beverages (Pepsi Cola)	Uganda	Fully automatic Sludge Dewatering solution with pH regulation, aeration, flocculation and advanced Screw Press unit	Treatment and dewatering of sludge ready for fertilizer packaging	N/a	Secures an uncomplicated Sludge Dewatering solution
Biyizika Poultry International	Uganda	Sludge Dewatering System (Filter Press) semi automatic with dry content of up to 80% reached	Treatment and dewatering of sludge ready for fertilizer packaging	N/a	Turned a cost into a profit making surplus from wastewater from selling dried sludge
TotalEnergies & MSL Bugungu	Uganda	Fully automatic Sludge Dewatering solution with flocculation and advanced Screw Press unit	Treatment and dewatering of sludge ready for fertilizer packaging	N/a	Secures an uncomplicated Sludge Dewatering solution
Plascon Paint (Previous Sadolin Paint)	Uganda	Fully automatic Sludge Drainmaid solution which drains sludge to have a water content of less the 3%	Treatment of environmental hazard sludge to the highest dry content	N/a	Very cost effective solution

Further references can be provided as well as detailed sector references.



Name of Client	Country	System specifications	Client's requirement	Water remarks	Comments
Sludge Dewatering Projects					
TotalEnergies & MSL Tangi	Uganda	Fully automatic Sludge Dewatering solution with flocculation and advanced Screw Press unit	Treatment and dewatering of sludge ready for fertilizer packaging	N/a	Secures an uncomplicated Sludge Dewatering solution
TotalEnergies & MSL DSB (Drilling Service Base)	Uganda	Semi automatic Sludge Bag solution	Treatment and dewatering of sludge ready for fertilizer packaging	N/a	Secures an uncomplicated Sludge Dewatering solution
Water Treatment and Purification Plants					
TotalEnergies & MSL Bugungu	Uganda	Fully automatic 300m ³ /day Containerized Plant with Iron and Manganese Removal and Hardness reduction (250m ³ /day) and Reverses Osmosis (50m ³ /day)	Treatment of iron and hardness loaded borehole water for general usage and Purification to Drinking Water standard	TSD in: 160 mg/L Hardness in: 125 mg/L TDS product: 0 mg/L Hardness product: 45 mg/L	Improves water, optimized operation and delivers constant pressure
TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Fully automatic 1100m ³ /day Filtration with Iron and Manganese Removal	Treatment of iron loaded borehole water for general usage	Iron in: +5 mg/L Iron product: 0.07 mg/L	Improves water for optimized operation
TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Fully automatic 360m ³ /day Filtration with Iron and Manganese Removal	Treatment of iron loaded borehole water for general usage	Iron in: +5 mg/L Iron product: 0.07 mg/L	Improves water for optimized operation
TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Fully automatic 280m ³ /day Filtration with Iron and Manganese Removal	Treatment of iron loaded borehole water for general usage	Iron in: +5 mg/L Iron product: 0.07 mg/L	Improves water for optimized operation
Sheraton Djibouti	Djibouti	+192m ³ /d Reverse Osmosis Desalination Plant w. pre-filtration disc filters & iron removal and post-treatment UV	Drinking water quality	High concentration of salt, iron and manganese	Turn key solution w. large benefits for the hotel
TotalEnergies & MSL Tangi	Uganda	Fully automatic 100m ³ /day Containerized Plant with Iron and Manganese Removal and Hardness reduction (100m ³ /day) and Reverses Osmosis (50m ³ /day)	Treatment of heavy iron and hardness loaded borehole water for general usage and Purification to Drinking Water standard	TSD in: 1130 mg/L Hardness in: 150 mg/L TDS product: 0 mg/L Hardness product: 35 mg/L	Improves water, optimized operation and delivers constant pressure
TotalEnergies & Albertine All Wellpads	Uganda	+50m ³ /day Reverse Osmosis Plant w. pre-filtration, Iron Reduction, Ion Exchangedisc and post-treatment UV	Drinking water quality	High concentration of Iron, Manganese and Hardness	Turn key solution w. large benefits for the Wellpads
Jesa Farm Dairy	Uganda	300m ³ /day Ultrafiltration w. coagulation, pre-filtration disc filters, sand & carbon, post-treatment UV-C	Potable water with low turbidity	River water with high organic load and turbidity	Transformed river water into process water
Excel Construction Kingfisher	Uganda	Semi automatic Plant with filtration and activated carbon (50m ³ /day) and Reverses Osmosis (5m ³ /day)	Treatment of heavy loaded organic lake waters for general usage and Purification to Drinking Water standard	Lake water with high organic load and turbidity	Improves water and optimized operation
TotalEnergies & MSL DSB (Drilling Service Base)	Uganda	Fully automatic 100m ³ /day Containerized Plant with Iron and Manganese Removal and Hardness reduction	Treatment of iron and hardness loaded borehole water for general usage	TBA	Improves water, optimized operation and delivers constant pressure
Sheraton Kampala	Uganda	30m ³ /hr Coagulation / Flocculation Settlement System with screen filtration & analytic chlorination	Potable water with low turbidity	Organic loaded water (NWS)	Turn key solution w. large benefits for the hotel

Further references can be provided as well as detailed sector references.



Name of Client	Country	Client's Requirement	Tank Specifications	Water Remarks	Comments
Water Retaining Tank (Water Storage and Wastewater Treatment Tanks)					
Crown Beverages (Pepsi Cola)	Uganda	Turnkey Industrial Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 580m ³ D: 12.73 x H: 4.62 m 2x SBR Treatment Tank 580m ³ D: 12.73 x H: 4.62 m 1x Sludge Holding Tank 87m ³ H: 6.03 x H: 3.02 m	Non-aggressive industrial wastewater from soft drink production	Lean installation on concrete foundation
TotalEnergies & MSL Bugungu	Uganda	Turnkey Domestic Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 305m ³ D: 10.05 x H: 3.85 m 1x SBR Treatment Tank 478m ³ D: 12.73 x H: 3.85 m	Ordinary domestic wastewater	Lean installation on concrete foundation with pre-fab control house
Jesa Farm Dairy	Uganda	Turnkey Industrial Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 674m ³ D: 12.71 x H: 5.31 m 2x SBR Treatment Tank 674m ³ D: 12.71 x H: 5.31 m	Non-aggressive industrial wastewater from dairy production	Lean installation on mixed concrete and pavers foundation
Crown Beverages (Pepsi Cola)	Uganda	Turnkey Domestic Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 305m ³ D: 10.05 x H: 3.85 m 1x SBR Treatment Tank 478m ³ D: 12.73 x H: 3.85 m	Ordinary domestic wastewater	Lean installation on concrete foundation
Kiira Motors Corporation	Uganda	Turnkey Domestic + Industrial Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 411m ³ D: 10.72 x H: 4.62 m 1x SBR Treatment Tank 926m ³ D: 16.08 x H: 4.62 m 1x Sludge Holding Tank 87m ³ H: 6.03 x H: 3.02 m	Pre-treated Industrial wastewater mixed with domestic wastewater	Lean installation on concrete foundation
TotalEnergies & MSL Tangi	Uganda	Turnkey Domestic Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 161m ³ D: 7.37 x H: 3.85 m 2x SBR Treatment Tank 261m ³ D: 9.38 x H: 3.85 m	Ordinary domestic wastewater	Lean installation on concrete foundation with pre-fab control house
Biyizika Poultry International	Uganda	Turnkey Industrial Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 537m ³ D: 13.40 x H: 3.85 m 1x SBR Treatment Tank 1260m ³ D: 18.76 x H: 4.62 m 1x Recycling Tank 108m ³ H: 6.03 x H: 3.85 m	Non-aggressive industrial wastewater from abattoir	Rough installation on 300mm wide ring beams with compacted centre
Crown Beverages (Pepsi Cola)	Uganda	Raw Water Retaining Tank	Galvanized Lined Panel Tank 1x Storage Tank 511m ³ D: 10.98 x H: 5.32 m Steel cover roof	National Water	Lean installation on concrete foundation
Jesa Farm Dairy	Uganda	Treated Wastewater Retaining Tank for irrigation	Galvanized Lined Panel Tank 1x Storage Tank 205m ³ D: 8.24 x H: 3.85 m	Non-aggressive treated wastewater	Lean installation on concrete foundation
G.B.K Dairy	Uganda	Turnkey Industrial Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 90m ³ D: 5.49 x H: 3.85 m 2x SBR Treatment Tank 90m ³ D: 5.49 x H: 3.85 m	Non-aggressive industrial wastewater from dairy production	Lean installation on concrete foundation
TotalEnergies & MSL DSB (Drilling Service Base)	Uganda	Turnkey Domestic Wastewater Treatment Plant inclusive of Treatment Tanks	Galvanized Lined Panel Tanks 1x Buffer 108m ³ D: 6.03 x H: 3.85 m 1x SBR Treatment Tank 161m ³ D: 7.37 x H: 3.85 m	Ordinary domestic wastewater	Lean installation on concrete foundation with pre-fab control house
Sheraton Kampala	Uganda	Raw Water Retaining Tank	Galvanised lined 137m ² tanks x2 for water storage	National Water	Very safe water storage solution

Further references can be provided as well as detailed sector references.



Name of Client	Country	Client's Requirement	Specifications	Remarks	Comments
Laboratories					
TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Complete Laboratory meeting International Standards	Capacity to test over 35 Chemical and 9 Microbiology parameters	24 hours operating laboratory	Most complete water testing laboratory in Uganda after UNBS
TotalEnergies & MSL Bugungu	Uganda	Complete Field Laboratory	Capacity to test over 20 Chemical parameters	Sound field operation	Support the operation and compliance
TotalEnergies & MSL Tangi	Uganda	Complete Field Laboratory	Capacity to test over 20 Chemical parameters	Sound field operation	Support the operation and compliance
TotalEnergies & MSL DSB (Drilling Service Base)	Uganda	Complete Field Laboratory	Capacity to test over 20 Chemical parameters	Sound field operation	Support the operation and compliance
Operation and Maintenance					
TotalEnergies & McDERMOTT 4000 Man Tilenga Camp	Uganda	Operation, maintenance & quality control of all water and wastewater plants inc. laboratory.	Two Filtration Plants Two Reverse Osmosis Plant Two Wastewater Treatment Plants Two Sludge Dewatering Plants One centralised Laboratory		
TotalEnergies & MSL Bugungu	Uganda	Operation, maintenance & quality control of all water and wastewater plants inc. laboratory.	One Filtration Plant One Reverse Osmosis Plant One Wastewater Treatment Plants One Sludge Dewatering Plants One field Laboratory		
TotalEnergies & MSL Tangi	Uganda	Operation, maintenance & quality control of all water and wastewater plants inc. laboratory.	One Filtration Plant One Reverse Osmosis Plant One Wastewater Treatment Plants One Sludge Dewatering Plants One field Laboratory		
TotalEnergies & MSL DSB (Drilling Service Base)	Uganda	Operation, maintenance & quality control of all water and wastewater plants inc. laboratory.	One Filtration Plant One Wastewater Treatment Plants One field Laboratory		

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