



Proof of concept 2015

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LIGHT*WELL
SAFE WATER PURE LIGHT

*is a unique green technology
designed to provide safe water,
affordable light and power
for remote communities.*



LIGHT*WELL

INTERNATIONAL

Our vision, the WHY
To convert wasted time and energy, into valued life outcomes.

TRANSFORMATIONAL VISION

- Improve community health and reduce youth mortality through safe water.
- Social and economic community empowerment through reduction in energy poverty using renewable resources.
- Increase individual learning opportunities through solar lighting at home and school.
- Provide a platform for individual green skills development.
- Promote a low carbon, green growth economy.



FEATURES

- Stand alone self contained water purification and lighting system.
- Expandable water & power capacity.
- Space effective.
- Simple to install and integrate into community.
- Very low maintenance NO technician needed, NO consumables.
- Choice of water outlets (tap stands, water fountain, etc.).
- Additional water treatments for medical applications.



Assembled like a jigsaw to meet your needs

Simply choose a character from each box to create the part number to suit your application.

LW V T 2B 1 12 T4 0 0 0 A

Base Product application:

K - Commercial Kitchen
P - Park U - Urban
S - School life
C - Clinic V - Village
O - Outpost
X - Custom

Water Source:

M - Municipal water
W - Shallow well
D - Deep well
T - Rainwater tank
R - River
S - Spring
X - Custom

Lift head from source to LW:

(Change * to A for above, or B for below)
00 - Low pressure fed
1* - < 10 meters
2B - 10 < 20 m below LW
3* - 20 < 30 metres
4* - < 9* - 30 < 40 - 80 < 90 m

Length from source to LW

0 - @ source
1 - < 100 meters
2 - 100 < 200 meters
5 - 200 < 500 meters
X - > 500 meters

Filtered water production (minimum):

03 - 300 litres/day (lpd)
12 - 1200 < 3600 lpd
24 - 2400 < 7200 lpd
36 - 3600 < 10800 lpd
48 - 4800 < 14400 lpd

Product supplied:

A - Assembled
K - Kit form to VTC

230V Power supply:

0 - Not fitted
1 - 0.1 kW
5 - 0.5 kW
C - 3.0 kW
E - 5.0 kW
J - 10 kW
X - Custom

Lighting provided:

0 - Basic: Lit taps + 3 community lights @30W
1 - Basic + 10 dwellings @10W
2 - Basic + 25 dwellings @10W
5 - Basic + 50 dwellings @10W
C - Basic+ 100 dwellings @10W
X - Custom

Additional treatment:

0 - No additional treatment fitted
C - Carbon filter
U - UV sterilization
B - Both Carbon filter & UV
X - Custom

Water outlets:

V1 - ¾" valve, V2 - 1" valve
T4 - (4) x ½" taps
S6 - (6) tap public filling station
F4 - (4) x school fountains
P1 - (1) x lit park fountain
XX - Custom

Countrywide Distribution and Support Model

To ensure sustainable operation, Light*WELL International engages country partners to establish a local manufacturing base, marketing, regional distribution. The service supply chain and local district technical support providers are available to users. NGO/CBO partners will train and coach village water users committees.

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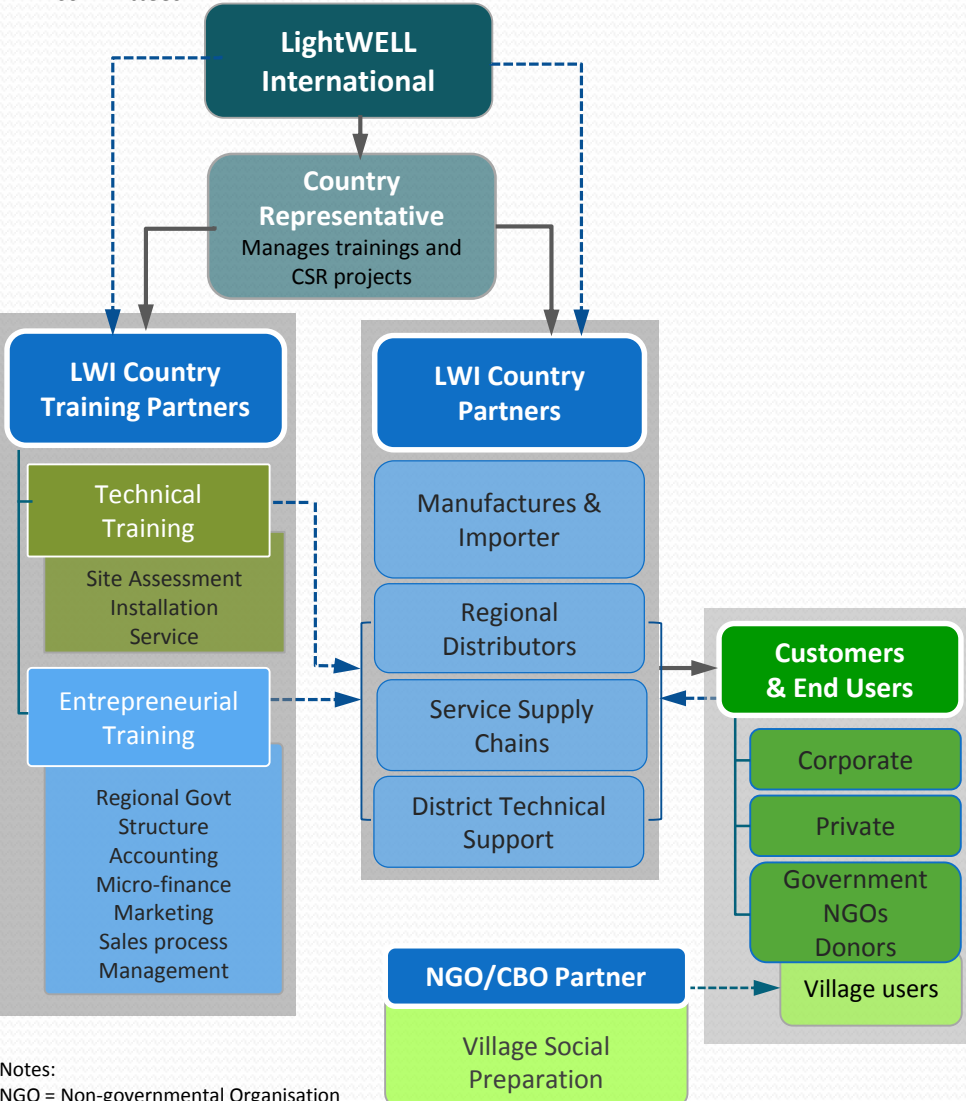
SAFE WATER

- LightWell uses low pressure dead-end bio active ultrafiltration, to filter 40nm, and treat polluted non-saline water.
- 99.99% pathogen removal; protozoa, bacteria & viruses.
- Turbidity reduced to 0.1NTU, suspended solids are nearly absent.
- Solar panels provide power for continuous automated operation and system maintenance, providing 24 hours availability of safe water.
- The filtration capacity is scalable from 1200 to 14400 litres /day, subject to raw water quality.
- Subject to storage, up to 6000L of filtered safe water, is available on demand to meet morning requirements.
- The system design life for the filters and batteries = 10 years.
- There are NO consumables required in the basic village unit, regardless of the capacity selected.



PURE LIGHT & POWER

- Solar energy is stored in long life sealed batteries, with a design life of 10 years. This powers LED lighting for community facilities <75 m2, 3@30W, operating daily for 8 hours.
- All power usage is managed to prioritise water production.
- Performance monitored and logged via 3G link, where available
- Options: Lighting capacity, community distribution, either by cable or charged lanterns.
- Charging station for cell phones and battery appliances.



Notes:
NGO = Non-governmental Organisation
CBO = Community Based Organisation

Product Application

LIGHT*WELL

SAFE WATER PURE LIGHT

LIGHT*WELL VILLAGE

Basic unit specification

- 3 IBC tanks.
- 1 ultra filter.
- 1 filter tank.
- 1 submersible feed pump with head from 10 to 100 metres.
- Plumbing.
- Valves and a transfer pump.
- 4 gravity fed self-closing taps.
- 1 cabinet system.
- Control system and PV charger, 24V with 3G link system monitoring.
- Long life batteries, 3500 cycles @ 35°C.
- 2+ PV panels, 250W.
- 3 community indoor LED lights, 30W
- 2 tap lights.

Options:

- Modular filters from 1200 to 14000 l/day to suit demand, subject to source water.
- Pressure fed self closing taps.
- Scalable solar arrays and batteries to meet service power output requirement.
- UV and carbon absorption treatments, subject to application and raw water quality.



LIGHT*WELL UrbanLife

Roof mounted safe water system for urban domestic dwellings and schools up to 500 students.

Up to 3000 l/day capacity with 1000l available for morning demand. Supplied from an existing elevated tank.

Both UrbanLife and CK use our common filtration technology and are designed for stand alone, self contained, automatic, unattended operation, on flat structural roofs.



LIGHT*WELL Commercial Kitchen

Roof mounted safe water system.

Up to 7000 l/day capacity.

Supplied from an existing elevated tank.

UV and carbon absorption systems are fitted as standard to ensure consistent taste.



LIGHT*WELL SCHOOL

For 500+ students

- Supplied from existing elevated tank, municipal water, rainwater or well fed.
- 3 < 20 pressure fed drinking fountains, scalable to suit students demand.
- Automatic unattended operation.
- Public power supply with back up batteries



LIGHT*WELL PARK

Suited to recreational areas, parks, etc., for bikers, joggers and families.

Uses a low pressure municipal water supply. Up to 600 l/ day capacity.

Illuminated, pressure fed, twin head drinking fountain.

Automatic unattended operation.

