Goodbye, Cape Town

by

Robert A. Nelson

Over a billion people lack access to water, and nearly 3 billion face water scarcity for at least one month each year. Many major cities are in dire straits: Sao Paulo, Bangalore, Beijing, Cairo, Jakarta, Moscow, Istanbul, Mexico City, London, Tokyo, Miami, Las Vegas, and more.

The city of Cape Town is the most desperate case at the moment. South Africa is suffering a drought that occurs only once in 300 years. Water levels behind dams are at an average of 25%, and are dropping by as much as 1 percent a day. Residents and tourists are allowed 50 liters (about 13 gallons) a day, and are fined for violations. The city is counting down to "Day Zero" in May, when water taps will run dry.

Patricia de Lille, the mayor of Cape Town, recently issued an angry warning to residents:

"We have reached the point of no return. It is quite unbelievable that a majority of people do not seem to care."

Yo, Cape Town! If y'all had listened to Theodore Schumann back in 1945, you wouldn't be begging the gods for water today.

That's because Schumann, who South Africa's chief meteorologist at that time, invented a huge electrified fence that was intended to condense the cloud plume atop Table Mountain (altitude 3400 ft.) into 30 million gallons per day (almost 3000 lb./sec.) of pure water. Schumann proposed the construction of two metal screen fences, each 150 ft. tall, 9000 ft. long, and 1 ft apart, charged with 50-100 thousand volts of low amperage electricity. The ionized air would serve to collect atmospheric humidity as droplets on the metal fence, as illustrated:
The project never materialized.

The gravity flow of so much water also could be used to generate electricity to power the fences or supply consumers. Harry Valentine has estimated the potential for such "Micro-hydroelectric Power from Fog Fences", and attests to its feasibility:

"Modern technology could greatly increase the overall height of electrified fog fences. The higher fences could be supplied with some 50-KVA at 10-amperes (500-Kw) of electric power generated by a large windmill or by hydroelectric power. A flow rate of 2890-lb/sec of water and a vertical height of 1000-ft would calculate to 3100-Kw of power at a conversion efficiency of 80%. The net output for a fog fence of 150-feet in height will be over 2800-Kw of power. Net output could be increased to over 8600-Kw for a fog fence of 600-feet in height.

"Up to 70,000-gallons of fresh water per minute could be collected each summer morning by electrified fog fences. The water and power may serve the needs of nearby local communities. It may be possible for the fog fences to reduce the intense humidity in the summer air that would subsequently drift toward large population centers such as Washington, Baltimore, Philadelphia, New York and Boston. A reduction in summer humidity in these centers could enable a segment of the local populations to experience less discomfort during hot summer weather. This segment may subsequently have less need for air conditioning in their homes during part of the hot summer."

The operating principle was patented by Alvin M. Marks as a "Charged Aerosol Electric Power Generator" (USP 4433248), also known as a "power fence":

"Electrically charged water droplets are dispersed into the wind stream. Using Induction Electric Charging, a water jet issues under water pressure from a small diameter (25-50 mu m) orifice, and the
jet breaks into charged droplets. A plate orifice 35 μm diameter, and 25 μm long appears optimum; a single jet from such an orifice at a water pressure of 15 psig produces net electric power output substantially exceeding the hydraulic and electric power inputs. A practical Wind/Electric Generator utilizes a multi-orifice array scaled to a kilowatt or megawatt level. A water recovery and pressure regeneration solar and/or gravitational means is described by which water is conserved and the water power is free, so that there is a net output electric power without external power input of any kind, except natural wind and/or solar power."
There are dozens of other ways to condense atmospheric humidity. The simplest way to do it in a city is to place buckets under the drip tubes of air conditioners. Do not drink the water before purifying it to remove smog, chemtrails, Legionnaire's Disease, etc. Several companies now manufacture sophisticated condenser air wells that could save many lives if they were in widespread use.

It is very probably too late, however, for Cape Town to avert the consequences of its foolish failure to heed Theodore Schumann in 1945.

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About the Author: Robert A. Nelson is a 10th grade dropout with no credentials. He established Rex Research in 1982 to archive information about suppressed, dormant, and emerging technologies. He persists...