

TECHNOFIXES ENERGY

THE POWER SOURCE



SOLAR POWER STATION LLC

www.solarpowerstationllc.com

- SOLAR POWER SYSTEM WITH ELECTRIC ENGINE
- ELECTRIC ENGINE GENERATOR
- DAMS MODIFICATION
- DESALINATION
- RECYCLE WASTEWATER
- AERIAL VEHICLES (UAV),

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- **SOLAR POWER SYSTEM WITH ELECTRIC ENGINE**
- **ELECTRIC ENGINE GENERATOR**

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SOLAR POWER SYSTEMELECTRIC WITH ELECTRIC ENGINE GENERATOR

Solar Power System with Electric Engine Generator that generates unlimited, clean, and free electricity in all time, entire years, without use of external energy such as propane gas, gasoline, diesel, or electricity. Provides electricity for electric engine vehicles, residential & commercial buildings, industrials, trains, ships, airplanes, jets, unmanned aerial vehicles (UAV), or any kind of electric engine or turbine engines applications.

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APPLICATIONS

ELECTRIC ENGINE
VEHICLES

HIGH SPEED TRAINS

SPACE CRAFTS - AIRPLANS - JETS -
UNMANNED SERIAL VEHICLES (UAV)

ALL ELECTRIC ENGINE
APPLICATIONS

AGRICULTURE
WATERING

SHIPS

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DAMS

SEAWATER
DESALINATION
PLANTS

REFINERIES

INDUSTRIALS /
MANUFACTURES

RESIDENTIAL
COMMERCIAL BUILDINGS

FUEL POWER
PLANTS

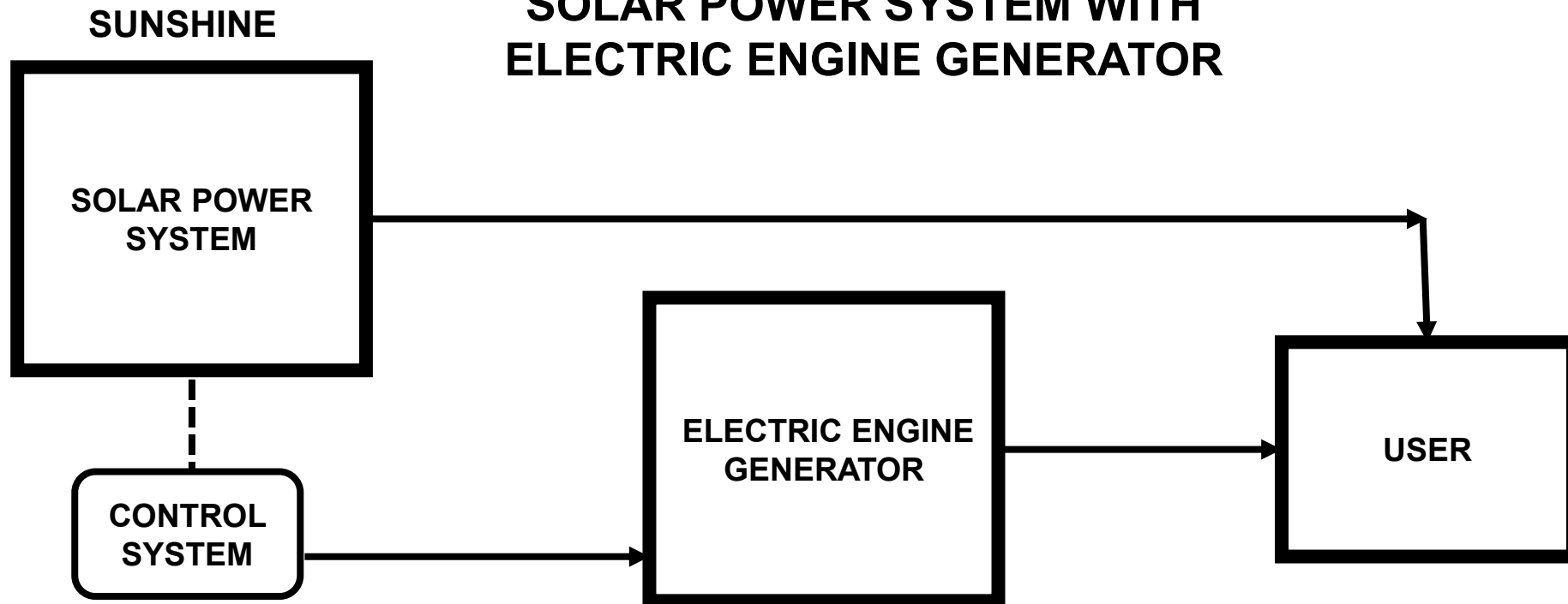
NUCLEAR POWER
PLANTS

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SOLAR POWER SYSTEM WITH ELECTRIC ENGINE GENERATOR

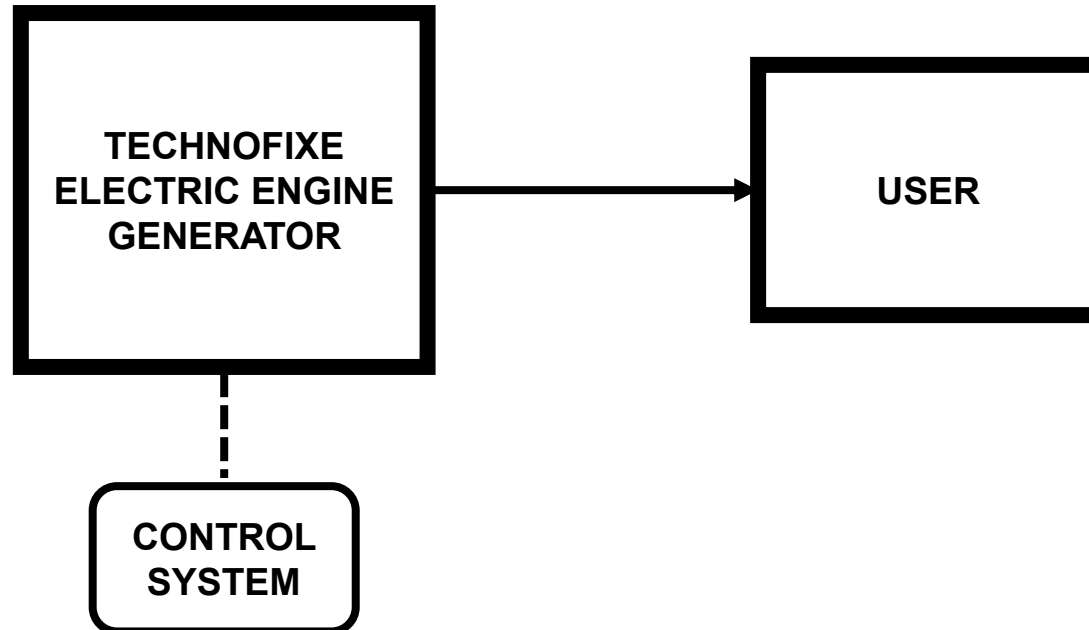


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TECHNOFIXE ELECTRIC ENGINE GENERATOR



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BENEFITS:

- **GENERATES UNLIMITED, CLEAN & FREE ENERGY IN ALL TIME, ENTIRE YEAR.**
- **IMPROVES GLOBAL CLIMATE CHANGES & INCREASES GLOBAL ENERGY SUPPLY.**
- **SAVES BILLIONS DOLLAR IN CRUDE FUEL OIL / FUEL GAS CONSUMPTION PRODUCING ELECTRICITY.**
- **PROVIDES ELECTRICITY FOR FUTURE ELECTRIC ENGINE AND ENGINE TURBINE APPLICATIONS SUCH AS ELECTRIC ENGINE VEHICLES, SPACECRAFT, ETC.**
- **THIS MARKS THE START OF SCIENTIFIC OPERATION OF THE WORLD'S ENERGY GENERATION FOR USE IN ALL ELECTRIC AND ENGINE TURBINE APPLICATIONS.**

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DAMS MODIFICATION

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TECHNOFIXES ENERGY – DAMS MODIFICATION

ABSTRACT

The objective of Dams Energy Modification research is to replace existing turbine generators favorable to the climate and environment that generates electricity from the technofixes energy system, a self power supply system to produce mechanical energy to run the existing generator aiming producing electricity. So, there will be no need to use water power for producing mechanical energy, the water can be used for drinking, agriculture, irrigation, etc.

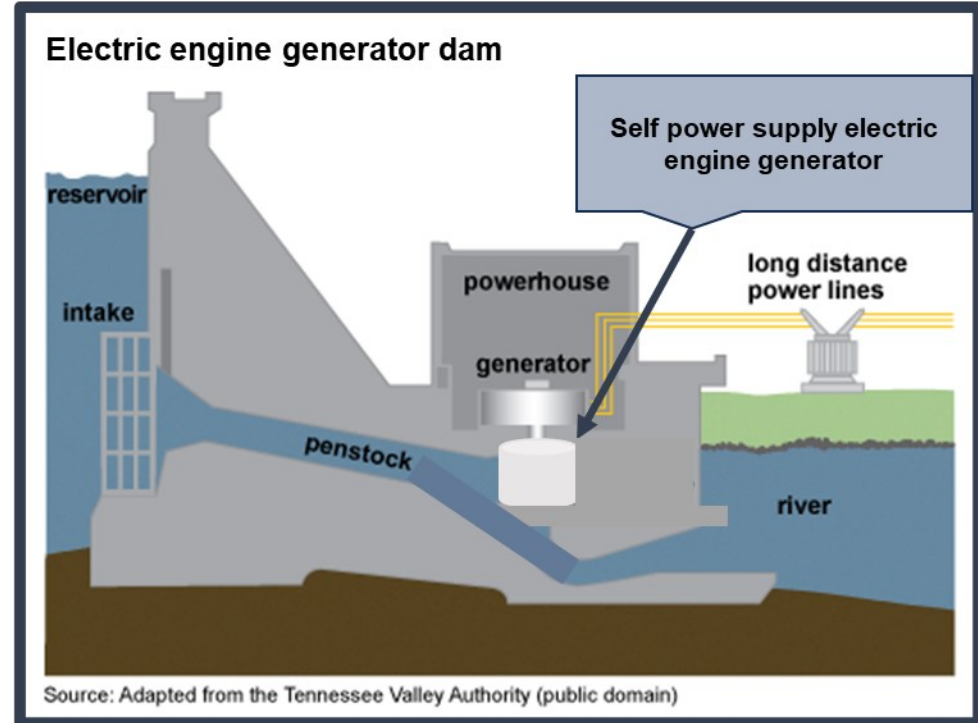
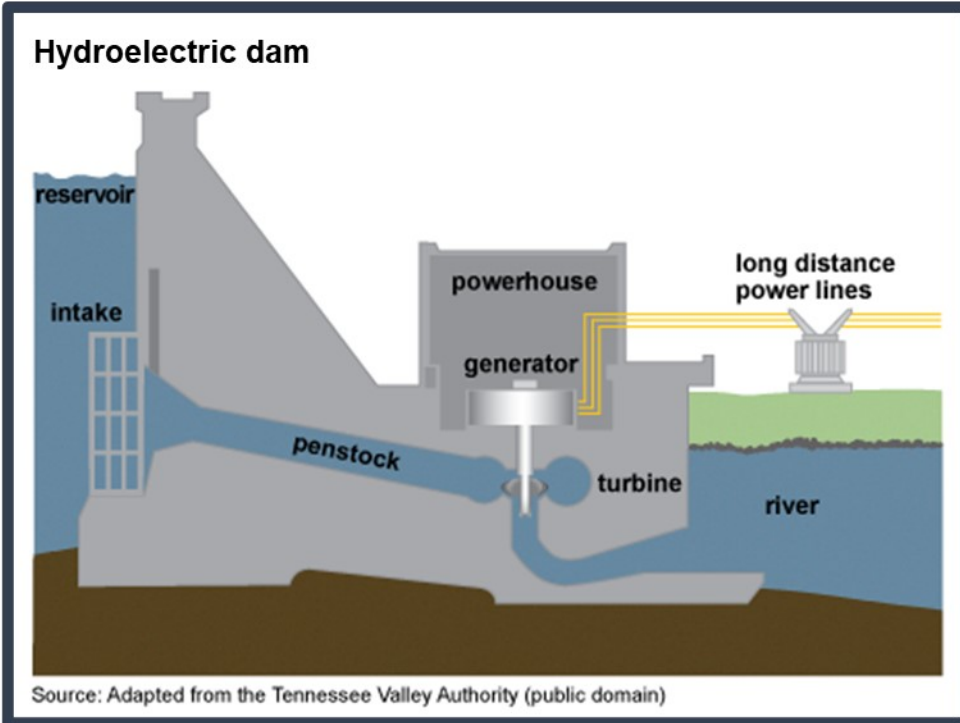
Study conclusion generating gigawatts, clean, cost effective electricity. This marks the start of scientific operation of the world's largest technofixes power source device in earth, is to investigate this configuration's suitability for use dams, so produces electricity, and water stream back to the nature.

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DAMS MODIFICATION





Why don't we use hydroelectric power?

Hydropower can also cause environmental and social problems. Reservoirs drastically change the landscape and rivers they are built on. Dams and reservoirs can reduce river flows, raise water temperature, degrade water quality and cause sediment to build up. This has negative impacts on fish, birds and other wildlife.

Why don't we build more dams?

Some say that getting more water into storage by building more dams is key. But dams also create problems for native fish, and some see them as a waste of money that may not provide sufficient supply



What is the major disadvantage of dams?

separate the river, preventing the migration of aquatic fauna. since the dam is a barrier across the river, excessive fertile sedimentation occurs at the bottom of the reservoir (behind the dam), resulting in the farmland below a dam may become less productive.

- Displacement of people during construction.**
- Reservoirs often emit a high percentage of greenhouse gases.**
- Often disrupts local ecosystems.**
- It disrupts the groundwater table.**
- Blocks progression of water to other countries, states or regions.**



How much of the world's electricity comes from dams?

Dams are a major source of electricity globally, with hydropower generating 16 percent of the world's total electricity and 71 percent of all renewable electricity. Many developing countries possess great untapped hydropower potential.

How much electricity does hydropower produce globally?

In 2020, hydropower supplied 17% of global electricity generation, the third-largest source after coal and natural gas. Over the last 20 years, hydropower's total capacity rose 70% globally, but its share of total generation stayed stable due to the growth of wind, solar PV, coal and natural gas.

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What country gets 99% of its electrical energy from hydro power?

In Norway, for example, 99% of electricity comes from hydropower. The world's largest hydropower plant is the 22.5 gigawatt Three Gorges Dam in China.

What is the fastest growing source of energy in the world?

Renewable energy is the fastest-growing energy source globally and in the United States

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BENEFITS:

- DAMS MODIFICATION CONTINUES TO GENERATE THE ELECTRICITY WITHOUT HYDROPOWER NEEDS. GENERATES UNLIMITED, CLEAN, AND COST EFFECTIVE ELECTRICITY. IMPROVES GLOBAL CLIMATE CHANGES & INCREASES GLOBAL ENERGY SUPPLY.
- HYDROPOWER DAMS FLOOD LARGE AREAS, FORCE PEOPLE TO RELOCATE, THREATEN FRESHWATER BIODIVERSITY, DISRUPT SUBSISTENCE FISHERIES, AND LEAVE RIVERS DRY.
- DAMS ARE ALSO LESS APPEALING FOR IRRIGATION STORAGE BECAUSE OF WATER LOSS, EXPENSE, AND ECOLOGICAL DAMAGE RELATED TO THE NEED FOR CONVEYANCE TO DISTANT AGRICULTURAL FIELDS, AS WELL AS HIGHER LEVELS OF EVAPORATION ACROSS LARGE RESERVOIRS' LARGE WATER SURFACES.



- **DESALINATION**
- **RECYCLE WASTEWATER**



Sea Water Composition:

In view of - under organoleptic considerations - the unbalanced ratio of monovalent to divalent ions and low salt content, product water from desalination processes should not be supplied as drinking water without being parabolized or remineralizer.

Ionogenic Composition

Distillate normally has a pH of 6.0-6.3 and a CO₂ content of less than 1 ppm.

Sodium, Potassium, Calcium and Product composition Magnesium, Chloride, Sulfate, Nitrate, Alkalinity, Silica, Carbon dioxide.

Metals

copper/nickel alloys and stainless steel, copper, nickel, chromium and molybdenum and iron.

Organics

methane, ethane, propane derivatives and aromatic compounds like benzenes, xylenes and phenols.

Solids

Dirt-sand-rock

Vaporized as vent-chloro- and bromo- methane's, ethane's and halogenated aromatics.



Sea Water Composition: Continue

Seawater is about (3.5% salt. 96.5% water)) 35,000 ppm salt. Salt enters waterways from contact with rocks containing soluble minerals, which is how even “fresh” water far from oceans can become especially salty.

Average energy consumed per 1000 gallons desalination water is 3.8 kw-h

Average price range per gallon of desalinated water is 0.50 – \$ 1.50 per cubic meter



Which country has the largest & best desalination plants?

- Ras Al Khaira, Saudi Arabia: 1,036,000 m³/day. ...
- Taweelah, UAE – 909,200 m³/day. ...
- Shuaiba 3, Saudi Arabia – 880,000 m³/day. ...
- Jubail Water and Power Company (JWAP), Saudi Arabia - 800,000 m³ /day. ...
- Umm Al Quwain (UAQ), UAE – 682,900 m³/day. ...
- DEWA Station M, Dubai - 636,000 m³/day



Where is the largest desalination plant in the world?

The Ras Al Khaira desalination plant in Saudi Arabia produces a staggering 1,036,000 m³/day using RO, which would make it the largest

What is one problem Saudi Arabia faces concerning their desalination plants?

The desalination process requires large amounts of energy. To fuel its desalination plants, Saudi Arabia uses up to 1.5 million barrels of oil per day – more than the entire daily oil consumption of the UK.

Cost per year =

1.5 million barrels of oil per day at \$30 per barrel per 365 days in year = \$ 24.6 Billion



Why do countries not desalinate sea water?

Desalination plants are costly to operate, require enormous amounts of energy and are difficult to manage in an environmentally-friendly way, according to water policy experts

What are the two main disadvantages of desalination?

Most forms of desalination are energy-intensive. Desalination has the potential to increase fossil fuel dependence, increase greenhouse gas emissions, and exacerbate climate change if renewable energy sources are not used for freshwater production.



What are the side effects of drinking desalinated water?

Ingestion of such water can lead to electrolyte abnormalities marked by hyponatremia, hypokalemia, hypomagnesemia, and hypocalcemia which are among the most common and recognizable features in cancer patients. The causal relationships between exposure to demineralized water and malignancies are poorly understood

Clean water test

Removing the sodium loses the good salty taste, magnesium the bitter part and calcium the slight milky taste. Put these back together with a bunch of lesser minerals and we get the water taste we are used to. Take them away and water does not taste of much, more importantly it does not seem to hydrate as well.



What are the problems with desalination plants?

Desalination plants commonly pump brine back into the ocean. But brine can create oxygen-less layers in the water and cause deadly ocean acidification. What is more, it is pumped into the sea at high temperatures, which are also harmful to marine life

Which are negative effects of desalination plants in the Middle East?

But desalination tends to be energy intensive and produces saline wastewater called brine. On its return to the sea, brine can damage marine ecosystems. Research suggests that desalination may be making some water bodies, including the Red Sea, the Arabian Gulf, and the Mediterranean, saltier.



What to do with brine after desalination?

Brine, which could be obtained from the waste stream of reverse osmosis (RO) desalination plants, or from industrial plants or salt mining operations, can be processed to yield useful chemicals such as sodium hydroxide (NaOH) or hydrochloric acid (HCl)

What is the major drawback of desalination at present?

Brine production and high-energy consumption are key downsides of desalination. Disposal of toxic brine is both costly and associated with negative environmental impacts. The highly concentrated discharge, which can also contain metals and antifouling chemicals, is denser than seawater, so it flows as a salty plume to the seafloor and can poison marine organisms living nearby. Some brine can also still be hot from evaporative processes during desalination. Seawater salt is not for eat.



Conclusion and recommendations:

- use renewable energy sources to produce fresh clean water, lower operation cost, and environmentally friendly.
- Proceed with Process brine product treatment to produce solid salt product, and/or proceed process to yield useful chemicals such as sodium hydroxide (NaOH) or hydrochloric acid (HCl) to eliminate discharging salt back to the ocean.
- Select the new distillation desalination plant to produce high volume, high quality, less chemical treatment, much cheaper operation, and environmentally friendly.



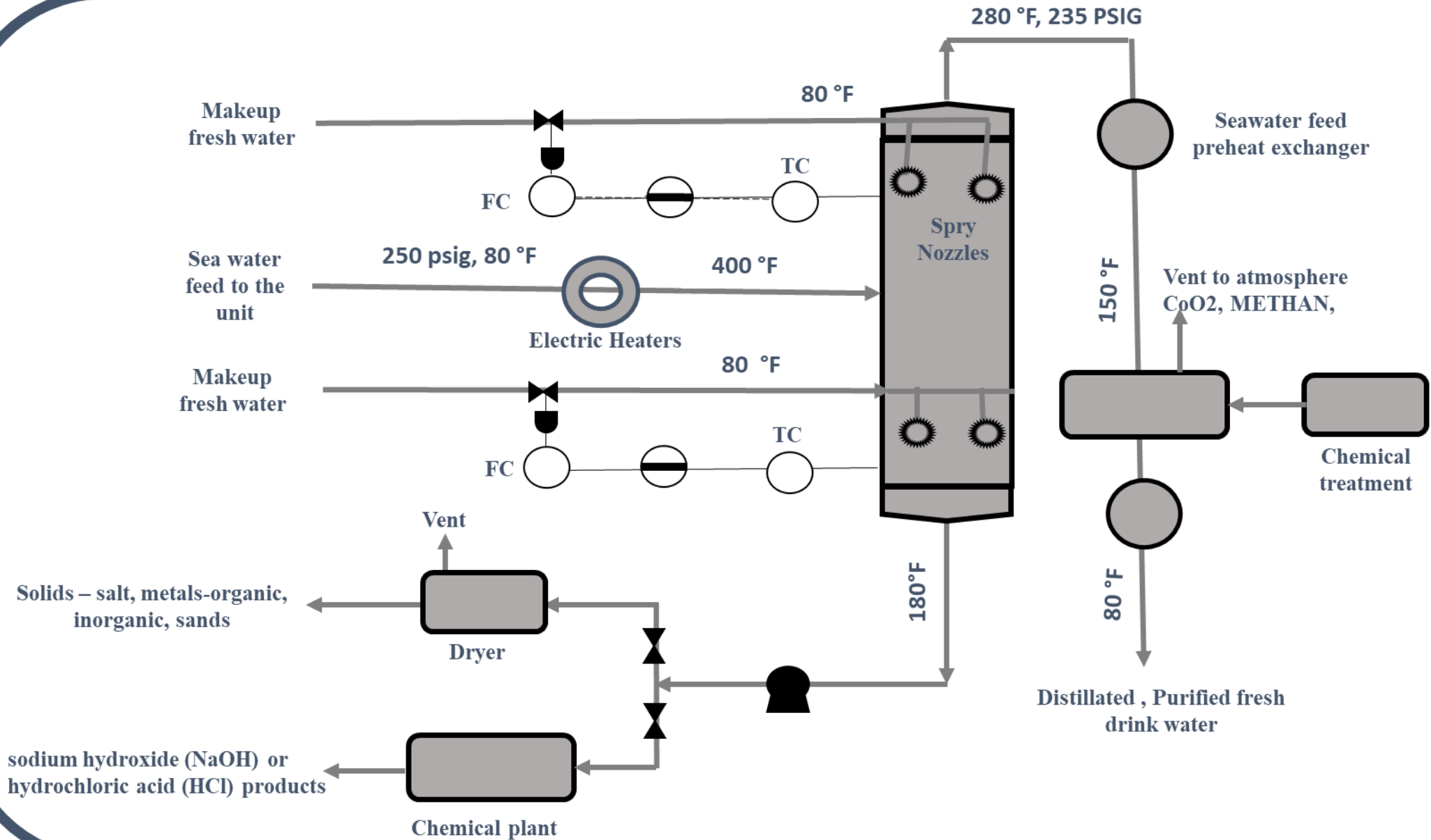
What is delayed thermal cracker desalination process? & Recycle treated wastewater?

The Delayed Thermal Cracker Process

Delayed Thermal cracking is a process in which salts and minerals present in seawater or brackish water are subject to high heat and pressure and temperature (400 ° F), 250 psig to produced to superheated steam to breaking down the molecular bonds, and separation by gravity in a low vapor velocity. Furthermore washing the vapor steam with fresh spray water to remove all the reminder materials before vapor discharges from the top of the drum at 280 F, 230 psig. The vapor steam condenses to 150 ° F to preheat the incoming seawater feed into the unit. Distilled fresh water will be treated for chemical treatment and filtration before discharged from the unit.

The brine products can dry to solid salt in a dryer system or/and a proceed in a chemical unit to produce sodium hydroxide (NaOH) or hydrochloric acid (HCl)

DELAYED THERMAL CRACKING - DESALINATION PROCESS





Benefits and advantages:

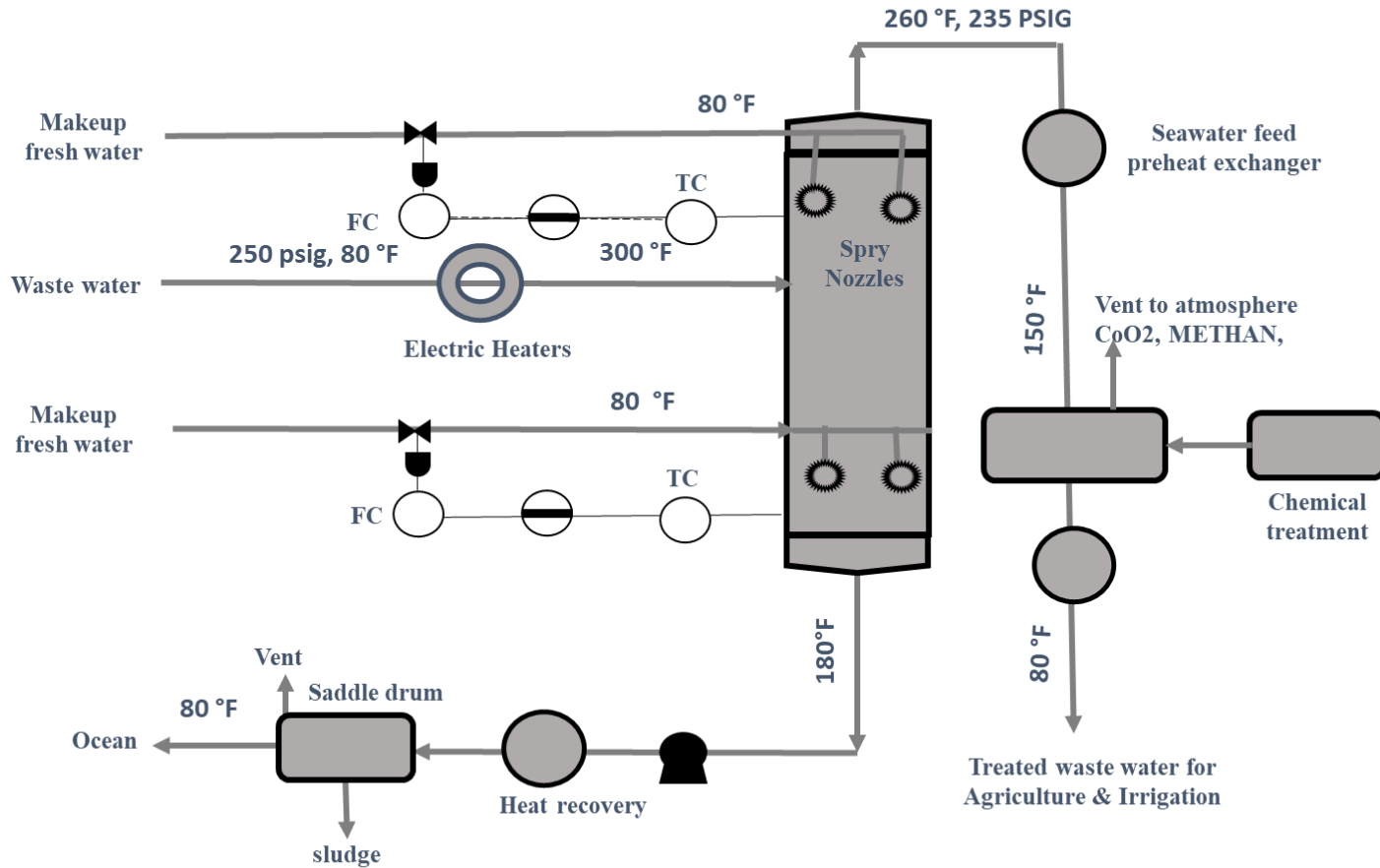
- Seawater desalination includes an electric engine power station generator that produces required, clean, and free electricity without use of external energy. Allows to select the best desalination practices to produce high quality and quantity fresh, clean drinking water, at very low operation cost and to save millions of barrels of fuel crude oil & fuel gas per day fossil fuel consumption, that improves environmentally and energy shortage. Kills bacteria in superheated steam at 400° F operation.
- Proceed brine treatment that produces solid salt or/ and sodium hydroxide (NaOH) or hydrochloric acid (HCl) to eliminate discharging salt back to the ocean and save additional revenue.
- Cost effective energy allows us to select the new distillation desalination technologies to produce high volume, high quality, less chemical treatment, much cheaper operation, and environmentally friendly due to availability of free required energy.

TECHNOFIXES SEAWATER DESALINATION

US COKERTECH LLC



DELAYED THERMAL CRACKING – RECYCLE WASTE WATER





How much electric cost for a wastewater treatment plants

Across the country, municipal wastewater treatment plants are estimated to consume more than 30 terawatt-hours per year of electricity, which equates to about \$2 billion in annual electric costs.

What is the biggest problem in wastewater treatment plants?

- Inadequate Training. It's unfortunately true that many professionals working in the wastewater treatment field have not received adequate training for their positions. ...
- Budgetary Concerns. ...
- Physical Footprint. ...
- Sludge Management



Do water treatment plant make money?

What Wastewater treatment revenues in the United States have more than doubled since the turn of the century and amounted to 65.3 billion U.S. dollars in 2019.

Wastewater treatment facilities purify contaminated water by removing bacteria and other harmful pollutants before it is returned safely back into the environment

How much does it cost to treat 1000 gallons of water?

water treated. The total cost of water treatment for the surveyed greenhouses ranged between \$0.07 for chlorine gas to \$1 per 1,000 gallons for copper ionization . Labor was up to \$0.03 per 1,000 gallons for all treatments, except ozone which required more skilled management than other technologies



Why is wastewater treatment so expensive?

Energy and chemical costs are higher for wastewater treatment processes, hence the higher cost for wastewater treatment vs. water treatment on a water bill. The cost to treat wastewater and meet federal regulations continues to increase.



Our oil& gas and energy related Patents:

1. **United State Patent No. 6,117,308 September 12, 2000, “Foam reduction in petroleum Coker’s”, assigned to Kazem Ganji.**
2. **United State Patent No. 6,764,592 B1 July 20, 2004, “Drum Warming in Petroleum Cokers”, assigned to Kazem Ganji.**
3. **United State Patent No. 7828959 November 11, 2010, “Delayed Coking Process and Apparatus “assigned to Kazem Ganji.**
4. **United State No. 8,512,549 B1 August 20, 2013 “Mechanical Coke Cutter System” assigned to Kazem Ganji.**
5. **United State No. 11,377,599, B1 issued July 5, 2022 “Delayed Cracker Unit” assigned to Kazem Ganji.**
6. **United State Patent ” Electric Vehicles power & charging system and method”, inventor Kazem Ganji.**
7. **United State Patent, “solar system with electric engine”, inventor Kazem Ganji.**

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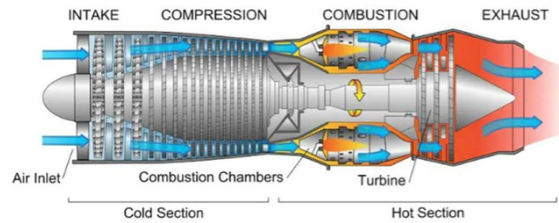
**AIRPLANES, JECTS, UNMANNED
AERIAL VEHICLES (UAV), AND
SPACECRAFTS**

TECHNOFIXES ENERGY

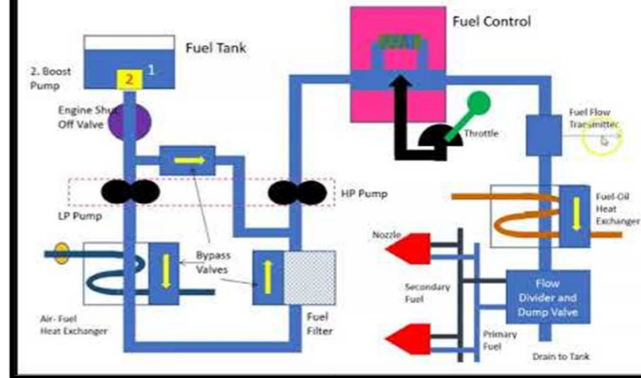
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Turbine Engine



Turbine Engine Fuel System



TECHNOFIXES ENERGY

SELF POWER SUPPLY
ELECTRIC ENGINE GENERATOR



Other Facilities

Self power supply electric engine generator generates unlimited, non stop, clean and cost effective electricity

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POWER SOURCE:

SELF POWER SUPPLY ELECTRIC ENGINE GENERATOR GENERATES UNLIMITED, CLEAN, AND COST EFFECTIVE ELECTRICAL POWER WITHOUT USE OF EXTERNAL ENERGY SUCH AS PROPANE GAS, GASOLINE, DIESEL, OR ELECTRICITY. GENERATES ELECTRICAL POWER FOR AIRPLANES, JETS, UNMANNED AERIAL VEHICLES, SPACE CRAFTS, SPACE CENTER, AND/OR ANY ELECTRIC TURBINE / ELECTRIC ENGINE APPLICATIONS, SO APPLICATIONS CAN FLIGHT/DRIVE UNLIMITED HOURS, UNLIMITED MILEAGES, AND CARRY HEAVY LOADS WITHOUT NEEDS FOR REFUE OR RECHARGE.

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**An Improved Engine for a High Altitude
Long Endurance Unmanned Air Vehicle**

Technofixes engines are much lighter & smaller in order that the payload and/or operating altitude can be increased, and also doesn't use of external energy such as propane gas, gasoline, diesel, electricity so that range can be extended. Generates not-stop, unlimited, continue, and cost effective electricity

TECHNOFIXES ENERGY

| | TECHNOFIXE GENERATOR | AN EXISTING APPLICATION |
|---------------------|--|---|
| EXTERNAL FUEL | NONE | Fischer-Tropsch Synthetic Paraffinic Kerosene fuel blended with regular JP-8 jet fuel |
| FUEL WEIGHT | NONE | Fuel Capacity: 17,300 pounds (7847 kilograms) |
| TOTAL WEIGHT | 5000 kwh (181 lb.) – megawatts per hour (500 lb.) | Much More than Fuel Capacity: 17,300 pounds (7847 kilograms) |
| CAN CARRY | TBD (estimated tons of internal payload) | can carry up to 3,000 lb. (1,360 kg) of internal payload. |
| FLY HOURS / MILAGES | TBD(unlimited) | up to 28 hours / 1,200 mile |
| SERVICE CELING, ft | TBD (unlimited) | 60,000 feet |
| CRUISE SPEED | TBD (estimated supersonic speed, distance) | 357 mph , a range of 8,700 mi |



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**This presentation has been prepared based on
the available publication dates. Real date
needed to prepare the actual results.**

THANK YOU