



index

Salgenx

Salgenx. The Salt Water Flow Battery



This webpage QR code

Structured Data

```

<script type="application/ld+json">
  {
    "@context": "http://schema.org",
    "@graph": [
      {
        "@type": "Organization",
        "@id": "https://salgenx.com/#organization",
        "name": "Salgenx",
        "url": "https://salgenx.com",
        "sameAs": [
          "https://www.instagram.com/salgenx/",
          "telephone": "608-238-6001",
          "email": "greg@salgenx.com",
          "logo": "https://salgenx.com/logo.png"
        ]
      },
      {
        "@type": "WebSite",
        "@id": "https://salgenx.com",
        "url": "https://salgenx.com",
        "name": "Salgenx. The Salt Water Flow Battery",
        "description": "Salt water flow battery technology with low cost and great energy density that can be used for power storage and thermal storage. Let us de-risk your production using our license. Our aqueous saltwater flow battery is less cost than Tesla Megapack and faster delivery. Redox flow battery. No membrane needed like with Vanadium, or Bromine."
      }
    ],
    "@type": "BreadcrumbList",
    "@id": "https://salgenx.com/",
    "itemListElement": [
      {
        "@type": "ListItem",
        "position": 1,
        "item": {
          "@type": "WebPage",
          "@id": "https://salgenx.com/index.html",
          "url": "https://salgenx.com/index.html",
          "name": "Salgenx. The Salt Water Flow Battery"
        }
      },
      {
        "@type": "ListItem",
        "position": 2,
        "item": {
          "@type": "WebPage",
          "@id": "https://salgenx.com/tech.html",
          "url": "https://salgenx.com/tech.html",
          "name": "CFB Technology"
        }
      },
      {
        "@type": "ListItem",
        "position": 3,
        "item": {
          "@type": "WebPage",
          "@id": "https://salgenx.com/products.html",
          "url": "https://salgenx.com/products.html",
          "name": "Products"
        }
      },
      {
        "@type": "ListItem",
        "position": 4,
        "item": {
          "@type": "WebPage",
          "@id": "https://salgenx.com/licensing.html",
          "url": "https://salgenx.com/licensing.html",
          "name": "Salt Water Flow Battery Technology Licensing"
        }
      }
    ]
  }

```

Salt water flow battery technology with low cost and great energy density that can be used for power storage and thermal storage. Let us de-risk your production using our license. Our aqueous saltwater flow battery is less cost than Tesla Megapack and faster delivery. Redox flow battery. No membrane needed like with Vanadium, or Bromine.

PDF Version of the webpage (first pages)

Salt Water Flow Battery Technology at less than \$100 per kWh

Salgenx (division of Infinity Turbine LLC) has developed a revolutionary saltwater flow battery which also acts as a thermal battery.

Lower cost and faster product access compared to Tesla Megapack (which may take two years to deliver).

Does not use any Lithium or Vanadium membrane.

Using a CO₂ heat pump, you can double down on the payback for this new concept of a battery which stores heat as well as power in the saltwater electrolyte.

When combined with a ORC (Organic Rankine Cycle) heat turbine, this concept is further extended to produce power, especially at oil and gas wells which have geothermal heated brine producer water. Imagine storing power at the oil well, to use to power the downhole pumps.

Grid based rate arbitrage for purchasing power during off-peak times, then using power during on-peak daylight times to save money.

1/31/2023

License to Manufacture and Sell vs Build Your Own Brand

[Licensing](https://salgenx.com/licensing.html) is now available for the saltwater battery technology. This system has two electrolyte tanks, one of which is salt water (brine). It does not have, nor use a membrane.

This license and guidance provided, allows you to de-risk the deployment as you are the first into the commercial marketplace. We are your subject matter experts for saltwater flow batteries. We work together with your team to enhance your core for your customer needs.

Build Your Own Brand: As an alternative to a standard licensing fee, you may start with a market assessment and let us customize your license experience saving you time and give you fast access to the market.

Access the USA Tax Credit: Flow battery manufacturing and contract builders may gain access to the \$35 per kW.

1/31/2023

How to buy a license

We develop technology and then license to builders and manufacturers. That way we can move at the speed of light to get new tech into the market first.

If you only want to buy a flow battery, you can contact one of our licensed manufacturers.

If you want to buy a license, please see the flow chart or email us.

Our technology will be the first large salt water flow battery to the market.

1/31/2023

On Demand Electrode Technique and Process License

Purpose: This licensing is for developers of flow batteries who wish to de-risk and reduce time developing and experimenting with electrodes. It provides the framework and technique to develop your strategy of development.

The Problem Defined: During our flow battery development validation and evolution, the process of designing, formulating, fabricating, and then testing electrodes became a game of wasting time with various catalyst companies. The process is very time consuming, and many catalyst companies will promise a formula with active loading (xxx mg/cm²), and then not even deliver on what they quoted. Weeks and months can be spent going back and forth. If you decide to formulate and build your own electrodes for your flow battery, you'll need some very expensive equipment, and dedicated staff to run it. Setting up a lab with electrode fabrication can take months and hundreds of thousands of dollars.

Saltwater Battery

The Salgenx saltwater battery is a flow battery system, which requires two large tanks that hold fluid electrolytes. One tank is dedicated to salt water (just add NaCl to water). The saltwater tank may be used for thermal storage. Fluids are circulated through electrodes, which regulate the input and output of electricity from the battery. The battery does not use a membrane, which is common on other redox flow battery systems. The absence of the membrane saves huge up front purchase costs, maintenance, and consumable expenses.

As a simultaneous Thermal Storage Device

Considered a hybrid between a standard flow battery and a thermal storage device, the battery provides simultaneous heat or cold liquid storage as well as electrical energy storage. Unlike the sand battery, this system can also store electricity along with thermal resources.

Heat Pump

A heat pump is almost exactly like a ORC (Organic Rankine Cycle) system, which uses phase change to provide work to produce heat or cooling.

In the case of a ORC system, the pressure reducing valve is replaced with an expander which mechanically rotates a electrical generator to make power. We have also experimented with cavitation discs.

A heat pump has a high COP (Coefficient of Performance - is defined as the relationship between the power (kW) that is drawn out of the heat pump as cooling or heat, and the power (kW) that is supplied to the compressor) when compared to resistance heating.

What is Brine

What is brine?

In general, brine is any solution with an extremely high concentration of salts, such as sodium chloride, which can occur either naturally (as with seawater, deep-water ocean pools, salt lakes, producer water from oil and gas drilling) or as a byproduct of industry. These byproducts, or brine waste streams, are typically highly concentrated salt solutions that, in some cases, contain more than twice the amount of concentrated salts than natural brine solutions. Brine waste streams can also be highly concentrated with total dissolved solids (TDS), such as waste streams in many chemical manufacturing processes, and they can be some of the most challenging to treat or discharge because their composition and purification requirements are dynamic and complex.

NACS Tesla Plug for Charging AC and DC

Salgenx will be offering the NACS Tesla plug as part of its connectivity options to allow direct charging of electric vehicles.

From @Teslamotors #Tesla: With more than a decade of use and 20 billion EV charging miles to its name, the Tesla charging connector is the most proven in North America, offering AC charging and up to 1 MW DC charging in one slim package. It has no moving parts, is half the size, and twice as powerful as Combined Charging System (CCS) connectors.

