

***Revolutionary heat  
pump technology  
providing advanced  
decarbonized heating  
and cooling capabilities  
for commercial buildings.***



Likido™ ONE:

**Commercial  
Building  
Applications**

## Problem:

The U.S. Department of Energy estimates that commercial buildings account for **826 million metric tons of CO<sub>2</sub> emissions annually**. Additionally, the average energy consumption of a commercial building in the U.S. is 22.5 kilowatt-hours per square foot.

**The inefficiency of traditional boilers and chillers has created a dire need for robust technology that addresses high energy consumption and combats rising costs for commercial businesses.**

Energy is wasted in a variety of ways: heating, cooling, lighting, ventilation, and hot water heating, among others.

## Solution:

### LIKIDO™ONE FOR COMMERCIAL BUILDINGS

Through renewable and sustainable energy innovation, combustion-free **Likido™ONE heat pumps reduce carbon and improve energy efficiency**, ultimately recovering lost energy while supporting the global initiative of Net Zero emissions.



### Did You Know?

Every Likido™ONE machine installed has the potential to eliminate 250,000 kilograms of CO<sub>2</sub> equivalent.

***Likido™ONE recovers wasted energy.***





**On average, 30% of commercial building energy is wasted.**

***Likido™ONE technology could revolutionize the 2.88 billion global cooling tower market by efficiently capturing 75% of its wasted energy.***

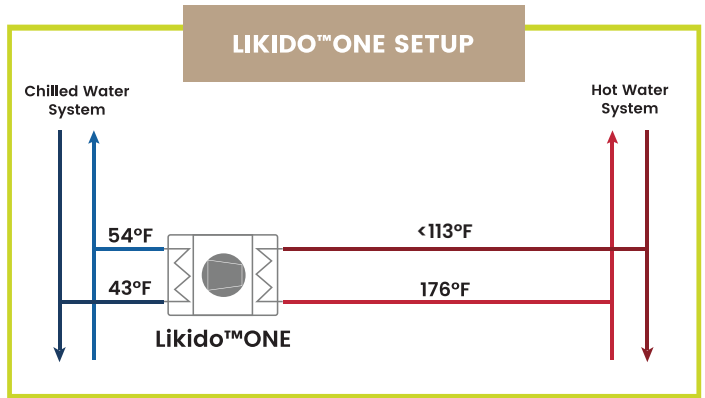
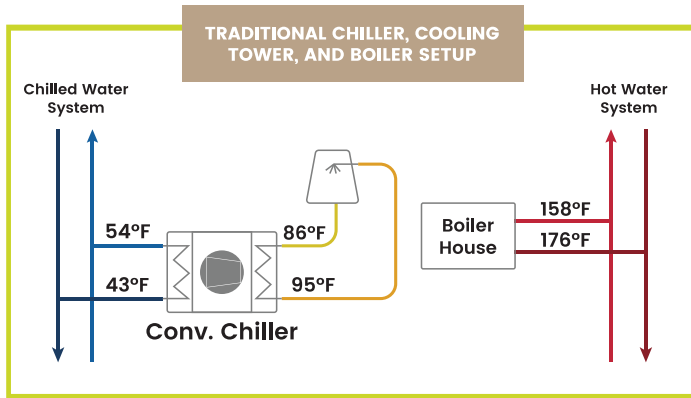
**Up to  
7X More  
Efficient**  
than conventional  
heating & cooling  
systems

Cooling towers are commonly found in large-scale buildings such as hospitals, universities, hotels, shopping malls, and office buildings.

Likido™ONE harvests low energy waste back into the system at a useful temperature, presenting significant cost-saving opportunities and increasing business sustainability.

## **LIKIDO™ONE HEAT PUMP ADVANTAGES**

- Effectively decarbonizes heat
- Combustion-free process
- Reduces global warming potential (GWP)
- Uses carbon dioxide (CO<sub>2</sub>) as refrigerant in transcritical refrigeration cycle
- Retrofittable design, modular build
- Climate agnostic, works in multiple regions
- Can be implemented into new and existing building infrastructures



## LIKIDO™ ONE STANDARD CAPABILITIES

- Delivers up to **160 kW** of heating and **120 kW** of cooling power with **46 kW** of electrical input, making it ideal for various commercial building applications
- Every **1 kW** of electrical energy input produces **4.5 kWth** of heating energy and extracts **3.5 kWth** of cooling energy from a suitable source, giving a **COP<sub>h</sub> of 1:8** for most applications.
- Closed system featuring a transcritical refrigeration cycle that employs supercritical CO<sub>2</sub> as the working fluid.
- Outperforms most traditional heating and cooling systems and can serve as a replacement solution for both.
- Uses non-toxic, non-flammable, environmentally-friendly natural refrigerants that are completely CFC and HFC free.

***Reduce environmental impact and save money on heating and cooling costs with Likido™ ONE, a true commercial building solution.***

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