

# The Evolution of Comfort Energy: The Two-Tank 3-in-1 System

A Distributed, Low-Pressure Water Solution for Cooling, Heating, and Hot Water.

System Capabilities: Summer Cooling +  
Winter Underfloor Heating +  
Year-Round Hot Water

Jinjiang Electronics



# Redefining Building Energy Efficiency

## The Three No's



### No Cooling Towers

Eliminates noise, bacteria, and visual pollution.



### No Central Machine Room

Frees up high-value basement space.



### No Boiler Room

Removes safety hazards and maintenance.

## Performance Metrics

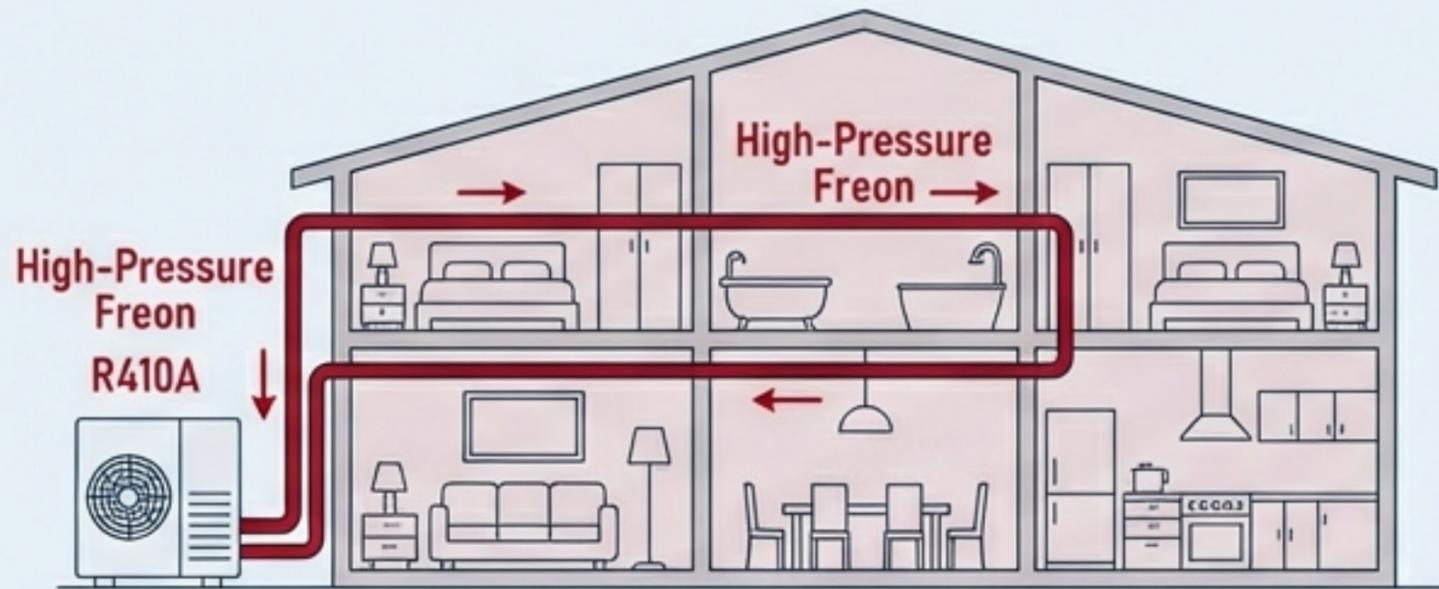
# 30-50% Reduction

in total energy costs (Water, Electricity, Gas) compared to traditional centralized water systems.

**Operation Range: -40°C to 60°C**

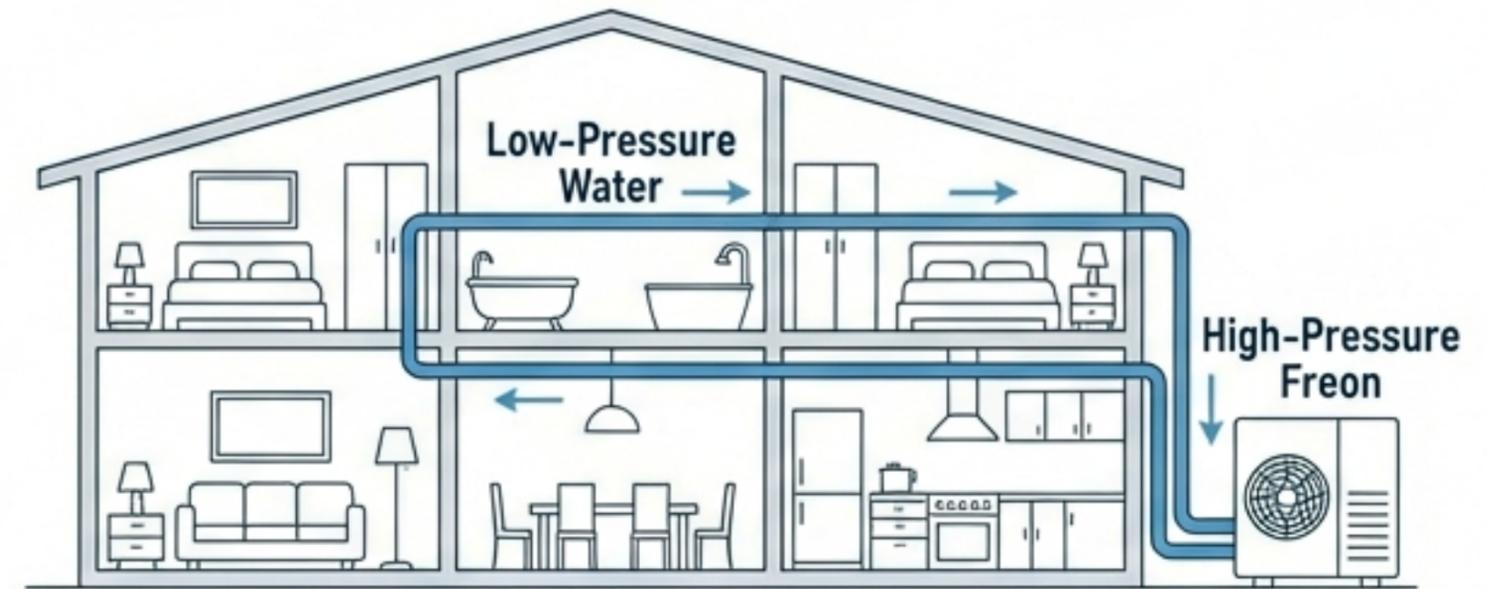
# Safety First: The 'No-Freon' Interior

## Traditional VRF / Fluorine Systems



High-pressure Freon enters living spaces. In a fire, leaking Freon reacts with high temperatures to produce toxic gas, instantly incapacitating residents. 

## Jinjiang Water System



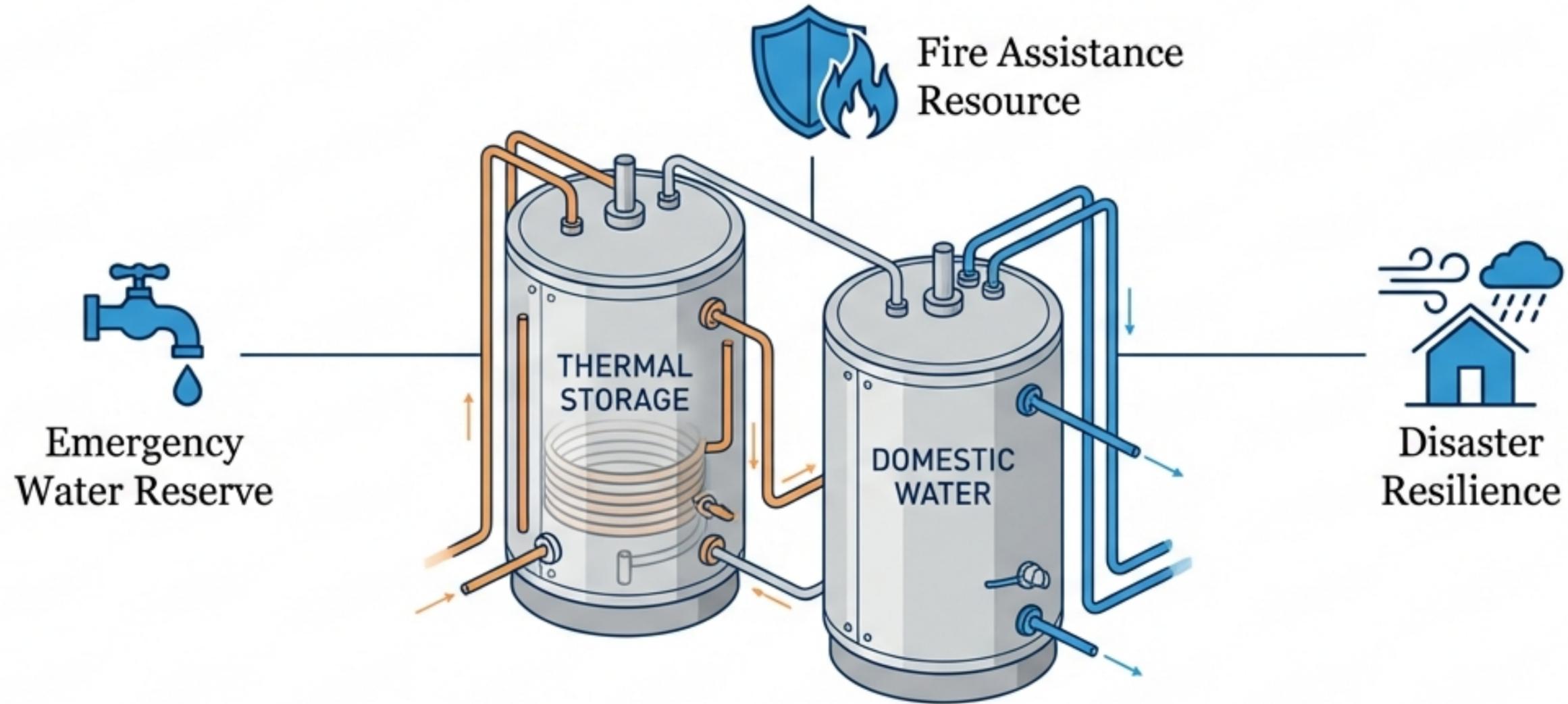
 High-pressure Freon is restricted to the outdoor unit. The indoor medium is low-pressure water.

**Zero high-pressure Freon indoors means zero risk of secondary toxic gas disasters. If pipes rupture, water helps extinguish flames.**

By eliminating high-pressure refrigerants from occupied zones, the Jinjiang Water System ensures absolute safety for occupants, transforming a potential hazard into a fire suppression asset.

# The Survival Advantage: Water as a Resource

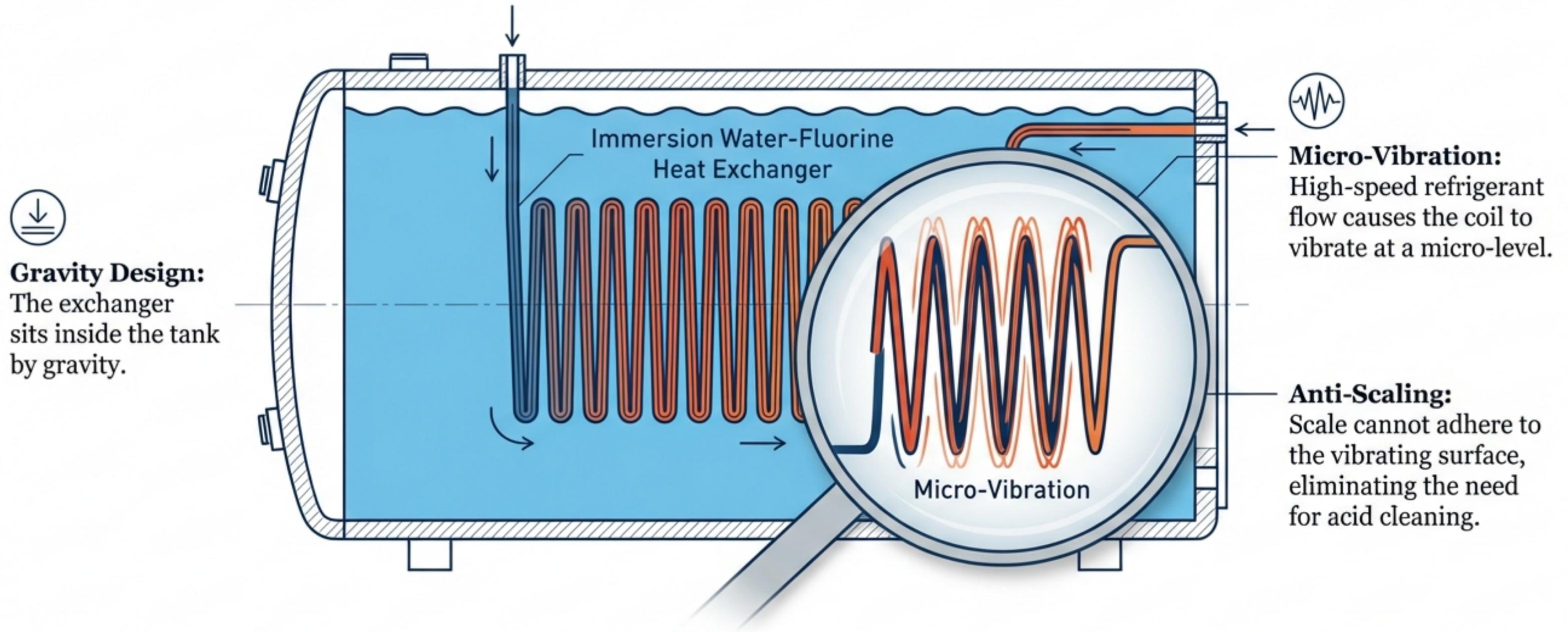
A Wisdom of Choice in Uncertain Times



In extreme events such as earthquakes, hurricanes, or grid failures, municipal water and power may fail. The system's energy storage tanks function as a massive on-site water reservoir.

**Result:** Significantly increases survival chances for occupants when isolated.

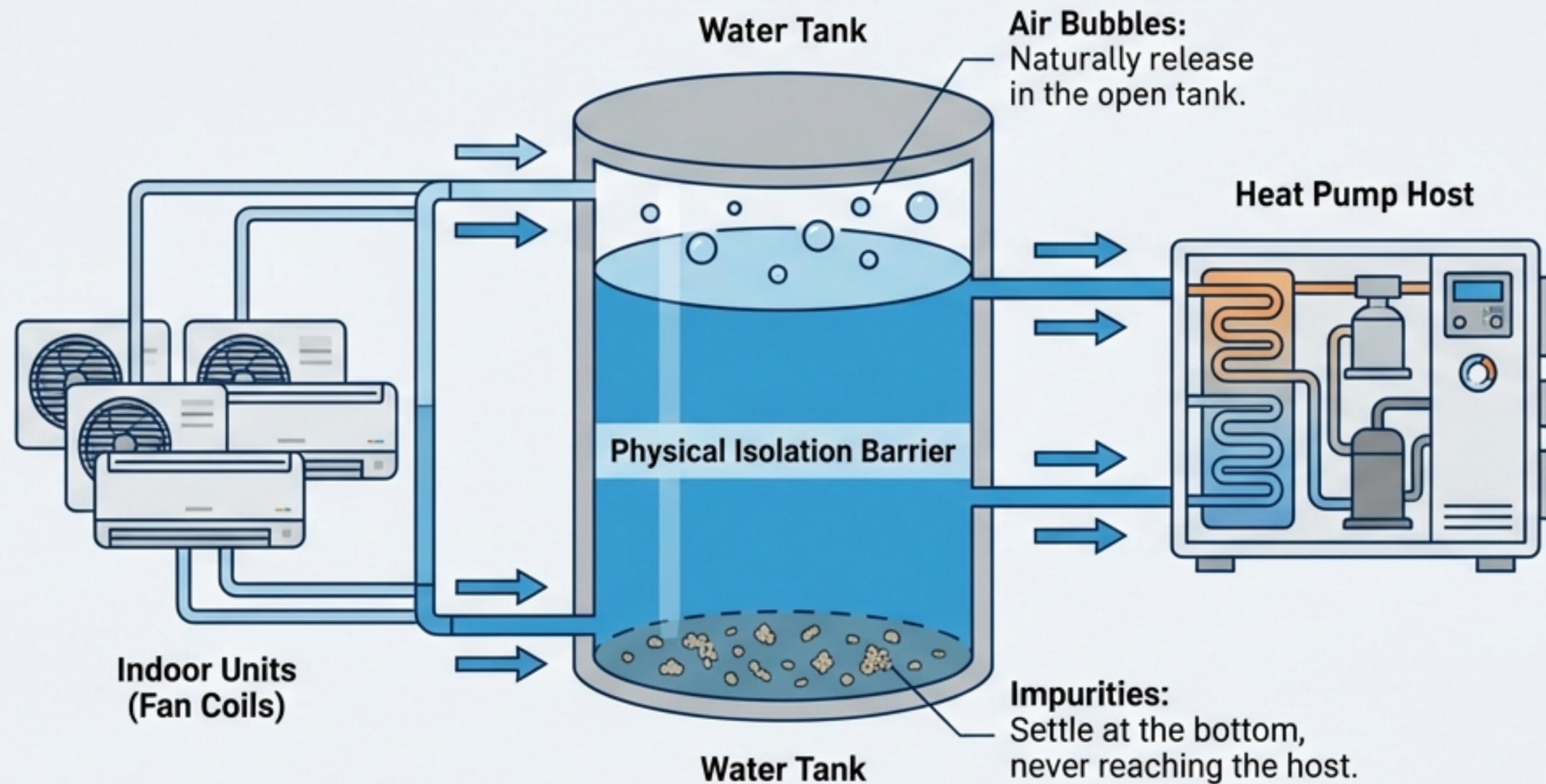
# The Physics of Clean: Immersion & Micro-Vibration



**Long-term high efficiency is maintained permanently.**

# The 'Zero-Fault' Architecture

Subhead: The 'Zero-fault' achitecture for the front funing-technical manhinary.  
Ecological Modernism meets High-Precision Engineering.



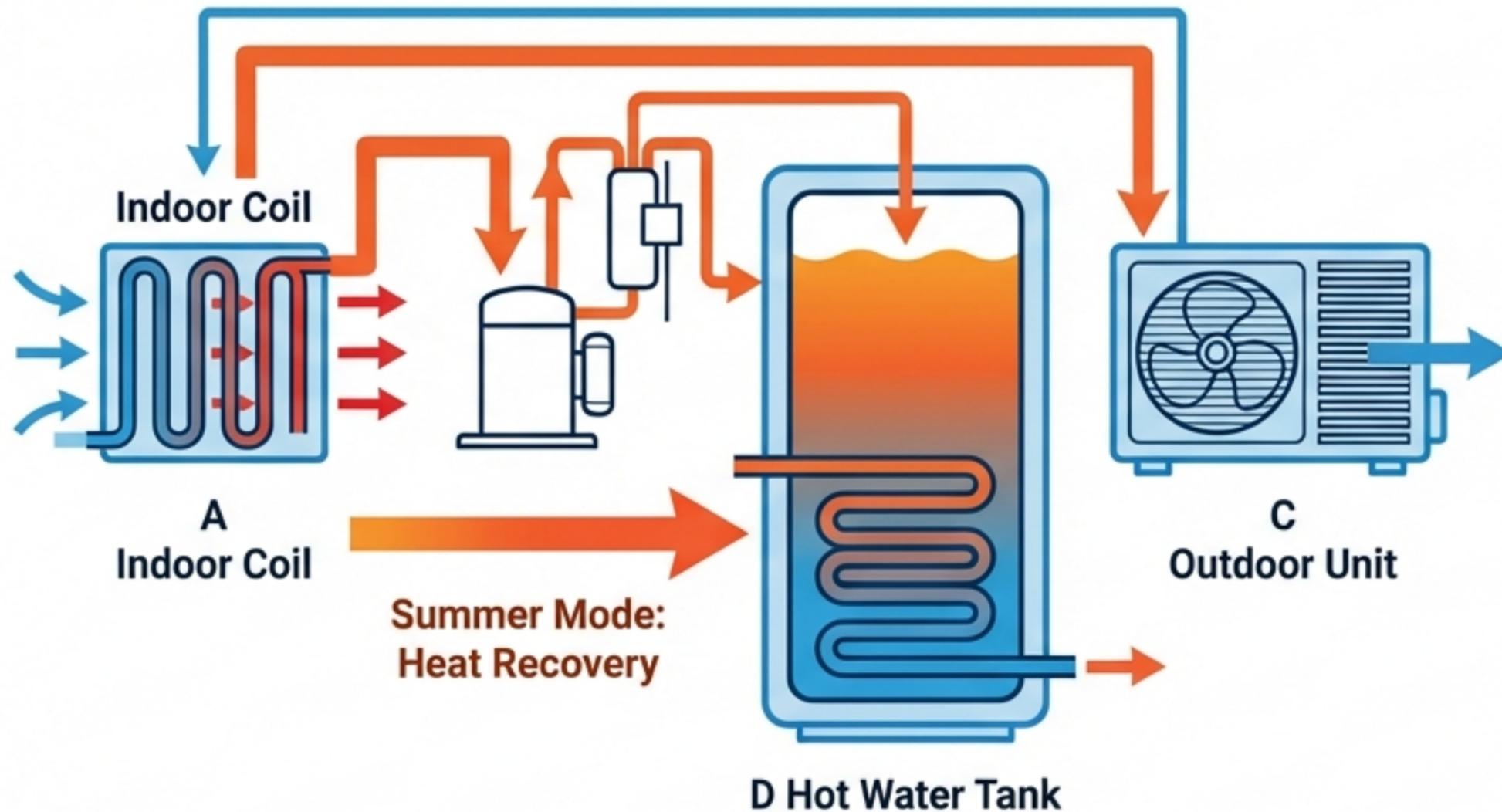
## Mechanism: Physical Isolation via Storage Tanks.

The indoor loop and the heat pump machinery are separated. This prevents 'Air Locks' and 'Dirty Blocks'—the most common causes of HVAC failure.

## Outcome: No faults to disturb your mood.

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# Converting Waste Heat into Free Energy



## The Process:

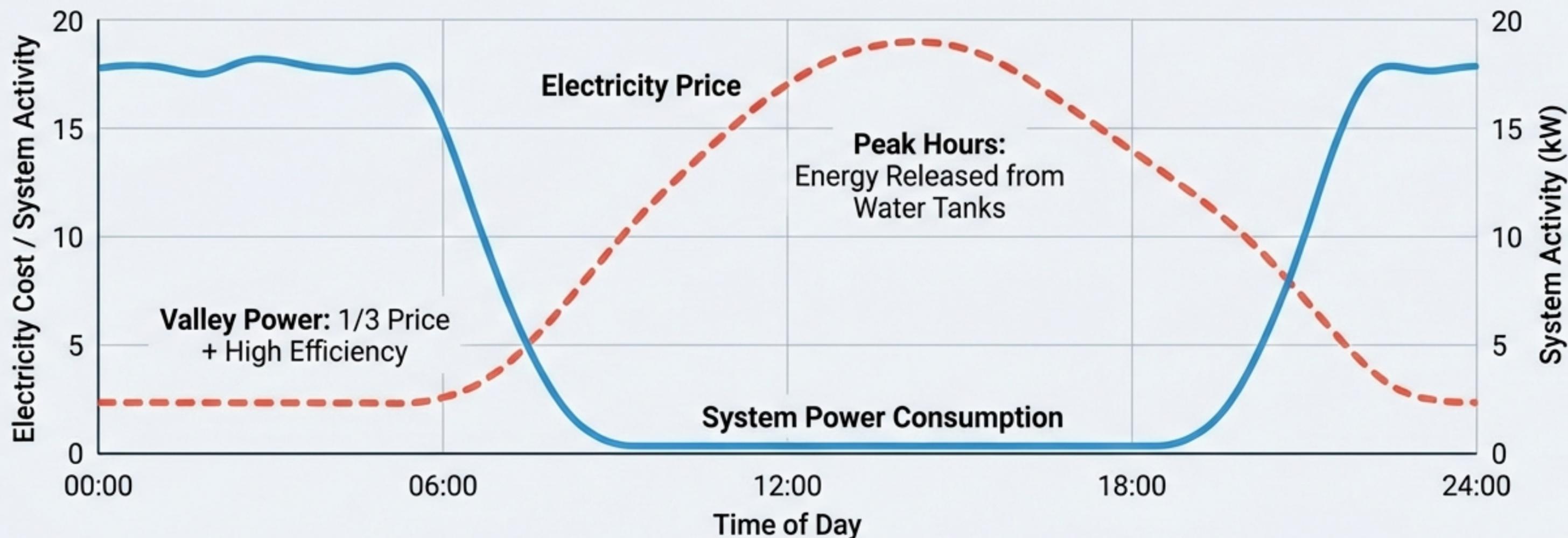
- Standard AC absorbs heat from the room (A) and dumps it outside (C).
- The 3-in-1 System absorbs heat from the room (A) and transfers it to the Hot Water Tank (D).

## The Economics:

- **Summer:** Hot water is 100% FREE (byproduct of cooling).
- **Winter:** Heating costs are 50% of gas heaters.
- **Spring/Autumn:** Costs are 25% of electric water heaters.

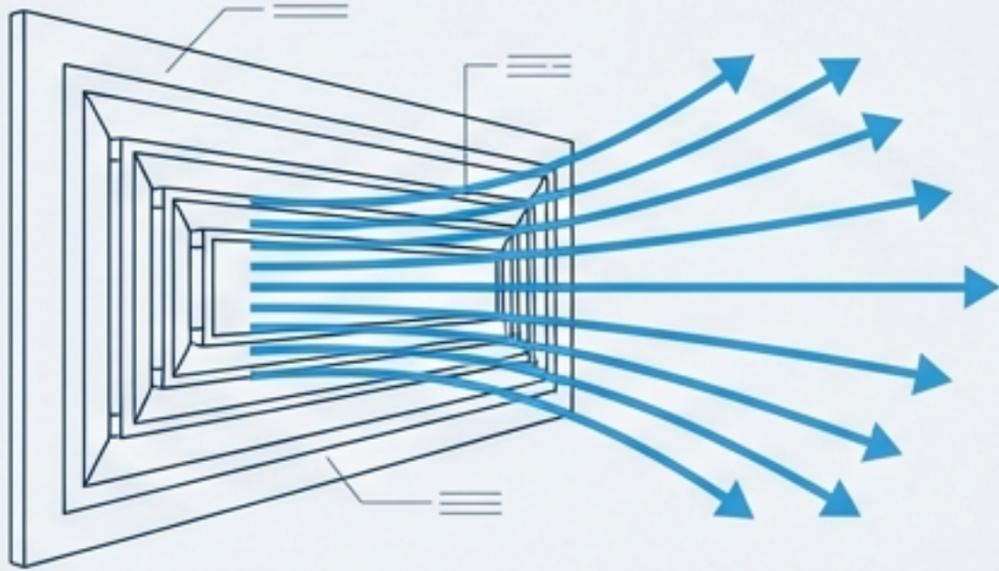
# Financial Intelligence: Arbitraging the Grid

Subhead: Valley Power Storage, Peak Power Release

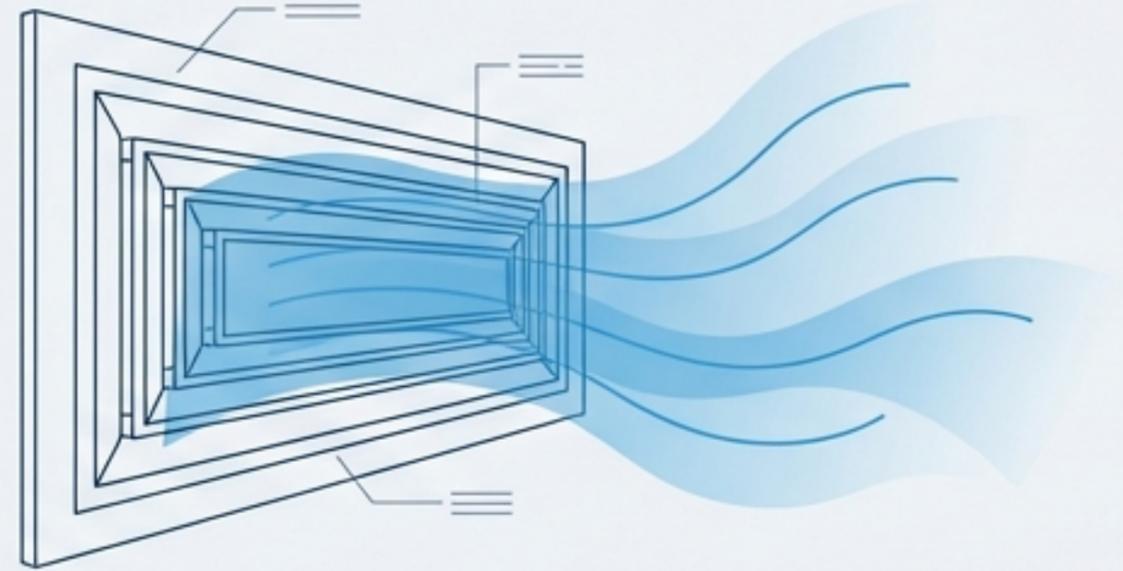


The system runs hard at night when electricity is cheap and ambient temperatures allow for higher efficiency (COP). It stores this energy in the water tanks to be circulated during the day.

# The 'Soft in "Soft Wind" Experience



**Fluorine System:**  
Violent chemical phase change.  
Harsh, dry air. "AC Disease".



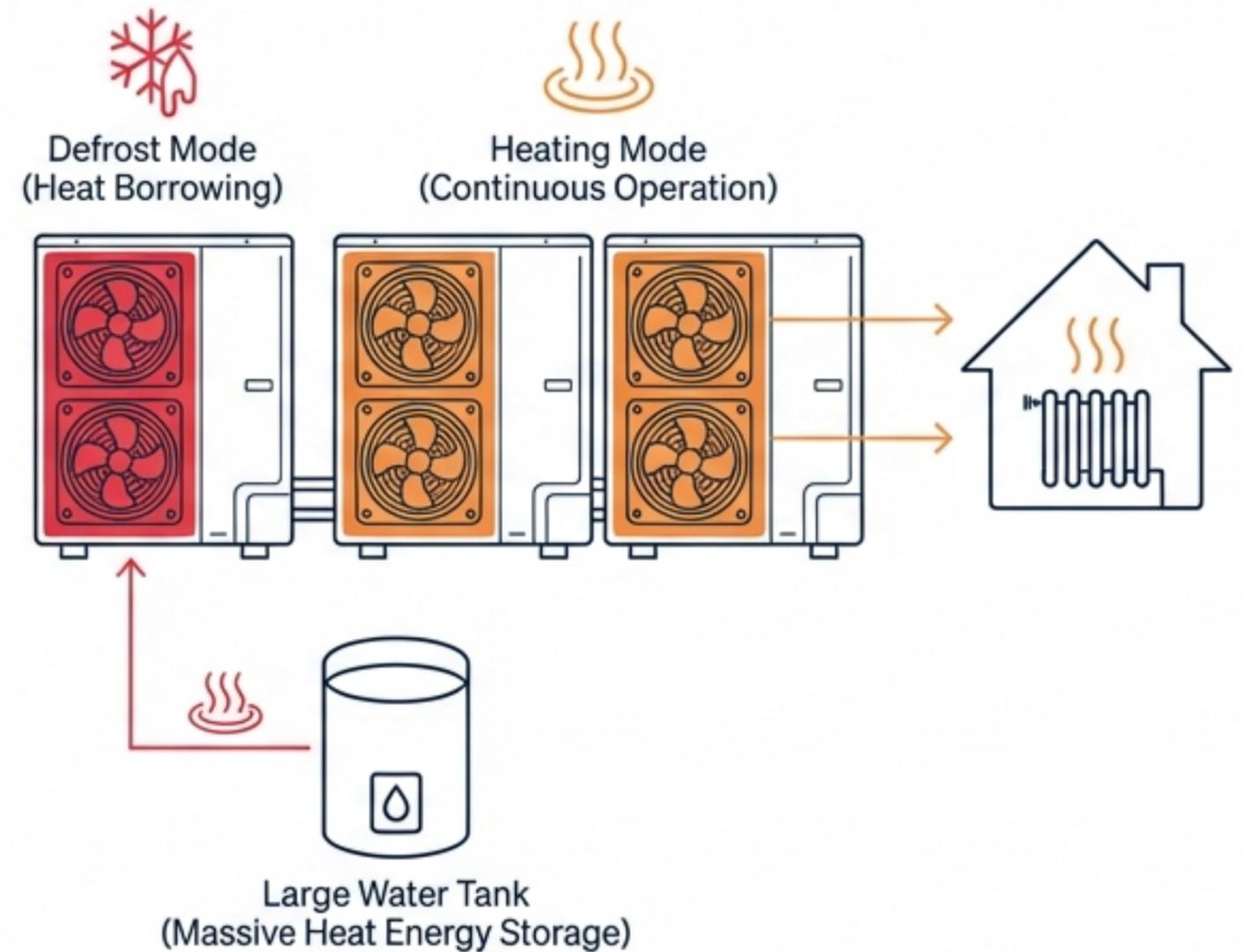
**Water System:**  
Gentle temperature exchange.  
Moist, soft air. Consistent distribution.

5-Star Hotel level comfort brought to the residential space.

Unlike fluorine systems that cause sudden temperature drops and dry skin, the hydronic system protects skin nerves and ensures balanced humidity.

# Winter Reliability: Rotation Defrosting

Ensuring Continuous Heating  
in Cold Climates

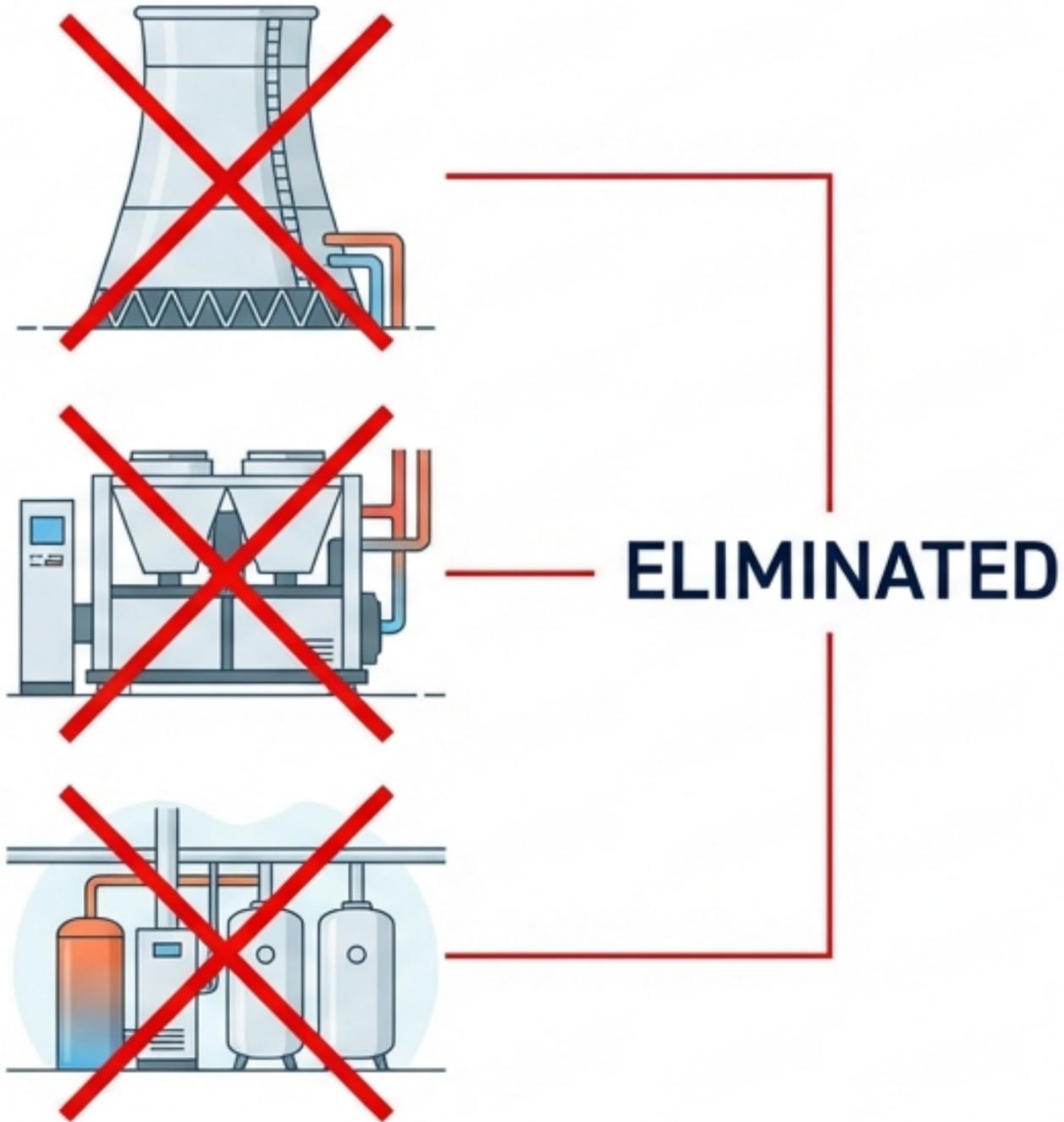


**The Problem:** Traditional heat pumps stop heating to defrost, causing indoor temps to drop.

**The Solution:** Relay Defrosting. The large water tank holds massive heat energy (“Heat to borrow”). With multiple modules, one unit defrosts using tank heat while others continue running.

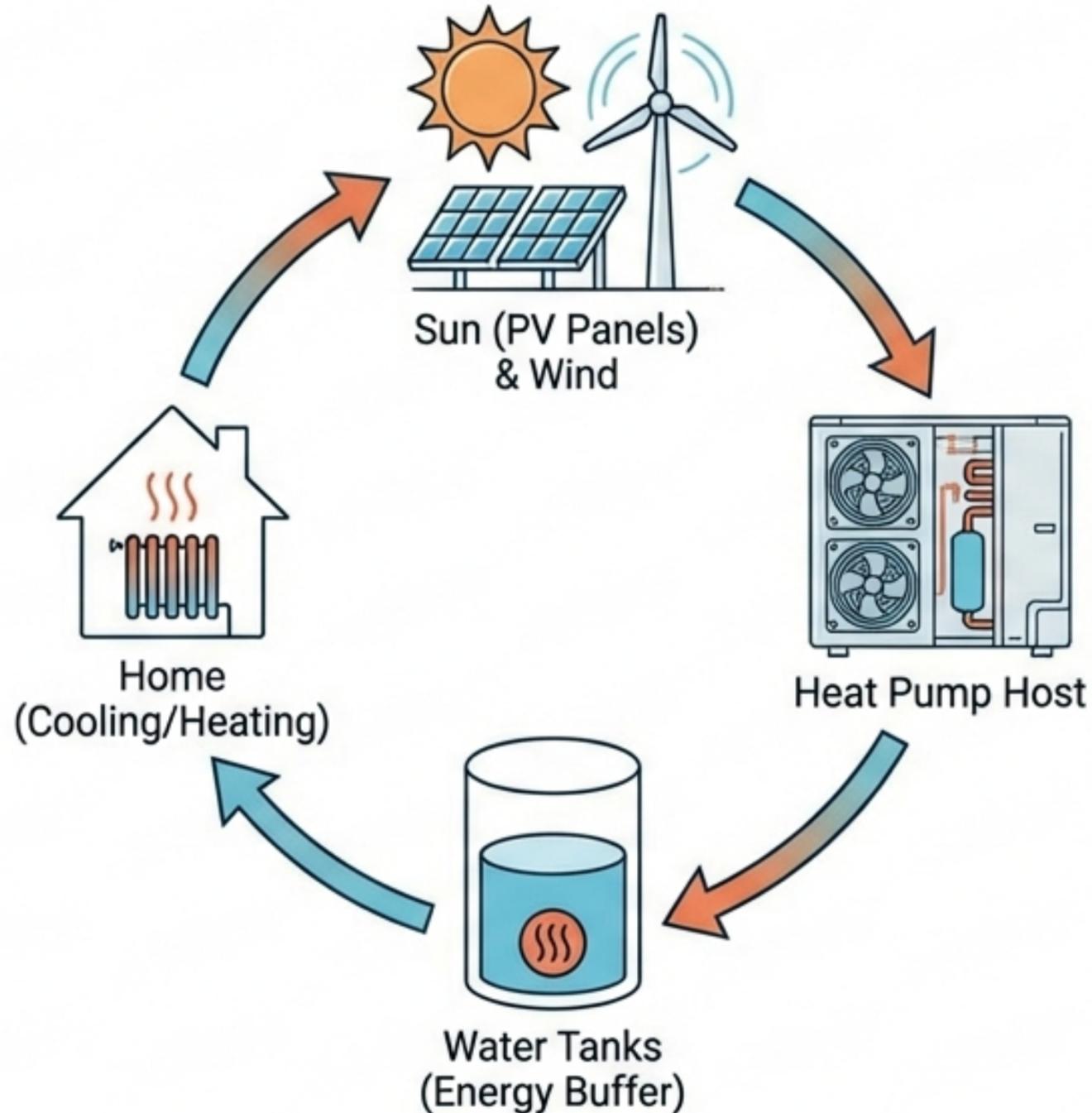
**Result:** Uninterrupted heating, even in wet/cold climates.

# Architectural Freedom



- **Space Reclamation:**
  - Rooftop: Utilizes idle roof space or ventilation areas.
  - Basement: No need for a dedicated machine room. Increases rentable/sellable area.
- **Infrastructure:**
  - No unsightly cooling towers or steam plumes.
  - Reduces building total power load requirements by ~30%.

# The Heart of the Green Building



The Formula: Sunlight + Air + Water

Solar Ready: The tanks act as a battery for Distributed Photovoltaic (PV) power.

Concept: Sunlight during the day becomes Heat at night.

Goal: The preferred solution for Zero-Carbon and Ecological Buildings.

# Ideal Application Scenarios

## Eco-Mansions & Villas



For safety and 'Soft Wind' comfort.

## Hotels & Resorts



For massive free hot water and silence.

## Commercial Offices



For gaining rentable basement space.

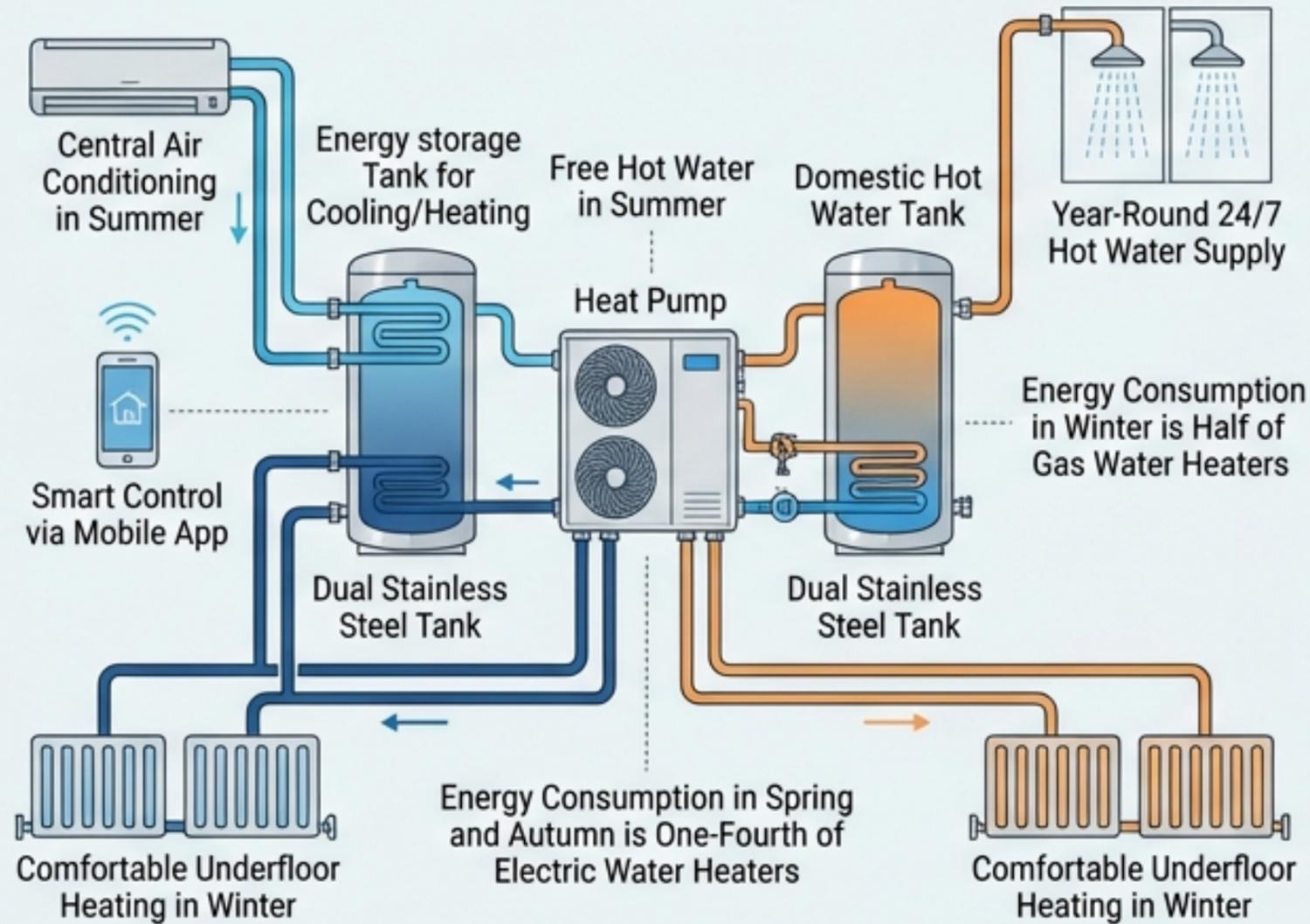
## Retrofits



Ideal for limited electric load capacity.

# Summary of Value

**Dual-Tank Water Tri-Function (3 in 1) System**  
Energy Savings of 30-50%



## The 4 Pillars:

- ✓ **1. Safety:** No Freon indoors. No toxic gas risk.
- ✓ **2. Savings:** 30-50% operational cost reduction. Free Summer hot water.
- ✓ **3. Comfort:** Hydronic softness. No temperature fluctuation.
- ✓ **4. Simplicity:** No Cooling Tower. No Boiler. Self-cleaning maintenance.



# Make the Wise Choice

Efficient comfort energy is not a luxury—it is a functional necessity.  
We offer a transition from Machine-centered to Human-centered climate control.

*Nature's Grace is Enough: Sun, Air, and Water.*

Contact Jinjiang Electronics for the 'Two-Tank' Solution.