



# NY-GEO 2024

October 22 -23 | BROOKLYN, NY



## IRA IMPLEMENTATION PART 1

*Split Ownership, Domestic Content, 1MW, & Thermal Storage, etc.*

**Moderator:** **Zeyneb Magavi / *HEET***

**Speakers:** **Jacob Goldman / *Energy Tax Savers***

**David Burton / *Norton Rose Fulbright***

**Ryan Dougherty / *GeoExchange***

**Adam Shelly / *Ecosystem***

# IRA Implementation Part 1

Update on Split Ownership, Domestic Content, 1MW Threshold, Etc.

JACOB GOLDMAN, VP, ENERGY TAX SAVERS, INC.

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- **IRA enhanced Alternative Energy Credits(\$48 ITC)**
- **The Bonuses**
- **Single Energy Property**
- **Eligible Ground Source property**



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Subject : "Please send the slides"

# Alternative Energy Credits-§48, ITC (2022-...)

Technology	Base Credit	5x Bonus Credit (2022)	Domestic Content (2023)	Energy Community (2023)	Low Income (2023)	Range
Solar Technologies (2022)	6%	30%	2%/10%	2%/10%	10%/20%	6%-70%
Small Wind (2022)	6%	30%	2%/10%	2%/10%	10%/20%	6%-70%
<b>Ground Source Heat Pump (2022)</b>	6%	30%	2%/10%	2%/10%	0%	6%-50%
Microturbine	2%	10%	2%/10%	2%/10%	0%	2%-30%
CHP (2022)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Microgrid Controller (2023)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Standalone Energy Storage Systems (2023)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Thermal Energy Storage Systems (2023)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Fuel Cell (2022)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Geothermal Electricity(2022)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Biogas (2022)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Waste Energy Recovery Electricity (2022)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Interconnection Property (2023)	6%	30%	2%/10%	2%/10%	0%	6%-50%
Electrochromic Glass (2023)	6%	30%	2%/10%	2%/10%	0%	6%-50%

# The Bonuses

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- **5x Bonus 6% → 30%**

- Nameplate capacity of less than 3.4 mmBTU/hr Heating and 284 Tons cooling (See Appendix)
- Meets the Prevailing Wage and Apprenticeship (P+A) Requirements (TD 9998)
  - 5 years of Alteration and Repair must also meet PW&A Requirements
  - (§1.48-13 [§1.45-7(b)-(d) Prevailing wage & §1.45-8 Apprenticeship & §1.45-12 Records])
  - ANNUAL statement must be made related to the 5 year Alteration and Repair period

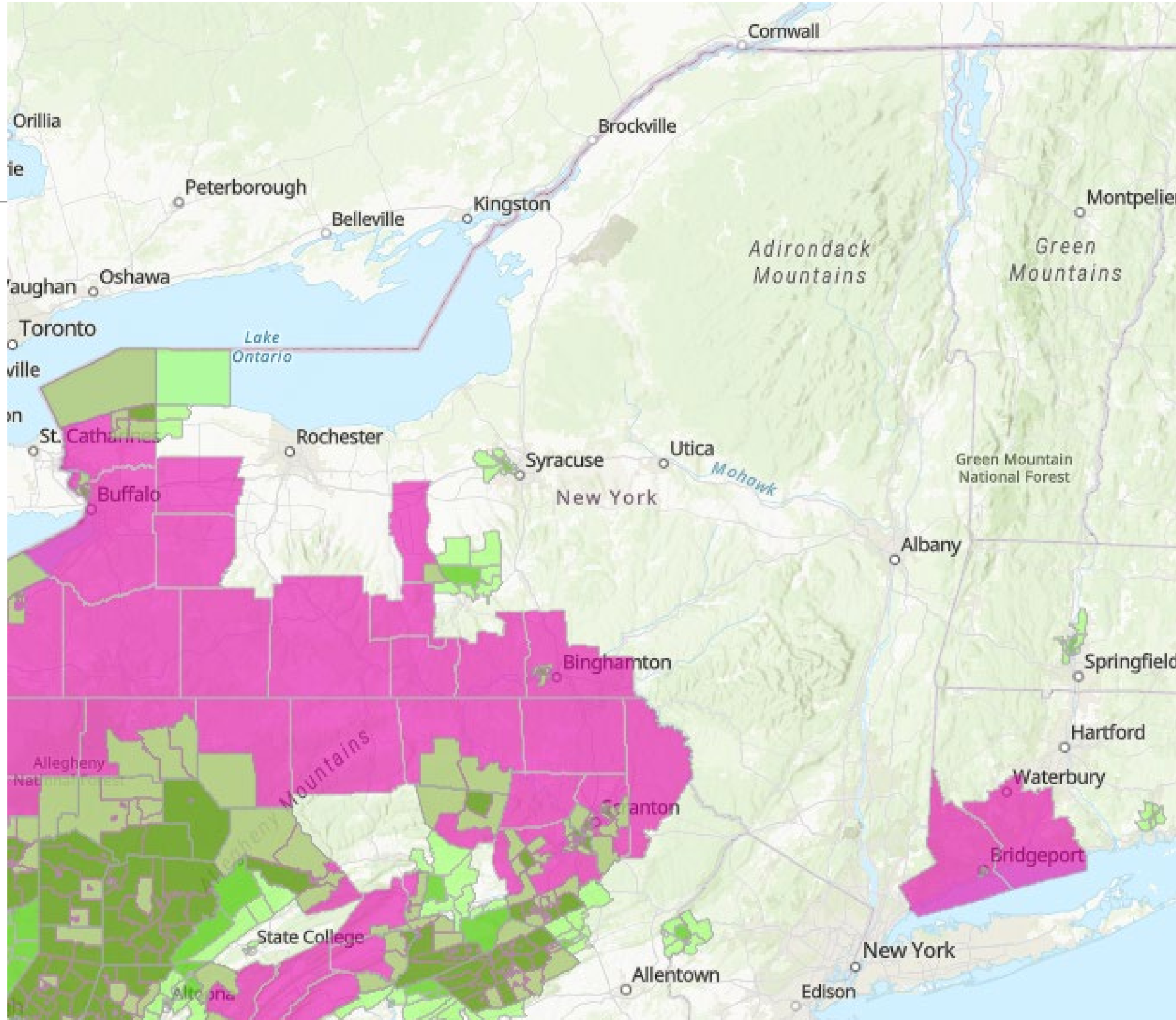
- **Domestic Content Bonus 2% or 10%**

- 100% of the cost of Structural steel and iron and
- ~~40%('24), 45%('25), 50%('26), 55%('27 ...)~~ of manufactured product is produced in USA (49 CFR § 661.5)

- **Energy Community Bonus 2% or 10%**

- Brownfield Site (42 U.S.C. 9601(39)) or
- Census Tract or adjoining tract with a Coal Mine closed since 2000 or Coal Fired plant closed since 2010 (see Map)
- Area with 0.17% direct employment related to Coal, Oil or NG and higher than avg unemployment (See Map)
  - **(Based on Start of Construction)**

# Map of Energy Communities



<https://arcgis.netl.doe.gov/portal/apps/experiencebuilder/experience/?id=a2ce47d4721a477a8701bd0e08495e1d>

# Definition of Single Energy Property

## Proposed Regulation 2023-25539

- 
- Affecting ALL Bonuses
  - Owned by a single taxpayer and any two or more of the following factors:
    1. Contiguous pieces of land;
    - ~~2. Common power purchase, thermal energy, or other agreements;~~
    - ~~3. Common intertie;~~
    - ~~4. Common substation, or thermal energy off-take point;~~
    5. One or more common environmental/regulatory permits;
    6. Single master construction contract; or
    7. Financed pursuant to same loan agreement
  - Striked through items typical not relevant for ground source

# Ground Source Heat Pump

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## Typical Qualified Equipment(Upstream of Heat Pump)

- Bore Field
- Heat Pump

## Dual Use Equipment - 50% energy used by equipment must be from ground source (§1.48-14(b))

- If not, equipment does not qualify as Ground Source Heat Pump Property
- Proportionate amount is Credit eligible
- This may include downstream (after heat pump) items:
  - VAV boxes
  - Ductwork
  - Air Handlers
  - Diffusers
- Items that do not use ground source energy do not qualify

**Construction must begin before 1/1/35**



# About Energy Tax Savers?

- First EAct 179D service provider (founded 2005)
- Completed more EAct projects than any other firm (16,000+)
- Diverse background of firm professionals
  - Attorney, CPA, MBA, LEED AP, Enrolled Agent, Big4 Accounting Experience
- Advisors to DOE, NEMA and NRDC for EAct 179D extension and standards
- Over 150 published articles in various publications
  - *Corporate Business Taxation Monthly*, *Building Operating Management*, *IMARK Magazine*, *Retrofit Magazine*, *Parking Professional*



# Energy Tax Savers, Inc.

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Recorded Webinar

<https://www.youtube.com/watch?v=BQJqiq6Nyll>

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# Thermal Energy Storage

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## Property comprising a system

- Directly connected to a heating, ventilation, or air conditioning system
  - This may indicate it is property separate from the HVAC system (maybe only the tanks?)
- Removes heat from, or adds heat to, a storage medium for subsequent use
  - This may indicate chillers feeding a Thermal Storage Tank are eligible (maybe chillers and the tanks?)
- Provides energy for the heating or cooling of the interior of a residential or commercial building
  - NOT for Heating/Cooling things other than a building
- Excludes:
  - Swimming Pools
  - CHP
  - Buildings or its Structural Components
- Construction must begin before 1/1/25 for §48 then continues under §48E

# IRA Implementation

Part 1



NY-GEO — NYC Conference

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October 23, 2024

Norton Rose Fulbright US LLP



# Limited Use Property Doctrine Background

The lessor must



represent and demonstrate certain facts relating to the estimated fair market value and estimated remaining useful life of the property at the end of the lease term. This requirement is intended, in part, to assure that the purported lessor has **not transferred the use of the property to the purported lessee for substantially its entire useful life.** In the case of such "limited use" property, at the end of the lease term **there will probably be no potential lessees or buyers other than members of the Lessee Group.** As a result, the lessor of limited use property will probably sell or rent the property to a member of the Lessee Group, thus enabling the Lessee Group to enjoy the benefits of the use or ownership of the property for substantially its entire useful life.

Revenue Procedure 2001-28 (update to Rev. Proc. 75-21 with minimal changes)

# Congressional Letters in Support

“ As it is not feasible to move or remove a geothermal ground loop, there is uncertainty regarding how the IRS would treat a geothermal lease (or thermal energy contract). To ensure growth in the adoption of geothermal is realized as Congress intended by expanding the tax credit for it, we encourage the IRS to provide a safe harbor pursuant to which geothermal ground loops and heat pump systems will not be challenged as limited use property as defined by Revenue Procedure 2001-28.

Rep. Thoms Suozzi et al, Oct. 12, 2022

“ However, there is uncertainty over how the IRS will apply the “limited use property” doctrine under Revenue Procedure 2001-28 to GHP systems. In order for a lessor to retain ownership of certain property for tax purposes, the doctrine requires that a lessor not transfer the property to the consumer for substantially all of the property’s useful life.

Sen. Michael Bennet et al, December 12, 2023

# Treasury's Response



There is a longstanding body of IRS guidance stating that the IRS will not provide advance rulings on issues of true ownership with respect to leases, sales and financing arrangements, except in very limited circumstances, and that the IRS will not issue advance rulings on transactions involving limited use property. In light of this IRS precedent and procedures addressing leasing transactions, an exemption from the limited use doctrine for geothermal heat pumps, or any other specific kind of property, **requires a legislative fix.**

Corey Tellez, Acting Ass't Sec., Office of Legislative Affairs, Feb. 7, 2024  
to Senator Bennet

# Split Ownership Prohibition in Proposed ITC Regulations

The proposed regulations provide that if different taxpayers own separate components of a GHP system that are functionally interdependent, then none of the taxpayers can claim an ITC (unless the two taxpayers share more than 50 percent overlapping ownership of the equipment).



X and Y own separate components of a geothermal heat pump equipment, which taken together is a unit of energy property. **X owns the coils** in the ground and **Y owns the heat pump. No section 48 credit** may be determined with respect to either X or Y because each owns a separate component of energy property that does not constitute a unit of energy property as defined in § 1.48-9(f)(2).

Prop. Treas. Reg. §1.48-14(e)(4), Ex. 2.



# Additional Resources on Tax Planning for Geothermal Heat Pumps

## Limited Use Property:

- [House Letter to the Treasury Requesting Limited Use Property Safe Harbor](#)
- [Senate Letter to the Treasury Requesting Limited Use Property Safe Harbor](#)
- [Limited Use Property Safe Harbor Proposed to Treasury](#)
- [Treasury declines to Address Limited Use Property](#)

## Split Ownership:

- [GeoExchange's Initial Comments on Proposed ITC Regs](#)
- [GeoExchange's Supplemental Comments](#)

## Domestic Content:

- [GeoExchange's Domestic Content Safe Harbor Proposed to Treasury](#)



Please see our blog [TaxEquityNews.com](https://TaxEquityNews.com) for more information about the IRA, tax credits, tax equity and tax credit transfers.



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## **IRA IMPLEMENTATION PART 1**

**Ryan Dougherty / *President, GeoExchange***  
***(no visual presentation)***



# Active Thermal Energy Storage

Potential Investment  
Tax Credit Projects  
*Adam Shelly*

October 23, 2024

# Tax Credits for Energy Property

Eligible for ITC or PTC	Eligible for ITC	Eligible for PTC
<ul style="list-style-type: none"><li>▪ Multiple solar and wind technologies</li><li>▪ Municipal solid waste</li><li>▪ Geothermal (electric)</li><li>▪ Tidal</li></ul>	<ul style="list-style-type: none"><li>▪ Energy storage technologies (&gt;5 kWh)</li><li>▪ Microgrid controllers</li><li>▪ Fuel cells</li><li>▪ Geothermal (heat pump and direct use)</li><li>▪ Combined heat &amp; power</li><li>▪ Microturbines</li><li>▪ Interconnection costs</li></ul>	<ul style="list-style-type: none"><li>▪ Biomass</li><li>▪ Landfill gas</li><li>▪ Hydroelectric</li><li>▪ Marine</li><li>▪ Hydrokinetic</li></ul>

- Investment Tax Credits: ITC
- Production Tax Credits: PTC

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# Section 48 –Energy Storage Technology

Energy storage technology refers to property that **receives, stores, and delivers energy** for conversion to electricity or stores energy in the case of hydrogen, with a nameplate capacity of **at least 5 kWh** .

[as defined in Section 48(c)(6)(A)(i)]

A thermal energy storage property is also considered energy storage technology.

[according to Section 48(c)(6)(A)(ii)]

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# Section 48(c) –Thermal Energy Storage

Section 48(c)(6)(C) defines thermal energy storage property, for purposes of Section 48(c)(6) as property comprising a system that:

1. Is directly connected to a heating, ventilation, or air conditioning system;
2. Removes heat from, or adds heat to, a storage medium for subsequent use; and
3. Provides energy for the heating or cooling of the interior of a residential or commercial building

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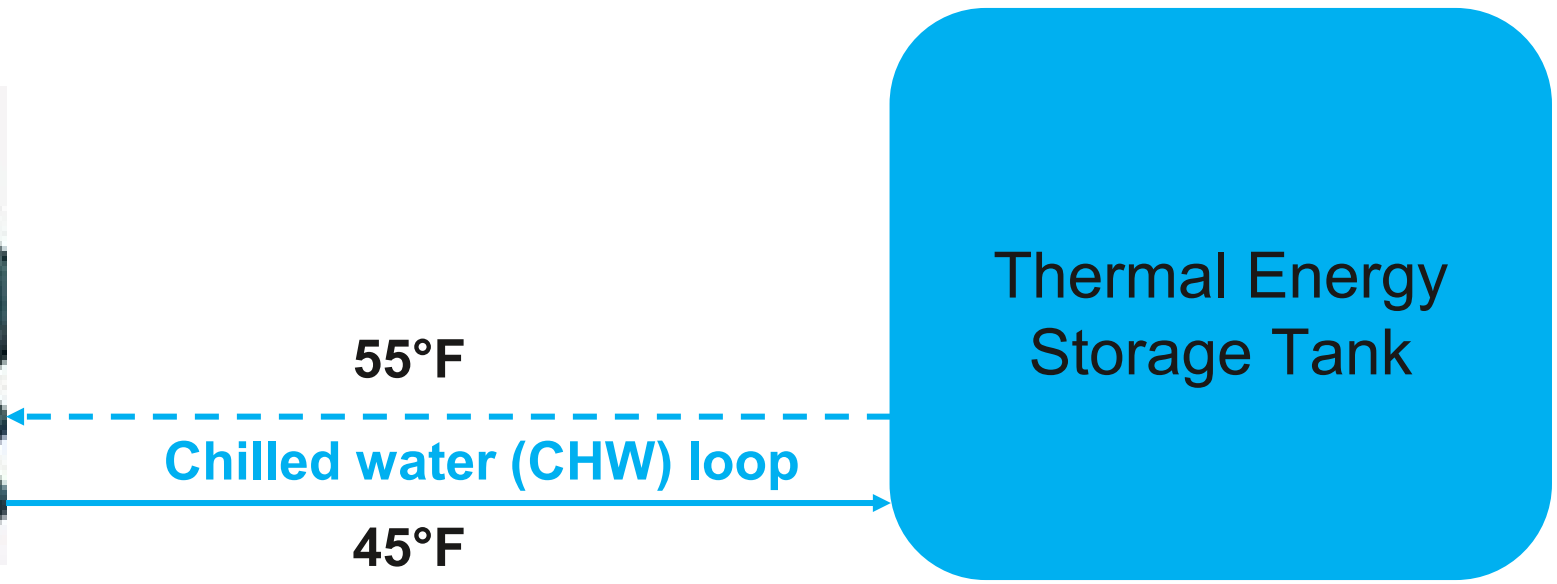
# Active Thermal Energy Storage (ATES)

What exactly is ATES?

**ATES** is a series of mechanical and thermal components that are designed to heat and cool as a single functioning unit.

**ATES** stores thermal energy for use at a later time in a closed-loop system, providing energy when it is needed to heat or cool the interior of a residential or commercial building.

# Active Thermal Energy Storage

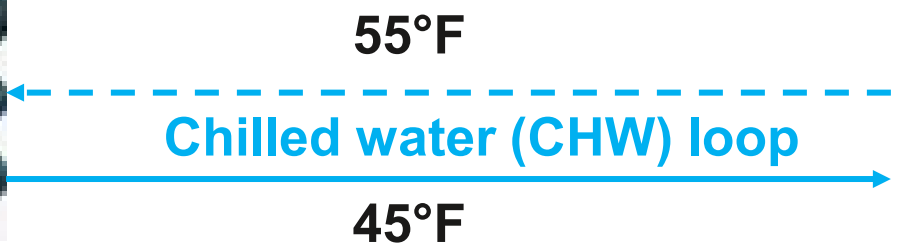




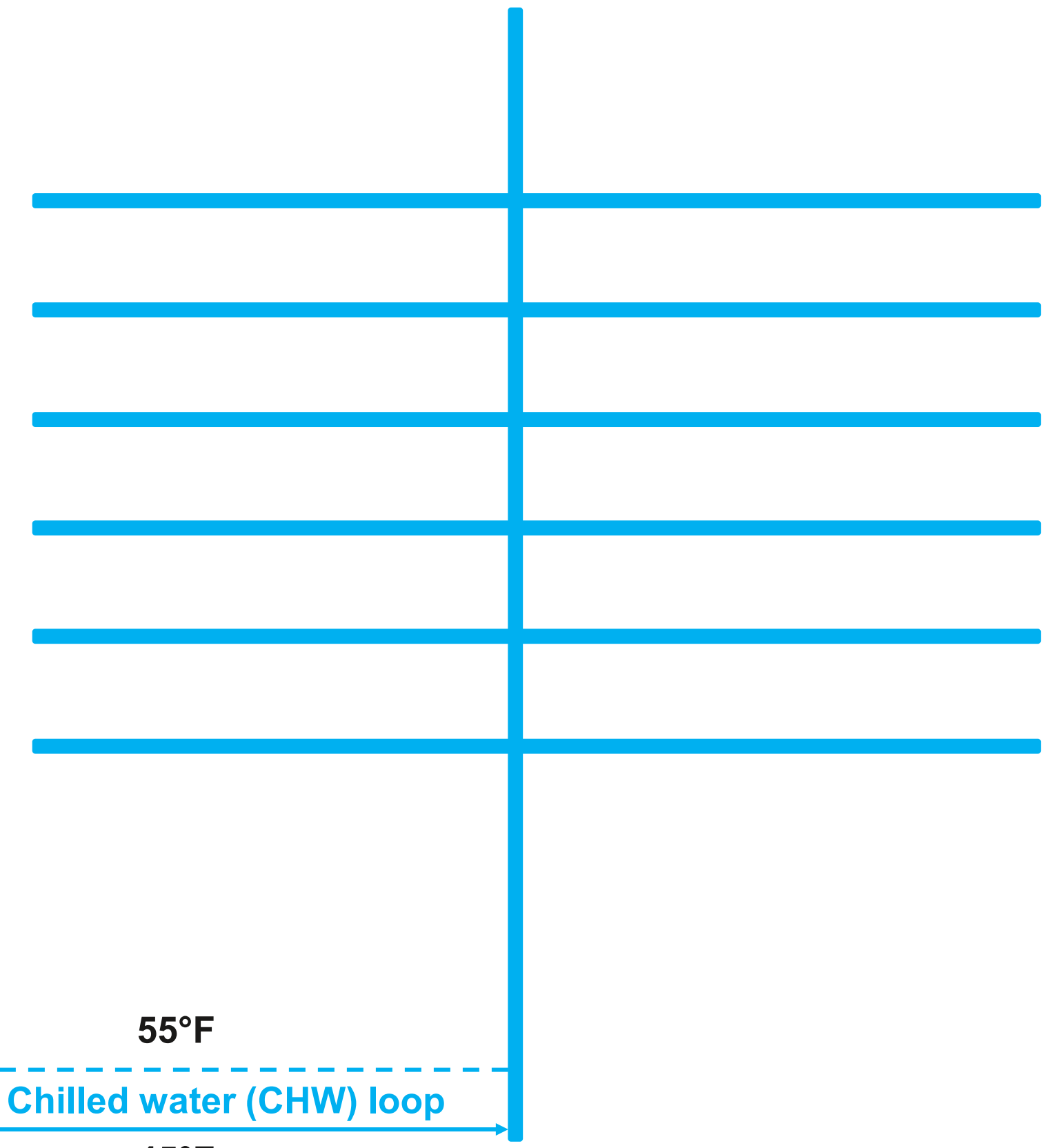
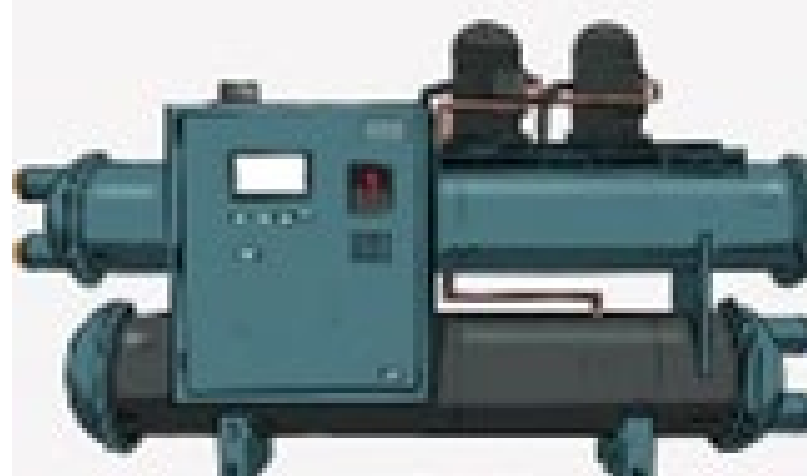
# Active Thermal Energy Storage



Thermal Energy Storage

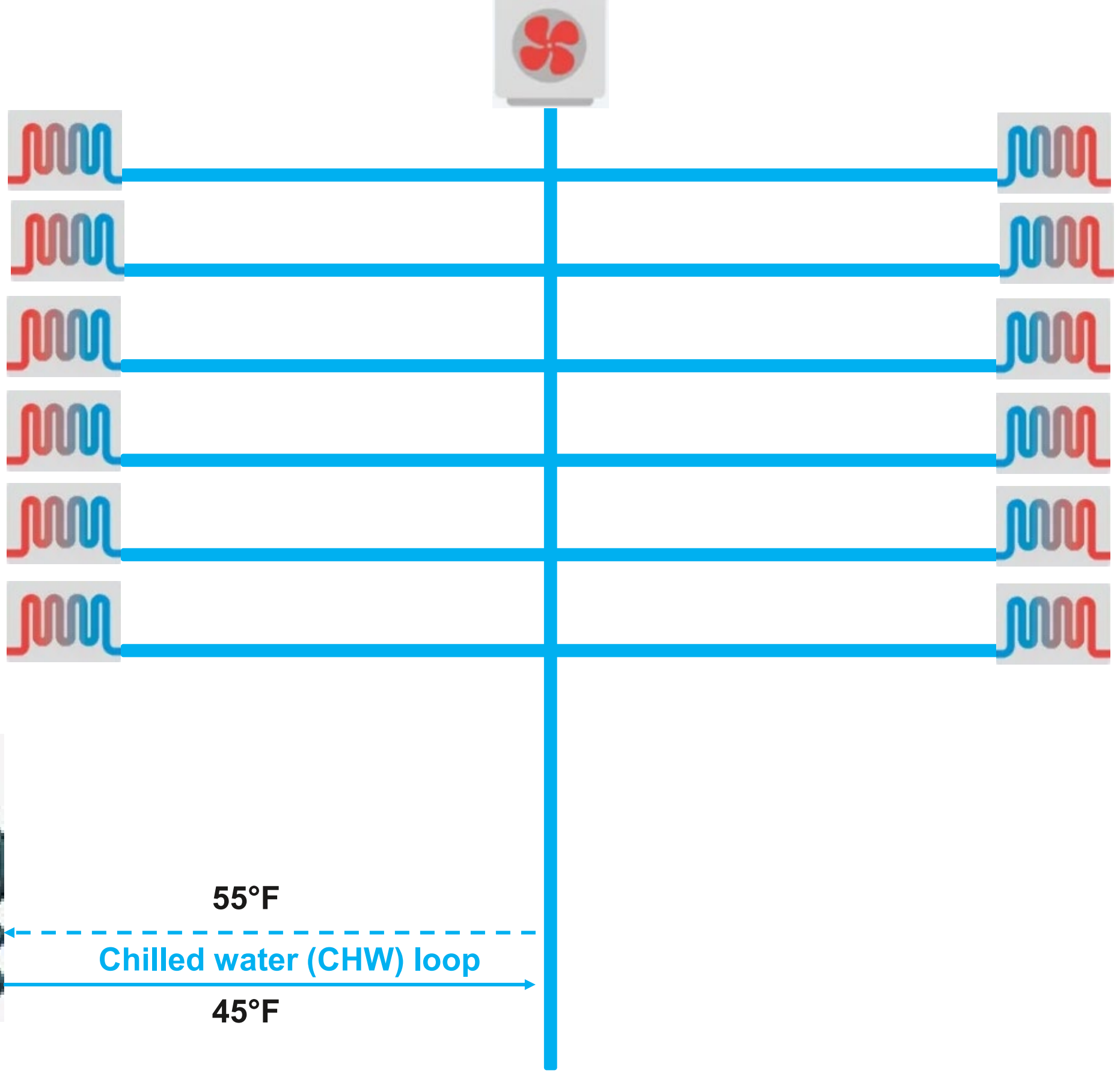


# Active Thermal Energy Storage



Thermal Energy Storage

# Active Thermal Energy Storage

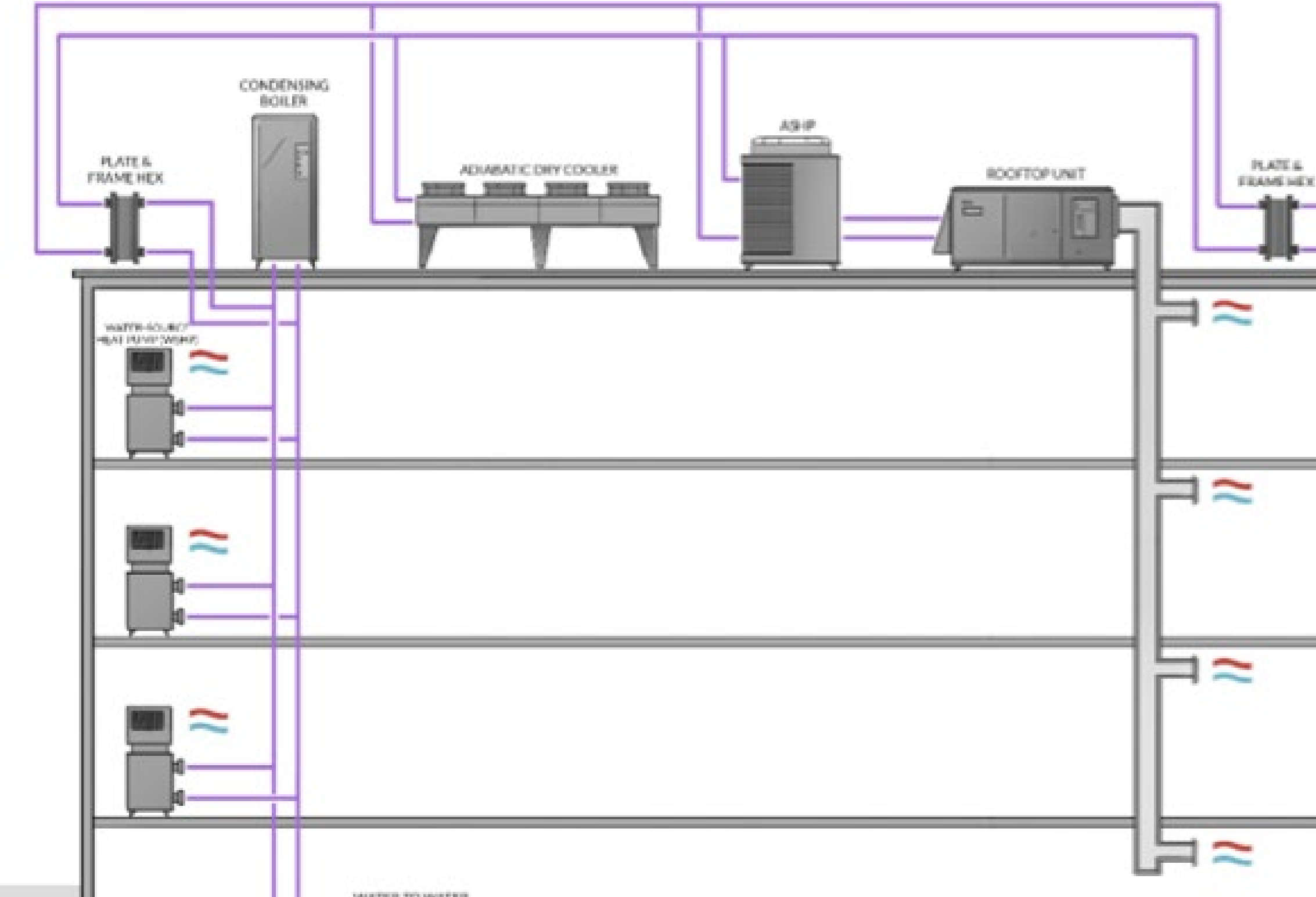


Thermal Energy Storage



55°F  
Chilled water (CHW) loop  
45°F

# ATES- Building



## Case Study:

# International Tailoring Company Building, NYC

156,000 sqft, 180-unit residential building  
near Union Square, Manhattan

### Project Drivers

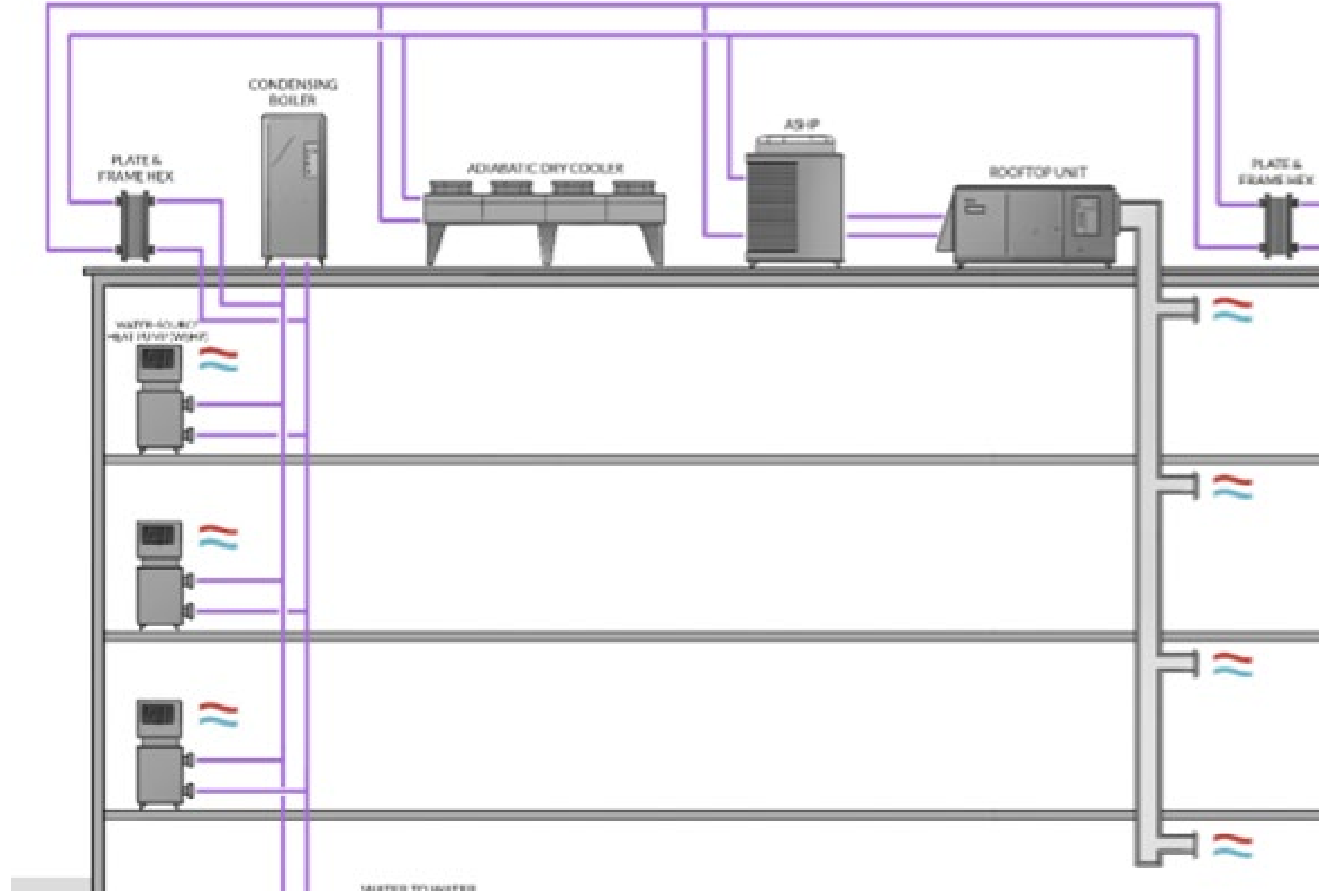
- Mechanical equipment close to end of life
- Operationally complex system
- Comfort complaints due to switchover system
- Eliminate exposure to LL97 fines



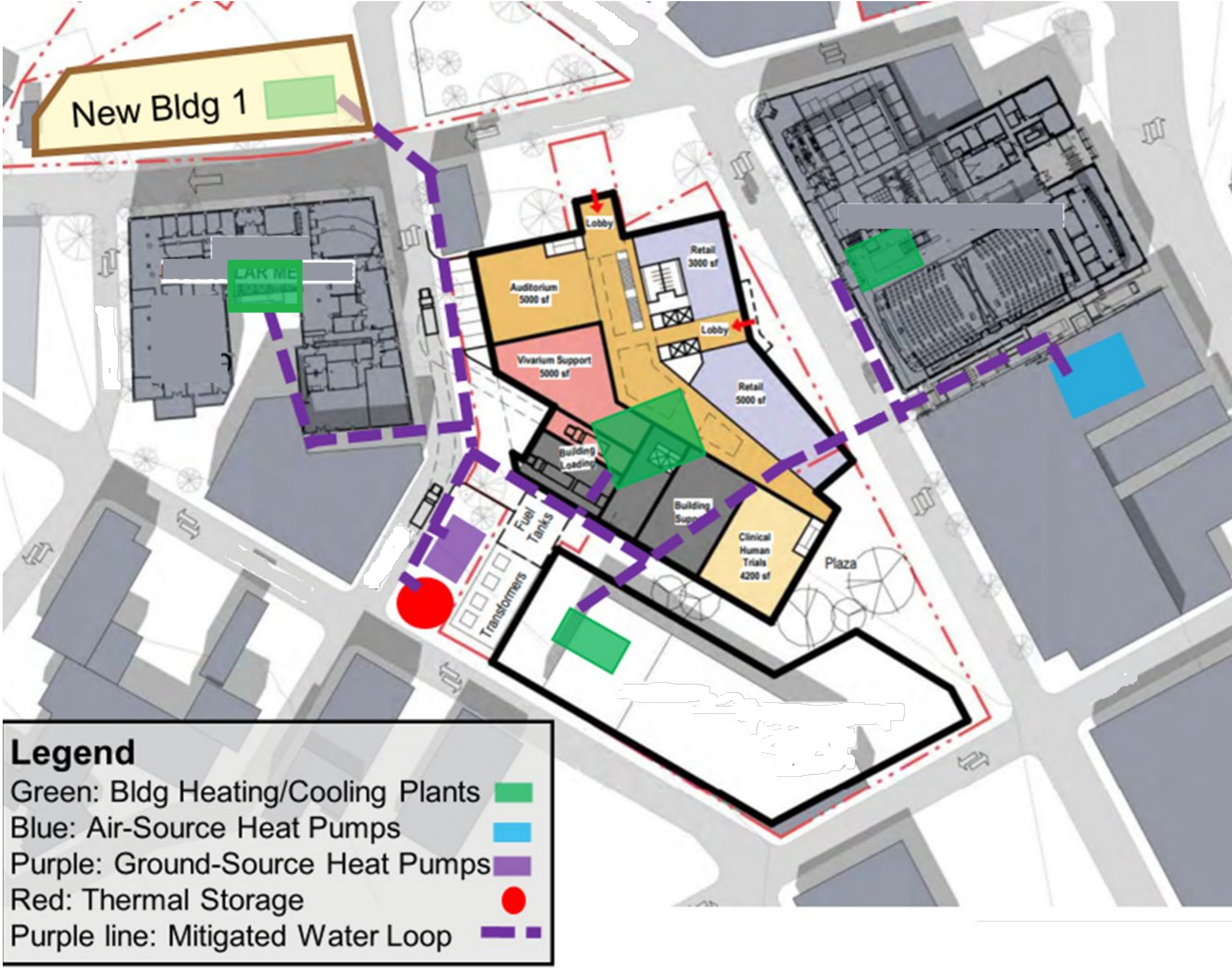
# International Tailoring Company Building



# ATES Building

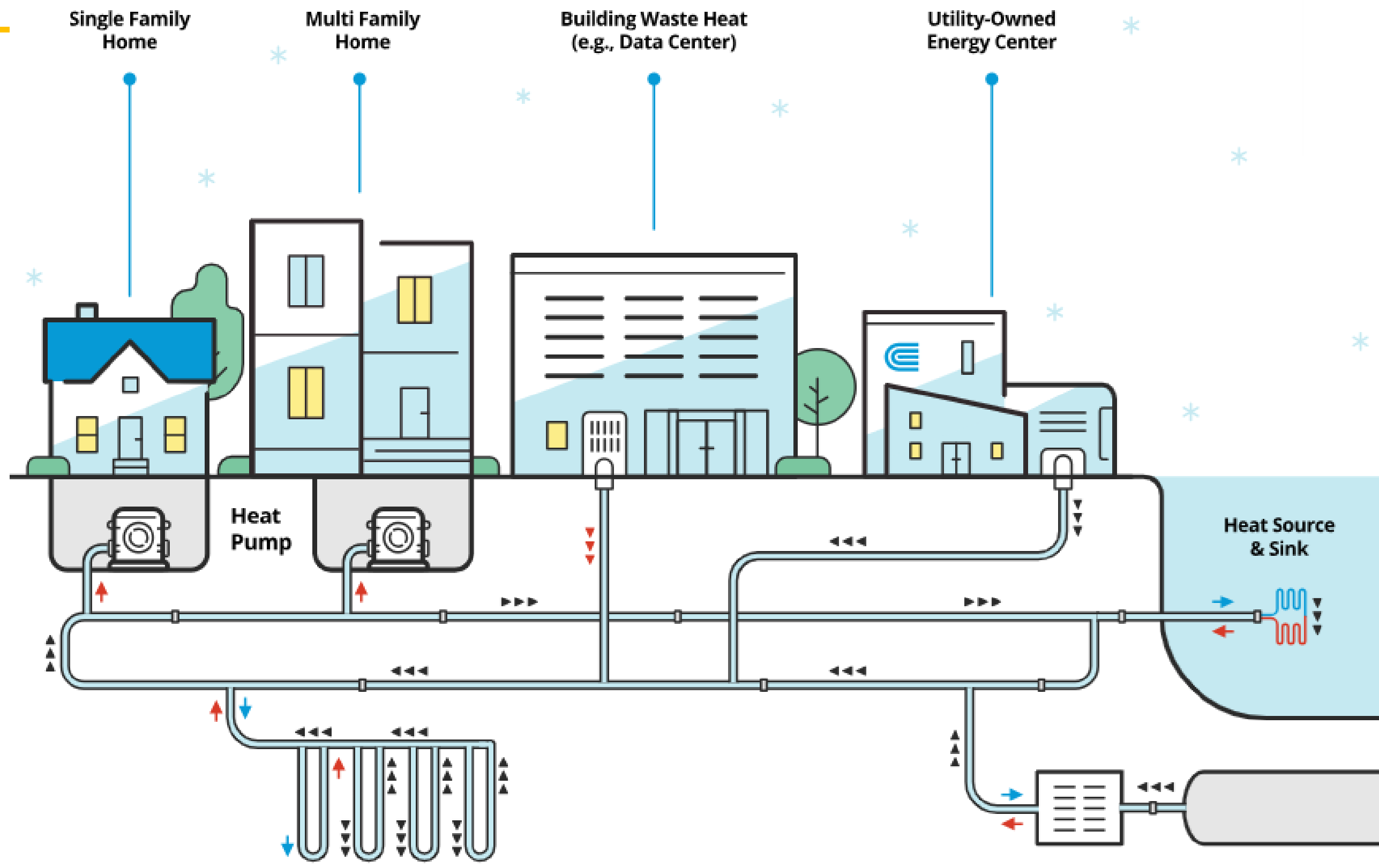


# ATES- Campus





# ATES-Utility



Credit: Con Edison

Geothermal Borehole Field

Sewer Heat Recovery

# THANK YOU!

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[www.ActiveThermalEnergyStorage.com](http://www.ActiveThermalEnergyStorage.com)



[ecosystem-energy.com](http://ecosystem-energy.com)





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