

BUILDINGENERGY NYC

Turning Building Supers into Energy-Saving Superheroes!

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Northeast Sustainable Energy Association (NESEA)

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Turning Building Supers into Superheroes



Our Team



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Building Superintendent
Viking Management



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Manager and Head of Energy
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Jonathan Ruhl

Owner / Manager
Ranger Management



Tomas Aponte

Property Manager / Super
Ranger Management

Top Ops is.....

- ▶ A customized training program targeted to building operators wrapped into strategic energy management (SEM) approach.



Agenda



5	<u>Top Ops = SEM</u>
7	<u>LL97 Compliance Costs</u>
8	<u>LL97 Plan</u>
9	<u>Prescriptive ECMs</u>
11	<u>Core Training</u>

13	<u>1-Pipe Animation</u>
14	<u>1-1 Follow Up</u>
16	<u>Train to Sustain</u>
17	<u>Action Shots: Field</u>
20	<u>Action Shots: Lab & Classroom</u>

NYSERDA INCENTIVES MADE THIS POSSIBLE

- ▶ NYSERDA incentives help our communities become more energy independent
- ▶ They realize building staff are key to realizing energy savings, especially with controls!



TOP OPS = STRATEGIC ENERGY MANAGEMENT (SEM)

SEM builds a structure around existing compliance activities

LL87/97 - Energy Audits & RCx



LL33 - Energy Grades & ESTAR

Heating Retrofits

LL84/133 - Benchmarking

Program Goals

- Increase Skills of Staff to operate buildings efficiently
- Ensure long-term persistence of efficient building operation
- Align Energy Management with Business Drivers
- Minimize Tenant Complaints / 311 Calls, Increase Tenant Retention



LL97 COMPLIANCE COSTS

MULTIFAMILY LL97 CARBON INTENSITY LIMITS

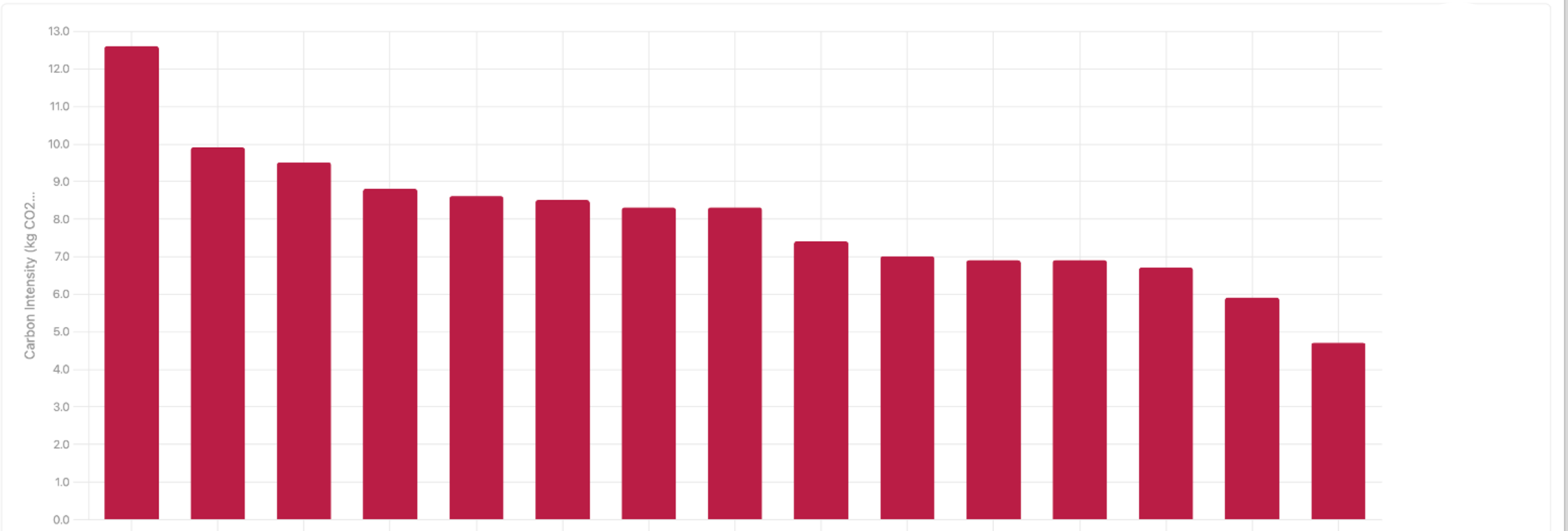
- 2024 = 6.75 kg CO₂e/sf
- 2030 = 4.07 kg CO₂e/sf

\$133,170

Estimated Annual LL97 Fines 2024-2029

\$574,967

Estimated Annual LL97 Fines 2024-2029



LL97 Plan

Prioritizing staff and measures to minimize compliance costs.



#1 - Over 2024 Limit

- Oil to Gas Conversions
- Prescriptive ECMs (no TRVs)
- TRVs and / or REC's if needed



#2 - At 2024 Limit

- Prescriptive ECMs (no TRVs)
- REC's if needed



#3 - At 2030 Limit

- Prescriptive ECMs (no TRVs)
- File ONETIME report!

Prescriptive ECMs

1	Temperature Controls or Enclosures for Radiators (\$)	7	Temperature Set Points
2	Radiant Barriers	8	Heating System Function
3	Functioning Steam Traps	9	Indoor/Outdoor Temperature Sensors
4	Repair Heating System Leaks	10	Upgrade Lighting
5	Piping insulation, Steam and Hot Water Tank Insulation	11	Building Envelope
6	Steam System Master Venting	12	Exhaust Fan Timers



Customized Training

Site visits and interviews identify savings
opportunities

Training tailored to specific systems and staff skill sets

Core Training

Two half day sessions



Day # 1

Program overview, air sealing, DHW and lighting. Classroom, Lab and field Training



Day # 2

Heating Controls, Burner Modulation, Master Venting Classroom and Lab, and Field Training

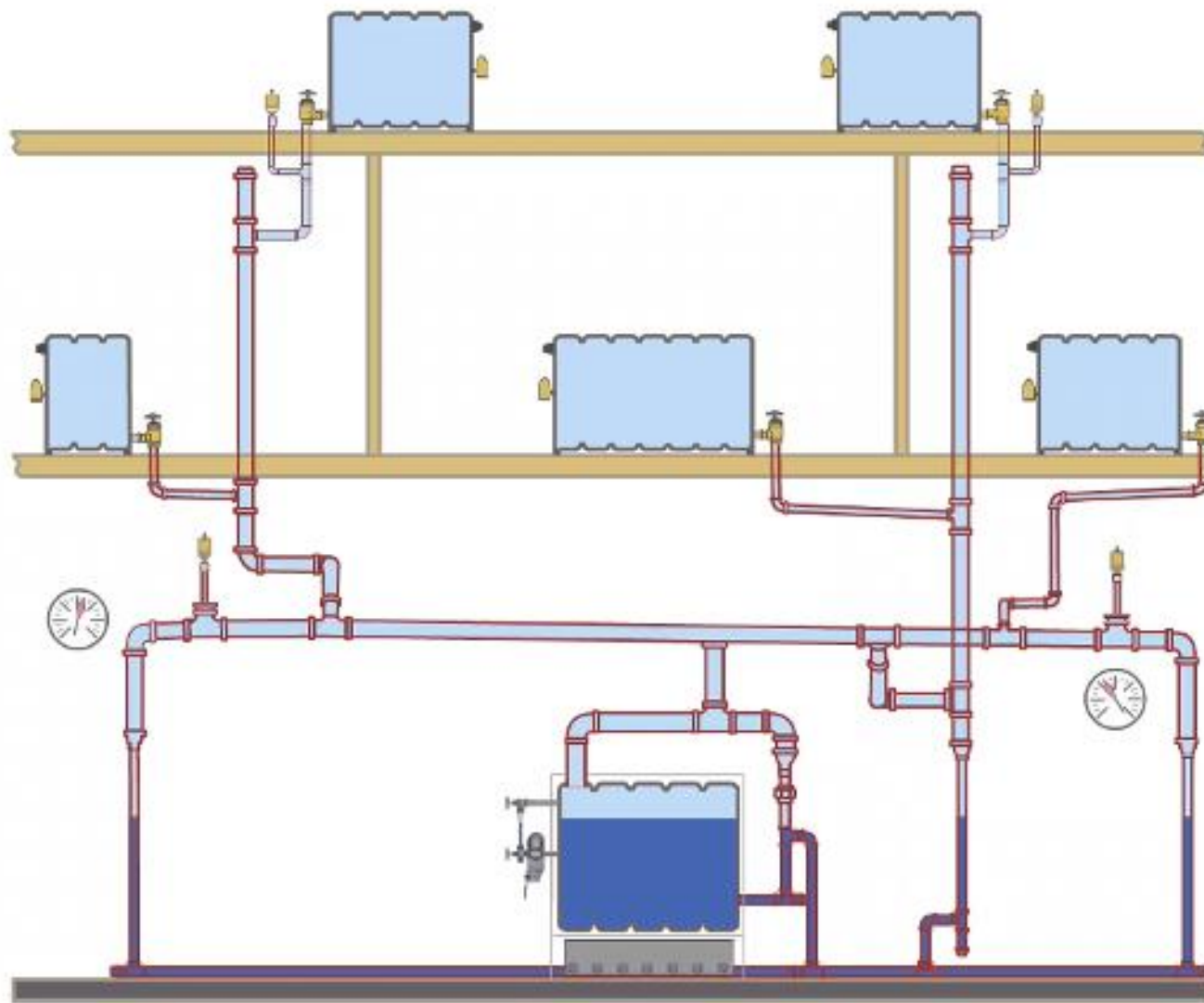


Follow Up:

- 1-1 Operator Sessions
- Quarterly Management Sessions

Each Training Section...

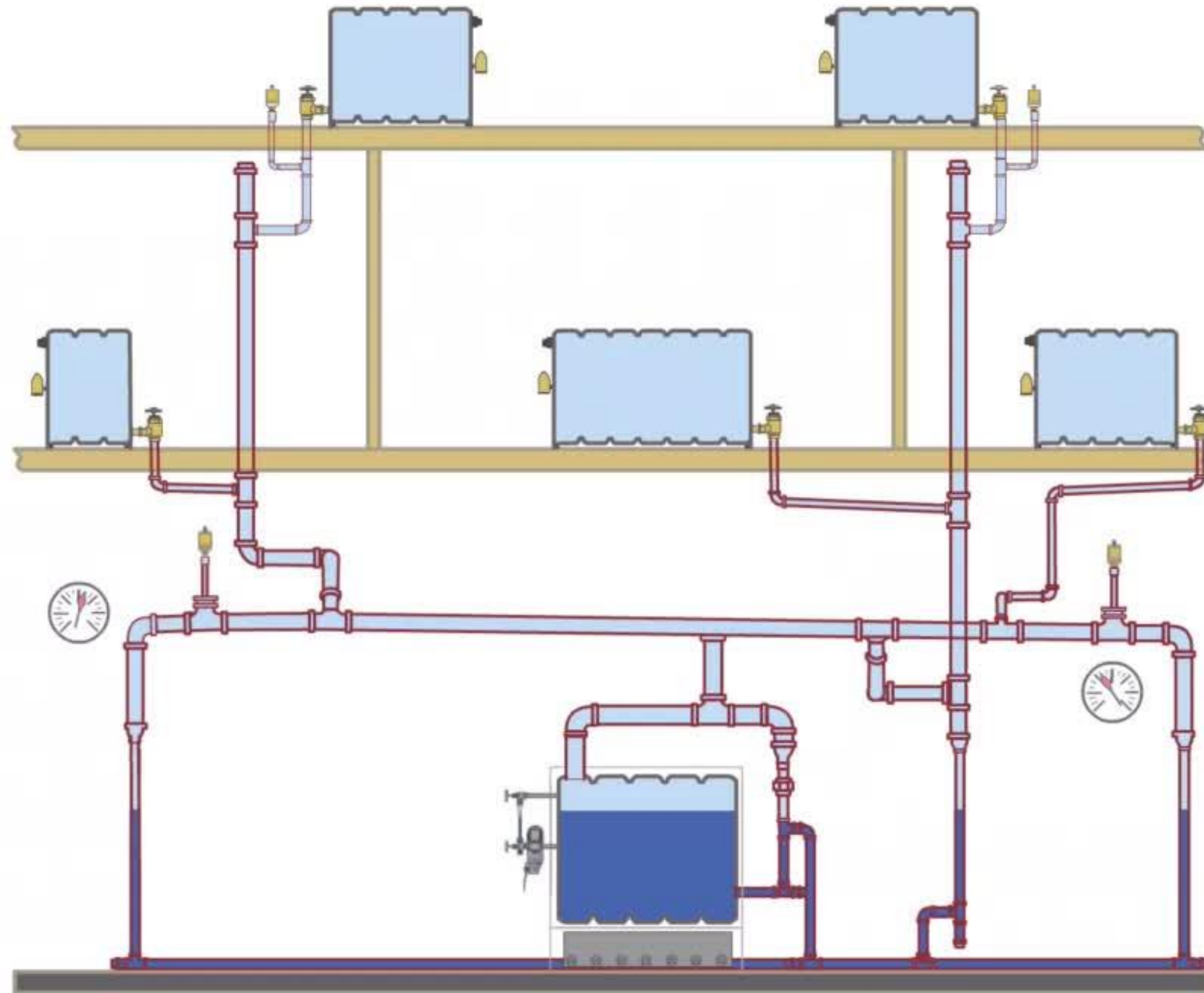
*1 pipe
steam
system*



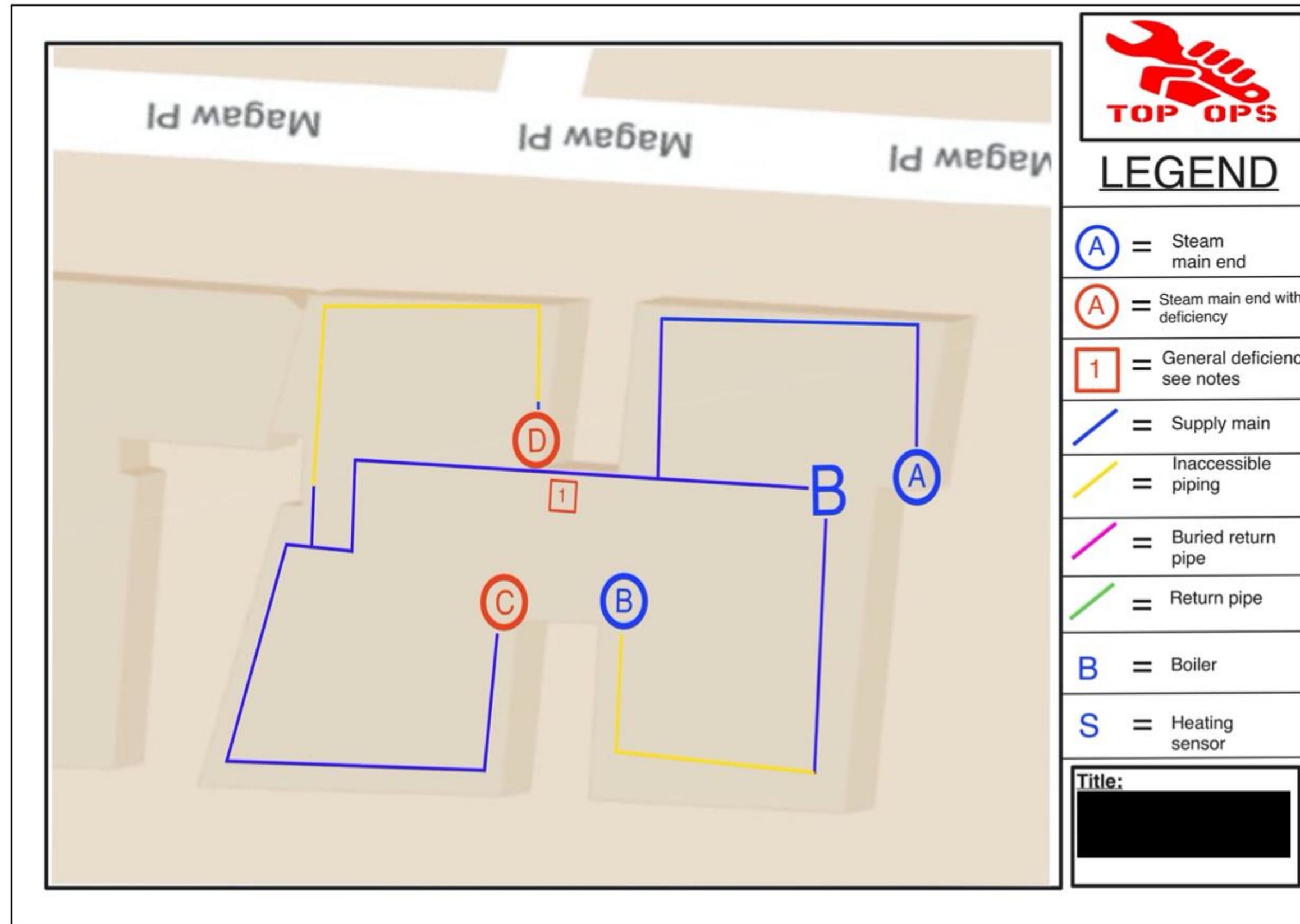
Includes sample animations to simplify complex concepts

Demonstration videos to walk staff through the tough ones step by step

*1 pipe
steam
system*



1-1 FOLLOW UP: STEAM TRAVEL TIME TEST




SUSTAINABILITY: CONCISE NEXT STEPS

Note ID	Steam Travel Time (minutes)	Description of Existing Conditions	Recommended Changes
A	Under 5 minutes	No existing vent, no additional vents needed	None
B	No Access	Unknown	Determine exact location of steam main end
C	Under 5 minutes	One existing vent leaking steam and water	Replace with Gorton #1 vent
D	13 minutes	One small vent stuck open and leaking steam	Replace with two Gorton #2 vents (minimum 1/2" tap)
1	N/A	There is a leaking and unnecessary vent on the return line near steam main end D	Remove existing vent and close the tap in the piping

Train to Sustain

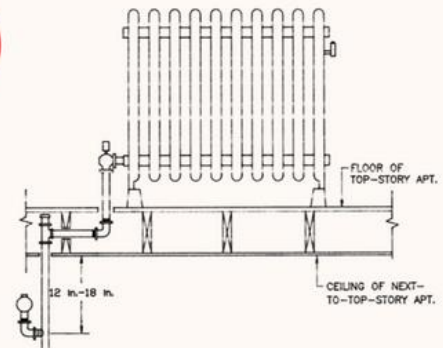
Streamlined materials left with our partners to continue the effort in house



TOP OPS


RISER VENTING

1

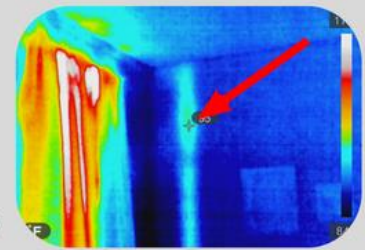


Determine
which risers go to the ceiling of the top floor, and which risers end one floor below top floor

3 Tap Pipe
with 1/8" diameter NPS thread, angle so condensate drains towards riser. Remove all debris from hole.
• If enclosed, drill through wall and use an extension if needed.




2




Identify
risers that are enclosed in the wall:
• If enclosed, use IR camera to locate and mark with painter's tape
• If not enclosed, skip to step to step 3


4 Install
1/8" diameter nipple long enough to stick out 1 - 1.5" from the wall, and 1/8" elbow, using pipe thread sealant and teflon tape.




5 Install
Straight mounted Gorton #D or equivalent vent using teflon tape



6 Keep track
of the number of vents and locations installed in each apartment.




EMAIL US FOR MORE INFO: TOPOPS@ROSSENERGYLLC.COM




WHAT CAN YOU DO?

TO BE MORE COMFORTABLE IN YOUR HOME & REDUCE ENERGY USAGE




HEATING

- Take AC units out of windows in winter months
- Remove furniture from in front of radiators
- Close windows
- Check radiator floor valve is completely open
- Report radiator and air valve issues to the office:
 - Hissing never stops, Never hisses (plugged), loud banging




WATER



- Report water leaks (faucets, toilets, tubs, steam vents, etc.)
- Turn off water when not in use (brushing teeth, shaving, etc.)
- If hot water takes more than 2 minutes to arrive at faucet, notify the office

ELECTRICITY

- Close window curtains in summer to keep it cooler
- Turn off lights when you leave a room
- Use LED bulbs
- Do not use electric heaters
- Turn off AC units when not home



Each Training Section...

Includes hands-on and/or field activities















Thank you!

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