



Green New Deal Oversight Board

GND Oversight Board Meeting

City of Seattle

January 22, 2024



Update: GNDOB Appointments



Rebecca Zaragoza

Rebecca Zaragoza (she/her) was born and raised in the Eastern Coachella Valley, a rural and agricultural community in the Southern California desert. She is the daughter of Mexican immigrant farm workers whose stories of labor, housing, and other injustices informed her future advocacy. Rebecca graduated from UC Santa Barbara in 2016 with a BA in Spanish and Global Studies and spent the following six years working as a community organizer and policy advocate to support social and environmental justice efforts in disadvantaged communities across California. In 2020, Rebecca was named a Leader of Change in the Environment by USA Today. She is currently pursuing a Masters in Urban Design and Planning from the University of Washington and hopes to develop stronger expertise within the intersection of climate resilience, urban design, and environmental justice.





Discussion: GNDOB Onboarding



Onboarding Discussion

Current Onboarding Ideas

- 1:1s with staff & possibly an Executive Committee member to orient them to current Board activities
- Providing a reading list with foundational documents that the PPP Committee identifies
- Warm welcome & get-to-know-you activity at their first Board meeting
- GNDOB orientation session(s)

Discussion Prompts

- What should Board members know as they begin this work?
- What do we want to be sure to do during onboarding? What do we want avoid?
- What is staff's responsibility? What is the Board's responsibility?
- How would you describe the culture of this Board to new Board members?
- How can we create space for new Board members to make their imprint on the Board's culture?
- How would you like to contribute to welcoming new Board members?



Update: Community Assemblies for a Green New Deal



Community Assemblies Team Roles



Seattle
Office of Sustainability
& Environment

In collaboration with the
GND OB, coordinates
process and partners; uses
key findings to shape future
work

**PEOPLE'S
ECONOMY
LAB**

Provides technical
assistance & support



Urban League of
Metropolitan Sea

Anchor organization (co)-
hosting community
assemblies



Anchor organization (co)-
hosting community
assemblies

DRAFT: Community Assembly Goals

Inform Draft Comprehensive Plan

Send OPCD actionable feedback from communities & workers to improve the draft comprehensive plan.

Gather community input/feedback on the GND

Gather feedback from communities & workers; apply that feedback toward improving the GND & the Board's work.

Community education on the GND

Educate communities & workers on the GND, the GND Oversight Board, & the draft comprehensive plan.

Pilot & Evaluate Community Assemblies

Evaluate the effectiveness of community assemblies to assess whether to pursue this engagement model in the future.

Equitable Contracting & Building Relationships

DONE: Contract with at least three organizations that serve frontline communities in 2023-2024.

Provide training & participation opportunities among a wider array of partners throughout this process (e.g., City Boards & Commissions, Grassroots orgs, City Depts., etc.).

Next Steps for Community Assemblies – Q1



Seattle's Payroll Expense Tax (aka JumpStart Tax)

Danielle Friedman, DON



City of Seattle

Agenda

1. Payroll Expense Tax Overview
2. DON & IP's roles
3. Payroll Expense Tax Oversight Committee
4. Evaluation of the Payroll Expense Tax
5. Questions



Payroll Expense Tax Overview

Payroll Expense Tax (PET, also known as “Jumpstart”) applies to businesses with payroll expenses exceeding \$8 million per year. The tax was designed to raise progressive revenue to fund economic recovery from the COVID-19 pandemic.

The tax has initially invested approximately \$200m into City programming focusing on four main priorities:

- Economic Revitalization
- Green New Deal
- Equitable Development Initiative (EDI)
- Housing

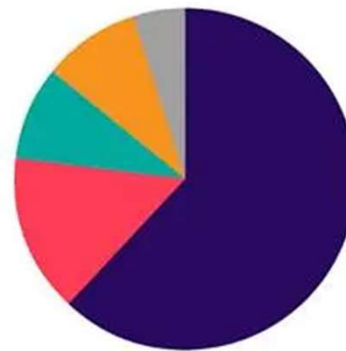


Percentages of Funding



funding for

\$214+ MILLION
total each year



5% for administrative costs

62% Housing

Affordable housing, homeownership programs, & a community investment fund

15% Small Business

Small business assistance to ensure economic recovery and resiliency

9% Green New Deal

Fund the GND Advisory Committee and invest in communities most impacted by climate change

9% Equitable Development Initiative

Community-initiated projects that fight displacement & build community wealth



DON & IP Roles



Department of Neighborhoods

- Stand up and staff the Oversight Committee
- Help establish rules of procedure, expectations, and by-laws
- Ground the committee in RSJ and anti-racist principles
- Coordinate with other committees such as the Green New Deal Oversight Board as outlined in the legislation



Innovation & Performance

- Co-design and execute a Citywide measurement and evaluation plan
- Institute evaluation standards across programs and tell a cohesive story of citywide investments
- Create opportunities to incorporate the voice of recipients of program funding, business owners, department administrators, and other stakeholders.



Payroll Tax Oversight Committee Role

Purpose: Provide oversight on the services and programs supported by the payroll tax and the impacts of this tax on the number of jobs and businesses in the City, and other data that directly relates to measuring the impact of this tax on the City's economy.

- The Oversight Committee shall provide **an annual report** that provides this information to the Mayor and the City Council.
- The Oversight Committee shall **consult with other oversight bodies** that monitor programs and services similar to those supported by the payroll tax.



Oversight Committee Makeup

According to [Ordinance 126109](#), the Payroll Expense Tax Oversight Committee shall consist of nine voting members:

- Positions 1 and 2 shall be City employees.
- Positions 3 and 4 shall represent labor.
- Positions 5 and 6 shall represent business.
- Positions 7 and 8 shall represent community organizations.
- Position 9 shall represent communities that will benefit from the proposed spending.
- Positions 1, 3, and 5 shall be appointed by the Mayor and Positions 2, 4, 6, 8, and 9 shall be appointed by the City Council.
- Up to two members can be affiliated with an entity that receives or competes for funding under this ordinance.
- The initial Mayoral appointees will serve for two years; and the initial City Council appointees will serve for three years. Following these initial terms, all future members will serve 3-year terms.



City Council Appointments

- Shaunie Wheeler, MLK Labor (Labor Position)
- Patience Malaba, Housing Development Consortium (Community Benefitting Position)
- Gabriel Neuman, GSBA (Business Community Rep)
- Katie Wilson, Transit Riders Union (Community Org Position)
- Aly Pennucci (City Employee Position)

- Demographics:
 - 4 females, 1 male (1 transgender person)
 - 3 White, 1 black, 1 mixed (black and Latino)



Key Deliverables - Evaluation



100% of selected programs across all four priorities complete intake form (n=approx. 30 departments)



Initial report highlighting the overview of the PET Evaluation Plan, including the rollout plan and the framework being used to select programs and priorities.



Cyclical reporting with 3-4 mini reports throughout the year



Website or Blog to communicate evaluation updates.



Ad hoc reports depending on programs being evaluated.



Evaluation Methods

Quantitative Considerations	Qualitative Considerations
Inputs (What, Where)	Interviews
Outputs (What changed)	Surveys
Quality (How)	Focus Groups
Location (Coordinates)	Photos/Visuals/Stories
Anything else?	Anything Else?

**To date, there are no requirements of specific data collection which opens an exciting opportunity to let programs have more voice in telling their stories and building data infrastructures around those stories!*



Examples of Research Questions

- How do these selected programs have impact on the specified PET priority?
- What roles do our programs play in contributing to positive changes within our community?
- When the City prioritizes POC, Homeless Youth, LGBTQIA+, etc., how does that uplift our City's goals?
- Are programs meeting the needs of vulnerable Seattleites, and if not, what changes might be needed?
- How has the additional PET investment impacted the current or new programming?



Proposed Timeline


Timeframe	
October 2023	City Council appointed 5 members
	Waiting on Mayor's Office appointees
Q1 2024	Oversight Committee seated and start meeting
Summer 2024	First City Evaluation Report released with a focus on Economic Revitalization
December 2024	Oversight Committee releases first Annual Report



Discussion

- What questions do you have?
- How would you like to interact with the Oversight Committee?
- Where do you overlap and where do you differ?
- Do you have any hopes or concerns?





Seattle Energy Code Progress and Direction

Green New Deal
Oversight Board



Seattle Department of
Construction & Inspections

Duane Jonlin, FAIA
January 2024

Energy Code: just one of our construction codes

- Building code
- Residential code
- Mechanical code
- **Energy code**
- Fuel gas code
- Plumbing code
- Fire code
- Electrical code



2021 Seattle Energy Code

for “Commercial Buildings” – *not* single-family or townhouse

New ideas often originate in Seattle, then move up



“2021” Codes

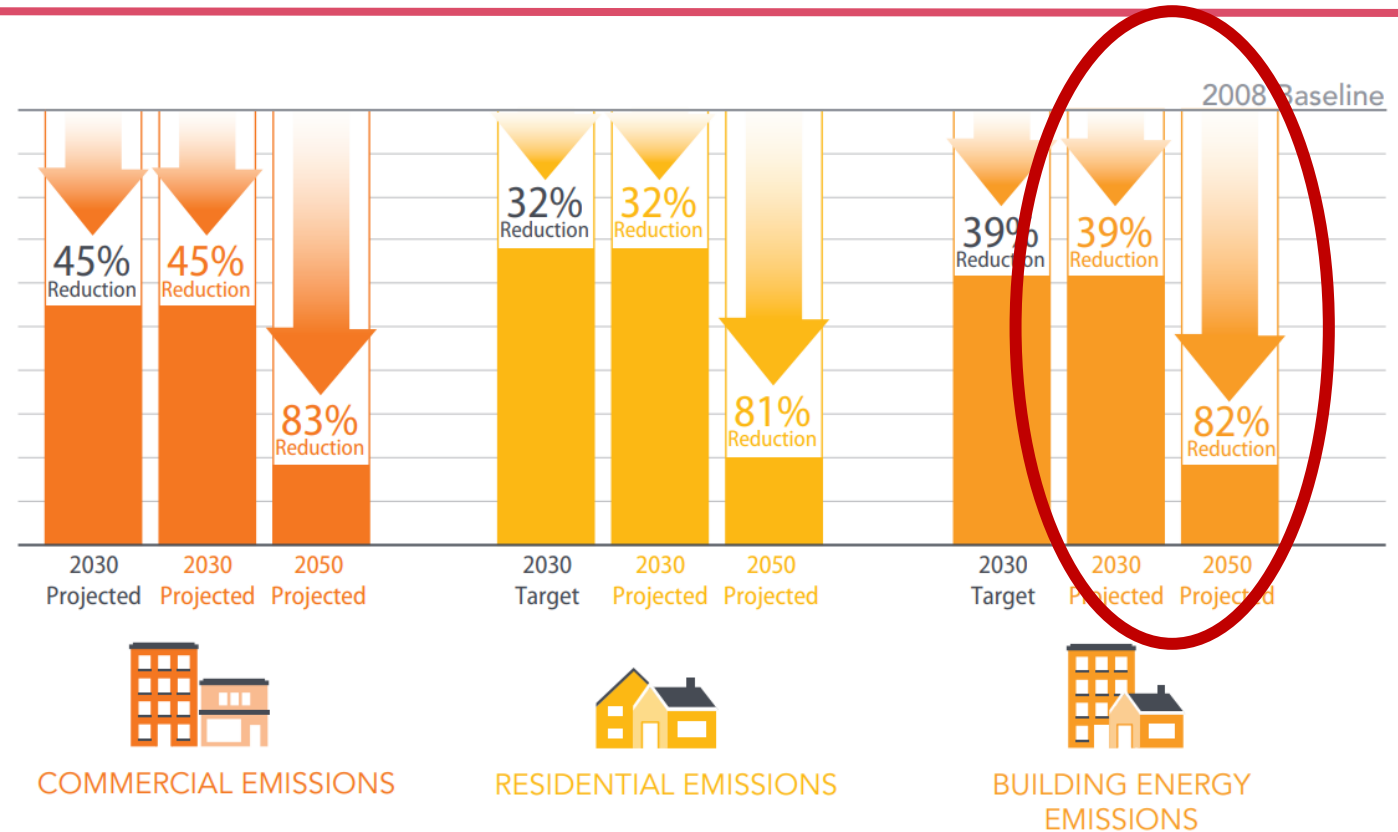
- WA code in effect March 15, 2024
 - Permit application date
- Seattle code in effect July (?) 2024

Seattle Climate Action Plan

Targets are for *overall* (new + existing) building stock.

- 2030 emissions target: 45% below 2008
- 2030 energy use target: 10% below 2008
- 2050 emissions target: 82% below 2008

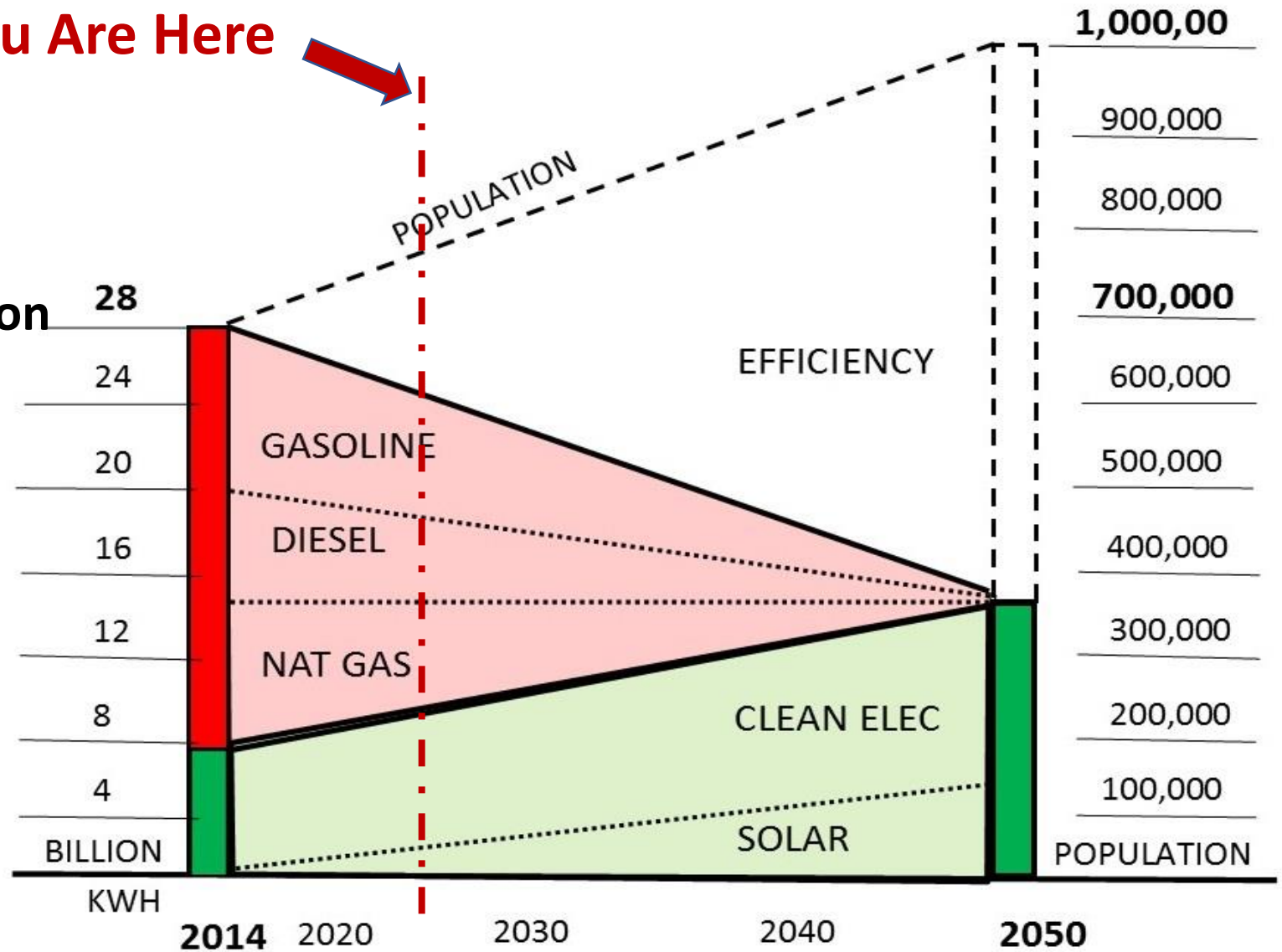
New construction is *much* easier to improve than existing buildings.



Strategy

1. Eliminate on-site combustion
2. Optimize efficiency
3. On-site solar & storage
4. Off-site renewables

You Are Here



Decarbonization Pathway

Everybody loves incentives

- Money growing on trees!
- Extra height!
- Faster permits!

...and voluntary certifications

- Living building
- LEED
- Passive House



Nobody loves regulations

- Adds construction costs
- Political strife & struggle
- Industry does adapt fast
- **But then, magic:**
- **Cost start coming down** when everybody makes change at the same time
- **Engineers, suppliers**
- **Subcontractors**

Change at massive scale needs regulations

IECC[®]

INTERNATIONAL
ENERGY CONSERVATION
CODE[®]

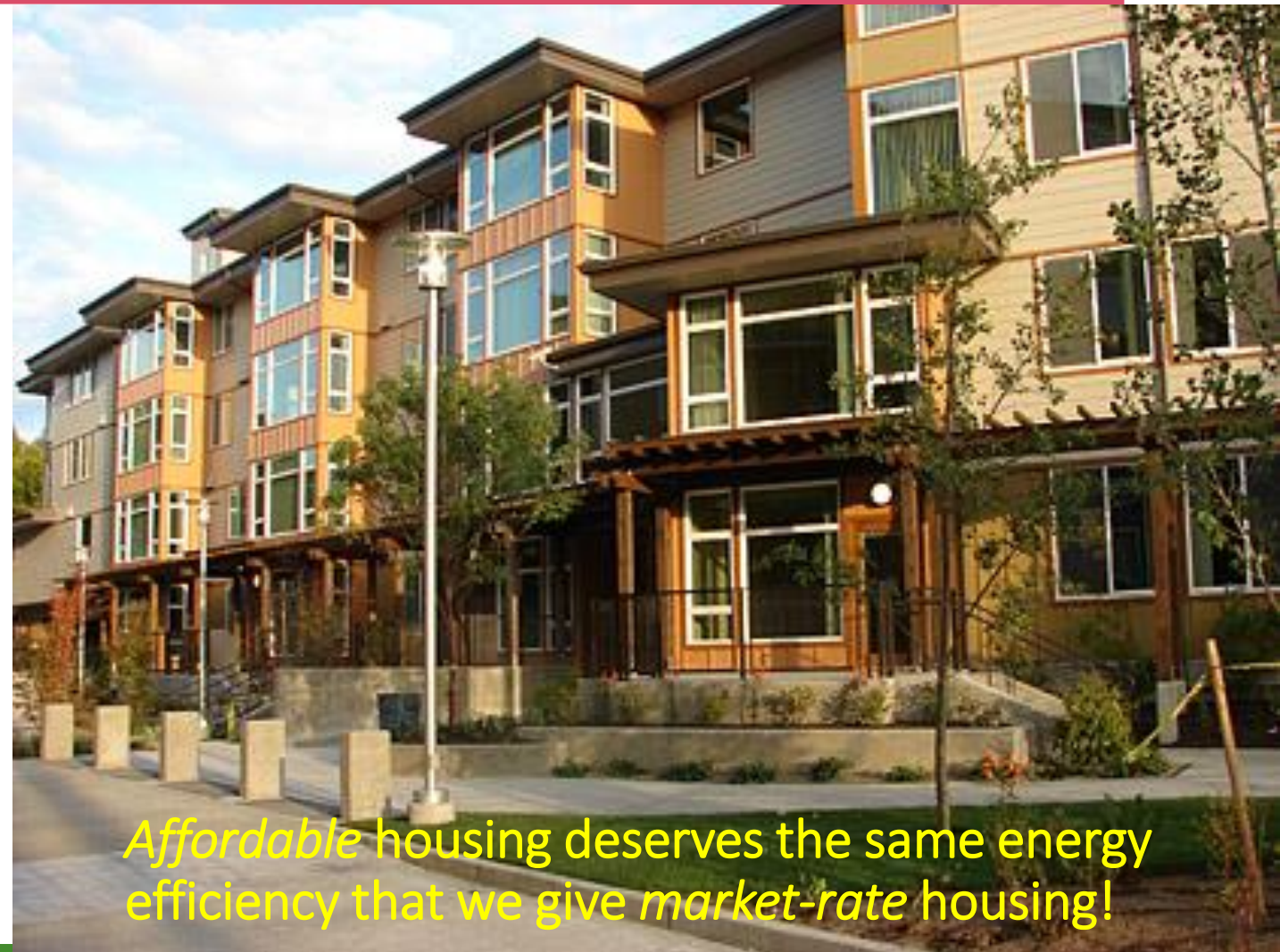
A Member of the International Code Family



Regulations are society's way of doing things **together**

Equity and climate justice

- Efficiency reduces utility bills for generations to come
- Reduces stress on power grid
- Electrification improves air quality in building & neighborhood
- Many electrification projects eliminate gas and reduce electrical usage
 - Due to inefficiency of existing heating systems



Affordable housing deserves the same energy efficiency that we give market-rate housing!

Pushback: Change is threatening

- Gas industry (lost revenue)
 - Developers (construction cost)
 - Manufacturers (market readiness)
1. Equip suppliers not ready
 2. Grid can't handle the extra load
 3. “Renewable natural gas”?
 4. Takes away choice
 5. Power outage scenario



Gas is popular

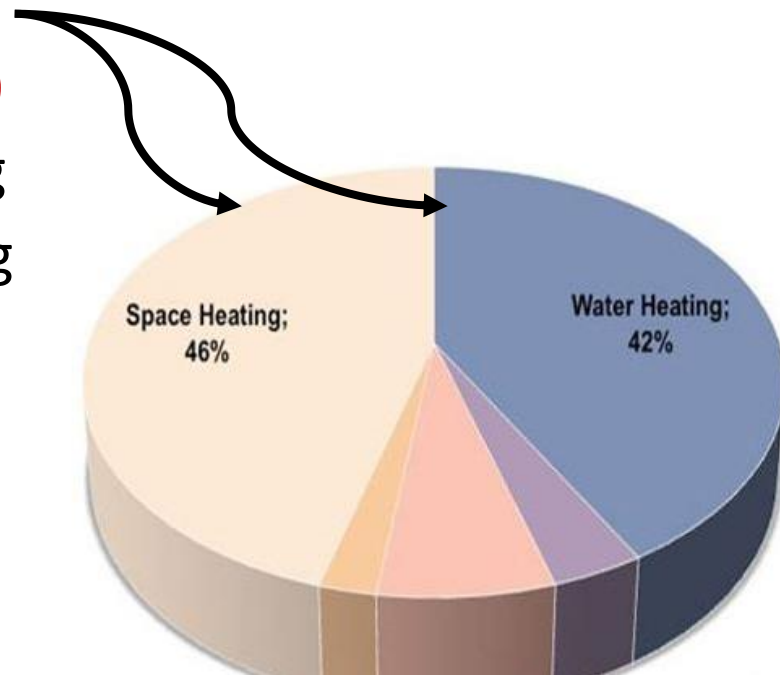
- Gas heating is (was?) cheap
- Equipment is cheap & compact

Big gas uses: (Eliminate now)

- Space heating
- Water heating

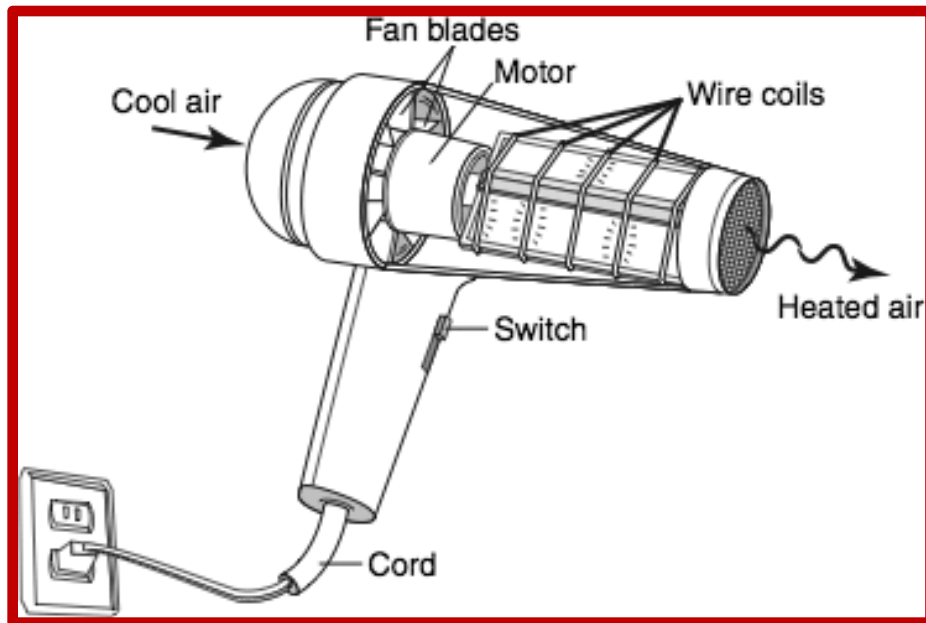
Little uses: (Maybe later)

- Cooking
- Fireplaces

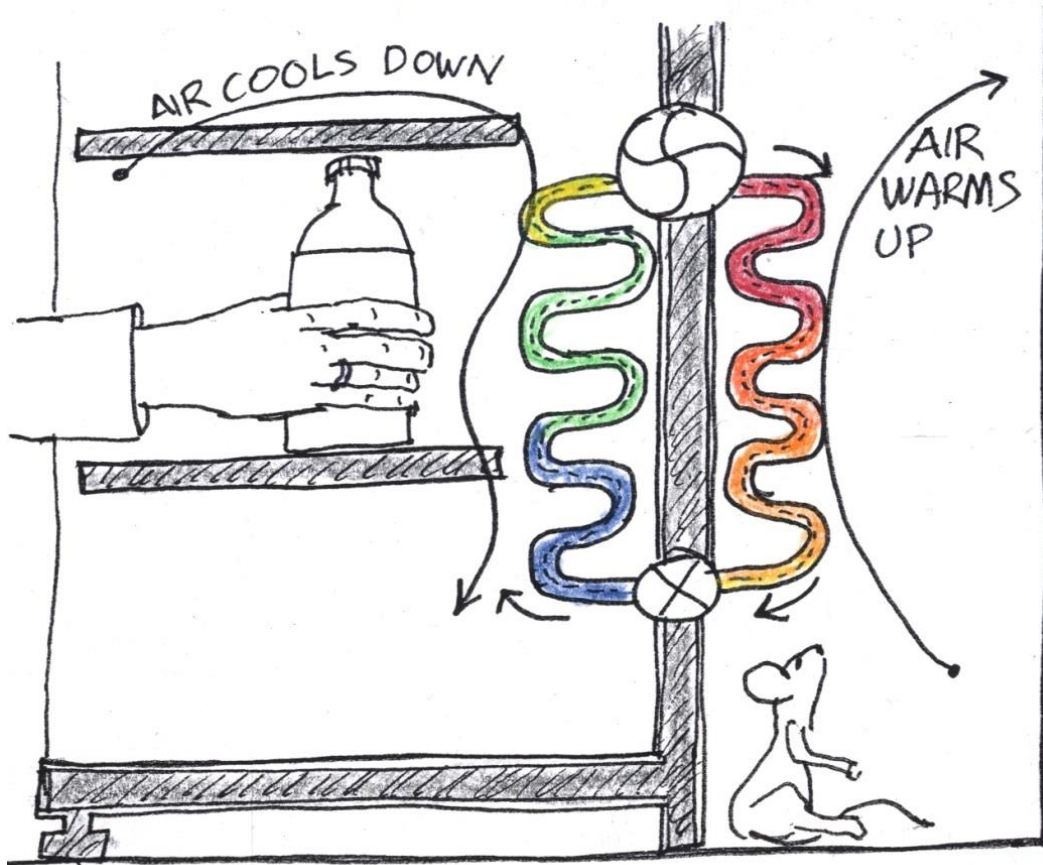


Electric resistance not great either

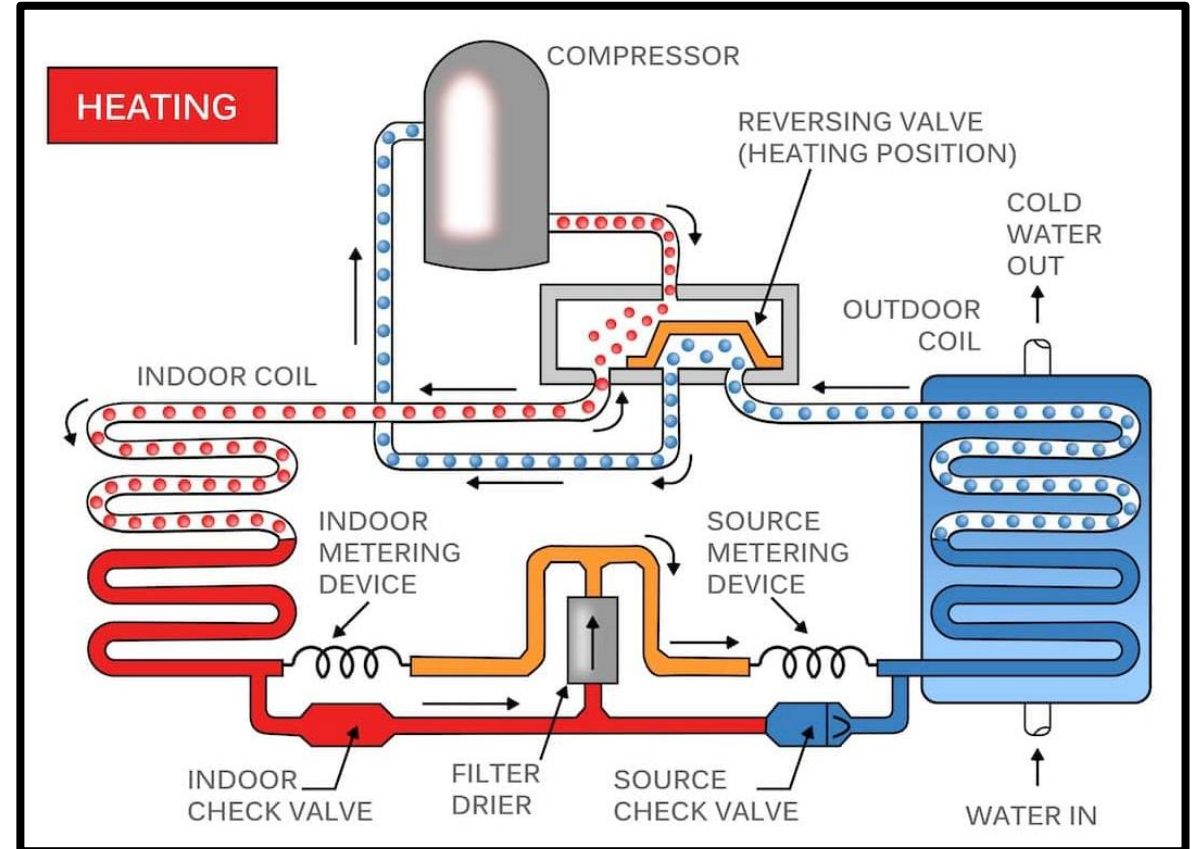
- Wasteful use of clean energy
 - Even though 100% efficient
- Typical in office VAV systems



Heat pump to the rescue



You already have one in your house.

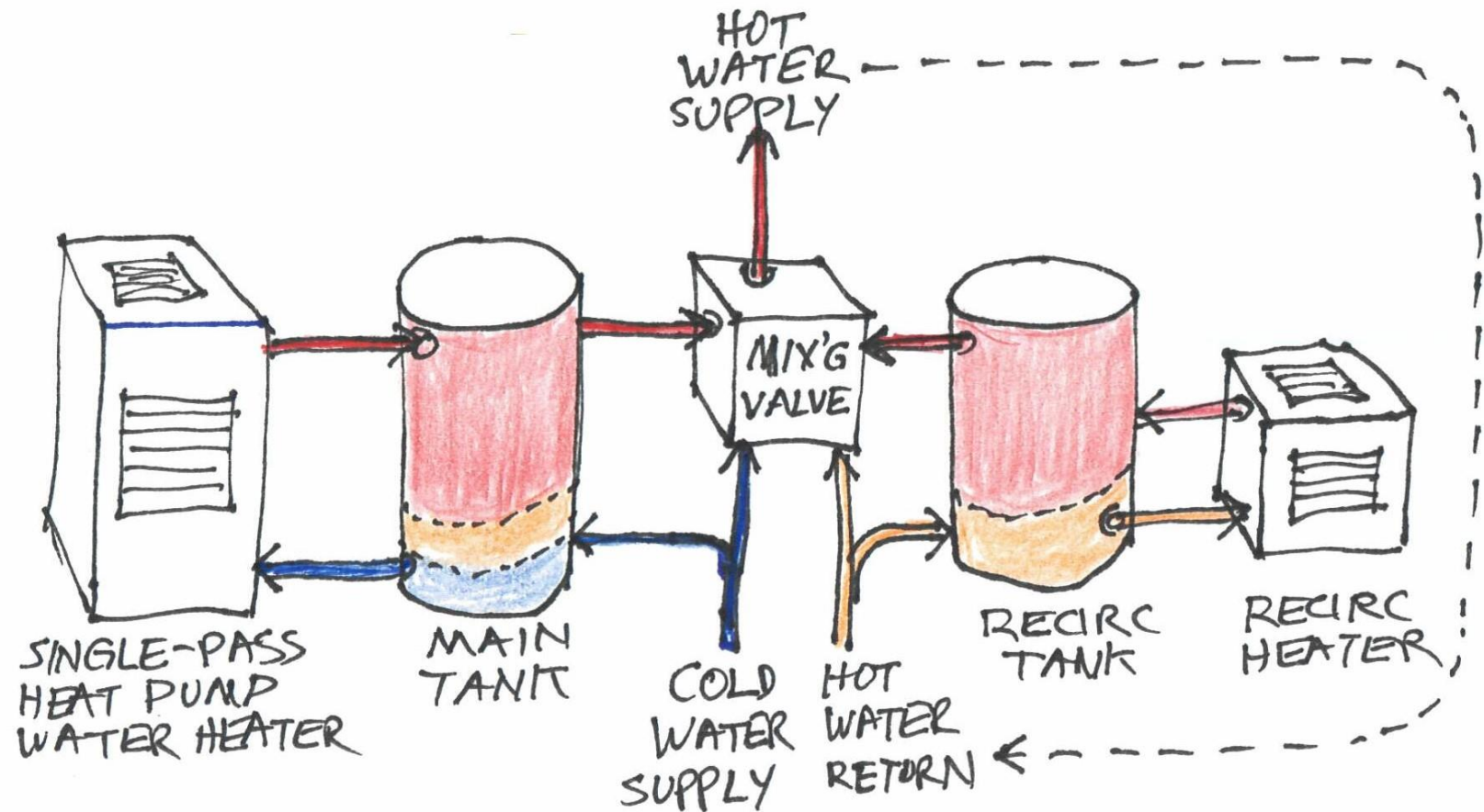


Heat pumps squeeze warmth out of cold air. Also works as A/C in summer

No electric resistance or fossil fuel for *space heating or water heating*

Several exceptions:

Electric resistance heating allowed for very small loads & very cold weather.



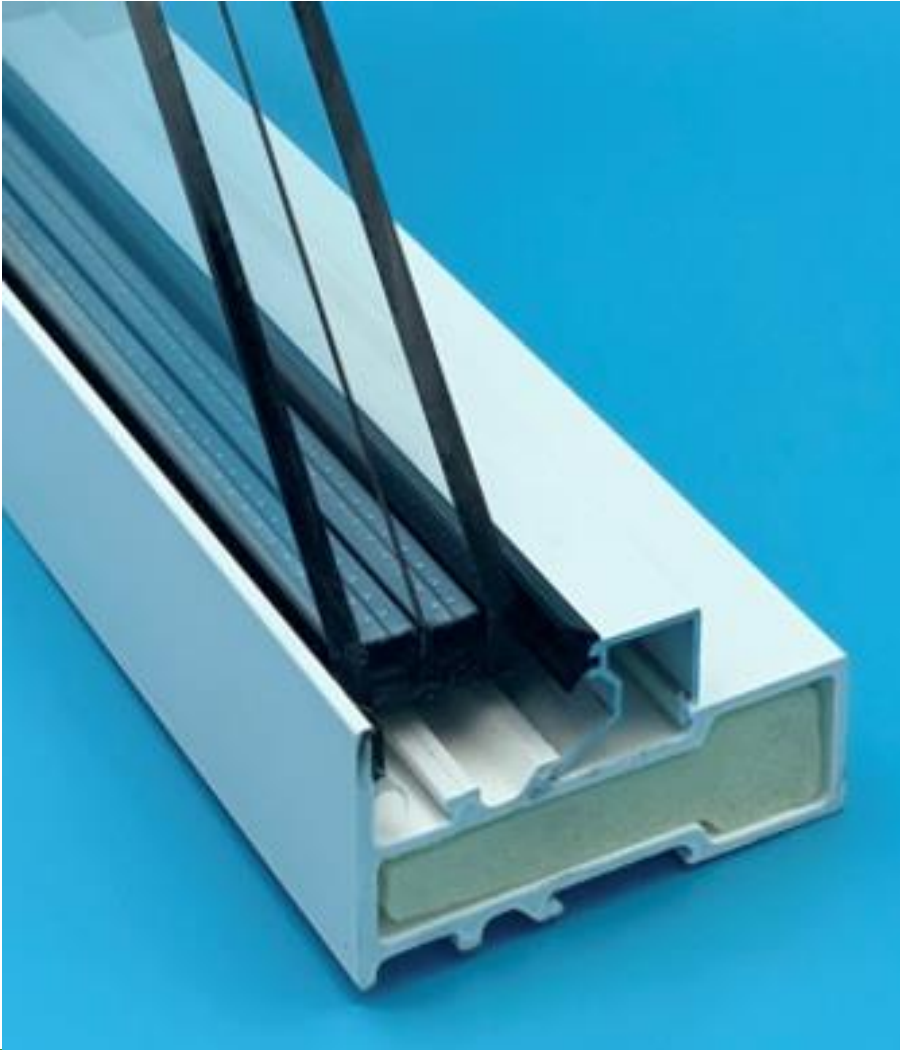
Carbon-neutral Seattle by 2050 (or is it 2030?)

1. Build great envelope
 - Dependable energy savings for decades
2. Eliminate combustion
 - Carbon neutral today, won't need change later
3. Use electricity wisely
 - Don't waste on electric resistance heat
4. Generate power
 - Plus "solar readiness" for bigger future system



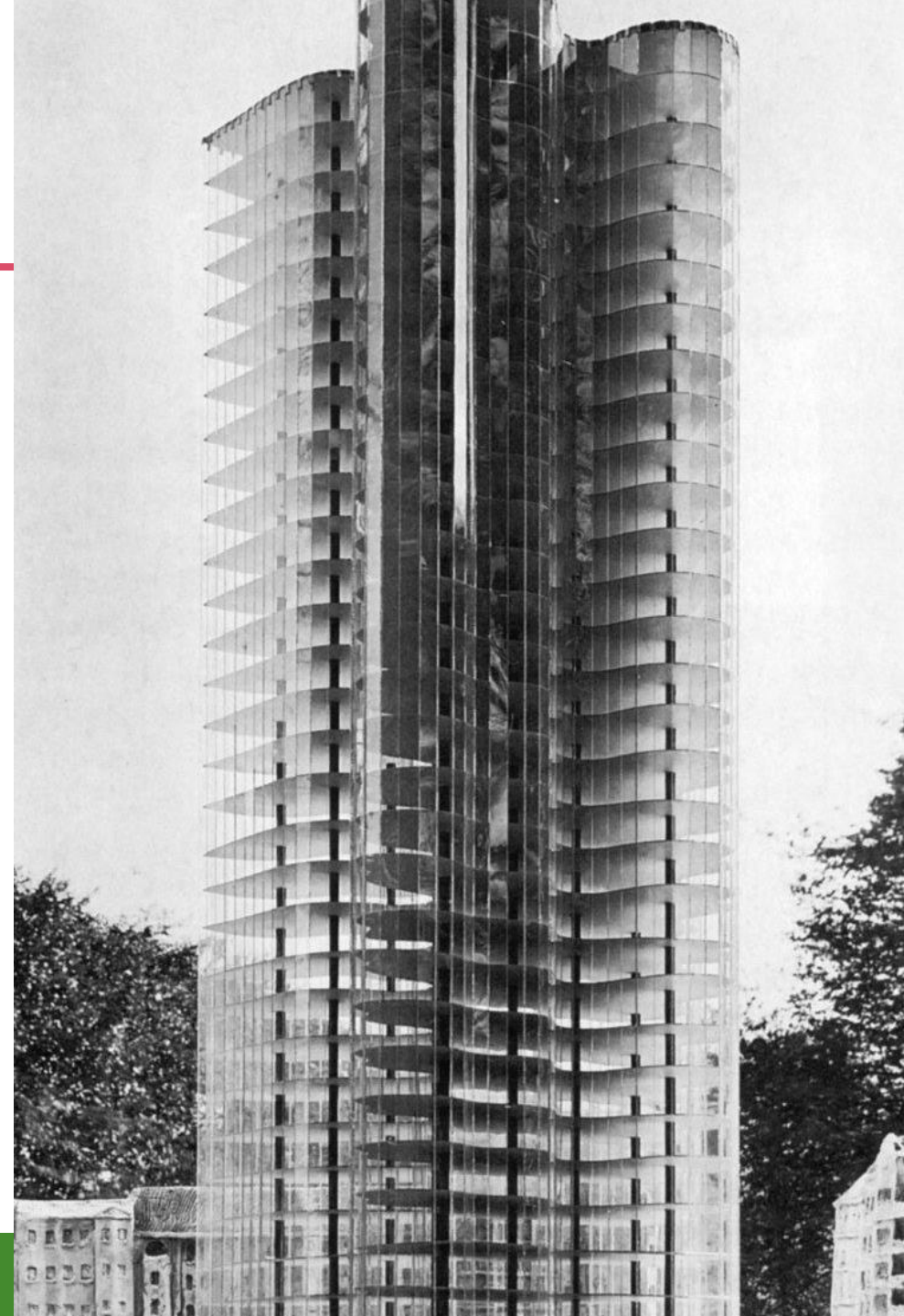
Build today so that no "major surgery" required for buildings in 2050

1. Great Envelope: 20% of glazing triple-pane



More envelope highlights

- **Air leakage testing** mandatory
- Insulation values as good as Minneapolis
- Excessive glass area curbed
- “Thermal bridging” limitations
 - Like at concrete balconies



2. Reduce fossil fuel combustion

New construction:

- Heat pump space heating
- Heat pump water heating

Restaurants in new buildings:

- Electrical panel at kitchen sized for future electrification of gas cooking equip

Gas appliances in multifamily:

- Functional electric outlet and circuit for future elec appliance



More HVAC efficiency (alphabet soup)

- **ERV (Energy recovery ventilation)** – everywhere
 - ERV with “Balanced ventilation” in multifamily
- **DOAS (Dedicated Outdoor Air System)**
 - traditional VAV/reheat not permitted
- **TSPR (Total System Performance Ratio)**
 - ensures overall efficiency of HVAC system
- **DCV (demand control ventilation)**
 - Assembly, restaurant, gym, conference, retail

Occupied Standby (modified for DOAS)

**“Occupied standby”
ventilation & temp
control is huge.**

Shuts down ventilation &
tweaks temp when space is
unoccupied

3. Efficient use of electricity

- **Dimming** required most spaces
- Limits on electric resistance heating
- Lighting power reduced 5%
- Efficient equipment



4. Renewable energy

- **0.75 W/sf** of conditioned floor area
- Alternative: More efficiency credits
- Affordable housing exempted
- Option: Gift to affordable housing

Building Stories	Roof Area Required
4	<u>14.5%</u>
10	<u>54.3%</u>
18	<u>98.0%</u>



Efficiency credits system

Pick a few “above-code” measures from 31 options

Table C406.1 Energy Measure Credit Requirements

Required Credits for Projects	Section	Occupancy Group					
		Group R-1	Group R-2	Group B	Group E	Group M	All Other
New building energy efficiency credit requirement	C406.2	((54)) <u>59</u>	((41)) <u>45</u>	((42)) <u>46</u>	((48)) <u>53</u>	((74)) <u>61</u>	((49)) <u>54</u>
Building additions energy efficiency credit requirement	C406.2	((27)) <u>30</u>	((20)) <u>22</u>	((21)) <u>23</u>	((23)) <u>25</u>	((36)) <u>30</u>	((21)) <u>23</u>
New building load management credit requirement	C406.3	12	15	27	15	13	26

First, use *efficiency* to shrink loads

- Constant load reductions
- Less stress on grid in winter
- Less stress on grid in summer
- More room on grid for EV charging
- More room on grid for building decarbonization

Second, top off with a (smaller) solar array

- Efficiency reduces clean energy demand
- Reduces stress on grid summer & winter

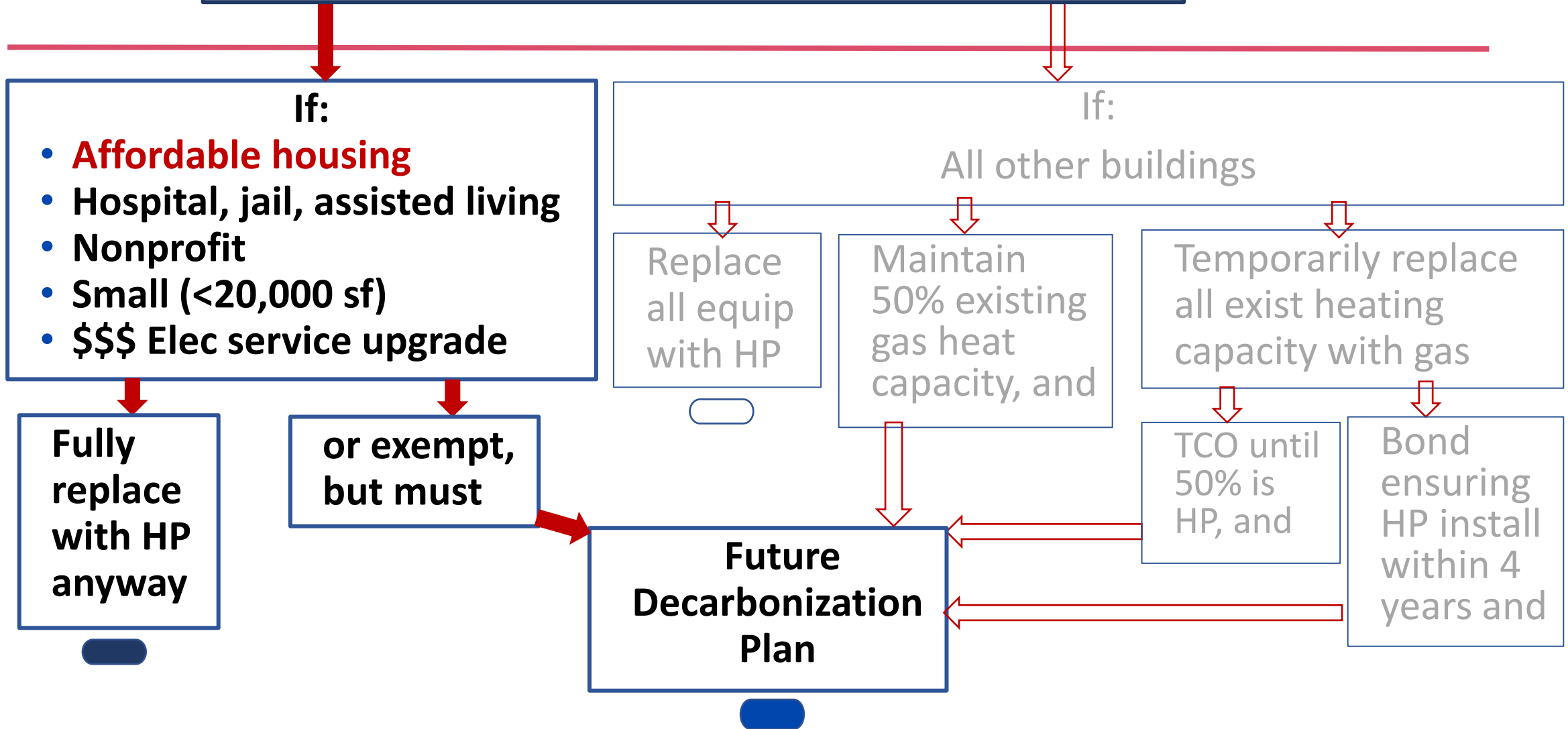


Upgrading our *existing* building stock

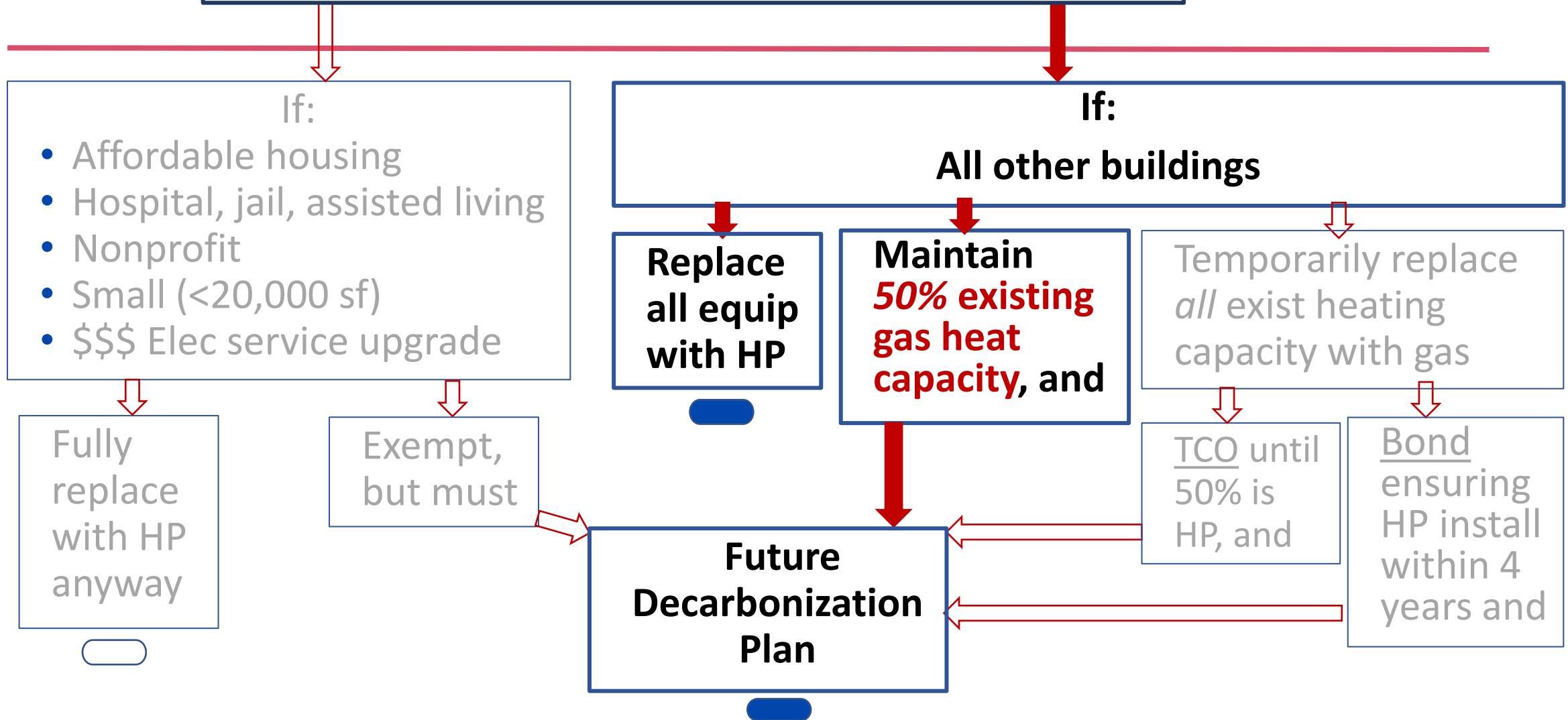
- **Current (2018 code).**
Replacement heating & water heating equipment must be heat pump
 - Like-for-like replacement of one piece of “failing” gas equipment allowed
- **Proposed (2021 code).** More exceptions
 - Can’t “do nothing and keep burning gas forever”



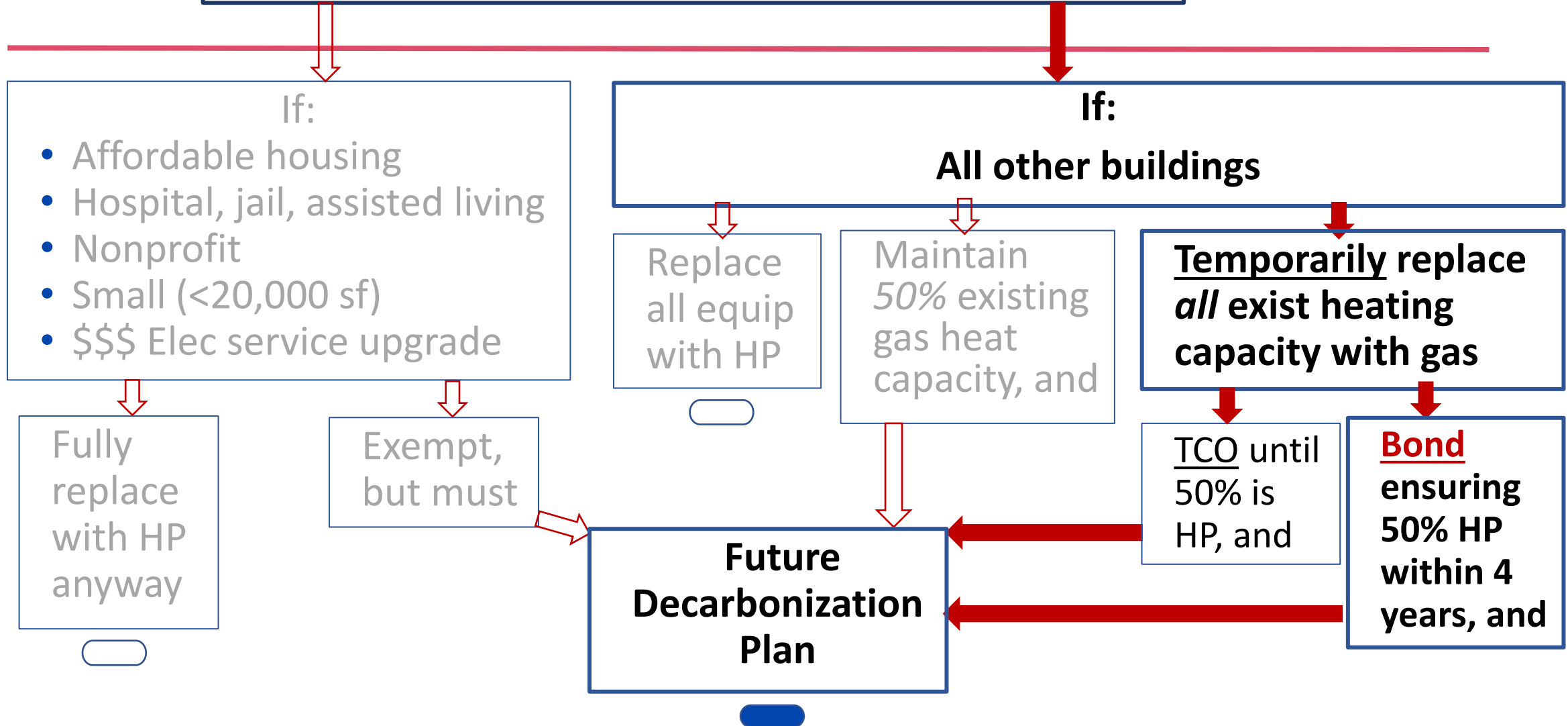
General rule: Replacement central space heating equipment must be heat pump



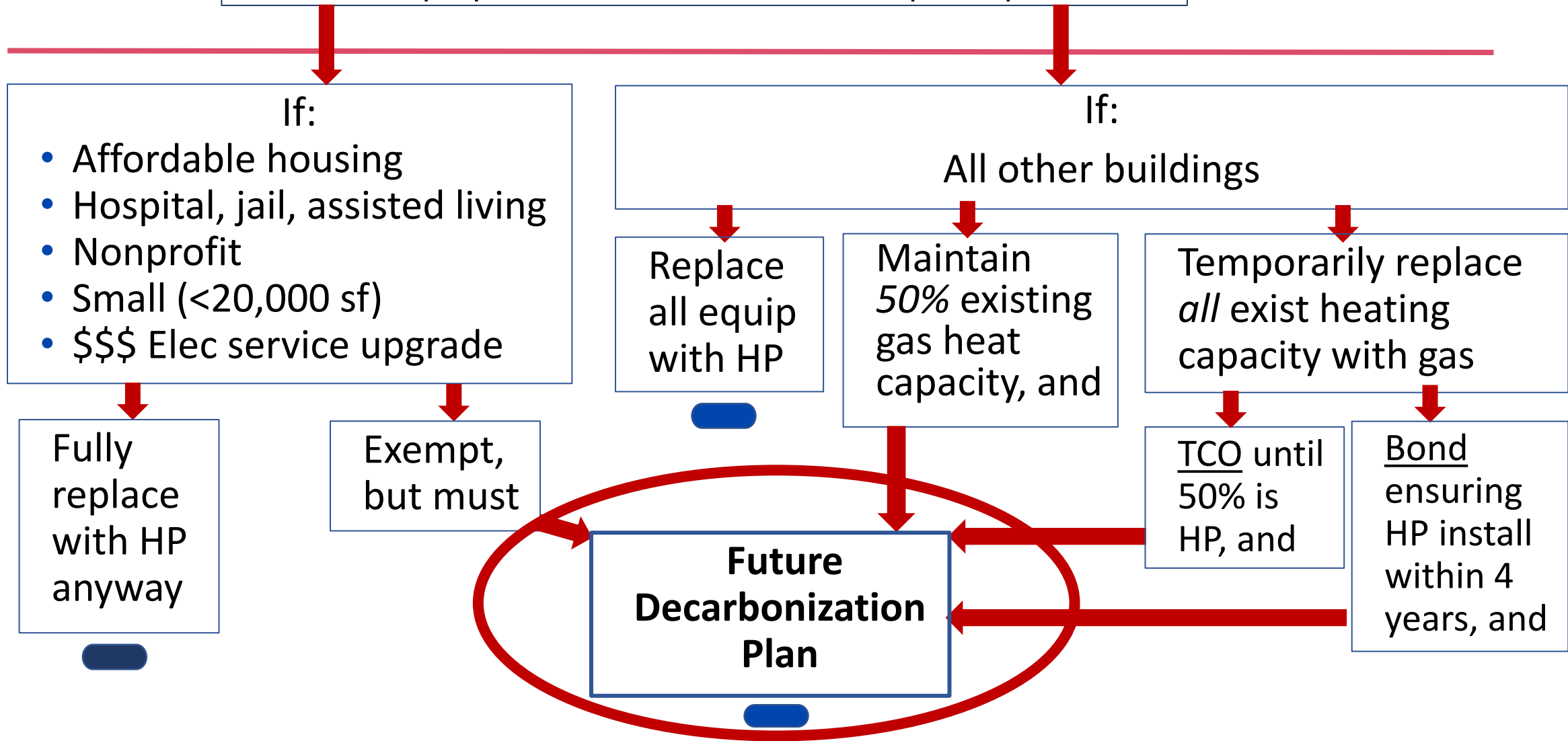
General rule: Replacement central space heating equipment must be heat pump



General rule: Replacement central space heating equipment must be heat pump



Replacement central space heating equipment must be heat pump



Future Decarbonization Plan

Fully engineered schematic design & cost estimate

- a. One-line system diagrams
- b. Equipment laid out to scale.
- c. Louvers, ducts, & air handling equipment
- d. Structural modifications
- e. Partitions & doors
- f. Electrical infrastructure
- g. Allowable roof coverage area & height
- h. Decarbonization planning form
- i. Schematic cost estimate
- j. Compliance dates for WA & Seattle Building Performance Standards

Decarbonization Planning Form
Jonlin Jan 17, 2023 version

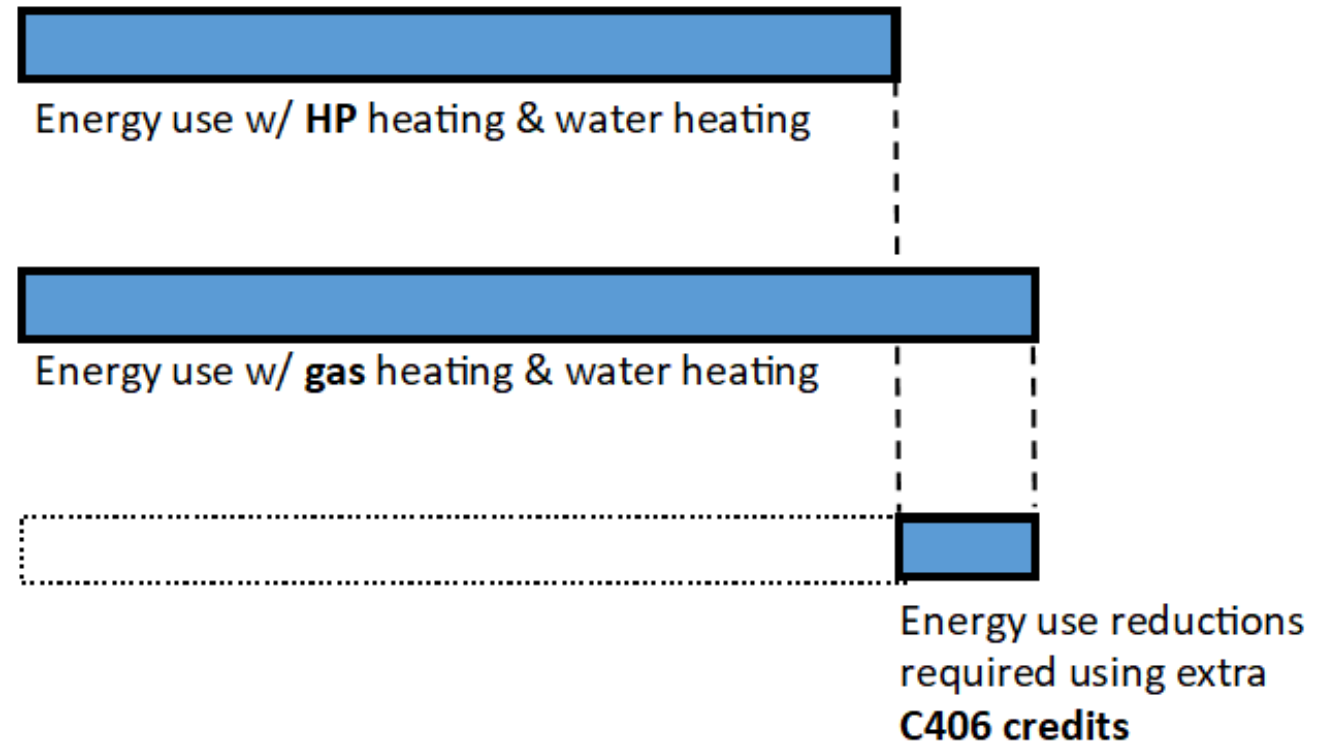
Requirement	Project Information
Prof Engineer name & firm name	
Project address	
Mechanical permit no. and date	
Electrical permit no. and date	
Building permit no. and date	
Submittal date of this form	
Conditioned floor area of building	
Number of stories above grade plane	
Existing building electrical service capacity	
For projects replacing existing central space heating equipment:	
Existing fossil fuel central space heating capacity	
Required primary heat pump system capacity to comply with C403.1.4	
Estimated full cost to owner for full electrification of space heating	
Location of primary heating appliances in building (basement, roof, etc.)	
Required electrical service capacity for full electrification of space heating	
For projects replacing existing central service water heating equipment:	
Existing fossil fuel central service water heating capacity	
Required primary HPWH capacity to comply with C404.2.1	

Fossil Fuel Compliance Path

to resolve recent legal rulings

Compliance path explicitly permitting gas heating & water heating, while maintaining same overall energy efficiency as heat pump buildings.

- Requires gas heated buildings to provide enough C406 credits to match efficiency of heat pump buildings.

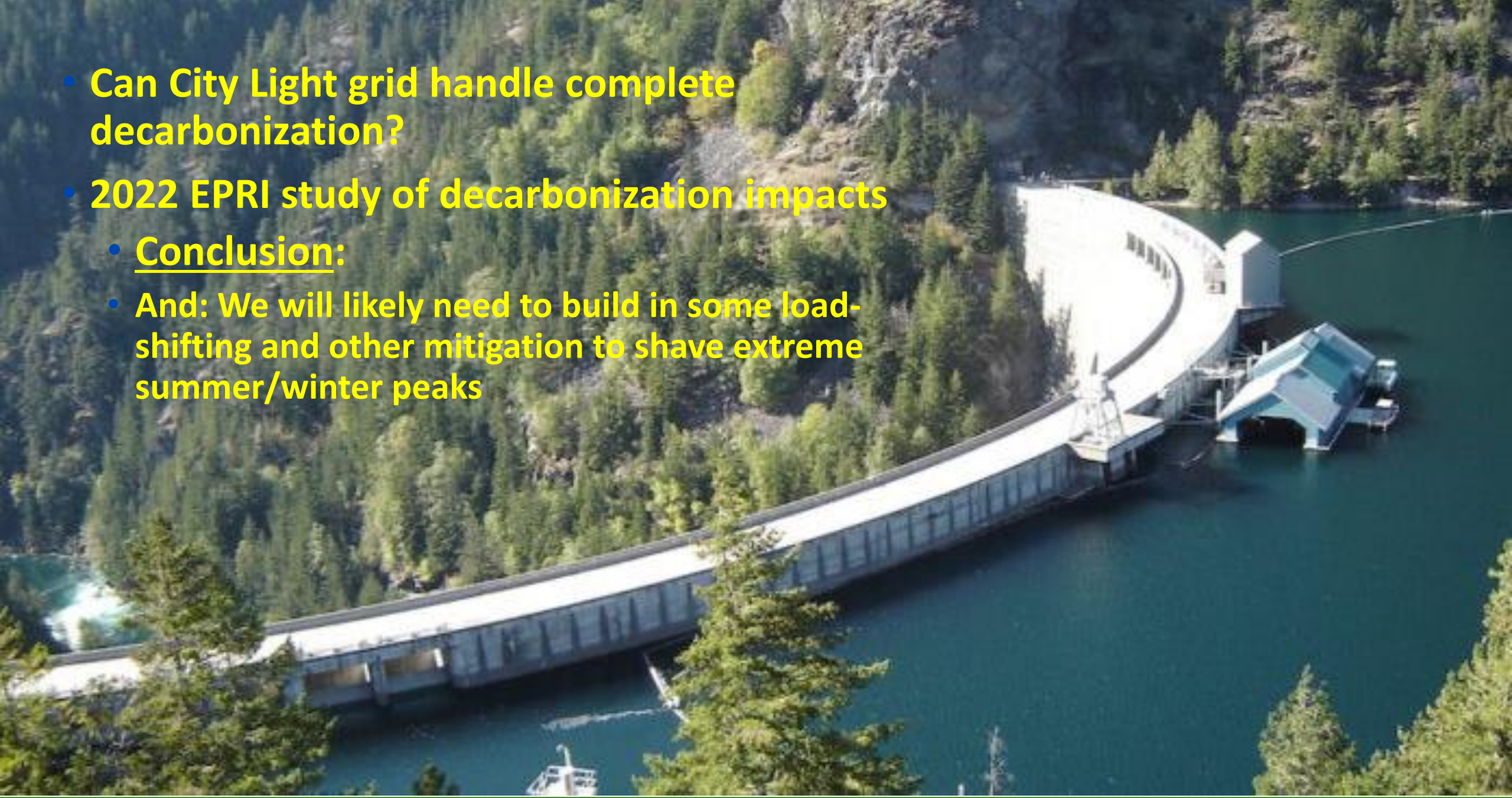


Takes a *lot* of credits to match HP efficiency

**Table C401.3.3
Additional Credits Required**

Occupancy group	R-1	R-2	B	E	M	All other
HVAC heating	7	24	101	38	111	56
Service water heating	198	212	27	17	79	107
Total credits	205	236	177	55	190	163

- Can City Light grid handle complete decarbonization?
- 2022 EPRI study of decarbonization impacts
 - Conclusion:
 - And: We will likely need to build in some load-shifting and other mitigation to shave extreme summer/winter peaks



“That which exists, must be possible”

How good is good enough?

Building Type	2018 SEC (guess)	2021 SEC target	Best local examples	2030 Target EUI?
High-rise office	38	33	37	25
Mid-rise office	34	31	16, 21	20
Mid-rise multifamily	32	28	17, 19	20
Elementary school	28	25	16, 18, 20	19
Warehouse	18	16		12



What’s the optimal balance of efficiency and renewables?

Long term: Where are we headed?

- How good is good enough?
 - Zero net energy?
 - Passive House?
- When can Seattle realistically get to carbon-neutral?

“That which exists must be possible”

- Best buildings locally
- Best buildings nationally
- Best buildings around the world






Health
Comfort
Environment
Durability
Quiet
Beauty

There's more to life than energy efficiency

Duane Jonlin, FAIA

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206-233-2781



Cities make it happen
everyone else can catch up later

Embodied Carbon

My thoughts about regulation:

- Apply only where big percentage of EC
- Reduced-carbon options must be available
- Low-carbon option is *significantly* better
- No compromise on safety or durability
- Easy for plan checkers & inspectors

So maybe that leaves:

- Concrete
 - But, slow curing speed
- Structural steel
 - But, just a different source?



Mass timber mandate?

- Medium-rise office & multifamily
- Structural frame, floor, roof systems
- (Is mass timber really zero-carbon?)

Focus on reducing construction costs

- **Very large boiler system**
- **Electrical service too small for new heat pump loads.**
- **Mechanical room too small for new equipment**

- Is existing system *way* oversized?
 - Can you shrink loads with insulation, low-flow showerheads, air sealing?
- Is existing electrical service capacity oversized?
- Can heat pumps sit outside or on roof?
 - Heat pumps with CO2 refrigerant work well down to 5°F