Sustainable Building Policy Update Recommendations

Northfield – EQC Meeting

Katie Jones, Community Program and Policy Manager

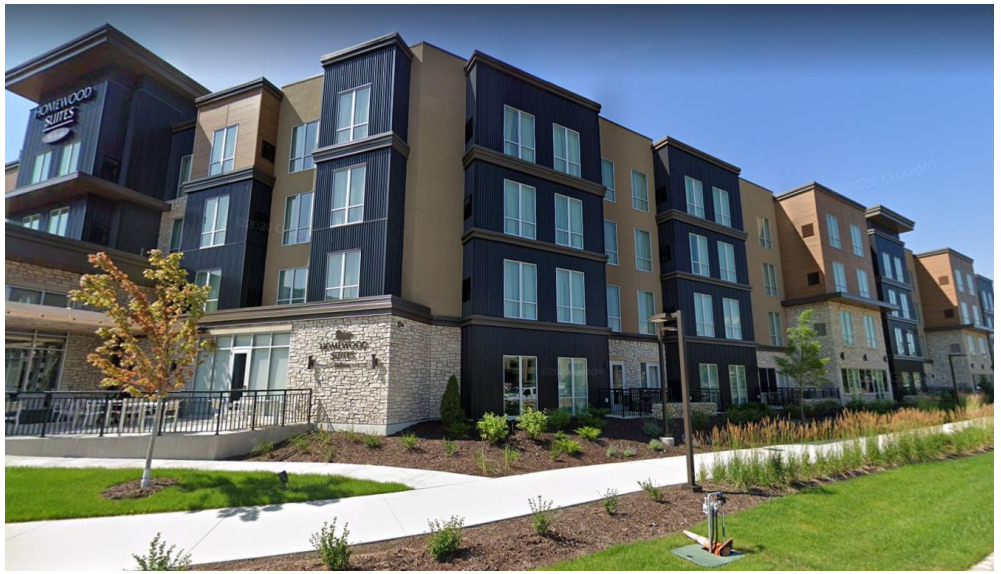
Center for Energy and Environment

Agenda

- Current policy
- Policy change recommendations

Which properties are impacted by the policy?

- New construction and renovations/additions of:
  - City of Northfield or HRA properties
  - Properties that the City or HRA are/will be sole tenant
  - Properties that receive financial assistance



Policy Trigger – Financial Incentive

- Amount
  - Tier 1: $150,000-$300,000 – prove unfeasibility
  - Tier 2: >$300,000 – required
- Type
  - Housing & Redevelopment Funds
  - Tax Increment Financing (TIF)
  - EDA – only grants and forgivable loans
  - Land write downs
  - Bonds
  - Tax abatement
  - Low-income housing tax credit
  - MIF
  - Conduit financing
  - All projects with state and federal funding requiring approvals by the City, Northfield EDA or HRA (i.e. ARP)

Sustainable Building Policy Components

Center for Energy and Environment

Rating System Options (Holistic Sustainability Criteria)

- B3
- LEED – minimum Silver
- Green Communities
- ParkSmart - minimum Silver
- Other rating systems as approved

Center for Energy and Environment

Northfield Green Requirements (NGR)

Required regardless of rating system selected

- Predicted Greenhouse Gas Emissions
- Energy Efficiency
- Renewable Energy

Center for Energy and Environment

Predicted Greenhouse Gas

- Calculated based on predicted energy use, as ascertained through the sustainability rating system modeling, using utility emissions factors and reported to the City in metric tons of CO2e

image: Freepik.com

Center for Energy and Environment

Energy Efficiency

- Meet SB 2030 Energy Standard through design and operation
- For 1-3-unit buildings, meet DOE's Zero Energy Ready Homes standard.

Center for Energy and Environment

Renewable Energy

- Evaluate 2% of on-site renewables
- Install if cost-effective within 15-year payback using SB 2030 methodology.

Center for Energy and Environment

Opportunities for Better Implementation

SBP Conflicts

Component	Requirement	Compliance Pathway
Third Party Green Rating System	Rating System	Green Communities or LEED
Northfield Green Requirements	Greenhouse Gas Emissions	Calculated from energy model
	Energy Efficiency	Both SB 2030 and ENERGY STAR/LEED points needed
	Renewable Energy	Credits can be earned for renewables

This conflict does not bring about significant valuable energy savings but does add significant complexity and cost.

Policy Conflict Example

Enterprise green communities℠

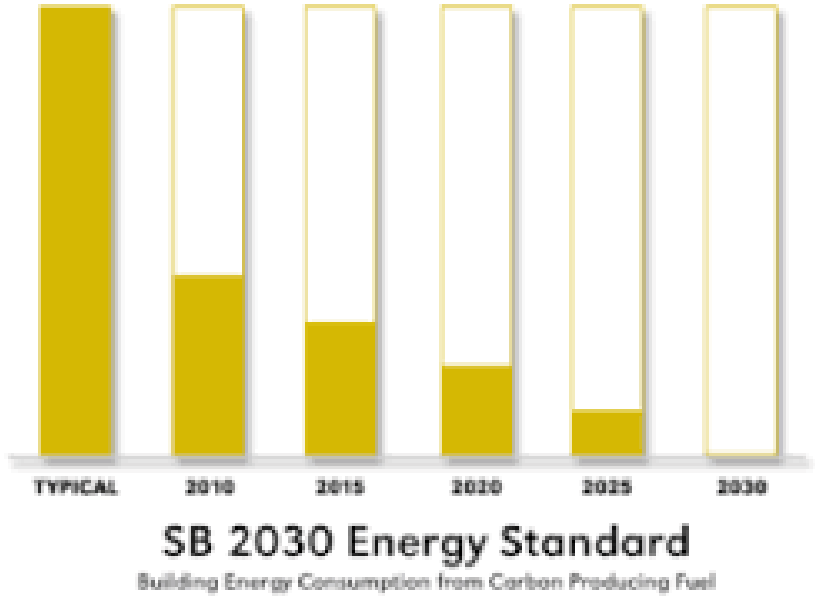
Green Communities components

- Integrative design
- Location + neighborhood fabric
- Site improvements
- Water conservation
- **Energy Efficiency → via ENERGY STAR**
- Materials
- Healthy Living Environment
- Operations, Maintenance, and Resident Engagement

MINNESOTA B3 SB 2030 ENERGY STANDARD

SB 2030 components

- **Energy Efficiency**
- Renewable Energy



Differences

- Model compares to code
- Typically results in buildings ~15% better than code

- Model compares to 2006 building
- 80% reduction in CO2e via prioritization of:
  1. Efficiency
  2. Onsite renewables
  3. Renewable energy credits

Issue: redundant modeling that brings no value to the project and adds costs, which is particularly an issue for an affordable housing development

Center for Energy and Environment

Policy Change Considerations

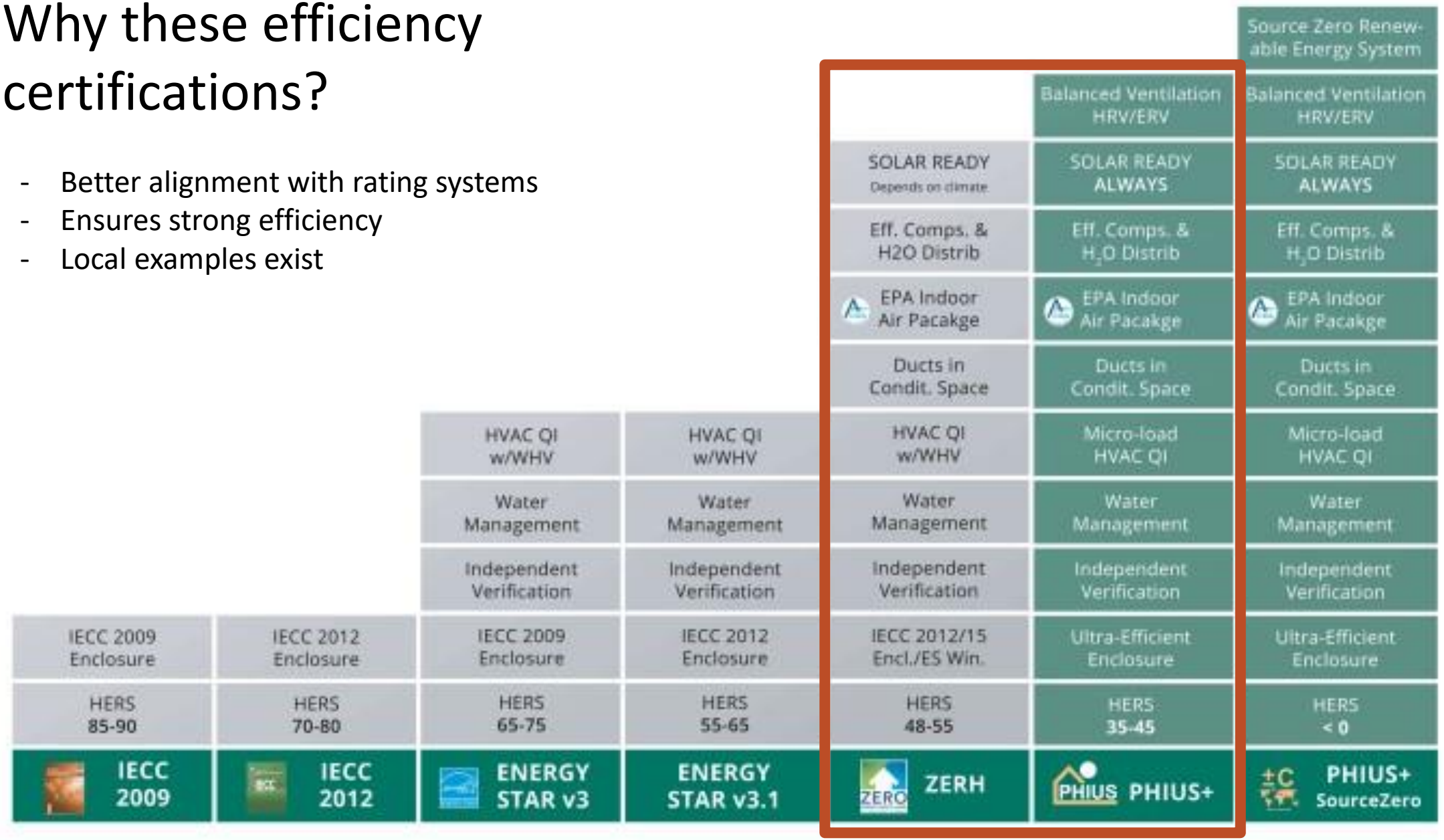
Update the Northfield Green Requirements

EXAMPLE: Required regardless of rating system selected

- Predicted Greenhouse Gas Emissions
- Renewable Energy
- Energy Efficiency
  - Commercial: Meet SB 2030 Energy Standard through design and operation with a payback period of 15 years*
  - Residential: ~~For 1-3-unit buildings,~~ For single and multifamily buildings meet DOE's Zero Energy Ready Homes standard or higher within the DOE's family of standards, PHIUS, or Passive House standard.

Why these efficiency certifications?

- Better alignment with rating systems
- Ensures strong efficiency
- Local examples exist



Northfield Passive Example – HillCrest Village

Center for Energy and Environment

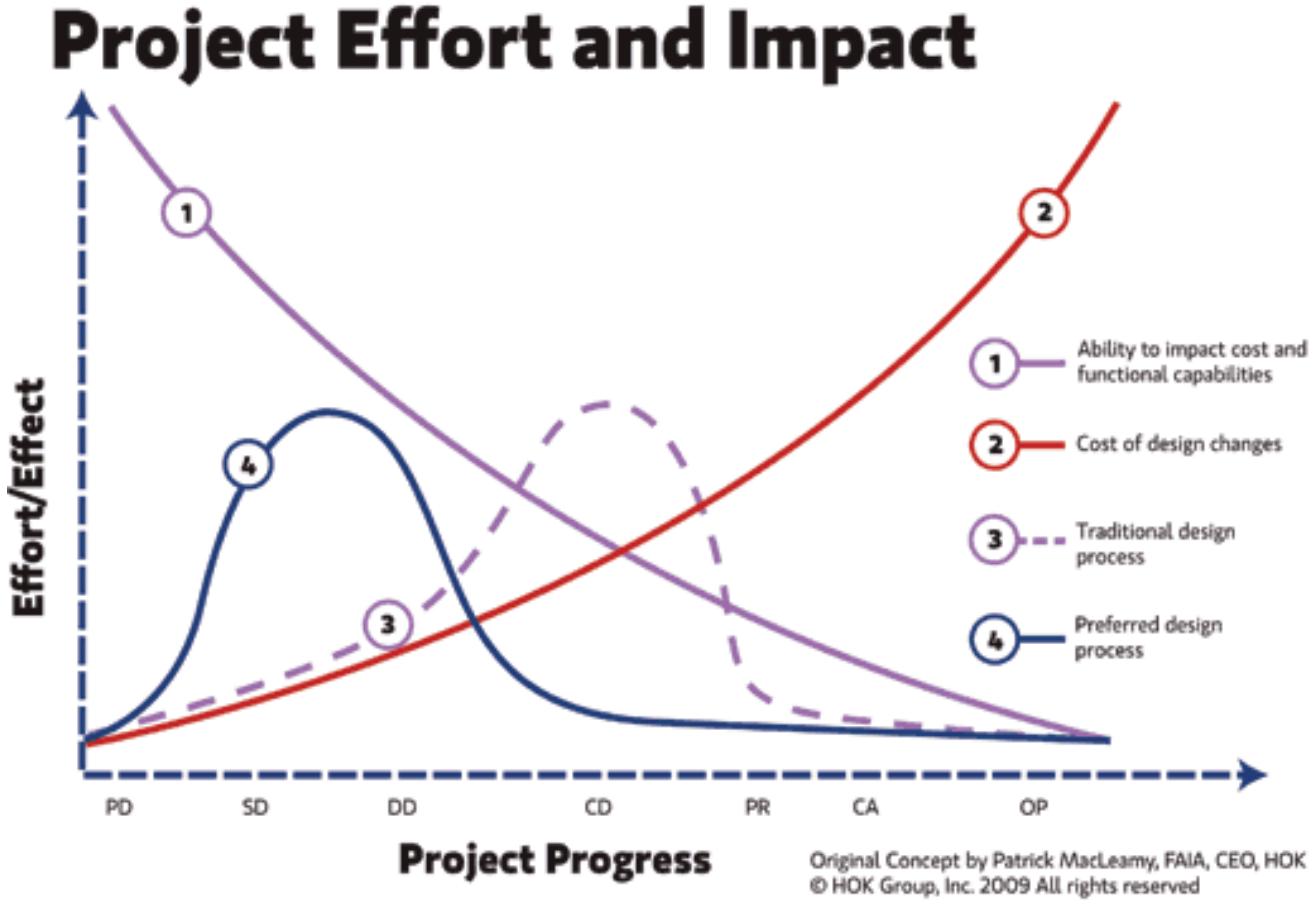
What about mixed use?

> 50% of sqft is multifamily, the project should follow the **residential** path

< 50% of sqft is multifamily, the project should follow the **commercial** path

Keys to the Policy's Success

- Incorporate sustainability **EARLY**
- Hear of a new development? Tell them about SBP!
- Is a project scoping out uses? Talk SBP now!



cee
Center for Energy and Environment

QUESTIONS

Center for Energy and Environment

THANK YOU!

Katie Jones
kjones@mncee.org

Center for Energy and Environment

GreenStar Attributes

- Hybrid LEED/B3 approach
  - Certain measures are required
  - Certain number of points must be reached through tallying optional measures
- Developed in northern climates
- Designed for residential
- Onsite and virtual verification options
- Accessible administration

Category comparisons

GreenStar	B3	LEED	Green Communities
Energy	Energy and Atmosphere	Energy	Operating Energy
Water	Site and Water	Water efficiency	Water
Health / IAQ	Indoor Environmental Quality	Healthy Living Environment	Healthy Living Environment
Operations (Points)	Performance Management	Operations & Maintenance	Operations, Maintenance, and Resident Engagement
Site (Points)	Site and Water	Sustainable Sites	Location and Neighborhood
Materials (Points)	Materials and Waste	Materials and Resource Use	Materials
			Integrative design

Levels

Thresholds

- Certified
- Silver – requires 20 pts
- Gold – requires 50 pts
- Platinum – requires 80 pts

Optional Badges

- Zero energy capable
- Zero energy ready
- Zero water capable
- Electrified living
- Healthier Home
- Accessibility
- Reduced Electromagnetic Frequency (EMF)
- Resilience
- Foam Free

Center for Energy and Environment

GreenStar Use

- City Sustainable Building Policies with GreenStar
  - St. Paul
    - Silver or higher certification
  - Rochester
    - Silver or higher certification
  - St. Louis Park
    - for Housing Improvement Fund $ only; for other funds LEED and B3 are the two options

Center for Energy and Environment