Building Efficiency Workgroup

Climate and Energy Finance and Policy

Feb. 9, 2021

DEPARTMENT OF
LABOR AND INDUSTRY

COMMERCE
DEPARTMENT

Workgroup purpose

- Improve energy efficiency in new commercial and large multi-family buildings.

- Meet municipal and state greenhouse gas reduction goals.

- Address climate change.

Workgroup members

Members	Organization	Nominated By/Representing
Commissioner Steve Kelley	Dept of Commerce	Dept of Commerce
Commissioner Nancy Leppink	Dept of Labor and Industry	Dept of Labor and Industry
Deputy Commissioner Rachel Robinson	Minnesota Housing Finance Agency	Minnesota Housing Finance Agency
Kelly Hyvonen	Big-D Construction	Associated Builder and Contractors of MN/ND
Justin Knopps	JE Dunn	Associated General Contractors of MN
Jessica Looman	MN State Building and Construction Trades Council	MN State Building and Construction Trades Council
Andy Snope	IBEW Local 292	MN State Building and Construction Trades Council
Gary Thaden	MN Mechanical Contractors Assn	Subcontractors
Gerhard Guth, AIA	HGA Architects and Engineers	AIA MN
Rick Carter, FAIA	LHB Corp	AIA MN
Craig Johnson	League of MN Cities	League of MN Cities
Kurt Schultz	City of St. Paul	Cities Advanced Building Performance Working Group
Brian Hoffman	City of St. Louis Park	Cities Advanced Building Performance Working Group
Megan Hoye	Center for Energy and Environment	Center for Energy and Environment
Ben Rabe	Fresh Energy	Fresh Energy
Skip Duchesneau	D.W. Jones	Multi-family housing
Pat Stockhaus	CommonBond Communities	Multi-family housing
Barry Greive	Target Properties	Commercial building owners
Becky Landon	Newport Midwest, LLC	Commercial building owners
Richard Graves, AIA	U of M Center for Sustainable Building Research	Expert
Senator Dave Senjem	MN Senate bill author	Legislature
Representative Jamie Long	MN House bill author	Legislature

Workgroup process

- Information gathering

- Evaluation
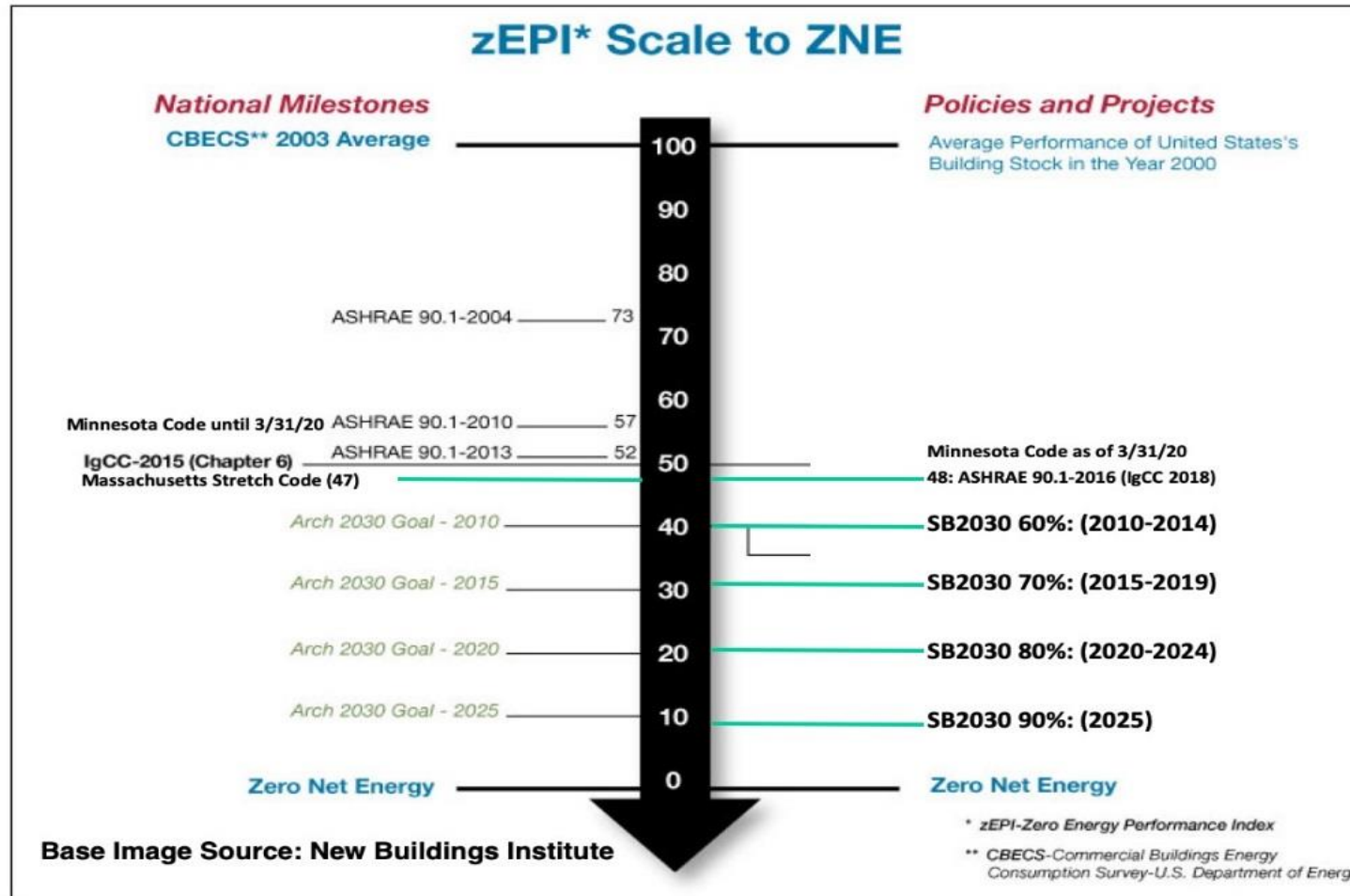
- Policy exploration

- Refinement

Policy options explored

- Incentives

- Benchmarking

- Energy codes

Key design criteria

- Minimize complexity.

- Maintain uniformity and predictability.

- Develop state and local capacity for successful implementation.

- Provide regulatory certainty with a clear and simple enforcement or compliance regime.

Zero Energy Performance Index

Voluntary option or stretch code

The charge of the Building Efficiency Workgroup was to examine policy solutions that would enable cities to voluntarily promote or otherwise ensure greater energy efficiency measures for commercial and large multi-family buildings.

Through the workgroup process, the departments concluded that improving building energy efficiency would have a greater energy savings impact if code improvements were adopted and enforced statewide in the base energy code.
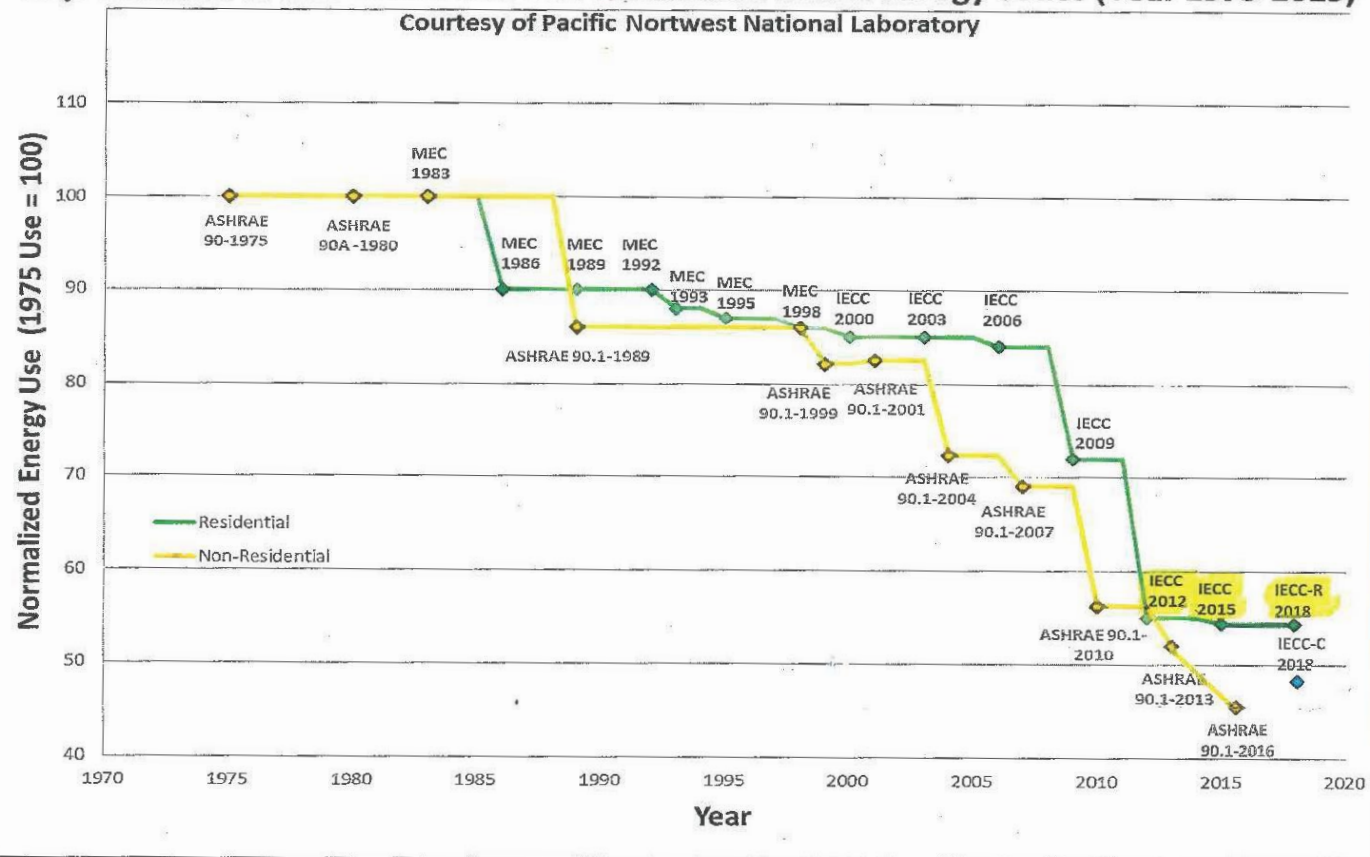
Statewide Model Codes

Model Codes Historic Savings — Pacific Northwest National Laboratory

Improvement in Residential and Non-Residential Model Energy Codes (Year 1975-2015)
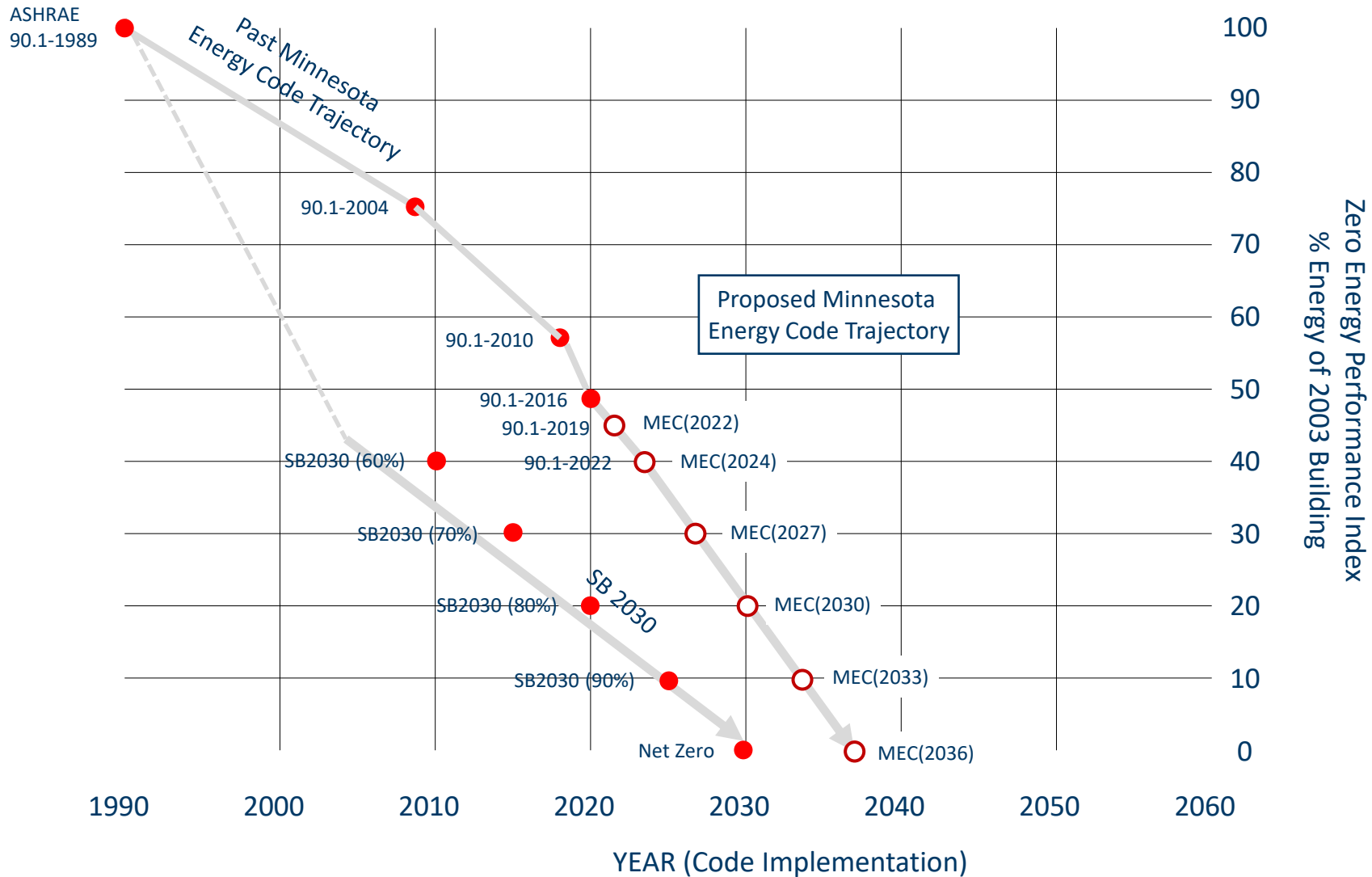Courtesy of Pacific Nortwest National Laboratory

Recommendation:
Statewide Commercial Energy Code improvements

- Institute an adoption framework for the statewide commercial building energy code that ensures all new commercial and large multi-family construction is net-zero by 2036.

- Aligns with the agency's statutory responsibility to adopt model commercial energy codes and consider amendments to the code to improve the efficiency of a building (Minn. Stat. 326B.106).

- Recommends adoption of a new model commercial energy code when it is issued every three years beginning with adoption of international ASHRAE standard 90.1-2019. DLI is beginning the rulemaking process now.

- Because the model code alone would likely be insufficient to achieve net zero by 2036, subsequent code adoptions would include an adjusted minimum percent efficiency or an equivalent set of enhancements to meet that goal.

Proposed Minnesota Energy Code trajectory

Based upon zEPI: Zero Performance Index for Energy Codes from the New Buildings Institute

Future research

- Education and training

- Provide efficiency resources

- Stakeholder engagement

- Pilot emerging building models

- Other building segments

- Incentives and benchmarking

- Examine state building code enforcement

Thank you