Challenges and Opportunities in the Midwest

May 2017
MEEA Policy Activities
Quarterly Update
Energy Efficiency Investment & Policies in the Midwest

- Pilot legislation adopted in MN in 1983
- Initial legislation adopted in IA in 1990
- CIP requirement adopted in MN in 1991
- Legislation updated in IA in 1996
- Public Benefit Fund adopted (electric & gas) in WI in 1999
- EERS legislation adopted (electric) in IL in 2007
- EERS legislation adopted (electric & gas) in MN in 2007
- EERS legislation adopted (electric & gas) in MI in 2008
- EE mandated by Executive Order (electric & gas) in IA in 2008
- EERS legislation adopted (gas) in IL in 2009
- EERS implemented by regulatory order in IN in 2009
- Voluntary EE standard legislation adopted (electric) in MO in 2009
- EERS implemented by regulatory order in WI in 2010
- EERS adjusted by legislation in WI in 2011
- EERS overturned by legislation in IN in 2014
- EERS ‘frozen’ by legislation in OH in 2014
- EERS freeze extension vetoed, EERS restored in OH in 2016
- EERS amended, PSC authority increased in MI in 2016
- EERS Updated by legislation in IL in 2016
Long term target

EERS recently rolled back

Energy Efficiency Resource Standards Mandated

Long term target

EERS recently rolled back
Efficiency Targets & Investment

Electric

Total Regional Elec Investment

2010: $795 million
2017: $1.46 billion

North Dakota
South Dakota
Nebraska
Kansas
Voluntary electric efficiency only

Iowa
Set on a utility basis; 1.2% elec current plans

Minnesota
1.5% elec by 2010

Wisconsin
No specific targets; 0.6% elec current est.

Michigan
1% elec by 2012

Indiana
Overturned 2014; Future legislation & funding uncertain

Ohio
“Freeze” over, but future policy uncertain

Kentucky
Voluntary electric efficiency only

Missouri
IRP process; Voluntary electric

Illinois
2% elec by 2015
Illinois
1.5% gas by 2017

Iowa
Set on a utility basis
0.85% gas
current plans

Wisconsin
No specific targets
0.5% gas current est.

Michigan
0.75% gas by 2012

Indiana
Voluntary gas efficiency only

Ohio
Voluntary gas efficiency only

Kentucky
Voluntary gas efficiency only

North Dakota
South Dakota
Nebraska
Kansas
Voluntary gas efficiency only

Iowa
Set on a utility basis
0.85% gas current plans

Missouri
Voluntary gas efficiency only

Total Regional Gas Investment
2010: $232 million
2017: $392 million

Minnesota
1.0% gas by 2010
(gas goal reduced by commission)

Michigan
0.75% gas by 2012

Indiana
Voluntary gas efficiency only

Ohio
Voluntary gas efficiency only

Kentucky
Voluntary gas efficiency only

Missouri
Voluntary gas efficiency only

Illinois
1.5% gas by 2017

North Dakota
South Dakota
Nebraska
Kansas
Voluntary gas efficiency only

Iowa
Set on a utility basis
0.85% gas current plans

Missouri
Voluntary gas efficiency only

Illinois
1.5% gas by 2017

Total Regional Gas Investment
2010: $232 million
2017: $392 million
Efficiency Targets & Investment

Electric & Natural Gas

**North Dakota**
Voluntary energy efficiency only

**South Dakota**

**Nebraska**
Voluntary energy efficiency only

**Kansas**

**Iowa**
Set on a utility basis
- 1.2% elec current plans
- 0.85% gas current plans

**Minnesota**
- 1.5% elec by 2010;
- 1.0% gas by 2010 (gas goal reduced by commission)

**Wisconsin**
No specific targets
- 0.6% elec current est.
- 0.5% gas current est.

**Michigan**
- 1% elec by 2012
- 0.75% gas by 2012

**Indiana**
Electric overturned 2014
Gas voluntary

**Ohio**
Electric “freeze over, but future policy uncertain.
Gas voluntary

**Kentucky**
Voluntary electric and gas

**Total Regional Investment**

- **2010:** $1.03 billion
- **2017:** $1.86 billion

**Missouri**
IRP process;
Voluntary electric

**Illinois**
- 2% elec by 2015
- 1.5% gas by 2017
Midwest Energy Savings through Utility Energy Efficiency

Electric - Million MWh Saved

Natural Gas - Million Therms Saved

Year

Electric - Million MWh Saved

Natural Gas - Million Therms Saved

- 0.7
- 3.4
- 0.0
- 1.0
- 2.0
- 3.0
- 4.0
- 5.0
- 6.0
- 7.0
- 8.0
- 9.0
- 10.0

- 1.0
- 2.0
- 3.0
- 4.0
- 5.0
- 6.0
- 7.0
- 8.0
- 9.0
- 10.0


166.6
7.5
Statewide Energy Efficiency Budget

Electricity

2017 Estimate Planned Budgets

*Includes interim period as program year shifts to calendar year starting 2018
**Statewide Energy Efficiency Budget**

**Natural Gas**

### 2017 Estimate Planned Budget

- **NE**: $0.0
- **ND**: $0.0
- **KS**: $0.0
- **KY**: $1.1
- **SD**: $1.3
- **MO**: $7.4
- **IN**: $13.0
- **WI**: $27.0
- **OH**: $32.3
- **MN**: $44.4
- **IA**: $61.5
- **MI**: $79.5
- **IL**: $124.9

*Includes interim period as program year shifts to calendar year starting 2018*
Statewide Energy Efficiency Budget

**Total Electricity & Natural Gas**

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<tr>
<th>State</th>
<th>2017 Estimate</th>
<th>Planned Budget</th>
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<tbody>
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*Includes interim period as program year shifts to calendar year starting 2018*
Energy Savings in Midwest States

Electricity

2017 Planned Savings Estimate

Million MWh Saved

KS  ND  SD  NE  KY  MO  WI  IA  IN  MN  MI  IL  OH

0.0  0.0  0.02  0.1  0.2  0.4  0.5  0.5  0.6  0.7  1.1  1.4  1.8
Energy Savings in Midwest States

Natural Gas

<table>
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<tr>
<th>State</th>
<th>Million Therms Saved</th>
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<td>NE</td>
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<td>MI</td>
<td>43.3</td>
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</tbody>
</table>

2017 Planned Savings Estimate

* Natural Gas savings data not available
State Energy Efficiency

Policy Update

• Indiana
  – Met with Governor Holcomb’s Director of Policy and with the IURC’s Chairman Atterholt and Commissioner Freeman
  – IRP/DSM Process Continues
    • IRP rules revised re: benefit-cost tests for DSM
    • DSM treated as selectable resource in utilities’ IRPs
    • MEEA submitted comments on Vectren, NIPSCO, and IPL IRPs

• Kansas
  – KCC continuing consideration of KCP&L DSM plan

• Minnesota
  – Department of Commerce Avoided T&D Cost Study
State Energy Efficiency

Policy Update

• Missouri
  – MO Public Service Commission issued a proposed rulemaking for MEEIA regulations. Hearing is May 4. MEEA submitted comments.
  – Emerging Regulatory Issues working case. Took comments on EVs, solar, rate design, AMI, and financing (on-bill and PACE). Hearing is May 18.

• Illinois
  – 4-year DSM plans due is June 30
  – ICC passed NextGrid resolution. MEEA submitted comments.
State Energy Efficiency
Policy Update

- Iowa ([MEEA’s IA Fact Sheet](#))
  - Final [Iowa State Energy plan](#) released on December 21, 2016
  - [2016 Energy Efficiency Annual Report](#)
    - Stakeholder meeting June 29 in Des Moines
Ohio (MEEA’s OH Fact Sheet)
- On Dec 27, Gov. Kasich vetoed HB 554, a bill that would have imposed an unenforced 1% annual savings target through 2018
- Similar bill, HB 114, which would freeze Ohio’s EERS at 1% through 2025 passed the House on March 23, 2017
  - Assigned to Senate Energy and Natural Resources Committee
- PUCO Power Forward Initiative
• **Michigan** *(MEEA’s MI Fact Sheet)*
  – Recently enacted energy package requires MPSC to initiate a process to establish modeling assumptions and scenarios utilities will need to incorporate into their integrated resource plans
    • PA 341 and PA 342 effective April 20, 2017
  – The MPSC formed several working groups to shape the eventual utility IRP filing process.
    • MEEA is participating in the EWR and DR Working Groups - **Next stakeholder meeting on May 24**
  – MEEA submitted comments related to energy efficiency potential study scenarios and sensitivities
The Economic Impacts of Energy Efficiency Investments in the Midwest

- 2014 energy efficiency programs are estimated to create...
  - Nearly 105,000 jobs,
  - Increase net regional income by almost $8.8 billion
  - Add over $13.7 billion of total value to the region’s economy
  - Generate about $23 billion in net sales

The Economic Impacts of Energy Efficiency Investments in Indiana

- 2014 energy efficiency programs are estimated to create...
  - Create over 6,200 jobs, increase net statewide
  - Income by more than $510 million
  - Add over $800 million of total value to the economy
  - Generate nearly $1.4 billion in net sales
MEEA Research

Economic Impacts of EE

- **The Economic Impacts of Energy Efficiency Investments in Michigan**
  - 2014 energy efficiency programs are estimated to create...
    - More than 15,200 jobs,
    - Increase net statewide income by almost $1.4 billion
    - Add nearly $2 billion of total value to the economy
    - Generate approximately $3.2 billion in net sales

- **The Economic Impacts of Energy Efficiency Investments in Ohio**
  - 2014 energy efficiency programs are estimated to create...
    - Over 14,000 jobs
    - Increase net statewide income by more than $1.2 billion
    - Add almost $1.9 billion of total value to the economy
    - Generate nearly $3.3 billion in net sales
Energy Efficiency Policies

**Issues Update**

- **Multifamily:**
  - Well-Suited Energy Efficiency: Tailoring Programs to Multifamily Buildings, released February 2017
  - Non-energy benefits factsheet
  - Meetings with commissioners in Missouri, Indiana, Illinois, Michigan (upcoming)
  - Michigan Low-Income Efficiency Collaborative
  - PACEmakers workshop held prior to MES

- **EM&V**
  - ICC Policy Session
  - MO EM&V 2.0 Roadmap
  - KY Power case and MEEA comments
MEEA Building Policy Activities

Codes and Benchmarking
Quarterly Update
Building Policy

Savings Associated with Code Update

• Residential
  – 2006 IECC to 2009 IECC – 14%
  – 2009 IECC to 2012 IECC – 24%
  – 2012 IECC to 2015 IECC – .8%
  – 2015 IECC to 2018 IECC – ??

• Commercial
  – 2006 IECC to 2009 IECC – 4.5%
  – 2009 IECC to 2012 IECC – 18.5%
  – 2012 IECC to 2015 IECC – 7.6%
  – 2015 IECC to 2018 IECC – ??
Nearly Completed:

- Michigan (90.1- 2007 to 2013 - Commercial)
- Wisconsin (2009 IECC to 2015 IECC - Commercial)
- Missouri – St. Louis County (2009 IECC to 2015 IECC - Residential & Commercial)

Early In Process:

- Indiana (ASHRAE 90.1 -2007 to ?? Commercial)
- Indiana (2009 IECC to ?? Residential)
- Iowa (2012 IECC to 2018 IECC - Residential & Commercial)
- Ohio (2009 IECC to 2015 IECC - Residential)
Midwest Energy Code Adoption
Residential Code Update

As of May 2017

Code Level / Equivalence
- No mandatory code
- 2009 IECC
- Enhanced 2009 IECC
- 2012 IECC
- 2015 IECC

*Stripes indicate code update in progress
• **Michigan**
  - The proposed 2015 Michigan Commercial Energy Code, based on ASHRAE 90.1-2013 is currently being reviewed by JCAR. Once approved, the rules will be filed with the Secretary of State and go into effect 120 days after. *Anticipated effective date is fall 2017.*

• **Wisconsin**
  - MEEA testified at a DSPS public hearing on February 2 in support of adopting the unamended 2015 IECC for commercial buildings. *The proposed code* includes several weakening amendments which will reduce its level of efficiency and cost-effectiveness.
  - The DSPS is currently considering comments and will send a final set of rules to various legislative committees and governor for approval. *Anticipated to be effective late summer or early fall 2017.*
St. Louis County, Missouri

- MEEA testified at the Building Commission hearing on February 8, 2017. Despite opposition from an overwhelming majority of attendees, the commission voted unanimously to approve the proposed building code.

- The rules now go to the St. Louis County Council for final approval. The council has yet to set a date to review the rules.
Minnesota

- Bills [HF 1001](#) and [SF 745](#) require legislative oversight for residential code adoption for changes over $1,000. The bill only factors in the costs—not the benefits—of each rule and adds an additional hurdle to updating future state energy codes.
  - *Bill is currently in conference committee for two different omnibus bills and moving as a standalone bill.*

Iowa

- [SF 388](#) was introduced February 2017 and would have allowed municipalities to use the 2009 IECC to comply with state energy code requirements for residential buildings, instead of the stronger statewide energy code, the 2012 IECC. *On Friday, March 31, SF 388 was sent back its original committee of reference, which effectively killed the bill this legislative session.*
Building Policy

Code Compliance Update

- Managing Kentucky Energy Code Compliance study for the U.S. Department of Energy
  - Phase 3 (post-study survey) will start May 22
  - In-person trainings are completed. 28 full-day trainings/424 attendees
  - The Circuit Rider will continue through September

- Managing Missouri Residential Energy Code Compliance Study
  - Energy use (kWh) analysis has been completed. Over $3 million in annual savings from improved compliance
  - A preliminary demand (kW) analysis has also been completed showing 5.5 MW – 7.5 MW in potential savings
Building Policy

Code Compliance Update

• Research on Potential Energy Savings
  – Right Sizing HVAC Equipment and Properly Designing Ducts in KY (ongoing)
  – Right Sizing HVAC Equipment in MO (ongoing)

• Compliance Collaboratives (next meeting)
  – Nebraska (June), and Kentucky (June)

• Baseline Studies
  – NE Residential Study
  – Commercial Baseline Study
  – Draft of DOE KY Phase 1 Report under review
  – Possible Residential Study in MN
Current Status of Midwest States

Local Energy Data and Benchmarking Legislation

Public and Private Commercial Building Benchmarking Ordinance

- Mandatory Program
  - Minneapolis, MN
  - Chicago, IL
  - Evanston, IL
  - Kansas City, MO
  - St. Louis, MO

- Voluntary Program
  - Columbus, OH
  - Grand Rapids, MI
  - Madison, WI

The Trusted Source on Energy Efficiency

MEEA
Midwest Energy Efficiency Alliance
Building Policy
Benchmarking Update

- **Evanston** – ordinance passed
  - December 12, 2016
  - City-owned buildings and buildings over 20,000 square feet (besides small condos)

- **St. Louis, MO** – ordinance passed
  - January 30, 2016
  - City-owned buildings and privately-owned buildings 50,000 sq.ft. and larger

- **Kansas City** – reporting requirement
  - Multifamily residential of at least 100,000 sq.ft. must submit their data by May 1, 2017

- **Lincoln, NE** – City Buildings Data Jam
  - May 2017
Thank You!