



The Climate Registry

# NEER

NATIONAL ENERGY  
EFFICIENCY REGISTRY

## **Webinar for Michigan Stakeholders**

**March 21, 2017**

**9:15 am - 10:00 am EST**

**(213) 929-4221**

**(Toll-free): (866) 952-8437**

# Webinar Logistics

## → To ask questions:

- Use the question box on your GoToWebinar control panel and your question will be read aloud

OR

- Raise your hand and we will un-mute you to ask your question

## → A copy of the slides and a recording of the webinar will be distributed to working group





## Michigan Agency for Energy

National Energy Efficiency Registry Michigan Stakeholder Webinar  
March 21, 2017

# NEER Project Partners

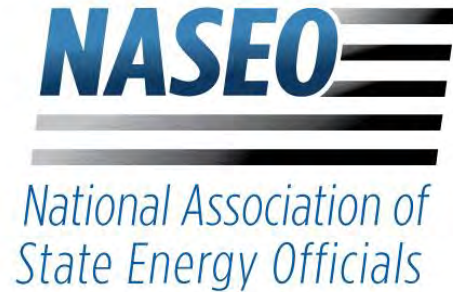


# Operating Rules & Roadmap Project

- Supporting project partners:



The Climate Registry



- Additional project support provided by:



# Webinar Objectives

---

- Explore National Energy Efficiency Registry (NEER) benefits
- Discuss its potential applications and utility in Michigan
- Obtain stakeholder feedback



The Climate Registry

# NEER

NATIONAL ENERGY  
EFFICIENCY REGISTRY

**Michelle Zilinskas**  
**Verification Associate**  
**The Climate Registry**



# About the NEER

- **Central repository allowing the public and private sectors to transparently track attributes associated with energy waste reduction initiatives**
- **Policy neutral**
- **Built on best practice**
  - **Registry design**
  - **Accounting and reporting protocols**
- **Will help states demonstrate progress towards energy goals and potential compliance with existing and future regulation**
- **Will be able to track energy waste reduction and other types of efforts**



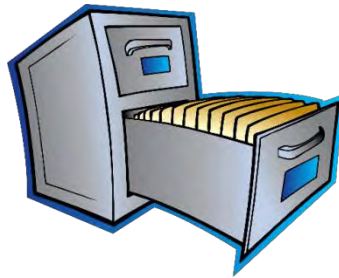


The Climate Registry

# NEER = Tool (Not a Policy)

## → NEER will be a software platform

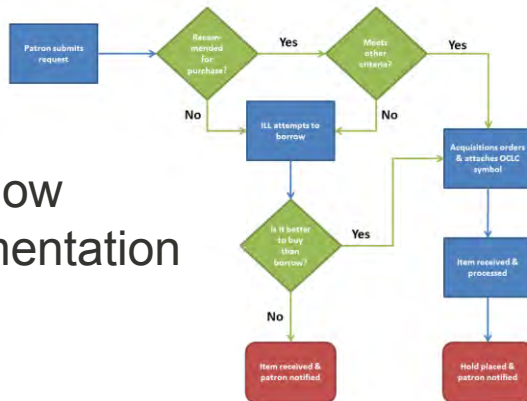
Document management



Transaction accounting



Workflow documentation



2012-12-14 08:39:30											Number of records: 20	
Total number of active orders when library is closed successfully											Count	Count
2012-12-14 08:39:30											Number of records: 207	
Order ID	Patron	Title	Percent received	Distribution Successful	Distribution Failed	Distribution Incomplete #	In Distribution Scope	Collection ID	Type	Information		
2526073		Update for Windows Server 2008 R2 x64 Edition (93200970)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93200970		
2574919		Update for Windows Server 2008 R2 x64 Edition (93207461)	100	11	0	0	11	SP50003	Microsoft Update	http://www.microsoft.com/updates/93207461		
2602485		Update for Windows Server 2008 R2 x64 Edition (93208291)	100	11	0	0	11	SP50002	Microsoft Update	http://www.microsoft.com/updates/93208291		
2566460		Update for Microsoft Office 2007 x64 (93259660)	100	2	0	0	2	SP50003	Microsoft Update	http://www.microsoft.com/updates/93259660		
2409684		Update for Microsoft Office 2007 x64 (93259649)	100	12	0	0	12	SP50004	Microsoft Update	http://www.microsoft.com/updates/93259649		
2602229		Update for Windows Server 2008 R2 x64 Edition (93203229)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93203229		
2642524		Update for Windows Server 2008 (93264252)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/93264252		
2409171		Update for Internet Explorer Framework version 1.1 for Windows Server 2008 R2 x64 Edition (93260611)	100	17	0	0	17	SP50002	Microsoft Update	http://www.microsoft.com/updates/93260611		
2409182		Update for User Mode Driver Framework version 1.1 for Windows Server 2008 R2 x64 Edition (93260612)	100	17	0	0	17	SP50004	Microsoft Update	http://www.microsoft.com/updates/93260612		
2409184		Update for the .NET Framework 3.5 SP1 (93260614)	100	2	0	0	2	SP50004	Microsoft Update	http://www.microsoft.com/updates/93260614		
2209982		Update for Windows Server 2008 R2 x64 Edition (93270998)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270998		
2219975		Update for Windows Server 2008 R2 x64 Edition (93270975)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270975		
2212058		Update for Windows Server 2008 R2 x64 Edition (93272058)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93272058		
2219985		Update for Windows Server 2008 R2 x64 Edition (93270985)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270985		
2219986		Update for Windows Server 2008 R2 x64 Edition (93270986)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270986		
2219987		Update for Windows Server 2008 R2 x64 Edition (93270987)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270987		
2219988		Update for Windows Server 2008 R2 x64 Edition (93270988)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270988		
2219989		Update for Windows Server 2008 R2 x64 Edition (93270989)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270989		
2219990		Update for Windows Server 2008 R2 x64 Edition (93270990)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270990		
2219991		Update for Windows Server 2008 R2 x64 Edition (93270991)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270991		
2219992		Update for Windows Server 2008 R2 x64 Edition (93270992)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270992		
2219993		Update for Windows Server 2008 R2 x64 Edition (93270993)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270993		
2219994		Update for Windows Server 2008 R2 x64 Edition (93270994)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270994		
2219995		Update for Windows Server 2008 R2 x64 Edition (93270995)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270995		
2219996		Update for Windows Server 2008 R2 x64 Edition (93270996)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270996		
2219997		Update for Windows Server 2008 R2 x64 Edition (93270997)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270997		
2219998		Update for Windows Server 2008 R2 x64 Edition (93270998)	100	7	0	0	7	SP50003	Microsoft Update	http://www.microsoft.com/updates/93270998		
2219999		Update for Windows Server 2008 R2 x64 Edition (93270999)	100	7	0	0	7	SP50004	Microsoft Update	http://www.microsoft.com/updates/93270999		
932079		Update for Windows Server 2008 R2 x64 Edition (932079)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932079		
932080		Update for Windows Server 2008 R2 x64 Edition (932080)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932080		
932081		Update for Windows Server 2008 R2 x64 Edition (932081)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932081		
932082		Update for Windows Server 2008 R2 x64 Edition (932082)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932082		
932083		Update for Windows Server 2008 R2 x64 Edition (932083)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932083		
932084		Update for Windows Server 2008 R2 x64 Edition (932084)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932084		
932085		Update for Windows Server 2008 R2 x64 Edition (932085)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932085		
932086		Update for Windows Server 2008 R2 x64 Edition (932086)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932086		
932087		Update for Windows Server 2008 R2 x64 Edition (932087)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932087		
932088		Update for Windows Server 2008 R2 x64 Edition (932088)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932088		
932089		Update for Windows Server 2008 R2 x64 Edition (932089)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932089		
932090		Update for Windows Server 2008 R2 x64 Edition (932090)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932090		
932091		Update for Windows Server 2008 R2 x64 Edition (932091)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932091		
932092		Update for Windows Server 2008 R2 x64 Edition (932092)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932092		
932093		Update for Windows Server 2008 R2 x64 Edition (932093)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932093		
932094		Update for Windows Server 2008 R2 x64 Edition (932094)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932094		
932095		Update for Windows Server 2008 R2 x64 Edition (932095)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932095		
932096		Update for Windows Server 2008 R2 x64 Edition (932096)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932096		
932097		Update for Windows Server 2008 R2 x64 Edition (932097)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932097		
932098		Update for Windows Server 2008 R2 x64 Edition (932098)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932098		
932099		Update for Windows Server 2008 R2 x64 Edition (932099)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932099		
932100		Update for Windows Server 2008 R2 x64 Edition (932100)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932100		
932101		Update for Windows Server 2008 R2 x64 Edition (932101)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932101		
932102		Update for Windows Server 2008 R2 x64 Edition (932102)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932102		
932103		Update for Windows Server 2008 R2 x64 Edition (932103)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932103		
932104		Update for Windows Server 2008 R2 x64 Edition (932104)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932104		
932105		Update for Windows Server 2008 R2 x64 Edition (932105)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932105		
932106		Update for Windows Server 2008 R2 x64 Edition (932106)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932106		
932107		Update for Windows Server 2008 R2 x64 Edition (932107)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932107		
932108		Update for Windows Server 2008 R2 x64 Edition (932108)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932108		
932109		Update for Windows Server 2008 R2 x64 Edition (932109)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932109		
932110		Update for Windows Server 2008 R2 x64 Edition (932110)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932110		
932111		Update for Windows Server 2008 R2 x64 Edition (932111)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932111		
932112		Update for Windows Server 2008 R2 x64 Edition (932112)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932112		
932113		Update for Windows Server 2008 R2 x64 Edition (932113)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932113		
932114		Update for Windows Server 2008 R2 x64 Edition (932114)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932114		
932115		Update for Windows Server 2008 R2 x64 Edition (932115)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932115		
932116		Update for Windows Server 2008 R2 x64 Edition (932116)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932116		
932117		Update for Windows Server 2008 R2 x64 Edition (932117)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932117		
932118		Update for Windows Server 2008 R2 x64 Edition (932118)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932118		
932119		Update for Windows Server 2008 R2 x64 Edition (932119)	100	1	0	0	1	SP50003	Microsoft Update	http://www.microsoft.com/updates/932119		
932120		Update for Windows Server 2008 R2 x64 Edition (932120)	100	1	0	0	1	SP50004	Microsoft Update	http://www.microsoft.com/updates/932120		

Compliance Reporting



The Climate Registry

# NEER DEVELOPMENT PROCESS



The Climate Registry

# NEER Development Elements

Principles and  
operating rules +  
roadmap for states

Sector-specific  
protocol database for  
states and programs



Software functional  
requirements

Software launch and  
administration



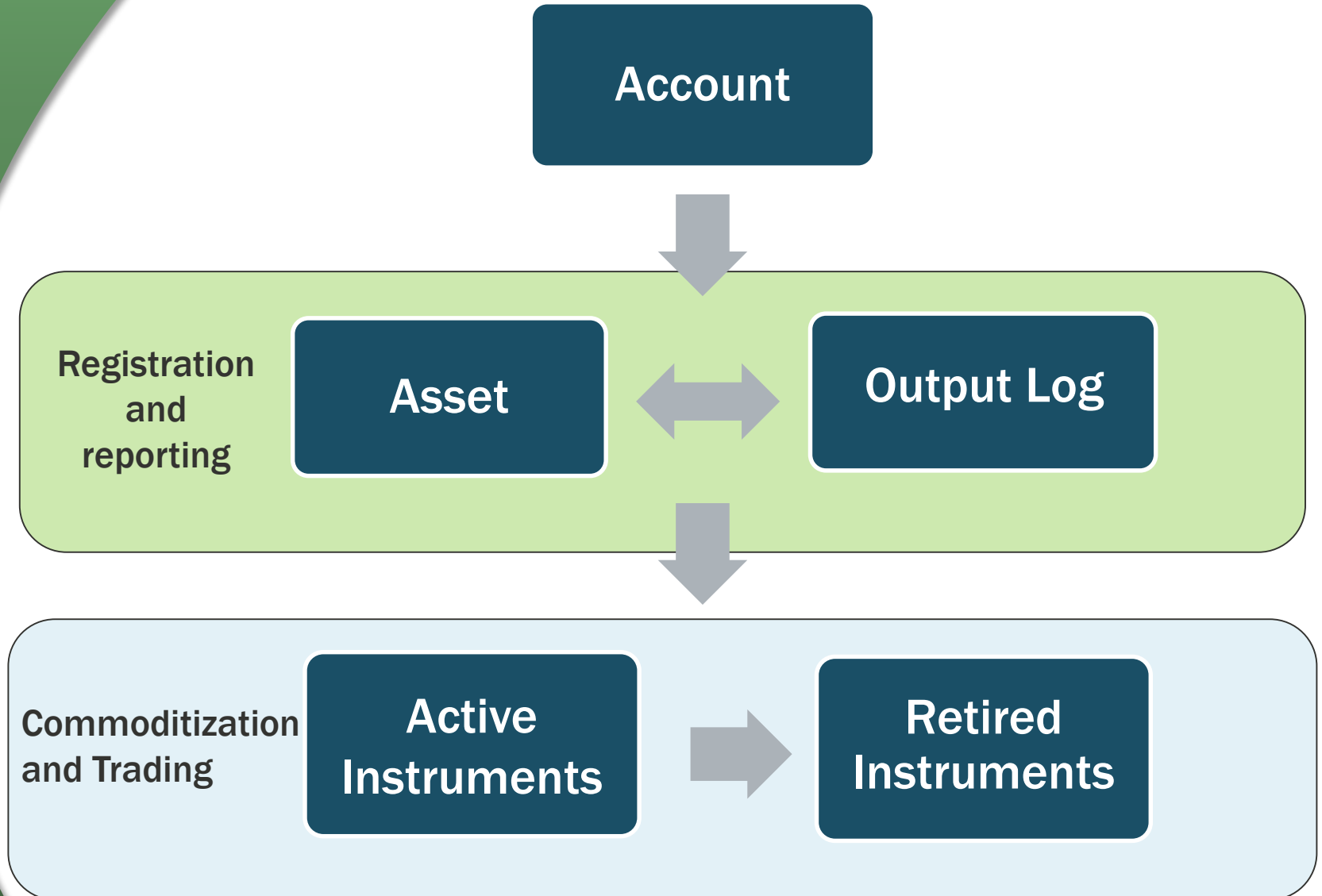
The Climate Registry

# NEER

NATIONAL ENERGY  
EFFICIENCY REGISTRY

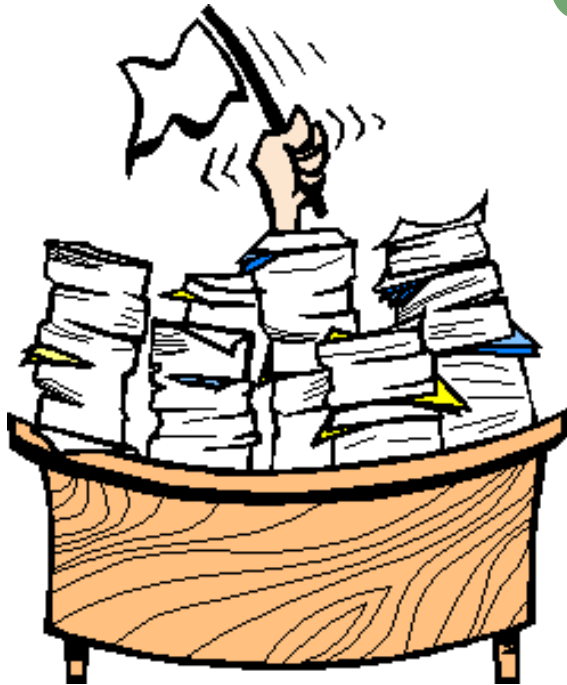
**Pat Stanton**  
**Director of National Policy**  
**E4TheFuture**

# NEER Account Structure





# Energy Waste Reduction Registration & Reporting is **COMPLICATED**



- Inspection of installation
- Prove ownership
- Prove no double counting
- EM&V Plans
- EM&V Studies
- Technical Reference  
Manuals
- Third Party Verification



# NEER QA/QC Framework Registration & Reporting

- **Who** is authorized to submit, review and approve different documents
- **What** documents need to be submitted
- **Where** documents are archived
- **When** have all the steps been completed and all parties agree the quantity savings number is acceptable

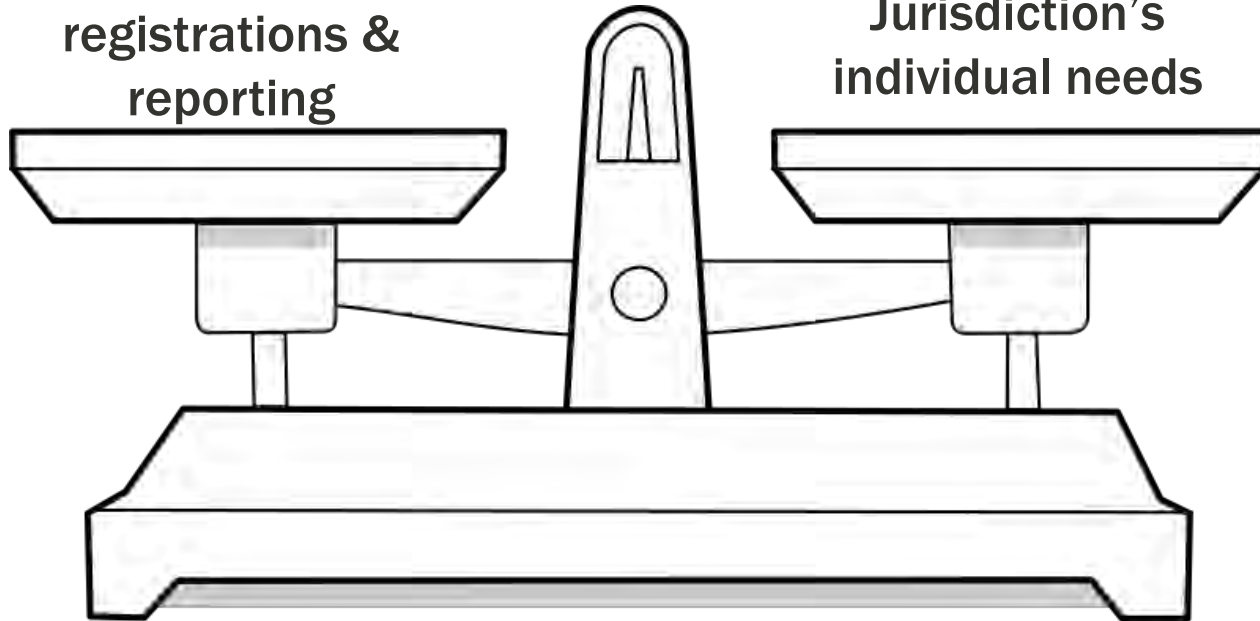


The Climate Registry

# NEER Value Added: a Digital Platform

**“Off the Shelf”  
standard elements of  
Energy Waste  
Reduction Project  
registrations &  
reporting**

**Customization to  
meet a  
Jurisdiction’s  
individual needs**







# QA/QC Protocol Options

## **“Off the Shelf”**

- NEER Basic: minimum standard designed to support voluntary disclosure**
- NEER Enhanced: designed to support regulatory quality evaluation, measurement and verification**

## **Customized**

- Specific Compliance/Certification Program (SCCP): fully customizable requirements**



# Defining SCCP Program Requirements

## → Options for setting up a customized QA/QC Protocol in the NEER

- A.** Adopt NEER Basic or Enhanced
- B.** Use Basic or Enhanced as a starting point for customization such as reference an existing state-specific EM&V approach
- C.** Start from scratch





The Climate Registry

# How NEER Could Work in MI

**PA342**

**Energy Waste  
Reduction**

**MWh**

**NEER**

**Avoided Electric Energy**

**MWh**



# PA342 Requirements

## NEER Functionality

**Energy waste reduction plan shall be filed with and approved by the commission**

**→ NEER Asset Registration with MI specific QA/QC requirements**

**Energy waste reduction savings**

**→ NEER Asset Output Log**

**Energy waste reduction credits**

**→ NEER Certificates**



The Climate Registry

# QUESTIONS AND DISCUSSION



# Registration and Reporting

## Poll Question #1: Cost/Payment Structure

What type of cost structure would your organization like to see for an energy waste reduction credit certification and tracking program, such as NEER, in Michigan?

- A.** Fee per MWh
- B.** Fix Fee per program,
- C.** Fix Fee for Registration and volume fee for Reporting
- D.** Other



# Information Confidentiality NEER Proposal

- Client Jurisdictions may request compliance reports to be publicly available
- Business Confidential Information will include
  - Asset Output of each Asset
  - The amount and timing of the specific Instrument transfers from one NEER-AH to another





# Information Confidentiality NEER Proposal

## Poll Question #2

→ Would the proposed definition of business confidential information address your organization's confidentiality concerns about participating in NEER?

A. Yes

B. No

C. Unsure





# Verification of Energy Waste Reduction

## Poll Question #3:

- How would your organization view a third party verification requirement?
- A. No problem
  - B. Potentially problematic
  - C. Prohibitive



# Interoperability

- PA342 requires a method for ensuring that each energy waste reduction credit substituted for a REC is properly accounted for
- National Renewable Energy Facility (NREF) supports imports and exports between registries
  - Process includes continuous automated reconciliation – limited operational support needed
  - Transferred must be approved by recipient before it becomes final
  - Each registry has different rules for what can be imported and what data has to be transferred





# NEER Development: Next Steps

- **Public comment period**
  - **April 2017 – May 2017**
- **Roadmap for State Adoption**
  - **September 2017**
- **Key functional platform requirements**
  - **October 2017**
- **Questions?**
  - **Email [rcassutt@theclimateregistry.org](mailto:rcassutt@theclimateregistry.org)**



The Climate Registry

# QUESTIONS AND DISCUSSION



The Climate Registry

# Thank you

***Acknowledgement:*** This material is based upon work supported by the Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE), under Award Number DE-EE0007219, CFDA No. 81.119.