

# The Economic Impact of the Consumers Energy Energy Waste Reduction Programs

2009 – 2020

Presented to the MPSC EWR Collaborative

February 15, 2022

Joe Forcillo

Sarah Monohon

Lisa Perry

Consumers Energy

Count on Us®



# Agenda

---

- Overview of study objectives, background, and high-level findings
- How EWR programs support Michigan's economy
- Details of study methodology and the model
- Detailed results on economic benefits from programs during 2009-2020

# Overview

- Study commissioned by Consumers Energy **to better understand and quantify** EWR program-related economic impacts and how they occur
- Conducted by three national consulting firms with significant experience in Michigan - Evergreen Economics, TRC, and The Cadmus Group
- Used the widely-respected IMPLAN macroeconomic economic model



# High Level Findings

- Finds that these EWR programs have from 2009 through 2020 **positively and significantly benefited the broader Michigan economy**
- Consumers Energy's Energy Waste Reduction (EWR) programs have created, in collaboration with customers, trade allies, the MPSC, and many others, the following substantial benefits for Michigan **above and beyond** what would have occurred in the absence of programs:



**\$4.0 Billion**

in NET economic  
growth



**7,500 Jobs**

created or saved in 2020 alone

# How Energy Waste Reduction Affects the Broader Economy

# Energy Waste Reduction and Economic Growth

- EWR programs make it easier for customers to make efficient choices
- Consumers Energy provides rebates, analysis, and technical support that reduce barriers to adoption of energy-efficient products. Some of these include:

A blue icon of a house with a chimney and a window.

## Residential

- **Appliances:** Washers/dryers, refrigerators, pool pumps, etc.
- **Lighting:** LED products
- **HVAC & Water:** Furnaces, air conditioners, and water heating
- **Home weatherization:** Insulation and windows

A blue icon of a factory with smokestacks.

## Business

**Small business programs** provide free installation of efficient equipment in smaller businesses

**Large-business programs** support local contractors who provide discounts on a wide range of equipment

**Custom programs** provide unique solutions for our manufacturing customers

# How EWR Impacts the Economy

Energy Waste Reduction (EWR) programs help customers save energy and money. Those energy savings put dollars back into **growing Michigan's economy in several ways and begins with EWR program participating customers:**



**870,000 Residential Customers Served**

Residential customers save on energy bills and spend that money locally in the community.



**109,000 Business Customers Served**

Business customers' lower energy bills allow them to be more competitive and expand their businesses.

# How EWR Impacts the Economy

Investing in EWR creates benefits that stay in the Michigan economy



EWR keeps money in **Michigan** that would otherwise go to out-of-state coal and gas companies

The 20,967 GWh saved **to date** through energy efficiency would **power 2.7 million homes** and 111,616 MMCF saved would **heat 1.1 million homes** for a year

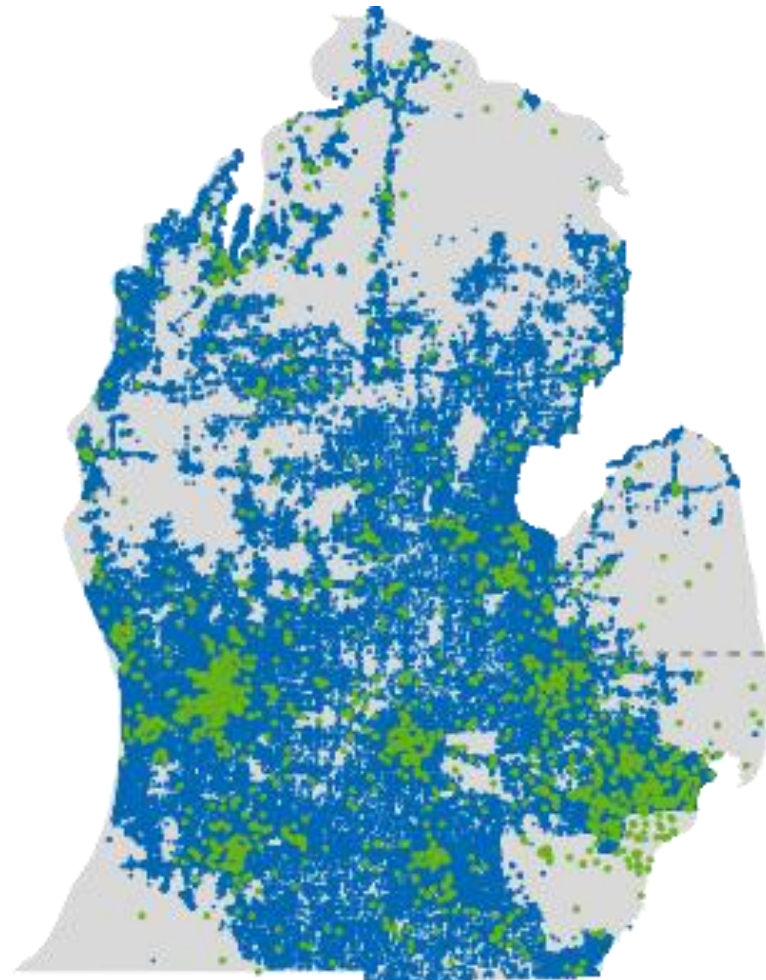


# How EWR Impacts the Economy

## EWR helps Michigan businesses, contractors, and builders

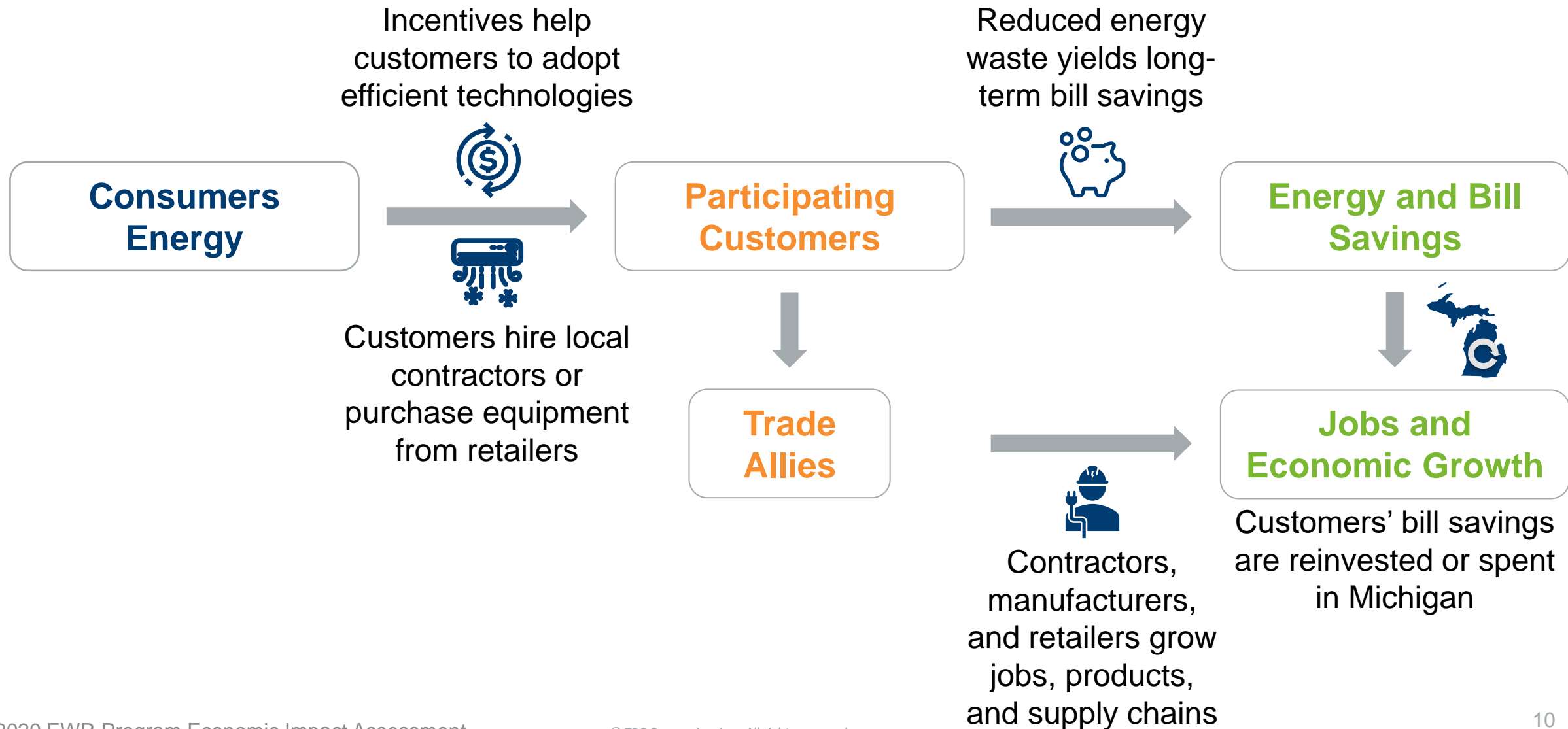
Consumers Energy programs increase the sales of **Michigan businesses, contractors and builders** who improve the efficiency of our customers' homes and businesses

This support allows these businesses to increase local investment and hire new employees



*These programs have benefited **customers** and **contractors** located throughout our service territory*

# How EWR Impacts the Economy



# Modelling EWR Program Economic Impacts

- IMPLAN: Impact Analysis for Planning v3.0
- Steps to Economic Impact Analysis
- Economic Model of EWR Program Impacts

# IMPLAN: Impact Analysis for Planning v3.0

- Widely used and well respected for predicting regional economic impacts
  - It has been used by public and private institutions like Michigan State University, the National Park Service, the Mayo Clinic, and Amazon
- Simulates economic impacts of different scenarios based on actual historical economic data
- Uses region-specific data for 536 different industry sectors, households and government institutions
  - These details permit accurate mapping of program spending and energy savings to industry and household sectors in the IMPLAN model

# Steps to Economic Impact Analysis

This study modeled economic impacts of EWR programs through 2 main sources:



**Spending** on efficient equipment, installation, and program administration by Consumers Energy and customers stimulates economic activity



Energy **bill savings** increase customers' incomes and decrease the amount of dollars Consumers Energy spends on out-of-state energy sources

# Steps to Economic Impact Analysis

IMPLAN models 3 types of effects:



**Direct effects** are driven by program spending and represent production changes brought by increases in final demand

- Example: customer purchase of efficient HVAC system



**Indirect effects** result from changes in the demand for the main goods and services necessary for operation of any given program

- Example: Trucks and vehicles used by electricians and HVAC contractors to meet demand created by EWR program incentives



**Induced effects** result from households and workers spending newfound money, either from energy bill savings or labor income

- Example: A program participant may spend his or her energy bill savings on kids' school supplies

# Steps to Economic Impact Analysis

The model is used to calculate the incremental, **net impacts** of EWR programs

**Gross impacts** capture economic activity in a scenario where EWR programs exist

— **Baseline economic activity** captures economic activity in a scenario where EWR programs do not exist

---

— **Net impacts** represent the additional economic activity attributable to EWR programs, above and beyond baseline activity

# Economic Model of EWR Program Impacts

Economic activity was modeled both with and without Consumers Energy's 2009 – 2020 EWR programs, based on program-induced spending and third-party validated energy savings

**Economic  
Growth**

\$ \$ \$ \$ \$  
 \$ \$ \$ \$ \$  
 \$ \$ \$ \$  
 \$ \$

\$4.8B total growth with energy waste reduction programs

– \$0.8B baseline growth without energy waste reduction programs

-----

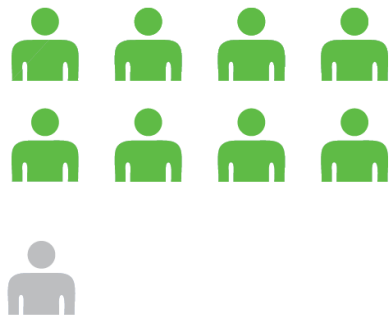
**= \$4.0 billion** in additional economic growth attributable to Consumers Energy's energy waste reduction programs



# Economic Model of EWR Program Impacts

Similarly, EWR programs had helped create a net **7,500 jobs in 2020 alone**, and over 56,000 years of employment between 2009 and 2020

## Jobs



8,298 total jobs with energy waste reduction programs

– 798 baseline jobs without energy waste reduction programs

-----

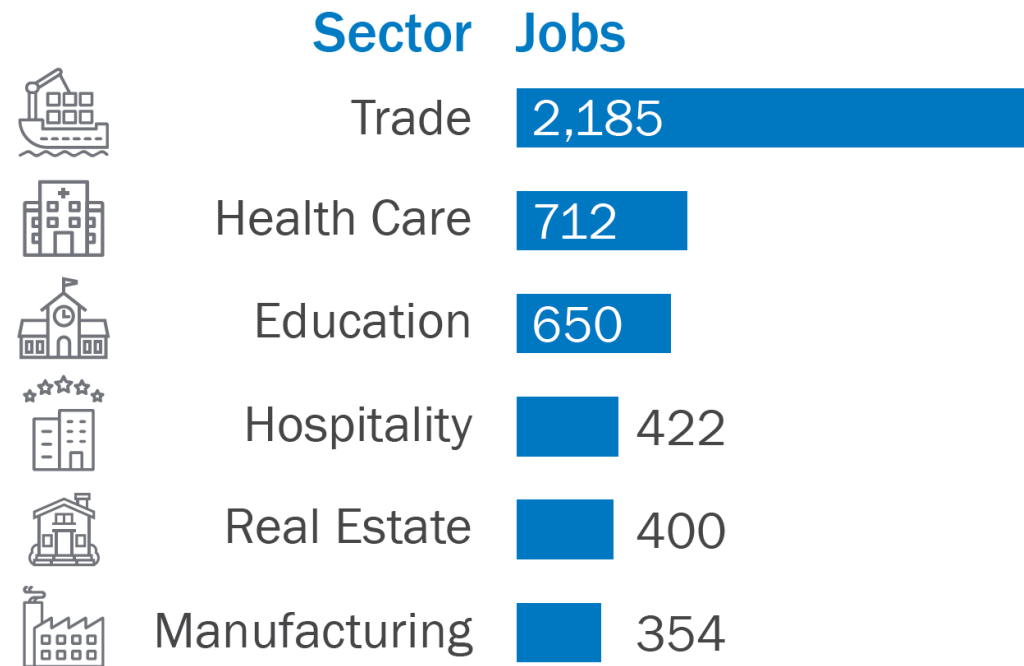
**= 7,500 additional jobs in 2020 alone**  
supported by Consumers Energy's programs across various sectors

# Economic Model of EWR Program Impacts

Similarly, EWR programs had helped create a net 7,500 jobs in 2020 alone, and over 56,000 years of employment between 2009 and 2020

Job creation is **9x the expected job growth** without Consumers Energy's investments.

Job growth extends beyond energy sector.



# Economic Model of EWR Program Impacts

- Results are **conservative** measure of economic impacts, because model does not include additional benefits:
  - Impacts from continued energy savings of 2009 – 2020 program equipment in 2021 and beyond
  - Participants' non-energy benefits such as improved comfort and indoor air quality
  - Societal benefits of decreased energy generation, such as reduced greenhouse gas emissions and improved local air quality

# Thank You

Sarah Monohon  
Evergreen Economics  
971.888.7478  
monohon@evergreenecon.com

Lisa Perry  
TRC Companies  
206.388.0983  
lperry@trccompanies.com

Joseph Forcillo  
Consumers Energy  
313.300.7694  
Joseph.Forcillo@cmsenergy.com

