



New Home Construction Programs Overview

2024 PROGRAM YEAR





Agenda

Introductions

2023 Program Highlights

2024 Program Overview and Incentives

Participation Process

Home Registration and Incentive Process

Program Resources Overview

Upcoming in 2024

Questions?





Introductions

DTE Energy

Avrie Dunsmore – New Home Construction Program Manager

Consumers Energy

• Amber Hicok – New Home Construction Program Manager

ICF

- Breanna Marcano DTE NHC Program Manager
- Rob Riley DTE Account Manager
- David Anderson Consumers Energy NHC Program Manager
- Rob Murawski Consumers Energy Account Manager
- Patrick McCafferty Consumers Energy/DTE Account Manager

Ignite Social Media

Emily Spurlock – DTE NHC Social Media Marketing







Implementation Contractor

Global consulting and technology services company

- Provides a wide range of services for governments and businesses, including strategic planning, management, marketing and analytics
- Michigan ICF team implements New Home Construction programs across both DTE and Consumers Energy, as well as Lighting and Appliances, HVAC, Insulation and Windows, and Home Performance with ENERGY STAR
- Experience gained from 140 energy efficiency programs across the U.S.
- 26 utility sponsored residential New Home Programs since 2001
- 70,000+ homes delivered through ICF-managed programs over past two years alone





2023 Program Highlights





2023 Participation



Participation

15 Raters

96 builders

4,300+ approved homes



Incentives

\$3.22M in total incentives



Annual Savings:

Electric: 5,149 MWh

4,037,294 pounds of coal

burned

Gas: 111,988 MCF

1,328 vehicles driven for a year



Program Homes Participating Measure Data 2023

Want to see where your builds stack up against program averages?
Reach out for a review!



Efficiency Measure (Unit)	Program Average
HERS Score Average	56.6
House Infiltration Rate (ACH50)	2.76
Water Heater Eff (UEF)	0.81
Heating System (AFUE)	96.09
Cooling System (SEER)	13.65
Duct Leak (CFM25)	38.21
Ceiling Insulation (R-Value)	41.27
Wall Insulation (R-Value)	16.27
Window Efficiency (U Value)	0.308



Program Homes Participating Incentive Data 2023

Want to see where your builds stack up against program averages?
Reach out for a review!
Custom Builder reports available.



Average Incentive by Rebate Type					
Rebate Path Combo Electric Gas					
HERS Path	\$702	\$214	\$441		
ENERGY STAR	\$1,199	\$262	\$768		



Program Homes Participating Measure Data 2023

Want to see where your builds stack up against program averages?
Reach out for a review!



Efficiency Measure (Unit)	Program Average
HERS Score Average	57.08
House Infiltration Rate (ACH50)	2.92
Water Heater Eff (UEF)	0.76
Heating System (AFUE)	96.12
Cooling System (SEER)	13.68
Duct Leak (CFM25)	45.42
Ceiling Insulation (R-Value)	39.97
Wall Insulation (R-Value)	15.16
Window Efficiency (U Value)	0.31



Program Homes Participating Incentive Data 2023

Want to see where your builds stack up against program averages?
Reach out for a review!



Average Incentive by Rebate Type						
DTE Incentives Combo* Electric Gas						
Non-ENERGY STAR	\$1,523	\$630	\$864			
ENERGY STAR \$1,045 \$633 \$1,498						

^{*}Avg. Non-ENERGY STAR home size is 3,600 sf

^{*}Avg. home of ENERGY STAR home size is 1,821 sf



2024 Program Overview and Incentives





Program Purpose

To increase the energy efficiency of residential new construction and drive market transformation in Michigan by:

- Partnering with local builders and raters
- Providing builder incentives
- Providing field and technical training, and sales/marketing support
- Conducting comprehensive quality assurance
- Driving increased consumer awareness of and demand for energy-efficient new home construction





Home Eligibility

Homes are eligible for incentives based on fuel type provided by utility

Qualifying structures include:

- Site-built single-family residential homes
- Modular Homes
- Detached condominiums
- Connected townhomes (no limit on number of units in building)
- Connected condos and duplexes (limited to buildings with four units or fewer)
 - Must have individual meters for natural gas and/or electricity, individual heat and domestic hot water equipment, and individual entrances to each unit

Manufactured homes are not eligible





Program Eligibility

Builder must work with a program-approved RESNET Home Energy Rating System® (HERS®) Rater in order to participate in program

Rater must complete two inspections during construction:

- 1. Pre-Drywall/Rough Inspection (visual inspection of insulation and air sealing)
- 2. Final/Post Construction Inspection (includes diagnostic testing duct blaster and blower door)

All homes must meet program prerequisites

- DTE = HERS 60 or less
- Consumers Energy = HERS 59 or less, or ENERGY STAR

Programs are funded through Dec. 31, 2024, or through depletion of funds

All homes must be submitted prior to Dec. 31, 2024



Incentive Structure – Single Family Homes

	Combination Service With AC	Natural Gas- Only Service	Electric-Only	Combination Without AC	Electric-Only With Heat Pump
ENERGY STAR HERS 56 to 46	\$2,000	\$1,400	\$600	\$1,400	\$2,000
HERS 56 or Less	\$1,000	\$700	\$300	\$700	\$1,000
ENERGY STAR HERS 57 or More	\$1,000	\$700	\$300	\$700	-
HERS 57 to 59	\$500	\$350	\$150	\$350	-



Higher Incentives for Top Tiered Single-Family Homes

	All-Electric With Heat Pump or Geothermal	Combination Service With AC	Natural Gas-Only Service
ENERGY STAR HERS 40 or Less	\$4,000	\$3,500	\$2,800
ENERGY STAR HERS 40 to 45	\$3,000	\$2,750	\$2,100



Incentive Structure – Connected Housing

	Combination Service With AC	Natural Gas-Only Service	Electric-Only Service	Combination Without AC
ENERGY STAR HERS 56 or Less	\$700	\$550	\$150	\$550
Savings Bonus	Met both MCF and KWH criteria \$300	Savings of 30 MCF or Greater \$150	Savings of 1000 KWh of Greater \$150	-



Incentive Structure – Project Bonus

	Combination Service With AC
HVAC Grading	\$50
ACH50 2.25 or Less	\$250
ACH50 2.75 to 2.26	\$150
ACH50 3.25 to 2.76	\$50



Incentive Structure – Future Readiness

	Combination Service With AC	Electric-Only Service	Combination Without AC
Solar PV Ready	\$50	\$50	\$50
EV Charge Ready	\$50	\$50	\$50
EV Charger Installed	\$200	\$200	\$200
Community EV Charger	\$1,000	\$1,000	\$1,000

Incentive Structure – Single Family Detached Homes

For homes with a rough HERS inspection on or after Jan 1, 2024.

Eligible connected housing will receive a 25% discounted rebate on equipment and ENERGY STAR bonuses.

2024 DTE Energy Rebates for New Homes



Please see the chart below for all new home incentive amounts

Builder Incentives	Silver	Gold	Platinum
Furnace	\$200 96% AFUE	\$250 97% AFUE	
Air Source Heat Pump (forced air and ductless mini-split)		\$750 18 SEER+; 9+ HSPF	\$850 19 SEER+; 10+ HSPF
Ground Source Heat Pump		\$800 17 EER+; 9+ HSPF	\$900 19 EER+; 10+ HSPF
Infiltration	\$125 3.25-276 ACH50	\$200 2.75-2.26 ACH50	\$275 2.25 or less ACH50
Water Heater (gas)	\$100 0.82-0.90 UEF	\$200 0.91 UEF+ (tankless)	
Heat Pump Water Heater (electric)		\$750 3.0 UEF+	\$850 3.5 UEF+
Ventilation (ERV or HRV)			\$250 ERV or HRV
Windows (up to 150 square feet)*		\$6.70 per square foot 0.24 or less U-value	\$10 per square foot 0.20 or less U-value
Ceiling Insulation		\$500 R 49-59	\$600 R 60+
Wall Insulation			\$700 R 26+
Slab Insulation [†]			\$700 R 15+
Lighting			\$100 100% LED
Pay for Performance	\$10/MCF of natural gas saved \$0.25/kWh of electricity saved		
ENERGY STAR® Bonus	\$350 per house (natural gas and combo homes) \$300 per house (electric-only homes)		

[&]quot;To be eligible for window and insulation rebates, DTE must provide the primary heating fuel type.

*Slab insulation must be 2 ft of R-15 on the perimeter.

Max Rebates – Single Family Homes and Connected Housing

For homes with a rough HERS inspection on or after Jan 1, 2024.



	The maximum le	vel of incentives all	owed for <u>detache</u>	ed housing are as follo	ows:
(HERS 60 or less)				less, and a cold-climate the primary heating/coo	
	Standard	ENERGY STAR®		Standard	ENERGY STAR
Electric	\$1,500	\$1,800	Electric*	\$3,500	\$3,800
Combo	\$2,100	\$2,450	Combo	\$3,500	\$3,850
Gas	\$1,300	\$1,650	*If home's only energy provider is DTE, then DTE will honor \$350 ENERGY STAR bonus		

	The maximum lev	el of incentives all	owed for <u>attached</u>	<u>d housing</u> are as follo	ws:
(HERS 60 or less)				less, and a cold-climate the primary heating/coo	
	Standard	ENERGY STAR®		Standard	ENERGY STAR
Electric	\$1,125	\$1,350	Electric*	\$3,500	\$3,800
Combo	\$1,575	\$1,840	Combo	\$3,500	\$3,850
Gas	\$975	\$1,240	*If home's only energy provider is DTE, then DTE will honor \$350 ENERGY STAR bonus		





Participation Process





Program Participation Process

Complete program enrollment

- New builders/raters are required to sign 2024 Program Terms and Conditions
- Existing builders/raters do not need to sign new Program Terms and Conditions

2024 participation

- Provide any updated contact information
- Provide 2024 projected home details by end of February

Support QA/QC efforts

Builder must work with rater, who will submit home applications on behalf of Builder





Facilitation of QA/QC

Each program participant will be required to participate in program QA/QC (above what RESNET requires)

QA/QC team is comprised of ICF staff

• ICF is an accredited, non-competing HERS Training Provider

Communication between builders/raters/program staff is required to ensure coordination and minimize rebate delays

Up to 5% of total program participating homes will be randomly selected

- Non-intrusive, will not select a home that is move-in ready
- A PDF of home plans may be requested





Home Registration and Incentive Process





2023 Submissions

Submit 2023 builds by end of February.

Update 'Expected Completion Date' as necessary.

Resubmit project to program using the 'Submit Project' drop down and selecting the appropriate utility.

Any homes with Final inspection completed in 2023 and submitted **after 2/29/2024** may require builder and rater clarification before processing.

Unpaid homes from the end of 2023 are being processed and will be paid throughout Q1.

Submission Status	[Under Construction	~
Enrolled Builder	[Dis Rober	~
Expected Start Date	1	Wednesday June 3, 2020	
Rough Inspection Date	0	Thursday August 13, 2020	
Expected Completion Date	•	Tuesday December 15, 2020	
Electric Meter Number	2	232	
Gas Meter Number	2	232	
Electric Utility	[Consumers Energy	~
Gas Utility	[Consumers Energy	~







Who Will Submit Program Incentive Applications

Rater must submit incentive applications, via Ekotrope, on behalf of builder

- A Confirmed Ekotrope or REM/Rate file is required for each registered home
- Use up-to-date Ekotrope Version in accordance with RESNET requirements.



Action	Reason	Timing	Status		
Register Homes	Reserve incentives	As soon as you have home lot/address	"Under Construction"		
Submit Final Ratings	Expedite builder incentives	Within two weeks of completion	"Final Submission"		
Cancel Ineligible Homes	Avoid confusion for anticipated incentives	Upon learning HERS score does not qualify or home does not meet code	"Canceled"		











How Do Raters Know The Estimated Rebate Amount

	ekotrope [™]	My Projects	d	lte-rebate-program	DTE Energy Efficiency	Program Set	ttir
Name Floors on or Above Grade (Include Walkout Basements) Number of Bedrooms Conditioned Floor Area [ft²]	1) Help	HERS®: Annual Energy Bill HERS Michigan 2015 Per Michigan 2015 Processed Programmers Energy DTE Rebate Programmers Silve Infiltration - Growth Company (Maximum allow \$1,000.00 + \$3,57AR bonus)	sick Results \$\vert{2}\$ 55 \$\vert{3}\$ \$1,269 erformance escriptive ty Michigan ram \$\vert{4}\$,000.00 er. \$200.00 old: \$200.00 (tank) - Silver: 637.26 eved rebate:	Change 0 \$0 \$0 A A The state of the stat	





How Often Will Program Incentives Be Paid?

Unpaid homes from the end of 2023 are being processed and will be paid throughout Q1.

DTE and Consumers Energy mail incentive checks directly to Builders on a weekly basis

All homes approved within the same week will be paid in the form of a single incentive check (per energy provider)

In order to process incentive, home must have an active residential account

 Projects submitted with Commercial and Industrial accounts will be updated at the beginning of the next month and processed in the first week





Home Submission Summary

An email will be sent to Builders and Raters every Friday, automatically, detailing home submission status.

 If builder or rater need an update at any other time, please contact account manager or email: CENewHomes@icf.com

Builders will receive an incentive check in the mail for approved homes

HERS Rater submits home via Ekotrope for processing

ICF verifies and approves home

Builder receives incentive check



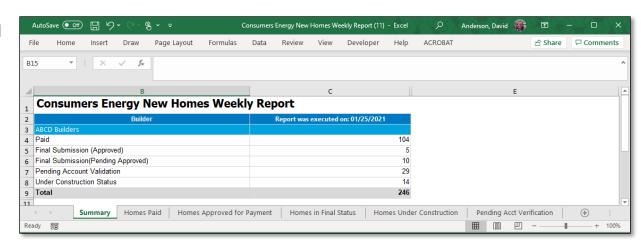
Program Resources





Friday Morning Builders/Raters Report automated email with excel file

- Report goes to one designated email per builder/rater
 - Reach out if email recipient needs to be updated or changed
- Emailed from:SightlineReporting@icf.com
 - Tip: check junk mail, add email as 'safe sender'
- Reports also available upon request







Summary Tab

- *Paid:* Incentive check previously received or currently in mail
- *Final Submission (Approved):* Project approved, check to be sent ~2 weeks
- Final Submission (Pending Approved): Project has been received, but has not been reviewed
- Pending Account Validation: Project held awaiting residential account validation/other information
- Under Construction: Project in system awaiting final testing

Consumers Energy New Homes Weekly Report

Builder	Report was executed on: 01/25/2021
ABCD Builders	
Paid	104
Final Submission (Approved)	5
Final Submission(Pending Approved)	10
Pending Account Validation	29
Under Construction Status	14
Total	246





Homes Paid Tab

Rater Submitted Information

Project Name, Project Community Name, Lot/Unit #, City, Utility

Home Data

HERS Index, energy savings, equipment info

Check Date and Project Number can help to associate projects to check

- DTE Report includes Check # in report
- Consumers Energy reach out for check details as needed

Check stub example

YOUR CONSUMERS ENERGY REBATE CHECK IS ATTACHED. You've taken a big step towards making your home and Michigan more energy efficient, cleaner and safer! For more information on other rebates and energy saving tips, visit ConsumersEnergy.com/myhome. Thank you for participating!

CONHPS1545768260, CONHPS1545768260, CONHPS1546019460 CONHPS1546019460





Homes Under Construction Tab

Project Number	Builder	Project Name	Project Community Name	Lot/Unit #	City	State	Zip	Gas Utility Company(Provided by Rater)	Electric Utility Company(Provided by Rater)	Customer Type (Validated)	Expected Completion Date
CONHPS1544922555	ABCD Builders	RCW010	ABC	10	FOWLERVILLE	MI	48836	Consumers Energy	Other	—	08/02/2020
CONHPS1544927555	ABCD Builders	OCH005	123	5	SPRINGFIELD	MI	49037	Other	Consumers Energy		08/14/2020
CONHPS1544927125	ABCD Builders	OGM059	ABC	59	HOWELL	MI	48855	Consumers Energy	Other		08/12/2020
CONHPS1544927124	ABCD Builders	STG078	123	078	BYRON CENTER	MI	49315	Other	Consumers Energy		08/10/2020
CONHPS1546339123	ABCD Builders	JJF50349	ABC	5 6	FOWLERVILLE	MI	48836	Consumers Energy	Other		10/09/2020

HERS rater may submit projects that are under construction. Projects with past expected completion dates will be highlighted in red.

Rater Action Required:

- Submit backlogged final ratings, or
- Update expected completion date

Builder Action Required:

- Ask rater if additional information is needed for rating to be submitted, or
- Provide HERS rater with updated expected completion date





Technical Bulletins

Program participants receive technical and program bulletins, the first Tuesday of every month

Topics Include:

- Air Sealing Checklists
- Duct Quality Installation
- Ventilation Best Practices
- Construction Safety
- Insulation Improvements
- Window Selection

Let us know if you have a request for a specific topic!

DTE



TECHNICAL BULLETIN: INSULATION AND TOP PLATE GASKET ISSUES

Insulation installation and canned foam top plate gaskets have the potential for large impacts on energy savings and comfort in the home. This technical bulletin covers some frequently overlooked items that builders and raters should check when inspecting insulation and canned foam top plate gasket installation.

Common insulation problem areas:

- Electrical wires, Termite Systems, and 2x4 obstructions: Areas approximately 1'
 from the bottom plate tend to have termite systems or 2x4 obstructions. In addition,
 electrical wires can easily be found by looking for metal plates on studs. Insulation
 should be cut to fit around these obstructions to comply with RESNET's grade I
 definition. For a video description on RESNET's grading definitions, follow this link.
- Rolled or tucked batts: Inspect the top and bottom of wall cavities. Often, insulators roll or fold insulation into the bottom or top of wall cavities instead of trimming insulation to fit cavities properly.
- Overfilled cavities: To save time, insulators will place small pieces of batts behind wires and place a full batt over top of the wire. This does not constitute grade I installation and causes compressions and overfilling.



An example of termite systems and a 2x4 obstruction



An example of an overfilled cavity with a plate highlighting the wire location



An example of batts not cut to fit wall cavities with plates showing wire locations





TECHNICAL BULLETIN: WINDOW SELECTION

we homes, windows represent just 7% of the envelope area, but can represent of the total envelope heat loss. The typical ~R3 (0.33 U-value) code compliant STAR[®] window in Michigan is double glazed, and this has not changed y over the last 20 years. A shift from double to triple glazing, or a more efficient U-Value), would greatly reduce window heat loss and improve comfort.

igate the window selection process, the Efficient Windows Collaborative (EWC) ed with the National Fenestration Rating Council (NFRC) to create a variety of iduding design quidance, window installation guidance, and window selection

w Selection Tool takes you through a series of design conditions pertaining to a and location. It is a step-by-step decision-making tool to help determine the ty-efficient window for your build and helps to locate manufacturers who offer and skylights within the categories shown.



ections visit w.efficientwindows.org/new-process

lps to narrow

dow area ding type

w Selection Tool les product dations on window

in detail below) summary of ormance summer te (cooling), and on performance.

ns specific to:

ivstem - Rated Components

and provides performance ratings in five categories:





Energy Efficiency Learning Center

ICF's Energy Efficiency Learning Center allows program participants to complete e-learning trainings.

Trainings are made available for free to participants, courses cover:

- Technical Building Science Topics (HVAC, Heat Pumps, Manual J, etc.)
- Marketing and Sales
- Programmatic Topics
- Technical Bulletins Archive (video demo →)

If you, or any employee are interested in signing up for the EELC please email us!

- Consumersenergy.learnupon.com
- <u>Dte.learnupon.com</u>





On-site Training

Builders may be encouraged to participate in training provided under the Program

Technical/Field Training

- Code compliance
- ENERGY STAR compliance
- Envelope air sealing
- Duct air sealing
- Insulation improvements

Equipment Loaning

 ICF Field Staff has equipment that can be loaned to raters while your equipment is being repaired or calibrated









Training Resources

Consumers Energy New Home Construction program has funding available for training!

Funding awarded to HVAC contractors and HERS Raters who are enrolled in the Consumers Energy HVAC program or New Home Construction program.

- Participation application
- Submit requested documents
- Receive credit/funding through Consumers Energy NHC program

Move the needle in the New Home Construction market!







Other training needs? Reach out to your ICF account manager.



Marketing Resources

DTE Builder/Rater Portal

michiganrebates.com/newhomes

- Customer Brochure for Builders
- Builder Recruitment Flyer for Raters

Find a Builder/Contractor Site for Customers

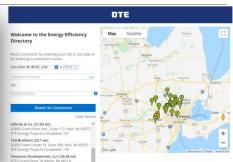
http://dteenergy.com/eed

Social Media Marketing

- Social Media Toolkit to market your company
 - 2 examples of content pictured
- Facebook Campaign Ad to generate leads











Marketing Resources

Consumers Energy Builder/Rater Portal https://consumersenergytradeally.com/

- Customer Brochure for Builders
- Builder Recruitment Brochure for Raters
- NEW in 2024 Consumers Energy and ENERGY STAR yard signs

Find a Builder/Contractor Site for Customers

https://consumersenergyeed.com/







Upcoming in 2024

Pending Michigan Energy Code Update





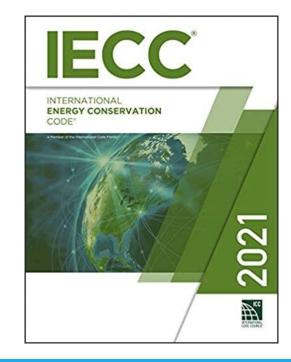
Any changes <u>will not</u> immediately impact program requirements

Permits:

- Permits pulled on or after implementation date will follow new Michigan Code
- Permits pulled prior to implementation date will use 2015 IECC

Trainings

 Trainings will be offered to help raters and builders understand the changes and how to achieve the new standards



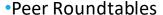




Code Compliance

Virtual and In-Person Trainings

- Cover a variety of topics, from general overview of the new code to the specific changes and how to meet the new requirements.
- Virtual sessions will offer American Institute of Architects (AIA) & International Code Council (ICC) continuing education credits
- In-person sessions in multiple areas



 Discussions to allow builders to share experiences, best practices & resolve challenging issues

On-site Energy Code Consultant

 Offers free, individually tailored, one-on-one learning, including topicspecific trainings, blower door demonstrations, REScheck™ consultations across DTE and Consumers Energy's service territories









Code Compliance Trainings

Training Series: Michigan High Performance Homes

Date	Category	Subcategory
4/2/2024	Intro	Introduction to the Program including circuit rider, in-person, peer-to-peer round tables
4/16/2024	General	Energy code theory & building science
4/30/2024	General	Code Administration: Roles, responsibilities, documentation and quality control
5/14/2024	General	Differences in requirements per Climate Zone
5/28/2024	Envelope	Thermal envelope requirements: Insulation and proper installation
6/11/2024	Envelope	Thermal envelope requirements: air sealing/air barriers
6/25/2024	Envelope	Fenestration



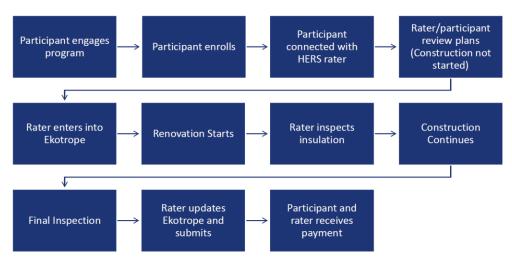
DTE HERS Rater Bonus Pilot

- •DTE will begin offering incentives to HERS Raters that help their builders achieve 40%+ savings above the code
- Tiered incentive structure
 - •\$150 for each home that is 40%-44% above code
 - •\$250 for each home that is 45%+ above code
- •Incentives will begin this Spring and run through Fall, or until funds are depleted.



DTE Major Renovations

- Major renovations for existing homes. At least 50% home must undergo major renovations
- Renovations must involve changes to multiple home components (e.g., building shell, HVAC, electrical, plumbing, etc.).
- •Builders/homeowners eligible for rebates
- •At least 5% savings above custom baseline
- No HERS score minimum
- •Require HERS rater involvement
- •Rater enters home into Ekotrope







Resource Links

<u>Consumers Energy Builder/Rater Portal</u> <u>Rater Contact Directory</u>

<u>DTE Energy Builder/Rater Portal</u> <u>Energy Star Certification Benefits</u>

<u>DTE Energy - EELC</u> <u>Federal Tax Credits</u>

<u>Consumers Energy - EELC</u> <u>2021 IECC</u> (MI is still on 2015 code)





DTE Energy

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- Breanna Marcano (DTE) <u>Breanna.Marcano@icf.com</u>
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- Rob Murawski (Consumers Energy) <u>Rob.Murawski@icf.com</u>
- Patrick McCafferty (DTE/Consumers Energy) <u>Patrick.McCafferty@icf.com</u>

Ignite Social Media

Emily Spurlock – <u>Emily.Spurlock@ignitesocialmedia.com</u>

Contact Us





Questions?





Thank you!