

# E-CHALLENGE

## COMPETITION for Colleges and Universities



**DTE Energy**<sup>®</sup>  
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THE ENGINEERING SOCIETY OF DETROIT<sup>®</sup>  
FOUNDED IN 1895

Sponsored by **DTE Energy** in partnership with **The Engineering Society of Detroit**



## ENERGY EFFICIENCY ELIGIBILITY REQUIREMENTS



Any energy saving product, material, system, structure, process or methodology that is innovative in application or use, including but not limited to inventions, is eligible within the following parameters.

### ABOUT THE PROGRAM

DTE Energy is partnering with The Engineering Society of Detroit (ESD) to recognize and support energy efficiency technology innovation for its commercial, light industrial and municipal electric customers through the DTE Energy E-Challenge Competition for Colleges and Universities. This competition seeks innovative energy efficiency technology demonstration opportunities in advanced energy efficiency processes. The competition encourages demonstration projects that integrate energy efficient solutions that bring under-utilized energy efficiency products to the DTE service area, or accelerate the commercialization of Michigan-based energy technologies.

### COMPETITION FOCUS AREAS

The E-Challenge Competition requires that demonstrations showcase advancements in energy saving processes. Examples include but are not limited to the following:

1. Heating, ventilation and air-conditioning systems (HVAC)
2. Water use (e.g., boiler systems, chillers)
3. Industrial process control
4. Lighting (not to include basic lighting changes)
5. System efficiency improvements
6. Operational changes and equipment replacement
7. Improve an existing DTE program or current energy measure

### APPLICATION QUALIFICATIONS

An application can be submitted by a student or team of students that is approved by a department within the university that is offering an innovative energy savings process to be demonstrated at a “to be determined” site that will be recommended by the submitter. The site may be within the college or university campus or local business or facility. The final site is subject to approval by DTE and the ESD team, henceforth known as the program administrators.

1. The product must demonstrate electric or natural gas energy savings.
2. If gas savings are being demonstrated, preference will be given to DTE natural gas customers, but customers of other gas utilities within the DTE Energy service territory will also be considered. DTE must consent to the final demonstration site selection.
3. The technology or product must apply to one or more of the following: light industrial, commercial, business or municipal applications.
4. The innovation must be a technology that is new to the Michigan market or integrates multiple existing technologies in new ways.
5. The product must be ready for commercialization or demonstrated in market with validation of energy savings, but have not been widely adopted. (The project cannot be a concept. It must be able to be demonstrated.)
6. The submission must include proof of concept documentation to establish the validity of the technology to be demonstrated.
7. The technology/product must demonstrate less than an 8-year ROI in energy use. Beginning energy usage figures must be supplied to show reduction in energy consumption. Energy savings must be able to be metered, monitored and reported.
8. E-Challenge awardees will be required to coordinate with the program administrators to measure and validate energy savings and create a visual display at demonstration location. The program administrators will assist in developing display materials.
9. E-Challenge awardees are required to work with program administrators to promote the results of the demonstration through marketing channels, including sharing energy efficiency ROI findings within vertical market sectors, and production of a case study.
10. The innovation must be able to be standardized for DTE Custom or Prescriptive Incentives in a vertical market application.
11. Participants will be required to sign an honor statement affirming the truth and validity of all energy savings claimed.
12. Patents will not be applied for or funded.



## APPLICATION PREFERENCES

The intent of the E-Challenge Competition for Colleges and Universities is to showcase innovation through market-ready advanced energy efficiency solutions that utilize Michigan-based technology products or companies or combine stand-alone technologies into an integrated solution to maximize energy savings.

Preference will be given to applications that incorporate one or more of the following objectives:

1. Michigan based technologies and businesses.
2. Applications that include product development collaboration with multidisciplinary teams (e.g. students in mechanical engineering, electrical engineering, facilities managers, professors).
3. Energy efficiency technologies that promote energy savings that have been under-utilized or are new to the DTE service area.
4. Demonstration locations with high visibility or public visitation history (e.g. office buildings, schools, hospitals, markets) for educational exposure.
5. Energy saving demonstrations in vertical market applications that can be proliferated in multiple customer locations throughout the DTE service territory (e.g. municipalities, hospitals, parking lots or decks, car dealerships, universities, restaurants, hotels, industrial and manufacturing operations, etc.).
6. Submittals with energy savings solutions demonstrating less than a three-year ROI.
7. Preference given to projects with sustainability of savings during peak demand (3 p.m. to 6 p.m. Monday through Friday). Data to be supplied by the university or host site and demonstrate long duration capacity reduction (KWHR/KWH).
8. Operational changes and equipment replacement are acceptable submittals as well as system efficiency improvements (not to include renewable or alternative energy or basic lighting changes).
9. Ideas that examine what can be done differently with existing technology to save money are encouraged along with improving any existing programs, ideas or concepts.

## CHALLENGE AWARD & SCHOLARSHIPS

Up to \$250,000 may be awarded to successful applicant(s) to create the demonstration for their energy savings innovation. The program administrators reserve the right to award one, multiple or no projects based on the quantity and merits of submitted applications.



Submissions will be evaluated throughout the demonstration process. Individual or team scholarships of up to \$20,000 will be awarded. Scholarships will not be distributed until final reports are completed.



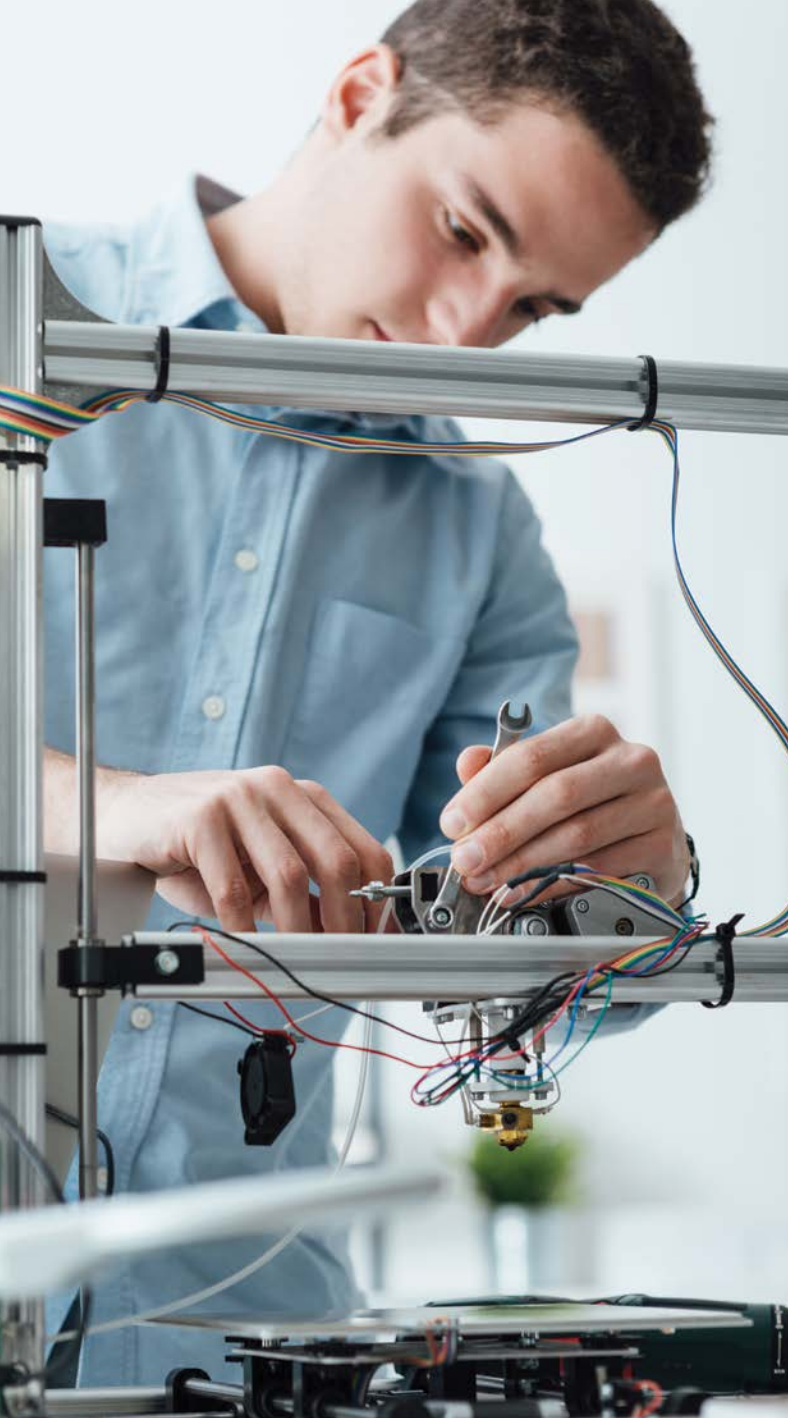
## ENTRY PROCEDURES/ JUDGING PROCESS

Initial entries describing the demonstration and energy savings concept(s) will require submission by **March 3, 2017**. Submittals with high scoring first round applications will be invited to submit a second, more detailed application for a second phase of judging. The program administrators reserve the right to amend the submission deadlines and awarding deadlines, as needed.

All questions and answers will be made public and become part of the public domain by being posted at [e-challenge.net](http://e-challenge.net). Questions can be directed to Leslie A. Smith, CMP, at [lsmith@esd.org](mailto:lsmith@esd.org). *All entries must be submitted online by 5 p.m., EST, March 3, 2017.*

1. The initial screening of applications/abstracts will be complete by March 31, 2017. All entrants will be notified, via email, by April 7, 2017. The qualifying entrants will move on to judging in a second round.
2. Applicants chosen to qualify for a second round of judging will need to supply a maximum 12 pages of documentation for consideration. Details will be provided upon notification.
3. In March, a finalist or finalists will be chosen to demonstrate their innovation (DTE reserves the right to award more than one entrant).
4. Finalists will be recognized at the 2017 DTE/ESD Energy Conference and Exhibition scheduled for Tuesday, May 9, 2017 at the Suburban Collection Showplace in Novi. Further recognition will be provided by The Engineering Society of Detroit.
5. All submitted material becomes the property of ESD and will not be returned (does not imply ownership). All submission of data will be subject to a third party audit.

Applications will be evaluated by an impartial panel of industry judges chosen by the program administrators. Awards are based on the inherent qualities of each project as perceived by the judges. Any and all awards of the judges of the program are final unless otherwise determined by DTE at its sole discretion.



## SUBMISSION REQUIREMENTS

You may propose any product, material, system, structure, process or methodology that is innovative in showing energy savings in its application or use. The following elements are required to be eligible for participating in the DTE Energy E-Challenge Competition for Colleges or Universities:

1. Completed application form.
2. Proof of concept with supporting data, including bench scale or simulation results.
3. Supporting data such as peer review, publications or reports, and patents, may be submitted as part of an appendix.
4. Applicants must be a current student enrolled at a college or university within Michigan

## SUBMISSION DIRECTIONS

**Please complete the online application form at [e-challenge.net](http://e-challenge.net)** and submit it with supporting materials. Entries must be submitted by 5:00 p.m. Eastern Standard Time, **March 3, 2017**. If you are submitting more than one project, please use separate entry forms. Confidentiality of proprietary information will be maintained and respected. If selected for an award, please note data supplied may be releasable to the public in final reports.

## INDEMNIFICATION, ASSUMPTION OF RISK, AND PERMISSION TO COPY AND USE

By submitting your application for an award under the DTE Energy E-Challenge Competition for Colleges and Universities, you hereby agree to the following:

1. You agree to assume any and all risk of a technical and commercial nature or otherwise relating to any prejudice or loss of any and all data presented in any verbal, written or electronic format including without limitation any idea, restricted or proprietary information, invention (patentable or not), and/or trade secret (hereafter "Data") disclosed or used as a result of this Program.
2. To the extent permitted under applicable law, you agree to indemnify and hold harmless DTE and any third party designated by DTE (Designee) from and against any and all claims or expenses (including reasonable attorney fees) resulting from disclosure or use of such Data.
3. You agree to grant to DTE and any Designee permission to copy and/or use any such Data as may be deemed necessary by DTE in its sole discretion for purposes of this Program.
4. All applicants will sign an honor statement affirming the truth and validity of all claimed energy savings.



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