



Energy
Mentors

APRIL 2024

Power The Community:

**An International College
Design Competition**

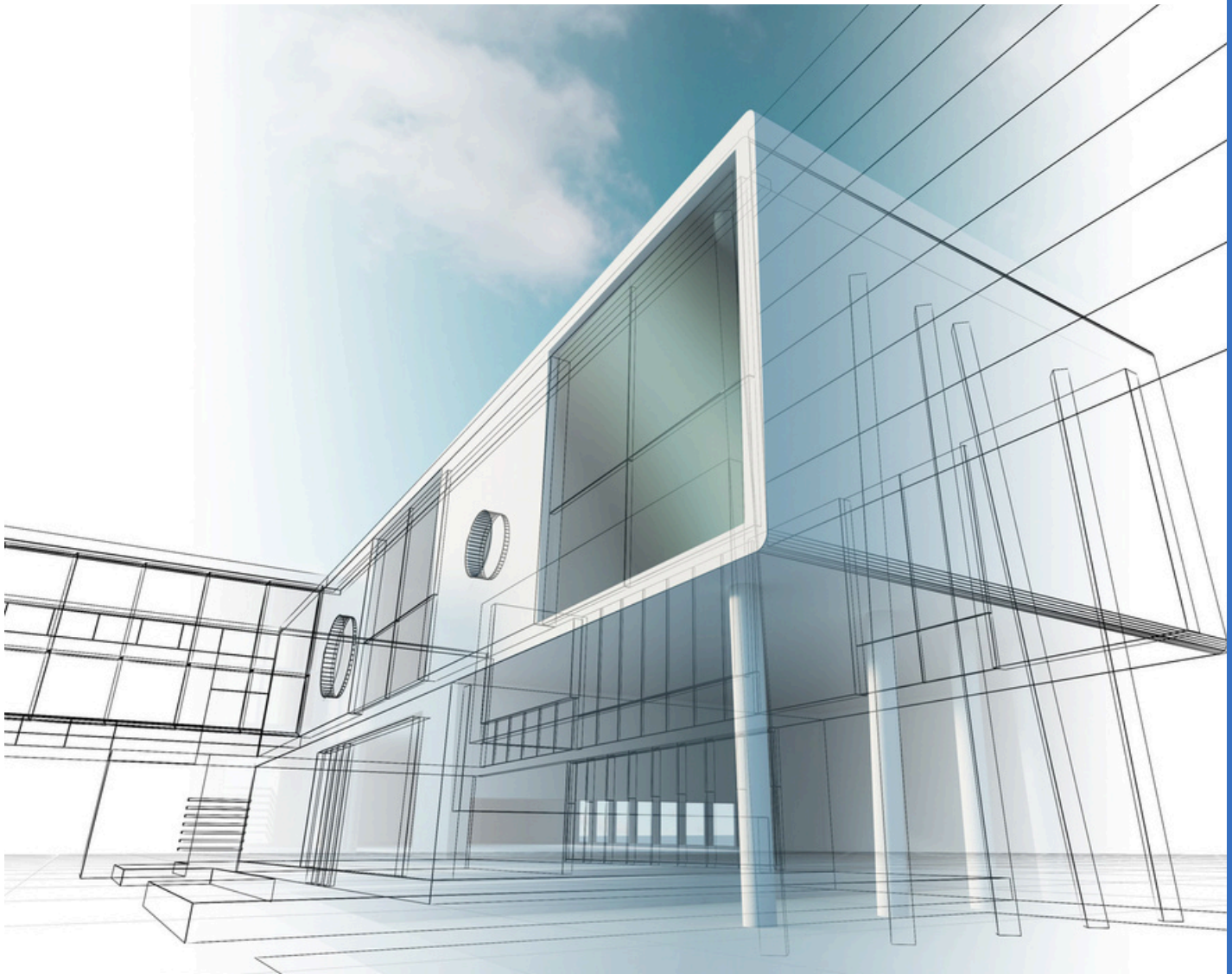
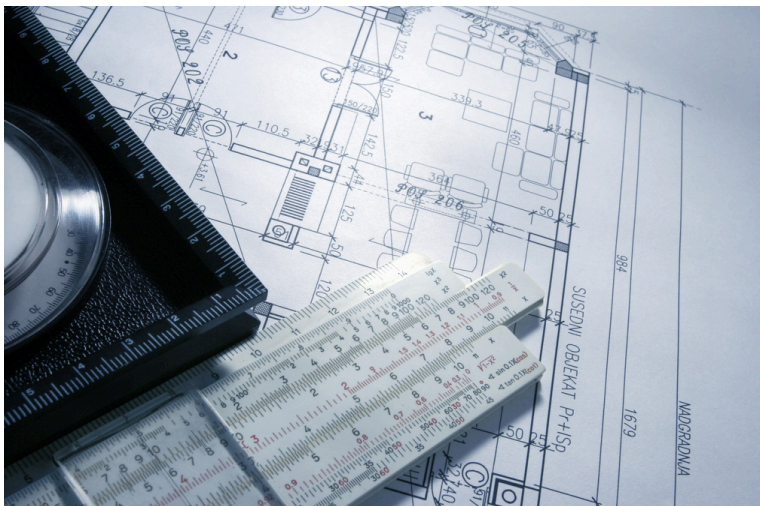


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Purpose of The Competition

The "Power the Community" design competition aims to inspire innovative approaches to energy infrastructure in new communities by a rising generation of professionals. Our goal is to improve the quality of life for residents, promote sustainability, and advance energy access and prosperity for all.

The energy infrastructure we build today will shape our communities' energy consumption and carbon footprint for decades to come. Some master-planned communities in places like Houston, Texas, have energy systems that date back to a half-century ago, which raises questions about their effectiveness and efficiency.

- Can we make our houses energy efficient and affordable?
- Can we improve the way we build and power our communities?
- Can we build distributed energy systems into new homes and communities and avoid the added expense of later retrofit construction?
- Can we take a first-principles approach to community energy infrastructure design?

By stimulating the minds of energy professionals, we hope to catalyze new approaches to energy infrastructure that will benefit communities worldwide for decades to come.



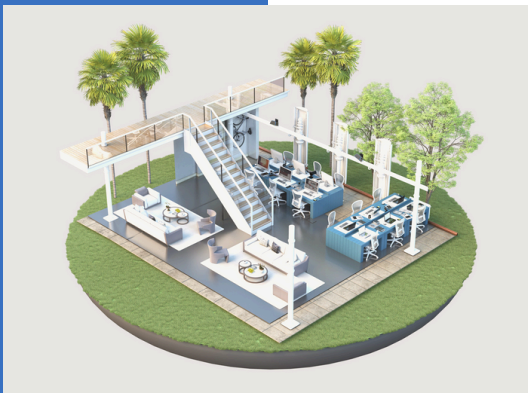
The Design Challenge

The "Power the Community" design competition challenges student teams from around the world to design a livable community for 2,000 or more families. To succeed in this challenge, teams will need to take an integrative, cross-disciplinary approach to community infrastructure and housing design, with a focus on achieving great living underpinned by affordable, reliable, and sustainable energy supply.

The competition is about integrating innovative approaches to energy and energy infrastructure at the community level. The scope includes how the community accesses sources of energy, its distribution, and down to how energy is used by families in their homes.

The competition also requires designing a prototypical residence that exemplifies the community's energy and sustainability practices in daily living. The residence should be affordable, energy-efficient, sustainable, and meet the needs of the local community.

Additionally, teams can consider aspects of community planning, such as people transportation, water and waste management, public spaces, etc., but the primary focus should be energy use and infrastructure during daily living in the planned community.

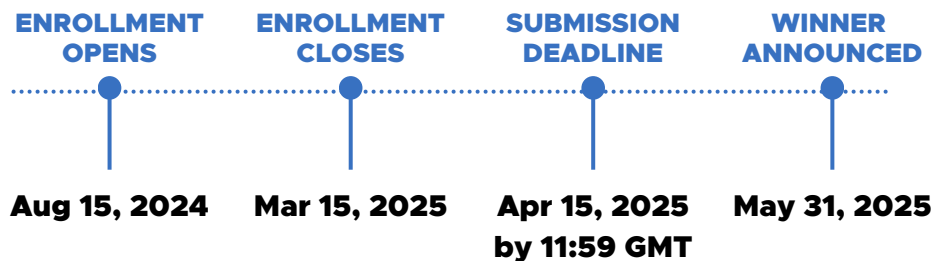


Competition Details

Team Eligibility

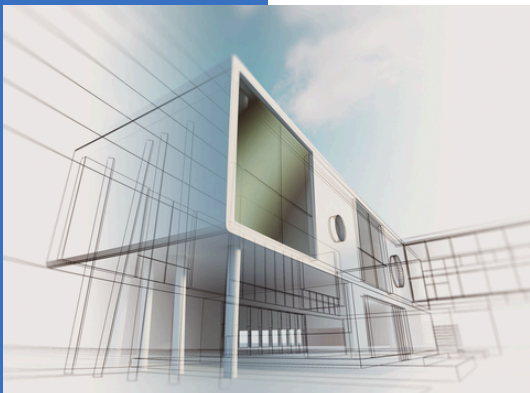
- Teams may form ad hoc and need not be officially sponsored by a university, or they can be sponsored by their university.
- Each team should have a name and indicate their location, such as their university.
- Teams can decide on the number of teammates themselves.
- Team members may include undergraduate students, graduate students, and persons who are not degree candidates.
- Teams may draw on the knowledge and advice from any resources they wish. However, faculty and working professionals should refrain from contributing to directly producing results and deliverables.

Competition Timeline



Submission Guidelines

- The community should be designed for approximately 2000 or more families.
- A typical family consists of around four people, plus or minus.
- While the community could have a full range of income and assets, the target family should be able to afford housing and living based on the combined salaries of two employed adults: one a nurse and the other a school teacher.
- Consider that a typical family may have two young children, plus or minus, who could be of different genders and who will live in the housing unit from birth through high school.
- All components of the conceptual design must be available for purchase from worldwide sourcing as of the competition submission deadline.
- The community design should consider access to food/groceries, drug, and other retail stores, manufacturing, offices, medical care, social meeting spaces, recreation, places of worship, etc. Such need not be provided within the new community, and if not, the design should consider people and supply chain flows.



Deliverables

Your design submission should include the following deliverables:

- Geolocation of your design to a parcel of land that can be developed into a community.
- A statement of the most critical needs of the community supported by references.
- A typical housing unit design.
- A community design and layout with a focus on energy flows and infrastructure.
- Benchmarks of choosing to compare your community versus other communities and populations in the region.
- Engineering/architectural and economic calculations and renderings of your choosing that depict and support the design and its performance.
- A “pitch video” of about 10 -12 minutes (max 15 minutes).

Format

- All deliverables should be in formats readily viewable in the public domain and/or mass-market software (Microsoft, Google, Adobe, etc.). Submitting photos and/or videos are okay if you create a physical or virtual 3D model.
- A link can be provided to the pitch video on a publicly accessible site (e.g., YouTube, Vimeo, etc.).



Judging

- For every ten to twelve submissions, a panel of up to five judges will be assigned to evaluate the entries. The panel will consist of one lead judge and up to four other judges.
- If there are more than a dozen submissions, the entries will be divided into “regions” of up to a dozen submissions each.
- Each region will have several entries to be “promoted” to the finals.
- A preliminary round of judging will take place in each region, and the votes of all judges will be considered equal.
- Energy Mentors board members, and employees are not allowed to be judges.
- If regional judging is used, a majority vote will decide the promotion of designs to the finals.
- In the finals, a new panel of five judges will evaluate the original submissions of the promoted designs and, if applicable, the summary comments from the regional judging. The grand prize-winning design will be decided by majority vote.



The Prize and Rewards

“Success is a journey, not a destination. The doing is often more important than the outcome.”

Arthur Ashe

The winning team will receive the first “Energy Innovators Award” by Energy Mentors and a grand prize of \$10,000 USD, to be split equally among the registered team participants, wired to an account of the team member’s choice.

Teams winning Distinguished Design Awards will split the remainder of the prize pool as allocated by the Judges. Members of those team will be wired equal share of their team’s prize to an account of the team member’s choice.

Every member of every team that submits a design will have the opportunity to showcase their skills and creativity to a panel of industry experts. Participating in this competition will gain invaluable experience and insight into the energy industry and the latest trends and innovations.

In addition, you will be able to connect with other like-minded individuals and form valuable professional relationships.

The prize money may be a motivating factor, but the actual value of this competition lies in the opportunity to gain experience, showcase your skills, and connect with industry experts.



How To Enter

We welcome all students who are interested in the energy industry to participate in this competition, regardless of whether you believe your team will win. To enter, simply visit the registration link (<https://www.energymentors.org/participate>) and provide your team's name, location/university, and the names and email addresses of your team members.

By joining this competition, you'll have the opportunity to develop new skills and knowledge, collaborate with others, and potentially form lasting professional connections. We are excited to see your innovative ideas and designs, and can't wait to receive your entries!

Additional Resources

We understand that this competition presents an opportunity for you to develop and upskill. As such, we have provided the following resources to assist you:

- Framing Your Efforts
- FAQs (Frequently Asked Questions)
- Knowledge Resources

If you have any additional questions, concerns, or ideas that you want to share, please feel free to contact us at info@energymentors.org.



Dare. Begin. Finish!

We want to emphasize that this design competition is an opportunity to challenge yourself, to learn, and to grow. We encourage you to leverage best practices and explore beyond existing paradigms.

Are you ready to accept the challenge?
What solutions can you bring to your local communities?

Will you seize the opportunity to gain skills and knowledge, brainstorm, design, innovate, and improve your corner of the world? We hope you will dare to begin and see this through to the finish line. Good luck!

End Of Proposal

THANK YOU

We hope this competition will inspire a new generation of energy professionals to tackle the challenge of sustainable energy prosperity. Join us in designing communities that can make a positive difference in the world!

