



U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON



SOLAR TEXAS

Texas A&M University

Solar Texas

Jury Presentation

March 28, 2023

Project Narrative

Solar Texas | Texas A&M University (TAMU)

Project Tagline: Net-zero begins at home.

Solar Texas is a collaborative project between the Texas A&M School of Architecture Departments of Architecture and Construction Science and the College of Engineering Department of Architectural Engineering in partnership with the Brazos County non-profit Habitat for Humanity to bring resources to the working poor. The following narrative links the team's website, social media accounts, and on-site public exhibition materials.

Solar Texas Website:

- <https://www.arch.tamu.edu/solartexas/>

Articles about the Solar Texas project:

- <https://www.arch.tamu.edu/news/2022/12/06/solar-decathlon/>
- <https://engineering.tamu.edu/news/2023/02/mtde-texas-am-team-selected-for-solar-decathlon-build-challenge.html>
- <https://www.arch.tamu.edu/solartexas/news/2022/12/designing-a-cost-effective-net-zero-home/>

Social Media Accounts for the Solar Texas project:

- **LinkedIn:** <https://www.linkedin.com/feed/update/urn:li:activity:7027004241059733504>
- **Facebook:** [post: https://www.facebook.com/558605342934952/posts/630357605759725](https://www.facebook.com/post:https://www.facebook.com/558605342934952/posts/630357605759725)
- **Instagram:** <https://www.instagram.com/tamusolartexas/>

Social Media Accounts Analytics:

The Solar Texas project has a monthly reach and following of 12 million individuals. It is followed by some of the world's biggest firms in architecture & engineering. (See Figure 1 and Figure 2 below). This is a positive and exciting opportunity for the students to showcase their entrepreneurial spirit and ingenuity.

On the flip side, the opportunity to engage with the neighborhood has brought some sobering information to the team. An unintended consequence of building a series of Habitat for Humanity homes in this particular location of the City of Bryan is that local landlords have increased rental income on area residences. Some of these neighbors have been in the area for 15 years or more and have not experienced this before. The team is learning real lessons and challenges with community development and urban revitalization projects, something

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that is harder to learn in the classroom. The images below, Figure 3 and 4 show the team members interacting with the neighborhood. Fortunately, several of the team members are bi-lingual and were able to converse with the neighbors in Spanish.

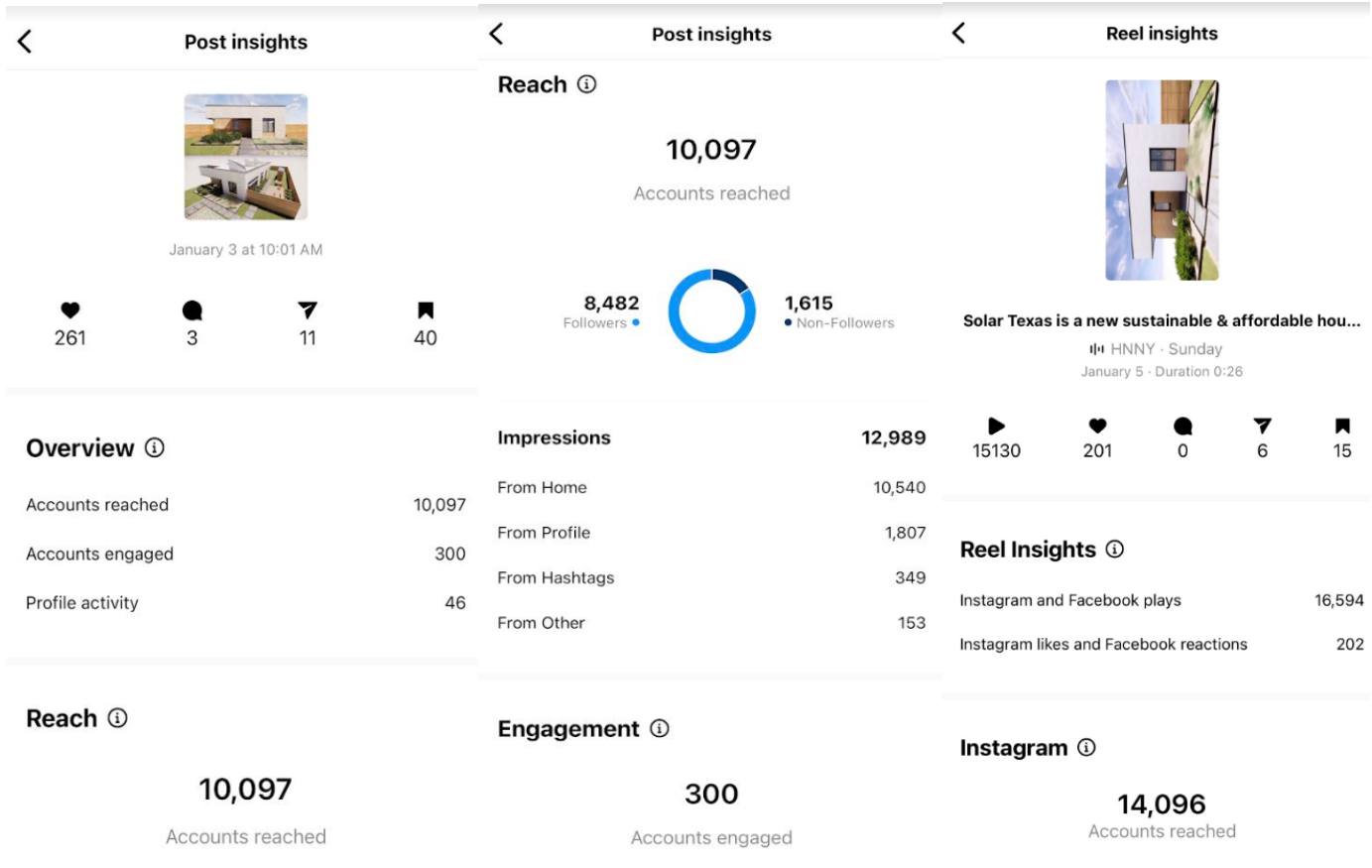


Figure 1: Instagram/Facebook Campaign Analytics

Social Media Campaigns

The Solar Texas Net Zero Home project struggled to increase its online presence and reach its target audience effectively. That's when they decided to partner with Archiseeker Digital Media, a leading digital marketing agency in Architectural Design. Archiseeker Digital Media's team of experts worked closely with Solar Texas to devise a comprehensive online marketing strategy that included SEO optimization, social media marketing, and email campaigns. As a result, the partnership generated close to 30 thousand impressions, greatly increasing Solar Texas's online visibility and boosting their project's global exposure. The successful campaign brought in new partnerships and helped Solar Texas establish a strong online presence that continues to benefit them today (Figures 1 & 2).



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Figure 2: Archiseeker Analytics



Figure 3: SolarTexas Team interacting with local residents as the project began construction.

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Figure 4: SolarTexas Team interacting with local residents. Interestingly, since the beginning of the project, local landlords have increased rental income on area residences, many of whom have been in the area for 15 years or more.

Media Campaign Flyer

The Solar Texas Net Zero Energy Home team has been working to spread information about the Solar Decathlon project in the local community through the faculty and students network to the Texas community through the advisory councils from Architecture, Construction Science, and Architectural Engineering Industry Advisory Board members and nationally through our donors.

A sampling of the flyers and PPT presentations made to various groups inside and outside the university are attached below.

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The flyer features a background image of a modern, single-story house with a light-colored wood-grain facade and a dark roof. The word "Howdy!" is written in a cursive font on the wall. The flyer is divided into several sections: a top image of the house, a middle image of the interior kitchen, and a bottom image of a 3D architectural rendering of the house. The text is primarily in white and green on a dark blue background.

SOLAR TEXAS

**NET ZERO
BEGINS
AT HOME**

We are in need of In-kind/Monetary donations from individuals looking to support the construction of a unique, Affordable, Net-Zero home prototype & the adoption of sustainable building practices across the United States.

Who we are:

-  **US DOE SOLAR DECATHLON FINALIST**
-  **TEXAS A&M ARCHITECTURE, CONSTRUCTION SCIENCE, AND ARCHITECTURAL ENGINEERING**
-  **HABITAT FOR HUMANITY PARTNER**

Contact Us:

-  tamusolartx@gmail.com
-  arch.tamu.edu/solartexas
-  5400 Raymond Stotzer Parkway, College Station, Texas



Figure 5: Solar Texas team flyer announcing its partnership with B/CS Habitat for Humanity

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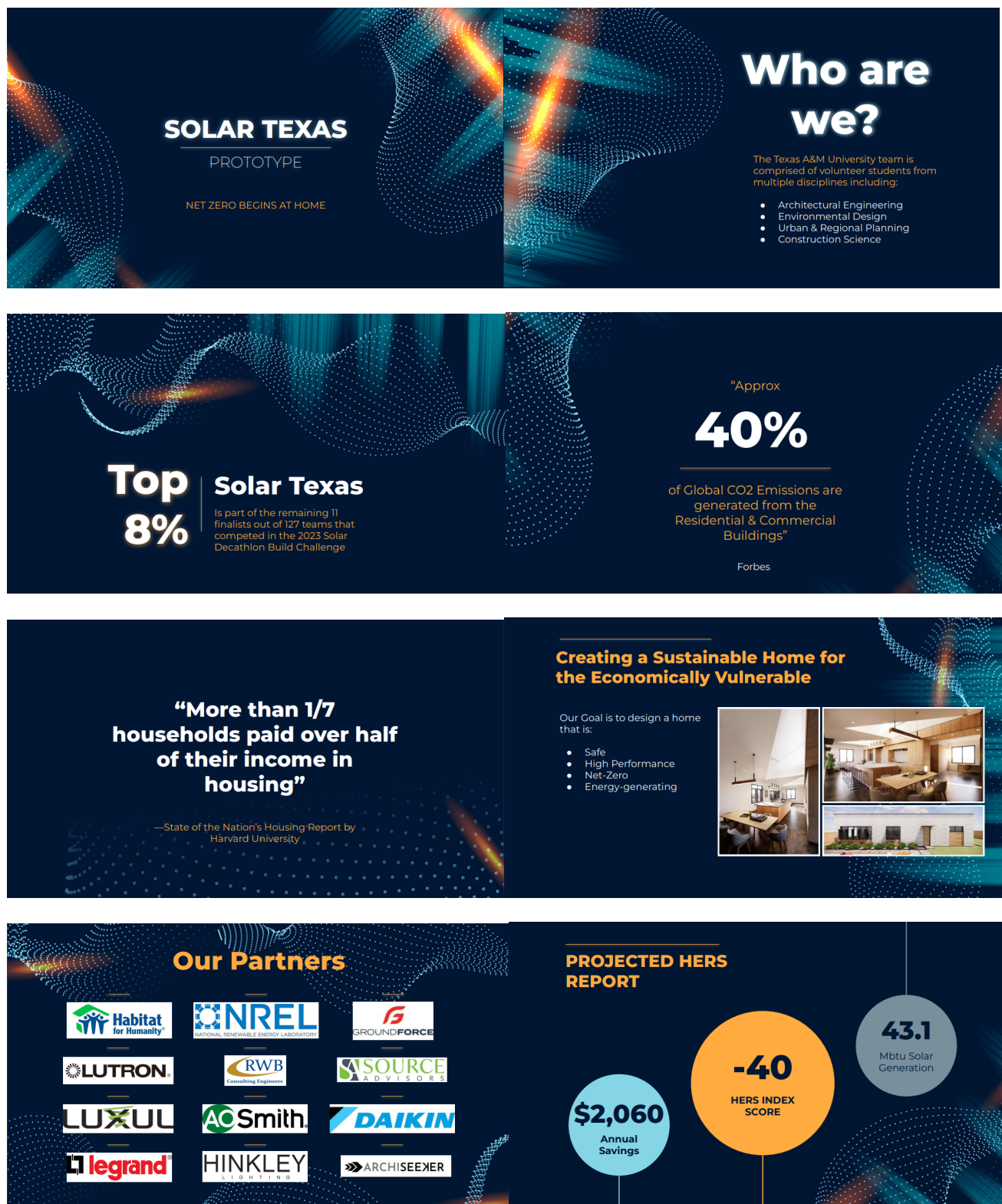


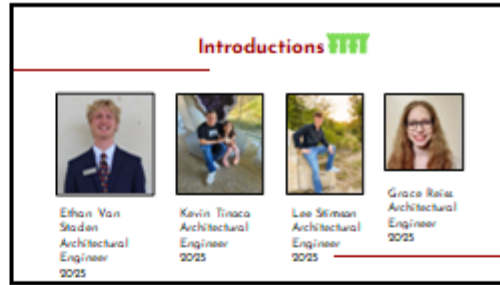
Figure 6: Presentation given to the Architectural Engineering Industry Advisory Council 2023

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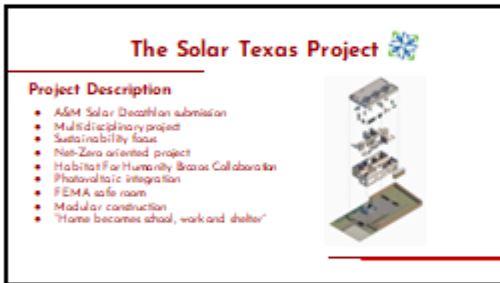
Solar Texas | Texas A&M University (TAMU)



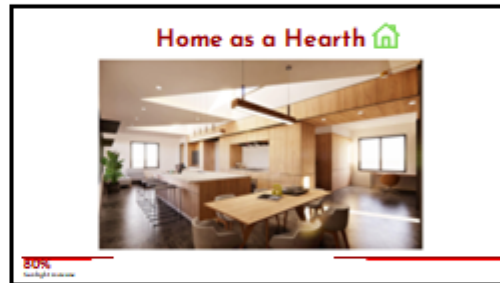
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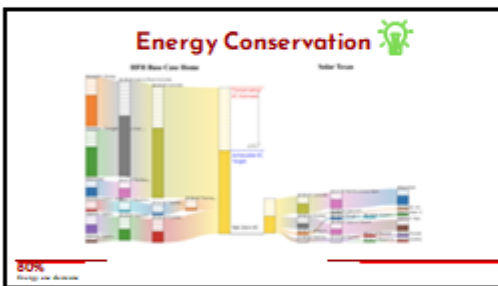


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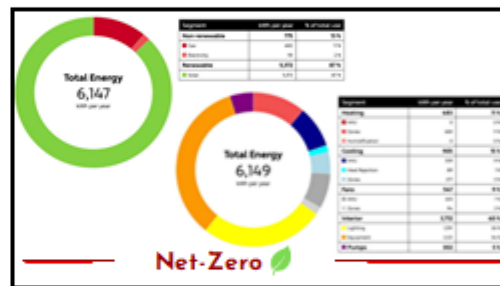
Why we're doing this

- The lack of affordable housing is one of our nation's most pressing crises.
- To provide a high-performance, net-zero, and energy affordable house.
- We want a final product that will not only exceed our expectations, but also be able to adapt with time, benefiting AMH, HSH, and the people that will be positively impacted.
- Wanting to only go up from here, as TABU is a finalist, and we want to show everyone what we are capable of.
- Develop new opportunities for academic and industry partnerships.

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Potential for AREN

AREN Awareness

- People will learn what our program is about
- More people will join
- Program will reach national level recognition

Benefits for AREN

- Hands on experience for students
- Develop skills for future careers
- Form connections with companies and organizations

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Potential for You

What benefits you?

- Aide a good cause
- Recognition in all promotional literature
- Presence on TAMU & AREN website and social media for Solar Texas
- Brand recognition within College of Engineering & campus at large
- Potential pool of interns / access to secure talent

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How your support helps

Donations

- Advice/Consulting - experience, connections
- In Kind - time, equipment, materials
- Financial - investment, paying it forward

How it helps

- Getting more people involved
- Making our overall cost of our build lower
- Helping the TAMU Build become a blueprint for all the Habitat for Humanity homes to be built in Brazos County, and possibly Texas



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Fund Raising, Friend Raising, Raising The Roof




- MEP&S Plan Review
- Fund Raising
- System Selection
- Fund Raising
- Systems Procurement
- Fund Raising
- Blitz Build
- Fund Raising
- Compete

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Value | Purpose | Impact

- High Impact Experience
- Multidisciplinary
- Experiential Learning
- Co-curricular partnership with College of Architecture, Mays Business School + Habitat for Humanity




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The Few | The Proud

By the Faculty Board of the TAMU Build Challenge Committee in collaboration with industry partners

1. Habitat for Humanity, College of Architecture, College of Geosciences, College of Education
2. Mays Business School
3. Habitat for Humanity, Brazos Valley
4. Texas A&M University, Brazos Valley
5. Texas A&M University, Brazos Valley
6. Texas A&M University, Brazos Valley
7. Texas A&M University, Brazos Valley
8. Texas A&M University, Brazos Valley
9. Texas A&M University, Brazos Valley
10. Texas A&M University, Brazos Valley
11. Texas A&M University, Brazos Valley
12. Texas A&M University, Brazos Valley
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17. Texas A&M University, Brazos Valley
18. Texas A&M University, Brazos Valley
19. Texas A&M University, Brazos Valley
20. Texas A&M University, Brazos Valley

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The Competition Timeline

BUILD CHALLENGE

Teams competing in the Solar Decathlon Build Challenge work during a two-year period to design, build and operate their houses in their own region with student work culminating in April 2023 with the Solar Decathlon Competition. Hosted at the National Renewable Energy Laboratory in Golden, Colorado.

- Participants design and build complete, functional houses in their communities to demonstrate creative solutions for real-world issues in the building industry.
- Teams will compete in seven phases by operating their house successfully, and by showcasing the excellence of their solution in industry expert panels.

Next Application Deadline
October 28, 2021

Competition Events
April 20-24, 2023
April 25-27, 2023
April 28-30, 2023



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Figure 7: Presentation given to the Architectural Engineering Industry Advisory Council 2022