IGEN ENERGY99CHALLENGE

Submitted By: The Institution of Green Engineers

Organization Profile

Organization Name: The Institution of Green Engineers

Organization Type: Civil society

Website: https://www.sdg7.theigen.org/

Practice Details

Country(ies): India

City(ies): Chennai

Start Year: 2022 **Ongoing:** Yes **End Year:** N/A

Main Adequate Housing Components:



Housing Thematic Areas:

Housing & Climate Mitigation

Relevant SDGs:



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Problem & Context

The IGEN ENERGY99CHALLENGE tackles unsustainable household energy use by promoting behavior change through the #ENSAV9MANTRAS. The challenge emerged because existing policies largely focus on technology, supply, and infrastructure, leaving a gap in grassroots engagement and consumer behavior transformation. Many households are unaware of simple, low-cost actions that can significantly cut electricity use, water consumption, and CO_2 emissions. By mobilizing students to reach 99 homes each, the initiative fills this policy gap—building community awareness, reducing household energy tariffs, and aligning local actions with global SDGs (7, 12, 13). Recognized by UN DESA (ID #SDGAction48555), it demonstrates how academic-community collaboration can achieve large-scale, sustainable impact.

Solution Developed

1) The IGEN ENERGY99CHALLENGE tackled unsustainable residential energy use by promoting the #ENSAV9MANTRAS—nine simple actions for saving electricity, water, and reducing CO_2. Students, trained as "Energy Ambassadors," each reached 99 homes, guiding families in adopting daily sustainable practices. The beneficiaries were households, especially middle- and lower-income families, who gained reduced energy bills and improved awareness.

2) The objectives were to drive grassroots energy conservation, enable each home to save ~3,650 units annually, cut emissions and water use, and engage students as community leaders while contributing to SDG 7, 12, and 13.

3) The practice was innovative through its measurable "99 homes" model, social innovation using students as change agents, and institutional partnerships between schools, colleges, and communities. Digital campaigns, awareness videos, and recognition by UN DESA (SDGAction48555) further amplified impact and scalability.

Implementation

The IGEN ENERGY99CHALLENGE implemented the #ENSAV9MANTRAS, nine household-level actions such as switching off unused appliances, efficient lighting, reducing standby power, water conservation, and responsible consumption. Students acted as Energy Ambassadors, each engaging 99 homes to ensure practical adoption and awareness.

Actors involved included:

- Academic institutions (engineering colleges & schools): mobilized students and staff.
- Community groups & households: direct beneficiaries adopting the actions.
- The Institution of Green Engineers (IGEN): designed and coordinated the program.
- UN DESA: provided international recognition (SDGAction48555).
- Government bodies are yet to formally support, though the initiative appeals for state-level scaling.

Timeline: Conceived in 2021, launched in 2022 with planning and student training; outreach and implementation continued through 2022–2024; recognition by UN DESA in 2023; scaling and advocacy efforts ongoing.

Resources & partnerships: Primarily supported by academic institutions and IGEN through faculty mentorship, volunteer time, and student participation. Financial resources were limited, relying on institutional support for logistics, awareness materials, and local events. Partnerships with communities and digital platforms (videos, campaigns, Facebook groups) amplified reach and ensured accountability through photos/videos as proof of action.

Enablers & Obstacles

Key drivers and enablers of the IGEN ENERGY99CHALLENGE were strong community engagement, enthusiastic participation of students and faculty as Energy Ambassadors, and the leadership of IGEN in designing a simple, scalable “99 homes” model. Digital campaigns, video advocacy, and recognition by UN DESA (SDGAction48555) further boosted credibility and adoption.

The main obstacles were limited financial support, lack of formal government backing, and challenges in sustaining household behavioral change. These were addressed through voluntary student efforts, partnerships with colleges for resources, low-cost digital outreach, and proof-based monitoring via photos/videos to ensure accountability and motivate households.

Results & Impact

The IGEN ENERGY99CHALLENGE achieved measurable results: 33,165 homes were reached, with ~75% implementing actions; each household saved ~3,650 units of electricity annually, cutting 4,745 kg of CO_2 and saving 262,000 liters of water. In total, over 8 million units of electricity were conserved, engaging 256 students and 76 staff from 25 institutions. Evidence includes photos, videos, and UN DESA recognition (SDGAction48555). Qualitatively, the project built a culture of responsible consumption, empowering students as sustainability leaders and households as active participants in climate action.

For low-income households and marginalized groups, the impacts were significant—energy savings translated into lower monthly tariffs, easing financial stress while ensuring better access to affordable, clean energy. Simple no-cost actions meant inclusivity, allowing even resource-limited families to participate.

In the longer term, the initiative fosters sustained community awareness, lowers collective energy demand, and contributes to national climate goals. Economically, reduced tariffs free resources for other essential needs. Environmentally, cutting emissions and conserving water directly supports SDG 7, 12, and 13, while institutionally it strengthens academic–community collaboration for scalable, grassroots-driven climate solutions.

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Replication & Scale Up

Yes, the initiative was replicated across Tamil Nadu, impacting 33,000+ households. Key factors were the scalable 99 homes model, strong student–faculty leadership, and active community participation. Support from academic institutions provided structure, while digital tools and social media enabled awareness, proof-sharing, and transparency. Recognition by UN DESA (SDGAction48555) added credibility, inspiring confidence for wider adoption.

Yes, the IGEN ENERGY99CHALLENGE was replicated across Tamil Nadu, reaching over 33,000 households. Success came from its scalable “99 homes” model, strong student–faculty engagement, and community participation. Support from institutions, use of digital platforms for awareness and proof, and international recognition by UN DESA (SDGAction48555) added credibility and inspired wider adoption, proving the model effective for replication in diverse regions.

Policy Uptake

This housing practice is a new or innovative practice that is not yet adequately or fully integrated into formal policy frameworks.

To embed the IGEN ENERGY99CHALLENGE into policy, governments should mandate Energy Saving Clubs in schools/colleges, integrating the #ENSAV9MANTRAS into curricula and community outreach. Provide financial and institutional support for student-led energy audits, certify energy-saving households, and link outcomes with state and national SDG targets. Formal recognition in policy will ensure scalability, sustained impact, and inclusion of low-income households.

Lessons & Takeaways

In hindsight, the initiative could be improved by securing greater government and industry support to provide financial backing and recognition, ensuring wider scalability. Stronger monitoring tools to track actual household savings beyond self-reporting would enhance accuracy. Expanding engagement with low-income and rural households through localized materials and language support would improve inclusivity. Finally, creating policy linkages earlier could accelerate mainstream adoption.