

Fram Energy Technical assistance request

Team: Fram Energy

Explanation:

Rental tenants are being excluded from the home energy transition. Their energy bills are 37-76%¹ higher than homeowners' because their homes often:

- are less energy efficient;
- have old appliances;
- feature outdated HVAC technologies;
- lack access to onsite energy generation.

To illustrate, 99% of California's residential solar panels are deployed on owner-occupied homes.²

This gap means we are exacerbating energy inequity and poverty in disadvantaged communities who are more likely to forgo potential savings.

This gap in energy costs in rental home exists for two key reasons:

- incentives are split: the property owner pays for the upgrades, such as solar panels, but it's the renter who reaps the benefits of lower energy bills, so the upgrade is not done.
- Property owners lack knowledge and experience on energy retrofits and how to deploy them.

Fram tackles both these problems at their root by providing property owners with a "menu" of retrofits and realigning incentives by splitting energy savings between the tenant and the landlord through tenant energy billing software. By creating a route to profitable and de-risked retrofitting of rental properties, Fram Energy is bringing the benefits of the energy transition to renters.

Areas of support requested:

The support we are requesting concerns five main areas:

1. Development of Fram's multifamily building energy performance database
2. Support in developing our energy savings model
3. Support in mapping relevant local regulatory and financing levers
4. Streamlining design of Fram's end user interface
5. Identifying specific disadvantaged communities that could benefit from Fram's solution

Key needs:

¹Khalil Shahyd; [Study Highlights Energy Burden for Households and How Energy Efficiency Can Help](#)

² Canary Media; [Adding solar to California apartments could get easier — if regulators go along](#)

- **Population of a proprietary database:** We aim to create the largest and best database of multifamily property energy performance. This database would contain information on energy performance of multifamily buildings and retrofits with associated energy and cost savings data. We are seeking to initially populate this database with third party data, and develop a methodology for expanding it with our own proprietary data from when we start to receive customer data. We would appreciate any guidance and advice concerning which paid and open databases are best to use, as well as potentially accessing some university databases if that makes sense from both sides. We would also welcome the opportunity to discuss our plans for ingesting first party data.
- **Creation of energy savings model:** We will design an ML model that will estimate energy savings of performing energy retrofits in specific homes from targeted inputs on the property data. The model will be trained on our proprietary dataset mentioned above and the results will be extrapolated to new properties. We would be very grateful for help in designing and training this state-of-the-art model, and we think the Solar Prize would be very helpful in connecting us to the best experts to speak to.
- **Local regulatory and financial levers:** Fram needs to develop a structured framework to evaluate geographies and map local incentives and regulations as they relate to our product. We would appreciate any support and existing resources. In our next phase we want to become a vertically integrated solution offering property owners an end-to-end solution to install retrofits. We would also appreciate guidance on how to build a market network of local contractors and financing partners.
- **Customer experience in energy billing:** Fram will offer a billing app to renters. We aim to make the experience delightful and bring the benefits of the retrofits to the tenant's life, e.g., by improving tenant credit score the more energy is saved. We would need help to identify best practices for the design of D2C electricity billing apps and to test them with different end users and gather feedback. Working with user experience experts or organizations who have experience with energy justice would be helpful to structure which benefits and perks to roll out first.
- **Communities:** Fram's ultimate mission is to bring the energy transition to rental homes, with an emphasis on disadvantaged communities. We would like to get help from organizations who have mapped communities that live in energy poverty, either at the local, state, or federal level, to help accelerate the roll-out of Fram's solution to those communities. We would prefer to work with local, on-the-ground organizations in the geographies where we are planning pilots to make sure that we are deploying Fram's solution to benefit local communities.