



Turning a Hummer into a Prius: The Opportunity of CLAM's 2nd Property

The Community Land Trust Association of West Marin (CLAM) was founded in 2001 by community members to create stable and permanently affordable housing in an environmentally responsible way in the communities surrounding Tomales Bay. With a goal of creating 50 affordable homes in 25 years, CLAM owns 2 rental units and has helped two families buy their own home as tenants-in-common.

On February 18, 2009 CLAM purchased its second property, a 1/2-acre parcel with a 2-bedroom house and a 1-bedroom second unit on Highway One in Point Reyes Station. The location of the property is ideal for affordable housing, as it is next door to West Marin School and in walking distance to workplaces, transportation and services in downtown Point Reyes Station. This acquisition will enable CLAM to provide two homes for "very-low-income" households, those at/below 60% of Area Median Income (AMI). That would qualify a family of four, for example, that earns no more than \$58,080 per year.

The structures were built in approximately 1920 and were in need of significant renovation. Taking seriously our mission of creating environmentally responsible affordable housing, we saw this renovation as an opportunity to put into practice the growing consciousness and goals of our community and the nation to reduce carbon emissions that contribute to global warming. Thus we are making renovations that would bring these homes close to or at net-zero-energy use.

The renovations of the 2-bedroom home were completed in October 2009. Prior to renovations the home produced approximately 7,000 pounds (3.5 tons) of CO₂ emissions per year from heating use alone. With pro bono help from a local sustainable and zero-energy architectural firm, we developed a plan to drastically reduce these emissions. We have upgraded the energy efficiency of the house and hope to provide renewable energy, either with a modest solar photovoltaic system on-site or combined with community clean energy, to achieve net-zero-energy use for this structure. This means low or no utility bills for tenants as well as the positive impact of converting a Hummer to a Prius in the form of a low or carbon neutral home.

The second unit on the property was not a viable structure, making it more cost-effective to replace than repair. We plan to construct a net-zero-energy use home in its place, building to Passive House standards. Passive House represents the cutting edge for energy efficiency, developed on tens of thousands of homes in Europe. Energy efficiency in a Passive Home is achieved through a well-insulated, tightly-sealed building that is primarily heated by passive solar and internal gains from human uses and appliances. A steady supply of fresh air is provided using a Heat Recovery Ventilator that uses the exhaust air to warm incoming air. Passive Houses are so efficient that no central heating system is required, even where winter temperatures fall to freezing.

Building a Passive House 750 square foot 2nd unit will enable us to provide local employment, along with training in energy efficiency construction methods. The project will also produce replicable plans for a net-zero 2nd unit that others will be able to use to create more affordable homes. This will be the first certified Passive House in California and we are already garnering attention beyond West Marin.

We are excited to be creating two model environmentally responsible and affordable homes in Point Reyes Station, one a retrofit and the other new construction.

We are gratified with the support for this project thus far. To date, CLAM has raised over \$700,000 in individual donations and a no-interest loan from a supporter, including a \$50,000 gift from a local donor that community donations matched at the end of 2008 and a grant of \$50,000 from the Marin County Affordable Housing Trust Fund. We need an estimated \$100,000 to complete the project.

Buildings use a major portion (~40%) of energy in the U.S. The goals set by federal, state, and local governments for Climate Action and reduction of Green House Gases (GHG) can only be achieved with massive reductions in energy use in buildings. By demonstrating exemplary GHG reductions on this project, CLAM will be part of sparking the rapid proliferation of similar building efficiencies in the San Francisco Bay Area, throughout the state, and across the nation. We believe that this project can play a role both in building momentum and in learning more about offsetting climate change by providing training opportunities and a demonstration of what's possible in a highly visible location in a well-visited community.