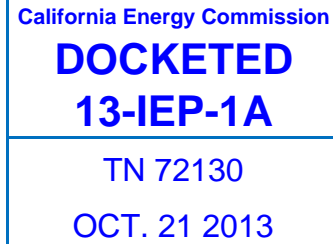


October 21, 2013

Commissioner Andrew McAllister
California Energy Commission
Docket Office, MS-4
1516 Ninth Street
Sacramento, CA 95814



RE: Docket number 13-IEP-1A – Draft 2013 IEPR Zero Net Energy Definition Comments from Global Green USA

Dear Commissioner McAllister,

Global Green USA is writing to provide comments on the definition of Zero Net Energy (ZNE) Buildings that is currently under consideration for the 2013 Integrated Energy Policy Report (IEPR).

California's energy agencies adopted a goal of achieving Zero Net Energy for new residential buildings by 2020 and non-residential buildings by 2030 in order to address long-term energy issues by increasing the sustainability of the building sector. However, our work on Solara and Los Vecinos - the first two zero net electricity affordable multifamily homes in the state - revealed the difficulty of achieving ZNE in medium and high-density buildings. Our experience from this PIER-funded effort demonstrated that if ZNE is applied in a way that each building must offset annual energy use with on-site energy generation, it unintentionally limits most buildings to a height of two or three stories. This limitation on building volume and associated density of residential dwelling units or non-residential space would place severe restrictions on the ability to create the medium-density, mixed use, bikeable and walkable communities consistent with the vehicle miles traveled (VMT) reduction goals of SB 375.

To meet the ZNE goals related to future energy provision, while also promoting sustainable patterns of development, it is essential that the definition of ZNE include not just buildings, but the urban context in which they are built. The definition should thus allow for density, transportation, and land use diversity to be factored in and offer ZNE equivalence as an option to achieving building-specific ZNE. Furthermore, to maintain consistency with state policy, any ZNE definition should reflect the GHG emission reduction goals of AB 32 and SB 375.

Larger buildings in more dense urban contexts with limited potential for onsite renewable generation need to have a means to achieve the ZNE objectives through utilization of offsite renewables and tradeoffs with community-based solutions that reduce transportation energy. This approach is consistent with the ZNE equivalent proposal included in the presentation given at the July 18th workshop.

One example of how this type of equivalency could be determined is provided by a current project being conducted by Global Green in collaboration with the City of Chula Vista, Criterion Planners, and San Diego Gas and Electric. The focus of the project is to develop a tool that calculates the energy savings and GHG emissions avoided as a result of the community, infrastructure, and buildings measures addressed in

the LEED for Neighborhood Development rating system. The savings projections generated by the Climate Neighbor tool are based on factors developed by state and nationally recognized research organizations such as Lawrence Berkeley Laboratories and CAPCOA, or that are generated from CEC-approved energy compliance software. The Climate Neighbor tool has the potential to serve as an initial framework for the development of a ZNE equivalent verification system that combines VMT reductions and building efficiency measures.



Application of this tool in several pilot locations has demonstrated that the combination of transit-access, density of development, and urban design measures typically leads to at least a 25% reduction in energy use and corresponding GHG emissions. Being able to combine these savings with building specific energy efficiency and on-site generation strategies would enable a much larger pool of projects to be able to meet the ZNE standard.

Global Green USA is a national non-profit environmental organization that focuses on smart solutions to fight global warming with an emphasis on green buildings and sustainable cities. Over the past decade, Global Green has established itself as a national leader in promoting green building practices in the affordable housing community. Global Green consults on net zero projects throughout California, and was the official consultant on the first two net zero electricity affordable multifamily homes in the state, Solara and Los Vecinos. Global Green also was the lead sponsor of a residential net zero energy bill for new construction, AB 212 (Saldana), in 2009.

We encourage the CEC to use an inclusive, comprehensive, and systemic approach in developing the ZNE standards and recognize that buildings do not exist in isolation and that energy use is significantly influenced by the surrounding land use and transportation context.

Sincerely,

Walker Wells, AICP LEED AP
Green Urbanism Program Director, Global Green USA

Mary Luevano
Policy Director, Global Green USA