



AIA Redwood Empire

A Chapter of the American Institute of Architects

DOCKET

11-IEP-1G

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Chair Robert Weisenmiller, Presiding Member
Commissioner Carla Peterman, Presiding Member of Renewables Committee
Commissioner Karen Douglas, Associate Member
California Energy Commission
DOCKETS Office, MS-4
RE: Docket No. 11-IEP-1G
1516 Ninth Street
Sacramento, CA 95814-5512

SUBJECT: COMMITTEE WORKSHOP ON RENEWABLE, LOCALIZED GENERATION (Docket # 11-IEP-1G)

Honorable Chair Weisenmiller and Members of the California Energy Commission:

Thank you for letting me speak as an architect member of the American Institute of Architects (AIA), VP of the Redwood Empire Chapter. The same week as your hearing, I also attended the AIA National Convention.

At the AIA Convention, the theme was "Regional Design Revolution, Ecology Matters." A pretty strong statement for the AIA to make. The choice of New Orleans poignant for a convention with that theme. As expected, a fair number of educational seminars with green themes were presented – a net zero federal building, walkable livable planning efforts, climate protection planned communities, and so forth, many here in California.

More impactful was the choice of keynote speakers focused on revolutionary visioning of our environment. The first was Thomas Friedman, author of Hot, Flat, and Crowded. Thomas Friedman's message to the AIA was that climate weirding is not going away, and we are not doing enough. In fact there are five major problems facing the world right now. Those are:

- Materials, energy, and resources supply and demand (including food)
- Petro-dictatorships
- Climate change (climate weirding)
- Energy poverty (1.6 billion people living without electricity)
- Biodiversity (extinctions)

Thomas Friedman said that we are having a green party, when what is needed is a green revolution. Kind of weird to have come so far, to be told we are just dallying in the novelty of green and not truly embracing it as a lifestyle choice, leading our communities with our demonstrated efforts. Party sounds fun, revolution sounds dramatic and challenging – think

of the people revolting against the tyranny of their rulers. In California we like to be leading the way in a party like fashion. Could that still be revolutionary?

The very clear solution to these five planetary problems, Tom Friedman says, the one thing that solves all of our global challenges, is clean, cheap, abundant, reliable, electrons. It is time for a revolution of electrons.

Tom Friedman is right. Sustainability and net zero integrated planning and design should not be something that architects just look for in a few LEED points but should be the norm for every project. It should not be something we can put on or take off a project like a sweater that costs too much maybe we can have it, maybe we cannot. We have got to make the finances work. Every time we have an opportunity to build or renovate a building is a highly valuable moment. As architects we have the opportunity to engage in leading the revolution in how we speak to our clients and communities, in every decision point, and by the quality of the buildings we create. Change is slow except when we have revolutions. That is what we need now. We should stop mingling with green ideas and make more dramatic choices.

With this goal of 20,000 MW by 2020 of distributed generation renewable electricity, the CEC has the power to move us in the direction of clean, cheap, abundant, reliable, electrons, and beyond to storage systems. You at the CEC are at the top of the electron food chain. WOW! What a tremendous opportunity. For your consideration I presented some ideas at the hearing which I would like to document here.

ADD TO MOU: For your MOU have you considered engaging the Agricultural Commission, and the Strategic Growth Council and/or Building Industry and others?

REFARMING CALIFORNIA: Regarding adding an MOU with the Ag Commission, there seems to be a confluence of farming for food and farming for energy. You are both chasing the same natural resources of wind, sun, and water. Farming the State's Natural Resources of wind, sun, and water to produce energy is an agricultural process. Also, the waste of agriculture can create energy for agriculture and other uses. Perhaps you could work together to create a biodynamic resource, food, energy loop. There are synergies in the dynamics of water + soil => food growing => harvest => byproduct => becomes energy. And there is competition for land. How do we go to net zero food supply and distribution with clean, cheap, abundant, reliable, electrons? The High Speed Train presents an excellent opportunity to partner with Agriculture to create a green corridor of DG infrastructure and net zero food supply as it is developed. Along the HST there could be composting and biomass facilities that feed fuel cells so that corridor really drives green clean energy in the state and bring us our food in the city.

PATHWAYS TO A NEW URBANISM: There are a variety of changes going on in the planning of communities. Changes in Planning, Redevelopment, SB375, Priority Development Areas, Energy Districts, Infrastructure, Transportation, and Housing are all related. Planning must include energy and infrastructure plans for net zero environmental impacts. There seems to

be a great need for planning of development that is integrated – includes all aspects of energy and materials and site development impact. LEED and other rating systems are just a scratch on that surface, a party for the green market, but not a revolution of electrons at the larger urban scale.

At the AIA Convention, saw a presentation from Thomas Lollini, FAIA, with the University of California. He showed how they are proceeding to develop the UC Merced campus in an integrated planning manner, joining energy planning, utility services, walkable livable urbanism and sustainability measures. This is precisely what we need, everywhere. Mr. Lollini, almost apologizing, admits that he can take special measures working outside of traditional planning because he is only working on the UC campus and they can self-regulate. We need to be able to replicate his model in existing urbanism and within traditional planning venues. That would be a revolution of electrons. You can help.

BRIDGING TO A NEW FUTURE: Mr. Lollini's work is an extension of the scenario planning of the Strategic Growth Council for the development of the High Speed Train. It seems like having them involved in your efforts could be productive. With changes to the Central Valley and new cities growing – energy and infrastructure must be designed with the planning. In traditional planning, the developer asks the utility if they can supply the energy water, wastewater. The developed does not design these systems wholistically with their development. Can you include the Strategic Growth Council in your DG target and project it forward through regulations for new development? Certainly they are looking at strategic implementation and have an idea where growth is to occur. Where there are new cities, there should be even greater effort for DG renewables. What is your plan to have clean, cheap, abundant, reliable, electrons in those communities form the ground up?

MICRO-INFILL : Is there a way to regulate building and planning to consider the full energy and sustainability impact upon the California environment? Every building should have a little PV or DG. Chair Weisenmiller asks what about commercial retrofits. How can you retrofit existing buildings with clean, cheap, abundant, reliable, electrons? Almost as outrageous as making every building have a seismic retrofit, or become accessible, you could regulate energy retrofits with every renovation. Yes that adds a burden to the construction industry. It will cause some building owners heartburn or they will renovate less frequently. Perhaps we will value the embodied energy of our built environment greater. How do we make the cost bearable on the average building owner so this can happen?

Retrofitting existing urbanism is an even greater challenge. Ellen Dunham Jones, in her book [Retrofitting Suburbia](#), shows us the way to retrofit existing suburban development patterns to move us in the right direction. It is the challenge of the next 50 years. She worked with us here in Santa Rosa to put forward new urban ideas for Northwest Santa Rosa in the [SMART Ideas Community Charrette and Urban Design Competition](#). That book is available at www.blurb.com. In that book we show major new urbanism, and start where you are solutions, just densify and infill even at a micro scale. We must retrofit at the urban scale and at the individual buildings for a cleaner energy future. Can the AIA help you with that or some other building industry representative?

CONNECTIVITY: Finally, there could be a connection between energy and transportation. A major part of our GHG footprint is due to combustion engines. As you densify, this should reduce in connection with cleaner forms of transportation. There is already an increased need for the connection between transportation and planning. Here we have the MTC funding planning for TOD adjacent to transportation. You could ask them to require TOD planning to include energy districts and infrastructure planning.

Also, increasing EV and Hybrid plug-ins can shift transportation loads to nighttime electrical loads. As market starts to fill with EV and plug-in hybrids, between now and 2020, the load demand curve could shift. How can you move the transportation load to off peak clean electrons? You could plan for distributed generation to reduce commute and fleet environmental impacts. WOW!

What is the real objective of Governor Brown's vision? He said we could be producing 1.3 million MW of clean energy in our state. WOW! What is the best strategy to achieve it? The CEC has such a great opportunity now at the head of the electron food chain, such an opportunity to do new things well, to envision our future, and retrofit the energy footprint of the past.

When I was a child I visited my grandmother in Pasadena in the 1960's. You could not see 100' ahead and your eyes stung so bad you cried. The Great State of California has already made progress. We lead the country in clean energy production and reduction of pollution, but are we just having a party? Is 20,000 MW too big of a goal or is it just a drop in the bucket of what needs to and can be done? It is time for a revolution of clean, cheap, abundant, reliable, electrons.

Thank you for your time and attention,



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