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Renewable Energy Transmission Initiative 2.0

Additional submitted attachment is included below.

September 24, 2015

Chairman Robert B. Weisenmiller
California Energy Commission
1516 Ninth St.
Sacramento, Calif. 95814

President Michael Picker
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, Calif. 94102

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Re: Renewable Energy Transmission Initiative 2.0

Dear Chairman Weisenmiller and President Picker:

We are a coalition made up of the following community groups, businesses, agencies and individuals: Oak Hills Property Owners Association, Lucerne Valley Economic Development Association (LVEDA), Johnson Valley Improvement Association, Homestead Valley Community Council, Morongo Basin Conservation Association, Mojave Desert Resource Conservation District, Tourism Economics Commission, Lucerne Valley Market/Hardware, Basin and Range Watch, California Desert Coalition, Desert Protective Council, Alliance for Desert Preservation, Mojave Communities Conservation Collaborative, Friends of the Big Morongo Canyon Preserve, Amargosa Conservancy, The Summer Tree Institute, 29 Palms Inn, Protect Our Communities Foundation, Desert Tortoise Council, Brian Hammer, Marina D. West, John Smith, Pat Flanagan, Bill Lembright, Mildred M. Rader, Jenny Wilder, Chris Carillo, David Mueller, Bill Powers, P.E., Tom Budlong and Neville Slade. Together, we represent a broad spectrum of residents, businesses, organizations, recreationists and conservationists in the High Desert of San Bernardino County.

This letter sets forth our comments regarding the Renewable Energy Transmission Initiative 2.0, better known as RETI 2.0. Given that what we know thus far about RETI 2.0 comes chiefly from the keynote and panel speakers at the September 10, 2015 Joint Agency Workshop, and is therefore limited, our comments will address general themes and over-arching concerns.

1. **RETI 2.0 Should Remain True to the Vision Stated at the Joint Agency Workshop, Which Calls for a Fresh Look at Geographical and Technological Diversity, Consensus-Building, Engaging with Local Governments, Maximizing Existing Transmission and Integrating Environmental Concerns**.

If RETI 2.0 stays true to the vision put forth at the Joint Agency Workshop, it could become a bridge to a sustainable energy future in which our human and natural communities continue to thrive. We were encouraged to hear, among other things, that: (1) RETI 2.0 will abandon RETI 1.0's emphasis on "getting things built," and that, given that renewable energy generation is now established, there is not as much "tension on the need to force projects;"[1] (2) it is time now to step back, take a breath and use RETI 2.0 to take a fresh look at "best fit," geographical and technological diversity, consensus-building, engaging with local governments, maximizing existing transmission and using renewable energy as part of the solution on the integration and reliability side; (3) RETI 2.0 must be more "nuanced and vigorous in terms of integrating environmental concerns" in the planning process; and (4) because we now know a lot more than we knew when RETI 1.0 was launched in 2008, and because so much has changed in the energy economy since then, previously unavailable strategic options can be now be brought into the mix.

The California Energy Commission has adopted a similarly progressive tone in the first sentence of its Distributed Generation Strategic Plan, stating that "[w]e are at the threshold of reinventing the electric power system."

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[1] In that regard, we were informed at the Joint Agency Workshop that RETI 1.0's goal of siting 66,000 MW of renewables in the California desert (out of a total projected 80,000 MW state-wide), is no longer part of the planning picture.

These forward-looking aspirations are also reflected in a March 14, 2015 article in the *Sacramento Bee*, authored by Chairman Weisenmiller and President Picker, which states that:

> "One thing is for sure – the next few years of electric power will be as different as the past 10 years of renewable energy development was from the past 50 years of fossil fuel power plants. More of the same policies will not do the trick."

To be consistent with the vision statements cited above – and to avoid more of the same policies that no longer do the trick -- RETI 2.0 must be willing to depart from traditional energy planning tools, i.e., the designation of certain zones for development of centralized, utility-scale renewables and related transmission infrastructure. That mode of generation is being rapidly eclipsed by far-reaching advances in behind-the-meter distributed generation, which produces clean energy without requiring costly and environmentally-damaging new transmission infrastructure;[2] in battery storage, which promises to obviate the oversupply/undersupply issue; and in increases in energy efficiency, which greatly reduce the need for power generation.[3]

2. The Technology and the Energy Markets Are Already Choosing Site-Specific, Distributed Generation Over Centralized Generation.

Utility-scale energy projects – and related transmission projects -- are rapidly becoming obsolete. They are too expensive, they entail enormous needless transmission costs (see Fn. 2), and they create big environmental and economic problems. The expertise, the money, and

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[2] Due in part to the high cost of building the plants and the transmission facilities needed to connect them to the grid, Californians pay the second-highest electricity rates in the lower forty-eight states, after certain parts of New England. Any new wave of utility-scale projects would require a large and prohibitively expensive amount of additional capital expenses in terms of transmission, which cannot be blithely heaped on the backs of ratepayers. According to an estimate obtained by the Alliance for Desert Preservation from Flynn Resource Consultants, Inc., the new 500 KV lines posited in Alternative 1 of Appendix K to the DRECP, which are needed to handle the utility-scale renewable energy projects it seeks to fast-track into DFAs, would cost between $10 Billion to $22.5 Billion. To paraphrase a panelist at the Joint Agency Workshop, the best transmission is the one that is not built.

[3] According to the CEC's latest Tracking Progress report, there was a doubling of cumulative energy efficiency between 2000 and 2013.

regulatory momentum are moving in the opposite direction, toward site-specific power generation (distributed generation, or "DG"), teamed with a hard-hitting package of innovative efficiencies and conservation techniques.

If anyone has doubts about this enormous sea change in the energy picture, these doubts are quickly dispelled by the executives and trade groups of the companies that have the most to gain by keeping the old system in place: the investor-owned utility companies.

According to the "2015 State of the Electric Utility Survey Results (Here's What the Utility of the Future Looks Like, According to Over 400 U.S. Electric Utility Executives)," which is published by Utility Dive Brand Studio in association with Siemens, utilities are moving away from "the traditional vertically integrated utility model toward a more distributed, service-based model." In other words, according to the survey, DG is seen as the biggest driver of industry growth, while "[t]he opposite of distributed energy – centralized generation – seems to offer little promise of future revenue to utilities. Once a profit center, central station power is viewed by only 8% of utilities as their biggest growth opportunity." The reason for this pronounced shift: "In 2015, the U.S. electric utility is in a state of transition . . . Emerging technologies, shifting consumer expectations, and new energy economics are causing the industry to rethink the business and regulatory models that have served them for over 100 years."

Edison Electric Institute, the utilities' trade group, warned members (in a January 2013 report) that DG and companion factors have put them in the same position as airlines and the telecommunications industry in the late 1970s. Essentially the same point was made in an article in *Bloomberg Business*, entitled "Why the U.S. Power Grid's Days Are Numbered" (August 22, 2013).

David Crane, the CEO of NRG Energy – an energy giant with more than $6 billion in assets world-wide -- agrees that the old model of the U.S. electrical grid, with its centralized power plants and lengthy transmission lines, is doomed to obsolescence (according to the *Bloomberg Business* article mentioned in the previous paragraph). He said that in about the time it has taken cell phones to supplant land lines in most U.S. homes, the grid will become increasingly irrelevant as customers move toward decentralized homegrown green energy, and that some customers, particularly in the sunny West and high-cost Northeast, already realize that "they don't need the power industry at all." Mr. Crane's championing of decentralized DG is particularly noteworthy, given that NRG Energy is the developer of the Ivanpah solar thermal plant.

It is easy to see the potential in DG: The rooftops and parking lots are in close proximity to the consumer, and they present none of the vexing environmental problems presented by

large-scale energy plants. UCLA's Luskin Center for Innovation did a study showing that the rooftops in Los Angeles County alone could accommodate over 22,000 megawatts of DG solar panels. A 2009 Black & Veatch and Energy and Environmental Economics, Inc. report to the CPUC found 11,543 megawatts of large (greater than 1/3 acre) urban rooftop capacity and 27,000 megawatts of ground-mounted capacity near existing substations. A June 2010 update of the study found that California has a capacity of 55,000 megawatts of decentralized solar photovoltaic (over 100,000 GWh/ year).[4]

Indeed, as stated in CEC's above-quoted Distributed Generation Strategic Plan, "[w]e are at the threshold of reinventing the electric power system."[5]

By shrewdly taking note of just how much DG has already supplanted centralized generation, RETI 2.0 is perfectly positioned to anticipate residential and commercial development which employs these new technologies and efficiencies. It is equally well positioned to avoid an initiative which encourages the destruction of significant portions of the State's desert and Central Valley with outmoded large-scale solar projects, wind turbine plantations and transmission infrastructure.

We are fortunate that the State's Legislature and regulators have already acted to smooth the way for adoption of policies and plans consistent with the new energy paradigm. Together, these statutes, rulings and programs provide a comprehensive roadmap enabling the formulation of a truly forward-looking RETI plan. We now turn to a discussion of some of the most

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[4] We were informed by a member of Chairman Weisenmiller's staff, during the Joint Agency Workshop, that RETI 2.0 recognizes DG's potential, as reflected in a recent IPER forecast that there will be 12,000 to 14,000 MW of new rooftop solar installed within the next ten years. These figures greatly understate the trajectory of DG's growth, as reflected in the CEC's own data, and therefore they should not be relied upon by RETI 2.0 in formulating its planning assumptions, particularly given that most, if not all, of the State's energy needs could be supplied by DG located in the built environment. If RETI 2.0 is to achieve its stated aims, it must take into account the trends evidenced by the existing data regarding the increase in DG use.

[5] New, cutting edge renewable energy technologies are constantly emerging. For instance, using turbine-generators, otherwise wasted renewable energy – in the form of water flowing through the State's pipelines – can be harnessed to create electricity near load centers. See www.nlineenergy.com.

important such laws and programs, and we provide specific examples of how certain counties and cities have taken advantage of them.

3. California Statutes, Regulations and Programs are Already in Place Which Favor DG, and Certain Counties and Cities Have Already Implemented these Plans and Policies.

We will briefly highlight some of the referenced laws and policies below:

(1) **Public Utilities Code Section 454.5(b)(9)(C) and CEESP.**

Section 454.5(b)(9)(C) states that electric utilities "shall first meet its unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible."

Tasked with making this statutory requirement a reality, the CPUC has initiated several proceedings[6] out of which has emerged the all-important California Energy Efficiency Strategic Plan (CEESP). The CPUC calls the CEESP the "Big Idea" approach. The "Big Idea" is this: Zero Net Energy (ZNE) for all new residential construction by 2020 and for all new commercial construction by 2030, and for 50% of all new construction by 2030.

ZNE isn't just some distant aspirational goal. The City of Lancaster announced that simply by installing rooftop solar on a fraction of its homes, parking lots and schools, it is already more than halfway toward its goal of becoming the first Net-Zero city.

As important as Lancaster is as an example, the crucial point is that the utilities regulated by the CPUC are compelled to show compliance with Section 454.5(b)(9)(C), and this compliance almost certainly will entail a major reliance on new efficiencies, conservation measures and technological innovations at the level of individual building structures, leading to a revolutionary new paradigm where new building projects do not result in any new energy demand whatsoever.

(2) **Public Utilities Code Section 769.**

When the California Legislature enacted AB 327 (Section 769), it required investor-owned utilities ("IOUs") to come up with a plan to integrate cost-effective Distributed

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[6] These PUC proceedings are D08-09-040, 08-07-011 and 10-09-047.

Resources, which are defined as “distributed renewable energy resources, energy efficiency, energy storage, electric vehicles, and demand response technologies."

The CPUC took up this mantle in its Case No. 14-08-013, which relates to "Distribution Resources Plans." In its rulings and orders thus far, the CPUC says, sagely, that the goal must be to maximize penetration of DG while minimizing the need for transmission and distribution upgrades. As the CPUC specifically notes, this is a revolutionary approach, because for the first time it takes into account customer-side interactions, and not just meeting load growth and peak consumption.

The IOUs were required to come up with their initial plans by early summer, 2015. As antithetical as the five statutory elements of Distributed Resources might be to the old utility model of doing business, the IOUs must propose specific plans to *maximize* Distributed Generation, while *minimizing* the old utility staples of new transmission and distribution facilities and upgrades. Any plan by an IOU dependent on construction of new transmission lines would first have to justify its departure from the criteria embedded in P.U.C. Code Section 769.

(3) **AB 811 (Financing Through Incremental Property Tax).**

California’s AB 811 (July 21, 2008) authorizes cities and counties to designate areas within which willing property owners may use the property tax assessment process to contract for the installation of distributed energy generation, as well as energy efficiency improvements. These financing arrangements would allow property owners to finance renewable generation and energy efficiency improvements through low-interest loans that would be repaid as an item on the property owners’ property tax bills.

(4) **AB 43 (Green Tariff Shared Renewables).**

California’s Assembly Bill 43 created the Green Tariff Shared Renewables program. This program incentivizes groups like renters, churches, schools and businesses to build unique, on-site shared solar renewable energy projects, with a specific portion of the project capacity to be located within “disadvantaged communities” in order to encourage job creation.

(5) **AB 2514 (energy storage).**

AB 2514 mandates 1.325 gigawatts of new energy storage by California’s three large investor-owned utilities by 2020 in order to make it easier to use batteries and other devices to store renewable power and release it when needed.

(6) **AB 117 (Community Choice Aggregations).**

California Assembly Bill 117 (embodied in Public Utilities Code Sections 218.3, 331.1, 366, 366.2, 381.1, 394 and 394.25) permits the formation of Community Choice Aggregations, or "CCA" programs, under which local governments are allowed to set up power-purchasing agencies and sell that energy directly to the consumer. These programs are given the flexibility to encourage and incentivize rooftop solar, local small-scale (1 MW or less) renewable energy generation and energy efficiency.[7]

(7) **Net Metering and Feed-In Tariffs**. Net metering benefits the homeowner who installs his or her own home-based solar or wind system, by giving a credit for the energy generated. Certain counties have programs in addition to the ones existing under the auspices of the State. For example, SCP, the Sonoma County CCA program, has established a net metering program, for example, which credits and pays for such energy at a rate currently lower than that of PG&E. In establishing its net metering program, the City of Lancaster set electricity rates that city officials said will undercut Southern California Edison's standard residential prices and business rates by 3% and by nearly 15% for its lower-income households.

The feed-in tariff refers to what a renewable energy producer is paid for the energy it feeds into the grid. SCP, for example, has a special feed-in tariff price of $95/megawatt-hour, with the following restrictions: the producer must be smaller than 1 MW, must be compliant with RPS standards, must be new, must be connected to the grid, and located in the Sonoma service territory. With this tariff, Sonoma County has created a big incentive for DG, and to that extent avoided the problems associated with utility-scale projects and the big transmission projects that go with them.

(8) **Miscellaneous Federal, Local and Organizational Guidelines and Programs.**

For example, the U.S. Department of Energy's Community Energy Strategic Planning (CESP) lays out a step-by-step process for local governments to create a comprehensive, long-

[7] CCAs are becoming increasingly wide-spread – JPA's formed by Sonoma and Marin Counties, and the City of Lancaster have adopted CCAs, and four other states besides California allow CCAs; in fact, in Illinois, the City of Chicago and 80% of all households have their power supplied through CCAs. The County of Los Angeles is considering adopting a CCA.

term energy strategy, and it identifies various sources of funding, including block grants, loan programs and technical assistance needed to implement it.

Another example is the Community Solar Program (CSP), which is a program created by the Los Angeles Department of Water and Power (LADWP) to incentivize the development of residential and commercial rooftop solar systems and establish a feed-in tariff program. The LADWP has published an outline of this program and is currently soliciting comments on it.

The Interstate Renewable Energy Council (IREC) has instituted shared community and cooperative solar programs across this country. Based on this "boots on the ground" experience, IREC has prepared and compiled, and will share, reports, best practices guidelines and regulatory policy recommendations and innovations that have become foundational elements in regional, state and federal policy-making efforts, all of which have enabled millions of people to gain access to distributed energy.

4. <u>The Siting of Utility-Scale and Transmission Projects Must Take Into Account The Economic and Environmental Impacts Such Projects Have on the People Who Live in Their Vicinity</u>.

A. <u>Economic Impacts of Utility-Scale and Transmission Projects</u>.

Such impacts would include the resulting decline in land values, a decline in property tax revenue and an overall loss of economic value as vast swaths of the State would effectively be repurposed as industrial zones. Utility-scale projects generate only a small amount of property tax (solar PV facilities generate almost none), and sales tax revenues evaporate once projects are completed, as do construction jobs. In fact, jobs associated with home-building and new retail development would be entirely displaced. Property values – and property tax revenues – drop because no one wants to live next to utility-scale and transmission projects.

Such projects also destroy the intactness of the State's relatively undeveloped land. By way of an example, the value of tourism, recreational and related uses to San Bernardino County -- the value of keeping its deserts intact -- has been estimated at **$1 Billion *per year*** according to a University of Idaho study discussed in Basin Energy Assessment Team's "Renewable Energy Analysis" (October 2013).

If RETI 2.0 relies to any degree on such projects, a careful study would need to be made regarding their above-referenced economic impacts.

B. Environmental Impacts of Utility-Scale and Transmission Projects.

As for being a good neighbor – the track record is not great for industrial-scale and transmission projects. According to the EPA's recently-filed comment letter to the DRECP: "Many… projects on federal land are now encountering impacts during operation and maintenance that are imposing burdens on surrounding communities . . ."[8]

Such projects create noise and dust (given that the biologically-productive surface layer of topsoil and the plants thereon are scoured off during the construction process, which eliminates immense potential for carbon sequestration).[9] They also destroy the beauty of the natural environment and cause essentially irreversible destruction to delicate habitats.

Moreover, utility-scale projects, even large-scale solar PV projects, require a great deal of water in their construction and in their maintenance (primarily for dust-suppression). Developers quite often underestimate the amount of water required when they present their applications, as members of our coalition could attest.

5. RETI 2.0 Must Be Founded on True Baseline Water Studies Solid Data and an Assessment of the Cumulative Impacts that Industrialization Would Have on Groundwater Basins, Including on Those That Are Already Over-Drafted.

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[8] The suggestion is often made that utility-scale power facilities should be located on "disturbed," i.e., previously developed or farmed land. But, given that *all* existing communities have been previously graded and developed for homes, that definition would make all of them ripe for development with industrial-scale energy facilities. By the same token, many desert and Central Valley regions have at some point been farmed and all of these vast tracts of land should not be opened to industrial-scale development. Any place where people live, work, play or go to school ought not be considered "disturbed." The only areas that should be considered "disturbed" would be ones that have been *severely degraded* by human activity, such as brownfield sites, abandoned landfill sites and abandoned mine areas, provided that they are not in or near residences, rural communities, wildlife corridors and sensitive environments.

[9] RETI 2.0 should incorporate a comprehensive study as to whether and to what extent putting utility-scale projects in the desert – in light of the loss of sequestration they cause due to ground disturbance – results in a net gain in carbon reduction.

To the degree that RETI 2.0 focuses on utility-scale renewables and transmission projects, it would require that baseline data and cumulative impact studies be obtained in order to make an intelligent assessment as to whether and what extent such projects might render specific groundwater basins unsustainable and incapable of supporting the current (and projected) needs of the State's businesses and residents.

For example, the data that are currently available indicate that San Bernardino County might be entering into a prolonged water crisis, especially given that we are now in the midst of a fourth year of record low levels of snow-pack and rain.[10]

According to the DRECP, San Bernardino County's well levels have suffered significant declines and groundwater pumping has caused land subsidence of many tens of feet over basins along the Mojave River and further east from Lucerne Valley to Morongo Valley. The DRECP also states most of our groundwater basins are in overdraft or are stressed.

According to the State Water Resources Control Board (the "SWRCB") (in its comments to the DRECP):

> "Extensive development of solar and/or geothermal energy will require a large volume of water supply which is not readily available in a desert environment. Existing sources are already developed and many aquifers are under overdraft or stressed conditions. Extracting an additional 100,000 AF/Y of groundwater will make the situation worse. USGS-GAMA studies indicate that the majority of groundwater in the Basins and Ranges hydrologic province is thousands of years old (i.e., it takes thousands of years for groundwater to travel from the point of recharge to the point of discharge (well)).[11] Only small areas adjacent to the mountains are recharged directly by rainfall or snowmelt, and this groundwater is already developed. Even if there is younger groundwater with the aquifer, it occurs in a relatively thin layer on top of the older

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[10] Our comments in this subsection (and in the following subsection) are directed primarily to the High Desert area of San Bernardino County because we are most familiar with that region. But they apply to some degree, perhaps even to a greater degree, to regions throughout this State.

[11] According to the SWRCB, "[i]n most areas of the desert, deeper, older groundwater is saline. Excessive pumping will likely cause migration of saline water into fresh water aquifers [p. 11]." The SWRCB also says that our aquifers represent a closed system where 66% of the groundwater is between 100 and 33,000 years old with the only "young" recharge coming from the mountains [p. 18].

> groundwater, and the older groundwater quality becomes worse with depth. The EIR/EIS should address the likelihood that eventually large scale development will require an outside source of water, or water treatment and recycling, instead of groundwater mining [p. 22 -23]."

In December 2014, the SWRCB reduced to 00.00% its water allocation to our groundwater basins (the SWRCB later raised it, but only to 5%).

Given our lack of knowledge as to what to expect from California's climate, and that all we have to go on is about 150 years of modern recordkeeping in this state, we do not really "know anything about what is normal in nature's brief millennia" [March 19, 2015 article in *Newsweek*, entitled "Why Californians Are Starved of Water," by Victor Davis Hanson]. That article goes on to say that "[o]ur generation may be oblivious to that fact, but our far more astute and pragmatic forefathers certainly were not," noting that, "[w]hen Europeans arrived in California in the 15th and 16th centuries, they were struck by how few indigenous peoples lived in what seemed paradise—only to learn that the region was quite dry on the coast and in the interior." In short, because we really do not know what to expect in terms of groundwater replenishment, based on only about 150 years of climate recordkeeping – because we really do not know what is "normal" in California, other than that its southern portion has long been very arid – any estimates of the excess groundwater that might be available for big renewable energy projects should err greatly on the conservative side.

Against this background, it is crucial that RETI 2.0 obtain the following data and studies, *before* adopting a plan that places any substantial degree of reliance on the development of new transmission and utility-scale renewable energy projects:

1) How much potable water is found in specific affected groundwater basins?

2) How much water do specific types of renewable energy projects actually use in their construction, dust-control efforts, maintenance and operations (as opposed to the rather suspect estimates typically provided by project proponents)?

3) Are specific groundwater basins being recharged at all and, if so, at what rate?

4) How much groundwater is being pumped to meet our current needs from specific groundwater basins (and at what rate)?

5) What effect is the drought likely to have? and

6) At what level of groundwater pumping will specific groundwater basins become unsustainable (and/or begin to bring in through migration, or up from the underlying saline level, non-potable water that will ruin the aquifers)?

The SWRCB made much the same recommendations in its comments to the DRECP – recommendations that apply with equal force to RETI 2.0.

The SWRCB stated, among other things, that groundwater monitoring should assess surface elevation, as well as quality because, as levels drop, older water is extracted (p. 8) – the SWRCB noted that "[i]n most areas of the desert, deeper, older groundwater is saline. Excessive pumping will likely cause migration of saline water into fresh water aquifers [p. 11]" – and that specific metrics should be established to determine what a "substantial change" would be to groundwater levels – like a certain percentage from an established baseline or a certain number of feet over a period of a year – with appropriate response measures defined (the same goes for water quality -- with physical and chemical parameters to be defined) (p. 8 - 9; see also p. 23). The SWRCB recommends that a "trigger point" for groundwater quality (e.g., for "Total Dissolved Solids") be established, and that "pumping mitigation may involve reduced pumping or cessation of pumping [p. 11]." The SWRCB also opined that the Lahontan and Colorado River regional water quality control plans be considered, with narrative and numerical objectives established to limit degradation even where water quality standards are exceeded (p. 13 -14; see also p. 17).

Without such data – and without a comprehensive and cumulative study of the impact on groundwater that an influx of utility-scale projects would have – RETI 2.0 would lack the metrics needed to establish the crucial "trigger points" at which groundwater pumping would render specific groundwater basins unable to meet the needs of residents and businesses. In short, RETI 2.0 would be unable to make an intelligent determination, prior to enactment of a plan, as to whether such projects would "break the bank" in terms of our available water supply, nor would RETI 2.0 know when to "pull the plug" on groundwater extraction in order to preserve and protect particular aquifers.

RETI 2.0 cannot afford to assume that there will be enough water to satisfy the needs of our citizens, *and* the needs of big utility/transmission developers. We need to know a lot more about groundwater before we create a master plan that would potentially deplete irreplaceable groundwater reserves laid down for the most part during the last Ice Age.

6. <u>RETI 2.0 Would Need Sophisticated Baseline, Measurement, Prevention and Abatement Criteria for Dust and Valley Fever</u>.

Utility-scale and transmission projects create a great deal of dust and dust-borne disease.

There are lots of examples of this throughout the State. For instance, most of the desert ecoregions in San Bernardino County are in nonattainment when it comes to air pollutants like ozone, PM10 and PM2.5 particulates. The EPA recently identified 516,000 acres of soil with moderate-to-high wind erosion potential, just within the DFAs in the DRECP, much of which are in this County. According to the EPA's comment letter to the DRECP, "the potential for exposure to Valley Fever is of particular concern for large-scale construction projects in the arid regions of the southwest including the Mojave and Sonoran Deserts as well as San Joaquin Valley."

By way of another example, 28 workers at two solar construction sites in San Luis Obispo County came down with Valley Fever. At that point the County Public Health Department, working with the California Department of Public Health, developed specific recommendations, which went far beyond conventional dust control measures. Yet the draft DRECP, after acknowledging that soil disturbance could lead to release and transmission of Valley Fever spores, particularly in the West Mojave area, ignored the experience of San Luis Obispo, and proposes the same old clearly ineffective "band aids." RETI 2.0 cannot go in that same direction.

To the extent that RETI 2.0 adopts utility-scale and transmission projects as planning tools, it would have to establish a data baseline for soils and State-wide baseline maps depicting the various types of soils, as well as prevention and abatement criteria that actually work, and adopt monitoring and enforcement criteria with real teeth in them, as opposed to mere "slaps on the wrist."

Only after an understanding is gained as to soils conditions throughout the State, can wise assessments be made as to how much injury utility-scale construction and operations would inflict on our health. Further, RETI 2.0 could then decide whether particular areas should be placed off limits to large-scale construction, due to their susceptibility to wind erosion, Valley Fever outbreaks and the like.

7. <u>The State's RPS and GHG Mandates Do Not Require that We Waste the Opportunity, and Avoid the Responsibility, of Engaging in Reasoned and Wise Energy Planning</u>.

The RPS and GHG mandates were cited in the Joint Agency Workshop as the drivers behind RETI 2.0. Unfortunately, even though we have the technical ability to include DG-generated energy in the RPS, the RPS does not yet do so, which tilts the playing field in favor of the development of utility-scale/transmission facilities. But there are CPUC proceedings actively considering this issue and, given current trends, it is inevitable that behind-the-meter DG will eventually be included in the RPS. RETI 2.0 should adjust its goals accordingly.[12]

In terms of the RPS mandate, RETI 2.0 should take its direction from Governor Brown's inaugural speech in January of this year – in which he recommended increasing the RPS goal to 50% by 2030 – made absolutely no mention of utility-scale facilities. Governor Brown instead stated in that speech that:

> **"**I envision a wide range of initiatives: more distributed power, expanded rooftop solar, micro-grids, an energy imbalance market, battery storage, the full integration of

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[12] The whole point of the RPS is to reduce greenhouse gases, as per AB 32 (the "California Global Warming Solutions Act of 2006"). For this purpose, a kilowatt of rooftop solar is just as good as a kilowatt of utility-scale solar. Any purported justification for excluding anything behind the meter should be examined closely and with healthy skepticism. As we noted in the main text above, the CPUC is currently conducting proceedings bearing on the eligibility of differing generation sources for RPS status; we are cautiously optimistic that these viewpoints are being carefully considered.

AB 32 requires the California Air Resources Board to adopt rules and regulations to reduce greenhouse gas emissions to 1990 levels by 2020. AB 32, and its predecessor Executive Order S-3-05 (Statewide Greenhouse Gas Emission Targets), address emission reduction goals, and do not mandate that new renewable energy generation be provided by utility-scale plants. Thus they cannot be validly cited as "mandates" justifying a single-minded reliance on utility-scale energy generation and transmission.

information technology, and electrical distribution and millions of electric and low-carbon vehicles."

Hence the true vision behind the new 50% RPS goal, which has become law as a result of the recent enactment of SB 350, is one that looks to a sustainable energy future built on DG, such as rooftop solar and micro-grids, and fast-developing technological innovation, rather than utility-scale. That is the approach that should be embraced in RETI 2.0.

In short, RETI 2.0 should not look at the siting of utility-scale and related transmission projects in our un-built environment – our deserts, mountains and valleys -- as being inevitable. Rather, such projects should, if allowed at all, be treated as a last resort, because they have so many negative impacts on our State's people and environment.

Whatever the faults of the current system, the CPUC is governed by a hard and fast set of questions -- whenever new transmission infrastructure is proposed – about whether the proposed project would suit the public convenience and is necessary. When this set of questions was applied to the proposed Coolwater-Lugo transmission project, the PUC quite rightly rejected it. RETI 2.0 should not be ready to throw these hard and fast questions out the window in favor of promoting "landscape-level" planning aimed at achieving the State's RPS and GHG goals.

Thus RETI 2.0 has the opportunity to take a clear-eyed look at the technological and economic trends toward reducing GHG using DG, battery storage and energy efficiency.

8. Because Energy Technology and Economics Are Changing So Rapidly, the RETI 2.0 Should Proceed Slowly and Deliberately.

It is worth considering the enormous problems that the "rust belt" cities were stuck with when rapidly changing technologies and business models left their industries behind. That is where the state stands today when it comes to energy. Unlike the "rust belt" cities, we have advance warning, and the opportunity to avoid a similar fate.

According to the above-cited 2015 survey of over 400 utility executives, utility companies are moving away from the traditional vertically integrated model toward a more distributed, service-based model. These executives point to emerging technologies, shifting consumer expectations, and new energy economics. Our regulators agree, so much so that, according to the California Energy Commission's Distributed Generation Strategic Plan, "[w]e are at the threshold of reinventing the electric power system."

In view of the sweeping change in the energy economy, we would propose that RETI 2.0 allow itself the flexibility to proceed slowly, cautiously and quite restrictively when it comes to industrial-scale and transmission projects. This would allow RETI 2.0 to keep its finger on the pulse of energy trends and to adjust the plan in the face of them. Gradual phase-in and flexibility should be the order of the day.

At the initial phase, RETI 2.0 should carefully limit new utility-scale energy generation and transmission. At the next phase – perhaps three to five years down the line – RETI 2.0 (or 3.0) could take another look at the market for such projects and, if need be, there could be an appropriate adjustment of restrictions. In this phased fashion, only the least sensitive areas of the State would need to be sacrificed.

Why adopt a phased approach? Because we can only ratchet in one direction. Once an acre of land is scraped in order to site a new transmission facility, the damage persists indefinitely for all practical purposes.

The EPA, in its February 25, 2015 comment letter regarding the DRECP, recommended a phased approach for implementation of the DRECP, noting that it should – on a regular basis -- "[u]pdate the evaluation of the amount of renewable energy that may need to be produced in the Plan Area by 2040 to meet State of California and federal renewable energy goals, in light of the market and policy developments discussed above." RETI 2.0 would benefit by taking heed of this very sound advice.

9. RETI 2.0 Must Harness and Actively Encourage Robust Input From the People Whose Lives Would Be Directly Impacted, the People Who Live, Work and Recreate in Our Mountains, Deserts and Valleys.

If RETI 2.0 relies on a small stakeholder group and steering committee, particularly one made up of the IOUs and a sampling of large environmental advocacy groups, it will be unable to appreciate the full spectrum of environmental and social costs involved, especially at the local level. Only a portion of these costs have been highlighted in this letter.

RETI 2.0 cannot afford to make the same mistakes as the DRECP, which, at least in the most current version made available to the public, put too much emphasis on utility-scale renewables and not enough attention on the people affected most, and ignored the technology changes that are making utility-scale obsolete and the shift to distributed generation, battery storage and energy efficiency.

Because of these flaws, there was overwhelming public opposition to the DRECP, which is now, in its Phase II, to cover BLM land only. We were pleased to hear, at the Joint Agency Workshop, an emphasis on building consensus through a strong stakeholder dialogue.

In short, RETI 2.0 must become the open, inclusive and consensus-building process described at the Joint Agency Workshop. As one panel member stated, because prescribing certain outcomes is not normal in land use planning and because complex political, technological and environmental landscapes are involved, a broad spectrum of participants must be invited to the table and their input should be received with an open and informed perspective.

10. <u>Conclusion</u>.

Utility-scale renewable energy and transmission are not favorable uses for this State. We urge that RETI 2.0 guide development toward energy uses that are enlightened, modern, and genuinely a benefit to the people of this State.

We greatly appreciate your time in considering all of the foregoing, and we look forward to a vigorous and productive engagement in the RETI 2.0 process.

Very truly yours,

<u>Community Associations, Businesses and Organizations</u>:

OAK HILLS PROPERTY OWNERS ASSOCIATION

Terry Kostak, President

LUCERNE VALLEY ECONOMIC DEVELOPMENT ASSOCIATION

Chuck Bell, President

JOHNSON VALLEY IMPROVEMENT ASSOCIATION

Betty Munson, Acting Secretary

HOMESTEAD VALLEY COMMUNITY COUNCIL

Joanna Wright, President

MORONGO BASIN CONSERVATION ASSOCIATION

Sarah Kennington, President

MOJAVE DESERT RESOURCE CONSERVATION DISTRICT

Paul Johnson, Vice Chair

TOURISM ECONOMICS COMMISSION

Paul F. Smith, Chair

LUCERNE VALLEY MARKET/ HARDWARE

Linda Gommel, Chief Executive Officer

BASIN AND RANGE WATCH

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CALIFORNIA DESERT COALITION

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