Clean Coalition

Community Update | June 27, 2013





Dear Clean Coalition Friends,

Earlier this week, President Obama underscored the urgent need to reduce greenhouse gas emissions while strengthening the nation's ability to cope with the effects of climate change. The Clean Coalition's work accelerating the transition towards a cleaner, more resilient power system aligns with the President's call-to-action, and recent news gives reason for optimism. Just yesterday, the Los Angeles Department of Water and Power (LADWP) 'switched on' the first solar installation to come online through CLEAN LA Solar - a program that LA's newly elected mayor pledged to expand to 600 megawatts (MW). Moreover, Georgia Power's recent Advanced Solar Initiative, which will bring 210 MW of local solar online by 2016 at no additional cost to consumers, further reinforces that local renewables represent readily available and cost-effective generation for both public and investor owned utilities.

Welcome news also comes from abroad. Japan's solar installations have surged 270% in early 2013 due to a highly effective CLEAN Program - putting the island nation on track to surpass Germany as the world's largest solar market this year. Meanwhile, the government of British Columbia delivered a strong message about its energy future by rejecting a proposed pipeline to transport Alberta's dirty tar sands through the province.

While major shifts are underway in energy generation, the electrical grid is also poised for transformation. The value of intelligent grid solutions – such as demand response, energy storage, and electric vehicles - becomes clearer each day, and successful deployments are quickly proving their technical and economic viability. Tesla Motors' strong growth this year underscores that electric vehicles are a solid, near-term bridge for renewables to power the transportation sector. On a personal note, the Lewis family

recently took delivery of a Tesla Model S, which will be 100% powered by renewables - primarily local. (The "fossil free" license plate to the right will soon adorn the car.)

California = All of these exciting developments point to the

feasibility of the Clean Coalition's 2020 objectives. Importantly, the Clean Coalition recognizes that its ambitious objectives can only be achieved through collaboration, and we would like to thank the following individuals, organizations, and business for their impactful work accelerating the transition to local energy systems: Governor Ritter, Senator Bingaman, Senator Barshinger, Long Island Power Authority, LADWP, the Los Angeles Business Council, Environment California, Vote Solar, the Institute for Local Self-Reliance, Fresh Energy, Advanced Energy Economy, 5 Lakes Energy, Center for Energy Efficiency and Renewable Technologies, UC Berkeley, Stanford University, the City of San Francisco, the City of Palo Alto, the U.S. Virgin Islands, and many more.

This quarterly newsletter is full of additional details on the following highlights:

- CLEAN LA Solar brings power online, primed for expansion
- New California ISO policy will spur greater distributed generation
- Renewable Portfolio Standards under attack
- Policy update: SB 699 moves forward and SB 32 finally poised to launch
- Clean Coalition briefs Sacramento staff on DG Policy
- DG+IG update: Renewables integration and policy solutions
- Two clean energy leaders add expertise to the Clean Coalition Board of Advisors

In the News

NIMBY? Not in LA! | Huffington Post June 26, 2013

NIMBY (not in my backyard) critics have cast a long shadow over the promise of locally-produced clean energy, but recent developments in Los Angeles and other cities and states around the country suggest a shift in attitude.

It's Time to Invest in a 21st-century Power System | Huffington Post | May 30, 2013

An op-ed by Craig Lewis outlines the case for the creation of a 21st-century power system capable of driving sustained economic growth.

LADWP Moves Forward With 'Bundled' FIT Program | California Energy Markets | April 24, 2013

The Los Angeles Department of Water & Power Board approved a plan to solicit proposals from developers for both a utility-scale solar project and a 50 MW feed-in tariff program in a "bundled" fashion.

What Lies Ahead for California Solar? | Solar Industry Magazine | April 22, 2013

California's solar market now stands at the edge of a new era, and industry advocates are optimistic that drivers, such as the state's aggressive renewable portfolio standard, will help keep the market moving forward.

Keeping Iowa's Energy Dollars in State | Huffington Post | April 2, 2013

A bill in Iowa would have fostered the growth of locally owned and produced wind power. This op-ed outlines the Clean Coalition's support for the bill, which could have significantly strengthened lowa's economy and

- Clean Coalition partners with CalSol
- Featured event: Energy Storage North America

As always, thank you for supporting the Clean Coalition and its pursuit of making clean local energy accessible now.

Sincerely, Craig Lewis

CLEAN LA Solar brings power online, primed for expansion

Yesterday in Los Angeles, Mayor Villaraigosa 'switched on' a rooftop solar installation atop a multi-family apartment building – the first project to come online as part of the Los Angeles Department of Water and Power's (LADWP) CLEAN LA Solar Program. Since opening the first 20 MW tranche in February, LADWP has received applications totaling more than 115 MW – signaling strong demand for solar distributed generation (DG) and correct pricing. Notably, many of the proposed projects will bring DG to underserved communities with a high solar resource and also to areas with minimal interconnection costs.

Given such significant and favorable results, CLEAN LA is primed for further expansion. Eric Garcetti, LA's newly elected mayor, committed to producing 1,200 MW of local solar energy in LA by 2016, half of which LADWP will bring online through the CLEAN LA Solar Program. In total, 1,200 MW of new local solar would inject more than \$2 billion into the city's economy - creating jobs, reducing pollution,



LA Mayor Villaraigosa 'switches on' the CLEAN LA Solar Program's first project

and locking in affordable energy rates for consumers.

The Clean Coalition has also been working with the Long Island Power Authority (LIPA) to expand production of clean local energy in its service territory. Given the strong success of LIPA's 50 MW CLEAN Solar Initiative, the Clean Coalition expects to see exciting news coming out of Long Island in the very near future.

New California ISO policy will spur greater distributed generation

The California Independent System Operators' (CAISO) new Deliverability for Distributed Generation methodology removes an unnecessary barrier to the deployment of clean local energy by streamlining wholesale distributed generation (WDG) projects for deliverability.

Energy generators with deliverability can guarantee delivery of power at all times, which means their energy counts towards CAISO's Resource Adequacy (RA) requirements. RA requirements mandate that CAISO contract adequate generator resource capacity to meet demand at all times – including peak periods – and that contracted energy can not only be



generated but also delivered. Projects that fail to receive deliverability do not qualify for preferred Time of Delivery rates, which reduces the energy value by up to 30%. This lost revenue is significant enough to ruin the economics of many valuable WDG projects.

energy security.

See the Clean Coalition <u>website</u> for additional news.

Upcoming Events

September 10, 2013 | Energy Storage North America | San Jose, CA

The Clean Coalition is pleased to be a supporting partner for the 2013 Energy Storage North America conference.

November 7, 2013 | Platts 9th

Annual California Energy Market

Conference | San Francisco, CA

Craig Lewis, Executive Director of the Clean Coalition, and Stephanie Wang, Regulatory Policy Director of the Clean Coalition, will each present at the Platts 9th Annual California Energy Market conference on November 7 and 8.

See the Clean Coalition <u>website</u> for additional upcoming events.

Recent Regulatory Filings

FERC | Solar Energy Industries

Association Petition for Rulemaking |
June 3, 2013

This filing represents the Clean
Coalition's comments supporting the
Federal Energy Regulatory
Commission's Notice of Proposed
Rulemaking suggestions, with some
modifications regarding content of the
pre-application report and online reporting
of interconnection applications.
Modifications are designed to improve
the Fast Track process as part of Small
Generator Interconnection Procedures
nation-wide.

<u>CEC | 2013 IEPR - Transmission |</u> <u>May 21, 2013</u>

This filing represents the Joint
Comments of the California Consumers
Alliance and the Clean Coalition
regarding the Workshop on California and
Western States Transmission Planning
and Permitting Issues related to the
Renewable Action Plan. The comments
place emphasis on the need for
improved analysis and coordination of
planning to support non-transmission
altermatives and avoid unnecessary

The new CAISO policy levels the playing field for deliverability. Previously, all new WDG projects were subjected to a similar deliverability study process as large-scale energy facilities, which are expensive and time consuming. These studies generally took at least 1.5 years and required substantial costs – \$10,000 for the application fee, plus engineering work and legal fees that could bring the total cost to \$50,000 – and constituted a major roadblock for many WDG projects. Under the new policy, CAISO will now publish annual study results that identify the amount of unassigned deliverability available without upgrade costs. This data will assist in siting WDG projects that make use of existing grid infrastructure and keep costs down for all ratepayers. The available deliverability capacity will be annually allocated for WDG projects and immediately assigned. Any unused capacity will be set aside for future allocation throughout the year.

After 18 months of advocating for these improvements to the deliverability allocation process, the Clean Coalition is very pleased to see CAISO recognizing and supporting the true value of DG through this innovative policy.

Renewable Portfolio Standards under attack

On June 7, a 7th Circuit Court decision cast doubt on the constitutionality of Michigan's renewable portfolio standard (RPS) requirement for in-state generation. Similar in-state RPS requirements have been challenged for violating the Commerce Clause's prohibition on discriminating against interstate commerce, including the Massachusetts RPS and the Colorado Renewable Energy Standard (RES). Attorney generals from Alabama, Texas, Nebraska, and North Dakota recently threatened to challenge California's RPS.

In the face of these legal challenges, the Clean Coalition has put forth two specific solutions that state policymakers can utilize to protect renewable standards from these attacks. The Clean Coalition thanks Professor Timothy Duane, the author of a recent law journal article on this topic, for vetting these proposals.

The first solution is to compensate for the additional value of DG. DG provides increased value through avoiding transmission costs, increasing efficiency, speeding compliance with renewable energy targets, and enhancing energy system resilience. As a result, it should not be considered a violation of the Commerce Clause for a state to mandate that DG projects receive greater compensation for the additional value provided.

The second solution is to create a DG carveout within renewable energy mandates. Since DG provides additional value to utilities and ratepayers, it is substantially different and preferable to central generation. In other words, a local kilowatt is not the same as a remote kilowatt; therefore, a DG carveout is legally justifiable and should not be considered a violation of the Commerce Clause.

While these legal challenges represent an unfortunate delay in the transition towards renewables, the Clean Coalition is confident that its proposed solutions will enhance RPS laws by recognizing the true value of DG while reducing vulnerability to legal challenges.

Policy update: SB 699 gains traction and SB 32 finally poised to launch

In California, a promising piece of legislation is moving forward, while the final California Public Utilities Commission (CPUC) decision on Senate Bill (SB) 32 is disappointing.

SB 699 (Hill), shaped heavily by the Clean Coalition, easily passed the state Senate with a 35-3 vote. The bill calls for increased transparency into distribution system investments by requiring investor-owned utilities (IOUs) to provide a detailed annual report on their distribution grid expenditures, including all costs associated with the interconnection of new DG projects. Every year, the state's IOUs invest billions of ratepayer dollars in the electrical distribution system, while ratepayers and politicians are given little, if any,



transmission development.

CAISO | Demand Response and Energy Efficiency Roadmap Workshop | May 21, 2013

This filing represents the Clean
Coalition's comments on the scope and
approach of CAISO's planning for
integration of Demand Response,
operations and market development.
Clean Coalition positions emphasize the
potential for Distributed Generation +
Demand Response to allow greatly
increased levels of variable renewables
at lower costs while reducing total
capacity requirements.

CPUC | Alternate Proposed Decision Regarding SCE's Solar PV Program | May 17, 2013

This filing represents the Clean Coalition's reply comments criticizing the Alternate Proposed Decision's lack of reliance on actual market data for judging Southern California Edison's (SCE) assertions of cost savings, SCE's lack of compliance with Clean Coalition request for actual data, and failure by CPUC to utilize the appropriate burden of proof.

<u>CPUC | Long Term Procurement</u> <u>Plans | May 9, 2013</u>

This filing represents the Clean Coalition's Informal Comments on the Base Case recommending changes to include planned renewable capacity, reflect actual development, and recognize the flexibility provided by DG+IG solutions, including demand response and advanced inverter capabilities.

CAISO | Generation Interconnection Procedures | April 30, 2013

This filing represents the Clean Coalition's comments on priority topics for 2013 Interconnection Process Enhancements for the ISO Generation Interconnection Procedures.

CPUC | Motion to Take Official Notice of Discovery Documents | April 25, 2013

This filing represents the Clean Coalition's motion to have the CPUC

insight as to how that money is spent. The transparency mandated by SB 699 will enable policymakers to judge whether or not IOUs are wisely investing ratepayer money to prepare the distribution grid for high penetrations of local renewables.



In the coming weeks, the bill will likely evolve to also support distributed energy resources like energy storage and move California towards a more comprehensive, integrated approach to DG deployment and distribution grid investment. This kind of reform has been long-championed by the Clean Coalition and was recently bolstered by a new Interstate Renewable Energy Council report.

Less exciting news comes out of San Francisco, where the CPUC – after more than three years of delay and inefficient debate – approved a highly unsatisfactory Final Decision (FD) for the statewide Power Purchase Agreement (PPA) within SB 32. The FD, which ratified the final SB 32 program rules and an unfair PPA to be used by all three California IOUs, will ultimately fail to create a viable market for WDG in California.

The CPUC allowed the IOUs to adopt a PPA that was overly complicated and burdensome for smaller projects, single-project owners, and developers – ignoring a straightforward and fair PPA proposed by the Clean Coalition. As a result, this disappointingly small program of about 230 MW – slated for launch in the early fall – will make inconsequential progress towards Governor Brown's goal of deploying 12,000 MW of DG by 2020.

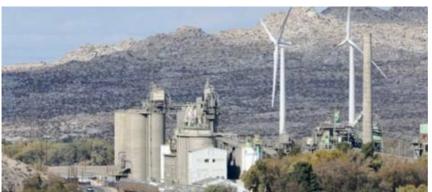
Clean Coalition briefs Sacramento staff on DG Policy

Ted Ko, Associate Executive Director of the Clean Coalition, briefed legislative and regulatory staff on current California policies impacting DG while in Sacramento on April 11. Given the significant turnover in the capitol this year, the briefing was designed to educate new legislators on the technological feasibility and tremendous economic potential for clean local energy in California.

Local wind and solar can provide significantly more power to California's grid and put the state on track to meet its clean energy goals, as long as smart policies enable the DG market to expand.

Presentations by FloDesign Wind Turbines and Foundation Windpower highlighted examples of distributed wind power already online in California and the potential for significantly more growth. For example, Foundation Windpower recently installed two wind turbines at a Cemex cement plant in Victorville, CA (below). Collectively, the turbines will stabilize energy costs for the factory and reduce carbon emissions by producing an estimated 6,500 megawatt hours of electricity annually.

The Clean Coalition would like to thank <u>A10 Networks</u> – the technology leader in Internet Application Networking, helping organizations of all sizes to accelerate, optimize and secure their Internet applications – for sponsoring the event.



DG+IG update: Renewables integration and policy solutions

take official notice of joint party discovery requests and utility responses.

CPUC | Draft Small-Scale Bioenergy Report | April 24, 2013

This filing represents the Clean Coalition's informal comments on various issues raised by Commission staff and the draft bioenergy report.

<u>CPUC | PG&E Motion for Clarification</u> <u>re AB 1969 | April 24, 2013</u>

This filing represents the Clean Coalition's opening comments, opposing PG&E's motion by recommending that the Commission eliminate any distinction between types of developers for AB 1969 programs, as the Commission has already done for SB 32.

CPUC | SB 32 Proposed Decision and Alternate Decision | April 15, 2013

This filing represents the Clean Coalition's reply comments to various parties' opening comments on the SB 32 Proposed Decision and Alternate Decision.

<u>CPUC | SCE Advice Letter 2870-E</u> (<u>CREST PPAs</u>) | <u>April 15, 2013</u>

This filing represents the Clean Coalition's protest to Southern California Edison's Advice Letter, recommending a policy route that ensures that the maximum of Distributed Generation Power Purchase Agreements are available under both AB 1969 and SB 32 Feed-in Tariff programs.

CAISO | DG Deliverability Allocation | April 10, 2013

This filing represents the Clean Coalition's comments addressing limits on DG deliverability assignment and modification of new ISO program to comply with FERC requirement for "first come, first served".

See the Clean Coalition <u>website</u> for additional regulatory filings.

About the Clean Coalition

The Clean Coalition is a nonprofit organization whose mission is to

As a key step in ensuring that from 2020 onward at least 50% of all new energy generation in the United States comes from local sources, the Clean Coalition continues its Distributed Generation + Intelligent Grid (DG+IG) Initiative to prove that local renewables connected to the distribution grid can provide at least 25% of the total electric energy consumed within the distribution grid while maintaining or improving grid reliability.

Recently, the Clean Coalition modeled how intelligent grid solutions – such as demand response, advanced inverters, and energy storage – can support the integration of high penetrations of renewables onto the grid. The <u>first model</u> proves that DG+IG enables system operators to maintain grid reliability by keeping power in balance. Upcoming models will illustrate the impact of DG+IG on voltage and frequency. Collectively, the three models – energy, voltage, and frequency – will illustrate how a fully integrated DG+IG power system reduces the need for expensive peaker plants to provide back-up power and grid services.

The Clean Coalition also released <u>a roadmap</u> to guide the country's timely and cost-effective transition towards a modern power system. The roadmap includes summaries of key – and readily available – IG technologies, as well as policy recommendations.

Two clean energy leaders add expertise to the Clean Coalition Board of Advisors

The Clean Coalition proudly welcomes to its distinguished Board of Advisors Pat Burt, former mayor of Palo Alto and current CEO of Palo Alto Tech Group, and Dr. Eric Gimon, a former American Association for the Advancement of Science (AAAS) Fellow and independent energy expert.

Mr. Burt has extensive experience as an entrepreneur, elected official, and environmental advocate. As mayor of Palo Alto in 2010, and currently as a city council member, Mr. Burt has driven Palo Alto's environmental initiatives, including the city's adoption of the Palo Alto Clean Local Energy Accessible Now (CLEAN) Program to bring 4 MW of local renewables online. Mr. Burt was instrumental in Palo Alto's 2013 achievement of 100% carbon-neutral electricity. He also founded Acteron Corporation – a leading Silicon Valley provider of advanced technology manufacturing services, supporting the semiconductor, medical device, and clean tech sectors – and served as its CEO for over 20 years until the sale of Acteron to Flextronics in 2010. Currently, Mr. Burt serves as CEO of the Palo Alto Tech Group and is an angel investor and advisor to start-up companies.

Dr. Gimon, a physicist working principally in energy policy and the non-profit sector, is an electricity policy expert. He holds a Ph.D. in Physics from the University of California, Santa Barbara, as well as a BS/MS from Stanford University in Mathematics and Physics and has conducted research at Caltech, the Institute for Advanced Study in Princeton, and the University of California, Berkeley. As an AAAS Fellow at the Department of Energy in Washington, D.C., he focused on national electricity transmission policy and pathways towards a low-carbon energy future.

Mr. Burt and Dr. Gimon join an impressive Board of Advisors, featuring luminaries from the business, government, academic, and non-profit sectors. These advisors help guide the Clean Coalition and strengthen its efforts to advance clean local energy across the nation.

To see a complete list of the Clean Coalition Board of Advisors, please visit <u>www.Clean-Coalition.org/board-of-advisors/.</u>

Clean Coalition partners with CalSol

Electric vehicles (EVs) represent a key component in the Clean Coalition's vision for a 21st century power system. EVs can act as a combination of distributed energy storage and demand response – responding to real-time pricing signals to charge during hours of low demand or high supply and dispatching energy to the grid when desirable to address high demand.

With that in mind, the Clean

accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, foster environmental sustainability, and provide energy resilience.

Coalition is pleased to be an official partner of CalSol – a University of California, Berkeley student team also rethinking the future of transportation. Founded in 1990, CalSol's approximately 50 student members design and build solar vehicles capable of traveling at highway speeds.



CalSol hopes to build upon a highly successful 2012, in which their latest vehicle, named Impulse, placed 4th in the nation at the American Solar Challenge and was the first CalSol vehicle to race in Australia for the World Solar Challenge. Currently, CalSol is designing Zephyr – the team's 8th vehicle and its first four-wheeled project in over a decade. Zephyr will be completed this year and race in the 2014 American Solar Challenge.

"We are intrinsically motivated to make this project successful," said Arjan Sidhu, CalSol's Business Team Leader. "Each student volunteers time outside of rigorous class schedules to work on the vehicle. Passion for energy efficiency and renewable energy truly powers CalSol."

For more information about CalSol, visit http://calsol.berkeley.edu/index.php.

Featured event: Energy Storage North America

The Clean Coalition is pleased to be a supporting partner for the 2013 Energy Storage North America conference, which will take place on Tuesday, September 12 at the San Jose Convention Center in San Jose, CA.

Energy Storage North America is North America's premier energy storage conference and expo, and this will be the first conference in the United States to focus primarily on applications, customers, and deal making. ESNA



will connect utilities, developers, and energy users at all levels to strategize and shape the market for energy storage in North America.

Members of the Clean Coalition community receive a 30% discount by using the code "CLECO" when registering. For additional details and registration information, visit www.esnaexpo.com.

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Clean Coalition 2 Palo Alto Square 3000 El Camino Real, Suite 500 Palo Alto, CA 94306 US

