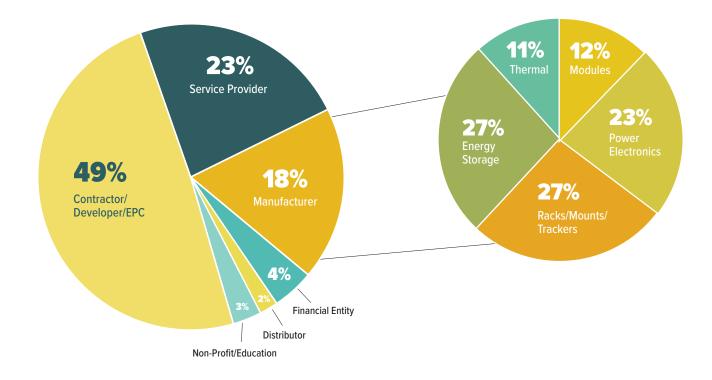
# 2020 ANNUAL REPORT



# OUR MEMBERS



127 Energy 17 TeraWatts 180 Solar Power A-1 Contractors A-C Electric Company A.M. Shine Electric A1 Sun ACIP Energy ACR Solar International Corp. Action Energy ActiveProspect Adams Solar Electrical and Electric Addy Electric Advanced Conservation Systems Advanced Microgrid Solutions Aeterna Energy AgEnergy Systems Aguillon Enterprises Alameda Electrical Distributors Albion Power Company ALIVE Solar & Roofing All Save Energy All Valley Solar Allied Energy Allterra Solar Allume Alpha Energy Management AlsoEnergy Altadena Energy & Solar Altair Solar Alternate Energy Technologies Alternative Energy Systems Altna Energy Services Altsys Solar

Ameresco American Solar Corporation Amped Solutions Anderson Electric Antenna Group Apex Natural Renewable Generation Apex Solar APG Solar Applied Building Science Applied Solar Energy **APsystems** Aquatherm Industries Aram Solar Arcadia Solar Arnold Solar Aurora Solar AWS Electrical & Solar Axis Solar Design Azelio Aztec Solar B & B Solar Baja Carport Baker Electric Home Energy **BARIL Engineering** Barrier Solar Base Energy BayWa r.e. Solar Systems **Beeson Solar Electric** Belvedere Solar Finance Berger Solar Electric Better Earth Bland Solar and Air Blu Banyan **Blue Planet Energy** 

Blue Sky Utility BlueFlame Energy Finance **Booth Construction** Borrego Solar Systems BPi Brandon Carlson Electrical Contractor **Bright Power** Brighton Energy **Broadstreet Power** Brooks Engineering Brown-Hooper International Energy **BTA Solar** Burnham Energy **BVI** Solar BYD Energy **Byers Solar** Caiman Engineering Cal Paso Solar Electric Cal-Sun Construction CalCom Energy Cali One Services California Clean Energy California Solar Electric Company California Solar Electric Systems CalSolar CalState Solar Canadian Solar **Canyon Construction Services** Capital City Solar Capital One Carothers DiSante & Freudenberger LLP Cascade Eco Minerals Castone Roofing and Construction Catalyze

**CED** Greentech **Cenergy Power** Center for Sustainable Energy Centrica Business Solutions Century Roof & Solar Charged Up Energy CHERP Chico Electric Chico Solar Works Chilicon Power **Chint Power Systems Cinnamon Energy Systems** Citadel Roofing & Solar Clayco Electric Clean Energy Group Clean Energy Social **Clean Energy Solar Direct Clean Point Energy Clean Renewable Solutions** Clean Solar CleanSpark **CleanTech Docs** CleanTech Energy Solutions **CleanView Capital Climate Solar Solutions** Climatec CNG Solar Engineering **Coastal Constructors Cobalt Power Systems** CollectiveSun **Combined Energy Technologies** Communication Infrastructure Corporation **Community Resource Project** Cool Earth Solar Corda Solar Cosmic Solar **Cross Consulting Services** Crown Road Energy CSA Group **CSG** Developers Curb **Current Home Current Renewables Engineering Custom Power Solar** Darfon America Corp. Davis Wright Tremaine **DBL** Partners DG+Design **Diablo Solar Services Digital Power Corporation** Discover Batterv **Distributed Energy Innovation Dividend Finance Divine Power USA DSD** Renewables EagleView Earth Electric Eco Foundation Systems EcoFasten an Esdec Company **Ecolibrium Solar** EcoMotion **EDF** Renewables Effect Energy Eguana Technologies Electrical Works Etc. Electrious **Electrig Power** EliteSolar EMCOR Mesa Energy Systems Empire LE **Empower Energies Clean Infrastructure ENACT Systems** EnelX Energport

**Energx Controls Energy Construction Services** Energy Toolbase EnergySage **ENGIE Storage Services Enphase Energy** EnterSolar Environmental Solar Design EPC Power Corp. **EPX** Group EVA Green Power Evergreen Solar Extensible Energy EZ Solar F & L Contractors FAFCO Feather River Solar Electric Fimer First Response Solar **FlowEnergyPartners** Folsom Labs ForeFront Power Fortress Power Fortune Energy FreeVolt USA Fronius USA FUSION POWER DESIGN GAF Energy GameChange Solar Genability Generac Power Systems Generate Capital GetTheReferral.com GigaWatt Gilmore Heat Air & Solar Ginlong Solis USA Go Electric Gold Electric Gold Rush Energy Solutions Golden Energy GoMicrogrid Good Sun GoodWe GoSolarPros Gr8 Energy Graybar Green Convergence Green Solutions **Green Tech Nations** Green Wolf Energy **GRID** Alternatives Hammond Climate Solutions Harrison Electric & Solar Hawthorne Power Systems HeatSpring Hecate Energy Heliodyne **Helios Services HES Solar** Highlands Energy Highpoint Solar HiQ Solar Home Loan Bank Hooked On Solar Hot Purple Energy Hoymiles Humless Hyosung Hyperlight Energy I Love My Solar IAPMO IGS Solar IMO Automation Indaspec

Independent Electric Supply Infinity Energy Innovative Energy Systems International Code Council (ICC) Intertek Invinity Energy Systems IronRidge iSolar Brokers Ivy Energy James G. Parker Insurance & Associates JDS Power JinkoSolar (U.S.) JKB Energy Jonas Energy Solutions JTG/Muir Just Leaks K2 Systems Kahn Solar Kenwood Energy Keyes & Fox LLP King Energy Kitu Systems Klein Power Electric Koben Systems Kuubix Energy KW Hour Energy LarSun Solar Layered Conceptz Legacy Risk and Insurance Services Lets Get Solar LG Electronics U.S.A. LG Energy Solutions Michigan Lumin Luminalt Energy Corporation M Bar C Construction Madison Energy Investments Magic Sun Solar Malden Solar Martin Herzfeld Matadors Community Credit Union Maxout Renewables **Mayfield Renewables MAYO** Designs **MBL Energy** McCalmont Engineering McPherson Engineering Measure The Sun **MEI Renewables** Mel Bradley Electric Mendocino Solar Service Michael & Sun Solar Mid-State Solar Milestone Risk Advisors **Mission Solar Electric** Mission Solar Energy MK Battery MMCISolar Modular Lifestyles Mohr Power Solar Momentum Solar Mosaic Mynt Systems naak Power Partners NABCEP NantEnergy Natron Resources **NEC Energy Solutions** Neighborhood Power Corporation NeoVolta New Day Solar Newport Power Next Phase Electric Nextracker NH Research

# 2020 PROGRAM HIGHLIGHTS

## COVID-19

When business was halted in March 2020, CALSSA worked with state officials to get solar classified as essential work and pushed county officials to allow our safe return to job sites in April. We produced research on job impacts and worked with building departments to establish online permitting and inspections while sharing up-to-date information with our members.

## **Net Metering**

The early months of the NEM-3 proceeding at the CPUC were dominated by debate about the principles that will guide the decision. CALSSA convinced the Commission to eliminate principles that would have forced them into bad outcomes. We developed tools to analyze the negative impacts of proposals from the utilities and other parties. We have been building a coalition of solar supporters to fight against changes to NEM.

## Self-Generation Incentive Program

SGIP implemented new budgets in 2020 that were funded by CALSSA's successful SB 700 legislation. The complicated program rules related to fire zones, medical needs, well pumps, and income status required tremendous efforts to clarify details and improve feasibility. CALSSA continues to push to reduce application processing timelines and streamline process steps.

## **Virtual Power Plants**

The ability of inverter companies and independent aggregators to pool together energy from customer batteries and provide power to utilities when grid power is in short supply is an essential component of the economic future of distributed solar. The concept advanced in 2020 through discussions with CAISO, participation in a CPUC proceeding, and development of legislative leaders on the issue.

## **New Construction Mandate**

We were busy defending the state's new home solar mandate from proposals to exempt small homes and homes in snowy areas. The exemptions were reasonable in extreme cases but proposals had to be narrowed. We fought SMUD's proposal to replace the mandate with a utility-scale solar plant that has no real link to new homes.

We worked with the California Energy Commission to develop a mandate for solar and storage on commercial new construction. We also developed concepts for how to define storage-ready homes and worked with CEC to craft language to add the requirement to the residential mandate.

## **Consumer Protection**

We worked to avoid disastrous consequences as the CPUC refined requirements for customer disclosures and finalized rules defining standard inputs and assumptions for solar savings estimates provided to consumers. The Commission proposed a process for enforcing these requirements that could have brought interconnection to a standstill. It took great efforts to steer that enforcement in a more workable direction.



Photo courtesy of Luminalt Energy Corporation

## Permitting

CALSSA worked with the National Renewable Energy Laboratory as they finalized automated permitting software for small solar systems known as SolarAPP and to begin expanding it for energy storage. We began promoting use of this software with building officials throughout California and crafted legislation to accelerate adoption. We staffed a hotline throughout the year to assist member companies with local obstacles as they arise. We began work on a storage permitting guidebook for local jurisdictions.

## **Codes and Standards**

We intervened in fire code development to remove barriers and block new limits on installing batteries in garages related to heat detectors and vehicle impact protection. We formed a task group to develop changes to UL 9540 on storage system safety.

June 2020 was the deadline for compliance with inverter standards that include capabilities to communicate with utilities. CALSSA had successfully petitioned to delay this timeline as we worked with standards bodies and testing labs to make sure the requirements were feasible to comply with.

## Interconnection

The CPUC issued a decision in 2020 that embodied years of work from CALSSA to improve the interconnection application process. New timelines will push the utilities to work faster and streamlining measures will reduce the back and forth communications involved in application review.

## **Solar Water Heating**

CALSSA produced research showing that solar water heating with electric backup is competitive with heat pump water heaters for many applications and climate zones. We have been engaged in building electrification debates to ensure that solar thermal qualifies for program support equally with similar technologies.

## Legislative

CALSSA monitored hundreds of bills and took positions on dozens of them, both for and against proposed policies. Most bills were held due to the COVID-19 pandemic, but we were leaders in a coalition that passed SB 364 that protected solar systems from the Prop 15 tax ballot measure.

Our fact sheets and webinars are available on our website at **www.calssa.org/members-only.** Be sure to use these resources to stay informed.

## **BOARD OF DIRECTORS**



Ed Murray | President Aztec Solar



Jeanine Cotter | Vice President Luminalt Energy Corporation



**Ben Airth | Secretary** Center for Sustainable Energy



Walker Wright | Treasurer Sunrun



Samuel Adeyemo Aurora Solar



**Rich Borba** JKB Energy



Yann Brandt SolarWakeup



**Erica Dahl** Vivint Solar



Gary Gerber Sun Light & Power



Adam Gerza Energy Toolbase



Martin Herzfeld Martin Herzfeld Contracting



Rick Reed SunEarth



**Jeff Spies** Planet Plan Sets



Catherine Von Burg SimpliPhi Power



Howard Wenger Solaria





Les Nelson April 10, 1954 - May 20, 2020 For more than thirty years, Les Nelson was a leader of the solar energy industry through his varied and tireless work. He is greatly missed.

## **REGIONAL CHAPTERS**

CALSSA's Six Chapters are where professionals from across the storage, PV, and thermal value chain get together, network, share best practices, and learn about the latest industry developments. In 2020, we had to adapt these events to a COVID-19 world. After three in-person events early in the year, we moved online with 15 more virtual Zoom meetings throughout 2020. While attendees missed the beer and pizza, we still brought the same timely and relevant content to keep members in the know on the latest industry developments. Topics included virtual inspections, SMUD's attack on NEM, code policy on home battery installations, and more. Meetings are open to all employees at member companies so if you have not attended a meeting yet, make sure to join us in 2021! You can sign up for chapter updates on our website.



## Thank You to Our **Regional Chapter Leaders**

**Bay Area** Mary Shaffer Gill, *Stem* Tor Valenza, *UnThink Solar* Randy Zechman, *Clean Solar* 

**Central Valley** Tom Cotter, *Powur* Jack Ramsey, *Altsys Solar* Joseph Smick, *Service Finance Company* 

Los Angeles Deep Patel, *GigaWatt* Eric Presley, *Ironridge*  **North Bay** Tyson Berg, *CED Greentech* Keith Kruetzfeldt, *Suntegrity Solar* 

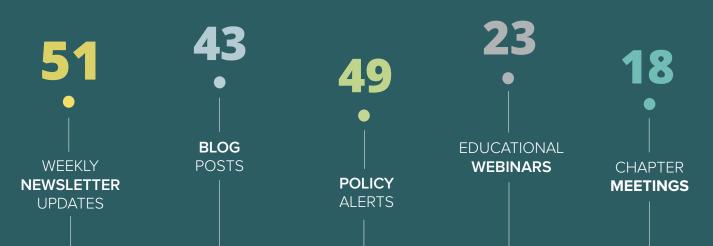
**Sacramento** Ed Ayala, *Eco Foundations Systems* Steve Geiger, *GRID Alternatives* 

### San Diego

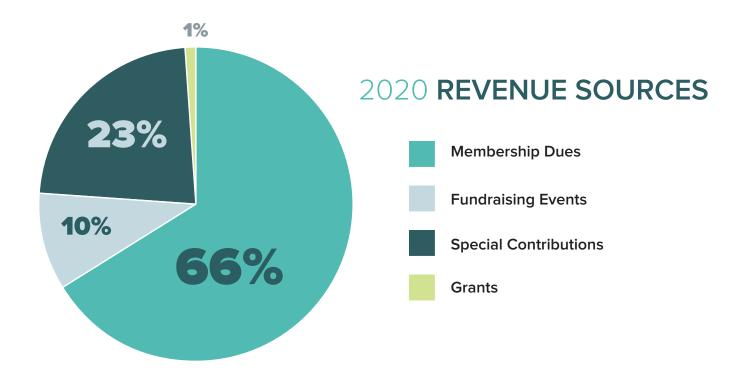
Cecilia Aguillon, *Aguillon Enterprises* Tara Hammond, *Hammond Climate Solutions* Linda Turner, *Solaria* 

## MEMBER EDUCATION

In 2020, up-to-date and accurate information was critical to the solar & storage industry as we navigated the COVID-19 pandemic. Using every tool of communication available to us - webinars, emails, blogs, phone calls, meetings, and letters - CALSSA ramped up our communication and information services in 2020.



## **RESOURCES & EVENTS**



## **2020 EVENTS**

It's fair to say 2020 was a year like no other. Before we were able to hold any of our planned annual events for 2020, COVID-19 hit and the world stopped. We quickly pivoted and came up with a COVID-safe events plan that met the needs of our industry and helped CALSSA raise the critical funds we depend on to protect your business. While it was a challenging year for us all, CALSSA was able to make lemonade out of 2020's lemons.

We offered our members a number of virtual training and networking events, including our **Professional Development Series** and our hugely successful, **Product Expo Series**. We also moved our **annual auction online**, and even hosted an



NBA basketball legend and solar evangelist Bill Walton, joined our All-Member Meeting in October to give the industry a pep talk!

**All-Member Meeting & Stand Up for Solar Fundraiser,** in lieu of our much-loved Annual Dinner. While we look forward to hosting you all in-person soon, our virtual events offered something for everyone and allowed greater creativity, accessibility and flexibility for all. We want to thank all of the companies and individuals who supported us during this unique and challenging time. Together, we made it work!

## THANK YOU President's circle





## 2020 MEMBERS (con't)

NorCal Home Systems North Bay Solar Services North Coast Solar (Energy Equity) Northern Pacific Power Systems Nova West Solar Nuance Energy Group NuLife Power Nuvation Energy O'Connell Solar Consulting **O&M Solar Services** Occidental Power Solar & Cogen Ohm Analytics **OMG Roofing Products Omni Energy Solutions** Omnidian Onswitch OpenEGrid OpenSolar Option One Solar **OutBack Power Owen Dunn Insurance Services** Pace Avenue PACEFunding Pacific Energy Company **Pacific Power Solutions** Pacifico Power Packetized Energy Paladin Power Palmetto Clean Tech Palomar Solar Ltd Panasonic Corporation of North America Pathion Pathways Energy Pause Grid PCL Construction Peak Demand Peak Power USA Pearl Certification Pegasus Solar People Power Solar Cooperative PermaCity Corp Phono Solar Photon Brothers Photon Stellar Photosol US Renewable Energy Photovoltaics California Pick My Solar Corp. Pickett Solar **Planet Plan Sets** Platt Solar POCO Solar Energy Point Load Power Polar Solar Poppy Bank **Power-Structures Powers Engineering** PowerTree Powur Primus Power Prism Renewable Energy Advisors Prof. Thomas Davies Promise Energy **ProSight Specialty Insurance** 

ProSolar (Professional Solar Products) **Prosper Sustainably** Pure Power Solutions **PV** Designers PVH (PV Hardware) PYCEM Q CELLS **Quality Home Services** Quattro Solar QuickBOLT R.T. Maher Construction Radiant Solar Technology Raneri & Long **RBI Solar** RE-volv Real Goods **REC** Solar **Rector Law Office** Recycle PV Solar ReGreen Rehab Solar Construction **Reimagine Power** Rem Electric **Renew Financial Renewable Energy Partners** Renewable Energy Test Center RETC Renewable Solar Renova Energy Corp. RenuLogix Renvu Solar Equipment Distribution Repower Yolo RePurpose Energy **Revel Energy** Rexel Gexpro Rheem Manufacturing Company **Rise Energy** Rod Bergen P.E. Ron Dorris Electric & Solar Roof Tech **Rosendin Electric RST Cleantech USA** Run on Sun S-5 S-PACE Sage Energy Consulting Salal Credit Union San Diego County Solar Sandbar Solar Santa Cruz Solar Santa Ynez Valley Solar Sattler Solar Sawmill Solar Electric SC-RISE CE-CERT Scale Microgrid Solutions Scanifly Schneider Electric Scout Scudder Solar Energy Systems Scurfield Solar & Heating Seal Bond Seaward Group Second life Lithium SEG Sustainable Energy Group

Semper Solaris SepiSolar Service Finance Company Shade Power Shorebreak Energy Developers Sierra Pacific Home & Comfort Sighten Silfab Solar Silver Fox Renewables Simmitri SimpliPhi Power **Skelly Electric** Sky Power Solar Skyven Technologies Slingshot Power PBC SMA America Smarter Grid Solutions Socomec Sol R US Electrical Engineering Sol Systems Sol-Ark Sol-Tek Industries Solahart Industries Solar Advocacy Group Solar Carports Direct Solar CFO Solar Design Studio Solar Design Tool Solar Energy International Solar FlexRack Solar Forward Solar Insure Solar Motion Solar One Solar Optimum Solar Paperwork Solar Pro Energy Systems Solar Richmond Solar Savings Direct Solar Sense PV Solar Source Solar Support Structures Solar Symphony Solar Technologies Solar Tools USA Solar Unlimited Solar Vast Solar Wholesale Group Solar Works Solar-Klean Solar-Log by Solar Data Systems SolarCraft Solare Energy Solare Power SolarEdge Technologies SolarGain West SolarGem Electrical SolarGnosis Solargraf SolarHealer Solaria SolarNexus Solaron

SolarOPS - Radiocap Corp Solarponics SolarPowerRocks.com SolarReviews.com SolarShoppers SolarWakeup solarXperts SolaTrim Solid California Soligent SolPal Soltection Sonnen SoundView Risk Advisors Southwestern Solar Systems Span.IO Spectrum Energy Development Spreck Energy Stable Solar Stada Energy Standard Solar Stanford Transportation Group StarSeed Station A Stellar Energy Stellar Solar Stem Storz Power Sullivan Solar Power Summit Technology Group Sun Light & Power Sun Pacific Solar Electric Sun Solar Electric Sunbank Solar SunCo Solar Sundam Energy Sundrum Solar SunEarth Sungage Financial Sungenia Solar Solutions Sungenix Energy Solutions SunGreen Systems SunLogix SunLux Energy Sunmizer Solar Roofing Systems SunModo Sunnova Energy Corporation Sunny Energy of California SunPower by EcoSolar USA SunPower by esaSolar

SunPower By Sun Solar Sunpower Corporation Sunriver Solar Sunrun SunSolar U.S. SunSpark Technology SunSpec Alliance SunStreet Energy Group Sunswarm Solar SunSystem Technology Suntegrity Solar Sunterra Solar Sunthurst Energy Suntrek Industries Sunvapor Sunworks Surrette Battery Sustainable Technologies Sustineo Sutton Enterprises Swell Energy Swezey Energy Consulting Symmetric Energy Synergy Home Improvement Synergy Power Synergy Solar & Electrical Systems Tamarack Solar Products Tangerine+ Tax & Financial Group Taylor Energy System TerraCurrent TerraVerde Energy Tesla The Climate Center The Energy Coalition The Energy Loan Network The Solar Action Network The Solar Energy Company ThinkWire Energy Services Tigercomm Tigo Energy Titanium Power Tosdal Law Firm TransUnion Treeium Treepublic UC Solar/UC Merced UL UMA Solar Unico Solar Investors Unique Solar UNIRAC United Sun Energy **UnThink Solar** US Green Energy Technologies

US Solar Distributing UtilityAPI Vasco Solar Energy Vector Green Power and Materials Vector Structural Engineering Verdera Partners Verse Villara Building Systems Visaka Industries Ltd Vital Energy Volta Strategies Voltaic Power VSUN Walter Mortensen Insurance/INSURICA WattMonk We Recycle Solar Weber Energy Group Wendel Rosen LLP Wenger Ventures WESCO Distribution West Hills Construction Westcoast Solar Energy Westhaven Solar WG Contracting White Pine Renewables Wing Solar & Wood Energy Wivity WSC Solar & Roofing XCG Solar Xero Solar Yaskawa - Solectria Solar Ygrene Energy Fund Yotta Solar Your Energy Solutions Your SolarMate YourSolarPlans YSG Solar Zilla Corporation

## 80 - 90%

& STORAGE DEVICES INSTALLED IN CALIFORNIA IN 2020 WERE MANUFACTURED BY CALSSA MEMBERS.

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80% OF CA STORAGE PROJECTS INSTALLED BY A CALSSA MEMBER

. .

592 MEMBERS

• • 164 NEW 80%

OF CA PV PROJECTS INSTALLED BY A CALSSA MEMBER

• •

# **OUR TEAM**

**Bernadette Del Chiaro** 



Executive Director

### **Carter Lavin**



**Membership Director** 

Igor Tregub



Senior Policy Advisor

### **Brad Heavner**



Policy Director

### **Meghan Vincent-Jones**



**Marketing Director** 

### **Catherine Helmke**



Clean Energy Intern

### Elise De Grande



**Operations Director** 

## Kate Unger



Senior Policy Advisor

## Donald Simon



Legal Counsel Wendel, Rosen, Black & Dean LLP

### Josh Buswell-Charkow



**Deputy Director** 

### Ben Davis



Policy Associate

**Kim Stone** 



Lobbyist Stone Advocacy



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Front cover photo courtesy of Sunrun