

## Solar Training Resources (see [bcapcodes.org/resources](http://bcapcodes.org/resources) for live links)

### Tools, Apps, and Software

[Net Zero Info from US Department of Energy, Building America](#) Technical guides, sales-flyers, much more

[EasySolar](#) is a cloud-based web platform and mobile app for creating PV designs

[HOMER Legacy](#): a modeling software for microgrid design optimization involving different energy resources

[Hybrid2](#): performs detailed long-term performance and economic analysis on a wide variety of hybrid power systems

[i-Pals WEB](#): PV simulation including layouts, estimations, simulating power generation and shadow deterioration

[NOAA Solar Calculator](#): An easy tool to find the latitude/longitude for any place on earth

[Polysun Online](#) helps you plan and calculate PV installations in a few steps; free and paid simulation options

[PVWatts Calculator](#) estimates the energy production and cost of energy of grid-connected PV energy systems

[SolarDesignTool](#): Creates PV system designs and panel layout diagrams including data from electrical specifications

[Solargis pvPlanner](#) - a simulation tool for planning/optimizing PV systems using climate and geographic data

[Solarmodel](#) is an internet platform for designing solar PV installation and for evaluating investment

[Renewable Energy Ready Home Solar Site Assessment Tool, U.S. Environmental Protection Agency](#)

[SolarResilient](#): a sizing tool for solar PV and battery storage systems (funded by U.S. DOE SunShot)

[System Advisor Model \(SAM\)](#): a free performance and financial software for professionals

[Skelion](#) a SketchUp plugin that allows for solar thermal or solar PV installation design starting from a 3d model

[Solaripedia](#): Tools for solar architecture and green building. Free and fee-based tools to design and build sustainably

### Reports / Books / Papers

[2015 International Solar Energy Provisions \(ISEP\)](#): ICC's solar code book, including the 2015 I-Code Solar Energy Provisions, and Solar Rating & Certification Corp (SRCC) standards

[Here Comes the Sun, A State Policy Handbook for Distributed Solar Energy](#) (8/2017), by the National Association of State Energy Officials and National Conference of State Legislatures for legislators, legislative staff, officials, others

[The Design Professional's Guide to Zero Net Energy Buildings](#) by Charles Eley

[Inside the BIPV Market](#) by Amy Florence Fischbach, answers the question "Is this technology ready for prime time?"

[Profiting from the Sun](#): How building developers can unlock the country's largest potential for renewable energy; a summary of economic value and financing for commercial PV, especially Building Integrated PV (BIPV)

[Solar Ready Buildings Planning Guide, National Renewable Energy Laboratory \(NREL\)](#): identifies the important aspects of building design and construction to enable installation of solar after the building is constructed

[Analysis of the Public Health Impacts of the Regional Greenhouse Gas Initiative \(RGGI\)](#)

[Why have greenhouse emissions in RGGI states declined?](#) An econometric attribution to economic, energy market, and policy factors

[The Economic Impacts of the RGGI on Nine Northeastern and Mid-Atlantic States](#)

### Information / Educational Resources

[Building Integrated Photovoltaics, A New Design Opportunity for Architects](#) - a primer on BIPV

[Code Compliance Brief: Installation of Photovoltaic Systems | PNNL](#): info to help ensure that residential PV systems can be verified as compliant with safety codes and standards

[Eight factors to consider when designing solar-ready roofs | AIA](#) - for designers



[George Washington University Solar Institute](#): pragmatic policy solutions to catalyze the adoption of solar energy  
[How Does Solar Photovoltaic Energy Work? | National Council for Solar Growth](#) – basic info on benefits of PV solar  
[PACENation](#) Property Assessed Clean Energy (PACE) finances 100% of a project’s costs; available in some states  
[PVEDucation.com](#) for solar installers, students, homeowners, and others; advice from one solar designer  
[Philadelphia Solar Installation Guidebook](#) for developers; procedures for planning, permitting, metering, & more  
[Reneweconomy](#) – Australian-based website focusing on clean energy news and analysis worldwide; podcasts, more  
[Solar Information for Consumers: A Guide for States](#) - for use by municipalities, counties, and municipal utilities  
[Solar Instructor Training Network \(SITN\)](#) - for finding solar jobs and training  
[Solar Investment Tax Credit \(ITC\)](#) - information and fact sheets  
[Solar Photovoltaic Technology Basics | EERE](#) – from the US Department of Energy  
[Solar Photovoltaic Technology Basics | NREL](#)- basic info from the National Renewable Energy Lab  
[State Renewable Portfolio Standards and Goals](#), by National Conference of State Legislatures

### Solar Training Courses

[Ambassador Energy Solar Training](#) - offers solar training for people at all skill levels  
[Architecture/art Arch 20](#) - a collective effort to which students/academics contribute; free training available  
[Association of Energy Engineers Certified Renewable Energy Professional Preparatory Training Program](#)  
[greenCE design education](#) offers a free online course including continuing education credits  
[Heatspring Online Training](#) a free online course on the basics of solar PV for newcomers to the industry  
[Interstate Renewable Energy Council \(IREC\) PV Online Training](#) for Code Officials (free), (including CEUs)  
[IREC/IAFF Solar PV Safety Training](#) for Fire Fighters  
[Solar Energy International \(SEI\)](#) offers free online courses on the basics of renewable energy  
[Solar Photovoltaics | Autodesk Sustainability Workshop](#): design and engineering resources for designers

### Best Practices for Permitting Solar PV Systems

[APA Planning for Solar Energy](#) for planners, public officials, and other community stakeholders  
[Chicago Solar Express](#): accelerating solar installations by streamlining/standardizing the permitting process  
[CSE California Solar Permitting Guidebook](#) for local building departments  
[IREC Model Inspection Checklist for Rooftop PV Systems](#): for municipalities across the U.S.  
[Pennsylvania Municipal Guidebook for Solar Zoning and Permitting](#): ordinances, permitting applications, more  
[Solar Friendly Best Planning Practices for New Hampshire Communities](#): for Municipal Officials in NH  
[Solarpermit.org](#) a free database of info on city and county solar permitting requirements

### Renewable Energy Organizations

[AIA 2030 Commitment](#)  
[Architecture2030.org](#)  
[American Council On Renewable Energy \(ACORE\)](#)  
[American Solar Energy Society](#)  
[Architectural Solar Association](#)

[International Association of Electrical Inspectors](#)  
[Interstate Renewable Energy Council](#)  
[N. American Board of Certified Energy Practitioners](#)  
[New Buildings Institute](#)

[Smart Electric Power Alliance](#)  
[Solar America Board for Codes and Standards](#)  
[Solar Energy Industries Association](#)  
[Southern Alliance for Clean Energy](#)