



Catalog of Courses

Designed for professionals across the building and energy sectors, these training sessions explore topics such as HVAC, electrification, codes and regulations, and emerging technologies.

The San Diego Regional Energy Network is administered by San Diego Community Power and the County of San Diego and funded by and for California utility ratepayers under the auspices of the California Public Utilities Commission.

SAN DIEGO
REGIONAL ENERGY NETWORK

SDREN.org

Heating, Ventilation and Air Conditioning (HVAC)

COURSE	DURATION	CREDITS	LEVEL
EPA Section 608 Prep Course: Core, Types I, II and III, Chart Applications and Test Prep Preparatory course for EPA 608 certification for HVAC technicians. <i>Also available in Spanish</i>	6 hours	5 NATE CEHs 0.5 IACET CEUs	Intermediate
System Performance Modules Learn how buildings exchange heat with their environment, with emphasis on heating systems and full HVAC operation. <i>Available for a limited time</i>	8 hours Parts 1–8	8 NATE CEHs (must complete all 8 parts)	Intermediate
Commercial Variable Refrigerant Flow Troubleshooting (VRF) Explore the troubleshooting tasks of a VRF system, using simulations. <i>Also available in Spanish</i>	3 hours	0.3 NATE IACET CEUs	Advanced
High-Efficiency Boiler Troubleshooting Inspect defects and faults and learn troubleshooting tasks of the high-efficiency boiler system.	4 hours	2 NATE CEHs Any Specialty	Intermediate
Airflow Testing Procedures Explore five key procedures for measuring airflow in a blower system and how to use the flow plate method.	2 hours	2 NATE CEHs 0.2 IACET CEUs	Intermediate
Residential Heat Pump Troubleshooting Addresses common service problems including bad reversing valves, emergency heat relays and motor diagnostics, with short videos and simulations to test your skills.	20 hours	8 NATE CEHs 0.8 IACET CEUs	Advanced
Combination Heat Pump Washer Dryers in Multifamily Buildings An overview of this innovative technology and a look at how it is impacting multifamily building design.	1 hour	–	Intermediate/ Advanced
120-Volt Heat Pump Water Heaters (HPWH) This webinar is provided by by manufacturers and installers of this crucial technology, which allows easier replacement of gas water heaters.	1 hour	–	Intermediate
HPWH Solutions in Multifamily and Light Commercial Buildings Solutions for replacing in-unit multifamily and light commercial water heaters with heat pumps.	1 hour	–	Intermediate/ Advanced
How to Size Your Heat Pump: Intro to Manual J, Using Kwik Model 3D Simulated hands-on demonstration of Kwik Model 3D to build a simple 3D home model and generate takeoffs supporting a repeatable Manual J process.	1 hour	–	Intermediate/ Advanced
Introduction to Heat Pumps Offers foundational knowledge for staff supporting electrification programs. <i>Also available in Spanish</i>	1 hour	1 NATE CEH 0.1 IACET CEUs	Beginner
A2L Refrigerants Introduction Covers A2L refrigerants, industry regulations and safety guidelines.	2.5 hours	0.2 IACET CEUs	Beginner
Variable Speed Technology in Residential HVAC Systems Addresses types of applications, installation considerations, servicing and maintaining variable-speed HVAC applications.	1.5 hours	0.1 IACET CEUs	Beginner
AC/HP Refrigeration Module, Parts 1–8 Learn to install, commission, maintain, service, diagnose and verify air conditioning and heat pump systems.	8 hours	8 NATE CEHs 0.8 IACET CEUs	Intermediate/ Advanced
Air Distribution Module 2026 Covers Quality Installation (QI), Quality Maintenance (QM), and Quality Service (QS) for residential and light commercial ducted air distribution systems.	8 hours	8 NATE CEHs 0.8 IACET CEUs	Intermediate/ Advanced

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How to Use Multimeter Covers core functions, settings and symbols found on modern multimeters and True RMS meters. <i>Also available in Spanish</i>	2 hours	2 NATE CEHs 0.2 IACET CEUs	Intermediate
Variable Refrigerant Flow Systems Overview Learn about key processes, different types of systems and the components of the Variable Refrigerant Flow system.	1 hour	–	Beginner
Go-Go Gadget Hot Water: Unlocking Split HPWHs Dive deeper into understanding split HPWH technology, where an interior water tank is paired with an exterior heat pump.	1 hour	–	Advanced
Residential and Commercial HPWH Load Shifting: Lessons from the Field Explore key HPWH load shifting lessons from the field. Panelists discuss how to scale HPWH load shifting and highlight new technical developments.	1 hour	–	Intermediate
Packaged Terminal Heat Pumps How upgrading packaged terminal air conditioners (PTACs) to high-efficiency packaged terminal heat pumps (PTHPs) can revolutionize energy use in apartment buildings, hotels and assisted living facilities.	1 hour	–	Intermediate/ Advanced
Hot Water, Justly Delivered: Powering Affordable Housing with HPWHs Covers challenges and benefits of replacing fossil-fueled water heaters with central HPWH systems in affordable housing, including installation and maintenance.	1 hour	–	Advanced
Batteries Hidden in Plain Sight: HPWHs with Thermal Storage Learn how phase change materials (PCMs) are impacting the efficiency and storage capabilities of central HPWHs.	1 hour	–	Advanced
Combi Heat Pumps for Space and Water Heating Combination space and water heating systems, also known as combi systems, seem promising but present a level of complexity that raises questions about their practicality.	48 min	–	Intermediate/ Advanced
Novel Heat Pump Applications for New Construction and Retrofits Learn how new HVAC applications can transform the way we think about heat pumps and explore how applications of these technologies differ in various climate zones, building typologies and construction markets.	1 hour	–	Intermediate/ Advanced
Residential HPWH Update: New Manufacturers Come to Market Get an overview of newly available products and manufacturers' plans to grow market share in an increasingly crowded market.	1 hour	–	Intermediate
Introduction to Smart Thermostats Learn about smart thermostats — how these devices work, how they help to keep us comfortable and how they impact energy efficiency.	1 hour	0.1 IACET CEUs	Beginner
Electrical and Mechanical Codes Gain HVAC code knowledge.	1 hour	–	Advanced
HVAC Maintenance Safety Covers safety for operating hand and power tools, safety in confined spaces, electrical safety, correct PPE usage and protecting yourself from environmental hazards. <i>Also available in Spanish</i>	1.25 hours	–	Beginner
Air Handling and Distribution: Routine Maintenance Learn to inspect and maintain air handling units (AHUs), fan coil units (FCUs) & variable air volume boxes (VAVs).	2 hours	–	Intermediate

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Computer Room Air Conditioning (CRAC) Learn about working with and configurations of computer room cooling systems. <i>Also available in Spanish</i>	1.25 hours	–	Advanced
Troubleshooting Air Handling Units (AHUs) Covers complex commercial diagnosis and troubleshooting of AHUs.	3 hours	–	Advanced
The Primary Components of a Ductless System Learn how to identify the parts and properties of the refrigeration components in ductless mini-split system, and how to identify the connections that link the indoor and outdoor units, including line sets, control wiring and drain routing.	1.2 hours	–	Intermediate
Superheat, Subcool and Heat Transfer Covers superheating and subcooling and their significance in refrigeration systems. <i>Also available in Spanish</i>	1.5 hours	–	Intermediate
Airflow Design Learn how to use a fan table to select the correct airflow settings for a newly installed system. <i>Also available in Spanish</i>	1 hour	–	Advanced
Commercial Refrigeration Systems Covers various types of commercial refrigeration systems: walk-in coolers and freezers, supermarket rack refrigeration systems and ice-making machines.	1 hour	–	Advanced
Complete Chiller Systems Learn about the types and components of chillers and vapor absorption chiller systems.	4 hours	–	Advanced
Installing Chiller Systems Covers types of tools and equipment used when installing a chiller system as well as the assembly process and post-installation inspection.	3 hours	–	Advanced
Chiller Systems: Routine Maintenance Explore visual inspection and routine maintenance procedures like chemical dosing, lubricating valves and cleaning oil strainers.	3 hours	–	Advanced
New Refrigerants and Building Design Learn about 2025 regulatory changes impacting the allowable global warming potential (GWP) of refrigerants and about new requirements for handling refrigerant-based systems.	1 hour	–	Intermediate/ Advanced

Electrical Services

COURSE	DURATION	CREDITS	LEVEL
Eliminate Main Panel Upgrades, Parts 1–6 Explore how systems in real-world scenarios can achieve electrification of loads and the addition of large quantities of distributed energy resources (solar and storage) while eliminating the requirement to upgrade the main electrical panel.	1.5 hours	–	All Levels
Combination Heat Pump Washer Dryers in Multifamily Buildings Explains how this technology simplifies retrofits and reduces the need for panel upgrades, while providing high-efficiency, ventless drying in energy-efficient multifamily buildings.	1 hour	–	Intermediate/ Advanced
Room Heat Pumps: Cooling and Heating in a Small Package Expert panelist provides overview on the why, what, whens and hows of room heat pumps.	40 min	–	Intermediate
Introduction to Electrical Troubleshooting Learn essential problem-solving techniques crucial for success in electrical maintenance and repair.	1 hour	–	Intermediate
Advanced Electrical Troubleshooting Covers systematic approaches to efficiently diagnose and troubleshoot electrical problems. Elevate your expertise in handling electrical challenges in the HVAC field.	3 hours	–	Advanced
National Electrical Code (NEC) Gain an essential understanding of NEC, the critical standard governing the safe installation of electrical wiring and equipment in the United States, its fundamentals and importance. Learn how to select and install general-use electrical equipment according to NEC guidelines.	3 hours	–	Advanced
Electrical Components and Devices Learn about common electrical components and devices, including how they function. Diagnose electrical issues that can affect these components and devices. Troubleshoot faulty components to isolate and resolve problems.	3 hours	–	Intermediate
Home Energy Audits Learn how an energy audit can best prepare your customers to lower their energy bills, improve indoor air quality and make their home more comfortable year-round.	45 min	–	Beginner
Introduction to Residential Power Generators Delve into residential power generators and learn about their operation and significance. Explore backup systems and their vital role in ensuring uninterrupted power supply for homes.	1.5 hours	–	Intermediate
Reading Electrical Drawings & Blueprints Learn how to precisely decode electrical drawings and blueprints. Navigate intricate plans, decipher symbols and interpret design intent.	1 hour	–	Intermediate
Unlock the Power of Building Control Systems Covers where to start when optimizing commercial building control systems and how to ensure the upgrades deliver real value.	1 hour	–	Intermediate/ Advanced
New Refrigerants and Building Design Learn about 2025 regulatory changes impacting the allowable global warming potential (GWP) of refrigerants and about new requirements for handling refrigerant-based systems.	1 hour	–	Intermediate/ Advanced

Building Performance, Facilities Management Teams Performance, Operations

COURSE	DURATION	CREDITS	LEVEL
System Performance Modules Learn how buildings exchange heat with their environment, with an emphasis on heating systems and full HVAC operation. <i>Available for a limited time</i>	8 hours Parts 1–8	8 NATE CEHs (must complete all 8 parts)	Intermediate
Energy Efficiency and Indoor Air Quality (IAQ): When and What to Measure in a Home Explore how targeted monitoring can guide the right improvements, motivate homeowners to take action and avoid wasted effort.	1 hour	1 BPI CEU	All Levels
Building Automation Systems (BAS) Covers key components of BAS, such as HVAC, lighting, security and fire safety systems, as well as the roles of skilled trade workers and building managers in maintaining and managing these systems.	1 hour	0.1 IACET CEUs	Intermediate
Home Insulation and Air Sealing Explore how insulation and air sealing improvements enhance building envelope performance, reduce energy loads and support efficient operations.	1 hour	–	Beginner
Making Sound Visible: Using Acoustic Imaging to Pinpoint Air Leaks in Existing Homes Learn about acoustic cameras and visualizing sound intensity, plus uses in building inspections, diagnostics and energy efficiency.	1 hour	1 BPI CEU	All Levels
2026 Title 24, Part 6, California Energy Code Changes: What Health Care Access and Information (HCAI) Project Managers Need to Know Provides an overview of the most important 2026 code change affecting hospitals and offers guidance on how to prepare HCAI projects for a smooth transition.	1 hour	–	Intermediate
What's New at Building Performance Institute (BPI)? Your 2025 Update on Certificates, Certifications, Standards and New Features This essential update covers all the recent changes and improvements that affect building performance/energy efficiency professionals.	1 hour	1 BPI CEU	All Levels
Unlock the Power of Building Control Systems Covers where to start when optimizing commercial building control systems and how to ensure the upgrades deliver real value.	1 hour	–	Intermediate/ Advanced
Introduction to Smart Thermostats Learn about how these smart thermostats devices work, how they help to keep us comfortable and how they impact energy efficiency.	1 hour	0.1 IACET CEUs	Beginner
Energy Management Introduction Covers core principles of energy management, providing insights and strategies to optimize energy consumption across various building types.	1 hour	0.1 IACET CEUs	Beginner
Energy Modeling for GridOptimal Buildings Explore how energy models can be used to better design GridOptimal buildings.	1 hour	–	Advanced
Air-to-Water Heat Pumps Learn how air-to-water heat pumps offer another high-efficiency solution for home comfort.	1 hour	–	Beginner
Introduction to Infrared Thermography for Contractors Covers the basics of thermal imaging and its practical applications in home inspections as well as its benefits and limitations.	10 minutes	–	Beginner

Energy Efficiency Program Providers

COURSE	DURATION	CREDITS	LEVEL
Sustainable Commercial Refrigeration Learn about the emerging technology in the refrigeration industry and new refrigerant requirements. Identify upcoming regulations and compare sustainable options to promote energy efficiency.	1 hour	–	Intermediate/ Advanced
System Performance Modules Covers how buildings exchange heat with their environment, with emphasis on heating systems and full HVAC operation. <i>Available for a limited time</i>	8 hours Parts 1–8	8 NATE CEHs (must complete all 8 parts)	Intermediate
Energy Modeling for GridOptimal Buildings Explore how energy models can be used to better design GridOptimal buildings.	1 hour	–	Advanced
Building for the Future: Integrating Fire Resilience with Energy Efficiency in High-Performance Design Covers balancing an increased demand for fire-resistant materials and resilient design strategies with energy efficiency efforts.	1 hour	–	Intermediate/ Advanced
What's New at Building Performance Institute (BPI)? Your 2025 Update on Certificates, Certifications, Standards and New Features This essential update covers all the recent changes and improvements that affect building performance/energy efficiency professionals.	1 hour	1 BPI CEU	All Levels
LEED Green Associate (GA) Exam Preparation A three-part series designed to build foundational knowledge, applied understanding and exam readiness in green building practices.	3 hours	–	Beginner
Home Insulation and Air Sealing Explore how insulation and air sealing improvements enhance building envelope performance, reduce energy loads and support efficient operations.	1 hour	–	Beginner
Foundations of Green Building, Parts 1–4 This course introduces the science, causes and impacts of climate change, with a focused examination of how buildings and infrastructure contribute to global greenhouse gas emissions.	4 hours	–	Beginner
The Pivotal Role of Energy-Efficient Buildings & HVAC in Sustainable Architecture Learn about the critical need for more energy-efficient HVAC systems and architecture.	30 minutes	–	Intermediate
Rebuilding After Wildfire: Creating Energy-Efficient and Fire-Resilient Homes Explore how fire-resilient building techniques often align with energy-efficient practices and how to rebuild safer, more sustainable homes after a wildfire.	30 minutes	–	Beginner
Biological Contaminants as We Move to Energy-Efficient and All-Electric Homes Covers common contaminants, their health impacts and how electric homes may influence their spread. Learn effective strategies to prevent, identify and control these contaminants.	30 minutes	–	Beginner
Secrets of Selling Energy Solutions to Residential Landlords and Tenants™ Learn how efficiency and electrification upgrades can boost the competitiveness, profitability and value of an income-producing residential property.	1 hour	–	All Levels
12 Keys to Successful In-Home Selling™ Explore strategies and tactics from other in-home sellers of services from landscaping to carpet cleaning and decking.	1 hour	–	All Levels

Energy Efficiency Program Providers

COURSE	DURATION	CREDITS	LEVEL
Marketing Your Energy Efficiency and Electrification Services Gain an overview of incentives available in your market for energy efficiency and home electrification services and how they differ, including rebates, tax credits and financing.	1 hour	–	Beginner
18 Questions to Ask on Your Next Sales Call™ Learn to recognize the difference between features/benefits and values, and apply business acumen to craft more compelling value propositions for your prospects.	1 hour	–	All Levels
Secrets of Getting Homeowners Excited About Energy Solutions™ Covers understanding the homeowner when selling upgrades.	1 hour	–	All Levels

Customer Service / Soft Skills

COURSE	DURATION	CREDITS	LEVEL
Customer Interaction Learn about effective communication, customer service techniques and problem-solving in various business contexts.	1 hour	–	Beginner
Customer Soft Skills and Sales Learn how technician soft skills influence customer confidence and improve sales outcomes.	1.7 hours		Beginner

Trade Math

COURSE	DURATION	CREDITS	LEVEL
Trades Math: Strength in Numbers Build your confidence in using math on the job. Learn to convert between measurement systems, work with fractions and decimals, and read a tape measure — all essential skills for success in the trades.	2.5 hours	–	Intermediate
Jobsite Math: Conversions and Calculations Learn about jobsite measurements such as length, temperature, volume and capacity. Develop your mathematical skills for trade-related calculations such as ratios, percentages and scale.	2 hours	–	Intermediate

Rebates & Incentives

COURSE	DURATION	CREDITS	LEVEL
Marketing Your Energy Efficiency and Electrification Services Using Rebates & Incentives Provides an overview of incentives available in your market for energy efficiency and home electrification services and how they differ, including rebates, tax credits and financing.	1 hour	–	Beginner
Rebates and Incentives — Lowering the Costs of Electrification Covers significant incentives available from utilities, states and the federal government to help your customers reduce the upfront costs of EVs, heat pumps, weatherization and other home upgrades.	45 min	–	Beginner