

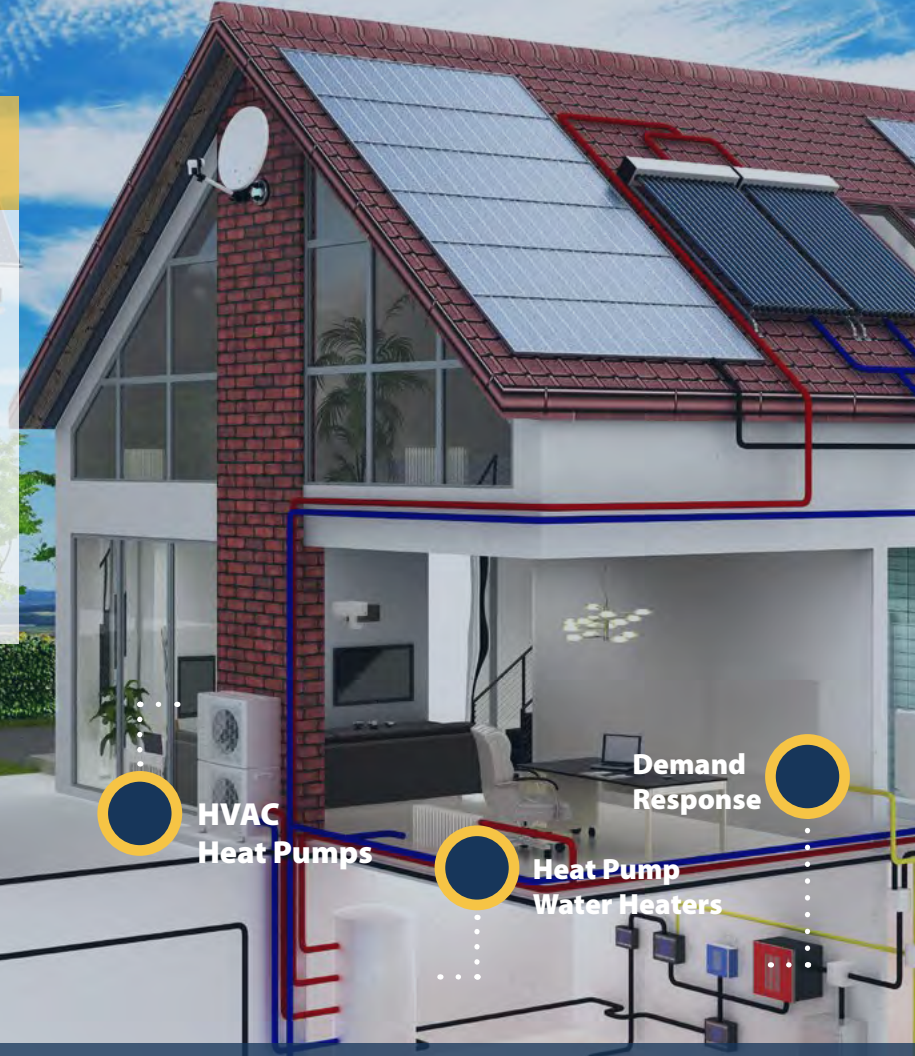
Electrification Services

Education + Engagement

Buildings + Transportation

Why Electrification?

With the goal of reducing carbon emissions, throughout the U.S. the push for electrification is growing at a rapid pace for both the transportation and building sectors. From all-electric policies that require or encourage zero-emission space and water heating technologies to EV charging infrastructure deployment, the electrification revolution has begun. Are you ready to meet the technology and market demands?



EV Chargers

EVs

HVAC Heat Pumps

Heat Pump Water Heaters

Demand Response

D+R International is primed to lead the effort to engage and educate stakeholders on building and transportation electrification.

Why D+R?

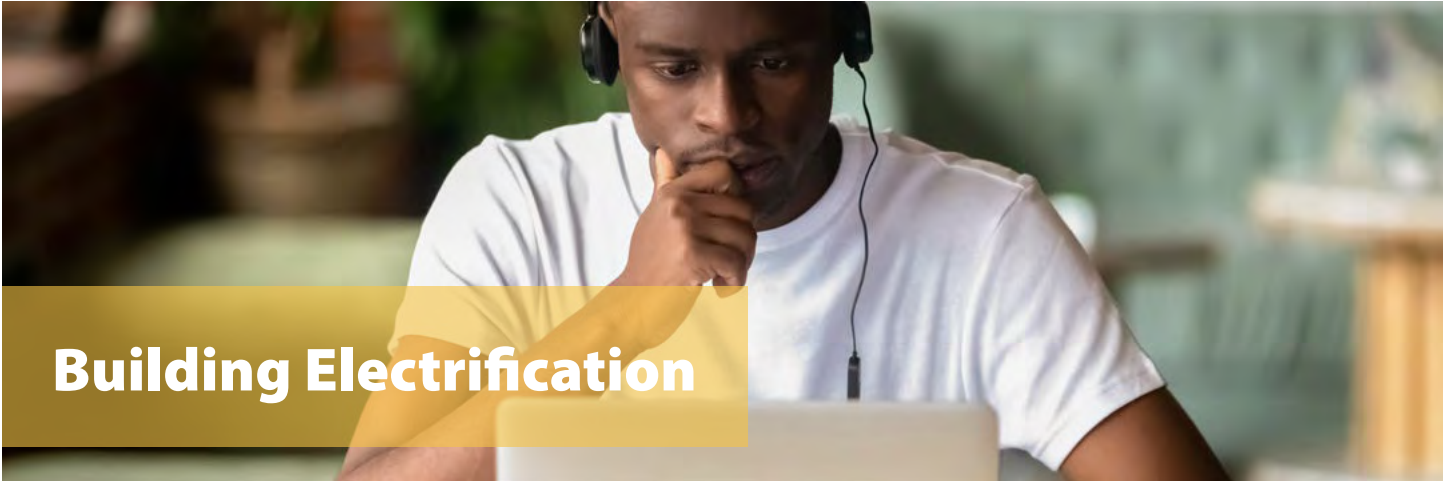
D+R International holds the unique position as an industry leader in electric vehicles and building energy technology with a focus on non-regulated utilities and electric cooperatives. Our expertise includes technology and markets for EVs, EV chargers, heat pumps for HVAC and water heating, and demand response. We offer a full ecosystem of services to help our clients meet their electrification goals, including technical education, market research, and supply chain engagement.

D+R LEARN

Building on decades of workforce engineering-focused training, D+R International has developed over 40 courses in areas including energy management, residential and commercial HVAC technology, residential heat pump water heating, demand response, electrification, and energy efficiency, delivering over 10,000 hours of classroom instruction.

D+R DRIVE

D+R International has been engaged in the EV sector since 2014, helping utilities and regional energy organizations educate their customers on the value and benefits of owning an EV. Utilizing our 35+ years of experience in advancing energy-efficient programs and markets, we developed a full spectrum of services to help you align your business goals with EV market developments.



Building Electrification

Our workforce education experts provide both in-person (synchronous) and online on-demand (or asynchronous) instruction, geared to maximize learner engagement and knowledge transfer in key emerging technology arenas. We help utilities, trade associations, field technicians, and consumers accelerate their education about—and deployment of—available and emerging technologies.

Delivering Building Technology Expertise

D+R offers a robust, flexible, and accessible curricula with workshops that are offered to all interested residents, business owners, contractors/installers, and commuters. They range from basic EV and electrification education, to more advanced course modules that focus on cost-effective and pragmatic ways to pursue electrification.

Our approach is designed around interactive and inclusive trainings which are offered in-person, online/mobile optimized, and available on-demand. Our content is tailored to the audience and informed by strong industry relationships, market research, and learner feedback.

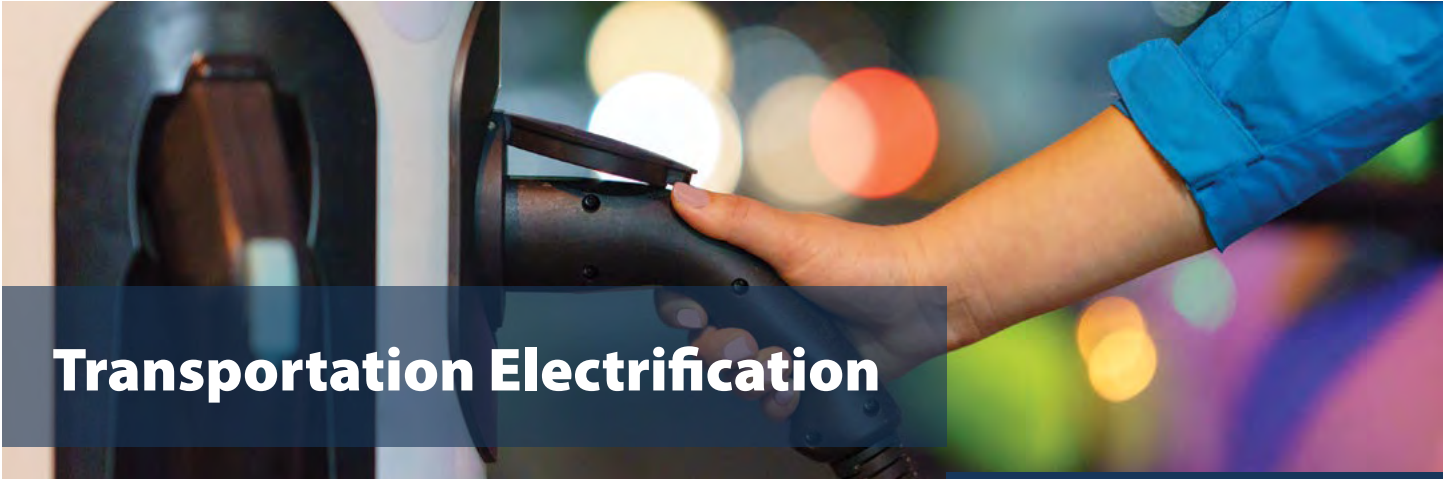


Both Nick and Bobby are exceptionally capable, knowledgeable presenters. I hope they will each/together do extended (whole day/multi-day) seminars in the future. The moderator (Lauren) was excellent too, great at fielding the many questions and time management. Bobby's extensive field expertise anecdotes knocked it out of the park."

—LEARNER COMMENT FROM
OVERCOMING INSTALLATION BARRIERS
FOR HVAC HEAT PUMPS IN RETROFIT
CONSTRUCTION COURSE

We have delivered training to dozens of clients, and for utilities including:





Transportation Electrification

The EV market is rapidly transforming, creating new opportunities for utilities, regional energy organizations, and the automotive sector. In order to align your business goals with EV market developments, D+R International developed DRIVE EV Market Services, a full spectrum EV market solution to accelerate EV adoption.



ODEC worked with Andre Javier-Barry from D+R last year to provide the ChooseEV tool for all 11 of our member-owner cooperatives. From the beginning, Andre was very knowledgeable about the product and always accommodating in making sure that our questions were answered. We continue to work closely with him on our ChooseEV program and are excited to evaluate other beneficial electrification products D+R can offer ODEC and our member cooperatives."

—ERIN PURYEAR, OLD DOMINION ELECTRIC COOPERATIVE (ODEC)

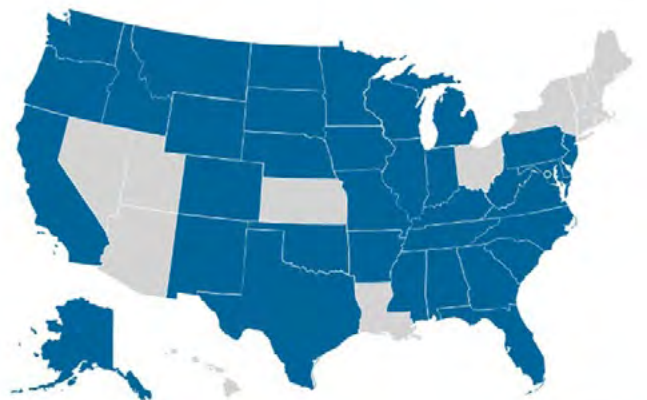
Driving Electric Vehicle Adoption

We can deploy our DRIVE EV Market Services in a manner that meets each utility where they are along the EV continuum. Whether a utility is just beginning to contemplate how EV technology could be adopted within their service territory or a utility has been running EV programs for a number of years, we can help initiate or enhance EV programs and trainings. Our solutions below are fully customizable to help each utility accelerate EV adoption.

Today we represent

530+ utilities in 36 states

We are becoming the market standard for utility EV offerings.



Contractors and Installers

Overview of HVAC Heat Pumps for New Construction

Having a basic understanding of this technology is key to the overall push towards electrification. This course:

- Establishes a clear value proposition for HVAC heat pumps in new construction based on first costs and operating costs, energy efficiency, and Title 24 requirements
- Reviews how HVAC heat pumps work and different system configurations
- Addresses consumer concerns about aesthetics, efficiency, comfort, and function



Overcoming Installation and Sales Challenges for HVAC Heat Pumps in Retrofit Construction (2-part course)

This course:

- Addresses misconceptions about and barriers to the adoption of HVAC heat pumps
- Anticipates and responds to a variety of consumer questions and concerns regarding HVAC heat pumps and provides targeted sales training for client-facing staff and contractors
- Delves into key installation hurdles contractors face when replacing an existing system with a new HVAC heat pump system, including dealing with existing ductwork, MERV-13 filtration, electrical panel upgrades, cold weather performance, and more

Overview of Heat Pump Water Heaters for New Construction

This course:

- Establishes a clear value proposition for heat pump water heaters based on first and operating costs, energy efficiency, and Title 24 requirements
- Analyzes costs of heat pump water heaters as compared to other types of systems
- Highlights incentives programs available

Overcoming Installation and Sales Challenges for Residential Replacement Heat Pump Water Heaters (two-part course)

This course:

- Establishes a clear value proposition for heat pump water heaters for plumbers, while addressing key barriers to their adoption
- Provides targeted sales training to identify customers and opportunities for client-facing staff and plumbers
- Delves into key installation considerations including space limitations, noise, condensate management, sizing, operational modes, and error codes

Multifamily and Commercial Settings

Introduction to Central Heat Pump Water Heating: The Whys and Hows of Heat Pump Water Heater Systems for Multifamily and Commercial Applications

This two-part webinar series addresses the evolution in building codes and policy that compel the integration of heat pump water heating systems, addresses how to identify projects that are good candidates, provides an overview of system design, and outlines available incentives for building owners and facility managers.

- **Part One: Why to Invest in a Heat Pump Water Heater System in Your Next Multifamily or Commercial Project**
This course:
 - Explores the policy drivers that are pushing the integration of central heat pump water heating systems
 - Highlights the economic, energy, and environmental advantages of heat pump water heater systems for commercial and multifamily projects
 - Discusses successful projects and case studies
 - Outlines which applications have the best opportunities for success
- **Part Two: How to Select and Design a Heat Pump Water Heater System in Your Next Multifamily or Commercial Project**
This course:
 - Teaches learners how to identify a good candidate project for a heat pump water heating system
 - Provides an overview of key design considerations
 - Introduces Ecotope's new sizing tool, the Ecosizer
 - Gives an update on the status and evolution of available equipment
 - Explores system components

Central Heat Pump Water Heating Systems: Design & Maintenance Deep Dive

This course:

- Explores the advantages of central heat pump water heater (HPWH) systems
- Provides a brief overview of the economics of HPWH systems compared to traditional systems
- Analyzes key system configurations and design considerations in depth
- Reviews maintenance routines that ensure optimal system performance
- Provides instruction on how to utilize Ecotope's new sizing tool, the Ecosizer



Automated Demand Response

ADR (Automated Demand Response) training covers the critical importance of demand response to grid management during high peak usage periods. The course defines demand response and details the benefits of demand response and application of demand response in different facility types (residential, commercial, industrial, and manufacturing), along with types of demand response control strategies (manual, semi-automated and automated).

Following this course, learners will be able to:

- Name and describe various types of demand side management strategies
- Define demand response and learn about its application in various facility types and applications
- Describe types of demand response control strategies, including Automated Demand Response
- Articulate Title 24 requirements for demand response
- Understand utility demand response programs, application types, and incentives



Sales Tools to Promote Heat Pump Technology

- [Home Energy Estimator for Water Heating \(calculator\)](#)
- [Home Energy Estimator for HVAC \(calculator\)](#)

Configured as either an offline or online tool, the Home Energy Estimator provides contractors and homeowners the ability to compare estimated whole-home energy usage data and annual operating costs associated with an existing water heating or HVAC system vs. a new replacement heat pump system. The Home Energy Estimator can be customized to member utility rates, equipment rebates/incentives, climate zones, and targeted replacement equipment.

**HVAC Heat Pump
Retrofit Energy Cost Estimator**

Instructions: Input customer information in the BLUE cells below to calculate the comparison of the current and proposed systems. Click each BLUE cell for instructions. The YELLOW cells are the calculated outputs.

| | |
|---------------------------------------|----------------------|
| Zip Code | <input type="text"/> |
| Year Home Built or Re-Insulated | <input type="text"/> |
| Gas Provider | <input type="text"/> |
| Current System Type | <input type="text"/> |
| Current Rate | <input type="text"/> |
| Proposed New System Type | <input type="text"/> |
| Proposed New Rate | <input type="text"/> |
| Cost Percent Savings | <input type="text"/> |
| Energy Percent Savings | <input type="text"/> |
| Greenhouse Gas Percent Savings | <input type="text"/> |
| Monthly Utility (Gas & Electric) Bill | <input type="text"/> |
| Estimated New Monthly Bill | <input type="text"/> |
| Estimated Monthly Savings | <input type="text"/> |
| Estimated Annual Savings | <input type="text"/> |

Field Engagement Services

Effective supply chain engagement is at the center of successful electrification market transformation. Based on your program goals and market landscape, we design and implement strategies to engage manufacturers, manufacturer representatives, distributors, retailers, salespeople, and technicians. To ensure you meet your goals, we build market capacity, remove barriers, and create conditions for electric HVAC and heat pump water heater technologies to succeed in the market.



Utility Staff

Our EV course content for utility staff empowers learners to understand how quickly the EV market is changing, diversity in models, grid impacts and environmental impacts. We prepare staff to address any questions that their members may have about EV's.

Utility Members

Our EV course content for utility members is designed to expand their knowledge of EVs and help them learn about all the options that are now available. We break down the difference between all electric vehicles, plug in hybrid electric vehicles and hybrid electric vehicles. We also help members assess whether new or used EVs are best for them. We provide education on incentives and demonstrate how much utility members can save when switching from gas to electricity to power their vehicles.

EV Dealers

Our EV course content for EV dealers includes cheat sheets that map the EV customer journey and provide guidance on how dealerships can take advantage of local utility promotions of EVs. We demonstrate best practices from champion EV dealers across the country.



Online EV Customer Engagement Tools

We help utilities inform and educate their customers about electric vehicles. The ChooseEV platform is modular and customized to advance EV adoption within the utility service territory. We offer digital tools for light, medium and heavy duty vehicles. ChooseEV helps residential customers that want to learn more about the right car for their daily commute and commercial customers that want to convert an entire fleet to electric.



EV Strategic Planning

D+R delivers a comprehensive EV Strategic Plan for our utility clients. We establish a baseline of EV owners and we assess the current level of publicly available EV charging infrastructure. We also identify state and local EV policy that can help drive EV adoption locally. The report can also include diversity, equity and inclusion strategies as well as local load impact forecasting. Finally, we help our clients establish reasonable goals for EV adoption and help identify local partners to help achieve those EV goals.



EV Public Charger Installation Management

D+R has engineering and construction management experience to help our utilities increase publicly available EV charging stations. We serve as the Project Manager and identify the best, local subcontractors to install and maintain EV charging infrastructure. We help our utility clients select the right type of chargers and we help plan for future demand response and Vehicle to Grid opportunities.



EV Charging At Home

D+R will design and implement a custom EV Charger Rebate Program for our utility clients. Since 80% of all EV charging happens at the home, it is critical that utility customers get the right type of EV charger and have confidence that the EV Charger installer can get the job done right. We help our clients select the best EV charger manufacturer and we help with marketing and promotion of the EV charger rebate program.



EV Charger Installer Services

Tap into Qmerit's nationwide network of pre-certified electrical contractors who are specialists in EV charging station installations and other electrical projects. All our contractors have up-to-date licenses, background checks and insurance.

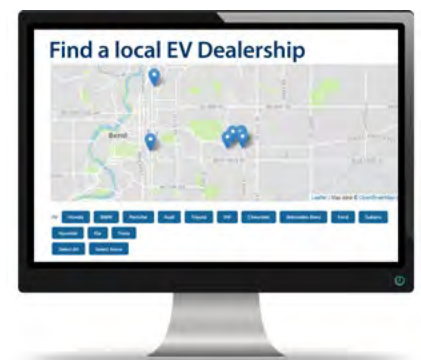
We provide a turnkey program that connects EV buyers and commercial fleet managers seeking EV charger installations and our Marketplace will find the three best-performing contractors in your customer's geographic area so they can provide quotes.



Qmerit

EV Dealer Directory

Utilities that want to increase EV adoption within their service territory must have a defined EV Dealer Network. D+R utilizes our national directory of auto dealers and identifies a specific subset of dealers that sell EV and that want to be listed in our utility clients EV Dealer Directory. We conduct outreach to all dealers in an agreed-upon geographic boundary and we deliver a comprehensive contact list of EV dealers to provide an easy EV buying experience for utility customer members.



Meet the Team



John Morris Senior Director Electric Transportation

John is responsible for oversight on product development, strategic planning and sales for all electric vehicle services across the United States and Canada. John manages an agile sales and account management team to ensure utility clients can rapidly deploy EV programs. His expertise includes energy efficiency, energy policy, electric vehicles and grid edge planning.



Lauren Bhaskar Engineering Training Manager

Lauren is an engineer and veteran educator with 15 years of professional teaching and industry education experience in the realms of engineering, math, and technology. She brings expertise in educational design/backwards planning, assessment, and content delivery, as well as large-scale, industry-focused educational event planning, coordination, and execution.



Andre Javier-Barry Senior Account Manager

As D+R's lead account manager, Andre specializes in working with electric cooperatives and auto dealerships to share our expertise in electric vehicle program development and identify the best opportunities to advance transportation and building electrification.

Contact Andre today to explore how to meet your electrification goals:

Andre Javier-Barry
ajavierbarry@drintl.com
301-628-2077

D+R
International



Meet the Team



Tim Abshire, Residential Heat Pump Water Heating

Tim is a Wholesale Distribution Account Manager responsible for the implementation of Northwest Energy Efficiency Alliance's (NEEA) Hot Water Solutions Program. His background, including utility management and wholesale distribution, provides him with extensive knowledge and understanding of distribution operational needs and requirements. Tim is a State Certified Heat Pump Water Heater Continuing Education Instructor and has conducted over 250 training courses.



Nick Brown, Residential & Non-Residential Construction

Nick is a Certified Energy Analyst (CEA) for residential and an Associate Energy Analyst (AEA) for nonresidential construction by the California Association of Building Energy Consultants (CABEC). He is a subject matter expert on the Energy Code Ace statewide education team and teaches classes on net zero design, all-electric homes, and selling clean energy homes.



Peter Davi, Energy Engineer

Peter has been involved in the energy industry for the past 11 years. He brings experience in utility incentive applications and is knowledgeable in lighting, HVAC, and EMS controls. He has helped customers receive incentives through SCE's incentive program and has managed energy efficiency projects for school districts under California's Proposition 39. He is a professional mechanical engineer and holds a BS in Mechanical Engineering from California Polytechnic State University, Pomona.



Colin Grist, Central Heat Pump Water Heating

Colin primarily specializes in heat pump water heating systems. He has designed and commissioned over a dozen successful systems from multiple vendors. He performs building analysis, load calculations, energy modeling, and HVAC engineering design using tools such as AutoCAD, Revit, and eQUEST. On site, Colin works closely with clients on commissioning, construction administration, and energy audits of new and existing buildings. Colin leads the central heat pump water heating engineering team at Ecotope.



Bobby Hahn, HVAC Installation and Sales

Bobby is a principal at Pacific System Group with 28 years in the HVACR Industry. His experience includes VRF, Ductless, DX Systems, Chilled Water, Air Quality, Filtration and Controls. Bobby is a member of the CABEC, IHACI, ASHRAE, ACCA, MANNA and was a past board member of the Institute of Heating and Air Conditioning Industry.



Saniya Syed, Engineer and Demand Response Expert

Saniya has developed and taught ADR courses since 2017, including conducting training for engineers at Southern California Edison, and leading train-the-trainer sessions across California for the California Energy Commission EPIC-funded ADR training. She has implemented Auto-DR incentive programs for California utility companies and recently conducted research and cost-effectiveness analysis of FastTrack (Express) ADR programs.