

The Power of Knowledge

How Celtic Energy, now NV5, can help you navigate ESPCs, EaaS and other projects

Knowledge is power. When managing complex energy projects, what you don't know can't hurt you—but it can cost you. Energy efficiency and distributed generation provide cost-saving opportunities. Yet many property owners lack the resources to self-implement upgrades and instead turn to the energy services marketplace for public-private partnerships (P3) with third-party financing and implementation such as Energy Savings Performance Contracts (ESPCs) and Energy-as-a-Service (EaaS) projects.

Few Facility Managers (FMs) have the knowledge and experience to master all key project phases. They must assess opportunities for cost-effective improvements, identify the best procurement vehicle, articulate objectives for the marketplace, select contractors, negotiate contracts that minimize risk and maximize the probability of success, oversee contractor work to ensure they fulfill their promises, witness commissioning, and measure and verify savings. **A trusted advisor with deep expertise and scar-tissue wisdom is vital.** That's where an Owner's Representative (OR) such as **Celtic Energy Inc.** (CEI) comes in.

An OR—or Project Facilitator (PF) in Federal work—provides independent third-party review and quality assurance (QA) for energy projects. A construction OR has a narrower focus on in-depth oversight of the building process. An energy services OR provides full-scope project support for the facility owner.

Chris Halpin, founder of CEI—now an NV5 company—understands the power of knowledge. The son of Irish immigrants, Chris was the first person in his family to go to college, became a mechanical engineer and worked for Energy Services Companies (ESCOs). After years of managing retrofits Chris realized that there was no one on the customer's side of the table to support them and explain how projects worked. He founded CEI in 2000, a pioneer of the dedicated OR role. The name Celtic Energy reflects Chris's Irish heritage and "green" focus.

CEI's clients are primarily in the MUSH market (Municipal, University, School, Hospital) plus Federal, State and commercial clients including the Department of Defense, FBI, FDA, NASA and numerous state agencies, universities, municipalities and utilities.

CEI maintains independence and avoids conflicts of interest by never undertaking compensated work with companies that CEI might oversee. CEI sells advice and QA, not equipment, design or financing.

ORs provide the greatest value when involved from the project's earliest phases. CEI helps owners evaluate potential improvements, with detailed energy audits if necessary. CEI educates key stakeholders with veto power in the client organization to secure their understanding and buy-in early on, such as FMs, purchasing, finance and legal departments.

CEI translates owner preferences and objectives both into RFP language that helps match proposers' submissions to owner requirements, and into proposal scoring matrixes that inform contractor selection. Best practice requires proposers to use open-book pricing. CEI assists with pre-bid meetings and answering proposer questions. We provide quantitative and qualitative comparative evaluation of submittals. CEI supports selection committees with objective analysis but doesn't vote.

CEI provides input to contract development and negotiation, but not legal advice. We recommend industry-standard template documents, terms and conditions, *e.g.*, from the Department of Energy (DOE) and the Energy Services Coalition. We prefer an iterative approach to Invest-Grade Audits (IGAs) with review of proposed Energy Conservation Measures (ECMs) at 30%, 60% and 90% of IGA completion to enable owner "go/no-go" decisions for each ECM.

CEI provides construction QA oversight, but not daily onsite monitoring. We witness equipment commissioning. Critically, we provide annual quality assurance reviews of the ESPC/EaaS contractors' measurement and verification (M&V) of project results. M&V is critical

for ensuring that projected energy and cost savings are realized by the owner. It often involves poring through reams of data with a fine-tooth comb. One might think M&V would increase project savings, but verified savings are sometimes less than were promised by overly optimistic contractors. Most CEI engineers have Certified M&V Professional (CMVP) accreditation from the Association of Energy Engineers.

Training that sets us apart from other ORs is DOE ESPC PF certification. Of the forty-seven individuals certified as PFs in the USA, only thirty are certified for “all agencies”; CEI employs six of those thirty. For ten years CEI held one of four DOE PF contracts nationwide for Federal ESPCs. CEI personnel sat on DOE’s Commissioning and M&V Best Practices Working Groups.

We like the spirit of the term “Project Facilitator.” We take a collaborative approach with contractors to foster project success without compromising owner interests. Projects must be commercially viable for the P3 marketplace to work, but open-book pricing and rigorous M&V ensure that the contractor doesn’t make unreasonable profits.

CEI is based in Glastonbury, CT with offices in NYC, Northern Virginia, Las Vegas and Reno, NV. CEI’s GSA Contract GS-21F-0076Y simplifies Federal and State agency procurement of our services. We’ve been hired over 135 times nationwide as OR/PF for ESPCs, overseeing all major ESCOs. We also consult on P3 and Energy-as-a-Service (EaaS) projects; renewable Power Purchase Agreements (PPAs);

Christopher F. Halpin, PE, CEM, CEP, CMVP, LEED™ AP



Since 1985, Christopher Halpin has worked for several premiere consulting firms and ESCOs in engineering, management, and sales, and is a former Global Energy Manager for NCR. He founded Celtic Energy in 2000 and has acted as an Owner’s Representative for dozens of energy projects. With over 34 years of experience in developing comprehensive energy management programs and dealing with efficiency upgrades, Chris has succeeded at establishing a nationally-recognized consulting firm that focuses on helping clients with their long-term goals of managing energy costs in today’s highly volatile energy markets.

Over the past nineteen years, Mr. Halpin’s numerous accomplishments have contributed to Celtic Energy’s growing success. He was one of NREL/DOE’s four Project Facilitators for FEMP’s SuperESPC Program, where he managed projects for all branches of the US military, Department of Energy headquarters, and other agencies. During that time, he was a member of the DOE’s Commissioning and Measurement & Verification Best Practices Working Groups and continues to help improve the way ESPCs are executed. Chris also manages ESPC projects for the states of Rhode Island, Massachusetts, Delaware, North Carolina, Nevada, New Mexico, and Louisiana, and dozens of cities, towns, hospitals, and school districts. He is a regular speaker at national energy industry events and has briefed Governor’s staffs in several States on energy issues, and

testified in front of several Public Utility Commissions and legislatures on various energy efficiency issues.

Mr. Halpin is a registered Professional Engineer in Arizona, Connecticut, New York, Nevada, North Carolina, Pennsylvania, Rhode Island, Maine, and Ireland. He is certified by the Association of Energy Engineers (AEE) as a Certified Energy Manager (CEM) and Certified Measurement & Verification Professional (CMVP), and has been honored as a Legend in Energy. He is also a Leadership in Energy and Environmental Design (LEED) Accredited Professional by the US Green Building Council. Chris is on the Board of Directors of the Energy Services Coalition (ESC) and member of the Society of American Military Engineers Energy and Sustainability Committee.

RFP/RFQ solicitations; alternative financing strategies; Energy Conscious Design Review (ECDR) for new facilities; distributed generation; energy assurance, resilience and microgrid projects; street lighting upgrades; green building; Commercial Property Assessed Clean Energy (C-PACE) projects; State energy policy and program design; and enterprise sustainability.

CEI’s personnel have a combined 150+ years of energy experience and have negotiated, sold, managed, engineered, executed, commissioned, monitored and verified over \$2 billion worth of projects. We’ve secured over \$120 million in government and utility grants, rebates, and incentives for clients in 35 states. We’re vendor neutral, technology agnostic and fiercely independent. We’re Subject Matter Experts in technologies including building automation systems, lighting, chiller and boiler plants, photovoltaics and cogeneration.

In January 2019 CEI was acquired by NV5 and combined with Energengz to form a new energy services consulting vertical, expanding upon NV5’s architectural and engineering design and other service offerings for the built environment. Starting in 2020 we’ll be known as NV5, continuing Celtic Energy’s mission in all but name.

For more information on NV5:
www.nv5.com
Walt Donzila CEM, CPC
Director of Business Development
Walt.Donzila@nv5.com