

# JIM CARTER, P.E., J.D.

## Senior Consultant – Risk Specialist



With over 40 years in the nuclear power industry, Jim Carter is recognized for his leadership, innovation, and successes. As a former navy submarine officer and civilian executive with degrees in engineering, business and law, Carter has extensive and relevant hands-on experience with nuclear project execution. His operating and maintenance experience translates to an understanding of the challenges associated with refurbishing a plant that has prior operating history.

Direct experience managing union craftsmen, technicians, engineers, and other professionals, as well as contractors and equipment suppliers, allows him to anticipate problems and create effective solutions. Having served as construction completion and commissioning manager on several nuclear mega-projects, he understands the conflicting priorities and processes associated with engineering, procurement, construction, testing, and operating organizations. Carter has also worked with nuclear regulators on licensing and field compliance matters. He has participated in retrospective prudence hearings and in proceedings dealing with ratemaking revenue requirements.

His background has developed into expertise based on first-hand experience identifying, analyzing, and resolving problems...not merely by observing the work of others. Most importantly, he has demonstrated the ability to contribute this expertise to all stakeholders in a collaborative and constructive manner, providing advice to clients on effective EPC contracting and project/risk management. A proponent of collaborative project management, he established and managed a significant and successful contract guided by the Construction Industry Institute's proven concept of "Partnering".

As a corporate executive and board member, he extended his "big picture" perspective beyond direct project matters. He serves on several corporate boards including as Chairman of Pathway Lending, Inc. He is a past board member of small modular reactor technology developer, NuScale Power, Inc., where he was instrumental in fundraising, operations, improvement, detailed program planning and budgeting, and execution progress tracking. In addition, Mr. Carter is the founder of J.E. Carter & Associates, and Aqua Levee Enterprises, LLC.

### EXPERTISE

- ▶ Project Oversight
- ▶ Engineering Construction & Project Management
- ▶ Nuclear Start-Up & Technical Assistance
- ▶ Risk Management
- ▶ Strategic Planning

**40+ YEARS OF EXPERIENCE**

## ENGINEERING, CONSTRUCTION AND PROJECT MANAGEMENT

Carter's experience in engineering, construction and project management is extensive and diverse, making him a highly sought-after consultant to energy companies engaged in large capital projects. Carter has held many positions in his career, from craft supervisor to line manager to executive, and he has leveraged this experience in his consulting practice. Carter's accomplishments include:

- ▶ Vice President of an international engineering and construction services firm, responsible for all regional activities including profit and loss, contract negotiation, project planning, project management (commercial and technical), strategic planning, sales & marketing, organizational design and personnel administration. In this capacity, he developed an efficient and effective team of professionals focused on project and program success. His organization achieved ISO 9001 certification and received a statewide Total Quality award. Carter also instigated a comprehensive overhaul of all firm operations, including contracting and project management, as well as development and implementation of processes and procedures for improving decision-making, productivity and profitability.



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- ▶ Multiple engagements as an executive and as consultant in which Carter was responsible for negotiating numerous contracts for engineering, construction management, project management and program management services. Contract structures ranged from fixed price to full reimbursable, with numerous variations.
- ▶ Numerous engagements involving engineering, construction and start-up management, including serving as the Division Manager for an international engineering and construction firm responsible for construction completion, power plant testing, start up, operations and maintenance services to numerous nuclear and coal plants.
- ▶ Consulted with energy companies on standardizing and optimizing project management practices across all business units (nuclear, fossil, T&D, customer care, and finance).
- ▶ As Senior Vice President for NuScale Power, Inc., Carter established and managed a Program Office, responsible for project management, planning, scheduling, and cost management, risk management; and earned value reporting.
- ▶ At the American Nuclear Society 2007 Annual Meeting, Carter introduced the concept of “Commercial Quality Control”, dealing with collaborative independent oversight for nuclear projects. This was well-received and became the cover story for that month’s Nuclear News publication.
- ▶ Performed a readiness assessment for a comprehensive refurbishment and life extension project on a 600MW CANDU-6. Reviewed all aspects of the project, including scoping, scheduling, estimating, engineering, construction, procurement, contracting, staffing and quality assurance.
- ▶ Managed an extensive modification to a coal fired generating facility to supply process steam to an adjacent chemical plant.

## NUCLEAR START-UP AND TECHNICAL ASSISTANCE

- ▶ Managed the overall start up, testing, associated engineering support and construction completion for the Hope Creek Nuclear Generating Station. Responsibilities included overall program development and management, organization design, scheduling, problem resolution, licensing support, configuration management, and contract management. With Hope Creek, he was the primary point of contact with the U.S. Nuclear Regulatory Commission on licensing matters related to the initial test program.
- ▶ Managed the mechanical aspects of the initial test program, and construction completion of Salem Unit 1. Considerable effort was focused on scheduling construction completion, turnover and test scheduling. He interfaced with the U.S. Nuclear Regulatory Commission on test program matters related to the issuance of an operating license for the facility.
- ▶ For the Nine Mile Point Unit 2 Nuclear Generating Station, managed the turn-around and transition of a flailing commissioning program; addressing program re-development, re-organization re-design, re-scheduling, project management, problem resolution, configuration management, licensing support, and contractor management.
- ▶ Managed development of the initial test program, start-up schedules and procedures for the River Bend Nuclear Generating Station.



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## STRATEGIC PLANNING

- ▶ As a member of the NuScale Power Board of Directors, played a key role in guiding NuScale through a period of financial stress which required focus on employee retention, fundraising, re-start planning, organizational design, and strong motivational leadership. Considerable effort was focused on various contract development and negotiation matters related to financing, intellectual property, procurement, employment, technical services and corporate financial transactions.
- ▶ Developed strategies, testimony, and interrogatory responses for state regulatory proceedings associated with engineering, construction and start-up of 1000MW nuclear generating project.
- ▶ Advised an investor-owned utility on optimizing the organizational structure to manage anticipated large capital projects, including nuclear new build.
- ▶ Supported an owner-plaintiff in a major contract dispute related to a new multi-billion nuclear power project.
- ▶ Performed a strategic market assessment of the nuclear industry in the United Kingdom for a private equity investment firm. Work included the nuclear fuel cycle as well as commercial power generation.
- ▶ For a Fortune 100 US company, Carter managed a comprehensive assessment of business opportunities in the global energy industry.
- ▶ Developed growth and feasibility studies for multiple utilities looking to evaluate condition improvements of existing assets, new business endeavors, and new asset acquisitions.
- ▶ Provided strategic advice, financing alternatives and due diligence review in assisting companies acquiring or developing generation assets. Carter has developed multiple models for analyzing the value and cost of operation of generation assets, forecasting of life-cycle costs and operational costs, and developing resource plans for energy companies.
- ▶ Conducted comprehensive assessments of new nuclear power alternatives for the period 2004-2020. Issues considered included technology, economics, licensing, engineering and construction, financing and other strategic matters.
- ▶ Performed a comprehensive assessment of issues and risks associated with developing new generation in the 2007 - 2017 timeframe. Nuclear, coal and gas technologies were considered.
- ▶ Assisted client in developing a Clean Air compliance strategy for a large coal-based utility. Various factors were addressed including technology alternatives and implementation timing, allowance trading, fuel switching, plant shutdowns and derates, and off-system power purchases.
- ▶ Carter supported the development of various agreements and contractual relationships necessary to proceed with a 170MW combined cycle power project.
- ▶ Supported conceptual design, siting, cost estimating and financing of a 50MW wood burning power project.



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## OPERATIONS

Carter has conducted multiple reviews of companies' operating costs and practices. These engagements have considered transmission, distribution, customer service, generation (nuclear and fossil), and corporate matters. Carter has recommended solutions that have resulted in significant cost savings in both maintenance and operation of client's assets. Carter has also studied company operations in comparison to industry best practices and provided appropriate targets and benchmarks for continuous improvement.

## PUBLICATIONS AND PRESENTATIONS

Carter's work has been widely published and he is very active in speaking and teaching. The following are key works Carter has prepared:

- ▶ "Mitigating Risk with Effective Project Management of New Nuclear Builds" Pre-conference Workshop at the American Conference Institute's Nuclear Power Congress.
- ▶ "New Nuclear Build – Meeting the Construction, Engineering and Economic Challenges" Speech at the Canadian Institute Nuclear Symposium.
- ▶ "Effective Management of New Nuclear Generation Projects: Lessons Learned from the last Nuclear Construction Cycle" Speech at the Kansas Corporate Commission Financing Nuclear Construction Workshop.
- ▶ "Construction: Testing - An Overlooked Interface?" Speech, urging the nuclear industry to focus attention on detailed schedule integration of construction and test program activities. Presented at the American Nuclear Society's Annual Meeting.
- ▶ "Commercial Quality Control" Speech introducing the concept of comprehensive quality control for new nuclear power project cost, schedule, scope and other commercial issues. Presented at the American Nuclear Society's Annual Meeting.
- ▶ "Overcoming Creative Blocks" Authored a Chapter in the three volume Text: "The Creative Enterprise Managing Innovative Organizations and People" Published by Praeger Publishers, Inc.
- ▶ "Minimizing Schedule Delays and Cost Overruns in Contracting for New Coal Generation" Half-day workshop conducted at CBI Resurgence of Coal-Fired Generation Conference.
- ▶ "Partnering & Outsourcing" Workshop conducted at "T&D World" Expo. Topic dealt with enhancing success by creating cooperative and open relationships between owner and contractor on large capital projects.
- ▶ "Managing the Hazards of Contracting for Merchant Power Development" Half-day workshop focusing on EPC contracting, conducted periodically for the Infocast Merchant Power Development Institute.
- ▶ "Breakthrough Competitive Thinking" Creativity Seminar offered to various utilities and other organizations. The seminar combined principles of assertiveness and creativity for motivating organizations to proactively adapt to a new competitive environment.
- ▶ "Minimizing Plant Commissioning Risks, Costs and Schedule" presented at the Risk Mitigation for International Power Conference sponsored by American Business Symposiums.
- ▶ "Private Perspectives on Investment Opportunities in New Nuclear" Panel Discussion at the Nuclear Construction Summit.



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## PAST POSITIONS

President, MK Nuclear Energy, LLC  
Director, Navigant Consulting, Inc. Independent Management Consultant  
Vice President Business Development, Parsons Corporation  
Vice President & General Manager, Gilbert/Commonwealth, Inc.  
Various Management Positions, Stone & Webster, Inc.  
Officer, United States Nuclear Navy Submarine Service

## EDUCATION

Delaware Law School (J.D.)  
Rensselaer Polytechnic Institute (M.S. Management)  
Rensselaer Polytechnic Institute (B.S. Mechanical Engineering)

## PROFESSIONAL CREDENTIALS

Licensed Professional Engineer  
Member of the Bar (Currently inactive)  
American Nuclear Society  
Board Chairman - Pathway Lending, Inc.  
Former Board Member - NuScale Power, Inc.  
Co-founder, Board Member - Aqua Levee Enterprises, LLC

