





Paul M. Murphy **Managing Director** Murphy Energy & Infrastructure Consulting, LLC

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Education: Admissions: Harvard Law School, J.D. Princeton University, A.B.

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Paul Murphy is the Founder and Managing Director of Murphy Energy & Infrastructure Consulting, LLC.

Paul also serves as the Managing Director, Nuclear and Co-Head of Public Finance & Government Relations for Cross River Infrastructure Partners. He is also Senior Advisor, Power and Utilities for KPMG, specializing in the nuclear sector. Paul is an Affiliate of Nuclear Economics Consulting Group. He is also a Founder and Managing Director of Greensabre Consulting Ltd.

Paul focuses on multiple aspects of the nuclear industry – from legal and policy matters, including international regulatory and treaty frameworks and issues regarding nuclear liability, to strategies for creating and financing nuclear power programs and the identification and mitigation of associated risks – representing developers/owners, investors, lenders, and contractors on nuclear projects internationally. He is recognized as an expert in the development and financing of nuclear power programs by the International Atomic Energy Agency (IAEA), the OECD's Nuclear Energy Agency (NEA), the International Framework for Nuclear Energy Cooperation (IFNEC), and the U.S. government.

Paul is a member of the Advisory Board for the Global America Business Institute. Paul has also served as a member of ASME's Technology Advisory Panel for Clean Energy. Paul is a seven-time appointee to the U.S. Secretary of Commerce's Civilian Nuclear Trade Advisory Committee (CINTAC), and he has served twice on the U.S. Department of Commerce's SMR Working Group. Paul has also advised the U.S. Senate Energy and Natural Resources Committee and the U.S. Department of Energy on the development of legislation concerning U.S. nuclear exports. Paul is also a member of the International Advisory Panel for the Centre for Strategic Energy and Resources (Singapore). Paul previously served as the Chair of the Advisory Board for Segra Capital Management.

Paul currently serves on the IAEA's Technical Cooperation Program team, which assists member states in developing nuclear power programs (Turkey, Kazakhstan, Uzbekistan). Paul regularly teaches financing, contracting, and project development for the IAEA, Argonne National Laboratory, and Texas A&M University for their international training programs, and he serves as a guest lecturer for the International Youth at the U.S. National Defense University and at Virginia Tech. He has also taught specialized nuclear training programs on financing, contracting, project structuring, risk allocation, and SMRs for the U.S. Government (including the FIRST program) and the nuclear planning authorities in Ghana, Uganda, and Ethiopia. Paul organized and recently co-taught a 23-part course on behalf of the U.S. Department of Energy for African countries interested in developing nuclear power programs (the course is open to all African countries).

Paul now serves as a member (by invitation only) of the International Group of Legal Experts on Fusion Energy (FELEX). Paul is a Special Advisor to Radiant Energy Fund and a Special Advisor (*pro bono*) to both the International Youth Nuclear Congress and 18for0. He also serves as Special Advisor to The Nuclear Alternative Project.

Most recently, Paul served as Managing Director, Special Projects for the international law firm, Gowling WLG. Prior to joining Gowlings, he was Special Counsel in the Washington, DC office of Milbank, Tweed, Hadley & McCloy LLP, and a member of the Global Project Finance group, leading Milbank's nuclear practice. Prior to Milbank, he served as Senior Counsel for Bechtel Power Corporation, supporting both the Nuclear and Fossil businesses as a transactional attorney involved in business development, proposal submittals, contract negotiations, procurement, and project execution. Prior to Bechtel, he was a senior project finance associate at White & Case, LLP.

Mr. Murphy is a graduate of Princeton University's School of Public and International Affairs and a graduate of Harvard Law School. After graduating from Harvard Law School, Paul served on active duty as a Captain, U.S. Army Judge Advocate General's Corps, at the Office of the Chief Counsel / U.S. Army Corps of Engineers. He is admitted to practice in New York and the District of Columbia. He speaks and writes extensively on a variety of issues relating to the global nuclear industry.

Some of Paul's work includes acting as consultant / counsel to the following clients:

- **Port of Belledune** / **Cross River Infrastructure Partners:** Developing a clean energy fuels facility / green energy hub in New Brunswick, Canada, utilizing existing clean power for ammonia/hydrogen production and the deployment of nuclear reactors to sell nuclear energy asservice to industrial customers at the Port (both ammonia/hydrogen and combined heat and power for industrial processes).
- The Nuclear Company: Serving as a strategic advisor to The Nuclear Company regarding the development and deployment of a fleet of large reactors in the United States.
- U.S. Department of Energy / Poland Nuclear Power Project: Advised the U.S. Department of Energy (Office of International Affairs and Office of Nuclear Energy) on bilateral planning, financing, and negotiations regarding the development and financing of the 6-reactor program in Poland; serving as the U.S. co-chair of the bilateral Finance Working Group.
- U.S. Department of Energy / Cernavoda Nuclear Power Project: Advised the U.S. Department of Energy (Office of International Affairs and Office of Nuclear Energy) on bilateral planning and negotiations regarding the development and financing of the refurbishment of Unit 1 and the completion of Units 3 & 4.
- U.S. Department of Energy / Bulgaria Nuclear Power Project (K7): Advised the U.S. Department of Energy (Office of Nuclear Energy) on bilateral planning and negotiations regarding the development and financing of Kozloduy Unit 7 (and potentially Unit 8).
- King Abdullah City for Atomic and Renewable Energy (K.A.CARE): Advised K.A.CARE in the structuring of its nuclear holding company as part of Oliver Wyman team in 2012 and 2018; advisory work included entity structuring, nuclear liability, procurement, program economics,

financing, local industrial development, and foreign investment into the program. Additional work included the review of the Kingdom's draft laws for nuclear liability and the establishment of the national nuclear regulatory authority in 2013.

- Export-Import Bank of Korea, Export-Import Bank of the United States, various commercial lenders (Barakah NPP): Advised multiple export credit agencies and commercial banks in a multi-unit financing for the Barakah Nuclear Power Project in the UAE, leading all project diligence, including supervision of the lenders' technical advisor.
- Sinop Nuclear Power Project (MHI, Engie, Itochu) / Turkey: Advised a multi-party, multinational project company for the development, construction, financing, and operation of a four-unit nuclear power project. The scope of the representation included advisory work in the following areas: entity structuring and corporate form, nuclear liability, project documentation, program economics, financing, tax structuring, assistance with feasibility study, competition clearances, regulatory advice, and government negotiations.
- SaskPower: Advising SaskPower, as a member of the KPMG team, on SMR project business models, project development, and financing (and related activities) in support of its SMR deployment program.
- Rolls-Royce SMR: Advising Rolls-Royce SMR, as a member of the KPMG team (confidential scope of work).
- Clean Core Thorium Energy: Serving as a strategic advisor to CCTE on the commercialization of its ANEEL fuel.
- **X-energy**: Serving as a strategic advisor to X-energy on financing and project development of its advanced nuclear reactor technology.
- **APTelecom**: Serving as a strategic advisor to APTelecom on subsea cables projects (global; confidential projects and clients).
- U.S. Trade & Development Agency / Nuclear Proposal Reviews: Advising USTDA on the review of funding proposals for early-stage work involving nuclear power programs in 6 different countries.
- U.S. Trade & Development Agency / Civil Nuclear Energy Workshop Series: Advising USTDA on the development of a series of 3 workshops across all nuclear technology types with a focus on Central & Eastern Europe and Eurasia.
- U.S. Trade & Development Agency / Small Modular and Advanced Reactor Planning Series: Advised USTDA on the development of series of 4 workshops for Central & Eastern European Countries, concerning the development and deployment of small modular reactors.
- U.S. Trade & Development Agency / Romania Reverse Trade Mission: Advised USTDA on the organization and execution of a nuclear reverse trade mission for Romania.
- **Kazatomprom**: Advised Kazatomprom on its global business strategy, with a particular focus on North American growth opportunities and potential approaches for supporting new SMR and large reactor deployments globally.

- Ultra Safe Nuclear Corporation (USNC): Advised USNC on the development and deployment (including entity and contract structuring) of its micro-reactor technology in Canada.
- Orlen Synthos Green Energy (OSGE): Advised OSGE, as a member of the KPMG team, on SMR project structuring and financing approaches for OSGE's SMR projects in Poland.
- U.S. State Department / FIRST Program: Teaching (as a member of the CRDF team) for the State Department's Foundational Infrastructure for the Responsible Use of SMR Technology program; initial programs have been for Indonesia, Kenya, Ghana, and for ASEAN countries, covering topics concerning financing, project development, and risk management.
- Nuclear Alternative Project / Puerto Rico: Advising The Nuclear Alternative Project on plans to foster the development of small modular reactor projects in Puerto Rico, including serving as lead contributor and reviewer (re. financing, legal, regulatory, and project structuring) of the *Preliminary Feasibility Study for Small Modular Reactors and Microreactors for Puerto Rico* (May 2020), funded by the U.S. Department of Energy.
- Nuclear Power Ghana / Nuclear Power Institute: Advised Nuclear Power Ghana / Nuclear Power Institute on the development and financing of Ghana's nuclear power program.
- U.S. Department of Energy & the Jordan Atomic Energy Commission: Served as contributing author and expert to a DOE-funded report by JAEC concerning the suitability of a "dual track" approach (domestic repository vs. multinational repository) on the disposition of spent fuel and nuclear waste.
- The Nuclear Damage Compensation and Decommissioning Facilities Corporation (NDF): Advised NDF on contracting structures for nuclear decommissioning.
- Korea Atomic Energy Research Institute (KAERI): Advised KAERI on pathways for SMR deployments to support clean growth strategies for the developing world, to include analysis of the SMART reactor (with particular focus on co-generation models involving desalination).
- Atomic Acquisitions / UK SMR Deployment: Worked to develop SMR projects in the United Kingdom, utilizing multiple SMR technologies, as part of the Atomic Acquisitions team.
- U.S. Department of Energy / Wylfa (UK): Advised the U.S. Department of Energy (Office of International Affairs) on potential options for the Wylfa site in the United Kingdom.
- Nucleoelectrica Argentina S.A.: Advised Nucleoelectrica Argentina S.A. on the EPC Contract and Major Vendor Subcontract for the Atucha III nuclear power project in Argentina.
- Legislative Council and House of Assembly of the Parliament of South Australia: Provided advice on South Australia's possible development of an international repository for nuclear waste.
- Export-Import Bank of the United States: Advised EXIM on the financing for one of the new build nuclear power projects in the United Kingdom.
- Down Under Nuclear Energy Pty Ltd (DUNE): Advised DUNE, a project development company for the deployment of small modular reactors in Australia, on project development

activities and collaborated (as Nuclear Economics Consulting Group) with DUNE on its submission to Australia's Energy Security Board regarding recommendations for the post-2025 National Energy Market structure.

- Organization of Canadian Nuclear Industries (OCNI) and the Canadian Nuclear Association (CNA): Advised OCNI and CNA on Canadian Nuclear Alternative Alliance Models.
- Nuclear Risk Insurers Ltd. (NRI): Advised NRI on matters relating to the development of insurance pools in a newcomer nuclear country.
- **Bechtel Power Corporation (Barakah):** Advised Bechtel in its bid, together with AREVA, GDF Suez, EDF, and Total, for the Barakah NPP (UAE).
- **Bechtel Power Corporation (Darlington):** Advised Bechtel in its bid, together with AREVA, for the Darlington NPP (Canada).
- Bechtel Power Corporation (SONGS SGR): Advised Bechtel on the steam generator replacement contract for San Onofre Nuclear Generating Station.
- Bechtel Power Corporation (Crystal River SGR): Advised Bechtel on the steam generation replacement contract for the Crystal River Project.