ABDULLA ISA ALABBASI, PHD EES DIRECTOR OF ENERGY AND ENVIRONMENTAL STUDIES | INTERNATIONAL EXPERIENCE
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Nationality: Bahraini Date of Birth: 12 February 1986

INTRODUCTORY PROFILE

Dr. Abdulla Isa Alabbasi is a strategic leader in energy transition with over 15 years of experience in shaping energy policy and long-term transition strategies across renewable energy, Small Modular Reactors (SMRs), and AI-driven energy systems. He leads advanced research programmes in energy and the environment, focusing on system-level transformation, resilience, and evidence-based policymaking in the Gulf region. His work integrates large-scale renewable deployment with emerging nuclear solutions, including leading and contributing to research with the International Atomic Energy Agency (IAEA) on the feasibility of SMRs for water desalination in the GCC. He also led the establishment of Bahrain's first Real-Time Digital Simulation facility, the Artificial Intelligence Renewable Energy Laboratory (AIRE Lab), which advances AI-enabled energy planning and strategic decision support for national and regional energy transition pathways.

- ✓ **Leadership in Strategic Energy Transition Initiatives:** Engages with international organisations, including the International Association for Energy Economics (IAEE) and the United Nations Development Programme (UNDP), and participates in the FIRST programme launched by the U.S. Department of State, supporting responsible pathways for SMR deployment through local and international collaboration.
- ✓ **Diplomatic and Policy Advocacy**: Utilized diplomatic gravitas to engage and influence senior stakeholders and policymakers in Bahrain and across the Gulf region on critical energy affairs. This involvement facilitated significant strides towards integrating advanced energy technologies and strategic policy enhancements.
- ✓ **Advocacy and Public Engagement:** Championed public awareness initiatives on sustainable practices through active participation in national media outlets. These efforts were aimed at educating the public and shaping public opinion on the importance of sustainable energy solutions and policy advocacy in the Gulf region.
- ✓ **Leadership in Decarbonization and Grid Modernization:** Spearheaded major initiatives to modernize electrical grids, including comprehensive National Grid upgrades. Expertly managed the integration of advanced technologies to boost grid reliability and efficiency, while fostering strategic partnerships with key local and international stakeholders.

CORE COMPETENCIES

▪ Strategic Leadership	▪ Policy Development	▪ Decision-Making
▪ Staff Leadership	▪ Resource Management	▪ Strategic Planning
▪ Public Speaking	▪ Interpersonal Communication	▪ Innovative Problem Solving

PROFESSIONAL EXPERIENCE AND ACHIEVEMENTS

BAHRAIN CENTER FOR STRATEGIC, INTERNATIONAL AND ENERGY STUDIES (DERASAT)

Director of Energy and Environmental Studies Program **2018-Present**

- Orchestrated high-level research and policy initiatives to drive sustainable practices across the Gulf Cooperation Council (GCC) states, enhancing energy security and market stability.
- Engaged with international forums to align regional energy and environmental policies with global standards and practices, promoting sustainable and equitable energy transitions.
- Led the conceptualization and implementation of Bahrain's first Artificial Intelligence Renewable Energy Lab (AIRE Lab), significantly impacting regional energy modeling and policy planning.
- Administered multiple high-value projects funded by international grants, fostering advancements in renewable energy applications and smart grid technologies.

TRANSMISSION DIRECTORATE, ELECTRICITY AND WATER AUTHORITY (EWA), BAHRAIN

Various Roles to Senior Electrical Engineer in Protection Section **2010-2018**

- Spearheaded major projects on electrical grid protection, enhancing the reliability and efficiency of Bahrain's national grid.
- Implemented cutting-edge diagnostic and maintenance protocols for electrical infrastructure, reducing downtime and improving system resilience.

KEY ACHIEVEMENTS

- **Establishment of the AIRE Lab: Led the establishment of the Artificial Intelligence Renewable Energy Lab (AIRE Lab)**, Bahrain's first Real-Time Digital Simulation Laboratory. This innovative project, funded by a $300,000 grant from Bapco Energies (2023-2024), integrates AI with renewable energy technologies to pioneer advancements in energy systems strategic planning.
- **Engaged in over 50 international conferences across the USA, Europe, Africa, Asia, and Australia,** serving in versatile roles including speaker, moderator, and steering committee member. Notable contributions included:

  - **Active CIGRE Membership Since 2014**: Engaged consistently as a member of both French CIGRE and GCC CIGRE, contributing technical papers, and serving dynamically as a moderator and speaker. The International Council on Large Electric Systems (CIGRE) is an esteemed global nonprofit organization that addresses the comprehensive aspects of high voltage electricity systems including technical, economic, environmental, and regulatory facets.
  - **Annual Derasat Forum and IAEE MENA Symposium, 2022**: Shaped the agenda focused on MENA's energy transitions, fostering essential policy-oriented research and implementing practical energy solutions, thereby promoting sustainable energy practices within the region.
  - **The 44th International Association for Energy Economics Conference, 2023**: Engaged as a panel speaker to discuss the future of sustainable energy, focusing on innovative policies and market adaptations crucial for energy transformations in the MENA region.
  - **GCC Council High-Level Lecture, May 2023**: Presented the paper, "Renewable Energy in the Regional Policies of the Arabian Gulf States,". This session, facilitated by the Economic and Development Affairs Authority of the Gulf Cooperation Council, in partnership with Oman's Ministry of Economy, emphasized the strategic importance of renewable energy policies in the region.
  - **Seventh Indian Ocean Conference, 2024**: Delivered a keynote on climate change and the energy transition, advocating for sustainable practices and strategic energy integration approaches tailored for the GCC.
  - **Bahrain Chiefs of Mission Conference, 2024**: Moderated a critical session addressing food and water security challenges in the MENA region amidst climate adversities, in collaboration with the Atlantic Council. This session highlighted his leadership in navigating complex global issues through diplomatic and strategic lenses

INTERNATIONAL GRANTS AND COLLABORATIONS

- **Solar for All Initiative**: Played a strategic role in the development of the Solar for All grant proposal under the U.S. Department of Energy, which distributes significant funding across various U.S. states and territories to promote solar energy in low-income communities. This initiative is part of a broader $7 billion funding opportunity aimed at enhancing energy accessibility and resilience.
- **International Atomic Energy Agency (IAEA) Regional Project – SMRs for Water Desalination (GCC):** Leading a USD 3 million regional project involving all GCC countries, currently in the final stage of acceptance, to assess the technical, economic, and policy feasibility of Small Modular Reactors (SMRs) for water desalination.
- **SOUTH-SOUTHIDEAS Grant**: Successfully acquired a $150,000 Collaborative Research Grant in 2019 for renewable energy projects in the Middle East and North Africa, enhancing regional research capabilities.
- **US Embassy Small Grant Program**: Orchestrated a $25,000 grant to facilitate workshops and lectures by American experts, strengthening international research networks and industrial collaborations.
- **UNDP Consultancy**: Managed several projects for the United Nations Development Programme in Bahrain, producing key sustainable development reports focused on energy and environmental progress.
- **Konrad-Adenauer-Stiftung Think-Tank Collaboration**: In 2023-2024, led and authored an influential study titled "Implications of the Ukraine War on Renewable Energy Policies in EU and GCC." This critical research examined the geopolitical impacts on energy strategy and policy integration between European and Gulf Cooperation Council nations.

EDUCATION AND QUALIFICATIONS

UNIVERSITY OF SURREY

PhD Energy and Sustainability **2018-2021**

MSc Renewable Energy Systems Engineering - Distinction **2014-2015**

- *Cemented awareness of sustainable development policies, water systems, sustainable transport, built environment, resource consumption, low carbon energy supply and international development and sustainability.*
- *PhD research: "Decision-making in the energy sector; sustainable generation expansion planning with renewables"*

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS (KFUPM), DHAHRAN, SAUDI ARABIA

B.Sc. Electrical Engineering **2004-2009**

PROFESSIONAL DEVELOPMENT

- **U.S. Department of State Community Solutions Program (CSP) Fellowship (2023):** *First and Only GCC Candidate, Bullard Center for Environmental and Climate Justice, Texas Southern University, Houston, Texas, 2023.*

  - Spearheaded innovative projects in distributed renewable energy and microgrid systems, enhancing sustainable infrastructure in urban communities.
  - Authored an essential advisory report for Houston's Third Ward and directed the Cuney Homes Choice Neighborhood Initiative, incorporating green design principles to secure funding for area redevelopment.
  - Developed and assessed models for solar storage and microgrids, emphasizing benefits to low-income communities, and initiated a microgrid test bed to pioneer urban energy solutions.

- **Yale Emerging Climate Leaders Fellowship (Climate Fellow 2026):** *First Bahraini selected to join this prestigious global programme, which brings together future leaders in clean energy and climate change from across the Global South.*

  - The fellowship fosters knowledge exchange and leadership development among a highly diverse cohort representing a wide range of professional backgrounds, including public policy, energy, finance, research, civil society, and industry.
  - Participation in this programme reflects recognition of leadership potential and commitment to advancing strategic solutions in energy transition and climate policy.

SELECTED PUBLICATIONS, ARTICLES AND TECHNICAL STUDIES

- **"The Importance and Options of Nuclear Energy for the Gulf Cooperation Council States." (2026)** Abdulla Alabbasi and Badr Almutairi. *Derasat Journal*.
- **"Cash Transfers and Electricity Subsidy Reform: Unlocking Rooftop Solar Adoption in Subsidized Energy Markets."** (2026) Attiya, Wael M., Mohamed Bin Shams, and Abdulla Alabbasi. Energy Policy 209: 114965.
- **"Agent-Based Modeling of Residential Solar Adoption in Subsidized Energy Markets."** (2026) Attiya, Wael M., Mohamed Bin Shams, Abdulla Alabbasi, and Hanan Albuflasa. Solar Energy 306: 114290.
- **"Accelerating the Transition to Sustainable Energy: An Intelligent Decision Support System for Generation Expansion Planning with Renewables."** (2024) Alabbasi, Abdulla, et al. Energy: 131999.
- **"Exploring the Future of India-Gulf Ties in the Power Sector."**(2024) Alabbasi, A., & Haroon, S. In S. R. Chinoy & P. K. Pradhan (Eds.), India's Approach to West Asia: Trends, Challenges and Possibilities (pp. 80-97). Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA).
- "**Fostering Arab Gulf-Southeast Asia Cooperation on Net-Zero Transition**" (2023) Al-Sarihi, Dr. Aisha, and Dr. Abdulla Alabbasi. " Published by the Bahrain Center for Strategic, International, and Energy Studies (Derasat).
- "**Renewable Energy in the Regional Policies of the Arab Gulf States**" (2023) – Abdulla Alabbasi and Ali Faqeeh. Published by the Bahrain Center for Strategic, International, and Energy Studies "Derasat."
- "**Integrating NARX Neural Network with KS Test for Accurate Partial Discharge Detection in Transformers**" (2023) - Alabbasi, Abdullah, Mohammed Khalil, and Timothy McGrail. In 2023 18th Conference on Electrical Machines, Drives, and Power Systems (ELMA), 1-7. IEEE.
- "**GCC's Power Trading Market: Challenges, Opportunities, and Future Directions**" (2023) - Abdullah Al-Abbasi and Ali Faqeeh. Gulf Research Center, Cambridge, UK.
- "**Sustainable Indicators for Integrating Renewable Energy in Bahrain's Power Generation**" (2022) - Alabbasi, Abdulla, et al. Published in Sustainability, Volume 14, Issue 11, Page 6535.
- "**South-south Ideas—Renewable Energy in the Middle East and North Africa Region—Potential and Limits**" (2019) - Bélaïd, F., A. Ben Youssef, A. Omri, M. Y. Al-Hamad, and A. I. Alabbasi. United Nations Office for South-South Cooperation and the United Nations Development Programme.
- "**US Competition for Russia in Europe**" (2019) - A. Alabbasi and A. Al Dosseri. Published by the Bahrain Center for Strategic, International, and Energy Studies (Derasat).
- "**Investment Trends in the Energy Sector**" (2019) - A. Alabbasi and A. Al Dosseri. Published by the Bahrain Center for Strategic International and Energy Studies (Derasat).
- "**Bahrain Human Development Report**" (2018) - C. Naumann, O. Al-Ubaydli, G. Abdulla, and A. AlAbbasi. Published by the United Nations Development Programme (UNDP).
- "**The US Competition for Russia in the European Gas Markets**" (2019) - DERASAT [Report].
- "**Failure Data Analysis of Low Voltage Vacuum Circuit Breakers in the National Grid of Bahrain**" (2018) – CIGRE Paris, France.