

# Charles J. (“Chuck”) Hookham, P.E.

## Contact Data

2902 East Eisenhower Parkway  
Ann Arbor, MI 48108  
Cell: (517) 416-4721  
E-Mail: cjhookham@yahoo.com

## Education

Post-Graduate Coursework in Power  
Conversion and Renewable Energy  
Systems, Engineering, and Interdisciplinary  
Technology

Master of Business Administration (MBA),  
International Finance, Eastern Michigan  
University

Bachelor of Science, Civil Engineering,  
University of Illinois, Urbana-Champaign

## Professional Registrations

National Council of Examiners for  
Engineering and Surveying (NCEES)  
Record No. 11031

Professional Engineer, Florida  
No. 55602 (*inactive*)

Professional Engineer, Illinois  
No. 062.049060 (*inactive*)

Professional Engineer, Michigan  
No. 6201034897

Professional Engineer, Ohio  
No. 90262

## Professional Affiliations and Appointments

- Association of Energy Engineers (AEE)
- American Society of Civil Engineers (ASCE)
- Elected to ASCE Nat'l. Board of Direction (2013) as At-Large Director
- Edison Energy Institute, American Clean Power Association, and Electric Power Research Institute (*renewables, energy storage committees/groups*)

## Other Appointments

Appointed by Gov. Rick Snyder to State of Michigan Board of Professional Engineers (2014); reappointed 2018, Chair 2021-22

Energy Commission, Ann Arbor City Council (2010-2023); co-author of City's Sustainability and Climate Action Plans

Washtenaw County Board of Commissioners, Building Code/Construction Board of Appeals (2017 to present)

Michigan Energy Options (non-profit), elected to Board of Directors (2022 to present; elected Secretary in 2023)

## Industry Tenure

43+ Years

## ➤ PROFESSIONAL SUMMARY

Mr. Hookham has experience on a variety of infrastructure, buildings, communities, commercial and industrial construction, utilities, water, wastewater, and process operations ranging from permitting, development, and site studies through engineering, construction, commissioning, and operations/maintenance. He has managed full-scale EPC delivery on major commercial, industrial and energy projects throughout the Americas. He has also served as consultant to utility/developer management teams and been extensively involved in capital cost estimation, contract negotiations, expert witness, and risk assessment. More recently, he has been involved in managing aging assets and investment decisions with focus on improved performance, safety, code compliance, and value contribution. Common results on projects led and facilities managed are early delivery and on-budget performance, while maximizing staff engagement, efficiency, and communication. Operationally, he has been responsible for staffs of up to 200 people, profit and loss, and strategic planning. Since early in his career, he has been actively involved in optimizing operations and maintenance, working with union/non-union labor, zero safety incidences, and high performance and he firmly believes in “beginning all tasks with the end in mind” and maximizing teamwork. Co-author of recently issued national standard on sustainable infrastructure.

## ➤ EXPERIENCE SUMMARY

### A. Arbor Consultants, PC (2006 to Present)

Founder/President of a multi-disciplined consulting engineering and construction management firm, focused on advancing the transition of energy systems (generation, transportation, and usage) to clean, low-carbon solutions. Significant experience with ground and rooftop solar PV and solar thermal systems, battery storage, structural engineering, air- and ground-source heating/cooling, energy audits and efficiency improvements of buildings, and energy resource planning. Consultant on numerous off-grid electrification, vehicle charging, biomass energy, vehicle-to-grid (V2G), green hydrogen, and microgrid projects including design/build and operation of the first two commercial microgrids in Michigan. Familiar with A2ZERO Programming.

### B. CMS Energy (March, 2016 to March, 2024)

Executive Director of Projects/Renewable Energy Operations for NorthStar Clean Energy and statewide planning chief for Consumers Energy's electric utility. He served in various technical/financial/operations leadership roles on multiple combined heat and energy (CHP), renewable energy (wind, solar PV), T&D, and power/natural gas distribution upgrades for Consumers Energy and large customers. He managed a staff responsible for O&M of large solar PV and wind generating stations in the Midwest, with focus on incremental availability/production improvements. His staff also made IT/OT upgrades to enable improved fleet operations and cybersecurity, via OT/historian addition and patching to mitigate external intrusion. He led design/construction of the U.S.'s second utility hybrid (wind/solar/battery) in Ohio and is Vice President of Consumers Energy's ES Services.

### C. Pre-CMS Energy Experience (*see Summary below*)

Prior to joining CMS Energy, Mr. Hookham was involved in major commercial, industrial, and residential projects design and construction, with carryover into facilities operations and maintenance. Examples include the following:

**Exelon Generation, Harmattan Energy Center (2x0 Simple Cycle) Calgary, Alberta and West Medway Station, Massachusetts.** Owner's Engineer. Full-scale development, preliminary engineering, and permit support for a 90 MW gas-fired peaking project located in the greater Calgary area. Owner's Engineer for West Medway project selected in Forward Capacity Market by NE ISO, with early 2019 COD.

### **Professional Awards**

Stephen Bechtel Jr. Energy Award (2014), ASCE

### **Other Qualifications**

PMP Qualified (project management)  
Envision™ SP Qualified (sustainability)  
Former AWS CWI  
Former Level III NDE Examiner

### **Papers and Presentations**

Over twenty authored papers and presentations at technical conferences and seminars, on energy systems, power generation, and facility aging management. Invited panelist at 2011 PowerGen Financial Forum (Gas Technology Risks) and 2013 Michigan Energy Forum, judge at 2013-2014 and 2014-2015 University of Michigan Ross Renewable Energy Case Competition; featured speaker at Michigan Infrastructure Conferences (2014, 2017), Civil Engineering Triennial Summit in London (2015 and 2018), and keynote speaker and panelist at ACEEE Financial Summit (2017)

Testified to Energy Subcommittee, U.S. House of Representatives, Energy and Commerce Committee (2017) on energy infrastructure investment needs, policy topics, and hydroelectric generation

### **Volunteer Activities**

Long-term contributor to Habitat for Humanity, Red Cross, and Ann Arbor Homeless Shelter

**UGI Energy, Process Hazards Analysis (PHA) of Generation and Midstream Gas Facilities.** Project Director. Completed PHA studies and developed risk mitigation actions for a combined cycle power plant, landfill gas to energy plant, propane-air peaking plant, and natural gas compressor station with midstream natural gas pipeline.

**Seminole Electric, Payne Creek Generating Station, 2x1 Combined Cycle Project.** Project Manager for the consortium-based design and construction of a 550 MW gas fired combined cycle project near Bartow, FL, responsible for lump sum delivery, profit, and loss. Project was completed on-time and under budget with solid safety performance.

**Interstate Power and Light, Marshalltown Generating Station (2x1 Combined Cycle Project), Marshalltown, IA.** Owner's Engineer. Responsible for technical, commercial, and permitting assistance in the development of an advanced F-class combined cycle plant with 650 MW summer capacity. Project achieved commercial operations in 2017, meeting LEED Silver and Envision® Platinum sustainability designations (1<sup>st</sup> in United States).

**Barton Malow, Garden and Stoney Corners (Phases 1, 2, and 3) Wind Farms.** Project Manager. Engineering for multiple 2 MW wind turbine/generators manufactured by Gamesa, REpower and Northern Power Systems in Michigan for Heritage Sustainable Energy. Technical support of site selection and collector system interfaces. Both projects have exceeded capacity factor and Owner expectations.

**Confidential Mining Client; Mine and Port Site Power and Energy Systems Development.** Consultant. Led team that developed gas-fired combined cycle energy, renewable energy, and energy storage options to deliver high-reliability power and heating to remote off-grid mining and port sites in Alaska. Solutions included natural gas (pipeline and gasified LNG), wind, and pumped hydro and battery-based storage. Testified to State legislators, regulatory boards, and public parties on project details.

**Biomass/Wood Fired Generating Stations – Michigan.** Project Engineer for design and construction support of Grayling/Genesee Stations and Project Manager for the development/design of the 50 MW Mancelona Generating Station (never constructed).

**CTM Lujan de Cuyo 13 Repowering – Mendoza, Argentina.** Engineering, construction, and commissioning lead for the 1x1 F-Class gas repowering of an existing 125 MW steam turbine generator, including significant balance of plant retrofits involving globally sourced equipment. Project completed under budget and on-time.

**Confidential Clients and Government Agencies, Various Roles.** Led technical and commercial development of advanced power technologies including plasma (waste) to energy, advanced polysilicon production (solar panels), and lithium/flow batteries. Technical/financial investigation into DC and AC/GIS substation designs for remote 138 kV transmission, natural gas distribution, and tar sands mining projects in Alberta. Various roles in steel making, plastics injection molding, chemical, petrochemical, and aerospace projects including the Space Shuttle launch tower for NASA.

### **Historical Experience Summary (pre-CMS):**

**Bechtel Power Corporation** (Ann Arbor, MI) – 1981 to 1984 – Structural Engineer and Assistant Project Manager on power generating projects in Michigan and California.

**Multiple Dynamics Corporation/Detroit Edison** (Southfield, MI) – 1984 to 1992 – Project Manager/Executive on many industrial, commercial, residential construction/rehabilitation projects; systems engineer on Fermi II final design and commissioning.

**Black & Veatch** (Ann Arbor, MI) – 1992 to 2008 – Project Manager and Vice President – Large industrial, utility and commercial project execution (including large lump-sum EPC delivery)

**HDR** (Ann Arbor, MI) – 2008 to 2016 – Vice President – Supervised project managers executing large industrial and utility/developer projects for TransCanada, Alliant Energy, DTE, others.