100% Renewable Energy Options Analysis

City of Ann Arbor RFP # 22-35
Application to Contract for Tasks: 1, 3, 4, 5
May 2022

SunStore Energy

5lakes energy
Clean Energy & Water Policy Consultants

Potomac LAW GROUP

Introduction

The City of Ann Arbor (the City) has boldly embraced a vision of community-wide carbon neutrality by 2030 requiring a rapid shift to 100% renewable energy. Finding the most efficient, equitable, and cost-effective pathway to that objective requires technical expertise informed by intimate knowledge of the City's contexts and resources, among them the energy policy and regulatory environment in Michigan, the plans and culture of DTE Energy, and the numerous stakeholders who should participate in creating and implementing the City's plan. The Michigan-based team of 5 Lakes Energy, SunStore Energy, and Potomac Law Group (PLG) are uniquely qualified to combine the necessary technical skills with our broad and deep local knowledge and networks. We eagerly submit our proposal for the privilege of leading Tasks 1, 3, 4 and 5 as outlined in the formal request.

The city's plan must be at once ambitious, feasible, and credible to the City's diverse, engaged, and knowledgeable stakeholders. Any recommendations and actions coming out of this project are likely to be contested by some or many of those stakeholders; choosing project consultants with the necessary expertise plus the local credibility and reputation to make inevitably controversial recommendations will be paramount to acceptance and implementation of the plan. We submit that our team offers the optimal combination of expertise and broadly based credibility in Michigan.

The core of this project ("Task 1") is to conduct a 100% Renewable Energy Options Analysis that investigates various pathways for sourcing clean electricity by 2030. 5 Lakes Energy has performed similar data-driven evaluations of competing energy options along technical, economic, financial, social, environmental, and policy dimensions. The firm consistently intervenes in Michigan Public Service Commission (MPSC) proceedings dealing with 20-year, utility-scale integrated resource planning (IRP) and Distribution System Planning decisions. It has developed an Excel-based energy planning tool called STEP8760 that examines electricity generation and storage options on an hourly basis to select optimal resource portfolios. To inform the technical and economic elements of the Renewable Energy Options Analysis, the STEP8760 model will be tailored and applied to Ann Arbor's electricity system. Underscoring this work will be SunStore Energy's deep expertise in all aspects of photovoltaic and energy storage systems. This includes knowledge of technical and economic feasibility, project siting, financing options, design and construction, and maintenance contracts. SunStore Energy has contributed to more than 120 solar projects across the nation representing 1.76 Gigawatts of installed capacity in a range of settings (greenfield, landfill, parking canopy, rooftop) and purchasing agreements (net metering, VPPA, community solar, utility take-off agreement). PLG, led by two of the most effective and respected energy regulation attorneys in Michigan, will carefully evaluate each energy option for alignment with current Michigan legal requirements and regulatory feasibility.

An important input into the Renewable Energy Options Analysis in Task 1 will be the results of a traditional electric utility municipalization feasibility study ("Task 2"). We recommend assigning this feasibility study to a firm with specific expertise in the engineering assessment and financial valuation of electric utility equipment. We will simultaneously evaluate the other Energy Options, then incorporate Task 2 results into the comparative analysis. We believe this division of task responsibility will leverage the combined strength of different skill sets and achieve the most useful outcome for the City in the shortest amount of time.

The other major research component supporting Task 1 is to conduct a two-phase rate analysis for a proposed Sustainable Energy Utility, or SEU ("Task 3"). 5 Lakes Energy and partners will lead this effort.

As expert witnesses in many rate cases and related proceedings, the 5 Lakes Energy team are experienced evaluators of utility "cost of service" studies. We have also critiqued and recommended improvements to various electricity tariff designs including newer time-of-use concepts, and have studied the impact on residential rates of scaling up the deployment of electric heat pumps. SunStore Energy and PLG bring complementary expertise to ensure a comprehensive analysis of the technical, economic, social, and legal aspects of forming and standing up an SEU. As with the results from Task 2, these results will be integrated into the Task 1 framework along with our analysis of other options—including the suite of collaborative solutions that the City identified in its formal request.

In the final phase of Task 1, we will compare the results of each energy option independently and in various combinations or bundles. From this comprehensive review will emerge a recommended course of action which we will compile and deliver within Task 4. Included in this review will be macro considerations for the social impacts of each option, as well as a detailed social evaluation that will pursue proactive recommendations for social justice improvements. Common considerations may include job replacement or creation programs, locations of new investments, and localized community engagement recommendations. 5 Lakes Energy has played leading roles in developing similar comprehensive reports including the Storage System and Combined Heat and Power (CHP) Roadmaps for the State of Michigan. Reflecting the requirements of Task 5, we will closely partner with City staff throughout the engagement, as we already have on several prior and continuing collaborations with the City.

A distinctive strength we bring to this work is our familiarity with DTE Energy (DTE). Through experience in numerous regulatory proceedings involving DTE, both 5 Lakes Energy and PLG are well-grounded in the Company's history, policies, and programs over time. For instance, we are actively engaged in monitoring DTE's approach to the voluntary green pricing (VGP) requirements of PA 342, Section 61, and 5 Lakes staff help lead the ongoing dialog among DTE, Ann Arbor and others to improve carbon reduction outcomes of the VGP. We are consistently engaged as expert witnesses in DTE's Renewable Energy Plan (REP), Energy Waste Reduction (EWR) Plan and Distribution System Plan cases, not to mention the Company's electric and gas rate cases. We are also sensitive to DTE's ongoing relationship with the City of Ann Arbor, in part from the City's participation in the Michigan Municipal Association for Utility Issues (MI-MAUI), managed by 5 Lakes staff. This local situational awareness will be particularly useful as we evaluate the social and political dimensions of each Energy Option in Task 1.

Finally, 5 Lakes Energy and our partners have a demonstrated record of working with and for public interest clients including environmental nonprofits, residential ratepayer advocates, and local and state government agencies. We are dedicated to protecting residents who are most vulnerable to negative impacts from energy burden, pollution-related illness, and unreliable utility service and to crafting clean energy solutions they can access. And we are committed to an approach that embraces the City's Energy Criteria and Principles, namely: Reduced greenhouse gas emissions; Additionality; Social equity; Improved energy system resilience; Local clean energy generation; Deployment speed; Scalability of concepts to other communities; and Cost-effectiveness.

We acknowledge receipt of Addendum 1 and all associated attachments.

The authorized negotiator for 5 Lakes Energy is Douglas Jester, email djester@5lakesenergy.com and US mobile 517-337-7527.

The remainder of this proposal further describes how our collective qualifications and work history uniquely position us to undertake this project in partnership with the Office of Sustainability and Innovations. It also summarizes our approach to organizing and conducting the necessary tasks in coordination with the Task 2 contractor.

A. PROFESSIONAL QUALIFICATIONS

5 Lakes Energy

220 M.A.C. Avenue
Suite 218
Lansing, MI 48823

***Organizational Profile*:** 5 Lakes Energy, a Michigan-based limited liability corporation founded in 2010 and licensed to operate in the State of Michigan, is a policy consulting firm dedicated to mitigating climate change by advancing the deployment of clean energy. For more than a decade, it has built a solid reputation for expertise in energy systems and utility regulation, unbiased quantitative analysis, sophisticated modeling capability, and effective public policy advocacy. Clients have included businesses, industry associations, public interest groups, philanthropic foundations, environmental nonprofits, attorneys, and state and local governments.

5 Lakes Energy has considerable collective knowledge of the energy sector, emerging technologies, and utility regulation. Since its founding, the company has worked closely with businesses in the wind, solar, biomass, battery storage, electric vehicle, energy efficiency, and other related sectors. Organizing and supporting various trade associations including the now-independent Michigan Energy Innovation Business Council (EIBC) and the Michigan Energy Efficiency Contractors Association (MEECA), has helped 5 Lakes Energy stay abreast of advances in the ever-changing clean energy space.

Given the importance of public policy in expanding clean energy investment, 5 Lakes Energy offers services in this domain. We lead efforts to design and build support for policies that expand access to cost-effective energy savings and renewable energy. This work benefits from the firm's longstanding relationships with elected officials at all levels, utility regulators, agency directors, business executives, and clean energy thought leaders throughout the nation.

Most of our client engagements involve some degree of quantitative analysis to inform decision-making. The team is adept at finding, organizing, and applying data from a wide range of sources including federal agencies and laboratories, industry trade associations, state agencies and regulatory commissions, and technical experts working in academia. In addition, the team regularly works with data from utility companies (including DTE) related to various technical, financial, and economic issues. Among other purposes, we use utility-sourced data to compare energy resource investment options, evaluate cost of service studies, and review the effectiveness of various utility programs. This work often involves providing expert witness testimony in regulatory proceedings. Relevant topics in this work include: 20-year Integrated Resource Plans (IRP), Distribution System Plans, annual renewable energy, and energy waste reduction (EWR) plans, cost allocation and rate design, voluntary green pricing (VGP) programs, and various pilot programs related to electric vehicle charging and other emerging

technologies. For a list of Michigan regulatory cases pertinent to this proposal in which 5 Lakes Energy was engaged, please see Appendix 1.

Energy system modeling is an important part of 5 Lakes Energy's ability to perform economic feasibility studies of energy supply options. For this purpose, the company developed an integrated resource planning tool called STEP8760. This Excel-based model examines electricity generation and storage options on an hourly basis. It is programmed to select the best-performing resource portfolio subject to whatever cost, reliability, and emissions constraints are imposed by the user. STEP8760 has been tailored to support carbon emissions reduction in ten states. It has also been applied to two significant projects conducted for the State of Michigan. These were to develop statewide technology roadmaps for combined heat and power (CHP) and battery storage. In this context, STEP8760 was used to study various deployment scenarios for these technologies. We propose to apply STEP8760 in a similar manner to the electricity system serving the Ann Arbor community. Results of this modeling effort will inform the comparative analyses undertaken in Task 1.

Other 5 Lakes Energy work related to evaluating energy options at the local level is worth noting. The company has played a leading role in developing regional renewable energy siting policy. The goal of this initiative is for project developers in the Midwest to deploy renewable technologies in partnership with host communities so that locally defined interests are clearly identified and respected. To achieve Ann Arbor's goal of 100% renewable energy by 2030, these developer-community dynamics, often contentious, must be understood and effectively managed. The reality of these dynamics must inform the optimal mix of solar power installed on rooftops and at brownfield properties, neighborhoods, and surrounding rural areas in and around the Ann Arbor community.

Another local energy engagement is 5 Lakes Energy's ongoing management of the Michigan Schools Energy Cooperative (MISEC) RFP process for BRITE (Bringing Renewable Innovation to Education), an initiative to install solar PV systems at schools throughout the state.

Complementing our knowledge of energy policy and regulation in the state of Michigan and nationally and our many interactions with DTE, 5 Lakes Energy is deeply familiar with municipal energy issues through our management of the Michigan Municipal Association for Utility Issues, led by team member Rick Bunch. The City was a founding member of MI-MAUI, which provides technical support and a collective voice to local governments around the state to help them get better rates and from services regulated utilities, in support of their operational and policy goals. Our Managing Partner, Douglas Jester, is also a Commissioner of the Lansing Board of Water and Light and is therefore familiar with the operations of a municipal utility.

The following section introduces the team that will undertake the proposed work for the City of Ann Arbor in partnership with SunStore Energy and Potomac Law Group.

Douglas Jester

Managing Partner
5 Lakes Energy

Location: East Lansing, MI

***Project role*:** Douglas Jester will play a lead role in several parts of this project. For Task 1, Jester will play a leading role in conceptualizing the Teams' approach to Task 1; he will play a supervisory role over all steps of the modeling process and will lead the integration of Task 2 findings into the renewable energy options comparison once they are delivered by the collaborating contractor. For Task 3, Jester will use his expertise, and background knowledge of Ann Arbor's proposed SEU to lead development of the SEU's concept of operations and will perform a supervisory role over the technical and feasibility analyses of SEU.

***Professional experience*:** Douglas Jester is Managing Partner at 5 Lakes Energy, a strategy and policy consulting firm working to advance clean energy and mitigate climate change. Douglas provides policy analysis and advice to clients, testifies as an expert witness before the Michigan Public Service Commission and other public utility commissions, and provides research and analysis for various clients. He has worked on integrated resource planning, energy efficiency and renewable energy planning, PURPA avoided costs, distribution system planning, cost of service analysis, and rate design. He also serves as a Commissioner of the Lansing Board of Water and Light.

Prior to joining 5 Lakes Energy, Douglas served as senior energy policy advisor in the Michigan Department of Energy, Labor, and Economic Growth. In that capacity, he applied scientific, engineering, and economic principles to the formation and adoption of energy policies for the State of Michigan.

Douglas attended New Mexico State University, Virginia Tech, the University of British Columbia, and Michigan State University. His major fields of study included mathematics, biology, statistics, industrial engineering, animal resource ecology, and economics.

His first professional work was development of a real-time control system for a linear accelerator at the Los Alamos National Laboratory.

Early in his career, Douglas served in various capacities at the Michigan Departments of Natural Resources including development of ecosystem simulation models of the Great Lakes, Great Lakes fisheries management, hydropower and steam electric plant regulation, strategic planning, and chief information and technology officer. He also testified on behalf of the State of Michigan before the

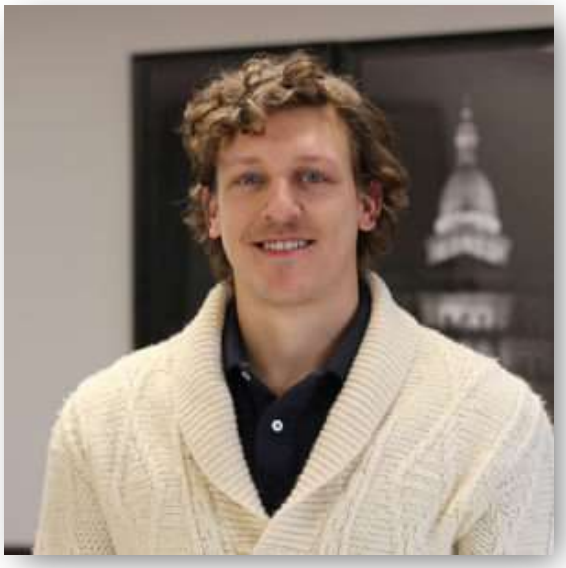
Federal Energy Regulatory Commission in hydropower licensing proceedings. During a two-year sabbatical from DNR, Douglas also served as managing editor of the North American Journal of Fisheries Management for the American Fisheries Society.

While at the DNR he conceived and led the efforts to develop Michigan's first-in-the-world automated system to issue hunting and fishing licenses, for which he was recognized as an innovator by the Smithsonian Museum in 1994. After his work at the State of Michigan, Douglas was recruited to be director of Application Solutions for MCI, and then Chief Technology Officer and Member of the Board of Automated License Systems, Inc. He also served as a multi-year consultant to the Chief Technology Officer of Verizon where he developed the company's Smart Grid product architecture, design, and implementation plans.

He and his wife, Colleen, reside in East Lansing, Michigan, where he active in the community and formerly served as Mayor. They are currently nearing completion of an all-electric certified PassivHaus near Northport MI that will be nearly net zero with rooftop solar. Douglas also serves as a member of the Board of FLOW, a water and policy nonprofit in Traverse City, MI.

***Areas of expertise*:** utility regulatory policy, building energy and decarbonization, electricity system modeling, life cycle assessment, energy project financing options

Karl Boothman



Senior Consultant
5 Lakes Energy

Location: Salt Lake City, UT

***Project role*:** Karl will lead the development of the STEP8760 production planning tool for the City of Ann Arbor and conduct modeling for Task 1. He will assist with the rate impact analysis of the proposed SEU in Task 3.

***Professional experience*:** A native of Ann Arbor, Karl received his bachelor's degree from The University of Michigan with distinction, majoring in economics and minoring in environmental studies. For four years, he worked as a consultant in litigation related to antitrust, price-fixing, and anti-competitive behavior. In 2016, he refocused his career on water, energy, and conservation issues in Michigan while interning with FLOW, a water law and policy nonprofit in Traverse City, MI. At FLOW, Karl explored economic solutions to shutting down the Line 5 oil pipeline and mitigating environmental harm to the Great Lakes.

Karl joined 5 Lakes Energy as a consultant in 2016 and has held the title of senior consultant since 2019. With 5 Lakes Energy, Karl brings a quantitative approach to clean energy and environmental policy issues. He has experience designing and building energy production planning and emissions compliance models from the ground up, modeling the operation of energy storage systems, and using a wide range of publicly available data and tools to advance the equitable transition to clean energy. Additionally, he has worked on innovative rate design and utility cost of service studies. Finally, he has contributed to successful renewable energy siting and community acceptance outcomes in the Midwest and has analyzed the environmental performance and affordability of utilities in Michigan and beyond.

Karl is currently located in Salt Lake City, UT but spends several months in Michigan each year.

***Areas of expertise*:** electricity system modeling, operation of energy storage assets, energy affordability, utility cost of service and rate design

David Gard

Senior Consultant
5 Lakes Energy

Location: East Lansing, MI

***Project role*:** For Task 1, David Gard will play a leading role in defining the scope and definitions of energy options to be analyzed; he will provide modeling support in the form of electrification and electric vehicle adoption load forecasts, and energy efficiency/energy waste reduction performance assessments; he will support the use of 5 Lakes Energy's STEP8760 Model, and he will support the final feasibility analysis and assessment of the energy options analyzed. For Task 3, Gard will play a leading role in developing the cost-of-service analysis for the proposed SEU and will support the development of the SEU's concept of operations.

***Professional experience*:** David has spent nearly two decades in the energy policy space. At 5 Lakes Energy, he specializes in modeling the performance and emissions of the electricity grid under various future scenarios including the electrification of buildings and transportation. He also serves as executive director of the Michigan Energy Efficiency Contractors Association (MEECA) to help build the industry's capacity and future workforce. Prior to joining 5 Lakes Energy, David served as interim director of the Oberlin Project, a community-based effort in northern Ohio to reduce that city's carbon footprint and strengthen local resilience. In this role, he worked directly for the Oberlin city manager and the president of Oberlin College. Previously he led the energy program at the Michigan Environmental Council where he facilitated numerous stakeholder discussions to advance the state's clean energy industry. David earned a dual MBA/MS through the University of Michigan's Erb Institute and serves on the external advisory board of the Center for Sustainable Systems at SEAS. He holds a bachelor's degree in mechanical engineering and is a veteran of the U.S. Navy.

***Areas of expertise*:** building energy and decarbonization, electricity system modeling, life cycle assessment, energy project financing options

Rick Bunch

Senior Consultant
5 Lakes Energy

Location: Ann Arbor Township, MI

***Project role*:** Rick Bunch will work on several portions of Task 1. He will help lead the data procurement process, will provide municipal-specific regulatory knowledge on Power Purchase Agreements, utility VGP programs, and community solar implementation. Rick Bunch will be a lead on researching Virtual Power Reduction Agreements and 24/7 utility-source energy as options assessed in Task 1. He will also have specific responsibility to ensure considerations of equity and inclusion in all phases of this project. Bunch will play a supporting role in the development of a Cost-of-Service study in Task 3.

***Professional experience*:** Rick is a senior consultant with 5 Lakes Energy and has served as an expert witness representing public and public-interest clients in regulatory and policy proceedings in Michigan and Kentucky. Rick is the Executive Director and President of Michigan Municipal Association for Utility Issues (MI-MAUI), a statewide membership organization representing local government interests in utility services and regulatory proceedings, of which Washtenaw County and Ann Arbor are members. A primary role for MI-MAUI is to help local governments secure the utility services and rates they need to accomplish their climate and energy goals. He has represented municipal interests in Michigan Public Service Commission electric rate cases, voluntary green power and renewable energy cases, integrated resource plan cases and in various MPSC working groups and technical conferences. In partnership with the City of Ann Arbor, Rick led MAUI's intervention in DTE Energy's 2020 voluntary green pricing (VGP) proposal to the MPSC and helped to secure a settlement that creates an "Anchor Tenant" solar PV program through which local governments can meet their organizational and community carbon reduction goals by sponsoring development of locally sited PV facilities.

Reflecting the emphasis that local governments place on energy equity and democracy, Rick is lead within 5 Lakes on consumer protection and low-income energy issues. He serves on the MPSC's Low Income Energy Policy Board and the Data Analysis and Regulatory Review working group, and as Board Director and Secretary of Soulardarity, the Highland Park-based energy democracy and justice group. He testified as an expert witness recently in DTE Electric's PrePay case and has a long background as a consumer-protection advocate on various issues.

In addition to his leadership of MI-MAUI, Rick has testified for other public-interest clients in MPSC cases on topics including electric production cost allocation, electric prepay accounts and power supply cost recovery cases.

Rick previously served as Executive Director of the Southeast Michigan Regional Energy Office, a coalition of municipal governments in the Detroit Metro region, including Washtenaw County, that assisted members to identify, finance and implement clean energy projects at their facilities and to develop energy and climate action plans. For example, SEMREO secured financing and installation of thermal solar PV at Washtenaw County facilities.

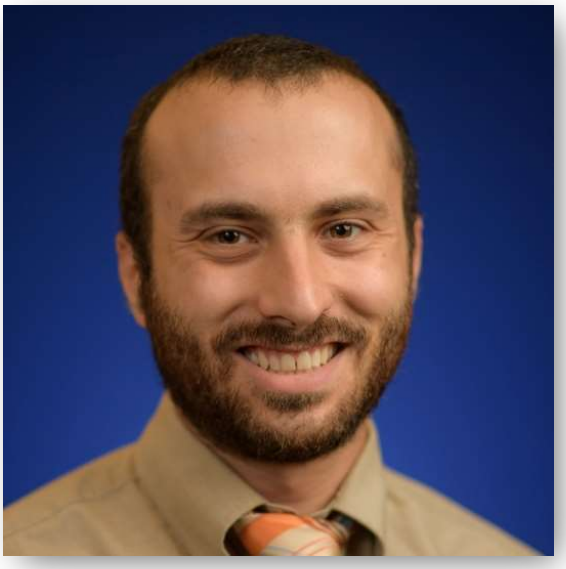
A native of the Seattle area, Rick came to Michigan in 2008 to serve as managing director of the Erb Institute for Global Sustainable Enterprise at the University of Michigan, and previously held senior executive or program management roles at The Aspen Institute, Bainbridge Graduate Institute and World Resources Institute focused on sustainable business education and research.

Rick serves on the Resilience Committee of Ann Arbor Township, where he resides with his family. He is a Board Member and Secretary of Soulardarity, a Highland Park-based energy democracy organization, and recently joined the Board of Ann Arbor-based conservation collaboration organization The Stewardship Network. He served for 11 years, until 2021, on the Board of Directors of the Michigan Environmental Council, including the last three years as Treasurer. He is also President of the Washington Public Interest Research Group and WashPIRG Foundation.

Rick holds an MBA with Environmental Management Concentration from University of Washington Business School, and a BA in Political Science from Yale University.

***Areas of expertise*:** municipal energy efficiency, renewables, energy finance and energy planning. Street lighting, voluntary green power programs, low-income energy assistance and affordability. Municipal relationships with regulated utilities; municipal representation in utility regulation processes. The role of businesses and markets in advancing sustainability.

Eli Gold



Consultant
5 Lakes Energy

Location: Detroit, MI

***Project role*:** For Task 1, Eli Gold will perform project tracking and reporting throughout the contract period. Gold will play a leading role in establishing the project workflow; he will play a supporting role in analyzing renewable energy options with a focus on assessing policy equity; he will support the standalone policy and feasibility assessment of selected renewable energy options. For Task 3 Gold will play a leading role in developing the proposed SEU's concept of operations.

***Professional experience*:** Eli Gold is the newest member of the 5 Lakes Energy team. He is responsible for compiling the Michigan Citizens Utility Board's annual Michigan Utility Performance Report. He works on Midwestern large-scale renewable energy siting policy, which includes political analysis, data analysis, and extensive work in ArcGIS—the industry-standard software for geospatial analysis.

In 2021 Gold received his Master of Public Policy degree from the Gerald R. Ford School of Public Policy at the University of Michigan. At Ford, he studied environmental and energy policy and worked as a research assistant to Professor Sarah Mills at both the Center for Local State and Urban Policy and the Graham Sustainability Institute where he researched Midwestern and Michigan energy policy. Gold's projects included research into the taxation of utility-scale solar developments in Michigan; helping to survey, qualify and map state renewable taxation policies country-wide; and helping to analyze community opposition to large-scale renewables development in the Midwest. He is co-chair of the newly formed Highland Park-based weatherization and renewable energy co-op, Polar Bear Sustainable Energy, and is a long-time and active member of the Highland Park-based energy justice organization Soulardarity.

Prior to beginning his master's degree at Ford, Gold was an artist, and contractor in residential home renovation in Detroit. He has a Master of Fine Arts degree from the University of Kansas and has been a resident of Detroit since 2015.

***Areas of expertise*:** renewable energy siting and taxation, Michigan renewable energy zoning, renewable energy land-use, geospatial analysis in ArcGIS

Matthew Bandyk

Consultant
5 Lakes Energy

Location: Royal Oak, MI

***Project role*:** For Task 1, Matthew Bandyk will assess the financial structure and requirements of each renewable energy option; he will help develop the final report and serve as overall report editor. For Task 3, Bandyk will play a leading role in developing Ann Arbor's proposed SEU's revenue requirements and rate design.

***Professional experience*:** Matthew Bandyk uses his skills as a longtime financial journalist for major publications to analyze complex economic and policy issues and communicate results. He provides the full set of communications services for companies and organizations in the clean energy space: articles and op-eds, social media, blog posts and development of relationships with journalists and the community. He performs financial analysis in cases before state public utility commissions with a focus on corporate finance.

Prior to joining 5 Lakes Energy, Bandyk was self-employed as a clean energy consultant and had contracts with the Michigan Citizens Utility Board and the Michigan Energy Innovation Business Council. From 2010 to 2016 Bandyk worked in Washing D.C. as a reporter for S&P Global Market Intelligence/SNL Financial where he performed financial analyses of the energy industry and authored articles on power plants, energy efficiency, and energy regulation.

Bandyk has a Bachelor of Political Science from Davidson College in Davidson, North Carolina, and In 2018 he received his Master of Business Administration from the University of Michigan Stephen M. Ross School of Business in Ann Arbor, Michigan.

***Areas of expertise*:** business communications, financial analysis, writing

SunStore Energy

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Ste 369
Grand Rapids, MI 49503

***Organizational Profile*:** SunStore Energy, a corporation founded in 2017 and licensed to operate in the State of Michigan, is a mission-driven company focused on accelerating clean, renewable power through an inclusive approach to project development that integrates all sizes of renewable power plants into society. SunStore specializes in Michigan development work as well as contributing vital technical, economic, and contractual expertise to projects nationwide. SunStore is a small firm, with work performed by owner Joe Kopp and associated specialists., Its key to success is its existing well-established partnerships and its ability to develop new relationships with reputable firms.

SunStore provides services in Michigan to clients that have portions of power plant development capabilities yet need additional expertise to complete the full suite of project development contracts to execute cost-effective, risk-sensitive renewable power plants. These services leverage industry experience to deliver solutions that include land rights contracts, power purchase agreements, and municipal utility solutions. This value-add work integrates with SunStore's more traditional Owner's Engineering work of PV and ESS siting & feasibility analysis, design, economics, RFP preparation and bid review, design & construction support, and setting up O&M contracts.

Inclusive of Independent Engineering services, SunStore has worked on over 120 PV projects in the United States since 2017, representing 1.76 GW of installed projects. These projects have a wide range of installation locations (e.g. green fields, landfills, parking canopies, rooftops), a wide range of purchasing agreements (net-metering, VPPA, community solar, utility off-take agreements), and include projects in TX, NC, SC, MD, ME, PA, MN, OR, WI, NY, IN, IL, MT, SD, CA, and MI.

The energy industry is a rapidly evolving field and SunStore Energy continues to grow and integrate new market competitive perspective. We are growing from 15 years of solar power plant work that includes development, financing, design, construction, operations & maintenance, and asset management. Since 2007, the most cost-competitive solar technologies have included concentrating solar power, concentrating photovoltaics, many photovoltaic module evolutions, and a multitude of energy storage technologies. SunStore has participated in identifying the commercial boundaries, observed failed ventures, and continues to pursue pragmatic solutions to meet clients' risk profiles.

Joseph Kopp, PE

Owner, Consultant
SunStore Energy

Location: Grand Rapids, MI

***Project role*:** For Task 1, Joe Kopp will help lead the establishment of workflow and project process; define the scope and definitions of energy options to be analyzed; provide commercial and technical knowledge for power plant developments involved with VPPAs, community solar, and on-site projects; he will analyze technically, and from legal and regulatory lenses, the feasibility of the defined renewable energy options; and will support modeling work with 5 Lake Energy's STEP8760 model. For Task 3, Kopp will play a leading role in developing the SEU's concept of operation and revenue requirement.

***Professional experience*:** Joe Kopp founded SunStore Energy in 2017 after a decade of experience in the solar power and energy storage industries. He applies a strong technical background to broader renewable power development experience, which gives him perspective on the achievability of project goals. As a project lender, developer, engineer, project manager, and consultant Joe has presented material to a wide array of audiences including companies' boards of directors. He has directly worked on PV projects in the 100s of MW and on small island microgrids. Contemporary projects include:

- Public-private development of PV projects (greenfield, brownfield, behind-the-meter)
- Technical advisor for utility-scale PV and energy storage projects nationwide
- Lead author performing bankability diligence on emerging companies and technologies
- Expert for private investors nationwide incorporating renewables into their built environments
- Feasibility reviews, design and performance specifications, bid reviews, construction support for PV projects in Michigan and nationwide. Direct work with varying States' incentives.

Joe received his bachelor's degree in physics from Lewis & Clark in Portland OR with a focus on astrophysics. He earned his M.S. in mechanical engineering from the University of Nevada, Las Vegas when the region was unique for its burgeoning array of solar power technologies. Subsequently, Joe earned his professional engineering license in electrical engineering.

***Areas of expertise*:** power plant development, project financing options, commercial and technical aspects of contracts, solar and energy storage economics, and engineering.

Potomac Law Group

120 N. Washington Square
Ste 300
Lansing, MI 48933

***Project role*:** Potomac Law Group will provide legal context and analysis for each energy procurement option with sensitivities to fluid legal or regulatory restrictions.

Organizational Profile: Potomac Law Group is a full-service, national law firm offering corporate, litigation, and regulatory practices. Potomac maintains an office in Lansing Michigan and is licensed to operate in the State. Potomac brings extensive experience working at the federal level with the FERC and other federal regulatory agencies, as well as years of experience working with the Michigan Public Service Commission (MPSC).

Team: Potomac will have a team of three lawyers ready to advise on the legal nuance of the different procurement options analyzed in Task 1 as their individual expertise dictates.

Laura Chappelle: Chappelle is a Partner in Potomac's Lansing, Michigan, office. Chappelle's practice focuses on regulatory and legal policy issues involving state and federal energy sectors. Ms. Chappelle previously served as a chairman and commissioner with the MPSC from 2000 – 2007. Chapelle has acted as counsel for a major state university to obtain waivers for the university's large generation plant from the FERC; and has formed a group of IPP renewable generators, including hydroelectric, landfill gas, and waste-to-energy facilities, and successfully obtained new 20-year PPAs from the utility for them.

David M. DeSalle: DeSalle works out of Potomac's DC office. DeSalle's energy practice has encompassed nearly all aspects of state and federal regulation and restructuring of the electric utility industry, including: retail unbundling; state renewable energy mandates; open-access transmission requirements promulgated by the Federal Energy Regulatory Commission (FERC), including planning and cost-allocation requirements; distribution and transmission ratemaking, including rules on incentive rates; market design; market-based rates and codes of conduct

Tim Lundgren: Lundgren is a partner in Potomac's Lansing, Michigan office. Dr. Lundgren's practice focuses on energy and environmental law, where he represents developers and lenders as Michigan counsel on the development of energy generation projects. Lundgren has assisted an association of 13 Midwestern Tribes in evaluating state and federal regulatory issues associated with forming tribal utilities; provided legal assistance with the development of renewable natural gas projects and related contracts and agreements. Lundgren regularly participates in contested case proceedings at the Michigan Public Service Commission.

B. Past Involvement with Similar Projects

5 Lakes Energy

Client: Citizens Utility Board (CUB) of Michigan
Project: Expert Witness Testimony in Regulatory Casework
Contact Name: Amy Bandyk, Executive Director
Email Address: amy.bandyk@cubofmichigan.org
Phone Number: (248) 385-3167
Work Summary: 5 Lakes Energy has provided technical and advisory support to CUB since its founding in 2019.

We prepare an annual report comparing the performance of Michigan utilities to the rest of the states and of individual Michigan utilities to one another as well as reports on policies to improve electric reliability and on electric vehicle policy from a residential customer perspective, all of which can be found at https://www.cubofmichigan.org/cub_reports.

5 Lakes Energy has also helped CUB develop comments for submission in several FERC dockets and several Michigan Public Service Commission stakeholder processes. These comments have concerned low-income programs, COVID relief for utility customers, electric distribution system investment plans, opportunities for Michigan utilities arising from the Infrastructure Investment and Jobs Act, and exclusion of political and public policy spending from rate recovery.

On behalf of CUB and the Michigan Attorney General, as members of the Public Consumer Representatives Sector, 5 Lakes Energy monitors and participates in the stakeholder processes of the Midcontinent Independent System Operator ("MISO"). Our principal foci in MISO's stakeholder process have been on transmission planning and cost allocation, resource adequacy standards, and market design.

5 Lakes Energy has provided expert witness services in a number of Michigan Public Service Commission cases on behalf of CUB singly or in coalitions of intervenors. These cases have included gas and electric rate cases, integrated resource plan cases, energy waste reduction plan cases, power supply cost recovery plan and reconciliation cases, and a case concerning a DTE proposal to waive consumer protection rules to offer a pre-pay program to residential customers. Some but not all cases in which 5 Lakes Energy has provided testimony on behalf of CUB have been under joint litigation agreements with the Attorney General.

Client: Michigan Environmental Council (MEC)
Project: Expert Witness Testimony in Regulatory Casework
Contact name: Charlotte Jameson, Chief Policy Officer
Email Address: charlotte@environmentalcouncil.org
Phone Number: (919) 215-7133
Work Summary: 5 Lakes Energy has provided expert witness services in Michigan Public Service Commission cases continuously since 2012. These cases have included foundational cases on cost of service and rate design practices, renewable energy plan cases, electric rate cases, integrated resource plan cases, securitization cases, voluntary green pricing cases, power supply cost recovery plan and reconciliation cases.

Client: Michigan Energy Innovation Business Council (EIBC)
Project: Expert Witness Testimony in Regulatory Casework
Contact name: Dr. Laura Sherman, President
Email Address: laura@mieibc.org
Phone Number: (607) 592-3026
Work Summary: 5 Lakes Energy has provided expert witness services to the Energy Innovation Business Council ("EIBC") in a number of cases before the Michigan Public Service Commission. These cases have included rate cases, voluntary green pricing case, power supply cost recovery cases, and integrated resource plan cases with testimony focused on electric vehicle charging infrastructure, energy storage resources, competitive procurement practices, and stand-by rates for customers with behind-the-meter resources.

Client: Michigan Attorney General
Project: Expert Witness Testimony in Regulatory Casework
Contact name: Michael Moody, Division Chief, Department of the Attorney General
Email Address:moodym2@michigan.gov
Phone Number: 517-281-7563
Work Summary: 5 Lakes Energy has provided expert witness services to the Department of the Attorney General in support of their intervention in several cases before the Michigan Public Service Commission and the Michigan Tax Tribunal. Some of these cases have been in joint litigation with the Citizens utility Board of Michigan, but others have been exclusively in support of the Attorney General. These cases have included electric and gas rate cases, integrated resource plan cases, electric prepay case and energy waste reduction plan cases.

Client: Michigan Office of Climate and Energy, prime contractor Institute for Energy Innovation (IEI)
Project: Energy Storage Roadmap for Michigan
Contact Name: Dr. Laura Sherman, President
Email Address: laura@mieibc.org
Phone Number: (607) 592-3026
Work Summary: The Energy Storage Roadmap for Michigan was created to determine how best to enable the deployment and growth of energy storage in Michigan and as a guide for policymakers to achieve the level of energy storage deployment necessary to support Michigan's future grid. 5 Lakes Energy modeled optimal deployment of solar and storage behind the meter for 14 representative commercial building types under projected technology costs and utility tariffs in 2025 and 2030. 5 Lakes Energy also modified and applied STEP8760 to study the optimal deployment of battery storage technology in Michigan in scenarios reflecting existing 2025 and 2030 plans of Michigan utilities and in a near-zero emissions scenario in the period 2040-2050. 5 Lakes Energy also supported development of the final technical report.

Project Website: https://www.michigan.gov/egle/about/organization/materials-management/energy/reports-and-roadmaps

Online Report: https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Programs/MMD/Energy/roadmap/IEI_EnergyStorageReport_FINAL-web.pdf?rev=07068712a96741e7bd18bbdef2935657

Client: State of Michigan Department of Environment and Great Lakes, Office of Climate and Energy
Project: Combined Heat and Power (CHP) Roadmap

Contact Name: Robert Jackson
Email Address: JacksonR20@michigan.gov
Phone Number: (517) 284-8333
Work Summary: The overall project goal was to create a multifaceted, cohesive, replicable program to develop and deploy consensus-based solutions for accelerating CHP deployment in Michigan. 5 Lakes Energy mapped the CHP industry value chain, interviewed CHP value chain participants, modified, and applied STEP8760 to study optimal deployment of CHP for various technology types and installation sizes, managed efforts to develop and finalize the final technical report.

Project Website: https://www.michigan.gov/egle/about/organization/materials-management/energy/reports-and-roadmaps

Online Report: https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Programs/MMD/Energy/roadmap/CHP-Report.pdf?rev=bb96f2a291f148539b9627a126ac0d1e

Client: Michigan Energy Efficiency Contractors Association (MEECA)
Project: Provide Executive Director Services
Contact Name: Ken Nielsen, P.E. (acting board president)
Email Address: kennielsen@the-nielsen-group.com
Work Summary: 5 Lakes Energy (David Gard) leads all facets of strategy and operations for this Michigan-based trade association of contractors and other participants in the energy efficiency sector. Major tasks: Provide professional networking opportunities for members; Leverage existing workforce development resources and develop new strategies for recruiting people to the building trades; Advocate for public policies that strengthen Michigan's energy efficiency industry and workforce.

Client: National Wildlife Federation (NWF)
Project: Develop Enbridge Line 5 Policy Memo
Contact Name: Dr. Mike Shriberg, Regional Executive Director
Email Address: shribergm@nwf.org
Phone Number: (734) 769-3351
Work Summary: Review existing studies of alternative propane delivery methods and economic analysis by the London Economics International; conduct background research on Michigan's historical response to past propane shortages; conduct analysis of income and demographic data of UP residents in the context of home heating; evaluate various regulatory, administrative, and legislative options to address propane shortages in the UP.

Client: Sierra Club
Project: Electric Vehicle Charging Expert Witness Services
Contact Name: Joe Halso
Email Address: joe.halso@sierraclub.org
Phone Number: (313) 590-1720
Work Summary: 5 Lakes Energy (Douglas Jester) has testified in several public utility commission cases regarding utility electric vehicle charging infrastructure programs, including public policy justification, program design, revenue requirements, and rate design. Testimony has been presented to the public utility commissions of Colorado, Delaware, Massachusetts, Michigan, Missouri, and Rhode Island.

SunStore Energy

Project: PV Implementation Plan for the State of Michigan (SOM), Department of Natural Resources (DNR)
Contact: Scott Whitcomb, Director of Office of Public Lands, MI DNR
Email: WHITCOMBS@michigan.gov

1. Performed initial planning:
   a. Collected data on electricity use for all DNR properties across many utilities.
   b. Developed strategy and implemented plan for maximizing behind-the-meter solar PV projects on DNR State Parks and associated DNR-owned facilities utilizing 3rd party PPA financing. The first portfolio of projects included due diligence that reduced 125+ potential sites down to approximately 12 sites that provided attractive opportunity for market bidders and cost-savings to DNR.
2. Supported DNR leasing process:
   a. Worked to identify and reduce barriers for leasing DNR land to utility-scale solar developers.
   b. Leveraged industry perspective with tiered leasing contracts so DNR could prepare for new type of contracting relationships.
   c. Focused research on previously disturbed lands.
3. Assessed all DNR Fish Hatcheries for PV feasibility and designed a portfolio of PV projects for DNR to own based on an established budget. RFP is actively under review.

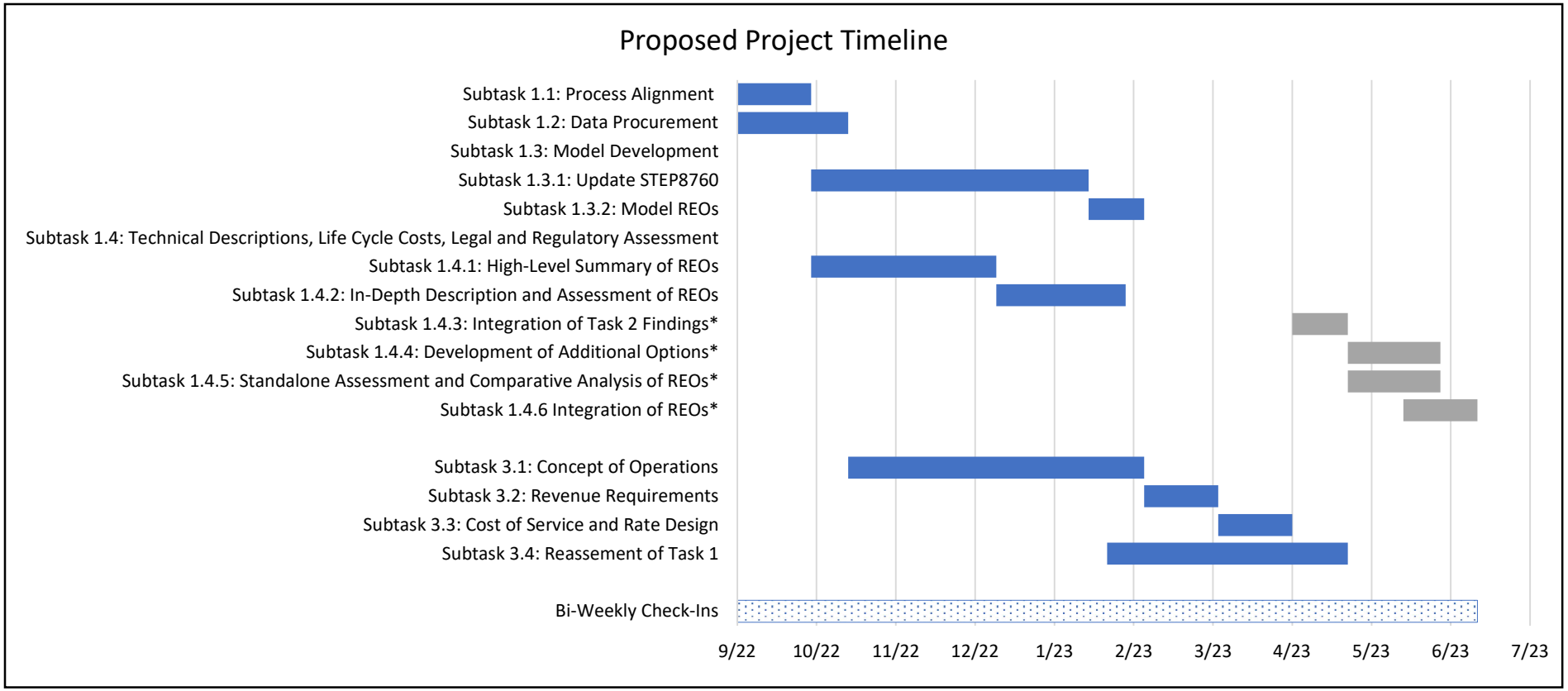
Project: Photovoltaic Project at City of Croswell Wastewater Treatment Plant
Contact: Gary Bartow, Group Manager/Associate at Fleis & Vandenbrink
Email: gbartow@fveng.com

1. Led project planning for design and installation of City owned solar power plant with medium voltage interconnection
2. Provided PV design (sized to project budget), developed RFP language, reviewed RFP bids, and supported design and construction milestones. This work involved critical discussions with the municipal utility to ensure safe operations and long-term monitoring planning.

Project: PV development and feasibility for additional SOM Departments
Contact: John Kinch, Executive Director, Michigan Energy Options
Email: jkinch@michiganenergyoptions.org

1. Feasibility study for Department of Corrections' facility where Sunstore analyzed and provided recommendations for optimum cost-effective PV projects on select properties.
2. Feasibility study and PV design criteria for DTMB that directly led to construction RFP.
3. Feasibility and development of utility-scale PV projects (ongoing, several front of meter, distribution-level projects).

C. PROPOSED WORK PLAN



**Contingent on Delivery Date of Task 2 by Collaborating Contractor*

Project Approach and Guiding Principles

The City of Ann Arbor is diverse across racial, educational, and economic strata. Its goal of community-wide carbon neutrality by 2030 is aggressive, ambitious, and unprecedented in Michigan. In keeping with Ann Arbor's commitment to equity, we will address both the technical feasibility of each energy option—on physical, legal, and regulatory grounds—and the impacts on Ann Arbor's most vulnerable populations based on how each option affects the affordability and reliability of energy and Ann Arbor's physical environment.

Regarding our general philosophy on providing the requested services, 5 Lakes Energy and our partners commit to:

- Being transparent, collegial, and responsive to City staff and the Task 2 contractor
- Paying particular attention to negative effects on the most vulnerable residents, and ensuring inclusive access to any proposed clean energy services and programming
- Bringing no preconceived conclusions to this project
- Clearly stating assumptions
- Providing data-driven, evidence-based analyses
- Characterizing the level of uncertainty in our findings
- Approaching the comparative evaluation of options in Task 1 as a problem-solving exercise that delivers an optimal solution set

Overall project management will be performed by Douglas Jester, Managing Partner, 5 Lakes Energy with project tracking and reporting by Eli Gold. 5 Lakes Energy, PLG, and SunStore Energy have historical working relationships and anticipate that our collaboration on this project will be a straightforward continuation of prior working relationships.

Contract Alignment Period

Between the granting of the contract and the onset of the project, 5 Lakes Energy, SunStore Energy, and PLG will establish internal workflow and operational procedures among partners. While we have worked together before, and we foster similar goals for just, renewable energy expansion in Michigan, we will use the duration between a potential preliminary award to further organize roles and workflow to hit the ground running with the City of Ann Arbor.

We prepared for this proposal by reviewing the City of Ann Arbor's organizational values and strategies, such as the publicly available City guidance in the A^2Zero Climate Plan, its Core Criteria and Principles, and the Sustainable Energy Utility assessment. If awarded, we will further examine past, present, and ongoing energy issues related to the City of Ann Arbor's decarbonization effort including public interest, planned or proposed energy generation assets within the City of Ann Arbor, home weatherization services, mobility and electrification plans and assumptions, and current initiatives before the City of Ann Arbor Energy Commission. We will also look at the University of Michigan's climate planning efforts, including the extensive report produced by the U-M President's Commission on Carbon Neutrality to understand how the work of Ann Arbor's largest energy user integrates or fails to integrate with Ann Arbor's independent clean energy goals.

Work Plan for RFP Task 1: 100% Renewable Energy Options Analysis

Leads: Douglas Jester, Joe Kopp, Karl Boothman
Support: PLG, David Gard, Rick Bunch, Eli Gold
Timeline: Weeks 1-39

Subtask 1.1: Process Alignment

Leads: Douglas Jester, Karl Boothman, Eli Gold, Joe Kopp
Support: City of Ann Arbor Staff, Rick Bunch, David Gard, PLG
Timeline: Weeks 1-4

During the collaborative Process Alignment phase, we will schedule communication between City staff and our team for the duration of the project. Ongoing communication with City staff will be planned as required by the RFP and outlined in the Proposed Work Plan. Contact information for all team members will be shared with the City, as well as each member's area of expertise and anticipated contributions to deliverables. We would also like to learn the roles of the City's personnel dedicated to this project and their expertise. We would like to learn if the City intends to have a single point of contact serve as a project manager from the City's side that would generally participate in meetings across all topics. We plan to involve our project manager in organizing meetings with required expert City staff or contractors and our team members for specialty topics. For example, we have a long, productive working relationship with Valerie Brader, whom we anticipate will support this project.

We will also work with City staff to adjust the timeline proposed in this document to accord with their understanding of when and at what pace various project steps can or need to be accomplished and to integrate our schedule with the schedule for the Task 2 consultant.

We understand Ann Arbor has a dedicated and productive staff that have organized significant data regarding the technology options presented in the RFP. We will work with the City to understand existing assumptions and analyses that should be incorporated into our analyses. Early in the process we propose to meet with City staff and the Task 2 contractor to establish shared assumptions to the extent possible (e.g., technology cost forecasts, discount and inflation rates, etc.). This will facilitate a more objective comparative analysis of options later in the Task 1 timeline.

During this phase, we will establish a file repository shared with the City for data transfers between City staff and our team. With City staff, we will also establish preferred channels for informal (unscheduled) communication during the project phase.

Subtask 1.2: Data Procurement

Leads: Joe Kopp, Douglas Jester, Rick Bunch
Support: David Gard, Karl Boothman
Timeline: Weeks 3-8

We assume certain data will be easier to acquire than other data and will plan to adjust the schedule as necessary to accommodate information flow and time for analysis and synthesis. A list of early identifiable data sources is presented below.

Data Sources:

- Ann Arbor's existing aggregated data and pedigree
- Projections of electricity usage for available forecast period—if projections are unavailable through 2030, and beyond, we will work with the City to establish baseline projections
- Solar power and energy storage lifecycle costs—utilize existing and potentially timely new market references
- Solar power and energy storage performance projections—focus on distribution level front-of-meter and distributed solar and storage resources
- Data for microgrids, as applicable, including feasibility, performance, price, and maintenance costs based on established and current market references
- Multi-year, historical hourly load data by customer class for City of Ann Arbor region—better if supplied with locational aspect by substation or distribution circuit, ideally accompanied by simultaneous weather data for each year provided
- Multi-year, historical generation data for dispatchable and non-dispatchable generators owned or contracted by DTE
- Multi-year, historical power purchases from independent power producers in DTE footprint
- Energy efficiency/energy waste reduction measures, performance, and cost data
- Enrollment, cost, and performance data for DTE's MIGreenPower voluntary green pricing program
- Multi-year cost and performance data for DTE-owned renewable energy generation assets
- Financial data and performance projections for the City's proposed generation assets
- Natural gas and propane use patterns and housing stock
- Technical information on current infrastructure status including financial, design, and performance estimates for large landfill solar array and existing solar systems

We note that comprehensive data may not be obtainable in a timely manner for all aspects of the project, yet a timely deliverable will be required to keep the City moving towards making decisions with the best available information. We plan to document in the final report areas where data may be lacking to allow for more thorough future analyses.

Subtask 1.3: Model Development

Leads: Douglas Jester, Joe Kopp, Karl Boothman
Support: PLG, David Gard, Rick Bunch, Eli Gold
Timeline: Weeks 5-21

We believe our services will not only provide the RFP's requested deliverables but also deliver additional value to the City by including our evaluation tool for future City use at its discretion. 5 Lakes Energy has spent eight years developing an open-access, Microsoft Excel-based integrated resource planning (IRP) tool. Originally developed for compliance with the Clean Power Plan, our model has undergone periodic revisions for use in energy production planning and IRP settings. This modeling tool is called STEP8760 and has been used for regulatory and production planning projects in multiple states, including modeling the deployment of combined heat and power resources for the State of Michigan's CHP roadmap and modeling utility-scale energy storage additions through 2050 for the State of Michigan's

Energy Storage Roadmap. STEP8760 includes a sophisticated treatment of energy storage operations, production planning, and capacity additions for a user-specified service territory.

Subtask 1.3.1: Update of STEP8760

Leads: Douglas Jester, Joe Kopp, Karl Boothman
Support: PLG, David Gard, Rick Bunch, Eli Gold
Timeline: Weeks 5-18

The STEP8760 tool will require time and effort to calibrate towards the City's specific conditions. As with all such IRP tools, STEP8760 contains two major logical components. The annual production planning module calculates the optimal operation and associated costs to serve projected load given a fixed set of generation and demand reduction resources. The capacity additions module calculates the optimal addition of resources to meet demand given the way that existing and added resources would operate as described in the production planning module. In both modules, optimality is determined as the least-cost plan that satisfies all applicable constraints, such as reliability considerations or emissions limits. The model dispatches resources to historical load profiles that can be altered based on load growth, demand response or energy efficiency measures, and local electrification assumptions (EVs, electrified space and water heating). Non-dispatchable generation profiles from renewable resources are built from actual solar and wind generation data from the service territory modeled. In past projects using STEP8760, renewable generation profiles and electricity load have been localized for the service territory being modeled and sourced directly from national weather and renewable potential datasets such as NREL's Wind Integration National Dataset, Wind Prospector, System Advisor Model, or National Solar Radiation Database. The model can also use load and generation data sourced directly from local utilities and scaled based on mathematical methods, forecasting input from local utilities and IRPs, or City staff.

Unique to STEP8760, and crucial to our ability to complete assessments of energy options for the City of Ann Arbor is the energy storage algorithm, which optimally operates energy storage resources given price arbitrage opportunities arising from variation in wholesale or retail customer energy prices. The STEP8760 model uses hourly energy generation and load data from historical sources to simulate the dispatch of existing and planned generation assets, optimally operates user-defined storage assets, and simulates the redispatch of all system assets. Additionally, the model can perform environmental assessments such as carbon and criteria pollutant calculations at the hourly and annual level as well as system energy cost calculations. Finally, various modeling scenarios can be compared as the user tweaks assumptions or designs new scenarios.

Any model is only as accurate as its inputs and assumptions. To model each energy option, we will use accurate data and inputs gathered from the City of Ann Arbor, DTE, and other publicly available sources. Among the datasets needed are hourly load and weather data, electric vehicle and beneficial electrification forecasts, and engineering cost and performance assumptions developed jointly between SunStore and 5 Lakes Energy. 5 Lakes Energy has extensive experience in production planning modeling in Michigan, particularly using data obtained from Michigan utilities (including DTE) through public datasets or through regulatory processes or discovery. Obtaining and transforming data into usable modeling inputs is part of 5 Lakes Energy's broad skill set related to energy modeling and electric load forecasting. From our extensive experience in regulatory proceedings, we know that obtaining quality

data requires precise language, a well-organized outline of necessary datasets, and the ability to predict utilities' responses, as companies are often protective of proprietary operational and financial data. Data supplied by the City during the early phase of this project will be refined and used as inputs to tailor STEP8760 to the Ann Arbor service territory and assess the City's 100% renewable energy procurement options.

For each STEP8760 scenario, we will conduct the following modeling tasks:

- Using input data from DTE, City of Ann Arbor, and public sources, determine supply-side resource mix changes such as renewable additions, fossil plant resources, energy storage, microgrids, and energy efficiency assets in Ann Arbor service territory under each energy procurement option from start year to 2030.
- Using input data from DTE, City of Ann Arbor, and public sources, forecast demand-side changes to load profiles such as population growth, climate impacts and seasonality, fleet electrification, EV adoption, EE/DR, space and water heating, and rate design considerations from start year to 2030.
- Assess dispatchable and non-dispatchable generation, storage performance, system reliability and cost for each energy procurement options from start year to 2030.

Subtask 1.3.2: Modeling of 100% Renewable Energy Options Analysis

Leads: Karl Boothman, Douglas Jester
Support: Joe Kopp, David Gard
Timeline: Weeks 19-21

The capacity expansion module of STEP8760 will be structured to represent all identified resource options available to the City to meet load requirements with 100% renewable energy. Fundamentally, the structure of the model rests on the assumption that the City will meet some capacity requirements within "City limits" through a combination of existing hydroelectric, behind the meter distributed generation, energy efficiency and energy storage but will need to procure power from other sources or locations as well. For example, if wind power is needed to satisfy load at various times of the year, Ann Arbor will need to procure power from regions with better wind generation potential. These other sources include large solar installations (such as community solar or the proposed landfill solar project), large wind projects, or renewable power purchase agreements from DTE, potentially calibrated to real-time generation. Our modeling will recognize that the optimal solution may be a combination of procurement options and each generation resource has different costs and implications. For example, if the City chooses to purchase power from renewable resources outside of a proposed SEU or traditional municipal utility, the cost of power will include additional transmission costs. Likewise, if the City requests real-time renewable generation receipts for any purchased power, this power may command a price premium over traditional voluntary green pricing agreements that act more as bulk power offsets. STEP8760 will represent these various costs and stipulations for each capacity resource such that the optimal solution finds the least-cost pathway to meeting load requirements. As needed, the modeler can specify these costs in terms of traditional net present value of new resource builds or can add pricing penalties to represent added transmission or real-time green power purchasing costs. Available

capacity of behind-the-meter and community-based resources will be informed by the technical assessments performed by SunStore energy for the City's service territory.

Subtask 1.4: Technical Descriptions, Life Cycle Costs, Legal and Regulatory Assessment

Leads: Douglas Jester, Rick Bunch, Joe Kopp, PLG
Support: David Gard, Eli Gold, Matt Bandyk
Timeline: Weeks 5-39

The primary deliverable for Task 1 to the City will include a technical report organized into three main sections. Sections 1 and 2 (outlined below) will be led by:

- Douglas Jester, who will provide the regulatory framework, limitations, and opportunities
- PLG, which will assess the legal environment of each option
- Joe Kopp, who will lead the research into technical assessments, costs, and timeline for each option
- Rick Bunch, who will lend municipal-specific regulatory knowledge on PPAs, virtual power reduction agreements, utility VGP programs, and community solar implementation
- David Gard will lend support to demand-side considerations such as energy waste reduction measures, on-bill financing, and workforce development
- Eli Gold and Karl Boothman will lend support to the assessment of each option as it aligns with the A2Zero core energy criteria
- Matt Bandyk will assess financial structure requirements for each option, develop report, outlines, and serve as overall report editor

Subtask 1.4.1: High-Level Summary and Infographic Analysis of 100% Renewable Energy Options

Timeline: Weeks 5-14

The first section of the technical report will include a high-level summary of each option with infographics on the implementation timeline, system reliability, and system cost. This portion of the technical report will distill critical information into a digestible format for the City's decision-makers to succinctly understand recommendations. The timeline for completing this section of the report overlaps heavily with our proposed modeling timeline because this section of the report will produce technical descriptions for each option that in turn provide parameters for the modeling scenarios. The modeling results will be incorporated to produce each option's high-level summary and infographics.

Subtask 1.4.2: In-Depth Description of Scope, Costs, Timeline, Benefits, and Drawbacks of the Defined Renewable Energy Options

Timeline: Weeks 15-20

Our team conceptually understands the City-specified renewable energy options but also recognizes most of the options have broad meanings. We plan to dedicate the beginning of the contract period to setting up agreed definitions for the options as well as collaboration with the City on basic parameters, variables, and assumptions so our finished products will meet well-defined expectations. This process

will be run in parallel with information gathering from the City, participating utilities, and the City's established network as needed.

Once the set of energy options are fully defined, we will begin deeper work on each option. Logistically, we believe the method for executing this section of the required work will be best achieved by focusing on the deliverables requested by the City across the list of options, addressing for all options

- Technical description and operational concept
- Legal feasibility and implementation process timeline and risks
- Ability to deliver all or a portion of Ann Arbor's requirement for 100% Renewable Electricity by 2030 and thereafter
- Ability to contribute to the City's goal of community-wide carbon neutrality by 2030
- Start-up and life-cycle costs (these will also be incorporated into the STEP8760 modeling and for the SEU will be refined in Task 3)
- Contribution to the A2ZERO plan and its principles of equity, sustainability, and transformation
- Contribution to Ann Arbor's Energy Criteria and Principles, including resilience, locality, speed, scalability and transferability to other communities, and cost-effectiveness

We will use the STEP8760 modeling process to create a consistent representation of each option and provide an ability to optimize the blend of options that best meet the overall objective of 100% renewable electricity by 2030 and will iterate between the development of the STEP8760 model and the assessment of each option using Ann Arbor's criteria.

Subtask 1.4.3: Integration of Task 2 Findings

Leads: Douglas Jester, PLG
Support: All Others
Timeline: Weeks 30-32

We note the City requested each Task's final report be expected to read as a standalone document. As we are not bidding on Task 2, we respect that perspective and offer consideration to integrate Task 2 results into a final comprehensive report to the extent warranted.

Subtask 1.4.4: Development of Additional Options

Leads: Douglas Jester, Joe Kopp, PLG
Support: All Others
Timeline: Weeks 33-37

We recognize that the options identified by the City are a strong initial list for analysis. Rather than identifying additional options for the sake of doing so, we propose to formalize a separate task of generating additional options in a "problem solving" approach. As we analyze each of the options identified by the City and identify barriers, risks, or misalignment with the City's objectives, we will attempt to identify alternative approaches that would overcome those problems; we will discuss the identified problems and propose additional options with City staff. We will then add agreed additional

options to the list of 100% Renewable Energy Procurement Options and incorporate those options into the rest of the analysis and reporting in the overall effort.

Subtask 1.4.5: Standalone Assessment of each 100% Renewable Energy Procurement Option and Comparative Analysis

Timeline: Weeks 33-37

In this subtask, we will aggregate the modeling results, policy analysis, and legal and regulatory considerations for each identified energy procurement option. Our comparative assessment will be compiled from STEP8760 modeling results, SunStore's in-depth engineering feasibility assessment and timeline analysis, and PLG's legal interpretation and sensitivities. For all options outlined above, we will compare the estimated costs of compliance, the feasible timeline to completion, the community benefits (including performance, reliability, resilience, equity, and justice benefits), and the drawbacks.

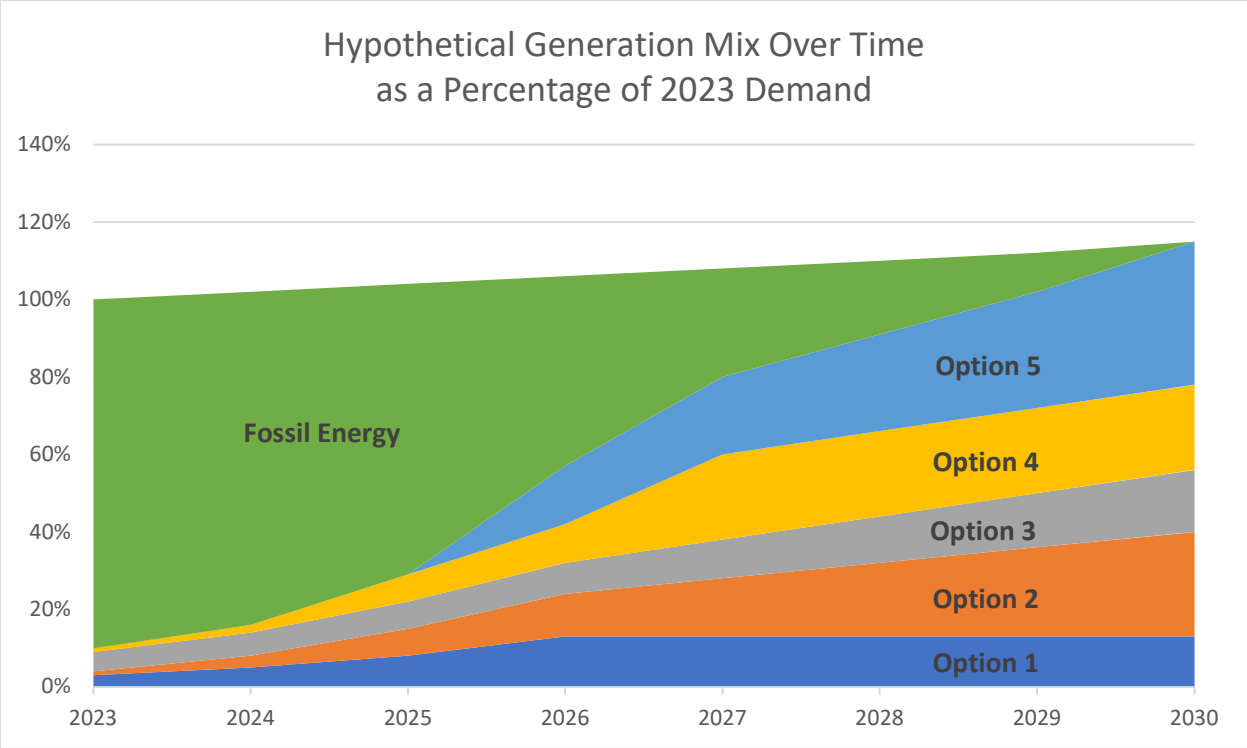
We anticipate discussing each option using each of the criteria in the report narrative but will endeavor to present a crisp summary using a format like the following.

	A2 Carbon Neutrality Goals	Powering Community with 100% Renewables	Equity	Sustainability	Transformation	A2's Just Transition Goals
Sustainable Energy Utility	Hypothetical Desireable Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Undesireable Outcome	Hypothetical Undesireable Outcome	Hypothetical Mixed Outcome
Community Solar	Hypothetical Undesireable Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Desireable Outcome	Hypothetical Desireable Outcome
MIGreenPower (VPPA)	Hypothetical Mixed Outcome	Hypothetical Undesireable Outcome	Hypothetical Desireable Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome
Virtual Power Reduction Agreement	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Undesireable Outcome	Hypothetical Mixed Outcome	Hypothetical Desireable Outcome	Hypothetical Mixed Outcome
Expansion of Existing On-site Solar and Storage	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Undesireable Outcome	Hypothetical Desireable Outcome	Hypothetical Desireable Outcome
Community Choice Aggregation	Hypothetical Undesireable Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Mixed Outcome	Hypothetical Desireable Outcome	Hypothetical Desireable Outcome
Municipalization	Determined Based on Task 2 Inputs from Other Contractor	Determined Based on Task 2 Inputs from Other Contractor	Determined Based on Task 2 Inputs from Other Contractor	Determined Based on Task 2 Inputs from Other Contractor	Determined Based on Task 2 Inputs from Other Contractor	Determined Based on Task 2 Inputs from Other Contractor

Subtask 1.4.6: Integration of 100% Renewable Energy Procurement Options

Timeline: Weeks 36-39

In this subtask, we will incorporate STEP8760 modeling results as well as our policy analysis and legal and regulatory considerations to identify the blend, or "stack" of options that are most likely to be successful in meeting the City's objectives. This will show the recommended mix of options as hypothetically illustrated below as well as similar graphs showing the evolution of costs and benefits over time using the recommended blend of options.



The output of this subtask will conclude a standalone report of Task 1.

Work Plan for RFP Task 3: Rate Analysis for Sustainable Energy Utility

Leads: Douglas Jester, Joe Kopp, PLG
Support: Karl Boothman, Rick Bunch, David Gard, Eli Gold
Timeline: Weeks 7-32

We are excited to support the City's ambitions for developing a sustainable business model for the municipal SEU and we have the right skillsets the City needs to extend the SEU framework beyond Task 1. The RFP listed many key topics to resolve, not the least of which includes establishing an executable plan and legal documentation for accessing and leasing customers' properties. We believe a useful deliverable for Task 3 will include a checklist of recommended items that would be necessary to build the SEU from the ground up. This would include future development of standardized contracts, SEU departmental location within the City's organization, hiring of core competencies, etc. The phased deployment of PV solar and energy storage assets may be a shorter timeline than the duration required to found, fund, staff, and draft initial contracts. Therefore, our proposed schedule would include the full start-up timeline.

Subtask 3.1: Concept of Operations

Leads: Douglas Jester, Eli Gold, Joe Kopp, PLG
Support: Karl Boothman, David Gard, Matt Bandyk

Timeline: Weeks 7-21

Our work to develop the Concept of Operations will be highly interactive with City staff and its legal advisors. We will develop specific characterizations of the products/services that will be offered to City residents, the types of customer transactions that will be required in the life cycle of each product/service, the resource procurement transactions that will be required to support each product/service, and the administrative and operational structure that will be needed to support those transactions. This analysis will be rendered as use-case diagrams identifying the types of transactions and the actors engaged in each, work-flow diagrams for each of the major transactions to characterize the work involved, and explanatory narrative.

Subtask 3.2: Revenue Requirements

Leads: Matt Bandyk, Joe Kopp
Support: Douglas Jester, Karl Boothman
Timeline: Weeks 22-25

We will develop a spreadsheet model of revenue requirements (and cost of service and rate design calculations, see next task) for the SEU based on standard utility practices but adapted to the SEU concept of operations. The revenue requirements will include customer service costs, utility billing and revenue operations, recovery of depreciation and financing costs for investments, and operations and maintenance costs, and indirect costs, based on the Concept of Operations developed in the preceding task and particularly the principal products/services that are to be offered. We will consult with City staff to structure the revenue requirements model in ways that fit customary practice of municipal electric utilities and the specific ways that the City structures revenue requirements for other city utility functions (e.g., water).

In general and subject to guidance from the City's financial staff, we anticipate building the model of revenue requirements around the Federal Energy Regulatory Commission's Uniform System of Accounts, particularly as translated for public utilities by the American Public Power Association (see https://www.publicpower.org/system/files/documents/Public%20Utility%20Accounting%20Manual%202018.pdf)

The revenue requirements model will be designed to include appropriate consideration of both the cumulative level of participation in a standardized solar plus storage product in the SEU identified in the City's Request for Proposals and various time paths by which those subscription levels are achieved. We anticipate structuring the model so that the City can progressively update the model based on actual subscriptions and expenses by time and revised projections, so that it can become a revenue planning tool for the City's future use.

Subtask 3.3: Cost of Service and Rate Design

Leads: Matt Bandyk, David Gard
Support: Karl Boothman, Douglas Jester
Timeline: Weeks 26-29

We will extend the revenue requirements model from the preceding task to propose an allocation of revenue requirements to products and customers and to develop a rate design approach by which the City can obtain the required revenue. The cost of service and rate design will be integrated so that each customer will accurately pay their cost of service, subject to equity and incentive considerations in the rate design. While we will consider traditional customer classes such as residential and commercial customers, we currently anticipate that customers will be best classified by and have rates established according to the menu of products or services the customer uses, e.g., customers using solar only will have different cost of service and rate design than customers using solar and storage. In general, we expect that an approach commonly called "probability of dispatch" will provide the best foundation for cost-of-service allocation and rate design as it allocates the costs of all resources to the times and degree they are used and applies the same time-specific prices (or rationally adjusted time-specific prices) to all customers who use each resource category.

Subtask 3.4: Reassessment of Task 1 Considering Task 3 Findings

Leads: Douglas Jester, Joe Kopp, Karl Boothman
Support: All Others
Timeline: Weeks 20-32

Task 1 requires that we assess the development of a sustainable energy utility for Ann Arbor. We will perform an initial assessment of the sustainable energy utility as an option in Task 1 before the completion of Task 3 which we will be performing concurrently. Throughout our technical assessment of a sustainable energy utility, we will be reassessing our comparative analysis of 100% renewable energy options through the lens of how they may be separate from or integrated with an effective sustainable energy utility, such that our final comparative analysis of 100% renewable energy options will consider the finished rate analysis performed in Task 3.

Work Plan for RFP Task 4: Final Documents and Presentations

We appreciate that the City of Ann Arbor's initiative for public power and equitable decarbonization should include public engagement of residents and their representatives. We understand the City's staff has a good sense for how and when material should be socialized with broader audiences. We will work with City staff with respect to the timing and circumstances for presentation of the required final documents and public presentations. To deliver final documents and presentations, we will:

- Consult with City staff prior to preparation of final documents and presentations regarding content outline and key points. Tentative outline and key points will be developed early in the project to facilitate a smooth flow of analytical work into the final report and presentations.
- Deliver a working version of the A2 STEP8760 model (multiple versions for different energy options modeled will be available) which City staff will be able to subsequently use to adjust plans in response to evolving circumstances and information, with or without further engagement by 5 Lakes Energy. This deliverable can be provided at the end of the modeling period for RFP Task 1. If helpful to City staff, we will include model overview and findings again when we deliver our standalone report for Tasks 1 and 3 at the conclusion of the project.

- Deliver final technical report with documentation of all findings from Tasks 1 and 3; including separate chapters for Tasks 1 and 3 which can stand alone (for each chapter we will provide introduction and conclusion). We will work with City staff and the City's Task 2 consultant to provide reasonable similarity of structure, contents, style, and layout for Tasks 1 and 3 chapters as for the Task 2 chapter.
- Provide all native files (e.g., cost estimates) and assumptions.
- Provide a concise summary for policymakers that includes major findings and recommendations from Tasks 1-3; proposed next steps and preferred course of action (we will highlight the sequence of next steps, as needed). We will work with City staff and the City's Task 2 consultant to provide reasonable similarity of structure, contents, style, and layout for Tasks 1 and 3 as for Task 2.
- Provide opportunity for City staff review of draft materials and respond carefully to questions and suggested revisions.
- In consultation with City staff, develop and deliver presentation of our research findings at a minimum of three public meetings. Research findings will be provided to City staff for revision opportunities and coordination during scheduled bi-weekly meetings immediately prior to public presentations.
- Provide all project files and materials to City staff via digital transmission and memory stick.

Work Plan for RFP Task 5: Regular Check-ins with City Staff

Based on the RFP documentation, we assume bi-weekly status meetings are preferred by the City for the duration of the contract. This will not preclude any necessary specific communication or well-defined ad-hoc meetings to move through this work scope with the City. We have accounted for this effort in our price proposal, and it is shown on our Gannt chart at the beginning of Section C.

As a routine matter, Douglas Jester and Eli Gold for 5 Lakes Energy and Joe Kopp for SunStore Energy will participate in check-ins with City Staff. Additional 5 Lakes Energy staff and PLG staff will participate based on the topics to be discussed. 5 Lakes Energy will collaborate with City staff to organize these check-ins, including initiating proposed agenda for further revision by City staff, drafting brief action-oriented minutes, and maintaining a cumulative log of project issues with their status and/or resolution.

APPENDIX 1: 5 Lakes Energy Relevant Regulatory Casework

5 Lakes Energy serves as an expert witness in regulatory casework before the MPSC and public service commissions in other jurisdictions. Much of this experience is directly relevant to the work plan we are proposing to the City of Ann Arbor. In particular:

- In cases about integrated resource planning (IRP), renewable energy, and energy waste reduction, we critically evaluate energy resource options along technical, economic, and programmatic dimensions. This involves reviewing options both independently and in bundled portfolios to determine optimal investment strategies;
- In renewable energy cases, we assess whether utility proposals meet specific requirements set by the Michigan Legislature, MPSC, and FERC;
- In rate cases, we examine utility cost of service studies and determine whether proposed tariffs are both fair and effective in achieving public interest objectives.

Typically, 5 Lakes Energy is retained for this specialized work by nonprofit organizations dedicated to reducing environmental harm and protecting the interests of residential ratepayers, especially those most at risk of economic burden and pollution-related illness.

This regulatory experience also provides 5 Lakes Energy with a sophisticated understanding of DTE's corporate structure, policies, and programs. Listed below are specific cases dealing with DTE in which we have engaged, as well as pertinent cases before the MPSC where DTE was not involved, and cases before public service, or public utility, commissions in other states.

DTE Renewable Energy Cases

- Case U-20713 (DTE 2020 Voluntary Green Pricing)
- Case U-18352 (DTE 2018 Voluntary Green Pricing)
- Case U-18232 (DTE 2020 Renewable Energy Plan)
- Case U-18091 (DTE 2016, 2021 PURPA Avoided Costs)
- Case U-17302 (DTE 2013 Renewable Energy Biennial Review)

DTE Integrated Resource Plan (IRP) and Certificate of Need (CON) Cases

- Case U-21193 (DTE 2022 Integrated Resource Plan)
- Case U-20471 (DTE 2019 Integrated Resource Plan)
- Case U-18419 (DTE 2017 Certificate of Necessity)

DTE Electric General and Other Rate Cases

- Case U-20836 (DTE 2022 Electric General Rates)
- Case U-20602 (DTE 2019 Rate Design Pilot)
- Case U-20561 (DTE 2019 Electric General Rates)
- Case U-20162 (DTE 2018 Electric General Rates)
- Case U-18255 (DTE 2017 Electric General Rates)
- Case U-18014 (DTE 2016 Electric General Rates)
- Case U-17936 (DTE TOU Marketing Plan)

- Case U-17767 (DTE 2015 Electric General Rates)
- Case U-17689 (DTE 2014 Electric Cost of Service and Rate Design)

DTE Energy Waste Reduction (EWR) and Energy Optimization (EO) Cases

- Case U-20876 (DTE 2022-2023 Electric Energy Waste Reduction Plan)
- Case U-17762 (DTE 2015 Electric Energy Optimization Plan)

DTE Gas Cases

- Case U-20940 (DTE 2021 Gas General Rates)
- Case U-20881 (DTE 2022-2023 Gas Energy Waste Reduction Plan)
- Case U-20642 (DTE 2020 Gas General Rates)

Other DTE Cases

- Case U-21163 (DTE 2021 Economic Development Rate)
- Case U-21087 (DTE 2021 Pre-Pay Proposal)
- Case U-21015 (DTE 2021 Securitization)
- Case U-17319 (DTE 2013 Electric PSCR Plan)

MPSC Cases Not Involving DTE

- Case U-21122 (Storm Response and Distribution Plans)
- Case U-20905 (FERC Order 872 PURPA)
- Case U-20874 et al (Common Elements)
- Case U-20629 (Service Quality and Reliability Standards)
- Case U-20464 (Statewide Energy Assessment)
- Case U-18494 (2018 Response to TCJA)

Out-of-State Case Work

- Missouri Public Service Commission: Case Nos. ER-2016-0179, ER-2016-0285, and ET-2016-0246 concerning residential rate design and electric vehicle (“EV”) policy, revenue requirements, cost of service, and rate design
- Kentucky Public Service Commission: Case No. 2016-00370 concerning municipal street lighting rates and technologies
- Massachusetts Department of Public Utilities: Case Nos. DPU 17-05 and DPU 17-13 concerning EV charging infrastructure program design and cost recovery
- Rhode Island Public Utilities Commission: Case No. 4780 concerning Advanced Metering Infrastructure and EV charging infrastructure
- Delaware Public Service Commission: Case No. 17-1094 concerning EV charging infrastructure
- Georgia Public Service Commission: Case No. 4822 concerning PURPA avoided cost
- Colorado Public Utilities Commission: Case Nos. 20A-0204E and 20A-195E concerning cost recovery for EV charging infrastructure

- Federal Energy Regulatory Commission on behalf of the State of Michigan: Cases concerning the relicensing of hydro-electric generation

D. FEE PROPOSAL (SEPARATE)

E. AUTHORIZED NEGOTIATOR

Douglas Jester
Managing Partner
5 Lakes Energy
Djester@5lakesenergy.com
1-517-337-7527

F. Attachments

ATTACHMENT A
LEGAL STATUS OF OFFEROR

(The Respondent shall fill out the provision and strike out the remaining ones.)

The Respondent is:

- ~~A corporation organized and doing business under the laws of the state of _____, for whom _____ bearing the office title of _____, whose signature is affixed to this proposal, is authorized to execute contracts on behalf of respondent.*~~

  ~~*If not incorporated in Michigan, please attach the corporation's Certificate of Authority~~

- A limited liability company doing business under the laws of the State of Michigan whom Douglas B Jester bearing the title of Managing Partner whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

- ~~A partnership organized under the laws of the State of _____ and filed with the County of _____, whose members are (attach list including street and mailing address for each.)~~

- ~~An individual, whose signature with address, is affixed to this RFP.~~

Respondent has examined the basic requirements of this RFP and its scope of services, including all Addendum (if applicable) and hereby agrees to offer the services as specified in the RFP.

Douglas B Jest Date: 5/20/2022
Signature

(Print) Name Douglas B Jester Title Managing Partner

Firm: 5 Lakes Energy LLC

Address: 220 MAC Avenue, Suite 218, East Lansing MI 48823

Contact Phone 517-337-7527 Fax _____

Email djester@5lakesenergy.com

ATTACHMENT B
CITY OF ANN ARBOR DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

(a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy.

(b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.

(c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.

(d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

5 Lakes Energy L.L.C.
Company Name

Douglas B Jest 5/20/2022
Signature of Authorized Representative Date

Douglas B. Jester, Managing Partner
Print Name and Title

320 MAC Avenue, Suite 218, East Lansing MI 48823
Address, City, State, Zip

517-337-7527 djester@5lakesenergy.com
Phone/Email address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500

Revised 3/31/15 Rev. 0 NDO-2

ATTACHMENT C
CITY OF ANN ARBOR
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than $10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than $10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than $10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here [___] *No. of employees*___

The Contractor or Grantee agrees:

(a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as $14.82/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than $16.52/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

[___] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

[X] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

(b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.

(c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.

(d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

(e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

5 Lakes Energy L.L.C.
Company Name

220 MAC Avenue, Suite 218
Street Address

Douglas B Jest
Signature of Authorized Representative

5/20/2022
Date

East Lansing MI 48823
City, State, Zip

Douglas B. Jester, Managing Partner
Print Name and Title

517-337-7527 djester@5lakesenergy.com
Phone/Email address

ATTACHMENT D

VENDOR CONFLICT OF INTEREST DISCLOSURE FORM

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	( ) Relationship to employee ( ) Interest in vendor's company ( ) Other (please describe in box below)

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:		
5 Lakes Energy L.L.C.		517-337-7527
Vendor Name		**Vendor Phone Number**
Douglas B Jest	5/20/2022	Douglas B. Jester
Signature of Vendor Authorized Representative	**Date**	**Printed Name of Vendor Authorized Representative**

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500, procurement@a2gov.org

Potomac
LAW GROUP
Potomac Law Group, PLLC
1300 Pennsylvania Avenue N.W., Suite 700 | Washington, D.C. 20004
T 202.558.5557 | F 202.318.7707 | www.potomaclaw.com

May 17, 2022

VIA EMAIL

Atleen Kaur, City Attorney
City of Ann Arbor
301 E. Huron St.
Ann Arbor, MI 48104-1908

Douglas Jester, Managing Partner
5 Lakes Energy
220 M.A.C. Avenue, Suite 218
Lansing, MI 48823

RE: Conflict Waiver

Dear Ms. Kaur and Mr. Jester:

This firm ("Firm") currently represents the City of Ann Arbor (the "City") with respect to a certain telecommunications matter. 5 Lakes Energy has requested that we represent it in connection with responding the City's RFP # 22-35: 100% Renewable Energy Options Analysis ("RFP #22-35"). We would like to advise both of you that our representation of 5 Lakes Energy in connection with this matter creates the potential for a conflict of interest.

We are permitted under applicable rules of professional conduct to represent clients in these circumstances if each client consents after full disclosure. The rules further provide that we must preserve the confidences of our clients; we must exercise independent professional judgment on behalf of our clients; and we must represent our clients zealously within the bounds of the law.

We have reviewed carefully our obligations to both of you, and under the present circumstances we believe we will be able to provide competent and diligent representation to both of you notwithstanding the potential conflict. Note that in a situation like this, there is the theoretical possibility, though unlikely, that confidential information regarding one client could conceivably be revealed to us in the course of our representation that would be pertinent to the representation of the other. We will, of course, conscientiously take all reasonable steps to avoid receipt of such information, and certainly would not use it to the disadvantage of either client.

Based upon conversations with each of you, it is our understanding that each of you consent to the Firm's representation of 5 Lakes Energy in connection with the City's RFP # 22-35, and further that you understand and acknowledge that (i) the Firm may represent the City in connection with matters unrelated to RFP # 22-35 and this waiver does not extend to such other matters, and (ii) if an actual dispute should arise between the City and 5 Lakes Energy over RFP # 22-35, this Firm will not represent either party in connection with such dispute.

To acknowledge your understanding of this situation and to signify your consent, please sign the enclosed copy of this letter in the space provided and return an electronic copy to me.

Thank you for your expression of confidence.

Very truly yours,

Tim Lundgren, Partner
Potomac Law Group, PLLC

[SIGNATURES BEGIN ON FOLLOWING PAGE]

ACKNOWLEDGED AND AGREED TO:

City of Ann Arbor, MI

By: _____
Name: Atleen Kaur, City Attorney
Date:

5 Lakes Energy

By: _____
Name: Douglas Jester, Managing Partner
Date: 22 May 2022

TEAM CREDENTIALS

Matthew J. Bandyk
1320 Hartrick Ave, Royal Oak, MI 48067
mbandyk@5lakesenergy.com
813-394-7043

Education

- **Master of Business Administration (MBA), University of Michigan Stephen M. Ross School of Business, Ann Arbor, MI, April 2018**
- **Passed CFA Level I exam, June 2015**
- **BA in political science, *cum laude*, Davidson College, Davidson, NC, May 2006**

Experience

Consultant, 5 Lakes Energy, September 2021-present
• Provides public policy recommendations and financial analysis for nonprofit energy advocacy clients
• Analyzes utility justifications of return on equity and other corporate finance issues for testimony in Michigan Public Service Commission rate cases

Clean Energy Consultant, Bandyk Consulting LLC, January 2019-September 2021
• Manages and writes social media, blog posts, op-eds that appear in newspapers like the Detroit Free Press and
• Serves as communications strategist for the Michigan Energy Innovation Business Council, including social media, blog posts on utility regulation and policy issues and enterprise articles in publications like Utility Dive

Financial Services Manager, Atwell LLC, Southfield, MI, May 2018-January 2019
• Purchased long-lived assets to support Atwell's work in environmental and engineering consulting for renewables and oil & gas sectors
• Performed financial analysis to overhaul company's asset leasing policies with goal of saving up to ~100k per year by improving asset life

Climate Corps Fellow, Environmental Defense Fund, Toledo, OH, Summer 2017
• Built financial valuation tool for payback, NPV and IRR of solar arrays planned by client, determining best ROI for about $300,000 in solar investments
• Designed energy use tracking system for the largest private low-income housing provider in Toledo, Ohio; system saved hundreds of work hours annually

MBA Student Consultant, DTE Energy, Detroit, MI, March-April 2017
• Performed market and regulatory compliance research on original proposal for DTE to enter the corporate renewable energy space; presented to company leadership
• Designed tariff to add wind/solar and cut rates by 20% compared to DTE's green tariff

Reporter, S&P Global Market Intelligence/SNL Financial, Arlington, VA, June 2010-August 2016
• Used Excel analysis of power plant output and commodity price databases to create actionable intelligence about new trends in the energy industry for clients
• Wrote articles on utilities, power plants, energy efficiency and regulation for subscription website read daily by thousands of energy and investment professionals

Karl Boothman

Email: kboothman@5lakesenergy.com Cell: 734.474.3969 1168 S Windsor St, Salt Lake City, UT 84105

EDUCATION

University of Michigan, Ann Arbor – *B.A. Economics, Minor - Program in the Environment*

September 2009 - September 2013

- GPA: 3.75/4
- University Honors: Fall 2009, Fall 2010, Winter 2011, Fall 2012, Winter 2012
- Degree awarded with distinction (top 25% of class)
- Relevant Coursework: Econometrics, Environmental Economics, American Industries, Industrial Organization, Ecology of Fishes

PROFESSIONAL EXPERIENCE

5 Lakes Energy LLC, Lansing, Michigan – *Senior Consultant*

September 2016 - Present

- Produce data-driven environmental, energy, and water policy analysis to advance clean energy policy in the Midwest on behalf of public and private sector environmental interests
- Prepare and present expert witness testimony before utility regulatory commissions
- Expertise in energy production planning, merit order dispatch, and energy storage modeling
- Work areas include electric vehicle infrastructure, distributed energy resources, utility resource planning, merit order dispatch modeling, utility finance, rate design, and cost of service

FLOW, Traverse City, Michigan – *Economic Analysis Intern*

June 2016 - August 2016

- Began design of cost-benefit analysis of the shutdown of Enbridge Line 5 hazardous liquid pipeline
- Calculated sales, use, and property tax effects of potential pipeline shutdown
- Analyzed economic effects of worst-case scenario oil spill in the Straits of Mackinac, including impacts on salary and wages, tourism industry, and wildlife

ApplEcon LLC, Ann Arbor, Michigan – *Analyst*

May 2012 - May 2016

- Provided clear and concise written and quantitative analyses to senior economists, testifying experts, attorneys, and court proceedings in litigation pertaining to breaches of antitrust and competition law
- Designed and completed reproducible economic analyses using complex datasets, including quantification of economic damages to consumers, determination of pricing relative to marginal cost, and calculation of market concentration and competition measures
- Compiled literature reviews of economic academic articles and industry-specific research projects
- Consulting experience in illegal bid rigging, monopolization, and cartelization cases in industries ranging from mineral rights and gas drilling, timber harvest, consumer electronics, and automotive component supply

AWARDS AND SKILLS

- 2020 Selection to Michigan Clean Energy Leaders (MCEL) cohort for work in Michigan's clean energy sector
- 2012 USA Rugby Academic All-American
- Proficient in Stata, SPSS, ArcGIS, Microsoft Excel, Microsoft Word

PROFESSIONAL EDUCATION COURSES

- Fundamentals of Regulatory Studies Program (IPU, NARUC), Power Grid School (IPU), Introduction to Cost-of-Service Techniques and Concepts (EUCI), Introduction to Rate Design for Electric Utilities (EUCI), Fundamentals of Utility Depreciation (EUCI), Advanced Utility Depreciation (EUCI), Utility Accounting and Ratemaking (IPU)

RICHARD J. BUNCH

rbunch@5lakesenergy.com
206-595-8293

Executive and organizational innovator with expertise in energy technology, finance, utilities and regulation. Leadership experience in academic, non-profit and public sectors. Broad topical and functional expertise in sustainable and socially responsible business and public policy. Demonstrated ability to recruit top performers and build strong teams.

EXPERTISE

- Clean energy project evaluation, development and financing for local governments; utility tariffs and regulatory processes.
- Broad understanding of sustainability and clean energy issues that impact businesses through markets, technology and public policy.
- Integration of clean energy and sustainability into organizational strategy, management and culture through education, training and strategic planning.

PROFESSIONAL EXPERIENCE

5 Lakes Energy, Lansing, MI, *Senior Consultant, May 2019-present*

Michigan Municipal Association for Utility Issues, Ann Arbor, MI
Founder and Managing Director, 2017-present
Providing collective, expert and focused representation for municipal governments in Michigan Public Service Commission proceedings and in dialog with regulated utilities.

Southeast Michigan Regional Energy Office, Ann Arbor, MI
Executive Director, 2014-2017
Directed coalition of southeast Michigan municipalities cooperating to identify, finance and implement clean energy projects.

University of Michigan, Erb Institute for Global Sustainable Enterprise
Managing Director, 2008-2013
Led world-leading sustainable enterprise program at top-10 business school.

Aspen Institute Business and Society Program, New York
Senior Fellow, 2006-2008
Launched new Corporate Social Responsibility business education program in China in partnership with Chinese business schools, accrediting agency and corporations

Bainbridge Graduate Institute, Bainbridge Island, WA
Executive Director, 2003-2005
Led administration, education, fundraising and communications of fast-growing, startup business school with world-first infusion of sustainability throughout MBA curriculum.

World Resources Institute, Washington, DC
Director of Business Education, 1996-2003
Developed, fundraised and directed international sustainable business education initiatives engaging universities, companies, governments and non-profit leaders.

Washington Public Interest Research Group, Seattle, Washington
Executive Director, 1989-1992

EDUCATION

MBA with Environmental Management Certificate, University of Washington, 1995
BA in Political Science, Yale University, 1985

TRAINING

EUCI Outdoor Street Lighting Conference, June 4-5, 2019, Atlanta.
EUCI Electric Cost-of-Service – Essential Concepts for a Changing Industry Course, July 15-1, 2019, Chicago.
MSU-IPU Accounting and Ratemaking course, September 2020
EUCI Utility Green Tariffs: A to Z course, November 4-5, 2020, online
MSU-IPU Advanced Regulatory Accounting and Auditing course, October 2021
NRRI Regulatory Training Institute, Regulating Public Utility Performance course, current

REGULATORY PROCEEDINGS

Expert witness, MPSC case U-21087 (DTE Electric PrePay, 2021-2022)
Expert witness, MPSC case U-20963 (Consumers Energy electric rate case), municipal street lighting tariffs, 2021.
Expert witness, MPSC case U-20697 (Consumers Energy electric rate case), municipal street lighting tariffs, 2020.
Expert witness, MPSC case U-20530 (I&M PSCR reconciliation
Expert witness, MPSC case U-20561 (DTE Electric general rate case), production allocation, 2019
Expert witness, Kentucky Public Utilities Commission cases 2020-349 and 2020-350, the combined Kentucky Utilities and Louisville Gas & Electric electric and gas rate cases.
Submitted comments, MPSC case U-20147, Electric Distribution Planning. Participated in stakeholder meetings.
Submitted comments, MPSC case U-20629, electric reliability standards. Focused on municipal street lighting reliability standards.
MPSC case U-20134 (Consumers Energy general electric rate case), organized and managed coalition of municipalities intervening to challenge street lighting tariffs.
MPSC cases U-18014 and U-17767, DTE Electric general rate cases, organized and coalition of municipalities challenging street lighting tariffs.

SELECTED RESEARCH AND PUBLICATIONS

"*Corporate Responsibility In a Transitioning Industry: An Automotive Supply Chain Perspective*", Automotive Industry Action Group, 2019. Co-author and researcher.
"*Expect the Unexpected: Building Business Value in a Changing World*", KMPG 2012. Erb Institute (University of Michigan) research team leader and contributor.
Where Will They Lead? China 2008 MBA Student Attitudes about Business & Society. The Aspen Institute, 2008.
"*Beyond Grey Pinstripes: Preparing MBAs for Social and Environmental Stewardship*," World Resources Institute and The Aspen Institute, 1998, 1999, 2001 and 2003. Creator, co-author.
Numerous academic, non-profit and public agency conference and meeting presentations and public testimony.

SERVICE

Michigan Environmental Council Board of Directors, 2009-present. Treasurer, 2017-present. Lansing, MI.
Soulardarity Board of Directors and Secretary, 2018-present. Highland Park, MI.
Washington Public Interest Research Group Board of Directors, 1994-present
WashPIRG Foundation Board of Directors, 1994-present. Seattle, WA.
PIRGIM Education Foundation Board of Directors, 2015-present. Ann Arbor, MI.
MPSC Data Analysis and Regulatory Review working group, ongoing.
MPSC Low Income Energy Policy Board, ongoing.

DAVID L. GARD

810 Knoll Rd., East Lansing, MI 48823 | 517-896-2960 | gardd@umich.edu

OBJECTIVE

I seek to use my issue expertise, interdisciplinary background, leadership experience, and professional network to help society tackle its major environmental and resource challenges.

EXPERIENCE

2014-Present **Senior Consultant**, East Lansing, MI, *5 Lakes Energy*

- Conducts policy analysis, research, and modeling to advance the renewable energy and energy efficiency industries in Michigan;
- Supports and advises stakeholders engaged in advocacy for clean energy policies at the local, state, and federal levels;
- Advises businesses, institutions, and governments on identifying and managing risks related to climate change and resource scarcity;
- Serves as part-time Executive Director of the Michigan Energy Efficiency Contractors Association (MEECA).

2013-2014 **Executive Director**, Oberlin, OH, *The Oberlin Project*

- Led a community-based effort to reduce carbon emissions and build local resilience; reported to Oberlin City Manager and Oberlin College President;
- Developed strategies to strengthen the regional food economy and provide affordable, efficient housing for area residents.

2002-2013 **Energy Program Director**, Lansing, MI, *Michigan Environmental Council*

- Led a statewide nonprofit organization's work to achieve a Renewable Energy Standard and other clean energy policies in Michigan;
- Managed coalitions of stakeholders representing a range of interests;
- Educated policymakers, regulators, and other officials about energy issues.

1995-1998 **Senior Design Engineer**, Grand Rapids, MI, *Dematic*

- Directed the design, procurement, and commissioning of material handling systems for various applications in the logistics industry;
- Selected to serve on the team which achieved initial ISO 9001 certification.

1991-1995 **Division Officer (O-3)**, USS Mount Whitney, Norfolk, VA, *U.S. Navy*

- Led Boiler and Main Engine Divisions within the Engineering Department;
- Oversaw extensive equipment maintenance plan; managed and trained 45 engineering technicians;
- Qualified as Officer of the Deck (Underway) of a 20,000-ton warship.

EDUCATION

1998-2001 **MBA**, Ann Arbor, MI, *University of Michigan Ross School of Business*

- Completed the Erb Institute dual degree program;
- Selected as a fellow of the Tauber Institute for Global Operations (joint with College of Engineering) to study lean manufacturing and supply chain
- Completed a two-term course in entrepreneurial studies;
- As summer intern at Steelcase, managed lean process improvement of an industrial stamping operation.

1998-2001 **MS**, Ann Arbor, MI, *University of Michigan School for Environment and Sustainability*

- Secured $25,000 grant to conduct life cycle assessment for master's thesis;
- Awarded 3M Prize for Outstanding Achievement in Industrial Ecology;
- As summer intern at Cummins Engine Company, developed environmental policy and supported the creation of a diesel industry advocacy campaign.

1987-1991 **BS in Mechanical Engineering**, Evanston, IL, *Northwestern University*

LEADERSHIP AND SERVICE

External Advisory Board Member, Ann Arbor, MI, *University of Michigan Center for Sustainable Systems*

- Advises on strategy for a major academic research and teaching center;
- Provides input to the University of Michigan's long-term plan to reduce carbon emissions and mitigate climate change.

Eli Kabir Gold

12934 Klinger St, Detroit, Michigan 48212 | egold@5lakesenergy.com | 607.279.7224

Education

University of Michigan: Gerald R. Ford School of Public Policy - Master of Public Policy — Ann Arbor, MI
Edward M. and Ruth B. Gramlich Fellowship — May 2021

University of Kansas: School of the Arts - Master of Fine Arts — Lawrence, KS
Silversmithing and Jewelry — May 2014

Skidmore College: Bachelor of Science in Visual Art — Saratoga Springs, NY
Tuition Exchange Scholar — May 2009

Employment

5 Lakes Energy — Ann Arbor, MI
Consultant — June 2021 - Present

- Analyzed and processed data from the U.S. Energy Information Administration to produce the annual Utility Performance Report for the Michigan Citizens Utility Board
- Working with Stata and ArcGIS, modeled and mapped wind and solar siting contention across twelve Midwestern states. Analyzed these models to produce a written analysis of how siting contention for utility-scale wind and solar projects should be accounted for by developers and transmission planners

Graham Sustainability Institute — Ann Arbor, MI
Research Assistant—Taxation of Large-Scale Renewables — April - June 2021

- Surveyed and summarized the large-scale solar taxation policies of every U.S. state to develop an interactive map
- Statistically analyzed a new dataset developed at Graham for research on predicting opposition to wind and solar development with the goal of helping developers and policymakers improve their approaches to the expansion of large-scale renewables

CLOSUP (Center for Local State and Urban Policy) — Ann Arbor, MI
Research Assistant—Energy Policy — Jan - April 2021

- Researched and analyzed utility-scale solar property taxation in Michigan to develop a specialized tax calculator and explanatory technical memo
- Shared calculator and memo with both public and private sector stakeholders, including the Michigan Townships Association, the Michigan State Tax Commission, and the Michigan Energy Innovation Business Council, to assist in an active negotiation around pending state legislation which may modify tax compensation from large-scale solar developments for predominantly rural Michigan taxing authorities

Soulardarity — Highland Park, MI
Intern — May - July 2020

- Performed grant research and wrote nine grant applications and letters of inquiry
- Awarded a $37,500 matching grant from the Michigan Economic Development Corporation and $17,000 from the Ben and Jerry's Foundation

Kabir Works — Detroit, MI
Owner — Jan 2016 - Sept 2019

- Created a home renovation business: managed and performed residential renovation projects from one-day repairs to full home remodels; employed 5 skilled and unskilled employees; hired and managed subcontractors
- Managed business: priced and purchased materials, built customer relationships, performed all hiring, bookkeeping & taxes, and negotiated project costs with clients

Volunteer

Soulardarity—a Highland Park-based non-profit advocating through grassroots organizing and coalition building to help restore streetlighting to Highland Park and intervene on behalf of local ratepayers in DTE ratecases with the Michigan Public Service Commission — Highland Park, MI, May 2018 - Present

Skills

Computer: Adobe Suite, ArcGIS, Google Suite, Microsoft Office, Rhinoceros, SPSS, Stata

Douglas B. Jester

Personal Information

Contact Information:
220 MAC Avenue, Suite 218
East Lansing, MI 48823
517-337-7527
djester@5lakesenergy.com

Professional experience

January 2011 – present 5 Lakes Energy
Managing Partner

Managing owner of a consulting firm working to advance the clean energy economy in Michigan and beyond. Consulting engagements with foundations, startups, and large mature businesses have included work on public policy, business strategy, market development, technology collaboration, project finance, and export development concerning energy efficiency, smart grid, renewable generation, electric vehicle infrastructure, and utility regulation and rate design. Policy director for renewable energy ballot initiative and Michigan energy legislation advocacy. Supported startup of the Energy Innovation Business Council, a trade association of clean energy businesses. Expert witness in electric utility regulation cases. Developed integrated resource planning models for use in ten states' compliance with the Clean Power Plan.

February 2010 - December 2010 Michigan Department of Energy, Labor and Economic Growth
Senior Energy Policy Advisor

August 2008 - February 2010 Verizon
Business Development Consultant - Smart Grid

December 2007 - March 2010 Efficient Printers Inc
President/Co-Owner

August 2007 - 2015 IT Services Corporation
President/Owner

2004 – August 2007 Automated License Systems
Chief Technology Officer

2000 - 2004 WorldCom/MCI
Director, Government Application Solutions

1999-2000 Compuware Corporation
Senior Project Manager

1995 - 1999 City of East Lansing, Michigan
Mayor and Councilmember

1995-1999 Michigan Department of Natural Resources
Chief Information Officer

1990-1995 Michigan Department of Natural Resources
Senior Fisheries Manager

1989-1990 American Fisheries Society
Editor, North American Journal of Fisheries Management

1984 - 1989 Michigan Department of Natural Resources
Fisheries Administrator

1983-present Michigan State University
Adjunct Instructor, Natural Resource Economics

1977 – 1984 Michigan Department of Natural Resources
Fisheries Research Biologist

Education

1991-1995 Michigan State University
PhD Candidate, Environmental Economics
Coursework completed, dissertation not pursued due to decision to pursue different career direction.

1980-1981 University of British Columbia
Non-degree Program, Institute of Animal Resource Ecology

1974-1977 Virginia Polytechnic Institute & State University
MS Fisheries and Wildlife Sciences
MS Statistics and Operations Research

1971-1974 New Mexico State University
BIS Mathematics, Computer Science, Biology, and Fine Arts

Citizenship and Community Involvement

Youth Soccer Coach, East Lansing Soccer League, 1987-89

Co-organizer, East Lansing Community Unity, 1992-1993

Bailey Community Association Board, 1993-1995

East Lansing Commission on the Environment, 1993-1995

East Lansing Street Lighting Advisory Committee, 1994

Councilmember, City of East Lansing, 1995-1999

Mayor, City of East Lansing, 1995-1997

East Lansing Downtown Development Authority Board Member, 1995-1999

East Lansing Transportation Commission, 1999-2004

East Lansing Non-Profit Housing and Neighborhood Services Corporation Board Member, 2001-2004

Lansing – East Lansing Smart Zone Board of Directors, 2007-2017

Council on Labor and Economic Growth, State of Michigan, by appointment of the Governor, May 2009 – May 2012

East Lansing Downtown Development Authority Board Member and Vice-Chair, 2010 – 2018.

East Lansing Brownfield Authority Board Member and Vice-Chair, 2010 – 2018.

East Lansing Noncompliant Use Committee Chair, 2013-2014

East Lansing Valley Court Development Committee, Chair, 2014-2015

East Lansing Downtown Management Board and Chair, 2010 – 2016

East Lansing City Center Condominium Association Board Member, 2015 – present.

East Lansing Financial Health Team, 2016-2017

East Lansing Chesterfield Hills Historic District Review Committee, 2017-2019

City of East Lansing Advisory Commissioner to the Lansing Board of Water and Light, 2017 – present.

State of Michigan UP Energy Task Force, 2019-present, appointed by Governor Whitmer.

State of Michigan Dam Safety Committee, 2020-2021

State of Michigan Council on Climate Solutions, Energy Production, Transmission, Distribution, and Storage Workgroup Co-Chair, 2021-present

JOE KOPP, PE

PRINCIPAL RENEWABLE ENERGY CONSULTANT
joek@sunstoreenergy.com ♦ (616) 219-0456 ♦ Grand Rapids, MI 49503

- Comprehensive experience with utility-scale and commercial & industrial solar power plants, energy storage, and microgrids.
- Help stakeholders identify and evaluate the rapidly evolving energy marketplace complexities of competitive costs, technology advancement, and regulatory barriers.
- Solve challenges and help clients during development, design, project & risk management phases, leveraging 15 years of project implementation to navigate successful projects and stakeholders.

EXPERIENCE

PRINCIPAL CONSULTANT AND OWNER — *GRAND RAPIDS, MI*
SUNSTORE ENERGY, LLC — *NOV 2017 - PRESENT*

- Owner's Developer and Engineer:
  - Work with client's existing contracts to adapt to evolving technologies such as lease agreements, Power Purchase Agreements, EPC contracts. Develop new contracts with legal teams as necessary.
  - Led early stage diligence and Develop Request For Proposals (RFPs): 100 kWs to 60 MWs.
  - Ongoing work supporting new utility-scale and commercial & industry (C&I) development:
    - Land Rights, Interconnection, Ofttake, Permitting, Financing, and O&M.
  - 45 MW PV portfolio, SE U.S.A. Document review and site inspection for underperformance.
  - 250 kW PV, 600 kWh Battery, 200 kW Generators, USVI. Perform data analysis, vendor review, and O&M contract and company interviews for underperforming microgrid.
- Independent Engineering:
  - Project diligence of 45+ PV projects in development or at construction Notice to Proceed.
    - Project sizes range between 100 kW to 150+ MW.
    - Contract and risk assessment for Major Project Contracts (e.g. IAs, Offtake, EPC, Lease)
    - Battery storage use case, technology integration, and technical aspects.
  - Product differentiation reports and new market technology reviews for Investors.
  - Microgrid design reviews: 300kW-1 MW PV, 250-500 kW Battery, 100-300 kW Generators.
  - Construction and Operations review: 1.7 GW, 70 projects in NC, NY, ME, SC, PA, TX
  - Monthly construction inspection: 196 MW PV, 3 projects, NC USA. Interconnects 115 & 230 kV.
  - Asset Transfer review: PPA, EPC, Permits, Title Report, Design. 45 MW PV, 8 projects in NC/NH USA.
  - Utility interconnections from 208V to 230 kV.
- Engineering PV systems:
  - 7 MW PV, ground mount in MI. Full electrical engineering design and PE.
  - 3 MW PV, 12 canopy projects at schools, CA. Full electrical engineering design and PE.
- Greenfield Development:
  - 900 MW PV, 9 projects. Prioritized projects by interconnection & transmission feasibility as well as by permitting & construction viability.

PROJECT MANAGER: ENGINEERING — *DAVIS, CA*
CORONAL ENERGY / BLUE OAK ENERGY — *APR 2014 – OCT 2017*

Project Executive In-Training:

- Energy storage task force: Initiated energy storage business relationships to develop company strategy
  - Led technical aspects of two energy storage bids to utility requests for projects.
- Led regional campaign for origination and development team for utility scale power plants.
  - Synthesized data and presented strategy, including P&L, to Board and received investment funds.

Project Management for Engineering: Executed customer needs using teamwork and industry expertise.

- Led all engineering activities for utility and commercial scale projects: site, technology, offtake, permits
  - 50+ PV projects designed, permitted, construction support [10kW – 10 MW].
  - 10+ PV, battery, and generator projects designed, permitted, construction support [10kW-2 MW].
  - 10+ PV sites completed as Independent Engineer for various parties [1 MW-90 MW].
- Consulted external customers on feasibility, profitability, and optimization.
- Proactively engaged customers, negotiated contracts and schedules, managed $4mm P&L, achieved KPIs.
  - Many customers returned for business. Closed contracts on new customers.

JOE KOPP, PE

PRINCIPAL RENEWABLE ENERGY CONSULTANT
joek@sunstoreenergy.com ♦ (616) 219-0456 ♦ Grand Rapids, MI 49503

- Supported sales, procurement, construction, commissioning, & operations.
- Assembled necessary resources: civil, structural, electrical, modeling, drafters, subcontractors, etc.
- Performed due diligence and delivered preliminary plan sets & EPC contracts.

Personnel Management:

- Directly supervised 7 engineers over a four year period and provided mentorship for 30 engineers.
- Developed and tailored training plans for individuals based on skills and career goals.

Industry Outreach:

- Aggregated data to support high level, industry wide reports. Wrote for blog posts and industry publication.

PROJECT MANAGER — *WASHINGTON, D.C.*
DEPARTMENT OF ENERGY: LOAN PROGRAMS OFFICE — *JUL 2010 – APR 2014*

Financing:

- Supported closing of world class utility-scale solar power plant projects.
  - Led technical work: CSP + Storage (110MW, 1.1 GWh, $740mm loan), 30 MW Concentrator PV 'CPV'
  - Advised technical work: PV (840 MW). CSP (1100MW), CSP Storage (1.5 GWh).
- Led technical diligence: climate, solar, & power plant performance for proformas, mitigated contract risks.
- Designed and implemented analytical tools for revenue generation, PPA expectations, and performance.
- Enhanced LPO's levelized cost of energy analysis and developed solar portfolio database.
- Developed and presented technical-financial terms such as intra-annual solar resource variability.
- Contributed to next generation Solicitation and provided loan application guidance for new technology.

Project Management & Risk Management:

- Developed project schedules & budgets, actively monitored construction progress and expenses.
- Led risk analysis and resolutions that involved financial and legal opinions.
- Built tools to actively monitor trends, construction performance, and milestone payment schedules.
- Improved project contracts: debt, offtake agreements, materials agreements, EPC, and O&M.

Subject Matter Expertise and Industry Outreach:

- Committee Member: PV ISO90001 standards. Co-led new testing procedures for CSP and CPV.
- Conducted site visits to manufacturing facilities, demonstration projects, construction & operating projects.
- Edited colleagues' reports for technical accuracy, articulation, material organization, audience awareness.
- EERE Merit Review Board and ARPA-E Review Board for grant awards.
- Contributed to Fitch Credit Rating Agency's risk assessments for PV and CSP.

SOLAR POWER RESEARCH ASSISTANT — *LAS VEGAS, NV*
CENTER FOR ENERGY RESEARCH, UNLV — *SEP 2007 - SEP 2009*

INTERNATIONAL SOLAR POWER RESARCH FELLOW — *SONORA, MEXICO*
UNIVERSITY OF SONORA — *DEC* 2005 - DEC 2006

- Worked in Spanish to develop low cost solar power concentrating technology.

EDUCATION AND LICENSES

PROFESSIONAL ENGINEER: ELECTRICAL ENGINEERING — CA, OR, MI
M.S. MECHANICAL ENGINEERING: UNIVERSITY OF NEVADA, LAS VEGAS — *Las Vegas, NV*
B.A. PHYSICS: LEWIS & CLARK — *Portland, OR*

Potomac
LAW GROUP

ABOUT POTOMAC LAW GROUP

Potomac Law Group is a full-service, national law firm offering corporate, litigation and regulatory practices.

Potomac brings significant experience working at the federal level with the FERC and other federal regulatory agencies, as well as years of experience working with the Michigan Public Service Commission ("MPSC").

One of our regulatory attorneys is a former Chair of the MPSC.

With 120 lawyers in 20 states, DC-headquartered Potomac Law is one of the fastest growing corporate law firms in the country.

Representative Matters

- Potomac represents Wolverine Power Supply Cooperative, Inc. with respect to all FERC regulatory issues.
- Multi-year retention advising large California investor-owned electric utility company on federal and state contracting and grant activity
- Attorneys at PLG have supported NEPA review and federal/state environmental permitting for more than a dozen transmission line infrastructure projects for the largest electric utility in the U.S. (and one of the Fortune 100), including a $1.2 billion, 165-mile, high-voltage transmission line from Virginia to Delaware with a submarine crossing of the Chesapeake Bay
- Potomac has prepared regulatory diligence reports for several international infrastructure funds concerning their acquisition of multiple electric generating plants and development projects.
- Potomac has prepared applications under Section 203 of the Federal Power Act for authorization to acquire FERC jurisdictional facilities.
- Potomac has prepared Market-Based Rate, EWG and QF applications and certifications for renewable energy developers and competitive power producers for participation as market participants in regional wholesale energy and ancillary services markets.
- Potomac has assisted owners of hydropower facilities with the FERC license amendment and relicensing processes.
- Potomac has advised a transmission-owning utility with respect to Midwest ISO transmission pricing, cost allocation, and power market implementation.
- Potomac has advised power sellers in the Midwest ISO and PJM regions in regard to various transmission pricing, reactive power compensation, net metering, and distributed generation issues.
- Potomac has represented clients before FERC in transmission rate cases, contested proceedings before administrative law judges, rulemaking proceedings and in multi-party settlement negotiations.
- Potomac represented a utility through divestiture of $1.68 Billion of generation assets including nuclear generating stations and successful merger into leading national utility.
- Potomac served Midcontinent ISO for all FERC issues as outside counsel 2004- 2015.
- Potomac advised the nation's largest regional transmission organization through regulatory proceedings transitioning to day-ahead and real time energy and ancillary services markets, regional transmission planning, transmission rate proceedings and generation interconnection queue reform.

LAURA CHAPPELLE

Partner

Lansing, MI
lchappelle@potomaclaw.com
517.281.1515

EDUCATION

Western Michigan University Thomas M. Cooley Law School, J.D.

University of Michigan, B.A.

PREVIOUS EXPERIENCE

Varnum LLP, Counsel

Michigan Public Service Commission, Chairman/ Commissioner (2000 – 2007)

Michigan Governor John Engler, Deputy Legal Counsel

Michigan Speaker of the House Paul Hillegonds, Assistant Legal Counsel

AREAS OF PRACTICE

Administrative Law and Regulatory Practice

Energy

Transportation, Infrastructure, and Mobility

ADMISSIONS

Michigan

U.S. Supreme Court

Potomac LAW GROUP

Laura Chappelle's practice focuses on regulatory and legal policy issues involving state and federal energy sectors. She has more than 25 years of experience in state, wholesale and regional energy issues. Ms. Chappelle previously served as a chairman and commissioner with the Michigan Public Service Commission from 2000 – 2007. She was deputy legal counsel and regulatory policy advisor to Michigan Governor John Engler, assistant legal counsel for Michigan Speaker of the House Paul Hillegonds, and a regulatory policy advisor and legal counsel for both the Michigan House and Senate. She was an adjunct law professor at Western Michigan University/Thomas M. Cooley Law School and Michigan State University College of Law.

Ms. Chappelle represents clients before the Michigan Public Service Commission, including energy suppliers and marketers, independent power producers, manufacturers, agricultural processors, public entities and institutions, and trade associations representing competitive power supply and business interests. She is also active in state energy matters in both PJM and MISO, as well as representing clients before the Federal Energy Regulatory Commission ("FERC").

Representative Experience

- Assisted an independent, competitive transmission company with state-level policy and legal matters.
- Counsel for a major state university in successfully obtaining pertinent waivers for the university's large generation plant from the FERC.
- Formed a state association of industrial users interested in state energy-related regulatory and policy matters.
- Formed a group of IPP renewable generators, including hydroelectric, landfill gas and waste-to-energy facilities, and successfully obtained new 20-year PPAs from the utility for them.
- Assisted multiple private equity funds in the purchase of regulated utilities, including advising on strategy and leading contested case litigation at the public service commission.

Honors & Awards

- Best Lawyers in America®: Energy Regulatory Law, since 2017
- Best Lawyers in America®, Women in the Law Spring Business Edition, Energy Regulatory Law, 2017

Civic Involvement

- Advancing Women in Energy, Co-founder and Advisory Board Member (2016 – present)

Memberships and Affiliations

- State Bar of Michigan, Administrative and Regulatory Law Section, Chair (2017-2018)
- Energy Bar Association (2009 – present)
- National Association of Regulatory Utility Commissioners: Electricity Committee, Vice Chair (2004 – 07); Broadband over Power Line Task Force, Chair

DAVID M. DESALLE

Partner

Washington, D.C.
ddesalle@potomaclaw.com
240.994.8830

EDUCATION

University of Pittsburgh, J.D.

University of Notre Dame, B.A.

PREVIOUS EXPERIENCE

Venable LLP, Partner

Duane Morris LLP, Partner

AREAS OF PRACTICE

Administrative Law and Regulatory Practice

Corporate and Transactional

Covid-10 Resource Center

Energy

Environmental

Government Relations and Public Policy

Transportation, Infrastructure, and Mobility

ADMISSIONS

District of Columbia

Pennsylvania

Potomac LAW GROUP

David M. DeSalle is a Partner in our Washington, DC office. He serves clients by finding efficient and creative ways to achieve their business goals. He has more than two decades of practice experience, primarily in the electric, natural gas, telecommunications, alternative energy, transportation, and water industry sectors. He has successfully conducted administrative adjudications, civil cases and appeals in a variety of venues, has defended clients in governmental audits and investigations and routinely represents clients before state and federal courts and regulatory agencies. Mr. DeSalle also has experience advocating for client interests before the legislative and executive branches of government at the local, state and federal levels. Mr. DeSalle advises clients on a variety of transactional and regulatory issues including risk, compliance, privacy and cybersecurity matters, and focuses on the successful implementation of their business strategies.

Mr. DeSalle's energy practice has encompassed nearly all aspects of state and federal regulation and restructuring of the electric utility industry, including: retail unbundling; state renewable energy mandates; open access transmission requirements promulgated by the Federal Energy Regulatory Commission (FERC), including planning and cost-allocation requirements; distribution and transmission ratemaking, including rules on incentive rates; market design; market-based rates and codes of conduct; rules prohibiting market manipulation; investigations of alleged market manipulation; approvals of transactions pursuant to Federal Power Act (FPA) Section 203 including mergers and transfers of utility property, and regulation of reliability matters by FERC, the North American Electric Reliability Corporation (NERC), and Regional Entities pursuant to FPA Section 215.

Mr. DeSalle also has experience with state and federal regulation and restructuring of the natural gas industry and has represented clients on issues arising under state and federal law, including the Natural Gas Act and Natural Gas Policy Act. He also has represented companies with regard to the manufacture and transportation of liquified natural gas and biogas. Mr. DeSalle has assisted clients with the National Environmental Policy Act permitting process for infrastructure projects. Mr. DeSalle has also assisted clients regarding their compliance with the regulatory scheme for protection of critical infrastructure assets and evolving cybersecurity practices in the electric industry and related industries.

Prior to entering private practice, Mr. DeSalle was counsel and government affairs coordinator for the Pennsylvania Chemical Industry Council, a statewide manufacturing trade association, where he was involved in the regulatory and legislative proceedings that led to electric and natural gas deregulation and retail competition in the Commonwealth, followed by consolidation among electric utilities and gas utilities. He also was responsible for advancing members' environmental compliance with federal and state rules and coordinating interaction with key local, state, and federal agencies and stakeholders.

TIM LUNDGREN

Partner

Lansing, MI
tlundgren@potomaclaw.com
616.915.3726

EDUCATION

University of Michigan Law School, J.D.

The Ohio State University, Ph.D.

University of Colorado, Boulder, M.A.

Hope College, B.A.

PREVIOUS EXPERIENCE

Varnum LLP, Partner

AREAS OF PRACTICE

Administrative Law and Regulatory Practice

Energy

Environmental

Transportation, Infrastructure, and Mobility

ADMISSIONS

Michigan

U.S. Court of Appeals for the 6th Circuit

U.S. District Court for the Eastern District of Michigan

U.S. District Court for the Western District of Michigan

Tim Lundgren is a partner in our Lansing, Michigan office. Dr. Lundgren's practice focuses on energy and environmental law, where he represents developers and lenders as Michigan counsel on the development of energy generation projects and also represents clients before the Michigan Public Service Commission, including energy suppliers and marketers, independent power producers, manufacturers, agricultural processors, public entities and institutions, and trade associations representing competitive power supply and business interests. Dr. Lundgren also advises clients on developments in energy law and policy in Michigan and assists them in the development of legislative proposals.

In the environmental arena, Dr. Lundgren works on natural resource development and environmental permitting matters, including permitting for mineral extraction and large energy developments. He has done extensive work on matters related to water quality and water supply and use, including discharge permitting, storm water compliance, and water withdrawal. He has assisted clients on permitting and compliance matters on wetlands, inland waterways, and on the Great Lakes, including spill response efforts. He has considerable experience addressing site remediation and cleanup at client-owned sites as well as negotiating with state and federal regulatory agencies and advising clients at multi-PRP sites.

Representative Experience

- Assisted an association of 13 Midwestern Tribes in evaluating state and federal regulatory issues associated with forming tribal utilities.
- Formed a group of IPP renewable generators, including hydroelectric, landfill gas, and waste-to-energy facilities, and successfully obtained new 20-year PPAs from the utility for them.
- Assisted multiple private equity funds in the purchase of regulated utilities, including advising on strategy and leading contested case litigation at the public service commission.
- Provided regulatory opinions for several wind and solar developments on behalf of developers and financing parties.
- Assisted with permitting and local land use issues for wind and solar generation projects.
- Successfully sought FERC waivers for a large university's generating units.
- Assisted hydro, solar, wind, and landfill gas generators with interconnection requirements and agreements.
- Provided legal assistance with the development of renewable natural gas projects and related contracts and agreements.
- Regularly participate in a variety of contested case proceedings at the Michigan Public Service Commission and participate in multiple informal workgroup and stakeholder proceedings.

Honors & Awards

- Best Lawyers in America®: Lawyer of the Year, Water Law – 2021
- Best Lawyers in America®: Energy Regulatory Law, Water Law – since 2013
- Best Lawyers in America®: Energy Law – since 2019

Fee Proposal for RFP No. 22-35 100% Renewable Energy Options Analysis
5 Lakes Energy LLC
220 MAC Avenue, Suite 218, East Lansing MI 48823

For discussion of this Price Proposal, contact Douglas Jester, Managing Partner, 5 Lakes Energy at US Mobile 517-337-7527 or djester@5lakesenergy.com

5 Lakes Energy, SunStore Energy and Potomac Law Group propose to perform this work on actual time basis for the named consultants, not to exceed the amount shown below. 5 Lakes Energy will deliver all promised work notwithstanding the not-to-exceed amount.

Consultant Rate Schedule

Organization	Name	Title	Hourly Rate	Overhead Factors
5 Lakes Energy	Douglas Jester	Managing Partner	$175	0.00%
	Karl Boothman	Senior Consultant	$175	0.00%
	Richard Bunch	Senior Consultant	$175	0.00%
	David Gard	Senior Consultant	$175	0.00%
	Matt Bandyk	Consultant	$175	0.00%
	Eli Gold	Consultant	$175	0.00%
SunStore Energy	Joe Kopp	Owner/Engineer	$175	0.00%
Potomac Law Group	Laura Chappelle	Partner	$400	0.00%
	Timothy Lundgren	Partner	$400	0.00%
	David DeSalle	Partner	$400	0.00%

Work Plan Estimates

Task	Name	Estimated Hours	Rate	Estimated Cost
Task 1				
	Douglas Jester	40	$175	$7,000
	Karl Boothman	160	$175	$28,000
	Richard Bunch	20	$175	$3,500
	David Gard	40	$175	$7,000
	Matt Bandyk	20	$175	$3,500
	Eli Gold	20	$175	$3,500
	Joe Kopp	200	$175	$35,000
	Potomac Law Group	60	$400	$24,000
	TASK 1 TOTAL	560		$111,500
Task 3	Douglas Jester	30	$175	$5,250
	Karl Boothman	20	$175	$3,500
	Richard Bunch	10	$175	$1,750
	David Gard	20	$175	$3,500
	Matt Bandyk	80	$175	$14,000
	Eli Gold	20	$175	$3,500
	Joe Kopp	60	$175	$10,500
	Potomac Law Group	40	$400	$16,000
	TASK 3 TOTAL	280		$58,000
Task 4	Douglas Jester	20	$175	$3,500
	Karl Boothman	20	$175	$3,500
	Richard Bunch	16	$175	$2,800
	David Gard	16	$175	$2,800
	Matt Bandyk	40	$175	$7,000
	Eli Gold	20	$175	$3,500
	Joe Kopp	20	$175	$3,500
	Potomac Law Group	24	$400	$9,600
	TASK 4 TOTAL	176		$36,200
Task 5	Douglas Jester	20	$175	$3,500
	Karl Boothman	5	$175	$875
	Richard Bunch	5	$175	$875
	David Gard	5	$175	$875
	Matt Bandyk	5	$175	$875
	Eli Gold	20	$185	$3,700
	Joe Kopp	20	$175	$3,500
	Potomac Law Group	6	$400	$2,400
	TASK 5 TOTAL	86	$400	$16,600
Project exc Task 2	PROJECT ESTIMATED TOTAL	1,102		$222,300
	NOT TO EXCEED PROPOSAL			$244,530

5 Lakes Energy, LLC
220 MAC Avenue, Suite 218
East Lansing MI 48823

Missy Stults
Sustainability and Innovations Director
City of Ann Arbor
Via email.

August 5, 2022

Dear Ms. Stults,

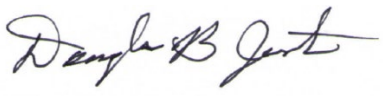
Per your recent request, I have had discussions with NewGen Strategies & Solutions to develop a combined offer to the City of Ann Arbor in response to your Request for Proposals 22-35 "100% Renewable Energy Options Analysis". 5 Lakes Energy and our original partners offered to perform all work requested in that RFP except Task 2. NewGen offered to perform all of the work requested in the RFP. We understand that you want to consider a proposal in which 5 Lakes Energy will serve as prime contractor and perform the scope of work we originally proposed and also engage NewGen as a subcontractor to perform Task 2 and to participate to the extent necessary in Tasks 1, 3, 4, and 5 for purposes of integrating our work.

5 Lakes Energy is prepared to perform the work we originally proposed with the team and pricing that we originally proposed. We have also reached agreement that if you want to proceed with a combined effort, NewGen will become a subcontractor to 5 Lakes Energy, including Exponential Engineering Company as a subcontractor to NewGen, pursuant to the attached proposal from NewGen to 5 Lakes Energy. We would add NewGen's proposed pricing in the attached proposal to 5 Lakes Energy's original pricing, without any additional pricing from 5 Lakes Energy for our management of the combined effort.

We appreciate the opportunity to submit this proposal and stand ready to work with you to reach a final contract that best meets your needs.

I will serve as your point of contact for purposes of this proposal. You may contact me at djester@5lakesenergy.com, (m)517-337-7527 or the mailing address above.

Sincerely,



Douglas Jester
Managing Partner

CITY OF ANN ARBOR, MI

REQUEST FOR PROPOSAL
RFP # 22-35

100% RENEWABLE ENERGY OPTIONS ANALYSIS

AUGUST 1, 2022

Submitted by:

NewGen Strategies & Solutions

In Association with:

Exponential Engineering Company

NewGen Strategies & Solutions

225 Union Boulevard,
Suite 450
Lakewood, CO 80228
Phone: (720) 633-9514

August 1, 2022
via email at djester@5lakesenergy.com

Douglas Jester
5 Lakes Energy

Subject: **City of Ann Arbor – 100% Renewable Energy Options Analysis**
Revised Scope for NewGen Team

Dear Douglas:

As discussed over the past few weeks, NewGen Strategies and Solutions, LLC (NewGen) is pleased to provide the enclosed scope of services to 5 Lakes Energy (5 Lakes) to be incorporated into a revised scope of services to be presented to the City of Ann Arbor (City) for its 100% Renewable Energy Supply Analysis (RFP 22-35). Additionally, we propose that for the project team structure, NewGen would be a sub-contractor to 5 Lakes (and Exponential Engineering Company [Exponential] would be a sub-consultant directly to NewGen).

This scope is focused on the development of a stand-alone analysis of Task 2 (Traditional Municipalization), as well as coordinating with the City's Project Team, including 5 Lakes, on remaining tasks identified herein. Additionally, we have revised our budget estimate to reflect the estimated time and effort related to the requested analysis and assistance.

If you have any questions, please let me know. I can be reached directly at (303) 902-9174 or sburham@newgenstrategies.net.

NewGen Strategies and Solutions, LLC

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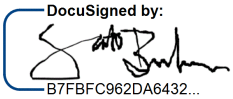
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Scott Burnham
Partner

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B. PROPOSED WORK PLAN

Proposed Work Plan

Project Management/Approach

NewGen Strategies and Solutions, LLC (NewGen) and Exponential Engineering Company's (Exponential) (collectively, the NewGen Team) proposal is to provide selected portions of the requirements of the 100% Renewable Energy Options Analysis (Study) in a phased approach. These selected portions of the proposed Phase I study include an evaluation of the development of a "traditional" municipal utility (Task 2), and documentation and presentation of results (Tasks 4 and 5). The NewGen Team is not proposing to be responsible for development of Task 1 (Energy Options Analysis) or Task 3 (Rate Analysis for Sustainable Electric Utility [SEU]). However, to the extent that information developed during our analysis and subsequent discussions with the City is relevant and necessary for evaluation by 5 Lakes Energy (5 Lakes) in their assessment of Task 1 or Task 3, the NewGen Team will provide the applicable results of our analysis as necessary.

Phase I will result in a Strategic Assessment Report that will provide a summary of the costs, benefits, and other issues related to establishing a traditional municipal utility for the City as a result of the potential acquisition of delivery system assets from the incumbent utility, DTE Energy (DTE). The Strategic Assessment Report will not include the results of the evaluation of the current DTE programs and the SEU option, which are proposed to be provided independently by 5 Lakes. For the evaluation of the traditional municipalization option, Phase I will be conducted to support a decision by the City whether, and if so how, to move forward with its municipalization effort, and to identify and propose a scope of services for additional research, investigation, and analysis to achieve the City's objectives.

The current proposal is limited to the Phase I efforts. If the City chooses to move forward with its "traditional" municipalization effort, a Phase II scope of services will be more fully developed at that time, along with an estimated budget for services to be provided. Phase II services may include the development of additional analytical support to detail expected results associated with various option(s) selected by the City for the formation of a municipally owned utility.

Phase I Study

Phase I will include the Traditional Electric Utility Municipalization Feasibility Study (Task 2). This process will begin with a review of relevant documents provided by the City, an on-site kickoff meeting with the City's Project team, and the development of a preliminary pro forma financial model, as described below. As indicated, Phase I is designed to provide a preliminary assessment of the traditional municipalization option, which will include an evaluation of the economic and strategic aspects of the City's actions for this option to necessitate its goals. The economic evaluation will be accomplished by estimating the annual cash flow requirements (revenue requirements) compared to the cash flow requirements of continued ownership by DTE, as appropriate. The strategic evaluation will be accomplished by analyzing the feasibility of the traditional municipalization option to meet the stated goals and objectives of the City in its A^2ZERO Climate Action Plan, its Energy Criteria and Principles, and other applicable public policies. Specific tasks identified for the Phase I Study are described below.

Task 1: Project Kickoff/Develop Strategic Assessment

The NewGen Team will coordinate with 5 Lakes to establish a time that is convenient for the City to conduct an on-site kickoff meeting. The purpose of this meeting will be to review the scope of services and the data provided to date (as well as additional data necessary), and to establish communication protocols for the Study. As part of this kickoff meeting, the NewGen Team will review the City's goals and objectives as they relate to this Study.

Task 1.2 – Data Acquisition

The NewGen Team will develop a data request for the City (and other entities) as appropriate, which may include:

- Identification of 20 largest customers, all local government customers, and assistance from the City in securing 24 months of electricity billing from large customers and any special service agreements between individual customers and DTE.
- GIS Maps and any other available mapping for existing utilities (water, sanitary sewer, storm sewer, communication).
- Customer billing determinants (i.e., monthly billing database summary by class—customer counts, customer demand, and energy use).
- Plans for municipal growth and/or annexation.
- Specific reliability requirements related to "critical infrastructure" and/or emergency services.
- Summary of previous City meetings/action items/issues or concerns.
- Summary of renewable energy policies or objectives adopted by the City.
- Other relevant information and/or policies.

Task 1 Deliverables

- On-site Kickoff Meeting
- Data Request

Task 2: Traditional Electric Utility Municipalization Feasibility Study

As part of the Phase I evaluation, the NewGen Team will evaluate the option for the City to develop a traditional electric utility by acquiring the delivery assets from DTE to serve its load. This effort will begin with the development of an understanding of the proposed service territory for the City's Municipal Electric Utility (MEU); an estimation of the electric load to be served over a 20-year planning horizon; and an assessment of the facilities to be acquired, potential severance issues, the potential for distributed energy resources (collectively referred to as DER), potential for impacts to reliability, social responsibility initiatives that may be available to the City, financial impacts of developing an MEU, and other legal and/or regulatory assessments associated with such actions. Input regarding DER and other customer programs, applicable actions, and analyses developed by the City, as well as necessary legal and regulatory assessments and direction, will be provided by 5 Lakes and/or the City.

During the kickoff meeting, and in subsequent status calls, the NewGen Team will provide a summary of the considerations, objectives, and issues for the traditional municipalization feasibility evaluation. This

will include a review of the City's objectives such as carbon emissions reduction, carbon neutrality, socio-economic fairness, inclusivity, reliability, resilience, and adaptation for future growth in electricity usage. The evaluation criteria will be utilized to define the meaning of a successful outcome of this evaluation, and will consider various strategies and metrics for evaluation, including equivalent or lower "all-in" electric rates, debt service coverage minimums, reliability indices/goals, policies and plans for undergrounding delivery assets, etc. These criteria may also include utilizing industry standards as guidelines regarding future system performance and capacity to individual customers. Additionally, during this time, the NewGen Team will lay out the anticipated sequence and schedule for the feasibility evaluation, including intermediate goals/objectives and potential "off-ramps" that may be desired by the City during the process (such as between the Phase I and potential Phase II efforts, for example).

Task 2.1 – Technical Assessments

The following is a summary of the proposed scope of services to be provided for the Task 2.1 Technical Assessments.

Develop Boundary Map

The NewGen Team will create a boundary map of the proposed MEU service territory based on City boundaries, enclaves, and planned or potential annexations, as appropriate. The Team will determine (from Google Earth and publicly available information) the DTE transmission assets and transmission/distribution substations within or adjacent to the City that may be necessary to acquire and/or access to create an MEU and interconnect with ITC's transmission grid. This analysis will also include development of a summary of DTE's typical installation practices and types and sizes of delivery asset investments within the City. This will include working with the City to delineate municipal boundaries, as well as DTE transmission assets, existing transmission/distribution substations, and distribution feeders within the City that may be necessary to acquire and/or access to create an MEU and interconnect with ITC's transmission grid. The City will provide current infrastructure status information to the NewGen Team, including locations and ownership status of existing distributed solar generation facilities that may become part of the MEU.

The boundary map will be utilized to assist in the creation of a potential sampling plan of delivery-related assets to be assessed for this Study (see "Conduct Condition Assessment" below). Underground facilities will be inferred from aerial and ground observations and the NewGen Team's design experience. Greenfield replacement cost estimates will be furnished at an AACEI Class 5 Level (Project Definition between 0% and 2%, Concept Screening, Accuracy Ranges – Low: -20% to -50%, High: +30% to +100%). The distribution facilities (feeders, transformers, services) will not be sufficiently detailed to delineate all delivery-related assets in the City; that level of detail is realistically only feasible with information from the incumbent utility that would be included in Phase II service as required or requested by the City.

Projection of Electric Load

The NewGen Team will utilize historic load data, as provided by DTE, 5 Lakes, the City, or estimated based on publicly available data, including econometric data, to prepare projections of potential electric load and numbers of customers to be served by the MEU over a 20-year planning horizon. This will include estimates by customer class (residential, commercial, industrial), and an evaluation of summary load shapes by hour, monthly, and annual usage characteristics by each class. Economic data may be purchased from third-party firms including, but not limited to, Woods & Poole, NPA Data Services, Moody's, or IHS Global Insight, which may provide additional insight into the load forecast applied to both

the status quo (DTE) and municipal utility scenarios. The evaluation of load shapes will be incorporated into projections of estimated potential for distributed energy, energy efficiency, and demand response efforts that align with the MI Healthy Climate Plan and achievement with the A^2ZERO goals and objectives.

Conduct Condition Assessment

The NewGen Team will conduct a preliminary field condition (one week on-site) assessment of a representative sample of the DTE infrastructure to be acquired as part of the municipalization energy option in coordination with the City's Project Team. This field assessment will be conducted utilizing a sampling approach to estimate the condition of the assets to be acquired by providing a qualitative score to each segment within the sample and applying that score to the overall infrastructure. The NewGen Team will work with the City to establish a sampling protocol for this assessment that balances the need to understand the condition of the assets with the need to control costs. This proposal is based on field sampling limited to approximately 1% of the entire system to collect representative asset condition and ages. This will include an assessment of the majority of the transmission/distribution substations within the City from a visual review (the NewGen Team will not enter substations) as allowed from public spaces surrounding the substations. The NewGen Team will provide a condition as "Good," "Fair," or "Poor" to each substation based on this visual review, which will be used to assess the age of the facility, its relative condition, and state of technology, based on the expertise of the field engineer. Assets will be graded into age bands by decade to facilitate the development of depreciation figures. Sources of plant (asset) data to be reviewed for developing estimates of the book value of these assets may include those available from the City and/or DTE filings before the Michigan Public Service Commission (MPSC) and/or the Federal Energy Regulatory Commission (FERC), as appropriate.

This approach will also be applied to the sampled distribution assets as appropriate, based on existing, observable overhead and pad-mounted (above ground) distribution system facilities to understand "typical" asset condition, as well as DTE construction practices for its delivery systems. The condition assessment will also form the basis for the proposed plans to repair or replace the assets reviewed. This will not include an assessment of individual assets to be potentially acquired for the MEU, which would be included in Phase II services as required or requested by the City. However, the assessment will be conducted in sufficient detail for the sampling to inform the City of a high-level estimate of the Replacement Cost New (RCN) for the entire system, including an approximation for the ages and conditions of the facilities by decade. RCN will be estimated based on typical design for feeders, distribution transformers and services, substations, and transmission lines, using RSMeans regional costs. Asset age and condition information will be utilized to develop a range of potential costs to acquire the system based on Replacement Costs New Less Depreciation (RCLD) and Original Cost Less Depreciation (OCLD).

Estimate Non-Delivery Related Assets

The preliminary field condition assessment will also include an estimate of the non-delivery assets necessary to be acquired to form the MEU, including support systems (buildings, operations centers, warehousing), as well as any potential generation (renewable) that may be owned by DTE within the City and as identified in publicly available data and/or provided by the City. The NewGen Team will address the potential advantages and disadvantages of MEU ownership of delivery-related assets to provide service to the City. The NewGen Team will review distribution plans and other filings with the MPSC to identify system capital improvements planned by DTE for the City over the next 5 to 15-year planning horizon, as available. Other publicly available data may be utilized for this analysis as well. This task does

not include a field inventory of the non-delivery assets to be potentially acquired; that work would be included in Phase II service if required or requested by the City.

Identify Severance Issues/Plan

As a result of the field investigation and in coordination with the City, the NewGen Team will provide a summary of potential severance issues that may exist at the municipal boundaries of the acquisition area to be served by the MEU. Existing distribution systems serving customers on either side of the municipal boundary in five, two-mile representative segments will be mapped. This process will include overhead and pad-mounted equipment visible in public rights-of-way only, to approximately 500–1000 feet to either side of the municipal boundary. A preliminary separation/severance plan for each representative segment developed for the boundary map (described above) will be utilized to establish "typical" requirements and costs for separation, which will then be applied to the entire system on a proportional basis.

The preliminary severance plan will be developed to meet the constraints of maintaining reliability and capacity comparable to the existing system for both City and DTE customers. In our experience, severance is a complex technical, legal, and cost issue that can make or break a municipalization project. Severance plan components will include transmission interconnection, substation facilities, and new/modified distribution facilities. The high-level preliminary design effort will be based on any data available from DTE, City municipal facilities GIS and map data, Google Earth mapping, and field reconnaissance. Estimated construction and modification costs will be developed using a unit cost approach recognizing local contractor and material costs to the extent available. The severance estimate will be conducted at a summary level and additional detail required for a potential severance plan would be included in Phase II services as required or requested by the City.

Estimate Potential Energy Efficiency/Distributed Resource/Demand Response

The NewGen Team will work with 5 Lakes and the City to review the potential energy efficiency, DERs, and demand response resources that may be technologically achievable and economically practicable for the potential MEU compared to those that may be achievable for load in the City served by DTE over a 20-year planning horizon. This analysis will be informed by recent potential studies completed by the MPSC, provided by 5 Lakes and/or the City, or other publicly available sources. This effort does not envision a separate study unique to the City; however, the information will be applied to potential programs that may be available to the City under an MEU or DTE over the planning period.

Identify Operational Risks/Reliability Concerns

The NewGen Team will work with 5 Lakes and the City to identify known or potential operational risks and/or concerns regarding the potential MEU, including responses to electric outages from natural phenomena and extreme weather events. This will be a qualitative assessment of the risks which will include insight from our expertise in providing consulting services to municipally owned electric utilities in other regions of the country. Potential remedies to the identified risks will be addressed in a qualitative fashion as well to understand the impacts for the MEU compared to continued service from DTE.

The NewGen Team will provide an estimate of how MEU operations would be expected to impact the electric reliability of the distribution system in comparison to DTE. This will include an estimate of the potential investments that may be necessary to ensure elevated reliability based on the field investigation summary developed for this task. This will not be conducted in sufficient detail to provide engineering

and/or construction-level estimated costs but will be based on the experience and industry knowledge of the NewGen Team members.

Analysis of 100% Renewable Energy/Power Supply

The NewGen Team will provide a professional summary assessment of the feasibility of creating a viable MEU that can provide 100% renewable power at comparable rates to DTE while ensuring reliability in delivery. This will be accomplished by reviewing current and projected renewable energy and renewable energy attributes in the MISO market that may be available to the MEU. Additionally, the NewGen Team will rely on insight and input from 5 Lakes and the City project team on various renewable power options and strategies, as well as our experience and industry knowledge of power regional supply options.

Socially Responsible Initiatives

The NewGen Team will work with 5 Lakes and the City to provide a list of potential socially responsible initiatives that the MEU may consider offering to its customers (low interest loans, low-income rates, senior programs, etc.) and the potential costs of such programs, as well as a review of the applicability of current similarly styled programs offered by DTE to customers in the City.

Task 2.2 – Financial Assessments

The NewGen Team will develop a Preliminary Financial Model (Model) to create a projection of electric utility revenue requirements (on a cash basis) to compare the existing status quo case (continued service from DTE) to the City-owned municipal utility option. The Model will be developed on an annual basis over a 20-year study period. The Model will be preliminary in nature for the Phase I effort; the NewGen Team will utilize estimates regarding inputs and will rely on assumptions, expertise, and analysis of publicly available data for various elements of the Model, including those developed for Task 2.1 (Technical Assessments). To the extent that confidential information provided by the City is incorporated into the Model, the NewGen Team will identify it as such for the purposes of this Study.

The Model will utilize an estimated asset purchase price for the delivery and customer-service related assets to be potentially acquired by the City to serve future customers. The purchase will be assumed to be financed by the issuance of debt by the City to be repaid by ratepayers over an appropriate period of time. The Model will include estimates associated with applicable start-up costs, as well as annual cash requirements for purchased power (including provision for transmission of power to City-owned substations). We will include estimates of annual expenses for operations and maintenance costs (O&M) associated with distribution, customer, and administrative functions of an operating municipal utility. Cost estimates of future capital requirements for normal renewal and replacement will be developed and included in the Model on an annualized basis as appropriate.

The Model will include additional debt issues for funding investments as necessary, such as those that may be required for working capital, inventory, or other items (in coordination with the City and specific applicable financial policies and concerns regarding risk). Cash requirements for the City-owned utility will include operating reserves, general transfers (as applicable), and potential improvements to the distribution infrastructure or various customer programs as identified and defined in discussions with 5 Lakes and the City. Annual cash requirements for the status quo will be included in the current estimated average rate revenue (assuming that DTE rates currently recover its costs), which will be escalated based on estimates of future investment by DTE utilizing publicly available information.

As part of the development of the Model, the NewGen Team will review DTE invoices, contracts, and electric billing patterns provided by the City to provide insight on total City load, number, and types of customers and their average monthly electricity usage. This information may be augmented by previous analyses and reports developed and provided by 5 Lakes and the City. This will also include a review of various MPSC proceedings, FERC reports, and other public sources of data, as well as potential information developed during previous City efforts.

Utilizing several aspects of the results of the Technical Assessments (Task 2.1), the NewGen Team will develop an estimate of the comprehensive start-up, operational, and maintenance costs of the potential MEU. This will include developing an estimate of the asset value and associated severance and/or stranded costs (if applicable as described below), start-up costs, regulatory compliance costs, customer service and ongoing operations and maintenance costs (O&M), creation of an annual revenue requirement for the MEU compared to continued DTE service, recommended financing methodologies (see discussion below), high-level undergrounding costs, estimated power supply costs for the MEU, cost impacts to selected large customers based on an all-in average rate, and possible lost revenue to the City from creation of the MEU. A summary of selected sub-task scope items required to support the financial assessment of the MEU is provided below:

- The NewGen Team will develop a summary of the valuation of the assets to be acquired by the City to form an MEU based on the technical assessment described above, including potential costs for system improvements. This will result in an estimate of the OCLD (book value) as well as the RCLD (replacement costs) for the system acquisition which will be based on the sampling approach described herein. The NewGen Team will work with the City to determine if an "income valuation" approach for the delivery assets is reasonable, and if so, will develop a "limited" income valuation based on publicly available data from DTE. A complete inventory of all the facilities that would need to be acquired, upgraded, or built to make the MEU operational and compliant with state and federal energy regulations is not included in the Phase I scope of services. A detailed inventory for acquisition, upgrades, or additional investment may be included in Phase II services as required or requested by the City.
- A summary of the estimated costs for severance (separation), reintegration, and stranded assets (if any, see discussion below) for which the MEU may be responsible, as described in Task 2.1.
- A summary of costs to acquire the landfill solar project, as described by the City, as well as other in-City renewable generation assets (presumably limited to those owned and operated by DTE).
- Identification and recommendations of options and associated summary cost estimates for the MEU to develop and or contract for customer service and billing services, as well as O&M services, such as crew dispatch, SCANA systems, and appropriate physical and cybersecurity-related costs. These estimates will be based on industry benchmarking and may not be specific to the City; however, where applicable, the NewGen Team will identify opportunities to leverage existing City infrastructures and/or systems or partnerships with other municipal utilities (see discussion below).
- The NewGen Team will provide a summary assessment of costs associated with undergrounding the existing overhead utility distribution lines and potential mechanisms to recover these costs. This cost estimate will be based on the summary asset analysis developed in Task 2.1. Detailed estimates for undergrounding the MEU's distribution system would be included in Phase II services as required or requested by the City.

- Develop a range of reasonably expected costs for the MEU to procure and/or generate carbon-free energy over the 20-year planning horizon, ideally utilizing as much local renewable energy as feasible while ensuring system reliability. This assessment will consider regional energy markets as well as local commitments to electrification, outlined in the A^{2}ZERO plan. This analysis will also include a basic market analysis to understand current and projected energy; capacity and delivery costs available in MISO, including day-ahead and real-time market prices applicable to the MEU; and the status and availability of clean energy power purchase agreements in the region. This assessment will be coordinated with input from 5 Lakes and the City and will include a review of potential power supply resources for the 20-year planning period. This review will also include input from 5 Lakes regarding the options to build renewable generation facilities, long-term market purchase agreements, potential power storage capacity, and potential infrastructure updates, as appropriate.

Financing Costs

The NewGen Team will work with the City to identify the preferred type of financing for the costs associated with the acquisition of the system. Municipal electric utilities are generally financed through the issuance of revenue bonds because of their comparatively low interest cost. The revenue bondholders have a lien on the revenues of the municipal utility as security, or collateral for the outstanding revenue bonds not yet redeemed. However, other options will be evaluated as appropriate.

Based on information from the previous tasks, the Project Team will estimate the amount of capital to be obtained through financing and the corresponding bond issuance amount considering the estimates for acquisition costs, severance costs, funding of utility reserves and operating funds, bond issuance fees, etc. This information will then be used to project annual debt service over the 20-year study period. Publicly available indices will be used to estimate the associated interest rate.

Stranded Costs

To the extent that it has the regulatory means to do so, DTE may seek to compel the City to compensate the utility for the reduced value of selected remaining assets resulting from the acquisition of the electric distribution facilities. The NewGen Team will rely on 5 Lakes and specifically their legal counsel to estimate the potential exposure the City may face due to stranded cost claims by DTE and to identify and explain potential defenses to such claims. Specifically, 5 Lakes will provide the NewGen Team with an estimate of the stranded costs or appropriate methodology to calculate applicable stranded costs for this assignment. To the extent that stranded costs exist and are quantifiable, the NewGen Team will incorporate those costs as appropriate into the financial analysis.

Start-Up/Ongoing Costs

The NewGen Team will develop estimates associated with start-up costs (including cost estimates for expenses prior to operation, as well as those for the initial phases of operation), financing-related costs, O&M costs by functional element, requirements for capital investments, and estimates of administrative and general (A&G) costs. These cost estimates will be developed based on average $/customer expenses for similarly sized/situated public utilities with which we are familiar, and/or our expertise in providing analysis of publicly owned electric utility systems. Similar to the cost estimates for acquisition and severance-related issues, the NewGen Team will develop an appropriate range of costs for these elements to be incorporated into the modeling scenarios.

The NewGen Team will leverage its extensive experience with municipal utilities across the U.S. to gather cost information for purposes of developing the projected ongoing O&M expenses. Other sources of potentially useful information that will be considered include:

- Public Power Annual Directory and Statistical Reports published annually by the American Public Power Association (APPA).
- Edison Electric Institute (EEI) and Energy Information Administration (EIA) Reports/Summaries.
- Financial and Operating Ratios of Public Power Utilities published annually by APPA.

These reports contain financial and statistical information about the operations of electric municipal utilities individually and in various groups including O&M expenses, sales information, balance sheet data, and sales statistics including number of customers and megawatt-hour (MWh) sales by customer class, revenues, key performance indicators, etc.

Model Results

The intent of the Model is to compare preliminary costs and revenues associated with operations of the City's distribution system under existing ownership (DTE) and the municipalization scenario (City owned). Utilizing the projections for annual cash needs, the Model will determine an average system retail rate under both scenarios over the 20-year planning horizon. The difference between the average system retail rates will determine the potential savings associated with a municipal utility on an annual basis. The NewGen Team will project the annual average retail rate and/or net present value of projected revenue requirement assuming a City-owned electric utility, compared to those developed for continued DTE ownership.

Additionally, the NewGen Team may provide a comparative analysis of the net present value of the projected total revenue requirement (total costs) under the two scenarios. The summary of results for the Model will be included in a dashboard embedded in the Model for ease of understanding, as well as to facilitate additional analyses. Additional metrics for comparing the modeling scenarios may include development of return-on-investment analysis or other industry-appropriate calculations developed in coordination with the City.

As part of our analysis and in coordination with 5 Lakes and the City, the NewGen Team will identify other risks and benefits associated with the City ownership of the electric utility. These will include qualitative and quantitative description of financial, operational, and technical risks to consider over the 20-year planning horizon. Risks that can be quantified will be incorporated into the Model as part of the range of potential costs associated with either scenario. To the extent that risks are qualitative, they will be included in various reports developed for the City's consideration.

Task 2.3 – Other Assessments/Activities

As requested by the City, Task 2.3 will consist of the identification and development of detailed recommendations for addressing the legal, regulatory, and operational issues involved with the MEU, with particular attention to the evaluation of stranded costs. Legal and regulatory issues will be identified and developed by 5 Lakes legal counsel, as appropriate. This will include reviewing the legal and regulatory processes necessary to acquire the electric utility distribution system, including applicable precedent, orders, and findings from the FERC, the North American Electric Reliability Council (NERC), MISO, the MPSC, condemnation courts, and other venues.

As part of the Phase II services as required or requested by the City, the NewGen Team will define the tasks, actions, and professional services necessary to proceed with a municipalization effort specific to the Michigan regulatory and legislative environment. This will include a detailed timeline of likely events that will need to be addressed during the potential municipalization process.

Additionally, as a result of the Phase I efforts, the NewGen Team will work with the City to develop a Strengths, Weaknesses, Opportunities and Threats (SWOT) matrix applicable to its potential decision to municipalize its electric system. This will include an assessment of the financial and political strengths of the community through conversations with 5 Lakes and the City as well as our experience with other municipalities. Additionally, the SWOT analysis will include an assessment of how well a traditional MEU aligns with the City's goals for carbon-neutrality by 2030, powering the community with 100% renewable energy, the core principals of the A^2Zero plan, and the Energy Criteria and Principles. Opportunities will include a review of strategic objectives developed with the City for this effort, as well as potential challenges to their achievement. Weaknesses will be identified in the approach and communicated to the City, indicating areas where DTE may attack the City's analysis, as well as potential impacts from the MEU on workers in the fossil fuel industry. The SWOT matrix will be included in the report developed for the City, as well as in presentations as requested.

Task 2 Deliverables

- Draft and Final Model Results
- Draft and Final SWOT Analysis

Task 4: Prepare Report/Presentation

The NewGen Team will prepare draft and final reports that present the results of its analysis conducted for the Phase I Study, including potential advantages and disadvantages of City ownership of the DTE electric distribution facilities, and issues associated with severance/reintegration of electric systems. Additionally, we will coordinate with 5 Lake to present our initial Study Findings in a series of facilitated meetings to the City management team and other stakeholder groups as requested. The NewGen Team will coordinate with the City to prepare and present its findings at up to three in-person City-scheduled public meetings, which will be attended by at least two of the NewGen Team members.

Deliverables

- Draft and Final Reports for Task 2
- Presentation of Task 2 Findings

Task 5 – Status Calls with City Project Team

Key members of the NewGen Team will attend regular (bi-weekly or as scheduled by 5 Lakes) status calls with 5 Lakes and the City's Project Team to discuss, strategize, and report on progress of Tasks 1, 2, and 4 as described above. Each call is anticipated to be one hour in length, depending on the material needed to be covered during that time. If additional calls are necessary to facilitate project objectives, they can be set up on an as-needed basis. The NewGen Team will provide a summary of the items discussed during the status call as it applies to the tasks assigned to the NewGen Team, as appropriate. This summary will be provided in an email format and will include action items and outstanding NewGen Team project

issues/items to be addressed during subsequent calls. The City Project Team will have the opportunity to review and provide comment on the Status Call Summary Report, as necessary.

Deliverables

- Attend Biweekly calls (or more frequent, as scheduled by 5 Lakes)
- Status Call Summary Report for NewGen Team Task Items

Schedule

Our proposed schedule for Phase I is below:

Task	Description	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
1	Kick-Off Meeting/Data Request						
2	Traditional Electric Utility Municipalization Feasibility Study						
4	Prepare Report/Presentation						
5	Status Calls with City Project Team						

Phase II Study

Efforts associated with a Phase II Study would be completed on a time and materials basis and are not included in our budget estimate. The intent of Phase II efforts would be to refine the specific elements of the Phase I Preliminary Feasibility Financial Model to reduce the uncertainty in the original estimates if such additional investigation is warranted. This would include updating and/or revising cost estimates for the assets to be acquired (including severance), operation and maintenance and administrative costs, startup costs, purchased power costs, debt service costs, capital requirements, and other costs.

The Revised Model will be updated based on the following inputs:

- Revisit the preliminary load forecast analyses to account for any new data received in Phase II, as well as any changes to potential MEU service territory.
- Refine estimates utilized in the preferred projected cash flow model as appropriate. Refine estimates to potentially expand energy efficiency, distributed alternative resources, and load demand response, as appropriate.
- Refine future rate projections under continued DTE ownership to account for any new data received in Phase II.
- Identify and evaluate other costs to acquire DTE electric distribution facilities and establish a municipal electric utility, including development of an independent assessment of value utilizing industry accepted methods to estimate fair market value.
- Conduct a field assessment to determine a revised estimated cost associated with potential severance-related issues.
- Evaluate various sources and types of financing mechanisms on the estimated average system retail rate and provide a qualitative discussion of the advantages and disadvantages of each type.

Additional details for the Phase II Study, including scope items, will be developed as requested and as warranted.

Fee Proposal

The NewGen Team proposes a not-to-exceed bid price for the City of Ann Arbor's 100% Renewable Energy Options Analysis Study of $236,497, as indicated in the summary Project Fee Proposal table below. Please note, this is the bid price for the services described above, defined as Phase I services. If requested, a fee proposal for Phase II services can be provided.

The remaining tables provide detail by individual Team Members, their project roles, their hourly rates, and estimated hours for each task (1–5). Additionally, estimated total expenses for each task are included within the subtotal at the bottom of each table, as appropriate (not all tasks include expenses).

Project Fee Proposal

Tasks	NewGen	Exponential	Expenses	Total
Task 1	$10,120	$5,264	$2,050	$17,434
Task 2	$45,460	$97,413	$5,360	$148,233
Task 3	$0	$0	$0	$0
Task 4	$28,980	$10,014	$4,500	$43,494
Task 5	$19,380	$7,956	$0	$27,336
Total for Project	**$103,940**	**$120,647**	**$9,860**	**$236,497**

Task 1 – Project Kick-Off Meeting, Data Request, Document Review Fee Proposal

Team Members	Project Role	Rate	Hours	Total
NewGen				
Burnham, Partner	Project Manager	$270	24	$6,480
Tomczyk, Senior Manager	Assistant Project Manager	$250	8	$2,000
Helper, Senior Consultant	Lead Analyst	$150	8	$1,200
Administrative Support	Admin	$110	4	$440
Exponential				
Ghidossi, P.E., President, Principal Engineer	Principal Engineer	$221	20	$4,420
Tenan, P.E., Vice President, Senior Electrical Engineer	Senior Engineer	$201	4	$804
Expenses (Total)				$2,050
Subtotal Task 1				**$17,434**

Task 2 – Traditional Electric Utility Municipalization Feasibility Study Fee Proposal

Team Members	Project Role	Rate	Hours	Total
NewGen				
Burnham, Partner	Project Manager	$270	56	$15,120
Tomczyk, Senior Manager	Assistant Project Manager	$250	48	$12,000
Georgis, Managing Partner – Energy Practice	Strategic Assistance	$315	4	$1,260
Thornton, Principal	Power Supply	$300	8	$2,400
Helper, Senior Consultant	Lead Analyst	$150	84	$12,600
Hughes, QA/QC	QA/QC	$300	4	$1,200
Administrative Support	Admin	$110	8	$880
Exponential				
Ghidossi, P.E., President, Principal Engineer	Principal Engineer	$221	136	$30,056
Tenan, P.E., Vice President, Senior Electrical Engineer	Senior Engineer	$201	75	$15,075
Mansour, Senior Electrical Engineer	Senior Engineer	$201	66	$13,266
Cox, Senior Engineering Technician, Safety Coordinator	Senior Engineering Technician	$152	88	$13,376
Weskamp, Principal CAD Designer	Principal CAD Designer	$121	40	$4,840
Gardiner, GIS Subconsultant	GIS Subconsultant	$130	160	$20,800
Expenses (Total)				$5,360
Subtotal Task 2				**$148,233**

Task 4 – Prepare Report/Presentation
Fee Proposal

Team Members	Project Role	Rate	Hours	Total
NewGen				
Burnham, Partner	Project Manager	$270	60	$16,200
Tomczyk, Senior Manager	Assistant Project Manager	$250	24	$6,000
Georgis, Managing Partner – Energy Practice	Strategic Assistance	$315	4	$1,260
Thornton, Principal	Power Supply	$300	4	$1,200
Helper, Senior Consultant	Lead Analyst	$150	24	$3,600
Hughes, QA/QC	QA/QC	$300	4	$1,200
Administrative Support	Admin	$110	32	$3,520
Exponential				
Ghidossi, P.E., President, Principal Engineer	Principal Engineer	$221	22	$4,862
Tenan, P.E., Vice President, Senior Electrical Engineer	Senior Engineer	$201	8	$1,608
Mansour, Senior Electrical Engineer	Senior Engineer	$201	8	$1,608
Weskamp, Principal CAD Designer	Principal CAD Designer	$121	16	$1,936
Expenses (Total)				$4,500
Subtotal Task 4		-		**$43,494**

Task 5 – Status Calls with City Project Team
Fee Proposal

Team Members	Project Role	Rate	Hours	Total
Burnham, Partner	Project Manager	$270	36	$9,720
Tomczyk, Senior Manager	Assistant Project Manager	$250	24	$6,000
Georgis, Managing Partner – Energy Practice	Strategic Assistance	$315	4	$1,260
Thornton, Principal	Power Supply	$300	4	$1,200
Helper, Senior Consultant	Lead Analyst	$150	8	$1,200
Ghidossi, P.E., President, Principal Engineer	Principal Engineer	$221	36	$7,956
Subtotal Task 5		-		**$27,336**