



STATEMENT OF QUALIFICATIONS

PROTEUS Consulting is a boutique consulting firm that catalyzes the synergy between Water, Energy, Information Technology, Economics, and Communication sectors. We exist to bring about metamorphosis in the Water Industry. With versatile and high quality solutions, we facilitate the transformation of business-as-usual to high-energy and productive environment. We are known for our creativity and problem-solving skills, and our clients appreciate the individual attention this small, flexible firm is able to provide.

The Water Industry is at the threshold of a radical transformation. We help our clients undergo that change systematically by removing barriers and releasing the pressure, while enhancing the metamorphosis through cross-discipline flow of innovative ideas and strategies.

PROTEUS Consulting is defining Water-Energy Nexus 2.0 - beyond reduction of water and energy footprints by the respective industries, towards collaboration, solving common problems, and attaining win-win solutions. We ensure consistent progress towards identification of technology and resources that will provide maximum return on investment to not only achieve energy efficiency, but also develop synergistic relationships between water and energy utilities towards a common goal of providing sustainable and fiscally responsible services to the communities they serve.

PROTEUS Consulting is a minority and woman-owned, small disadvantaged micro-business.

CONTACT INFORMATION

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WATER+ENERGY

Our success stems from our ability to quickly and effectively understand the unique physical, cultural, and economic opportunities of each assignment. We specialize in building creative solutions that honor each project's distinct features and are committed to integrating design, engineering, and community in a manner that creates value and conserves resources – human and material capital.

- Energy Negotiations
- Level I, II, and III Energy Audits
- Renewable Energy Options
- Live Energy Tracking and Monitoring
- Pumping / Process Optimization
- Dynamic Real-time Energy Optimization
- Management of Energy Contracts
- New Revenue Generation Models
- Energy Strategic Plans and Implementation

PROJECTS

ENERGY OPTIMIZATION + INNOVATION PROGRAM, ENCINA WASTEWATER AUTHORITY, CARLSBAD, CA.

Proteus Consulting is contracted with Encina Wastewater Authority (EWA) to design their Research and Development Program. The scope includes the following: (1) Development of Energy Efficiency Tracking and Reporting system that will measure and report the efficacy of the energy efficiency measures implemented and monitor the progress for the long-term. (2) Perform Energy Negotiations with SDG&E including review current tariff rates with SDG&E and figure out the 'best' option/program for EWA. (3) Design the Research and Development Program to evaluate, facilitate and plan the implementation of new innovative technologies at EWA. (4) Perform Value Chain Analysis and develop and Implementation Plan for solids, effluent, and biogas produced at EWPCF. (5) Undertake comprehensive Funding Research to secure funding from traditional and non-traditional resources.

DYNAMIC ENERGY OPTIMIZATION FOR NYC DEP WASTEWATER PLANTS, NY.

Proteus Consulting is contracted by Viridity Energy to assist New York City Department of Environmental Protection (NYC DEP) to enable process and energy optimization at 14 wastewater treatment facilities that treat 1.3 billion gallons of wastewater in the five boroughs of the great city. This will involve a thorough evaluation of the use of energy resources at the treatment plants and develop a management algorithm to optimally schedule energy management a day-ahead and real-time energy markets.

OPERATIONS AND ENERGY OPTIMIZATION FOR POTABLE WATER AND RECYCLED WATER SYSTEMS.

Proteus Consulting is developing a robust real-time energy optimizer to meet a distinct set of water quality operating rules in the water system. The system will generate an optimized pump schedule that changes every quarter hour. As telemetry data from water reservoirs levels and pump flows is received from the Supervisory Control and Data Acquisition System (SCADA) every 10 minutes, the program will take account of daily zonal demand variations, available supply capacity, system constraints, and real-time power cost information to generate every quarter-hour a schedule for each pump. By this model, the inherent flexibility in the water system is identified on a real-time basis and then potentially bid on the energy market to yield revenue for the Water Districts.

CONSULTING SERVICES FOR OPERATIONS OPTIMIZATION, CITY OF SAN DIEGO, CA.

Proteus Consulting is a valued team member for the Operations Optimization project led by CH2MHill and Brown & Caldwell. The scope of the project includes and thorough review and evaluation of City of San Diego's Public Utilities Department's existing facilities, operations and business processes to determine where improvements in operational efficiencies and/or cost savings or revenue improvement can be made in the areas of energy utilization, water production and distribution,



chemical usage, data utilization, wastewater sludge processing and disposal, operator staffing, and warehouse practices and procedures.

WASTEWATER TREATMENT PLANT OPTIMIZATION AT MCAGCC, 29 PALMS, CA.

Proteus Consulting teamed with Potomac Hudson Engineering (PHE) / Michael Baker Corporation to optimize the wastewater treatment plant at the Marine Corps Air Ground Combat Center at 29 Palms, CA. The Combat Center operates a 1.5 million gallon per day (MGD) Wastewater Treatment Plant (WWTP) that treats both domestic and industrial wastewater. In addition to protecting human health and a fragile desert environment, the WWTP produces reclaimed wastewater that is used for landscape irrigation aboard the Combat Center. The WWTP is a mission-critical facility whose continued operation is essential to the long-term function of the Combat Center as the Marine Corps' only desert training facility. Given the current DOD budget climate, it is highly unlikely that funding for replacement of the WWTP will be available in the foreseeable future. Therefore, it is essential that the WWTP be operated and maintained in a manner that maximizes its lifespan; ensuring reclaimed water is available and utilized efficiently. Proteus Consulting will undertake a detailed study to optimize the operations at the plant including operations, water use, and energy.

CALIFORNIA ENERGY COMMISSION PIER GRANT, MOULTON NIGUEL WATER DISTRICT, CA.

Proteus Consulting prepared the grant application package for Moulton Niguel Water District for the 2011 Emerging Technology Demonstration Grant (ETDG II) by California Energy Commission's Public Interest Energy Research (PIER) program. With this grant, the District is looking to optimize the hydraulics of the water system to ensure lowest cost of water and also demonstrate the opportunity to participate in several demand response programs made available by San Diego Gas & Electric (SDG&E) and Southern California Edison (SCE).

STRATEGIC BUSINESS DEVELOPMENT, VIRIDITY ENERGY, PA.

Proteus Consulting is providing strategic business development services to Viridity Energy as it enters the water industry. Viridity Energy devises revenue generating solutions that give large energy users customized decision-making tools to align operations with load management strategies. With their Vpower™ Software, Viridity Energy works within client operations to identify the optimal demand management strategy for the client's energy resources. Viridity Energy also delivers microgrid management solutions to help communities meet their energy needs in a smarter, less expensive, and more sustainable way.

SMART-OPS, OPERATIONS OPTIMIZATION FOR WASTEWATER TREATMENT PLANTS.

Treatment plant operations are typically timed and phased based on discrete measurements or strategies. Proteus Consulting is working on software that will lay the foundation to develop comprehensive dynamic, real-time, whole-business strategy for wastewater plant operations and control. The software portfolio will consist of a suite of sustainability-focused solutions that honor the wastewater industry's specific needs and are committed to integrating operations, management, and environment in a manner that conserves and optimizes resources – human and material capital. The solution will encompass analytics, optimization, and visualization. A phased approach is offered for the implementation instead of a comprehensive solution since it allows the client to adopt a module

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when required and at a pace that is suited for the agency. The software solution has the following goals: Meet effluent and emissions permits, Maximize Biogas production, Optimize Aeration, Optimize solids quality to market needs, Optimize chemical usage, Optimize digestion, and Optimize energy use.

BUSINESS INFORMATION

Structure: S Corporation
Established: October, 2010
ORCA/DUNS: 831677229
EIN: 90-0614930
NAICS: 541330, 541340, 541490, 541611, 541618, 541620, 541690, 541990, 611430, 221310, 221320,
PSC: AD24, AD26, AH34, AH35
FSC: 4601, 4620, 4630, 7030, 7435
SIC: 1623, 1629, 1781, 4941, 4952, 4953, 4959, 4971, 4619, 7389, 8299, 8711, 8712, 8741, 8742, 8744, 8748
NIGP: 91820, 91831, 91832, 91835, 91838, 91842, 91843, 91846, 91875, 91887, 91888, 91890, 91897, 92517, 92524, 92528, 92533, 92535, 92538, 92544, 92555, 92567, 92570, 92583, 92587, 92596, 92597, 95816, 95826, 96110, 96156, 96161, 96896

CERTIFICATIONS

Small Business Enterprise – Port of Long Beach, San Diego County Water Authority, San Diego Association of Governments (SANDAG) Architecture and Engineering (A & E) Small Business “Bench” (#103011)

Small Local Business Enterprise (SLBE & ELBE) – City of San Diego (#12PC0555)

Small Business (Micro) – California Department of General Services (#1417140)

Woman and Minority Owned Business Enterprise (WMBE) – California Public Utilities Commission (CPUC) (VON 10100168)

Emerging Business Enterprise (EBE) – Office of Small Business & Disabled Veteran Business Enterprise Services, City of Los Angeles

Disadvantaged Business Enterprise (DBE) – California Unified Certification Program (CUCP) - pending approval

Small Disadvantaged Business – Small Business Administration (Self certified)

Minority Owned – Small Business Administration (Self certified)

Woman Owned – Small Business Administration (Self certified)

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