

## **UNION COUNTY IMPROVEMENT AUTHORITY**

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Resolution No.	71-2016	Date:	August 3, 2016

RESOLUTION OF THE UNION COUNTY IMPROVEMENT AUTHORITY ("AUTHORITY") ACKNOWLEDGING THE TRANSITION OF OPERATIONS AND MAINTENANCE SERVICES TO NAUTILUS SOLAR ENERGY, LLC IN CONNECTION WITH THE UNION COUNTY RENEABLE ENERGY PROGRAM

APPROVED AS TO FORM: Lisa M. da Silva, RMC Clerk of the Authority

in do Silva

APPROVED AS TO SUFFICIENCY OF FUNDS

YES []NO []NONE REQUIRED

UNION COUNTY IMPROVEMENT AUTHORITY

PRESENT **ABSENT** AYE NAY ABSTAIN MOTION **SECOND** Bornstad D'Elia Hockaday Lattimore Salerno. Secretary Szvond Tomko. Treasurer Rountree. Vice Chair Scutari, Chairman

RESOLUTION OF THE UNION COUNTY IMPROVEMENT AUTHORITY ("AUTHORITY") ACKNOWLEDGING THE TRANSITION OF OPERATIONS AND MAINTENANCE SERVICES TO NAUTILUS SOLAR ENERGY, LLC IN CONNECTION WITH THE UNION COUNTY RENEABLE ENERGY PROGRAM

WHEREAS, the Authority has undertaken the development and implementation of a program (the "Renewable Energy Program") for the financing, design, permitting, acquisition, construction, installation, operation and maintenance of renewable energy capital equipment and facilities such as solar panels, including any related electrical modifications or other work required or convenient for the installation of such systems (collectively, the renewable energy capital equipment and facilities, the "Renewable Energy Projects") for and on behalf of the County and local governmental units within the County (the "Local Units");

WHEREAS, on August 31, 2010, the Authority issued "Request for Proposals for a Developer of Photovoltaic Systems with respect to certain Local Government Facilities in the County of Union, New Jersey" (the "RFP") to design, permit, acquire, construct, install, operate and maintain the Renewable Energy Projects;

WHEREAS, the Authority selected and designated Tioga Solar Union County 1, LLC (the "Company") as the successful respondent to the RFP and thereafter entered into a Lease Agreement, a Power Purchase Agreement and certain other agreements with the Company and others in furtherance thereof; and

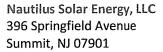
WHEREAS, on May 4, 2011, the Authority issued its \$15,190,000 County of Union Guaranteed Renewable Energy Program Lease Revenue Bonds, Series 2011 (Federally Taxable) (the Bonds", of which \$13,160,000 is presently outstanding) to finance up to 70% of the costs of the Renewable Energy Projects, with the Company financing the balance of such costs;

WHEREAS, the Renewable Energy Projects procured under the Renewable Energy Program are, in all material respects, complete, lien free, in service and generating energy and revenues, with such revenues being principally derived from (i) the sale of electric energy to the local unit hosts under a Power Purchase Agreement, and (ii) the sale of Solar Renewable Energy Certificates ("SRECs") to utilities;

WHEREAS, Tioga Energy, which was engaged in the solar energy business throughout the United States, advised the Authority that on April 30, 2013, it (not the Company) initiated an assignment for the benefit of creditor's under California law ("ABC process") in order to liquidate and dissolve its business (after the initiation of such process, Tioga Energy is referred to as "Tioga ABC"); and

WHEREAS, effective May 1, 2013, the Company discontinued making full lease payments under the Lease Purchase Agreement, and on May 4, 2013 the Authority declared the Company in default thereunder;

- WHEREAS, representatives of Tioga ABC, which currently holds the membership interests in the Company, is also charged with providing for the continued operation and maintenance of the Renewable Energy Projects; and
- WHEREAS, the Tioga ABC had previously selected SPower to provide operation and maintenance services for the Renewable Energy Projects; and
- WHEREAS, in June 2016 SPower notified Tioga ABC and the Authority that it would not be renewing its operation and maintenance contract with Toga ABC; and
- WHEREAS, Tioga ABC obtained a proposal for operation and maintenance services from Nautilus Solar Energy, LLC, a Union County based firm; and
- WHEREAS, Tioga ABC has informed the Authority of its intent to retain Nautilus to provide operation and maintenance services for the Renewable Energy Projects for a monthly fee, as set forth in Nautilus' proposal to Tioga ABC, attached hereto as Exhibit A; and
- WHEREAS, it is in the best financial and operational interest of the Authority and the Renewable Energy Program to ensure that the Renewable Energy Projects are properly operated and maintained.
- **NOW, THEREFORE BE IT RESOLVED** by the Union County Improvement Authority Board of Commissioners that:
  - 1) Tioga ABC's decision to retain Nautilus Solar Energy, LLC to provide operation and maintenance services is hereby acknowledged.
  - 2) The Executive Director is hereby authorized and directed to continue to take all steps necessary, working with Tioga ABC, to monetize SRECs generated by the Renewable Energy Project to address operation and maintenance costs and debt service associated with the Renewable Energy Program.
  - 3) This resolution shall take effect immediately.





# Integrated Asset Management Service Proposal for Tioga

(Assignment for the Benefit of Creditors, LLC)

24 June 2016

Statement of Confidentiality

This proposal contains confidential and proprietary business information and shall not be reproduced and shared with other parties without permission.



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# 1. About Us

Nautilus delivers full service financial and technical expertise by customizing optimal solar solutions to help customers meet their sustainability goals.

#### Who we are

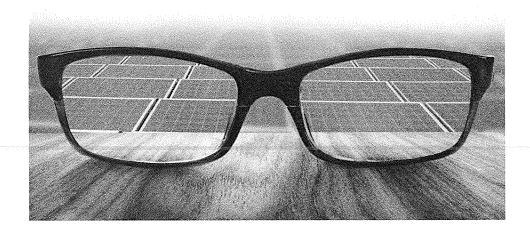
Since 2006 Nautilus Solar Energy LLC ("Nautilus") has been developing, constructing, financing, and operating solar PV projects and has managed over 40 PV facilities, totaling over 100 MW in North America. Nautilus has closed over \$500MM in financings with leading financial institutions and successfully manages the day-to-day compliance, financial and risk aspects of all projects in its management portfolio. With a process-oriented management approach and robust controls in place, Nautilus has a streamlined asset management platform. As a developer of solar PV systems, Nautilus leverages existing relationships with equipment and maintenance providers to minimize system downtime and maximize return on investment.

#### Why Nautilus

Nautilus offers a full suite of ownership services required to successfully meet and exceed project performance expectations. Nautilus provides services to utility and distributed generation (DG) solar PV facilities across major North American markets.

The Nautilus team has extensive experience managing the construction and operations of multiple PV installation types, including:

- Technical capability overseeing roof, canopy and ground mounted projects.
- Relationships with key component and service providers in North America.
- Along with the specialized technical system expertise, Nautilus has successfully raised/executed financing structures enabling system owners to maximize return on investment.

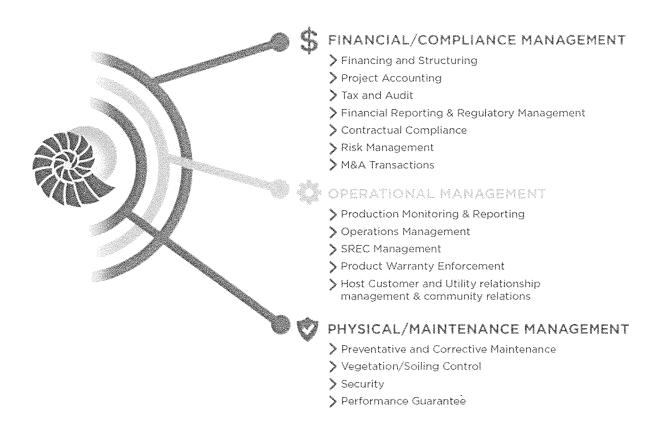




# 2. Our Experience and Offering

#### **Integrated Asset Management Expertise**

Integrated Asset Management ("AM") encompasses the Financial, Operational and Physical Management activities essential to the performance of a solar system as a financial asset. Nautilus's Integrated Asset Management Solutions Group provides a full suite of services required to successfully meet a solar project's operations and maintenance (O&M) and financial asset management requirements.



To date, Nautilus has managed over 60 PV systems with a total installed capacity of over 100 MW located throughout North America. These systems range in size from 100kW up to 34MW. Asset management services have been provided to a portfolio that includes all solar PV project types, including roof-mounted, parking canopy, ground-mounted fixed-tilts and ground-mounted tracker projects.



#### **Financial Management**

Nautilus has closed over \$500MM in financings with leading financial institutions and has successfully managed day-to-day compliance, financial and risk aspects of all the projects in its portfolio. The depth of financial experience and disciplined risk mitigation is at the foundation of Nautilus's robust platform for financial asset management.

The following table highlights the elements of Nautilus's financial asset management services:

Project Accounting	<ul> <li>Procurement and Payment Procedures</li> <li>Billing, Invoicing, Collections, Bank Account Management</li> <li>Preparation of Interim and Audited Financial Statements in accordance with GAAP</li> <li>Annual Budget Preparation and approval process by owners and lenders</li> <li>Monthly and annual monitoring of budget vs. actual expenditures</li> <li>Monthly cash forecasting and cash management</li> <li>Management of SREC contract delivery obligations to maximize cash flow</li> <li>Management of day-to-day activities</li> <li>Management of Project Distributions</li> </ul>
Tax and Regulatory  Reporting	Manage tax filings     Prepare quarterly and annual tax estimates     Annual filings with local and state agencies     Property Tax filings     Management of Audit Process     Prepare and distribute monthly reports for owners
Contractual Compliance	<ul> <li>Prepare financial reports for financial institutions</li> <li>Administer Owner's obligations and responsibilities under Project Contracts</li> <li>Perform annual credit reviews</li> <li>Manage adherence to financing documents including loan compliance with various covenants and ratios</li> <li>Single point of contact with lenders and government agencies</li> <li>Represent Owner's interests in disputes, renegotiations, restructuring, extension, or replacement of Project Documents, Amendments, &amp; Waivers</li> <li>Compliance with the regulatory and government requirements concerning Treasury, FERC, IRS/CRA</li> </ul>
Risk Management	Management of external and legal affairs at Owner's direction     Insurance Administration     Information technology and systems     SREC Strategy and Execution
Additional Services	Support Owners in M&A transactions     Financial Management of Construction including financial close, construction draws, term conversion

#### **Operational Management**

Nautilus manages long term operations and maintenance ("O&M") contracts with accredited service providers to provide onsite customer service to projects and support any issues that may arise from the performance of the systems.



The table below summarizes operational services available for solar PV projects.

Production Monitoring and Reporting	Remote 24/7 system performance monitoring alerts via DAS Periodic (monthly, quarterly, annual) Operational Performance reporting Calculate, track and report system Production Ratio Calculate, track and report system availability
	Manage O&M contractor service obligations, including scheduling and supervising site visits and coordinating maintenance visits to maximize system uptime.
	Coordinate and manage Host Customer needs
Operations	Maximize system uptime by responding to system alarms and managing O&M contractor response to deviations
Management	Review O&M contractor Annual Budget and provide feedback
	Manage and approve O&M expenses against Annual Budget
	Identify current and potential future site concerns affecting production and operations and recommend action plans
	Monthly uploading and transfer of generation to PJM-GATS account
SREC Management	Manage SREC contract delivery obligations
	Manage SREC account and broker 3rd party SREC PSA for spot and long-term contracts
Additional Services:	■Product warranty enforcement

### **Physical/Maintenance Management**

Physical/Maintenance asset management activities include preventative and corrective maintenance, production guaranty, system performance monitoring and reporting, module cleaning, and site management.

The following table summarizes physical/maintenance management services for solar PV projects.



Preventative and Corrective Maintenance	<ul> <li>Inverter inspections and maintenance</li> <li>Tracker inspections and maintenance</li> <li>Other inspections and maintenance (racking, modules, combiners, wiring)</li> <li>Data acquisition system (DAS) and sensors inspections and maintenance</li> <li>Outage response and on-site diagnostics</li> <li>Replacement or repair of faulty PV equipment</li> </ul>
Guarantees and Warranties	Performance Guarantee Warranty Management
Site Management	Module Cleaning Vegetation Management Site Security/surveillance/emergency response

#### **Reporting Structure**

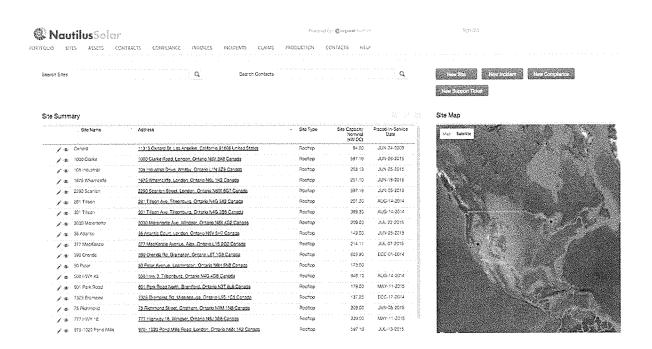
Nautilus provides a streamlined reporting structure that is easily customizable. The table below demonstrates the illustrative reports for Nautilus's customers.

Monthly	Quarterly	Annually
	Unaudited Consolidated	Audited Consolidated
Procurement and Payments	Financial Statements	Financial Statements
Monthly Closings	Budget to Actual report	Annual Operating Plan
Service Reports	Operating report	Updated Financial Model
Operating Data Reports		Annual Tax Filings
		Annual Reports under O&M and EPC
Report on Deviations and Emerge	incy	Agreements
		1603 Grant Reports
		Other Compliance Reports required by Project Agreements or Governmental Agencies



#### **Online Asset Management Platform**

Nautilus Asset Management customers can view their entire solar portfolios from their laptop or handheld mobile devices. Nautilus's Asset Management Software provides a platform of tools for accessing solar system operational and financial performance data while serving as an online data-room for all solar asset management activity, reports, project records, and contracts. For further details, please consult our Company Website regarding the Asset Management Platform: <a href="http://www.nautilussolar.com/asset-management/nautilus-solar-insights/">http://www.nautilussolar.com/asset-management/nautilus-solar-insights/</a>





# 3. Pricing and Scope of Services

Nautilus is very pleased to provide the following indicative offer for Asset Management ("AM") Services to Tioga Energy (Assignment for the Benefit of the Creditors, LLC) ("Tioga ABC") for two portfolios: (i) Tioga Union County consisting of 31 solar projects ("Tioga Union"); and (ii) Tioga Morris County consisting of 15 solar projects, both of which are located in New Jersey ("the Projects").

#### Assumptions

- Non-binding offer is subject to Technical Due-Diligence
- No accounting/tax clean up/catch up required.
- Outside Counsel, Auditor and Tax Preparation Fees are excluded.
- Accounting Software costs are excluded.
- · Applicable taxes are excluded

#### Scope of Services

#### I. OPERATIONAL ASSET MANAGEMENT SERVICES:

✓ PRODUCTION AND PERFORMANCE MONITORING. DAILY MONITORING COVERAGE DURING NORMAL DAYTIME BUSINESS HOURS.
 ✓ ALERT MANAGEMENT- REVIEW/INVESTIGATION OF ALERTS/SYSTEM ISSUES AND PROVIDE RESPONSE/DISPATCH TO O&M PROVIDER WITHIN 1 BUSINESS DAY FOLLOWING OCCURRENCE.
 ✓ BACK-OFFICE TECHNICAL SUPPORT TO RESOLVE FIELD ISSUES. COORDINATION OF ANNUAL MAINTENANCE.
 ✓ REPORTING-MONTHLY PRODUCTION REPORTING/ANALYSIS

#### II. FINANCIAL ASSET MANAGEMENT SERVICES:

	MANAGE PROCUREMENT/PAYMENT PROCEDURES
Ø	BILLING, INVOICING, AR/AP, BANK ACCOUNT MANAGEMENT
Ø	ORGANIZATION/MANAGEMENT OF DOCUMENTS
V	INSURANCE ADMINISTRATION
$\square$	COMPLETE TREASURY 1603 REPORTING FOR SITES STILL WITHIN 5YEAR
	REPORTING PERIOD
Ø	ENSURE PJM-GATS UPDATED WITH SREC INVENTORY



#### **Indicative Pricing**

AM Services Fee for Tioga Union	US\$106,827.00 per year
County	
AM Services Fee for Tioga Morris	US\$101,676.00 per year
County	
Annual Escalator	2.5% per annum.
Proposed Term	5 years

# 4. Additional Asset Management Services

Nautilus can provide additional financial asset management support ("Additional Services") for any of the services that are not included in the quote and are listed on pages 5-7.

#### **Pricing for Additional Services**

Nautilus can provide a fixed or time-based payment structure for the Additional Services. Details on our hourly rates are noted below.

### **Hourly Rates for Additional Services**

The hourly rates for our services are generally based on the qualification of our staff delegated to this activity and currently amount to:

Director/Vice President	US\$350
Senior Accountant/Project Manager	US\$200
Junior Accountant	US\$125



# 5. Client Reference Projects

## **New York Jets Facility**

#### Project Overview

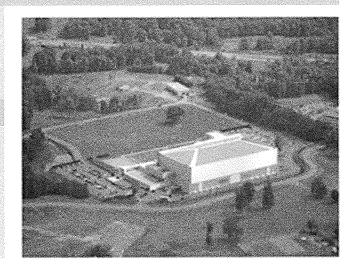
Capacity:

660 kW

Location:

Florham Park, NJ

- PV Rooftop array system—unique roof installation
- Provided Development and Project Management Services
- · Marketing Focused Client
- First Project for the Financial Sponsor



#### Sault Ste. Marie Projects

#### ENGITED A CONCERNICATION

Capacity:

72 MW

Location:

Ontario, Canada

- PV Array Ground System
- Largest structured Financed PV project
- NSE Managed ownership transfer process
- Providing AM Services as well as additional financial services





#### William Patterson University

#### Pritare incention

Capacity:

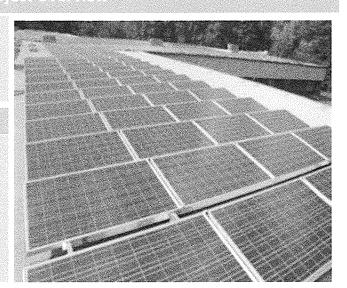
2.7 MW

Location:

Wayne, NJ

#### Average england and all the falls

- PV Rooftop and parking canopy systems
- Largest carport installation at a university (2010)
- 6 different installations on same site
- Managed Host Customer site access needs



#### Medford Board of Education

#### Benisari Kompanian

Capacity:

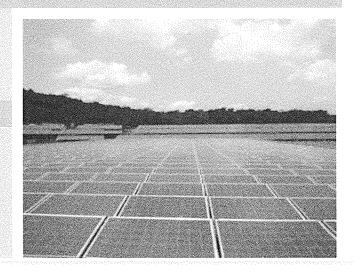
2.5 MW

Location:

Medford, NJ

#### Menegebaran die bliebte

- PV Rooftop system
- Provided AM services on 7 sites
- Managed over 3k SRECs per year
- Managed compliance requirements for both a tax equity and debt financing counterparty





#### **Ontario Projects 1-24**

#### Breitsen en andersten

Capacity:

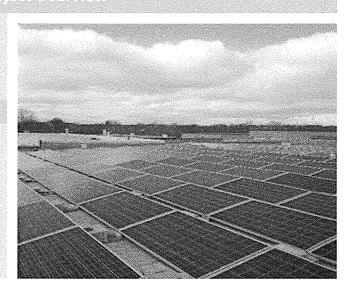
7.2 MW

Location:

Ontario, Canada

#### ManagemantAlaniens

- Development and Financing of a Portfolio of 24 projects totaling 7.2 MW
- Providing Integrated AM Services on all sites
- Fit 1.0 Projects with IESO interconnection (Ontario Power Authority)Sites



#### San Jose Unified School District

#### Profest Overview

Capacity:

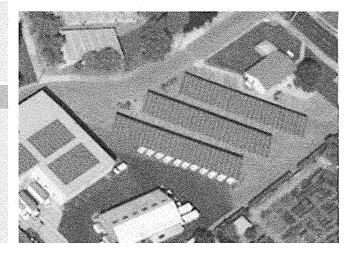
5.5 MW

Location:

San Jose, CA

#### Management Aghlights

- Monitoring, alert management, and performance reporting for a portfolio of projects totaling 5.5 MW (12 sites).
- Ongoing communication and coordination with O&M provider.

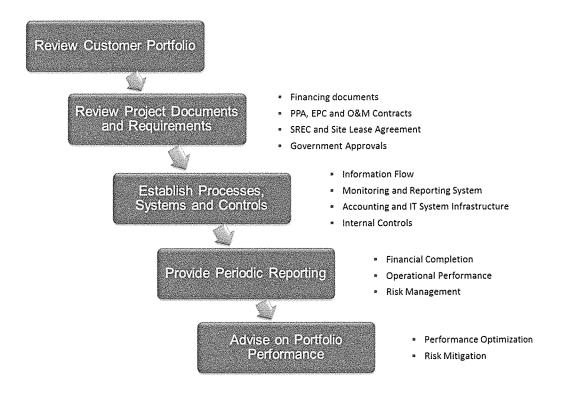




# 6. AM Mobilization Plan

#### **Mobilization Plan**

The graphic below illustrates the process Nautilus will execute as Asset Manager of the Project:



#### Mobilization Example: Sault Ste. Marie Phases 1-3

In May 2012, Starwood Energy announced its completion of the final phase of its 69 MW solar PV project located in Sault Ste. Marie, Ontario ("SSM 1-3"), and subsequently awarded SSM 1-3 asset management to Nautilus.

Nautilus ramped up for asset management services by establishing process-oriented implementation plan. The plan included:

- Review of Project Documents and Requirements
- Creation of Processes, Systems and Controls



- Allocation of appropriate staffing with applicable skill sets
- Establishment of mechanism for periodic reporting and monitoring

In February 2013, SSM 1-3 was sold to Kohlberg Kravis Robert ("KKR"). Due to Nautilus's reliable service as asset manager, KKR contracted the company to continue managing all phases of SSM 1-3's system performance monitoring, operations and management, financing compliance, financial reporting and revenue management as well as construction management of subsequent expansion.

#### SSM 1-3 Project Overview

69 MW (24 MW Phase 1; 34 MW

Phase 2; 11 MW Phase 3)

Sault Ste. Marie, Ontario Location: Offtaker:

Capacity:

Inverter:

Ontario Power Authority (20-

**Equipment:** Q.CELLS North America

Satcon

COD: (Phase 1: November 2010; Phase

2: October 2011; Phase 3:

December 2011)





# 7. Our Management Team

James Rice, CEO. James Rice is an energy industry professional with over 30 years' experience in the sector. Mr. Rice has operated, financed and invested in energy assets during his career. He has experience leading numerous mergers & acquisitions, corporate finance, and merchant banking transactions relating to mergers, acquisitions, divestitures, joint ventures, and public & private fund-raising. Prior to developing Riverstone/Carlyle's power sector private equity effort from 2002 – 2004, Mr. Rice was a Managing Director and Group Head leading Wachovia Securities' Utility & Power Technology Group from 2000-2002. Prior to Wachovia, Mr. Rice was a Managing Director in the Natural Resources & Power Group at J.P. Morgan & Co. He began his career on Wall Street at Goldman, Sachs & Co. from 1988-1994. Mr. Rice served as a nuclear-trained U.S. Naval Officer, serving onboard the ballistic missile submarine USS Simon Bolivar (SSBN 641). He has a BS in Mathematics (Operations Analysis) from the United States Naval Academy and a MBA in Finance and Marketing from the Wharton School at the University of Pennsylvania.

Laura E. Stern, President. With over twenty years of project finance and power industry experience, Ms. Stern has sourced, structured and executed over \$3 billion of power, energy and infrastructure investments. At BayernLB, she specialized in originating and structuring renewable energy debt financings, primarily in the wind sector. As a founding member of GMAC's project finance group, Ms. Stern sourced and closed senior debt financings for greenfield power development and acquisitions of distressed assets. Prior to that at CIBC, she structured and syndicated leveraged loans in the power sector as well as gaming and telecommunications. Ms. Stern began her career as a consultant with Price Waterhouse, advising the Philippine Government on the privatization of its power, water and wastewater sectors. She serves the Solar Energy Industries Association (SEIA) as an elected board member. She holds a AB from Harvard University and an MA from the Johns Hopkins School for Advanced International Studies.

Jeffrey Cheng, Chief Operating Officer. Jeffrey Cheng recently joined Nautilus and is an industry professional with ~20 years of experience. Prior to Nautilus, Mr. Cheng was CEO of Stion Energy Services, the development arm of Stion Corporation and led Stion's expansion into large commercial-scale deployments and green field "utility-direct" solar developments. While at Stion, he formed, built and managed a solar development business focused in the U.S. Before joining Stion, Mr. Cheng was Managing Director of Project Finance at Regenesis Power, a solar developer focused on municipal and utility-scale solar projects. While at Regenesis, he managed the project financing/disposition of the company's solar projects. Previously, Mr. Cheng held senior management positions in the technology industry including EVP of Corporate Development at Arasor International Ltd. and Advisor to the CEO of Novatel Wireless. Mr. Cheng also closed >\$5B in financing and M&A transactions as a senior investment banker at Piper Jaffray and started his investment banking career at Merrill Lynch. Mr. Cheng graduated with honors from the University of Southern California, holds a J.D. from Loyola Law School, and is a member of the New York State Bar.



Marina Shapiro, Chief Financial Officer. Ms. Shapiro over ten years of progressive accounting and finance experience, and is responsible for managing all financial aspects of the company including financing, reporting, internal controls and risk management. Prior to joining Nautilus, Ms. Shapiro spent three years working as a controller in the renewable energy sector. She began her career at KPMG providing attestation and consulting services to both public and private companies. Ms. Shapiro holds a BS in Economics and Accounting from University of Haifa, Israel and is a CPA licensed in the State of New Jersey.

Scott Greenberg, Vice President, Operations. Mr. Greenburg brings over 10 years of project design, construction, and operations in the power industry—6 years specific to solar. Experience includes the knowledge and ability to communicate professionally all aspects of solar electric facilities with solar integrator/EPC, roofing contractors and owners. He is proficiently responsible for support of all technical aspects of PV Solar Management. Management tasks include performing solar site inspections; preparation of specifications, scope of work and bid documents; reviewing engineering documents for design details of specific projects; handling job meetings; reviewing schedules and construction reports; resolving installation problems and issues; maintaining project files; acting as the liaison between the solar integrator/EPC, roofing applicator, GC, consultant, architect and building owner during the design and installation process.

Juan Alvarez, Vice President, Asset Management. With over 20 years in the financial and energy industries, Mr. Alvarez has worked at companies such as Sharp Electronics, BP Solar International and SunEdison Spain. In his most recent position at Cypress Creek, Alvarez managed the business and project development activities for utility and commercial sale photovoltaic systems in Spain and Italy. Prior to joining Cypress Creek Alvarez served as a Director of Business Development at Belectric, Inc. where he managed business development and commercial project origination for Latin America. Mr. Alvarez holds a Master of Business Administration in Finance and Investments from George Washington University in Washington, D.C.

**Thomas Ganter, Asset Manager.** Mr. Ganter brings four years of operations and maintenance/asset management experience in the renewable energy sector as the Asset/Relationship Manager for Nautilus host customers and O&M providers. Mr. Ganter holds a BS in Mechanical Engineering from Lafayette College and previously worked for the US Army for three years supporting electronic system maintenance and logistics.



# 8. Contact Information

Please contact the following company representative to address any questions related to this proposal:

#### **Primary Contact:**

Juan Alvarez
VP, Asset Management
Nautilus Solar Energy
396 Springfield Avenue, 2<sup>nd</sup> FL
Summit, NJ 07901
Phone: (703) 625 2962
Juan@nautilussolar.com