

# Town of Upper Marlboro

14211 School Lane • Upper Marlboro, Maryland 20772

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## Board of Town Commissioners

### WORK SESSION

March 24, 2020 – 7:00 p.m.

### AGENDA

Work Sessions are open to public observation, however,  
public participation is at the discretion of the Board.

All participants at this meeting are asked to maintain a safe social distance of six (6) feet apart from one another while on Town property, and strongly urge all citizens to practice this protocol in any public setting.

#### Roll Call

#### Pledge of Allegiance

#### Business

- 1) Emergency Ordinance 2020-04: Emergency Operations: (Board vote)
- 2) FY2021 Budget Revenue Overview (Board discussion)
- 3) Ordinance 2020-03: Personnel System Standards (Board discussion)
- 4) RFP 2020-01: Media Relations/ submissions (Board discussion)
- 5) RFP 2020-03: Town Hall Solar Panel Installation/ submissions (Board discussion)
- 6) COVID-19/ April Town Meeting date (Board discussion)
- 7) General Commissioner & Administrative Staff items:

#### Adjournment

*All meetings are subject to closure in accordance with the State Open Meetings Act—House Bill 217  
See back of Agenda for Public Comment Procedures*

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**Kai Bernal-LeClaire**  
Commissioner/Treasurer

**Wanda Leonard**  
Commissioner

**Linda Pennoyer**  
Commissioner/President

**BOARD OF COMMISSIONERS  
FOR THE  
TOWN OF UPPER MARLBORO**

EMERGENCY ORDINANCE: 2020-04  
SESSION: Regular Work Session  
INTRODUCED: March 24, 2020  
DATE ENACTED: March 24, 2020

AN EMERGENCY ORDINANCE PROVIDING FOR THE AUTHORITY AND POWERS OF THE PRESIDENT AND BOARD OF COMMISSIONERS OF THE TOWN OF UPPER MARLBORO FOR THE ISSUANCE OF PROCLAMATIONS AND ORDERS IN RESPONSE TO CIVIL EMERGENCIES AND TO ENACT CERTAIN CRIMINAL PENALTIES FOR VIOLATING SUCH ORDERS AND GENERALLY RELATING TO CIVIL EMERGENCIES.

**WHEREAS**, the Governor of Maryland, as of March 5, 2020, has declared a state of emergency and catastrophic health emergency for the epidemic known as COVID -19; and

**WHEREAS**, pursuant to § 14-301 of the Public Safety Article of Md. Ann. Code, a “public emergency” means: (1) a situation in which three or more individuals are at the same time and in the same place engaged in tumultuous conduct that leads to the commission of unlawful acts that disturb the public peace or cause the unlawful destruction or damage of public or private property; (2) a crisis, disaster, riot, or catastrophe; or (3) an energy emergency meaning a situation in which the health, safety, or welfare of the public is threatened by an actual or impending acute shortage in energy resources; and

**WHEREAS**, subject to § 14-1002 of the Public Safety Article of Md. Ann. Code, a local government has a duty to prevent civil disturbances, and if a structure or personal property is stolen, damaged, or destroyed in a riot, the injured party may recover actual damages sustained in a civil action against the county or municipal corporation of the State in which the riot occurred; and

**WHEREAS**, pursuant to § 82-16(1) of the Town Charter, the Board shall have the power to pass all such ordinances not contrary to the Constitution and laws of the State of Maryland or the Charter as it may deem necessary for the good government of the Town; for the protection and preservation of the Town’s property, rights, and privileges; for the preservation of peace and good order; for securing persons and property from violence, danger or destruction; and for the protection and promotion of the health, safety, comfort, convenience, welfare, and happiness of the residents of the Town and visitors thereto and sojourners therein; and

**WHEREAS**, pursuant to § 82-16(2)(dd) (Health) of the Town Charter and § 5-209 of the LG Art. of the Md. Ann. Code, the Board has the power to pass ordinances to protect and preserve the health of the Town and its inhabitants; to appoint a public health officer, and to define and regulate his powers and duties; to prevent the introduction of contagious diseases into the

Town; to establish quarantine regulations, and to authorize the removal and confinement of persons having contagious or infectious diseases; to prevent and remove all nuisances; to inspect, regulate, and abate any buildings, structures, or places which cause or may cause unsanitary conditions or conditions detrimental to health; and

**WHEREAS**, pursuant to § 14-111 of the Public Safety Article of Md. Ann. Code as found in the Maryland Emergency Management Agency Act, only the principal executive officer of a political subdivision, which means a county or municipal corporation of the State, may declare a local state of emergency, and except with the consent of the governing body of the political subdivision, a local state of emergency may not continue or be renewed for longer than 30 days; and

**WHEREAS**, pursuant to § 14-305 of the Public Safety Article of Md. Ann. Code, a law enforcement agency of a county or municipal corporation shall notify the Secretary of State Police if the local law enforcement agency receives notice of a threatened or actual disturbance that indicates the possibility of serious domestic violence; and

**WHEREAS**, pursuant to § 14-306 of the Public Safety Article of Md. Ann. Code, the chief executive officer or governing body of a county or municipal corporation may request the Governor to provide the militia to help bring under control conditions existing within the county or municipal corporation that, in the requestor's judgment, the local law enforcement agencies cannot control without additional personnel; and

**WHEREAS**, pursuant to § 14-8A-02 of the Public Safety Article of Md. Ann. Code, the state, the governing body of a county or municipal corporation, or any other governmental agency within the National Capital Region, as defined under § 2674(f)(2) of Title 10 of the United States Code, may enter into a reciprocal agreement for the period that it considers advisable with a federal agency, the Commonwealth of Virginia, the District of Columbia, or a county or municipal corporation, within or outside the state, and establish, train, and implement plans to request or provide mutual aid through the use of its officers, employees, and agents, together with all necessary equipment, in accordance with § 7302 of the Intelligence Reform and Terrorism Prevention Act of 2004 (108 P.L. 458, 118 Stat. 3638); and

**WHEREAS**, the Board finds that the Town is in urgent need of and will immediately benefit from a specific ordinance regarding civil emergencies to supplement existing ordinances, laws and statutes including the Common Law of Maryland and county ordinances that may be applicable within the Town's corporate limits, whereby the Town's appointed law enforcement and other officials may with more sufficient legal basis, legal authority and clarity, effectively act to insure the health, welfare, and safety of the Town and any visitors thereto.

**NOW, THEREFORE, THE BOARD OF COMMISSIONERS OF THE TOWN OF UPPER MARLBORO, STATE OF MARYLAND, DOES ORDAIN AND ENACT AN EMERGENCY ORDINANCE 2020-04 REGARDING CIVIL EMERGENCIES SUCH THAT SAID ORDINANCE AND THE SPECIFIC PROVISIONS THEREOF WRITTEN BELOW SHALL HEREBY READ AS FOLLOWS:**

## **CIVIL EMERGENCIES ORDINANCE**

### **SECTION 1 - PURPOSE AND AUTHORITY**

A. The purpose of this Emergency Ordinance is to supplement existing law and to provide certain authority and establish guidelines for the Town of Upper Marlboro to react and operate during periods of civil emergencies, and to prevent or mitigate conditions that threaten to destroy property and harm the public health, safety or welfare of residents of, or visitors to, the Town of Upper Marlboro.

B. The authority to provide for the protection of health, safety, comfort, convenience, and welfare of the Town of Upper Marlboro residents and visitors is provided in Section 82-16 (General Powers) of the Charter of the Town of Upper Marlboro, and Title 5 of the Local Government Article of Md. Ann. Code.

C. The authority to enact such provisions or regulations is further provided in Title 14 (Emergency Management) of Public Safety Article of Md. Ann. Code.

### **SECTION 2 - APPLICABILITY OF THE ORDINANCE**

A. The provisions herein shall apply to the entire corporate territory and populace of the Town of Upper Marlboro, and to all real property whether improved or unimproved located within the corporate limits of the Town.

B. Unless an intergovernmental agreement states otherwise, the Prince George's County Police Department, the Sheriff's Department and the Park Police of the Maryland-National Capital Park and Planning Commission shall retain primary law enforcement jurisdiction over the courts, public buildings, parks and the lands under their respective jurisdictions.

C. The Town's police department shall cooperate with other police agencies operating within the corporate limits and its environs in accordance with any approved mutual aid agreements approved by the Board in accordance with State Law.

### **SECTION 3 - PROCLAMATION (EXECUTIVE ORDER) OF CIVIL EMERGENCY**

A. Whenever riot, unlawful assembly, insurrection, other disturbance, the imminent threat thereof, or any fire, flood, storm, earthquake or other natural catastrophe or disaster occurs in the Town and results in or threatens to result in the death or injury of persons or the destruction of property or the disruption of local government to such extent as to require, in the judgment of the President, extraordinary measures to prevent the death or injury of persons and to protect the public peace, safety and welfare, and alleviate damage, loss, hardship or suffering, the President shall forthwith proclaim the existence of a municipal emergency.

B. Such civil emergency shall cease to exist within 30 days or before upon the issuance of an executive order by the President or by a resolution passed by a vote of not less than 2/3 of all the members present and voting of the Board of Town Commissioners terminating the same. Such

proclamation shall be issued by the President or by a resolution passed by a vote of not less than 2/3 of all the members of the Board of Town Commissioners present and voting when such extraordinary measures are no longer required for the protection of the public peace, safety and welfare. Before a civil emergency is declared terminated, either by proclamation by the President or by a resolution as stated herein, the President or Council will consult with the Town's Police Chief to determine if there are any fiscal, public safety response or disaster recovery imperatives that require the continuation of emergency measures.

C. Any such executive order of a civil emergency by the President shall, within 72 hours of issuance of the proclamation or as soon as practical, at the earliest practicable time be filed with the Town Clerk for presentation to the Board of Commissioners for possible ratification and confirmation, modification, or rejection. The Board may, by resolution, modify or reject the proclamation, and if rejected, it shall be void. If the Board modifies or rejects the proclamation, said modification or rejection shall be prospective only, and shall not affect any actions taken prior to the modification or rejection of the proclamation. The Board may convene and act on any proclamation of civil emergency within 72 hours of its being presented to the Board by the President. Except with the consent of the governing body of the political subdivision, a local state of emergency may not continue or be renewed for longer than 30 days pursuant to State law.

#### **SECTION 4 - AUTHORITY OF PRESIDENT TO ISSUE CERTAIN ORDERS.**

A. Upon the executive order of a civil municipal emergency by the President, and during the existence of such civil emergency, the President may, in a form that meets the requirements of this section, make and proclaim any or all of the following orders:

(1) An order imposing a general curfew applicable to the Town as a whole, or to such geographical area or areas of the Town and during such hours as he deems necessary, which effective hours and affected area or areas may be modified from time to time;

(2) An order requiring any or all business establishments to close and remain closed until further order;

(3) An order requiring the closure of any or all bars, taverns, liquor stores, and other business establishments where alcoholic beverages are sold or otherwise dispensed, provided that with respect to those business establishments which are not primarily devoted to the sale of alcoholic beverages and in which such alcoholic beverages may be removed or made secure from possible seizure by the public, the portions thereof utilized for the sale of items other than alcoholic beverages may, in the discretion of the President, be allowed to remain open;

(4) An order requiring the discontinuance of the sale, distribution or giving away of alcoholic beverages in any or all parts of the Town;

(5) An order requiring the discontinuance of the sale, distribution or giving away of firearms and/or ammunition for firearms in any or all parts of the Town;

- (6) An order requiring the discontinuance of the sale, distribution or giving away of gasoline or other liquid flammable or combustible products in any container other than a gasoline tank properly affixed to a motor vehicle;
- (7) An order requiring the closure of any or all business establishments where firearms and/or ammunition for firearms are sold or otherwise dispensed, provided that with respect to those business establishments which are not primarily devoted to the sale of firearms and/or ammunition and in which such firearms and/or ammunition may be removed or made secure from possible seizure by the public, the portions thereof utilized for the sale of items other than firearms and ammunition may, in the discretion of the President, be allowed to remain open;
- (8) An order closing to the public any or all public places, including streets, alleys, sidewalks, public ways, schools, parks, shorelines, amusement areas, and public buildings provided that such an order is supplementary to and consistent with County, State and Federal orders relating such closures;
- (9) An order prohibiting the carrying or possession of a firearm or any instrument which is capable of producing bodily harm and which is carried or possessed with intent to use the same to cause such harm, provided that any such order shall not apply to peace officers or military personnel engaged in the performance of their official duties;
- (10) An order requesting Federal, State and/or County assistance in combating such civil emergency;
- (11) An order establishing economic controls in aid of and supplementary to and consistent with State and Federal orders relating to price stabilization or controls including: the convening and establishing of rations; auditing retail and wholesale ration accounts; monitoring price control operations and reporting violations to appropriate authorities; assisting in providing essential supplies to disaster victims; advising appropriate authorities concerning rationing, price control, wage and rent controls and allocation of food and other essential commodities;
- (12) An order directing the use of all public and private health, medical, and convalescent facilities and equipment to provide emergency health and medical care for injured persons;
- (13) An order authorizing, in cooperation with utility management and appropriate State and federal agencies, the shutting off, restoration, and operation of utility services in accordance with priorities established for combating such civil emergency;
- (14) An order providing for the evacuation and reception of the population of the Town or any part thereof;
- (15) An order to set evacuation routes and the modes of transportation to be used during an emergency and to direct the control of ingress to and egress from an emergency area, the movement of individuals in the area, and the occupancy of premises in the area;

(16) An order to authorize the use of private property, in which event the owner of the property shall be compensated for its use and for any damage to the property;

(17) An order to provide for temporary housing for Town residents;

(18) An order to authorize the clearance and removal of debris and wreckage;

(19) An order to control traffic and suspend or alter parking regulations within the Town;

(20) An order, if medically necessary and reasonable, to appoint a public health officer, and to define and regulate his or her powers and duties, and to prevent and remove all nuisances, and to inspect, regulate, and abate any buildings, structures, or places which cause or may cause unsanitary conditions or conditions detrimental to health;

(21) An order, if medically necessary and reasonable to treat, prevent, or reduce the spread of the disease or outbreak believed to have been caused by the exposure to a deadly agent, the President may designate a health official to:

- (i) require individuals to submit to medical examination or testing;
- (ii) require individuals to submit to vaccination or medical treatment unless the vaccination or treatment likely will cause serious harm to the individual;
- (iii) establish places of treatment, isolation, and quarantine; or
- (iv) require individuals to go to and remain in places of isolation or quarantine until the designated official determines that the individuals no longer pose a substantial risk of transmitting the disease or condition to the public.

(22) An order to derogate express charter or ordinance provisions for conducting or postponing a municipal election or to prescribe the method of conducting a municipal election;

(23) An order abrogating or modifying any relevant and existing ordinance, resolution, rule, regulation, or charter provision to allow for extensions of permits, licenses, registrations, nomination certificates or other permissions, deadlines or mandated filings to extend or avoid lapsing of same for a period of time extending for up to 30 days after the emergency;

(24) An order modifying employee salaries or hiring additional employees necessary for the purpose of meeting the emergency; and

(25) Such other orders as are imminently necessary for the protection of life and property.

B. The powers of the President under this section are in addition to any other authority vested in the chief executive officer of a municipal corporation by law. Provided, however, that any such order(s) shall, within 72 hours of issuance of the order or as soon as practical at the earliest practicable time, be filed with the Clerk to the Board of Town Commissioners and presented to the Board for ratification and confirmation, modification or rejection, and if rejected, shall be void.



C. The Board shall consider the statements and provisions set forth in this Ordinance and may, by resolution, modify, ratify, amend or reject the order. If the Board modifies, amends or rejects the order, said modification, amendment or rejection shall be prospective only, and shall not affect any actions taken prior to the modification, ratification, amendment or rejection of the order. The Board shall endeavor to act on any order within 72 hours of its being presented to the Board by the President; however, should the Board fail to take action, the President's order will remain in effect throughout the duration of the declared emergency.

## **SECTION 5 - CONTENTS OF ORDER.**

An order issued pursuant to this Ordinance shall contain the following:

- A. A statement of the facts upon which the order is based; and
- B. A statement that the President believes it is in the best interest of public safety, rescue and recovery efforts and the protection of property that the exercise of certain rights be temporarily limited; and
- C. A statement that the conditions of the order are designed to provide the least necessary restriction on those rights.

## **SECTION 6 - USE OF SERVICES AND EQUIPMENT OF MUNICIPALITIES AND CITIZENS; OTHER PERSONNEL.**

In addition to and/or in connection with the exercise of the powers specified in this Ordinance, the President shall in carrying out the provisions thereof:

- A. Utilize to the maximum extent practicable the services, equipment, supplies and facilities of existing departments, offices, and agencies of the Town, including the Upper Marlboro Community Emergency Response Team (CERT), State, counties and other municipal corporations organized under the laws of the State consistent with any applicable intergovernmental agreements (i.e., memoranda of understanding); and
- B. In the event of a disaster and upon the proclamation by the Governor or the President of the existence of such disaster, command the service and equipment of as many citizens as the President considers necessary in the light of the disaster proclaimed, provided that citizens so commandeered shall be entitled during the period of such service to all privileges, benefits and immunities as are provided by this Ordinance and federal and State civil defense regulations for registered civil defense or emergency services workers; and
- C. The President may at any time appoint or authorize the appointment of volunteer citizens to augment the personnel of any Town activity in time of an emergency. Such volunteer citizens shall be enrolled as emergency management volunteers in cooperation with the heads of the Town departments affected and shall be subject to any rules and regulations set forth by the President. Except for Town officials having subscribed to the oath pursuant to Section 82-85 of the Town Charter, each person serving as a member of the Emergency Operations Committee or similar advisory council or committee, or as an employee or volunteer in any capacity in the Town's



emergency management or similar organization shall, prior to assuming his duties, take an oath which shall be substantially as follows:

I, \_\_\_\_\_ do solemnly swear (or affirm) that I will support and defend the Constitution of the United States and the Constitution of this State against all enemies, foreign or domestic; that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties upon which I am about to enter, and I do further swear (or affirm) that I do not advocate the overthrow of the government of the United States or of this State by force or violence; and that during such time, as I am a member of the Town of Upper Marlboro's emergency management organization, I will not advocate nor become a member or an affiliate of any organization, group or combination of persons or of any political party that advocates the overthrow of the government of the United States or of this State by force or violence.

D. Emergency management volunteers assigned to duty during a period of natural disaster or civil emergency in the Town shall be eligible for the benefits of the State Workmen's Compensation Law at a rate of compensation commensurate with that of persons performing similar work under conditions of regular employment.

#### **SECTION 7 - DISASTER READINESS AND RESPONSE PLAN.**

Plans and programs for executing emergency powers including a disaster readiness and response plan or emergency management/continuity of operations plan shall be prepared and kept current under the direction of the President who shall submit such plans and programs and proposed amendments thereto to the Town Board of Commissioners for review and approval by resolution. Upon such approval the President shall be authorized to exercise in accordance with such plans and programs the powers provided therein.

#### **SECTION 8 - EMERGENCY OPERATIONS COMMITTEE.**

There shall be an Emergency Operations Committee, CERT Team or similar advisory council, or Town Committee, consisting of such number of members as shall be appointed pursuant to Ordinance 2019-02 or by the President and chaired by the Town's Director of Emergency Operations, or some other designated official, if so appointed, or the Chief of Police, in case an elected or appointed official is not so appointed or named to chair said Committee. Members of the Committee shall serve without compensation but may be reimbursed for reasonable and necessary expenses incurred in the performance of their duties. The Committee shall meet at least annually at the places and times as shall be prescribed by the President, and shall:

A. Advise the President on all matters pertaining to disaster readiness and response capabilities within the Town;

B. Periodically review and make recommendations for the revision and/or maintenance of up-to-date disaster response plans for the Town including:

- (1) Preparations for and the carrying out of executive emergency powers;
- (2) The delegation and sub-delegation of administrative authority by the President;
- (3) The performance or coordination of emergency functions, including firefighting, police, medical and health, welfare, rescue, engineering, transportation, communications and warning services, evacuation of persons from stricken areas, facility protection, restoration of utility services, and other functions relating to civilian protection together with all activities necessary or incidental to the preparation for and carrying out of such functions; and
- (4) Requirements for department and municipal operations, including management succession, procedures for providing twenty-four-hour capability, mobilization procedures, special disaster response procedures, plans for records protection, personnel procedures, finance plans, and training procedures for disaster response.

C. Provide cooperation and coordination with the disaster response plans of other local organizations and agencies;

D. Prepare and recommend to the President plans for mutual aid operations with the State and the agencies or political subdivisions thereof; and

E. Recommend expenditures for disaster preparations and training.

#### **SECTION 9 EMERGENCY PURCHASES OF SUPPLIES.**

Upon the executive order of a municipal emergency by the President, and during the existence thereof, emergency purchases of supplies, materials and equipment are authorized to be made in accordance with Ordinance No. 2011-02, this Ordinance and the following procedure:

A. A log of all purchases made during any emergency shall be maintained by each department, the Chief of Staff, and by the Town Treasurer.

B. The heads of departments and the President shall account for all costs incurred in making such purchases.

C. Upon termination of the emergency, the Treasurer and/or a designee, shall report all emergency purchases issued to the respective departments and offices, and shall verify and authenticate such orders, and submit a summary thereof to the Board for review.

#### **SECTION 10 - AUTHORITY OF PRESIDENT TO ENTER INTO CONTRACTS AND INCUR OBLIGATIONS.**

A. Authority of President; review and action by of Town Commissioners.

(1) Notwithstanding the emergency procurement provisions found in Ordinance No. 2011-02, upon the proclamation by the President of a civil emergency resulting from a disaster caused by enemy attack, sabotage, or other hostile action, or by fire, flood, storm, earthquake medical, epidemic, pandemic, or other natural cause, and during the existence of such civil emergency, the President shall have the power by order to enter into contracts and incur obligations necessary to combat such disaster, protect the health and safety of persons and property, and provide emergency assistance to the victims of such disaster. Such powers shall be exercised in the light of the exigencies of the situation without regard to time-consuming procedures and formalities prescribed by ordinance (excepting mandatory constitutional requirements), including, but not limited to, budget ordinance limitations and requirements of competitive bidding and publication of notices pertaining to the performance of public work, entering into contracts, the incurring of obligations, the employment of temporary workers, the rental of equipment, the purchase of supplies and materials, the levying of taxes, and the appropriation and expenditures of public funds, provided that the President shall, wherever practicable, advise and consult with the Board of Commissioners with respect to disaster response activities, and any such order shall at the earliest practicable time be presented to the Board for review and appropriate legislation including:

(I) Findings by resolution with respect to actions taken;

(II) Authorization of payment for services, supplies, equipment loans and commandeered property used during disaster response activities;

(III) Approval of gifts, grants or loans accepted by the President during the emergency; and

(IV) Levy of taxes to meet costs of disaster response and recovery operations.

(2) And upon such review, the Board of Commissioners may ratify and confirm, modify, or reject any such order, and if rejected any such order shall be void.

B. The Treasurer shall be authorized to draw and to pay the necessary warrants for expenditures made pursuant to order and authorized by the Board of Commissioners.

C. Nothing in this Article shall be interpreted to prevent or limit the President from invoking or utilizing any emergency purchasing provisions found in Ordinance No. 2011-02 in circumstances where no executive order or resolution of a civil municipal emergency pursuant to this Ordinance has been issued by the President or Board.

## **SECTION 11 - LINE OF SUCCESSION AND VACANCIES**

A. During the effective period of an official proclamation by the President or the Governor that declares all or part of the municipal corporation to be in an actual or threatened emergency area, should the President of the Board of Commissioners step down, resign or becomes unable to serve, the remaining commissioners shall decide amongst themselves who shall serve as President as outlined in the Town Charter. Should there be a tie, the remaining commissioner with the highest vote count during the last election cycle shall break the tie or decide.

B. In case of a vacancy, the Board shall follow the Town Charter to hold a special election for the replacement or filling of a seat on the Board

C. In certain circumstances, this Section may be superseded by and shall be controlled by the relevant provisions of § 14-403 of the Public Safety Article of Md. Ann. Code.

## **SECTION 12 - NOTIFICATION OF GOVERNOR, NEWS MEDIA AND PUBLIC.**

The President shall cause any proclamation or order issued pursuant to the authority of this Ordinance to be delivered to the Governor of the State and, to the extent practicable, to all news media within or near the Town, and shall utilize as many other available such means, including but not limited to, posting on public facilities, signs, public address systems, newsletters, newspapers, Town internet web sites or social media accounts as may be practical to use and as shall be necessary in his judgment, in order to give the widest dissemination of such proclamations and orders to the public.

## **SECTION 13 - FAILURE TO OBEY; VIOLATIONS AND PENALTIES.**

A person or business entity's responsible party, owner or executive is guilty of failure to obey the President's emergency order when he or she knowingly violates any order issued under authority of this Ordinance. It is unlawful for anyone to fail or refuse to obey an order proclaimed by the President pursuant to the provisions of this Ordinance. Anyone convicted of a violation of this Ordinance shall be guilty of a misdemeanor punishable by a fine of not more than \$1,000 or by imprisonment for not more than 180 days, or both such fine and imprisonment. Pursuant to Section 14-114 of the Public Safety Article of the Annotated Code of Maryland, a person who willfully violates an order, rule, or regulation issued under the authority of the Governor pursuant to the Maryland Emergency Management Agency Act is guilty of a misdemeanor and, on conviction, is subject to imprisonment not exceeding one year or a fine not exceeding \$5,000, or both.

**AND BE IT FURTHER ENACTED AND ORDAINED**, by the Board of Town Commissioners of the Town of Upper Marlboro that this Emergency Ordinance may be revised as seen fit, and reintroduced as a new or regular ordinance for public comment in a timely fashion at a time the Board deems safe and proper to do so.

**AND BE IT FURTHER ENACTED AND ORDAINED** by the Board of Commissioners of the Town of Upper Marlboro, Maryland that due to the exigent circumstances and important governmental interests stated in the above recitals and herein and in order to further promote the health, safety and welfare of the Town and the general public, the Charter provision requiring that an ordinance may not be passed at the meeting at which it is introduced is hereby suspended by unanimous vote of the Board of Commissioners, and that this Emergency Ordinance shall become effective immediately following approval by the Board of Commissioners.

**AND BE IT FURTHER ENACTED AND ORDAINED** by the Board of Commissioners of the Town of Upper Marlboro, Maryland that pursuant to the Town Charter this Ordinance shall be posted in the Town office and a fair summary of it shall be published once in a newspaper of general circulation in the Town after passage by the Board.

AYES: \_\_\_\_\_

NAYES: \_\_\_\_\_

ABSENT: \_\_\_\_\_

**INTRODUCED** in a public session of the Board of Commissioners on this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

**ORDAINED, APPROVED AND** finally passed by the Board of Commissioners of the Town of Upper Marlboro, Maryland on this \_\_\_\_\_ day of \_\_\_\_\_, 2020, by:

Attest:

THE TOWN OF UPPER MARLBORO  
BOARD OF COMMISSIONERS

\_\_\_\_\_  
Linda Pennoyer, President

\_\_\_\_\_  
Kai Bernal-LeClaire, Commissioner

\_\_\_\_\_  
M. David Williams, Town Clerk

\_\_\_\_\_  
Wanda Leonard, Commissioner

Reviewed and Approved for Legal Sufficiency

\_\_\_\_\_  
Kevin J Best, Town Attorney

Date: \_\_\_\_\_



# Town of Upper Marlboro

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Upper Marlboro, MD 20772

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Mailing address: P.O. Box 280 • Upper Marlboro, MD 20773-0280

## MEMORANDUM

**Date:** Tuesday, March 24, 2020

**To:** Board of Commissioners

**Re:** FY2021 Projected Budget Revenue

In the *attached document*, is an early presentation of projected revenues for the FY2021 budget. Many line items may be adjusted upon further review and discussion with the Board of Commissioners.

Sincerely,

*William T. Morgan*

William T. Morgan  
Director of Human Resources

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**Kai Bernal-LeClaire**  
Commissioner/Treasurer

**Wanda Leonard**  
Commissioner

**Linda Pennoyer**  
Commissioner/President

Franchise Fee	\$15,200.00	May change depending on final franchise contract agreement
Traders License Fee	\$1,200.00	
Permits/Rentals	\$16,500.00	Food trucks, conference room and parking lot
Parking Meters	\$288,000.00	History with the new meters has grossed between \$22k and \$26k monthly
Parking Fines/Penalties	\$26,000.00	Code enforcements efforts has written five tickets daily at a min. citation of \$25
Pub/Edu/Govt Broadcasting	\$5,000.00	Deposits from cable providers sucj as Verizon. These funds are unrestricted.
FIP	\$50,000.00	Will have to review new amount allocated to the Town
MNCPCC	\$0.00	Don't believe we qualify for this anymore
Conservation Energy	\$25,000.00	
State Bond Bill	\$175,000.00	Proposed in FY2020 but did n ot receive. This number may increase for FY2021 with a defined usage of the monies
Police State Aid	\$17,317.00	State issued monies for police equipment and supplies. Reduction of \$2k from FY2020 Completely used in FY2020 but we are not anticipating to reapply. Unless the Town grants the police dept. to hire more officers thenm this grant will be considered for new police vest.
Police Body Armor	\$0.00	
Park Conservation	\$0.00	Removed \$200k in FY2020 adjustment but we may have this grant in the FY2021 budget
Community Open Space	\$200,000.00	Being used in FY2020 for new playground. This may be reapplied for a lesser amount.
Financial Corp. Tax	\$9,145.00	Grant from financial institutions where owners have stock within the corporate limits
Highway User Fee	\$31,106.00	MML budget prep document issued an estimate for state shared revenues. Increase of \$1k from FY2020
Disposal Fee Rebate	\$2,000.00	
Interest Earnings	\$5,000.00	Less investment accounts has decreased the amount of interest gained over the previous two years
Sale of Property	\$1,500.00	This does not happen often but we may sale or dispose of property that is no longer needed by the Town
Misc. Revenue	\$5,000.00	These are services offered my the Town. For example: paper copies, notary, police reports and etc.
Special Events/Donations	\$5,000.00	Donations/sponsorships from businesses or organizations to assist with expenses for town events
Real Estate Taxes	\$305,000.00	Proposing increased assessment for real estate and property taken on with the new annexations
Personal Property Taxes	\$55,000.00	businesses internal assests. For example: computer, furniture and etc.
Public Utility Taxes	\$300,000.00	Proposing increased assessment for public utilities
Income Taxes	\$206,179.00	Provided via the states revenue division. This is an increase but has a chance to be higher with new annexation
Fund Transfer (Capital Improvement)	\$150,000.00	Capital improvement will be allocated according to town approved projects. For example: real estate acquisition, lot improvements, roadway improvements
<b>Total Projected Revenue</b>	<b>\$1,894,147.00</b>	



**BOARD OF COMMISSIONERS  
FOR THE  
TOWN OF UPPER MARLBORO**

ORDINANCE: 2020-03  
SESSION: Regular Town Meeting  
INTRODUCED: March 10, 2020  
DATE ENACTED: \_\_\_\_\_

**AN ORDINANCE TO ESTABLISH A PERSONNEL SYSTEM WITH CERTAIN GUIDELINES,  
PAYGRADES, STANDARDS AND PROCEDURES FOR THE EMPLOYEES OF THE TOWN  
OF UPPER MARLBORO.**

**WHEREAS**, Section 82–59 of the Town Charter (Authority to Employ Personnel) states that the Town shall have the power to employ such officers and employees as it deems necessary to execute the powers and duties provided by this Charter or state law and to operate the Town government; and

**WHEREAS**, Section 82–60 of the Town Charter (Compensation of Employees) states that the compensation of all officers and employees of the Town shall be set from time to time by an ordinance; and

**WHEREAS**, Section 82-15(b) of the Town Charter states the President, with the approval of the Board, shall appoint the heads of all offices, departments, and agencies of the Town government as established by this Charter or by ordinance, and all office, department, and agency heads shall serve at the pleasure of the President, and all subordinate officers and employees of the offices, departments, and agencies of the town government shall be appointed and removed by the president, in accordance with rules and regulations in any merit system which may be adopted by the Board; and

WHEREAS, the Board finds that a merit system is a personnel system created “...to secure the appointment of persons, after examination, suitable and qualified for the positions or offices to which they are applicants, and, second, when after appointment, their efficiency and worth are shown to exist, to place their removal beyond the control of the appointing power, who might, for political, ..., or other insufficient reasons, be disposed to remove them, and to appoint unsuitable and inefficient persons as their successors to the injury and detriment of the public...” *Lilly v. Jones*, 158 Md. 260, 148 A. 434 (1930).

**Section 1. Declaration of Policy**

- A. This personnel or merit system is established for all present and future employees of the Town, and shall provide the means to recruit, select, develop, advance, and maintain an effective and responsive work force on the basis of relative ability, knowledge requirements of the citizens of the Town.
- B. All personnel actions shall be taken without regard to race, sex, religion, national origin, or political affiliation and shall be based on merit and performance.

## **Section 2. Scope and Intent**

- A. The classifications, definitions, policies and procedures outlined in this ordinance apply to all regular Town staff positions. Regular Town staff positions include all Town positions, including offices, except the following: elected officials, independent contractors, persons employed on projects of limited duration, unpaid volunteers (including interns and Town committee members), or other persons appointed to serve without pay.
- B. All employees who have served less than six (6) months, and all new employees of the Town except police, will serve a probationary period of six (6) months. Police employees will serve a probationary period of one year. The probationary period may be extended for cause by the Town.
- C. This Ordinance shall be read in conjunction with any employee handbook as duly approved by the Board, and this Ordinance shall control or supersede any conflicting provision in said handbook.
- D. Unless a valid employment contract approved unanimously by the full Board states otherwise, nothing in this Ordinance shall be deemed to modify or alter the Town's at-will employment relationship with any employee.

## **Section 3. Regular Town Staff Positions**

The annual operating budget shall fund the offices and positions listed below. No other regular Town staff positions or offices may be included or authorized in the annual operating budget unless approved within the budget ordinance or an amendment thereto or by an amendment to this Ordinance. In addition to the Town Charter and any previously enacted ordinances in effect, the supervisory positions and named departments or heads thereof enumerated below are considered to be created and duly authorized by law or otherwise ratified by this Ordinance as existing in conformance with Subsection 82-15(b) of the Town Charter. The paygrades referenced in this Section are further described in Section 7, below.

- A. Positions within the Town General Government Department:
  - Chief of Staff (Supervisory) (Paygrade 6-7)
  - Director of Finance & Human Resources (Paygrade 5-6)
  - Town Clerk (Supervisory) (Paygrade 4-6)
  - Deputy Town Clerk (Paygrade 1-3)
- B. Positions within the Town's Public Safety Department:
  - Chief of Police (Supervisory) (Paygrade 6-8)
  - Sergeant (Paygrade 4-6)
  - Corporal (Paygrade 3-5)
  - Three (3) Patrol Officers (Paygrade 2-4)
  - Code Enforcement Officer (Paygrade 1-3)
  - Police Clerk (Paygrade 1-3)
- C. Positions within the Town's Public Works Department:
  - Superintendent of Public Works (Supervisory) (Paygrade 3-5)
  - Three (3) Crewmembers (Paygrade 1-3)

## Section 4. Hiring of Town Employees

- A. **Positions Requiring Board Approval:** Hiring for any regular Town staff position that entails the head of any office, department, or agency of the Town government as established by the Charter or by ordinance requires approval by majority vote of the Board of Commissioners, as required by the Charter. The President shall give the Board notice of the hiring of any non-regular position as listed in Section 2.A at least one week prior to the start date of the non-regular employee.
- B. **The process for hiring regular Town staff positions that does not include the head of any office, department, or agency of the Town government is as follows:**
- (1) Any opening for a regular Town Staff position should be advertised for at least thirty (30) days on a publicly accessible job-posting website, the Town website, and all Town social media sites. The position advertisement must include, at a minimum, the education and experience requirements for the position, the major responsibilities for the position as outlined in the Position Description, the salary range for the position, required documents to be submitted for an application, and the closing date for applications. All applications must be reviewed and ranked by at least the cognizant department head and one Commissioner (or at least a Commissioner and the President in the case of a department-head position). Rankings shall be made without regard to race, sex, religion, national origin, or political affiliation
  - (2) If no applications meet the minimum education and experience requirements for the position, the position must be re-advertised for at least fourteen (14) days. If three or more applicants meet the education and experience requirements for the position, then at least the top three qualified applicants must be interviewed within thirty (30) days of the closing of the position advertisement. If less than three (3) applicants meet the education and experience requirements, then all qualified applicants should be interviewed. Interviews must be conducted by at least one Commissioner the cognizant department head.
  - (3) After conducting interviews, the interviewers must select an interviewee within 30 days of the last interview. Once the individual selected has been notified of selection and accepted the position, the Director of Finance & Human Resources will verify any educational requirements by promptly obtaining an official transcript directly from the educational institution. The Director of Finance & Human Resources must also ensure that all selected candidates undergo criminal background checks and drug screening procedures prior to starting employment.

## Section 5. Political Activities

- A. No regular Town staff employee shall hold an elected office or more than more than one (1) appointed office; however, nothing herein shall prevent an officer from holding an *ex officio* office or position.
- B. No official or employee of the Town shall solicit any contributions or service for any political purpose from any Town employee.

- C. Nothing herein contained shall affect the right of any employee to hold membership in the support of political party, to vote as he/she chooses, to express himself publicly or privately on all political subjects and candidates, to maintain political neutrality, and to actively participate in political meetings. Such activities must be engaged in as a private citizen and on the employee's own time.

## Section 6. Unlawful Acts

- A. No person shall make any false statements with regard to any test, certification, or appointment made under any provisions of this Ordinance, or in any manner commit or attempt to commit any fraud preventing the impartial execution of this Ordinance and policies.
- B. No person shall, directly or indirectly, give, render, pay, offer, solicit, or accept any money, service, or other valuable consideration for any appointment under this Ordinance, or furnish to any person any special privileged information for the purpose of affecting the rights or prospects of any person with respect to employment with the Town.

## Section 7. Compensation.

- A. The Board of Commissioners shall set the compensation of all regular Town staff positions via the annual budget ordinance in enacted in conjunction with the annual operating budget, in accordance with the pay chart below. The pay chart should be published in conjunction with the annual budget. The chart includes eight (8) paygrades, with ten (10) steps in each grade. The base pay for each paygrade must be least 10% higher than next lowest paygrade. Part-time employees will be paid by the hour, at an hourly rate (1/5000) of the annual rate, as a full-time employee with the same position. Part-time employees will have the same minimum and maximum salaries (and same eligibility for step increases) as their full-time counterparts for computing their hourly rate.
- B. Employees increase by one step after completing a period of satisfactory service (in a particular grade and step) with the Town as follows: Increasing one step after one year of satisfactory service for steps 2 through 4, increasing one step after two years of satisfactory service for steps 5 through 7, and increasing one step after 3 years of satisfactory service from steps 8 through 10. Thus, an employee would take 18 total years to move from step 1 to step 10 within a paygrade. Employees may increase in grade (for positions that have multiple paygrades) after 2 years of satisfactory service. They will be placed in the higher pay grade at one step lower than their step in their current paygrade (For example, an employee in paygrade 5 step 3 would be placed in paygrade 6 step 2).

Paygrade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step10
1	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%
2	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%
3	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%
4	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%

5	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%
6	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%
7	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%
8	base	base +3%	base +6%	base +9%	base +12%	base +15%	base +18%	base +21%	base +24%	base +27%

C. Town employees shall receive compensation as outlined above in this Section, and any other financial compensation including a pay increase, bonus, or incentive pay must be approved by a majority of the Board of Commissioners as appropriated in the annual budget ordinance and approved by the detailed budget document.

### **Section 8. Penalties**

Violation of any provision of this Ordinance may result in disciplinary action on the part of the Board of Commissioners up to and including dismissal.

### **Section 9. Town Employee Handbook**

The Board of Commissioners shall set further personnel policies and procedures through approval of the Town Employee Handbook. The handbook shall be reviewed annually and updated at least every three (3) years by Resolution.

### **Section 10. Position Descriptions and Organization Chart**

The Board of Commissioners shall set, by Ordinance or written resolution, position descriptions for all regular town staff that include major duties, minimum education and experience requirements, minimum and maximum pay in accordance with Section 7, as well as, the organizational chain(s) of reporting and responsibilities, including supervisory and/or oversight responsibilities, for each position by separate Ordinance or written resolution adopted from time to time.

### **Section 11. Severability**

Should any part of this Ordinance be held invalid, all remaining parts shall remain in effect.

**AND BE IT FURTHER ENACTED AND ORDAINED** by the Board of Commissioners of the Town of Upper Marlboro, Maryland that pursuant to the Town Charter this Ordinance shall be posted in the Town office and a fair summary of it shall be published once in a newspaper of general circulation in the Town and effective 20 days after passage by the Board.

AYES: \_\_\_\_

NAYES: \_\_\_\_

ABSENT: \_\_\_\_

**INTRODUCED** in a public session of the Board of Commissioners on this \_\_\_\_ day of \_\_\_\_\_, 2020.

**ORDAINED, APPROVED AND** finally passed by the Board of Commissioners of the Town of Upper Marlboro, Maryland on this \_\_\_\_ day of \_\_\_\_\_, 2020, by:

Attest:

THE TOWN OF UPPER MARLBORO  
BOARD OF COMMISSIONERS

\_\_\_\_\_  
Linda Pennoyer, President

\_\_\_\_\_  
Wanda Leonard, Commissioner

\_\_\_\_\_  
M. David Williams, Town Clerk

\_\_\_\_\_  
Kai Bernal-LeClaire, Commissioner

Reviewed and Approved for Legal Sufficiency

\_\_\_\_\_  
Kevin J. Best, Esq.

Date: \_\_\_\_\_



# Town of Upper Marlboro

Town Hall, 14211 School Lane  
Upper Marlboro, MD 20772

Tel: (301) 627-6905  
Fax: (301) 627-2080

[info@uppermarlbormd.gov](mailto:info@uppermarlbormd.gov)  
[www.uppermarlbormd.gov](http://www.uppermarlbormd.gov)

Mailing address: P.O. Box 280 • Upper Marlboro, MD 20773-0280

## MEMORANDUM

To: Board of Town Commissioners

From: Kyle Snyder, Chief of Staff

Date: Friday March 20<sup>th</sup>, 2020

Re: RFP Submissions

Dear Commissioners,

### RFP 2020-01 Town Media Relations

The Town received only one submission from Feldmann Communications Strategies LLC. With the Board's consent, we can place a contract award vote at the April Town Meeting.

### RFP 2020-02 Parking Enforcement Software

The Town received one proposal from IPS Parking, and one request for extension until April 6<sup>th</sup> from Passport Parking. The Town also reached out to Municode, who declined to apply for the RFP as they do not handle the mailing of citation letters, they simply provide the software. This RFP will go before the Board at the April Board Worksession.

### RFP 2020-03 Town Hall Solar Installation

The Town has been in contact with a total of 5 firms interested in the RFP, below are the comparisons:

Firm	System Size	Production	Price	Notes
Power Factor	9.63KW	12,000KW/yr	\$19,000	
Altenergy	8.47KW	10,642KW/yr	\$23,500	Also includes educational kiosk
Puresolar	19.88kw	23,796KW/yr	N/A	Advised \$24,000 budget not competitive
KW Solar	9.60kw	12,731KW/yr	\$24,000	
Keysone Power				Project was too small for their firm.

With the Board's consent, we can place a contract award vote at the April Town Meeting.

Please feel free to reach out with any questions or concerns,

Kyle Snyder  
Chief of Staff

**Kai Bernal-LeClaire**  
Commissioner/Treasurer

**Wanda Leonard**  
Commissioner

**Linda Pennoyer**  
Commissioner/President



## RE: Power Factor Intro

ryan.koorey@powerfactorco.com <ryan.koorey@powerfactorco.com>

Tue 12/10/2019 11:53 AM

To: Kyle Snyder <ksnyder@uppermarlboromd.gov>

3 attachments (2 MB)

9.6kw - helioscope design.pdf; Full Install Proposal - 9.63kw.pdf; Town Hall Solar ROR - 9.63kw.pdf;

Kyle,

I want to thank you for the opportunity to provide a solar quote for the Town of Upper Marlboro. After going over the details of both sites and understanding your budget I've came up with this 9.63KW system for your Town Hall facility.

Attached you will find a preliminary solar design, formal proposal illustrating the scope of work listing county requirements and material we plan to use for the system as well as the system price. I have also attached a Rate of Return Analysis (ROR) for your review; which indicates the system would be cash flow positive by year 6 based on your current electric rate and SREC's the system will generate. After reviewing your energy bills it looks like the Town Hall facility uses roughly 60,000kwh annually and this system will generate approximately 12,000kwh a year giving you a 20% reduction in your energy bill. The facility can fit more solar modules but due to the \$20,000 budget I can only get (25) modules at this time but the system will allow for expansion in the future if funds become available.

Please give me a call to go over the project details and I will work with you as much as possible to make sure this project comes to fruition. Thanks again for the opportunity and I look forward to hearing from you in the near future.

Respectfully,

**Ryan Koorey**

*Project Manager*

443-559-0174 (Office)

443-559-0178 (Fax)

443-571-4511 (Mobile)

[www.powerfactorco.com](http://www.powerfactorco.com)



----- Original Message -----

Subject: Re: Power Factor Intro

From: Kyle Snyder <[ksnyder@uppermarlboromd.gov](mailto:ksnyder@uppermarlboromd.gov)>

Date: Mon, November 25, 2019 2:23 pm

To: "ryan.koorey@powerfactorco.com" <[ryan.koorey@powerfactorco.com](mailto:ryan.koorey@powerfactorco.com)>

Cc: christina <[christina@powerfactorco.com](mailto:christina@powerfactorco.com)>

Good Afternoon Ryan,

Thank you for reaching out, we have not had a pre-construction meeting yet and would like to set up a visit. Do you have time to meet either tomorrow or Wednesday at our Town Hall located at 14211 School Lane Upper Marlboro MD 20772? Thanks,

---

**Kyle Snyder**

Chief of Staff

The Town of Upper Marlboro

*Prince George's County Seat of Government*

14211 School Lane, Upper Marlboro, MD. 20772

O: (301) 627-6905 | Fax: (301) 627-2080



[Our NEW Site!](#)

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**From:** [ryan.koorey@powerfactorco.com](mailto:ryan.koorey@powerfactorco.com) <[ryan.koorey@powerfactorco.com](mailto:ryan.koorey@powerfactorco.com)>

**Sent:** Friday, November 22, 2019 1:36 PM

**To:** Kyle Snyder <[ksnyder@uppermarlboromd.gov](mailto:ksnyder@uppermarlboromd.gov)>

**Cc:** christina <[christina@powerfactorco.com](mailto:christina@powerfactorco.com)>

**Subject:** Power Factor Intro

Mr. Snyder,

I appreciate you reaching out to Power Factor in regards to the Solar RFP for the town of Upper Marlboro. We at Power Factor have experience in these types of systems and have installed over 35MW of solar over the past 7 years up and down the east coast from small residential projects to large scale military installations. I have attached a capability statement illustrating our level of expertise for your review as well. Do you have a Pre-Construction meetings scheduled for this project? If not I would like to setup a date/time of when I can meet on site to take some preliminary measurements and survey the electrical equipment so I can provide the most comprehensive quote possible. I look forward to hearing from you and providing a quality solar proposal.

Respectfully,

**Ryan Koorey**

*Project Manager*

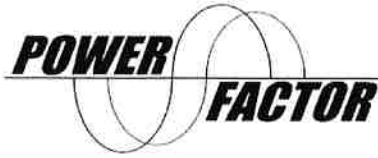
443-559-0174 (Office)

443-559-0178 (Fax)

443-571-4511 (Mobile)

[www.powerfactorco.com](http://www.powerfactorco.com)





Power Factor LLC  
1 Mace Avenue Baltimore, MD 21221  
Phone: (443) 559-0174 Fax: (443) 559-0178  
[www.powerfactorco.com](http://www.powerfactorco.com)

## Proposal # 121019

**Project:** Upper Marlboro Town Hall - 14211 School Lane – 9.63KW

We hereby propose to provide all necessary labor & material; as required for the successful completion of the above referenced and herein clarified project, for the total Base bid lump sum amount: **\$19,742.00**

### **Base Bid Scope**

Provide solar/electrical technicians and equipment required to complete the following scope of work:

1. Provide all required permits per PG county standards.
2. Furnish and coordinate equipment to lift material to the roof. (Will require utilization of parking lot).
3. Provide engineer report verifying the structure is capable of holding additional weight from solar system.
4. Furnish and Install solar racking system per manufacturer specifications.
5. Furnish and install (25) 385w Modules on racking.
6. Furnish and install (25) Enphase micro inverters.
7. Furnish and install all solar wiring and conduit from solar panels to new 60a electric sub panel to be located in Town Hall electrical room.
8. Furnish and install (2) 60A disconnects per NEC code
9. Furnish and Install conduit from sub panel to existing MEP to make interconnection.
10. Make interconnection to grid via circuit breaker or Kupl-Taps in main electrical panel located in storage office.
11. Assist in the completion of the interconnection paperwork with BGE and SREC Trade documentation.
12. Clean all trash and debris from the site on a daily basis.
13. Complete all county required inspections.

### **GENERAL INCLUSIONS**

1. Clean-up of our construction debris/trash
2. 25-year warranty on solar modules
3. 10 year warranty on workmanship
4. All persons on site are OSHA 10 and trained in fall protection standards

To further clarify, this proposal specifically **EXCLUDES:**

1. Any additional work not listed above.

Should you require additional clarification regarding this proposal or would like to schedule an installation date please notify the office at (443) 559-0174. You may also reach me at (443) 571-4511 or at [Ryan.Koorey@POWERFACTORCO.COM](mailto:Ryan.Koorey@POWERFACTORCO.COM). Sign the below and return if terms and scope are acceptable. Thank you for the opportunity to bid on your job.

Sincerely,  
Ryan Koorey

SIGN

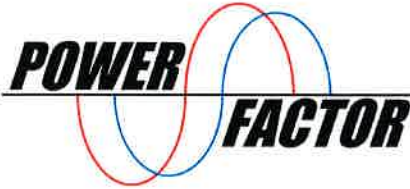
Date

[www.powerfactorco.com](http://www.powerfactorco.com)

### Design 1 Upper Marlboro Town Hall, 14211 School Lane 20772

#### Report

Project Name Upper Marlboro Town Hall  
Project Address 14211 School Lane 20772  
Prepared By Andrew Streit  
andrew@powerfactorco.com



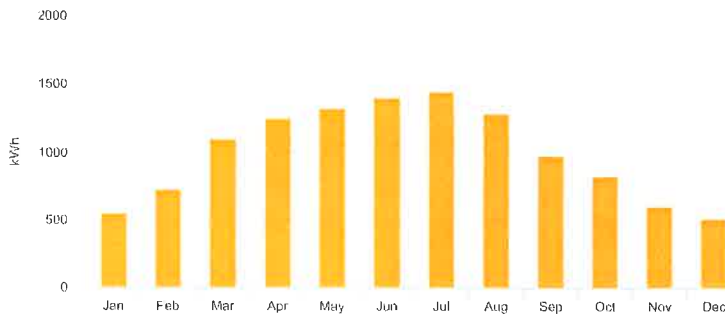
#### System Metrics

Design	Design 1
Module DC Nameplate	9.63 kW
Inverter AC Nameplate	24.1 kW Load Ratio: 0.40
Annual Production	12.02 MWh
Performance Ratio	77.2%
kWh/kWp	1,248.5
Weather Dataset	TMY, 10km grid (38.85,-76.75), NREL (prospector)
Simulator Version	0a85ecb1f7-666d51b86b-ae8fff61fa-cbebe908f0

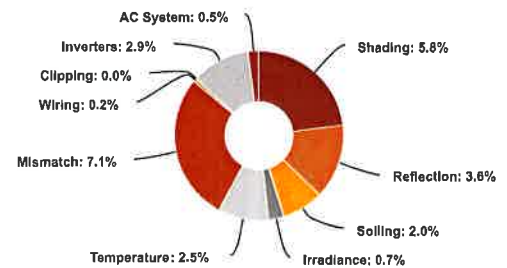
#### Project Location



#### Monthly Production



#### Sources of System Loss



#### Annual Production

Description	Output	% Delta
Annual Global Horizontal Irradiance	1,531.0	
POA Irradiance	1,616.5	5.6%
Shaded Irradiance	1,522.3	-5.8%
Irradiance after Reflection	1,467.4	-3.6%
Irradiance after Soiling	1,438.1	-2.0%
<b>Total Collector Irradiance</b>	<b>1,437.9</b>	<b>0.0%</b>
Nameplate	13,851.4	
Output at Irradiance Levels	13,749.0	-0.7%
Output at Cell Temperature Derate	13,411.3	-2.5%
Output After Mismatch	12,454.0	-7.1%
Optimal DC Output	12,433.0	-0.2%
Constrained DC Output	12,433.0	0.0%
Inverter Output	12,077.5	-2.9%
<b>Energy to Grid</b>	<b>12,017.1</b>	<b>-0.5%</b>

#### Temperature Metrics

Avg. Operating Ambient Temp	15.8 °C
Avg. Operating Cell Temp	23.4 °C

#### Simulation Metrics

Operating Hours	4665
Solved Hours	4665

#### Condition Set

Description	Condition Set 1											
Weather Dataset	TMY, 10km grid (38.85,-76.75), NREL (prospector)											
Solar Angle Location	Meteo Lat/Lng											
Transpositlon Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type		a		b		Temperature Delta					
	Fixed Tilt		-3.56		-0.075		3°C					
	Flush Mount		-2.81		-0.0455		0°C					
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradlation Varlance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module					Uploaded By		Characterization				
	TSM-DE14H(II) 385 (144cell) (Trina Solar)					Folsom Labs		Spec Sheet Characterization, PAN				
Component Characterizations	Device					Uploaded By		Characterization				
	Sunny Tripower 24000TL-US (SMA)					Folsom Labs		Modified CEC				

### Components

Component	Name	Count
Inverters	Sunny Tripower 24000TL-US (SMA)	1 (24.1 kW)
Strings	10 AWG (Copper)	2 (39.4 ft)
Module	Trina Solar, TSM-DE14H(II) 385 (144cell) (385W)	25 (9.63 kW)

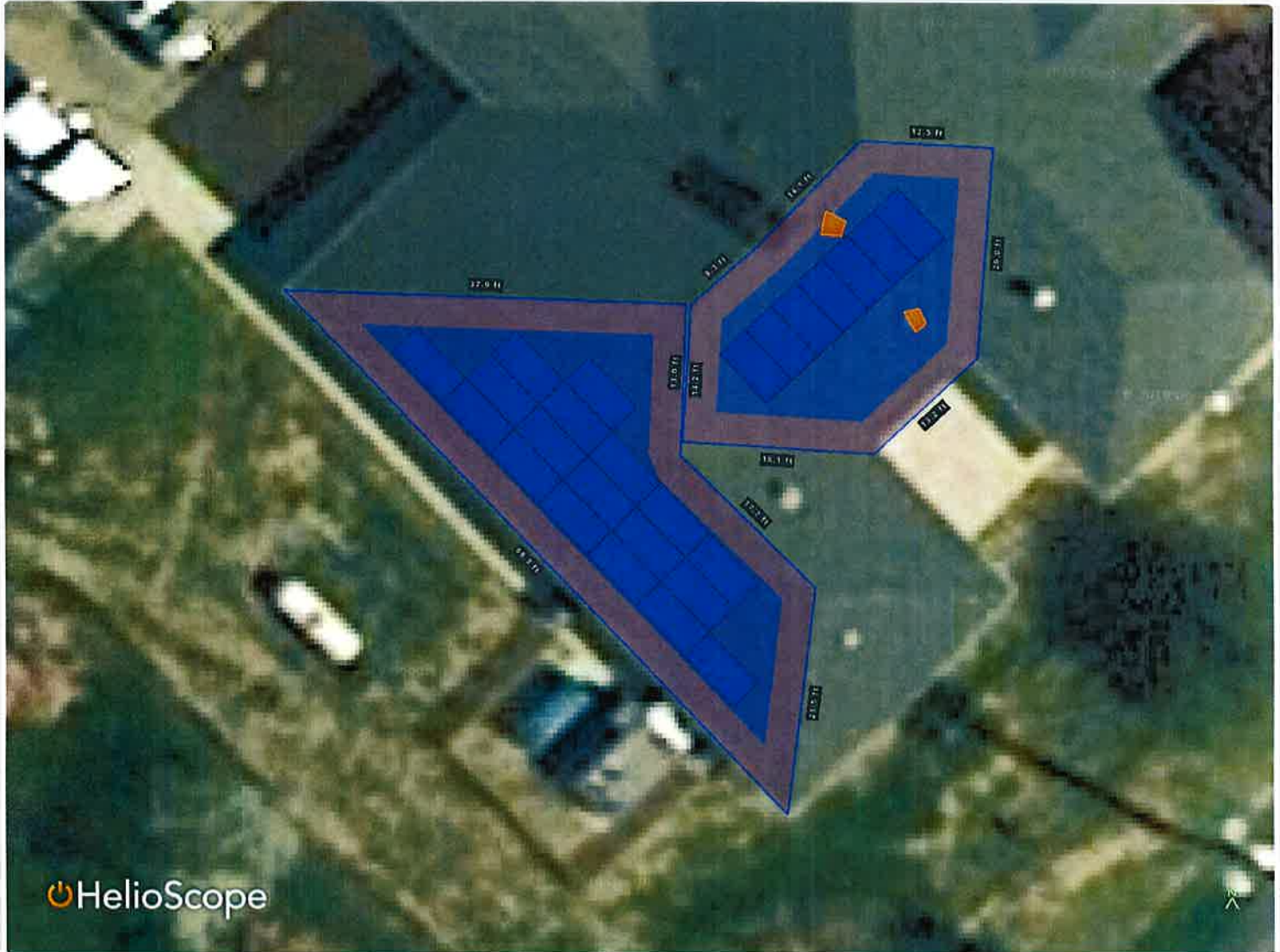
### Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	4-18	Along Racking

### Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	10°	226.008°	0.1 ft	1x1	18	18	6.93 kW
Field Segment 2	Fixed Tilt	Portrait (Vertical)	10°	136.909°	0.1 ft	1x1	9	7	2.70 kW

### Detailed Layout

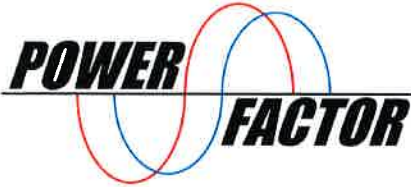




### Design 1 Upper Marlboro Town Hall, 14211 School Lane 20772

#### Report

Project Name Upper Marlboro Town Hall  
Project Address 14211 School Lane 20772  
Prepared By Andrew Streit  
andrew@powerfactorco.com



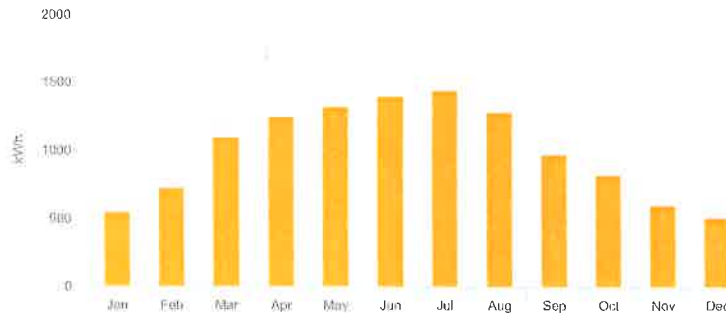
#### System Metrics

Design	Design 1
Module DC Nameplate	9.63 kW
Inverter AC Nameplate	24.1 kW Load Ratio: 0.40
Annual Production	12.02 MWh
Performance Ratio	77.2%
kWh/kWp	1,248.5
Weather Dataset	TMY, 10km grid (38.85,-76.75), NREL (prospector)
Simulator Version	0a85ecb1f7-666d51b86b-ae8ff61fa-cbebe908f0

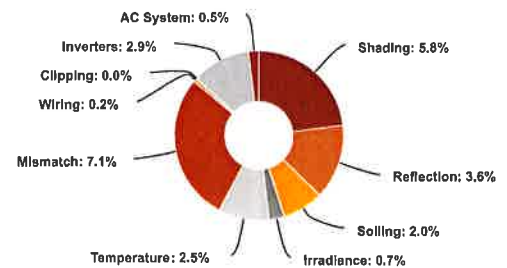
#### Project Location



#### Monthly Production



#### Sources of System Loss



#### Annual Production

Description	Output	% Delta
Annual Global Horizontal Irradiance	1,531.0	
POA Irradiance	1,616.5	5.6%
Shaded Irradiance	1,522.3	-5.8%
Irradiance after Reflection	1,467.4	-3.6%
Irradiance after Soiling	1,438.1	-2.0%
<b>Total Collector Irradiance</b>	<b>1,437.9</b>	<b>0.0%</b>
Nameplate	13,851.4	
Output at Irradiance Levels	13,749.0	-0.7%
Output at Cell Temperature Derate	13,411.3	-2.5%
Output After Mismatch	12,454.0	-7.1%
Optimal DC Output	12,433.0	-0.2%
Constrained DC Output	12,433.0	0.0%
Inverter Output	12,077.5	-2.9%
<b>Energy to Grid</b>	<b>12,017.1</b>	<b>-0.5%</b>

#### Temperature Metrics

Avg. Operating Ambient Temp	15.8 °C
Avg. Operating Cell Temp	23.4 °C

#### Simulation Metrics

Operating Hours	4665
Solved Hours	4665

#### Condition Set

Description	Condition Set 1											
Weather Dataset	TMY, 10km grid (38.85,-76.75), NREL (prospector)											
Solar Angle Location	Meteo Lat/Lng											
Transpositon Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type		a		b		Temperature Delta					
	Fixed Tilt		-3.56		-0.075		3°C					
	Flush Mount		-2.81		-0.0455		0°C					
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module					Uploaded By		Characterization				
	TSM-DE14H(II) 385 (144cell) (Trina Solar)					Folsom Labs		Spec Sheet Characterization, PAN				
Component Characterizations	Device					Uploaded By		Characterization				
	Sunny Tripower 24000TL-US (SMA)					Folsom Labs		Modified CEC				

### Components

Component	Name	Count
Inverters	Sunny Tripower 24000TL-US (SMA)	1 (24.1 kW)
Strings	10 AWG (Copper)	2 (39.4 ft)
Module	Trina Solar, TSM-DE14H(II) 385 (144cell) (385W)	25 (9.63 kW)

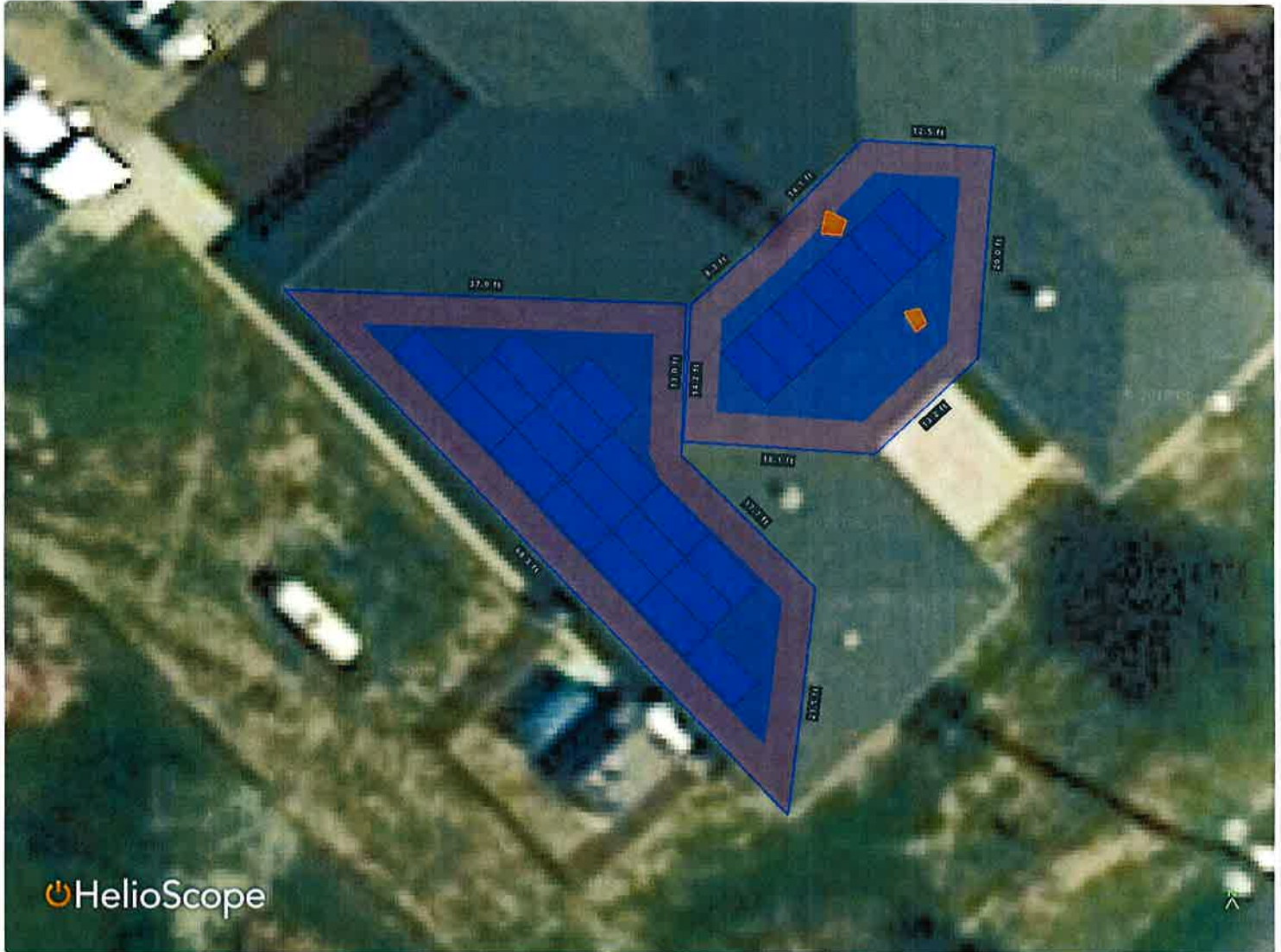
### Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	4-18	Along Racking

### Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	10°	226.008°	0.1 ft	1x1	18	18	6.93 kW
Field Segment 2	Fixed Tilt	Portrait (Vertical)	10°	136.909°	0.1 ft	1x1	9	7	2.70 kW

### Detailed Layout



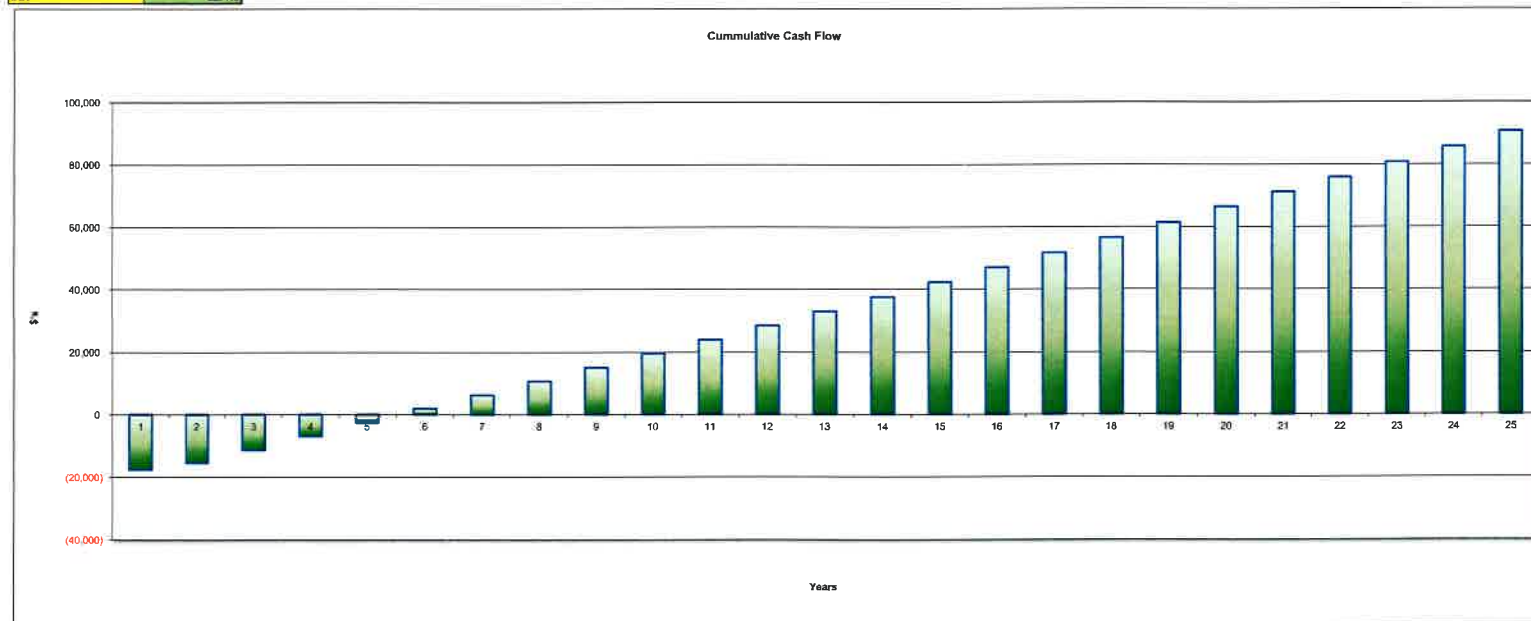


Solar PV - Upper Marlboro Town Hall 9.63KW



Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
System Cost		(19,742)																								
Federal Tax Credit		0																								
State Tax Credit																										
Tax Offset		0	0																							
System Depreciation (Fed)		0	0	0	0	0	0																			
System Depreciation (State)		0	0	0	0	0																				
Tax Offset		0	0	0	0	0	0																			
Financing																										
Interest Benefit																										
Inverter replacement				350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350					
SREC (\$50.00)		700	612	350	350	262	262	175	175	175	150															
O&M				2,000	2,200	2,244	2,289	2,335	2,381	2,429	2,478	2,527	2,578	2,629	2,682	2,735	2,790	2,846	2,903	2,961	3,020	3,081	3,142	3,205	3,269	3,334
Annual Revenue		1,464	1,471	1,479	1,486	1,493	1,500	1,507	1,515	1,522	1,529	1,536	1,544	1,551	1,558	1,565	1,572	1,579	1,586	1,594	1,601	1,608	1,615	1,622	1,629	1,636
Cash Flow		(17,577)	2,083	4,179	4,386	4,349	4,401	4,367	4,421	4,476	4,507	4,413	4,471	4,530	4,590	4,650	4,712	4,775	4,839	4,905	4,971	4,668	4,757	4,827	4,898	4,970
Cumulative		(17,577)	(15,494)	(11,316)	(6,930)	(2,581)	1,820	6,187	10,608	15,084	19,591	24,005	28,476	33,006	37,595	42,246	46,958	51,734	56,573	61,477	66,448	71,136	75,893	80,720	85,618	90,589

Utility Rate	\$0.12330
Annual Rate Inc.	1%
Output Degrade	0.50%
% Finance	
Interest Rate	
IRR	22.4%



System Size (kW DC)	9.63
Cost/Watt Installed	\$2.05
System Cost	\$19,742
Year One Output	11,874
Corporate Tax Rate	35%
St Corp Tax Rate	5%

F Tax Credit %	<div><div></div><div>0%</div></div>
F Tax Credit	\$0
Depreciation Base	\$0
S Tax Credit %	<div><div></div><div>0%</div></div>
S Tax Credit	\$0

S Tax Credit Sched	
1	\$0
2	\$0
3	\$0

## Town of Upper Marlboro solar proposal 12.18.2019

Brendan Welsh <bwelsh@altenergyinc.com>

Wed 12/18/2019 10:21 AM

To: Kyle Snyder <ksnyder@uppermarlboromd.gov>

 1 attachments (6 MB)

Town of Upper Marlboro Proposal.pdf;

Good morning Kyle,

Attached is our solar proposal for 14211 School Ln. The main system components are (22) 385W Axitec panels, (22) SMA Optimizers, (1) SMA 7.0 Inverter, IronRidge racking. This system will generate 10,642 kWh in the first year of operation, which will satisfy around 18% of the electricity demand throughout the building.

I selected these Axitec panels because they have proven value and reliability, and a high power density at 385W; we have installed thousands of these panels since we were first incorporated in 2007 and we have never had a panel fail. The SMA Optimizers and Inverter will work together to decrease the system's sensitivity to shade, and will allow you to track each panel's performance in real time. IronRidge is one of the most durable solar racking products available, and is our preferred solution for composite shingle roofs. I am confident that this combination of equipment will deliver the most solar production that the roof is capable of within the established budget.

Also included in our bid is a Solar Energy Educational Kiosk, which will highlight the system's performance on a TV Monitor mounted in a location that suits your team. Citizens who visit Town Hall will be able to learn about the environmental benefits (CO2 equivalent of pollution reduction, acres of trees preserved, miles driven by a passenger car, etc.) of the solar system mounted on the roof. The purpose of the Educational Kiosk is to draw attention to the steps that the Town of Upper Marlboro is taking towards becoming more sustainable.

In our financial analysis, we are projecting SRECs to be valued at \$45 for 5-years-we do not show any value beyond year-5. That is a conservative estimate, as SRECs are likely to have value beyond that period.

Our operation is located about 7 miles away from Town Hall. We are truly a local company, and it would be an honor to install a system on our Town Hall. Please let me know your thoughts on our proposal. I am happy to review this with you over the phone or in person. If you have any questions, I am available 7-days a week at (919) 724-8129. Let me know how I can help going forward. I will give you a call soon to check in.

Thanks for your time,

Brendan Welsh

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-

**Brendan Welsh**

Altenergy Incorporated

8033-B Penn Randall Place

Upper Marlboro, MD 20772

Office: 301-355-0031

Cell: 919-724-8129

[www.altenergyincorporated.com](http://www.altenergyincorporated.com)





# ALTENERGY

National experience. Hometown service.  
**COMMERCIAL & RESIDENTIAL SOLAR ENERGY SOLUTIONS**







## Letter of Introduction

Altenergy, Inc. was founded in 2004, and since then has earned a reputation for delivering exceptionally designed, high quality, maximum efficiency solar PV systems. We strive to provide each of our customers with an experience that builds trust. We take the time to answer questions, explain design options, and outline costs, so our customers make informed decisions on a solar PV system that will work to meet their needs for years to come.

Altenergy's long experience includes:

- Extensive portfolio of Federal, State and local government contracts
- 15 year track record of on-time projects
- Long-term employees include electricians, engineers, procurement managers and install technicians
- 20MW total installed PV capacity
- Multi-state jurisdiction working with utilities, financial and government stakeholders

## Altenergy Overview

Altenergy is a national company building solar energy systems for commercial and residential customers. We are deeply invested in the communities we serve and look to inspire growth of solar energy across America.

Our design team, project management, supply chain and development skills are second to none. Altenergy has been performing turn-key installations for more than thirteen years, with over 1,200 completed projects.

Altenergy is committed to finding and training the best qualified people to put to work on every project. Our team includes licensed electricians and NABCEP certified installers. We provide continuing education in construction and solar, OSHA safety training, professional certification classes, plus provide professional design and engineering resources in-house for our employees. Qualified engaged employees who remain with Altenergy translates to creating a superior solar product for customers, and a responsible corporate citizen in our communities.

We appreciate the opportunity to earn your business.

Sunny Regards,

Paul Risberg, President





#### MARYLAND BRANCH

Brendan Welsh, Branch Manager

919-724-8129

bwelsh@altenergyinc.com



PROJECT: Town of Upper Marlboro 8.47kW Solar PV Project

DATE: 12/18/19

CLIENT: Kyle Snyder, Town of Upper Marlboro

CLIENT EMAIL: ksnyder@UpperMarlboroMD.gov

PROJECT LOCATION: 14211 School Lane, Upper Marlboro, MD 20772

PHONE: (301) 627-2080

#### SYSTEM

(22) Axitec 385 Modules - 25 year manufacturer's warranty

(22) SMA Optimizers - 25 year manufacturer's warranty

(1) SMA 7.0-US Inverter - 10 year manufacturer's warranty

IronRidge Racking

Online Monitoring

10 year Altenergy warranty on parts and labor

Solar Energy Educational Kiosk

#### PERFORMANCE

10,642 kWh

Average estimated  
annual production  
based on site  
conditions.

#### USAGE OFFSET

18% Offset

Total Project Cost: \$ 23,500

#### SYSTEM OVERVIEW

Altenergy will provide a complete, turnkey installation including but not limited to design and engineering, permitting, procurement, installation, and interconnection. This system will be installed in accordance with all applicable national electrical codes, inspected and verified by local inspection processes. The permit and net metering agreement will be administered and created by Altenergy Incorporated, but will be authorized and executed by the system owner. We provide a turnkey solution, which includes all equipment, permitting and net metering agreements.

In addition to the environmental benefits, your solar system will create immediate revenue by offsetting the amount of monthly power purchased from the Utility Company (through net metering). The system's revenue is outlined in the chart below. It represents a detailed review of cash flows, with a 3.8% energy cost inflation factor.

By installing solar panels, you are reducing your carbon footprint while at the same time insulating your residence or business from rising electrical costs. Solar energy systems are elegant, have no moving parts and will provide years of pollution-free power. Altenergy Incorporated will maintain workers' compensation, general liability, warehouse/office fire and theft and adequate commercial vehicle insurance throughout the duration of this contract.

Note: If electrical service upgrades are required to meet National Electrical Code requirements, there may be an additional fee. Internet connectivity is required for remote monitoring services. Altenergy Inc warrants all materials and installations for a period of ten years starting after the final installation date. Please see specific equipment warranty information in the proposal.





# Solar Investment Financial Analysis

Prepared for: **Kyle Snyder**  
 Project Name: Town of Upper Marlboro Solar Project  
 Fed. Tax Bracket: 0.00%  
 State Tax Bracket: 0.00%

Total System Cost: \$23,500  
 26% Federal Tax Credit: \$0  
 State & Fed. Depreciation (Cash Value): \$0  
 Total Net Cost: \$23,500

System Size (kW): 8.47  
 Price Per Watt: \$2.77

Internal Rate of Return: 5.57%  
 Payback Period (Years): 14.3

Current Price per Kilowatt Hour: \$0.113

Max. Annual Module Degradation 0.80%

\*Annual Electric Rate Escalator: 3.80%

\*Inflation rate based on the national average as determined by the U.S. Energy Information Administration.

\*25 Year Cost of Electricity at 3.8% Annual Inflation Rate: \$43,669

25 Year Cost of Elec. by Going Solar: \$23,500

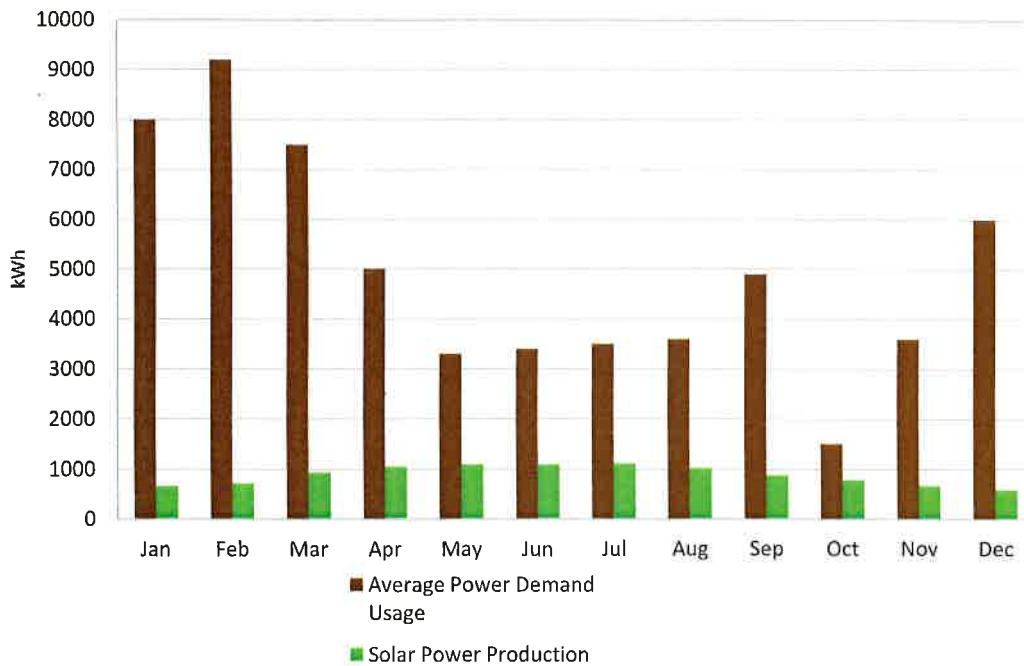
Total Expected Savings Over 25 Years: \$20,169

Year	System Cost	Federal Tax Credit	Depreciable Amount	Federal Depr. Value	State Depr. Value	Annual Insurance	SREC	kWh Production	*kWh Price	*Avoided kWh Bills	Annual Cashflow	Cumulative Cashflow
	(23,500)										(\$23,500)	(\$23,500)
1			\$0	\$0	\$0		\$479	10,642	\$0.113	\$1,203	\$1,681.55	(\$21,818)
2							\$479	10,557	\$0.117	\$1,238	\$1,717.26	(\$20,101)
3							\$479	10,472	\$0.122	\$1,275	\$1,754.03	(\$18,347)
4							\$479	10,389	\$0.126	\$1,313	\$1,791.89	(\$16,555)
5							\$479	10,306	\$0.131	\$1,352	\$1,830.88	(\$14,724)
6								10,223	\$0.136	\$1,392	\$1,392	(\$13,332)
7								10,141	\$0.141	\$1,433	\$1,433	(\$11,899)
8								10,060	\$0.147	\$1,476	\$1,476	(\$10,423)
9								9,980	\$0.152	\$1,520	\$1,520	(\$8,903)
10								9,900	\$0.158	\$1,565	\$1,565	(\$7,338)
11								9,821	\$0.164	\$1,611	\$1,611	(\$5,727)
12								9,742	\$0.170	\$1,659	\$1,659	(\$4,068)
13								9,664	\$0.177	\$1,708	\$1,708	(\$2,359)
14								9,587	\$0.184	\$1,759	\$1,759	(\$600)
15								9,510	\$0.190	\$1,811	\$1,811	\$1,211
16								9,434	\$0.198	\$1,865	\$1,865	\$3,077
17								9,359	\$0.205	\$1,921	\$1,921	\$4,997
18								9,284	\$0.213	\$1,978	\$1,978	\$6,975
19								9,209	\$0.221	\$2,036	\$2,036	\$9,011
20								9,136	\$0.230	\$2,097	\$2,097	\$11,108
21								9,063	\$0.238	\$2,159	\$2,159	\$13,267
22								8,990	\$0.247	\$2,223	\$2,223	\$15,491
23								8,918	\$0.257	\$2,289	\$2,289	\$17,780
24								8,847	\$0.266	\$2,357	\$2,357	\$20,137
25								8,776	\$0.277	\$2,427	\$2,427	\$22,564
		\$0	\$0	\$0	\$0	\$0		242,009		\$43,669	\$46,064	\$22,564



The information below helps demonstrate the wonderful benefits of adding solar energy to your home or business. Using historical electrical usage and estimated solar production, the graph depicts the total solar offset that will occur each year based on the size of the proposed solar system. These estimates are derived from a number of site specific variables such as location, historical weather patterns and shading.

Year	Month	Average Power Demand Usage	Solar Power Production	kWh Offset Rate	Dollar Value of Savings	Monthly Solar Offset
2019	Jan	8000	664	\$0.113	\$75	8%
2019	Feb	9200	718	\$0.113	\$81	8%
2019	Mar	7500	935	\$0.113	\$106	12%
2018	Apr	5000	1049	\$0.113	\$119	21%
2018	May	3300	1095	\$0.113	\$124	33%
2018	Jun	3400	1100	\$0.113	\$124	32%
2018	Jul	3500	1116	\$0.113	\$126	32%
2018	Aug	3600	1030	\$0.113	\$116	29%
2018	Sep	4900	884	\$0.113	\$100	18%
2018	Oct	1500	789	\$0.113	\$89	53%
2018	Nov	3600	670	\$0.113	\$76	19%
2018	Dec	6000	592	\$0.113	\$67	10%
<b>Totals</b>		<b>59500</b>	<b>10642</b>	<b>\$0.113</b>	<b>\$1,203</b>	<b>18%</b>





Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at <https://sam.nrel.gov>) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

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The energy output range is based on analysis of 30 years of historical weather data for nearby , and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

## RESULTS

# 10,642 kWh/Year\*

System output may range from 10,170 to 11,051 kWh per year near this location.

Month	Solar Radiation ( kWh / m <sup>2</sup> / day )	AC Energy ( kWh )	Value ( \$ )
January	3.15	664	75
February	3.85	718	81
March	4.66	935	105
April	5.50	1,049	118
May	5.65	1,095	123
June	6.12	1,100	124
July	6.12	1,116	126
August	5.65	1,030	116
September	4.97	884	100
October	4.06	789	89
November	3.38	670	76
December	2.84	592	67
Annual	4.66	10,642	\$ 1,200

### Location and Station Identification

Requested Location	Upper Marlboro Town Hall, School Lane, Upper Marlboro, MD, USA
Weather Data Source	Lat, Lon: 38.81, -76.74    1.1 mi
Latitude	38.81° N
Longitude	76.74° W

### PV System Specifications (Residential)

DC System Size	8.47 kW
Module Type	Standard
Array Type	Fixed (roof mount)
Array Tilt	22°
Array Azimuth	224°
System Losses	16.65%
Inverter Efficiency	96%
DC to AC Size Ratio	1.2

### Economics

Average Retail Electricity Rate	0.113 \$/kWh
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### Performance Metrics

Capacity Factor	14.3%
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## MUNICIPAL & COMMERCIAL CLIENTS

City of Charlottesville  
Artisan Construction  
University of Virginia  
VA Supportive Housing  
Hale and White Construction  
St. Anne's – Belfield School  
Alexander Nicholson Construction  
County of Albemarle  
Abrahamse Construction  
2RW Engineering  
Alterra Construction Management  
F7 Engineering  
Moores Electrical Contracting  
Wolf Ackerman Design  
Martin Horn Construction  
RP2 Design  
Dovetail Construction  
Green Valley Builders  
StoneHaus Construction  
Barton-Malow Construction  
Greer and Associates  
Piedmont Housing  
Railside Industries  
Bradford Staffing  
Shenandoah Fiber Co.  
Mt. Airy Winegrowers  
Didawick & Comapny PC  
Marlyn Development

Redlight Management  
City of Bowie, MD  
Madison Investments  
Army Corp of Engineers  
U.S. Fish and Wildlife Service  
Westminster Presbyterian Church  
Knights Gambit Vineyard  
Hagan Vet Clinic  
Farm Choice Country Store  
S&W Appliance  
Stables at Six Penny Farm  
Flower Fields  
Berriedale Farms  
Afton Mountain Bed & Breakfast  
Modernboy Woodshop  
Bejo Seeds  
Boise Coop  
Energy Seal Systems  
Idaho Conservation League  
The Flicks Theatre  
Twenty Mile South Farm  
Building Goodness Foundation  
Charlottesville Energy House  
Radical Roots Farm  
Arundel Parks & Recreation  
Sun Valley Animal Center  
United Medical Labs  
Tiger Fuel Company





## THE ALTENERGY MANAGEMENT TEAM

### Paul Risberg, President

Paul founded Altenergy in 2004, after working for 11 years as a Securities Operations and Investment Manager at a New York Stock Exchange Company. Altenergy, Inc. was created to address the growing need for thoughtful and realistic solar energy applications driven by economic feasibility. Identifying operational challenges, market opportunities and intellectual capital are his responsibility. Prior to his work in the securities industry, Mr. Risberg was a small business owner, project manager for a general contractor, furniture maker and carpenter.

### Matthew Dunay, VP, Chief Technology Officer

Matthew joined Altenergy in 2005 as the first employee of the company and has developed many of the company's departments and operating processes. He is involved in product and technology selection, R&D, and continues to build, educate, and improve the team's efficiency in system design and engineering. Matthew graduated Magna Cum Laude with a BA in Industrial Design from North Carolina State University and is a licensed Spec PV Journeyman electrician and NABCEP certified solar installer.

### Rob Cooke, Chief Financial Officer

Rob joined Altenergy in 2015 after spending 18 years with General Electric and 7 years running a water technology business. At GE, he held numerous finance and accounting roles in addition to spending 3 years leading the M&A group for GE's Automation Business. Rob has a BS degree in Accounting & Finance from Penn State University, has graduated from GE's Financial Management Program and holds an MBA from James Madison University.

### Shawn Cooke, Director of Commercial Development

Shawn oversees commercial sales and development for all Altenergy branches in the US. Shawn has been working with PV for over 8 years and provides extensive knowledge and experience for the Altenergy team. Shawn has installed over 400 residential and commercial systems, equaling over 4 megawatts of power.

### Brendan Welsh, Maryland/DC Branch Manager

Brendan graduated from Appalachian State University in 2014 from the Department of Technology and Environmental design. Before working at Altenergy, he worked as a solar installer, solar project manager, and as a solar sales consultant in the North Carolina and South Carolina markets. Brendan received his NABCEP Technical Sales Certification in 2017.



## MUNICIPALITY PROJECT PORTFOLIO



Millersville Landfill and Resource Reclamation Facility  
Maintenance Shop, Anne Arundel County  
Carson Arnold, [carnold@acdsinc.org](mailto:carnold@acdsinc.org)  
**85.56kW**  
3898 Burns Crossing Rd., Severn, MD 21114



Town of Sharptown WTP, Town of Sharptown, MD  
Aaron Goller, [akg@dbfinc.com](mailto:akg@dbfinc.com)  
**112kW**  
305 State St, Sharptown, MD 21861



City of Annapolis, MD ACDS Parks and Recreation  
Carson Arnold, [carnold@acdsinc.org](mailto:carnold@acdsinc.org)  
**28.52kW**  
1 Harry S. Truman Pkwy, Annapolis, Maryland



City of Bowie, Waste Water Treatment Plant, Maryland  
Allen Forny, [aforny@cityofbowie.org](mailto:aforny@cityofbowie.org)  
**19.24kW**  
16500 Annapolis Rd, Bowie, MD 20715



City of Bowie, Streets and Utilities Building Maryland  
Allen Forny, [aforny@cityofbowie.org](mailto:aforny@cityofbowie.org)  
**12.48kW**  
16499 Annapolis Rd, Bowie, MD 20715

“After considering several options, including self-performing the installation, we determined that Altenergy was the best value option for a smooth design and installation process. Altenergy's team far surpassed our best expectations. The team's communication and coordination efforts were some of the best I have experienced, from any specialty trade subcontractor, in my 16 years in the industry.” David Walsh, Brite Electrical Systems.



## COMMERCIAL PROJECT PORTFOLIO



United Medical Labs - 42.35 kW  
Vienna, VA



Wood River Inn - 73.4 kW  
Hailey, ID



Wood River Animal Shelter - 140 kW  
Hailey, ID



Virginia Tech - 104.4 kW  
Blacksburg, VA



UVA Hospital - Thermal System  
UNDER CONSTRUCTION



Marlyn Development - 187.44 kW  
Culpeper, VA



Mt. Airy Winegrower's - 40.32 kW  
Fort Defiance, VA



TD Bank Canopy - 14.4 kW  
McLean, VA



Bejo Seeds - 59.4 kW  
Weiser, ID



Crozet Storage - 502.2 kW  
Crozet, VA



Twenty Mile South Farm - 56.43 kW  
Kuna, ID



Railside Industries - 234.05 kW  
Weyers Cave, VA



Heron's Landing - 50.96 kW  
VA Supportive Housing, Richmond, VA



US Army Corp of Engineers Kerr  
Reservoir Boynton, VA - 28.08 kW



EyeOne - 45.5 kW  
Fishersville, VA

"After considering several options, including self-performing the installation, we determined that Altenergy was the best value option for a smooth design and installation process. Altenergy's team far surpassed our best expectations. The team's communication and coordination efforts were some of the best I have experienced, from any specialty trade subcontractor, in my 16 years in the industry." David Walsh, Brite Electrical Systems.





**370 - 385 Wp**

[www.axitecsolar.us](http://www.axitecsolar.us)

**AXITEC®**  
high quality german solar brand

## AXIpremium HC

**144 cell monocrystalline  
High performance solar module**

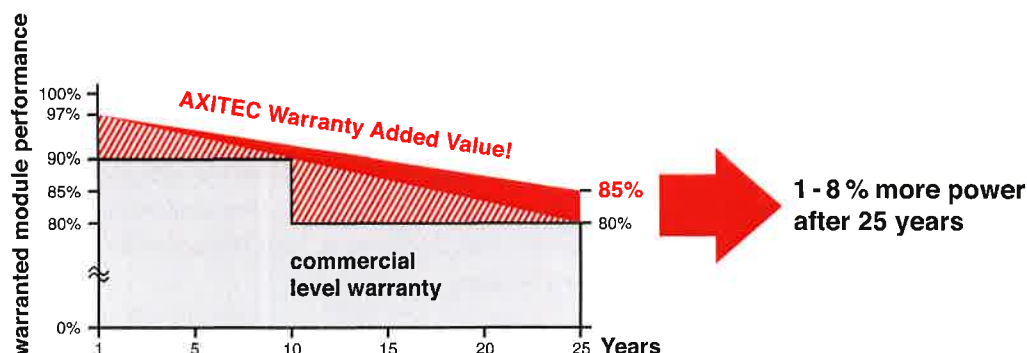
**German engineered – made for America**

- 15 Years** 15 years manufacturer's warranty  
Five more years than industry standard
- HC** Highest module performance through  
Half-Cut-technology and tested materials
- + Wp** Positive power tolerance from 0-5 Wp  
Higher guaranteed yield
- 50 PSF** Snow load of up to 50 psf  
Stable module for a long life in extreme conditions
- 100%** 100 % electroluminescence inspection  
Micro crack and hotspot free modules
- IP 67** High quality junction box and connector  
system for a longer life time



### Exclusive linear AXITEC high performance guarantee!

- 15 years manufacturer's guarantee on 90 % of the nominal performance
- 25 years manufacturer's guarantee on 85 % of the nominal performance

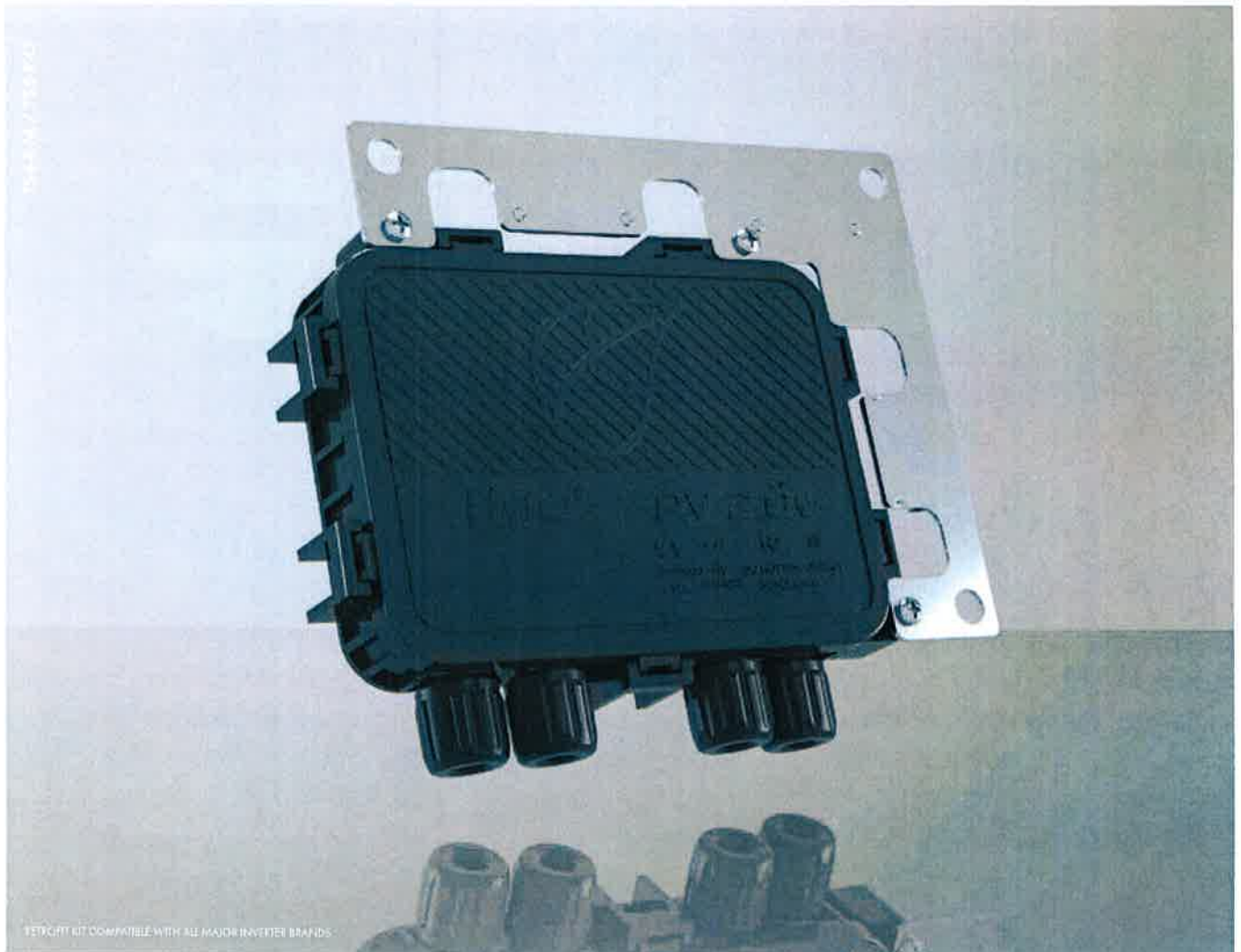


(PHOTOVOLTAIC MODULE  
OVER 600 VOLTS) 5JK4  
E487509

144MHUSA190612A  
Fig. similar



## TIGO TS4-R MODULE



### Optimize your system

- Optimize yields
- Monitor your PV system on the module level

### Ultimate flexibility

- Selective deployment: use of DC optimizers only where required
- Function (e.g., monitoring, optimization) of each optimizer is freely selectable
- Compatible with all standard modules

### Fast installation

- Save over 2.5 hours with a 30-module installation compared with competitor technologies
- Easy installation at ground level reduces roof work

### Maximum reliability

- Reduced probability of failure thanks to fewer components
- Long service life due to demand-specific bypass operation
- Comprehensive service for the entire system – from SMA

## TIGO TS4-R MODULE RETROFIT KIT

### Optimization redefined

The innovative Tigo TS4-R platform is a game-changing approach toward the optimization of PV systems. With this innovative platform, for the first time, every single PV module can be selectively equipped with an additional function. Higher energy yields can also be achieved for complex roofs, while system costs are reduced at the same time. Whether for shading, shutdown or other challenges, the Tigo TS4-R is the most reliable and cost effective solution for adding PV module level electronics to any PV system.

# SUNNY BOY 3.0-US / 3.8-US / 5.0-US / 6.0-US / 7.0-US / 7.7-US



## Value-Added Improvements

- World's first Secure Power Supply now offers up to 2,000 W
- Full grid management capabilities ensures a utility-compliant solution for any market

## Reduced Labor

- New Installation Assistant with direct access via smartphone minimizes time in the field
- Integrated disconnect simplifies equipment stocking and speeds installation

## Unmatched Flexibility

- SMA's proprietary OptiTrac™ Global Peak technology mitigates shade with ease
- Multiple independent MPPTs accommodate hundreds of stringing possibilities

## Trouble-Free Servicing

- Two-part enclosure concept allows for simple, expedited servicing
- Enhanced AFCI technology reduces false tripping while improving sensitivity in real arcs, greatly reducing unneeded service calls

## SUNNY BOY 3.0-US / 3.8-US / 5.0-US / 6.0-US / 7.0-US / 7.7-US

Reduce costs across your entire residential business model

The residential PV market is changing rapidly, and we understand that your bottom line matters more than ever. That's why we've designed a superior residential solution that will help you decrease costs throughout all stages of your business operations. The Sunny Boy 3.0-US/3.8-US/5.0-US/6.0-US/7.0-US/7.7-US join the SMA lineup of field-proven solar technology backed by the world's #1 service team, along with a wealth of improvements. Simple design, improved stocking and ordering, value driven sales support and streamlined installation are just some of the ways that SMA is working to help your business operate more efficiently.



## Roof Mount System



### Built for solar's toughest roofs.

IronRidge builds the strongest roof mounting system in solar. Every component has been tested to the limit and proven in extreme environments.

Our rigorous approach has led to unique structural features, such as curved rails and reinforced flashings, and is also why our products are fully certified, code compliant and backed by a 20-year warranty.



#### Strength Tested

All components evaluated for superior structural performance.



#### PE Certified

Pre-stamped engineering letters available in most states.



#### Complete Assembly

End-to-end solution provides attachment, mounting, and grounding.



#### Design Software

Online tool generates a complete bill of materials in minutes.



#### Integrated Grounding

UL 2703 system eliminates separate module grounding components.



#### 20 Year Warranty

Twice the protection offered by competitors.

**Fw: Town of Upper Marlboro Town Hall Solar Panel Installation RFP#UM2020-03**

M. David Williams <clerk@uppermarlboromd.gov>

Wed 3/4/2020 7:58 AM

To: Kyle Snyder <ksnyder@uppermarlboromd.gov>

 2 attachments (1 MB)

REC-TwinPeak-2S-Mono-72-series-solar-panel-datasheet.pdf; TownHall UM.pdf;

F.Y.I.; . . . I did not open the PDFs, but the company is out of Largo.

-Dave

---

**From:** dwoolfolk@puresolarsystems.com <dwoolfolk@puresolarsystems.com>

**Sent:** Tuesday, March 3, 2020 6:02 PM

**To:** Town Info <Info@uppermarlboromd.gov>

**Subject:** Town of Upper Marlboro Town Hall Solar Panel Installation RFP#UM2020-03

- 1)The performance to be installed, and the estimated offset percentage of the building energy usage is 100 percent.
- 2) The equipment and work warranty offered by our firm is 20 years.
- 3)The cosmetic appearance of the panels will be black on black.
- 4)The time line in which the project will be completed is 60-90 days after permitting.
- 5)The budget of \$24,000 is not competitive.



SOLAR'S MOST TRUSTED



# REC TWINPEAK 2S MONO 72 SERIES

## PREMIUM SOLAR PANELS 100% MADE IN SINGAPORE

REC TwinPeak 2S Mono 72 Series solar panels feature an innovative design with high efficiency and an industry-leading lightweight, yet robust construction, enabling customers to get the most out of the installation area.

Combined with the product quality and reliability of a strong and established European brand, REC TwinPeak 2S Mono 72 Series panels are ideal for all types of commercial rooftop and utility installations worldwide.



**REDUCES BALANCE OF  
SYSTEM COSTS**



**IMPROVED PERFORMANCE  
IN SHADED CONDITIONS**

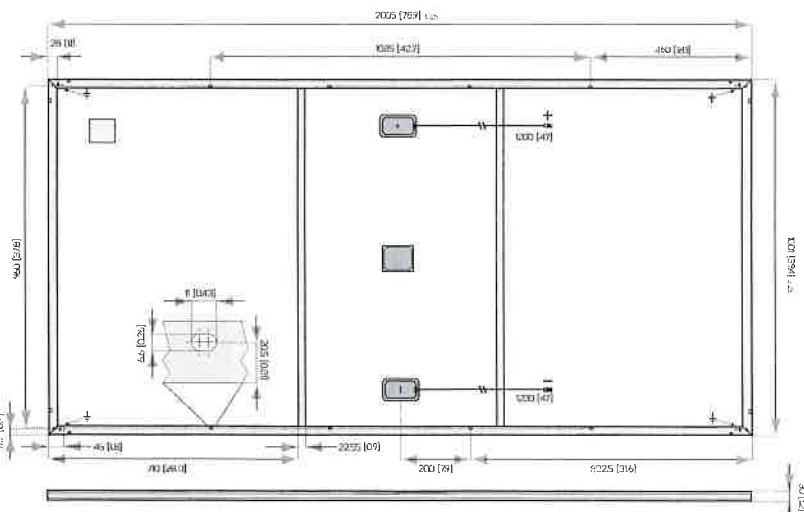


**INDUSTRY-LEADING  
LIGHTWEIGHT 72-CELL PANEL**



**100%  
PID FREE**

# REC TWINPEAK 25 MONO 72 SERIES



All measurements in mm [in]

ELECTRICAL DATA @ STC		Product code*: RECxxxTP2SM 72					
Nominal Power - $P_{MPP}$ (Wp)		370	375	380	385	390	395
Watt Class Sorting - (W)		0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - $V_{MPP}$ (V)		39.8	40.1	40.3	40.5	40.7	40.9
Nominal Power Current - $I_{MPP}$ (A)		9.30	9.36	9.43	9.51	9.58	9.66
Open Circuit Voltage - $V_{OC}$ (V)		47.0	47.4	48.0	48.6	49.2	49.8
Short Circuit Current - $I_{SC}$ (A)		10.02	10.04	10.05	10.07	10.08	10.10
Panel Efficiency (%)		18.4	18.7	18.9	19.2	19.4	19.7

Values at standard test conditions STC (airmass AM 1.5, irradiance 1000 W/m<sup>2</sup>, cell temperature 77°F (25°C).

At low irradiance of 200 W/m<sup>2</sup> (AM 1.5 and cell temperature 77°F (25°C)) at least 95% of the STC module efficiency will be achieved.

\*xxx indicates the nominal power class ( $P_{MPP}$ ) at STC, and can be followed by the suffix XV for modules with a 1500 V maximum system rating.

ELECTRICAL DATA @ NMOT		Product code*: RECxxxTP2SM 72					
Nominal Power - $P_{MPP}$ (Wp)		276	280	283	287	290	295
Nominal Power Voltage - $V_{MPP}$ (V)		37.1	37.3	37.5	37.7	37.9	38.1
Nominal Power Current - $I_{MPP}$ (A)		7.44	7.49	7.54	7.60	7.66	7.73
Open Circuit Voltage - $V_{OC}$ (V)		43.7	44.1	44.7	45.3	45.8	46.4
Short Circuit Current - $I_{SC}$ (A)		8.02	8.03	8.04	8.06	8.06	8.07

Nominal cell operating temperature NOCT (800 W/m<sup>2</sup>, AM 1.5, windspeed 1 m/s, ambient temperature 68°F (20°C).

\*xxx indicates the nominal power class ( $P_{MPP}$ ) at STC, and can be followed by the suffix XV for modules with a 1500 V maximum system rating.

## CERTIFICATION



UL 1703, Fire classification: Type 1 (1500 V XV), Type 2 (1000 V);  
IEC 61215, IEC 61730, IEC 62804 (PID), IEC 62716 (Ammonia),  
IEC 61701 (Salt Mist level 6),  
ISO 9001: 2015, ISO 14001: 2004, OHSAS 18001: 2007

## WARRANTY

20 year product warranty  
25 year linear power output warranty  
Max. performance degradation of 0.5% p.a. from 97.5% in year 1  
See warranty conditions for further details.

20.0% EFFICIENCY

20 YEAR PRODUCT WARRANTY

25 YEAR LINEAR POWER OUTPUT WARRANTY

## GENERAL DATA

Cell type:	144 half-cut monocrystalline PERC cells 6 strings of 24 cells in series
Glass:	0.13" (3.2 mm) solar glass with anti-reflection surface treatment
Backsheet:	Highly resistant polymeric construction
Frame:	Anodized aluminum
Support bars:	Anodized aluminum
Junction box:	3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790
Cable:	4 mm <sup>2</sup> solar cable, 1.2 m + 1.2 m in accordance with EN 50618
Connectors:	Tonglin TL-Cable015-F (4 mm <sup>2</sup> ) in accordance with IEC 62852, IP68 only when connected
Origin:	Made in Singapore

## MAXIMUM RATINGS

Operational temperature:	-40 ... +185°F (-40 ... +85°C)
Maximum system voltage:	1000 V / 1500 V
Design load (+): snow	75.2 lbs/ft <sup>2</sup> (3600 Pa)*
Maximum test load (+):	112.8 lbs/ft <sup>2</sup> (5400 Pa)*
Design load (-): wind	33.4 lbs/ft <sup>2</sup> (1600 Pa)*
Maximum test load (-):	50.1 lbs/ft <sup>2</sup> (2400 Pa)*
Max series fusing:	25 A
Max reverse current:	25 A

\* Calculated using a safety factor of 1.5  
\* See installation manual for mounting instructions

## TEMPERATURE RATINGS

Nominal Module Operating Temperature:	44.6°C (±2°C)
Temperature coefficient of $P_{MPP}$ :	-0.37%/°C
Temperature coefficient of $V_{OC}$ :	-0.28%/°C
Temperature coefficient of $I_{SC}$ :	0.04%/°C

\*The temperature coefficients stated are linear values

## MECHANICAL DATA

Dimensions:	78.9" x 39.4" x 1.2" (2005 x 1001 x 30 mm)
Area:	21.6 ft <sup>2</sup> (2.01 m <sup>2</sup> )
Weight:	48.5 lbs (22 kg)

Specifications subject to change without notice  
Rev: REC-DP-TP2SM-Rev-01-19

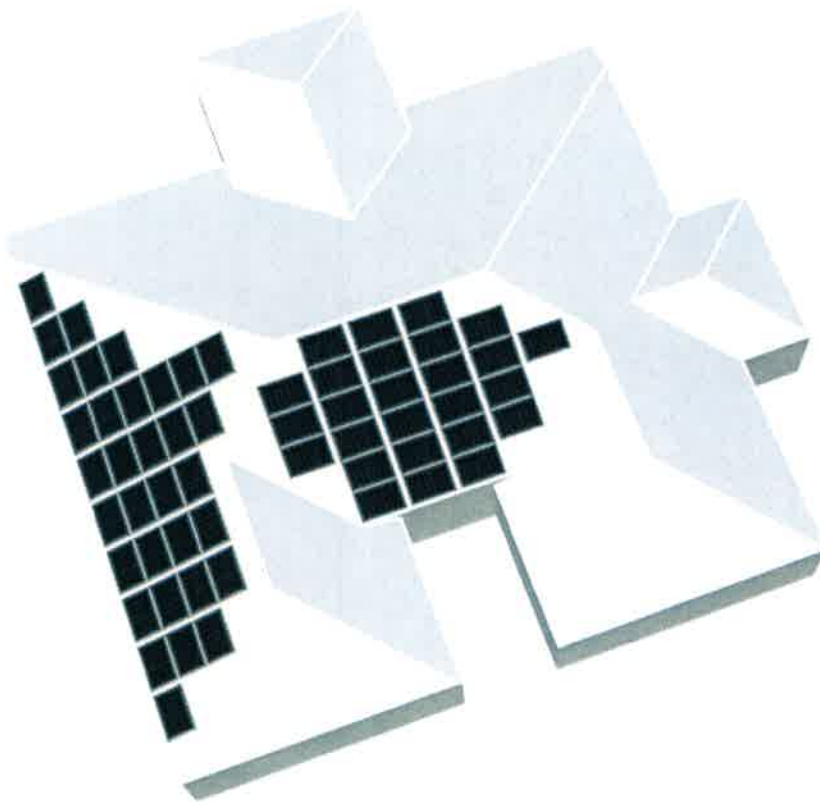
Founded in Norway in 1996, REC is a leading vertically integrated solar energy company. Through integrated manufacturing from silicon to wafers, cells, high-quality panels and extending to solar solutions, REC provides the world with a reliable source of clean energy. REC's renowned product quality is supported by the lowest warranty claims rate in the industry. REC is a Bluestar Elkem company with headquarters in Norway and operational headquarters in Singapore. REC employs around 2,000 people worldwide, producing 1.5 GW of solar panels annually.



## Site Assessment

**Customer:** Kyle Snyder  
**Address:** 14211 School Ln  
Upper Marlboro, MD 20772

**System size:** 19.77 kW  
**Yr 1 Production:** 23,796 kWh  
**Designer:** Gregory Floyd  
**Date:** February 29th, 2020



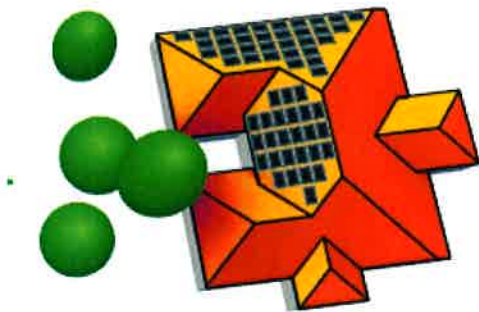
# Site Assessment

**Customer:** Kyle Snyder  
**Address:** 14211 School Ln  
Upper Marlboro, MD 20772



## Component List

Manufacturer	Model	Quantity
null	Aurora Sample Solar Panel	59
null	Aurora Sample String Inverter	2



Notes:



## Aurora Shade Report

**Customer**

Kyle Snyder

**Designer**

Rob McGinty

**Organization**

KW Solar Solutions

**Address**

14211 School Ln  
Upper Marlboro, MD  
20772, USA

**Coordinates**

(38.813983, -76.757616)

**Date**

6 March 2020

**Annual irradiance****Summary**

Array	Panel Count	Azimuth (deg.)	Pitch (deg.)	Annual TOF (%)	Annual Solar Access (%)	Annual TSRF (%)
1	30	226	33	94	100	94
Weighted average by panel count					99.6	93.6

**Monthly solar access (%) across arrays**

Array	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	100	99	100	100	100	100	99	100	100	100	100	100

**Customer**  
Kyle Snyder

**Address**  
14211 School Ln  
Upper Marlboro, MD  
20772, USA

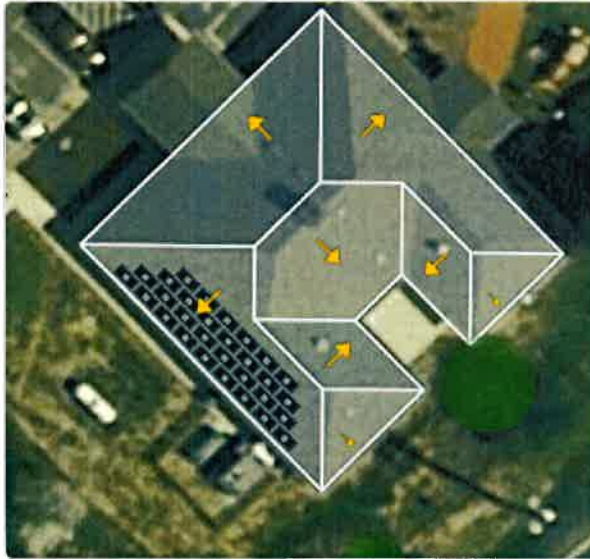
**Designer**  
Rob McGinty

**Coordinates**  
(38.813983, -76.757616)

**Organization**  
KW Solar Solutions

**Date**  
6 March 2020

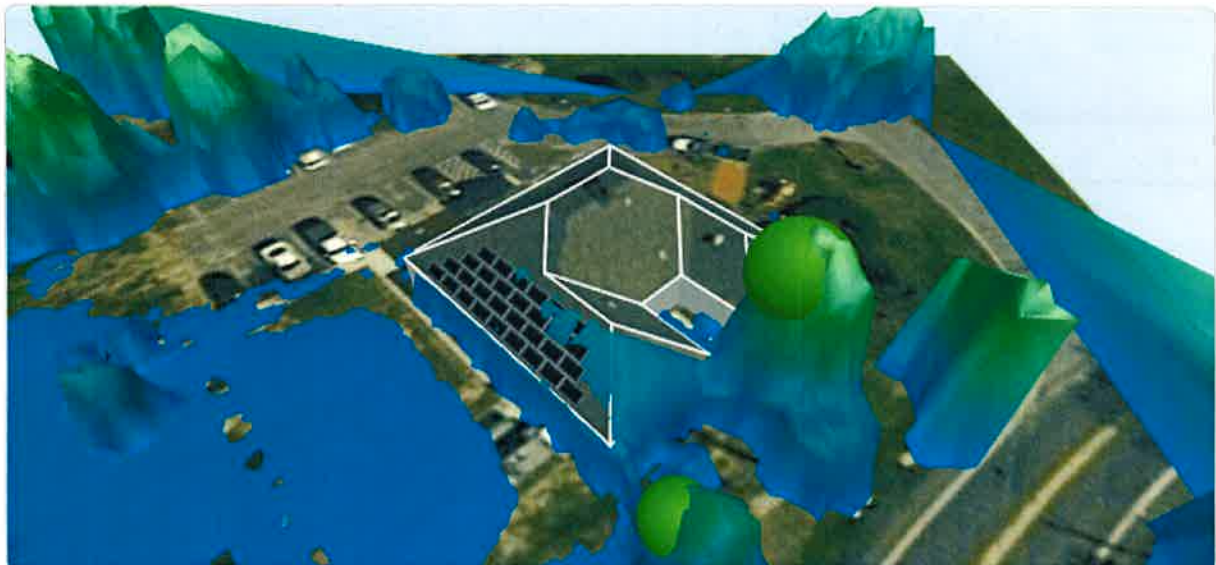
Zoomed out satellite view



3D model



3D model with LIDAR overlay



**Customer**  
Kyle Snyder

**Designer**  
Rob McGinty

**Organization**  
KW Solar Solutions

**Address**  
14211 School Ln  
Upper Marlboro, MD  
20772, USA

**Coordinates**  
(38.813983, -76.757616)

**Date**  
6 March 2020

Street view and corresponding 3D model

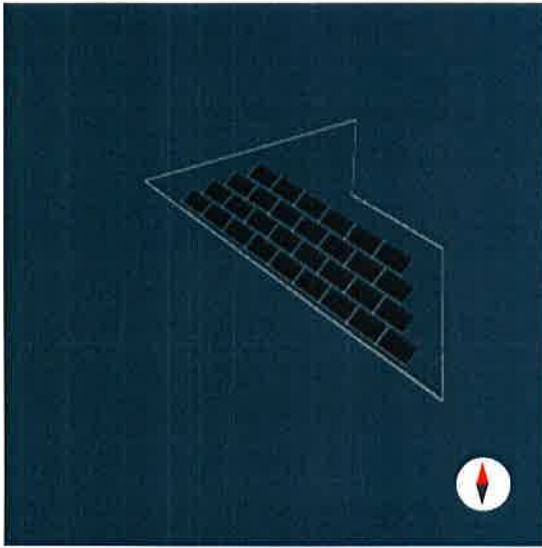


I, **Rob McGinty**, certify that I have generated this shading report to the best of my abilities, and I believe its contents to be accurate.

## UPPER MARLBORO TOWN HA... SUMMARY REPORT

School Lane 14211, Upper Marlboro, Maryland, 20772, United States

**solar**edge DESIGNER



### PROJECT INFORMATION

Customer name	Kyle Snyder
PV modules	30
Inverters	1
Power optimizers	30
Orientations	1
Weather station	Washington D.C.

### SYSTEM DATA



Installed power  
9.60 kWp



Max achieved DC power  
9.60 kW



DC/AC oversizing  
96 %

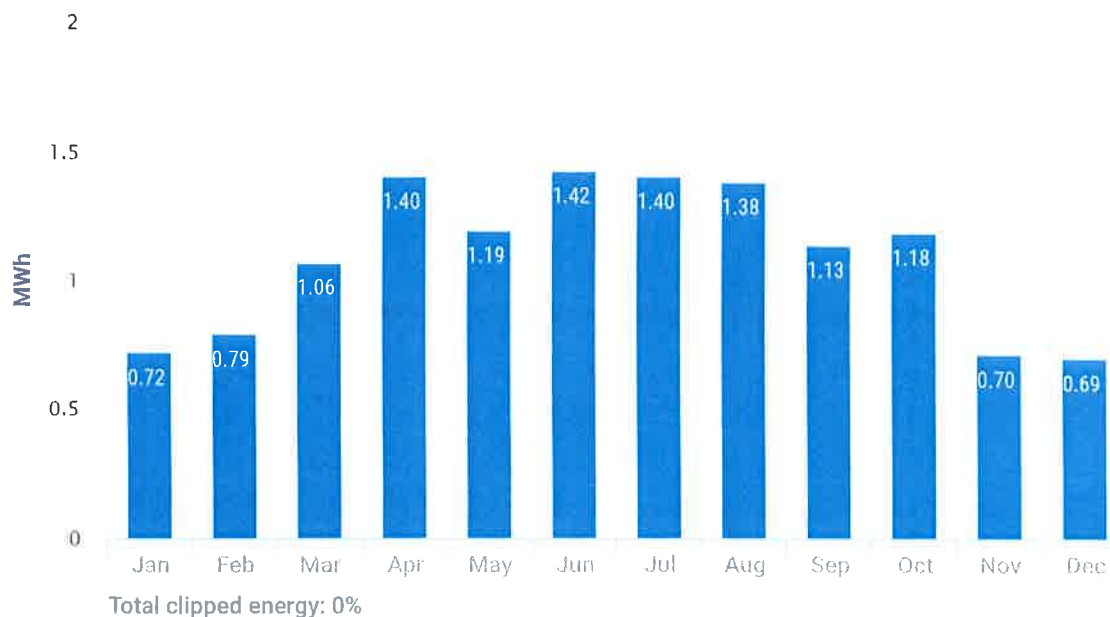


Max active AC power  
10.00 kW



Annual energy  
13.06 MWh

### ESTIMATED MONTHLY ENERGY



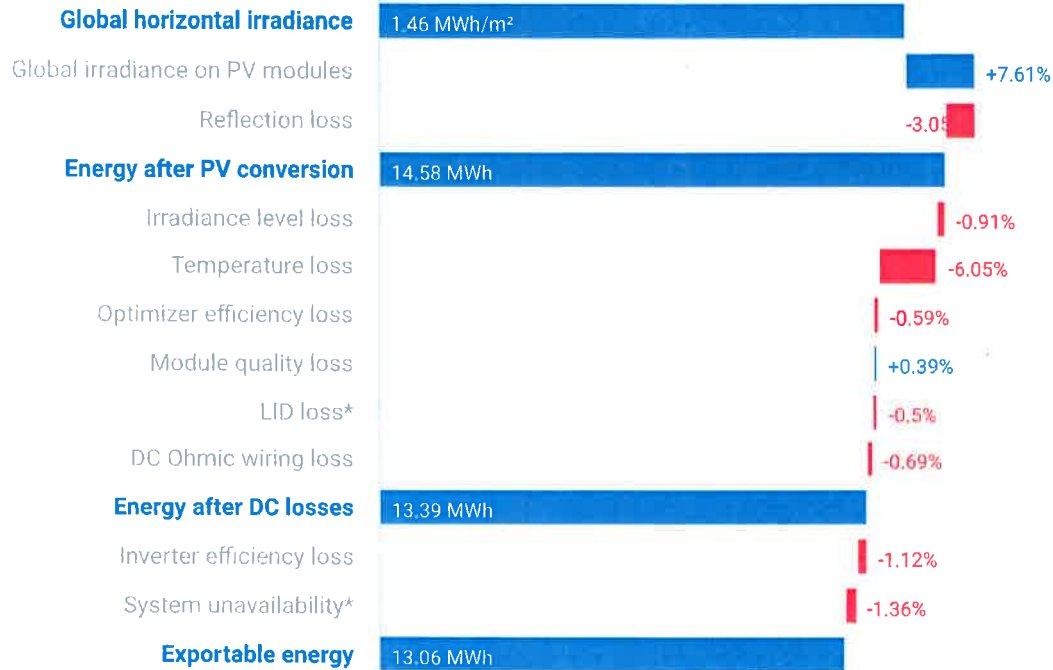


# UPPER MARLBORO TOWN HA... SUMMARY REPORT

School Lane 14211, Upper Marlboro, Maryland, 20772, United States

solar**edge** DESIGNER

## SYSTEM LOSS DIAGRAM



\*This value is calculated based on custom input

## PV MODULES

Module #	Module	kWp	Racking type	Module orientation	Azimuth	Tilt
30	Hanwha Q.Cells GmbH, Q.PEAK DUO BLK-G5 320	9.6			227°	33°

## GRID

Electricity grid 240V split phase

## ELECTRICAL DESIGN

1 x SE10000H-US

2 x strings: 15 x P320 (1:1)

## BILL OF MATERIALS (BOM)

Inverter	1 x SE10000H-US	Power Optimizer	30 x P320
----------	-----------------	-----------------	-----------

powered by  
**Q.ANTUM DUO**

# Q.PEAK DUO BLK-G5 305-320

## Q.ANTUM SOLAR MODULE

The new **Q.PEAK DUO BLK-G5** solar module from Q CELLS impresses with its outstanding visual appearance and particularly high performance on a small surface thanks to the innovative **Q.ANTUM DUO** technology. Q.ANTUM's world-record-holding cell concept has now been combined with state-of-the-art circuitry half cells and a six-busbar design, thus achieving outstanding performance under real conditions — both with low-intensity solar radiation as well as on hot, clear summer days.



### Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.3%.



### INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



### ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID technology, Anti PID Technology<sup>1</sup>, Hot-Spot Protect and Traceable Quality Tra.Q™.



### EXTREME WEATHER RATING

High-tech aluminum alloy frame, certified for high snow (5400Pa) and wind loads (4000Pa) regarding IEC.



### A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee<sup>2</sup>.



### STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.



### THE IDEAL SOLUTION FOR:



Rooftop arrays on  
residential buildings

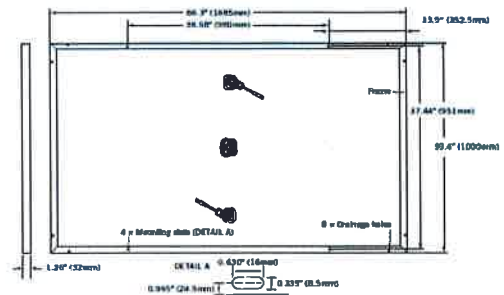
Engineered in **Germany**

<sup>1</sup> APT test conditions according to IEC/TS 62804-1:2015, method B (~1500V, 168 h)  
<sup>2</sup> See data sheet on rear for further information.

**Q CELLS**

## MECHANICAL SPECIFICATION

<b>Format</b>	66.3 in × 39.4 in × 1.26 in (including frame) (1685 mm × 1000 mm × 32 mm)
<b>Weight</b>	41.2 lbs (18.7 kg)
<b>Front Cover</b>	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Composite film
<b>Frame</b>	Black anodized aluminum
<b>Cell</b>	6 × 20 monocrystalline Q.ANTUM solar half-cells
<b>Junction box</b>	2.76-3.35 in × 1.97-2.76 in × 0.51-0.83 in (70-85 mm × 50-70 mm × 13-21 mm), decentralized, IP67
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 43.3 in (1100 mm), (-) ≥ 43.3 in (1100 mm)
<b>Connector</b>	Multi-Contact MC4, IP65 and IP68



## ELECTRICAL CHARACTERISTICS

POWER CLASS				305	310	315	320
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5W / -0W)							
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub>	[W]	305	310	315	320
	Short Circuit Current <sup>*</sup>	I <sub>SC</sub>	[A]	9.78	9.83	9.89	9.94
	Open Circuit Voltage <sup>*</sup>	V <sub>DC</sub>	[V]	39.75	40.02	40.29	40.56
	Current at MPP <sup>*</sup>	I <sub>MPP</sub>	[A]	9.31	9.36	9.41	9.47
	Voltage at MPP <sup>*</sup>	V <sub>MPP</sub>	[V]	32.78	33.12	33.46	33.80
	Efficiency <sup>2</sup>	η	[%]	≥ 18.1	≥ 18.4	≥ 18.7	≥ 19.0
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC <sup>3</sup>							
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub>	[W]	226.0	229.7	233.5	237.2
	Short Circuit Current <sup>*</sup>	I <sub>SC</sub>	[A]	7.88	7.93	7.97	8.02
	Open Circuit Voltage <sup>*</sup>	V <sub>DC</sub>	[V]	37.18	37.43	37.69	37.94
	Current at MPP <sup>*</sup>	I <sub>MPP</sub>	[A]	7.32	7.36	7.41	7.45
	Voltage at MPP <sup>*</sup>	V <sub>MPP</sub>	[V]	30.88	31.20	31.52	31.84

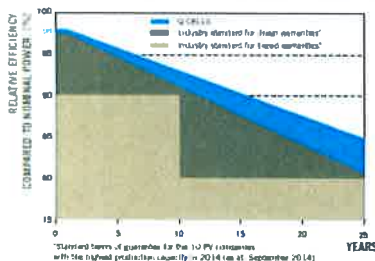
<sup>1</sup> 1000 W/m<sup>2</sup>, 25 °C, spectrum AM 1.5G

<sup>2</sup> Measurement tolerances STC ± 3%; NOC ± 5%

<sup>3</sup> 800 W/m<sup>2</sup>, NOCT, spectrum AM 1.5G

<sup>\*</sup> typical values, actual values may differ

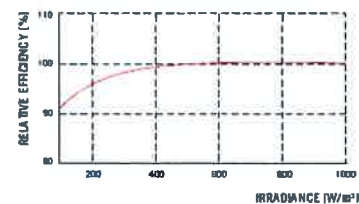
### Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year.  
Thereafter max. 0.54% degradation per year.  
At least 93.1% of nominal power up to 10 years.  
At least 85% of nominal power up to 25 years.

All data within measurement tolerances.  
Full warranties in accordance with the warranty terms of the Q CELLS sales organization of your respective country.

### PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m<sup>2</sup>).

### TEMPERATURE COEFFICIENTS

Temperature Coefficient of I <sub>SC</sub>	α	[%/K]	+0.04	Temperature Coefficient of V <sub>OC</sub>	β	[%/K]	-0.28
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.37	Normal Operating Cell Temperature	NOCT	[°F]	113 ± 5.4 (45 ± 3 °C)

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V <sub>sys</sub>	[V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C (IEC) / TYPE 1 (UL)
Design load, push (UL) <sup>2</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 Pa)	Permitted module temperature on continuous duty	-40 °F up to +185 °F (-40 °C up to +85 °C)
Design load, pull (UL) <sup>2</sup>	[lbs/ft <sup>2</sup> ]	55.6 (2666 Pa)	<sup>2</sup> see installation manual	

## QUALIFICATIONS AND CERTIFICATES

UL 1703; VDE Quality Tested; CE-compliant;  
IEC 61215 (Ed.2); IEC 61730 (Ed.1) application class A



## PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per 53' Trailer	30
Number of Pallets per 40' High Cube Container	26
Pallet Dimensions (L × W × H)	69.3 in × 45.3 in × 46.9 in (1760 mm × 1150 mm × 1190 mm)
Pallet Weight	1415 lbs (642 kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS America Inc.

300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL inquiry@us.q-cells.com | WEB www.q-cells.us





# Making PV Modules Smarter



Connecting SolarEdge power optimizers to PV modules makes them **SMART MODULES** that produce **MORE POWER**



# > More Energy From The Sun

## MAXIMUM POWER FROM EACH MODULE

In a PV system, each module has an individual maximum power point. Differences between neighboring modules results in power loss. For example:

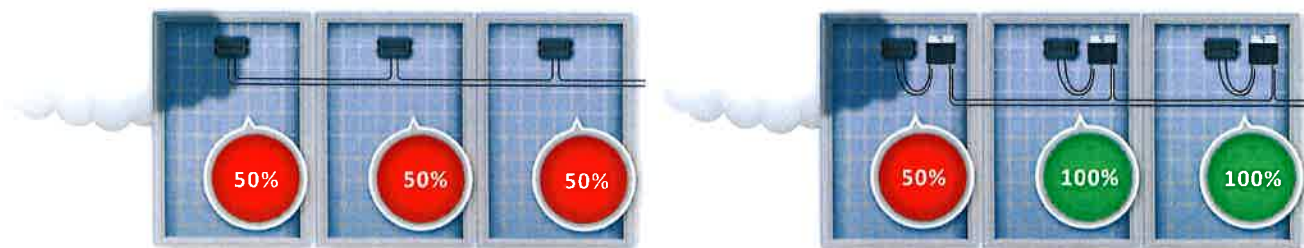


With traditional inverters, the weakest module reduces the performance of all modules.

**With SolarEdge, each module produces the maximum energy, and power losses are eliminated.**

Traditional Inverter

SolarEdge System



## MORE MODULES ON YOUR ROOF; AND MORE SAVINGS ON YOUR BILL

Traditional Inverter



SolarEdge System



### With SolarEdge

Installers can place more modules on the rooftop with SolarEdge and give you the design that you want:

- ✓ Shaded areas
- ✓ Multiple roof angles
- ✓ More options to fit the roof size
- ✓ Free from electrical constraints



# > SolarEdge For Your Peace of Mind

## CONNECT ON THE GO

- > Full visibility of system performance
- > Monitor your system, from anywhere using free iPhone and Android applications



## PEACE OF MIND

- > With SolarEdge, whenever AC power is off, DC wires are designed to automatically de-energize providing automatic protection to installers, maintenance personnel, firefighters and property
- > Installers, maintenance personnel and firefighters are automatically protected from high voltage



## SYSTEM LIFETIME WARRANTY

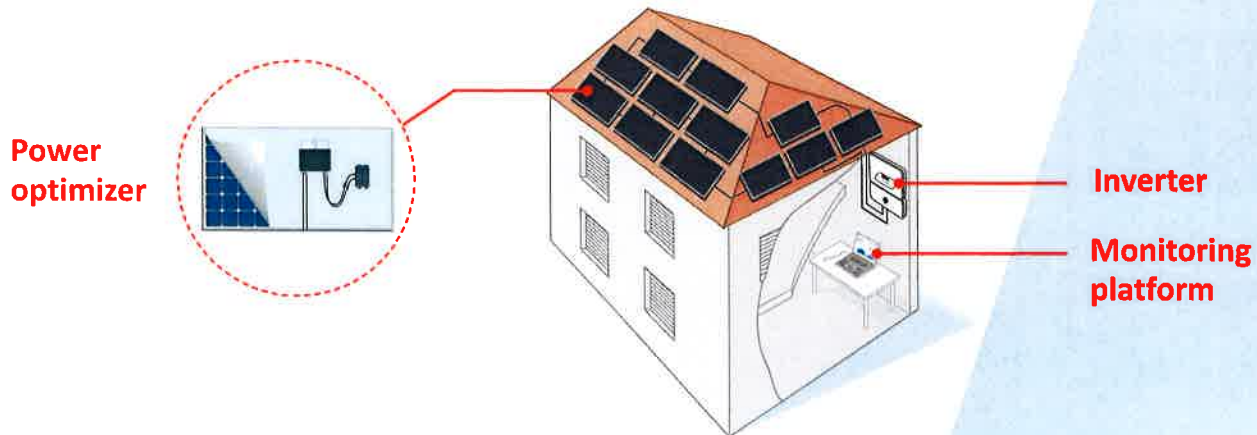
- > Backed by best in class warranties:
  - 25 years standard for optimizers;
  - 12 years standard extendable to 25 years for inverters
- > Monitoring: free for 25 years



# > Making PV Modules Smarter

## THE SOLAREEDGE SOLUTION

As a PV inverter and power optimization leader, SolarEdge has shipped more than 5.9GW of its DC optimized inverter solutions to 120 countries. SolarEdge's cutting edge technology gives you smart system control that manages your array for maximum performance.



### POWER OPTIMIZER

By connecting a SolarEdge power optimizer to a PV module it becomes a smart module. This allows:

- Harvest of up to 25% more energy from each module
- Constant feedback on the performance of each module
- Designed to shutdown each module for maximum safety in case of an emergency



### INVERTER

A simpler and more reliable inverter:

- Responsible only for DC to AC conversion, as all other functions are handled separately for each module by the power optimizers
- Extremely small, lightweight, and easy to install
- 99% weighted efficiency
- Suitable for indoor and outdoor installations



### MONITORING PLATFORM

By displaying real-time performance data for each module, the monitoring platform allows:

- Full visibility of your system's performance
- Automatic alerts on system issues



@SolarEdge



@SolarEdgePV



@SolarEdgePV



@SolarEdge

**solar**edge

# KW Solar Solutions, Inc.

**Proposal: RFP #UM 202-03**

## Upper Marlboro Town Hall

14211 School Lane, Upper Marlboro MD 20772

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### Statement of Work

KW Solar Solutions proposes to install a rooftop mounted, grid-tied solar photovoltaic power generation systems at Upper Marlboro Town Hall. Solar power will reduce your Pepco electrical utility bills and decrease the amount of CO<sub>2</sub> gas emitted into the atmosphere.



The preliminary design of the solar array is comprised of 30 Q Cell 320-watt solar PV modules, 1 SolarEdge inverter with power optimizers, Unirac racking system and all other balance of system components. The system size is rated at 9.6 kW DC. This turnkey system also includes a monitoring system with graphical display of performance which provides desktop computer and mobile device access.

### Rooftop Mount Array:

The solar modules will be installed on existing asphalt shingle roofing facing southwest (shown to right). Attachments made thru the shingle roofs to rafters with Unirac SFM rail-less racking system and integrated L-foot single-lag bolt installation to secure the PV modules in place. This Unirac system reduces roof penetrations by 20% over traditional racking systems. Array will be flash mounted for the 33-degree roof slope.



The modules will be wired in 2 DC series circuits called strings. The strings will be wired to the SolarEdge inverter which transforms the DC power into AC power suitable for use by the buildings existing electrical system. The SolarEdge inverters assure that the PV generated power is compatible with the power supplied by the



Pepco electric grid and will disconnect from the electrical system in the event of the utility power outage to prevent “back feed” to the utility grid.

The proposed system will supplement and offset a portion of Upper Marlboro Town Hall’s annual electrical consumption. The proposed system will be interconnected with the utilities electrical grid system and controlled to follow the existing systems’ electrical characteristics.

A dedicated data acquisition system is tied directly to the inverter and will display the performance of the PV system and describe how it works through the monitoring. A revenue grade utility meter will also be installed on the PV system to accurately measure the power generated. The inverters will be located in close proximity to the Townhall’s electric service panel.

Systems are installed in NEC code compliant manner and with 3’ foot setback requirement.

***Alternative designs and system sizes can also be developed that would maximize production with more modules.***



## Summary of Major Components:

**Q Cell 320 watt modules:** Through state-of-the-art engineering and outstanding quality, Q Cell modules offer world-class performance and guaranteed long-term reliability. These high-power modules perform above three times the International Electrotechnical Commission (IEC) standards, and every Q Cell product is certified and surpasses industry standard regulations, proving excellent performance over the long-term. Their product line is well suited for residential, commercial and utility scale applications. Q Cell provides a 25-year linear production warranty and 12 year workmanship warranty. Hanwha Q Cell is headquartered in South Korea and recently began production in Dalton, GA producing 12,000 modules per day.

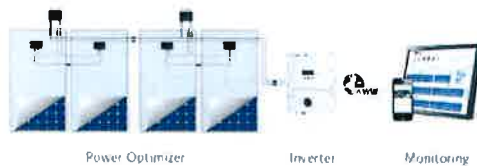
**SolarEdge Inverters with Power Optimizers:** Solar inverters convert the direct current power generated by solar panels to alternating current power that is needed to power the Town Hall. SolarEdge is a leader in smart energy technology. They developed the DC optimization inverter solution that changes the way power is harvested and managed from PV systems. The SolarEdge intelligent inverter solution maximizes power generation while lowering the cost of energy produced. SolarEdge has over 1.2 million PV sites monitored in 125 countries. The single phase 10kW inverter includes DC safety





switch, integrated rapid shut-down and a standard 12-year warranty, which KW Solar will extend to can be extended to 25 years.

SolarEdge Power Optimizers are DC/DC converters which are connected by KW Solar Solutions to each of the 30 Q Cell modules, turning them into smart modules. The optimizers constantly track the maximum power point of each module individually, as opposed to standard string inverters which can only track the maximum power point for an entire string of modules. This results in optimized power harvest. Plus, you can track the performance of each individual solar module in the array in the SolarEdge monitoring platform. The power optimizers have a 25 year standard warranty.



### Estimated Annual Energy Production by Month (kWh AC):

Based on our Aurora Solar Modeling simulation configured with the above electrical components the system will produce 12,731 kWh in the first year of operation.

SolarEdge inverter simulation engine returned an estimate of 13,060 kWh (attached in appendix).

Aurora Solar Production Simulation  
12,731 kWh



### **Description of Installation Process:**

1. Site Assessment and project walk thru with Town Hall stakeholders
2. Apply and receive Pepco interconnection agreement approval
3. Apply and receive building and electrical permits
4. Schedule construction dates
5. Construction and system commissioning to take approximately 2 business days
6. Schedule and complete electrical inspection by independent agency
7. Pepco installs bi-direction meter
8. Permission to operate granted
9. System orientation to Town Hall stakeholders

### **Pricing**

KW Solar Solutions proposes to provide the full turnkey solar PV grid-tied installation at \$2.50 per installed watt. The proposed system size is 9.6 kW DC. Full price before incentives is \$24,000.

See attached KW Solar financial analysis that shows pricing, incentives and cash flow statement.

### **About KW Solar Solutions**

KW Solar Solutions was incorporated in 2004. Dale Wolf, the president and CEO is an original founder and the owner operator. He is a NABCEP certified installer and electrician.

KW Solar Solutions is a full service renewable energy company. We are solely dedicated to the design, installation and maintenance of renewable energy systems utilizing the highest quality components. We are a mid-Atlantic company, locally owned and operated for 16 years. We are committed to providing unsurpassed customer service, from initial contact throughout the life of your system.

- KW Solar Solutions provides professional design, installation and maintenance of Solar PV for both residential and commercial application
- Our courteous and knowledgeable staff will assist you in the planning and custom design phase of your specific project needs
- KW Solar Solutions will handle all the paperwork for the DEC interconnection agreement, permitting and Maryland Energy Administration grant application
- Our crews will professionally install your custom designed system in a courteous, timely manner.

- We invite you to visit some of our installations to observe our quality craftsmanship and attention to detail.
- After your installation, we will assist you in obtaining your certification as a Renewable Energy Generator and with the sale of your Renewable Energy Credits (RECs) through SREC Trade, Inc. [www.srectrade.com](http://www.srectrade.com)

Contact Info:

KW Solar Solutions operations address: 94 Childs Road, Elkton MD 21921

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Jackie Johnson  
Office Manager  
[Jackie@kwsolar.net](mailto:Jackie@kwsolar.net)  
320-838-8400

## Appendices

1. Price quote and financial analysis
2. Aurora Shade report
3. SolarEdge production estimate
4. KW Warranty
5. Product spec sheets



## Renewable Energy Proposal

Prepared for:  
Kyle Snyder  
Upper Marlboro Townhall  
14211 School Lane  
Upper Marlboro MD  
3/3/20

Prepared by:  
Rob McGinty  
KW Solar Solutions  
94 Childs Road  
Elkton MD 21921  
302-838-8400



**ACCREDITED  
BUSINESS**

**BBB Rating: A+**

*This proposal and pricing are proprietary and confidential between Upper Marlboro Townhall and KW Solar Solutions*

### Your System Summary:

9.6 kW Installed Capacity

30 Q.Peak- Blk G5.1 320 watt

\$24,000 Before Incentives

\$20,850 After Incentives (grants and tax credits)

9.60% Internal Rate of Return (IRR)

9 Payback period (Years)



### Commercial



your Business

### Agricultural



For your Farm

### Residential



For your Home



## Renewable Energy Proposal

### Project Summary

#### Proposal For:

Upper Marlboro Townhall  
14211 School Lane  
Upper Marlboro MD 20773

#### System Summary:

9.60 kW Installed (DC)  
30 Q.Peak- Blk G5.1 320 watt  
9.6% IRR (Internal Rate of Return)  
9 Payback Period (Yrs)

Date: 3/3/20

#### System Performance:

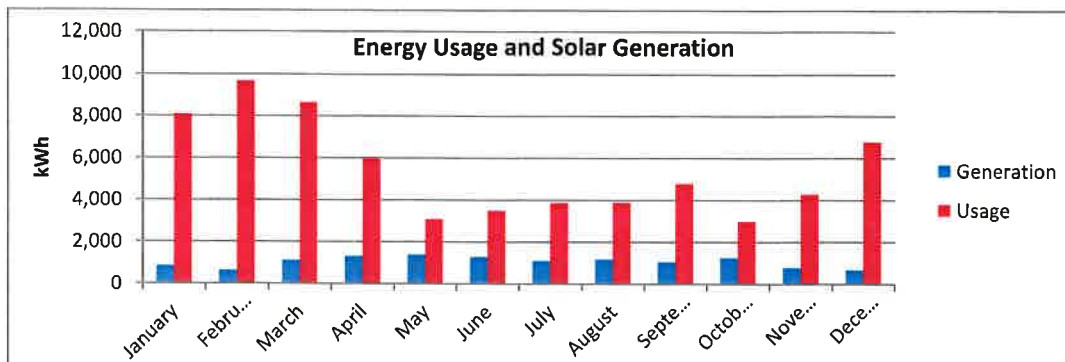
Month	Generation	Usage
January	856	8,100
February	648	9,700
March	1,133	8,660
April	1,324	6,000
May	1,404	3,100
June	1,292	3,500
July	1,103	3,880
August	1,179	3,900
September	1,054	4,800
October	1,253	3,000
November	804	4,300
December	681	6,800
<b>Totals</b>	<b>12,731</b>	<b>65,740</b>

#### Project Financial Summary:

Project Cost: \$24,000  
State Energy Grant: \$3,150  
Other Grant: \$0  
Federal Tax Credit: \$0  
Depreciation Savings: \$0  
Net Project Cost: \$20,850  
IRR: 9.6%  
Payback Period (Yrs): 9



Percent from Solar: 19.4%







## Renewable Energy Proposal

### Financial Report

Proposal For:

Upper Marlboro Townhall  
14211 School Lane  
Upper Marlboro MD 20773

System Summary:

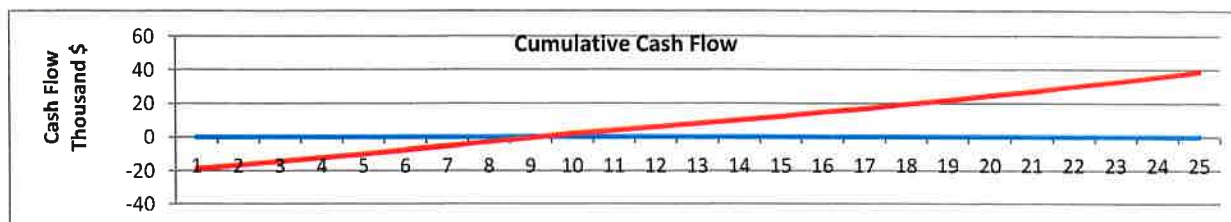
9.60 kW Installed (DC)  
30 Q.Peak- Blk G5.1 320 watt  
9.6% IRR  
9 Payback Period (Yrs)

Date: 3/3/20



Year	Utility Savings	RECs Sales	Tax Savings	Depreciation Savings	Energy Grant	Annual Cash Flow	Cumulative Cash Flow
0	\$0	\$0	\$0	\$0	\$0	-\$24,000	-\$24,000
1	\$1,388	\$637	\$0	\$0	\$3,150	\$5,174	-\$18,826
2	\$1,438	\$633	\$0	\$0	\$0	\$2,071	-\$16,755
3	\$1,489	\$630	\$0	\$0	\$0	\$2,120	-\$14,635
4	\$1,542	\$627	\$0	\$0	\$0	\$2,169	-\$12,466
5	\$1,597	\$624	\$0	\$0	\$0	\$2,221	-\$10,245
6	\$1,652	\$621	\$0	\$0	\$0	\$2,273	-\$7,972
7	\$1,710	\$618	\$0	\$0	\$0	\$2,327	-\$5,645
8	\$1,768	\$615	\$0	\$0	\$0	\$2,383	-\$3,262
9	\$1,829	\$612	\$0	\$0	\$0	\$2,440	-\$822
10	\$1,891	\$608	\$0	\$0	\$0	\$2,499	\$1,677
11	\$1,954	\$0	\$0	\$0	\$0	\$1,954	\$3,632
12	\$2,019	\$0	\$0	\$0	\$0	\$2,019	\$5,651
13	\$2,086	\$0	\$0	\$0	\$0	\$2,086	\$7,737
14	\$2,155	\$0	\$0	\$0	\$0	\$2,155	\$9,892
15	\$2,226	\$0	\$0	\$0	\$0	\$2,226	\$12,118
16	\$2,298	\$0	\$0	\$0	\$0	\$2,298	\$14,416
17	\$2,372	\$0	\$0	\$0	\$0	\$2,372	\$16,788
18	\$2,449	\$0	\$0	\$0	\$0	\$2,449	\$19,237
19	\$2,527	\$0	\$0	\$0	\$0	\$2,527	\$21,764
20	\$2,607	\$0	\$0	\$0	\$0	\$2,607	\$24,372
21	\$2,690	\$0	\$0	\$0	\$0	\$2,690	\$27,062
22	\$2,775	\$0	\$0	\$0	\$0	\$2,775	\$29,836
23	\$2,862	\$0	\$0	\$0	\$0	\$2,862	\$32,698
24	\$2,951	\$0	\$0	\$0	\$0	\$2,951	\$35,649
25	\$3,043	\$0	\$0	\$0	\$0	\$3,043	\$38,692
<b>Totals</b>	<b>\$53,318</b>	<b>\$6,224</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,150</b>	<b>\$38,692</b>	

These are good faith estimates for information only. Actual costs, performance and savings may vary.





## Renewable Energy Proposal

### Environmental Report

Date:

3/3/20

#### Proposal For:

Upper Marlboro Townhall  
14211 School Lane  
Upper Marlboro MD 20773

#### System Summary:

9.60	kW Installed (DC)
30	Q.Peak- Blk G5.1 320 watt
9.6%	IRR
9	Payback Period (Yrs)

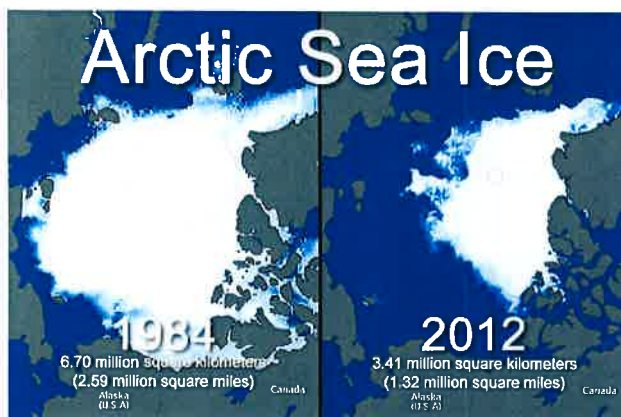
#### Emission Reductions for this Project:

Pollutant	lbs	Comments
Carbon dioxide (CO2)	31,233	A global warming gas
Nitrogen dioxide (NO2)	52	US EPA Criteria Pollutant
Sulfur dioxide (SO2)	196	US EPA Criteria Pollutant



Emissions rates based on the equivalent amount of electricity generated by burning coal

#### Visible Evidence of Global Warming





## Renewable Energy Proposal

### Signature Page

Proposal For:

Date:

3/3/20

Upper Marlboro Townhall  
14211 School Lane  
Upper Marlboro MD 20773

#### Your System Summary:

30 Q.Peak- Blk G5.1 320 watt Roof Mounted  
1 Solar Edge 10kW inverter with power optimizers

Project Cost:	\$24,000
State Energy Grants:	\$3,150
Federal Tax Credit:	\$0
Depreciation Savings:	\$0
Net Project Cost:	\$20,850



#### Payment Schedule:

Good Faith Deposit	\$1,000	Due at contract signing
50% of project cost:	\$11,500	Due 4 weeks before start of construction
25% of project cost:	\$5,750	Due at start of construction
25% of project cost:	\$5,750	Due after final inspections and approval

#### Terms and Conditions:

Installation is warrantied for 10 years (100% parts and labor)  
Price includes installation of solar modules, inverters, racking, application fees, wiring, conduit and interconnection to existing service  
All system components warrantied through manufacturer  
Proposal may be withdrawn if not accepted within 30 days  
Includes installation of internet based monitoring, if applicable  
Price does not include service and/or transformer upgrades, line upgrades, or other utility costs if required  
Price does not include roof structure repair, reinforcement or replacement or structural engineering costs (if required)  
Customer has 72 hours to cancel this agreement for any reason with written notification  
Communications equipment only covered by manufacturers' warranty

Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and are hereby accepted.  
KW Solar Solutions is authorized to do the work as specified. Payment will be made as outlined above.

Date of Acceptance: \_\_\_\_\_

KW Solar Signature: \_\_\_\_\_

Customer Signature: \_\_\_\_\_