

GERMANTOWN SCHOOL DISTRICT

BUILDING COMMITTEE MEETING

District Administrative Offices

**N104 W13840 Donges Bay Road
Germantown, WI 53022**

**Tuesday, March 30, 2010
5:00 p.m.**

AGENDA

- I. Meeting Called to Order**
- II. Roll Call**
- III. Agenda revisions and approval of agenda**
- IV. Approve Minutes**
 - A. Minutes of February 8, 2010
- V. Reports/Project Updates.**
 - A. Project Updates
- VI. Unfinished Business – Discussion & Possible Action.**
 - A. Q-Bond Project List
 - B. V. of Germantown – Intergovernmental Agreement
 - C. Side Walk – River Lane Rd.
 - D. District Properties
 - a. Highway View - Relisting Property
 - b. Highway View - DOT Contract – Park & Ride
 - c. Holy Hill – Alternative Uses
- VII. New Business – Discussion & Possible Action.**
 - A. Renewable Energy Study/Audit
- VIII. Community Comments**
- IX. Adjournment**

USE AGREEMENT

This Use Agreement (the "Agreement") is made and entered into this 11th day of July, 2005 by and between the Germantown School District, a school district organized according to the Constitution and laws of the State of Wisconsin (the "School District") and the Village of Germantown, a village duly organized according to the laws of the State of Wisconsin (the "Village"), together the Parties.

WHEREAS, the Village desires to use certain property of the School District on the terms described herein,

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES AND COVENANTS CONTAINED HEREIN AND FOR OTHER GOOD AND VALUABLE CONSIDERATION, THE RECEIPT AND SUFFICIENCY OF WHICH ARE HEREBY ACKNOWLEDGED, THE SCHOOL DISTRICT AND THE VILLAGE AGREE AS FOLLOWS:

1) Right to Use Facilities. Subject to the Village's timely payment of fees in accordance with the terms of Section 7 of this Agreement and to the Village's observance of the terms and conditions of this Agreement, the School District hereby grants to the Village the non-exclusive right to use the Facilities only at the specific times and only for the specific activities set forth on Exhibit A hereto (which purposes shall only be educational and recreational). For purposes of this Agreement, the Facilities shall mean the facilities listed on Exhibit A hereto. The Village and the School District shall use their best efforts to negotiate the contents of Exhibit A and shall have agreed to the contents of Exhibit A-1 as of the date of this Agreement. For the future use periods described on Exhibits A-2 through A-10, (a "School Year Period" or "Summer Period") as indicated the parties shall agree to the contents of such Exhibit on or before the dates indicated below:

- (a) For a School Year Period by August 1 and
- (b) For a Summer Period by April 1.

In the event that the Village and the School District are unable to agree upon the contents of an Exhibit by the stated date, this Agreement shall terminate upon the expiration of the then-current schedule of uses. The Village will provide use requests to the School District in advance of the requested usage

2) Purpose. The Village may make reasonable use of the Facilities at the times and for the educational or recreational uses described on Exhibits A (the APermitted Uses@). The Village agrees that the Facilities shall not be used for any unlawful purpose or for any purpose that will damage or harm in any way the Facilities or any third party, and the Village will not use or keep about the Facilities any article or equipment that would in any way affect the validity of the fire and extended coverage insurance policy carried by [the School District] or would cause an increase in any premium for insurance carried by the School District.

3) Right to Use Common Areas. During the hours in connection with the Permitted Use on Exhibit A, the Village shall have the nonexclusive use of the common areas of the Facilities, include the corridors, stairways, elevators, entryways and restrooms) for the following purposes (i) all purposes necessary or incidental to the Village=s Permitted Use (ii) all purposes necessary or incidental to the Village=s complying with all laws and regulations (including, without limitation, for emergency exit purposes), and (iii) all purposes necessary to permit the Village to complete the Village=s obligations under this Agreement.

4) Compliance with Laws. The Village, at its sole costs and expense, shall comply and shall cause its Users (as defined herein) to comply with any and all laws, statutes, ordinances, and regulations (federal, state, county or municipal), now or hereafter enforced, that are applicable. The Village, at its sole cost and expense, also covenants to comply and to cause its Users to comply with all rules and regulations issued from time to time by the School District. The Village understands that the School District is subject to the strictures of the First Amendment to the United States Constitution respecting Aan establishment of religion@ and of comparable provisions in article 1, section 18 of the Wisconsin Constitution (which constitutional provisions are referred to collectively as the AEstablishment Clause@). The Villages thus expressly represents and warrants that it shall not act or fail to act with respect to the Facilities in a manner that would cause the School District=s use of the Facilities to contravene the Establishment Clause. The Parties each recognize that the application of the Establishment Clause or other laws and regulations to particular situations may present difficult legal questions and hence the Parties agree to act in good faith to resolve any issues that might arise and to do so with the purpose of avoiding any violation of any laws or regulations by the School District in connection with the Village=s use of the Facilities.

5) Term of Agreement. This term of the renewal of this Agreement (the “Renewal Term”) shall be for a period commencing as of the date of the last execution of this Agreement and ending on September 1, 2015, unless sooner terminated or extended by renewal, according to the terms hereinafter set forth. The Term shall be renewable for additional renewal periods upon a written agreement signed by the parties hereto.

~~5) Term of Agreement. This term of this Agreement (the “Renewal Term”) shall be for a period commencing September 1, 2005 and ending on September 1, 2010, unless sooner terminated or extended by renewal, according to the terms hereinafter set forth. The Term shall be renewable for additional one year periods upon a written agreement signed by the parties hereto.~~

6) Village Financial Contribution in Consideration of Use. In consideration of the use of the Facilities during the Renewal Term according to the terms of this Agreement, the Village shall fund the purchase of replacement equipment and/or maintenance, repairs and improvements to the Facilities, as follows: (i) to the extent funds are available from the Germantown Park and Recreation Department Special Non-Lapsing Operating Fund, created by the Village Board for that purpose; (ii) for which the parties to this Agreement mutually determine will benefit and promote the Permitted Uses under this Agreement; and (iii) which disbursements shall be made strictly in accordance with Village expenditure policy. Any equipment or improvements funded hereunder shall remain the property of the School District on termination of this Agreement.

~~6) Compensation in Consideration of Use. In exchange for the use of the Facilities during the Term according to the terms of this Agreement, the Village shall pay compensation to the School District in the amount of \$1,000 per year. The School District shall use the \$1,000 for the purchase of replacement equipment or improvements at the Facilities or as the School District desires to maintain the Facilities. Any items purchased by the School District with such funds shall remain the property of the School District.~~

7) Fees. The Village agrees to charge the School District=s residents the same usage fees for participation in the Permitted Uses of the Facilities as the Village charges residents of the Village of Germantown. The Village also agrees to consider waiving certain permit fees (building, sign, etc.) for the School District when requested by the School District.

8) Taxes. Both parties represent that they are exempt from real property taxation under the Wisconsin Statutes.

9) Insurance.

The Village shall carry fire and extended coverage insurance, public liability insurance, and other risk insurance in the amount of not less than \$1,000,000 insuring the Village and the School District against any damage to property and for any expense incurred in consequence of the use by the Village or any of its agents, contractors, employees, invitees, permittees, program participants or licensees (the AUsers@) of any of the Facilities, and holding the School District harmless from any claims resulting from such use. It is further agreed that the Village shall protect, indemnify, save and keep harmless the School District against and from any and all loss, cost, damage or expense arising out of any acts by the Village or any of its agents, contractors, employees, invitees, permittees, program participants, or licenses on or about the Facilities. [This section needs to be discussed with your insurance broker.]

Any insurance policy required under this section shall provide that any other insurance@ clause in such insurance policy shall exclude any policies of insurance maintained by the School District and that such insurance policy shall not be brought into contribution with such insurance maintained by the Village.

Every year during the Term of this Agreement, the Village shall provide the School District with a certificate of insurance evidencing that insurance satisfying the requirements of this Agreement are in effect. The School District shall have the right to take any action or make any payment required to continue coverage as required by this Section. The Village hereby covenants to reimburse and hold the School District harmless for the cost of any such action or payment.

10) Maintenance and Repairs. The School District shall maintain the Facilities consistent with its own standards of maintenance. Before each use of the Facilities, the Village will record the condition of each Facility. After each use of the Facilities, the Village shall return the Facilities to the same condition the Facilities were in prior to their use, normal wear and tear excepted, including without limitation the clean-up of any activity and the return of any equipment or furniture to its position prior to the Village's use. The Village shall fund in accordance with Section 6 above, any additional janitorial support required due to the use by the Village. The Village shall notify the School District in the event the Village or any User determine that the Facilities or any equipment or furniture therein are unsafe or in need of repair or replacement, and the Village shall participate in the cost of such repair or replacement in accordance with Section 6 above.

~~Maintenance and Repairs. The School District shall maintain the Facilities consistent with its own standards of maintenance. Before each use of the Facilities, the Village will record the condition of each Facility. After each use of the Facilities, the Village shall return the Facilities to the same condition the Facilities were in prior to their use, including without limitation the clean up of any activity and the return of any equipment or furniture to its position prior to the Village=s use. Any additional janitorial support required to clean up the Facilities after the Village=s use shall be paid by the Village. The Village shall notify the School District in the event the Village or any User determine that the Facilities or any equipment or furniture therein are unsafe or in need of repair.~~

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Damage or Destruction. In the event any of the Facilities shall be damaged or destroyed, in whole or in part, by fire or any other casualty, the School District, in its sole discretion may decide either to terminate this Agreement (or a part hereof) or to repair or replace that portion of the Facilities which has been damaged or destroyed by such casualty. During the time of any such repair or replacement, the School District shall use reasonable efforts to accommodate the Village in its anticipated uses of the Facilities. In no event shall the School District be liable for any damages to the Village or its Users for failing to provide any of the Facilities in the event the Facilities have been damaged or destroyed.

Termination. In the event the Village breaches any representation or warranty or fails to perform any obligation in this Agreement, the School District may, in its sole discretion, after providing the Village with a 60 day written notice to cure terminate this Agreement. Any fees or expenses owing by the Village at the time of termination shall be paid by the Village. This Agreement may also be terminated by either party [without cause] upon six months prior written notice to the other party.

Security. The Village agrees to provide all of its instructors with Village identification. The Village also agrees to maintain a list of all people who have copies of keys to the Facilities and to share such list with the School District. The Village agrees to provide keys to the Facilities only to employees of the Village or instructors for classes and to no other party. The Village shall cause its instructors to make sure the Facilities are properly locked at all times and all the School District=s security procedures are followed at all times.

Indemnification by Village. THE VILLAGE SPECIFICALLY ACKNOWLEDGES AND AGREES THAT NEITHER THE SCHOOL DISTRICT NOR ANY EMPLOYEE, REPRESENTATIVE, OR AGENT OF THE SCHOOL DISTRICT IS MAKING, AND THE VILLAGE IS NOT RELYING ON, ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND WHATSOEVER, OTHER THAN THOSE PROVIDED IN THIS AGREEMENT, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, AS TO ANY MATTER CONCERNING THE FACILITIES OR ANY EQUIPMENT ON THE FACILITIES, INCLUDING WITHOUT LIMITATION THAT THE EQUIPMENT IS FIT FOR A PARTICULAR PURPOSE OR IS IN GOOD WORKING CONDITION.

The Village shall defend, indemnify and hold the School District and its employees, officers, directors, agents, authorized representatives, students, permitted sublessees, invitees, licensees and frequenters harmless from and against any and all claims, demands, suits, losses, damages, costs, expenses, obligations, judgments, or other forms of liability to third parties, actual or claimed, or the School District (including reasonable attorney=s fees) arising out of (i) the breach of the Village=s representations, warranties and agreements herein, and (ii) any injury to property or persons occurring or allegedly occurring in connection with the negligence or intentionally wrongful act or omission of the Village or its employees, officers, directors, contractors, representatives or guests and invitees of any kind with respect to the Facilities, (ii) any damage or harm to the Facilities, the School District's land, buildings, parking lots and sidewalks or to third parties as a result of the Village or its Users use of the Facilities.

Indemnification by School District. The School District shall defend, indemnify and hold the Village harmless from and against any and all claims, arising out of the breach of the School District=s warranties and agreements herein, provided that the Village=s sole and exclusive remedy under any theory of liability (tort, contract, etc.) shall be limited to the fees paid by the Village hereunder.

Assignment and Suboccupancy. The School District shall have the right at any time during the Term to sell or convey the Facilities subject to all the terms of this Agreement, or to assign its rights, title and interest under this Agreement in whole or in part. In the event of any such sale or assignment, the School District shall be relieved from and after the date of such transfer or conveyance of liability for the performance of any of its obligations contained herein as per Facility assignment, except for obligations or liabilities accrued prior to the date of such assignment or sale, to the extent that the buyer or assignee has not assumed such liabilities. The Village affirms and acknowledges that its right hereunder to use certain portions of the Facilities is in the nature of a license and hence that such right is personal to the Village and not transferable by it. Accordingly, the Village shall not attempt to sublet its interests hereunder in the Facilities, or in any portion of the same, nor shall it attempt to assign, mortgage, pledge, transfer or otherwise encumber or dispose of its interests under this Agreement. Any effort to so transfer such interests shall be void ab initio and hence of no force and effect.

Relationship of Parties. This Agreement does not create the relationship of principal and agent, or of partnership or joint venture, or of any association or relationship between the parties.

No Third-Party Beneficiaries. This Agreement shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns.

Entire Agreement. This Agreement constitutes the entire agreement between the Parties and supersedes any prior understandings, agreements, or representations by or between the Parties, written or oral, to the extent they related in any way to the subject matter hereof. This Agreement shall be deemed to amend and restate any prior written agreements relating to the Facilities. The Exhibits identified in this Agreement are incorporated herein by reference and made a part hereof. This Agreement shall not be modified, amended, or supplemented in any manner, except by an instrument in writing executed by the Parties or except as provided in Section 1 hereof.

No merger. There shall be no merger of this Agreement with any other estate or interest in the Facilities.

Succession. This Agreement shall be binding upon and inure to the benefit of the Parties named herein and their respective successors and permitted assigns.

Notices. All notices, requests, demands, claims and other communications hereunder shall be in writing. Any notice, request, demand, claim, or other communication hereunder shall be deemed duly given if (and then two business days after) it is sent by registered or certified mail, return receipt requested, postage prepaid, and addressed to the intended recipient as set forth below:

If to the Village:

Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022-0337
Attn: Village Administrator

Copy to:

Fuchs, DeStefanis & Boyle, S.C.
620 North Mayfair Road
Milwaukee, WI 53226-4253
Attn: John L. DeStefanis

If to the School District:

Germantown School District
District Administrative Offices
N104 W13840 Donges Bay Road
Germantown, WI 53022-4499
Attn: Superintendent

Copy to:

Quarles & Brady LLP
Attn: Gary Ruesch
411 E. Wisconsin, Suite 2040
Milwaukee, WI 53202

Any Party may send any notice, request, demand, claim, or other communication hereunder to the intended recipient at the address set forth above using any other means (including personal delivery, expedited courier, messenger service, telecopy, telex, ordinary mail, or electronic mail), but no such notice, request, demand, claim, or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient. Any Party may change the address to which notices, requests, demands, claims, and other communications hereunder are to be delivered by giving the other Party notice in the manner herein set forth.

Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Wisconsin, without giving effect to any choice or conflict of law provision or rule.

Waivers. No waiver by any Party of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation, or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

Construction. The Parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

Further Assurances. The Village also agrees to promptly execute upon the School District=s request a recordable Memorandum of this Agreement.

Force Majeure. If either party is prevented from carrying out its obligations under this Agreement by events beyond its reasonable control, including acts or omissions of the other party, acts of God or government, natural disasters or storms, fire, act of terrorism, explosion, riot, war or political strike, labor disputes, failure or delay of third party transportation, or the availability of raw materials, then such party=s performance of its obligations hereunder shall be excused during the period of such event and the time for performance of such obligations shall be automatically extended by the same period.

In Witness whereof the School District and the Village have entered into this Agreement as of the date set forth above.

GERMANTOWN SCHOOL DISTRICT

By: _____

Its: _____

Attest: _____

Its Clerk: _____

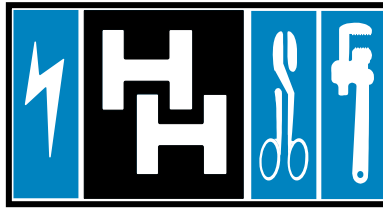
VILLAGE OF GERMANTOWN

By: _____

Its: _____

Attest: _____

Its Clerk: _____



Commercial Solar Electric Site Assessment



“Making the sun work for you”

<i>Client Name</i> Germantown School District – Donald Erickson		<i>Date of Site Visit</i> 12/2/09	<i>Date of Report</i> 12/28/09	
<i>Site Address</i> 3294 Willow Creek Rd W159N9939 Butternut Rd W154N11492 Fond Du Lac Ave N132W18473 Rockfield Rd		<i>City</i> Germantown	<i>State</i> WI	<i>Zip</i> 53022
<i>County</i> Washington	<i>Email</i> derickson@germantown.k12.wi.us	<i>Phone</i> 262-253-3930		
<i>Electric Utility</i> WE Energies		<i>Gas Utility</i> WE Energies		
<i>Water Heating Fuel Type</i> Natural gas		<i>Focus Territory (yes/no)</i> Yes		

Site Assessor:

Adam C. Gusse

H & H Solar Energy Services, Inc. Madison, WI

Phone: (608) 279-6936 E-mail: adamg@hhsolar.org

THIS SITE ASSESSMENT WAS CO FUNDED BY FOCUS ON ENERGY (WWW.FOCUSONENERGY.COM OR 800 762.7077)



Disclaimer: Material in this report does not imply a recommendation or endorsement of any product or service by Focus on Energy or H&H Solar. The Focus on Energy program or any subcontractor thereof is not responsible for inaccurate or incomplete data in this report.

Executive Summary

The Germantown School District elementary schools have some potential for photovoltaics (PV), with multiple site opportunities for PV technology. Multiple system size options are presented to demonstrate the possibilities at various locations and incentive levels from Focus on Energy.

- The best site options are the awning mounted systems at Amy Belle, or County Line Schools, with the asphalt shingle roof at Rockfield also another good option.
- The flat roof options for all the schools provide large areas for siting a system, with the largest option up to 78 kW at County Line Elementary, but the costs of integrating with the flat roof make the installed costs higher per watt than the awning or asphalt shingle roofs.
- The only ground mount option site would be in the middle of the playground at McArthur and probably would not fit well with the use of that area.

The energy production and cost analysis of a standard 5kW, 10kW, and 20 kW options are demonstrated for any of the flat roofed buildings. The maximum system size recommended for each building is also shown for future expansion possibility. The best economical option is to go with the 7 kW awning systems because of a lower installed cost per watt, providing 16 years to full cost recovery from producing 8,300-8,900 kWh per yr. Alternatively, the flat roof systems would have a slightly higher installed cost per watt, providing a recovery time of 20 years, but with much higher production per year. The system size for flat roofs is mainly limited by the budget for the project. The system installation costs after incentives are approximately 25-30% of the initial cost after the Focus on Energy and WE Energies grants.

The best economical opportunities for the Germantown School District for both PV and solar thermal are demonstrated in the tables below. Further in-depth discussion of these and the other system options are included later in the report.

Key Assumptions for all systems	
Cost of System Per kW (dc) for flat rubber roofs	\$9,000
Cost of System Per kW (dc) for asphalt roofs	\$7,000
Cost of System Per kW (dc) for awning mounted	\$7,000
Cost of System Per kW (dc) for dual axis tracker	\$12,000
Electricity Rate (\$/kWh) for Elementary Schools	\$0.088
Estimated electricity price inflation rate (%/yr)	5.95%

Amy Belle Elementary Awning Mounted option – Several single-stacked rows on the south wall would be up to 6.93 kW

- Estimated production up to 8,323 kWh per year
- Estimated installed cost of \$48,510 - \$62,370 before incentives
- Qualifying for up to \$16,646 from Focus on Energy Cash Back Reward
- Qualifying for up to \$15,932 from WE Energies Non-profit grant
- Estimated 16 years to system cost recovery

6.93 kW Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	6.93
Estimated output year one (kWh/yr)	8,323
Cost	
Estimated installed cost	\$48,510
Focus Incentive	\$16,646
WE Energies Non-Profit Grant	\$15,932
System Cost after all incentives	\$15,932
Value of year 1 to year 10 power production	\$9,489
Economics	
Time to cost recovery (years)	16
Environment	
CO2 emission reduction per year (tons/year)	9.2

County Line Elementary Awning Mounted option – One single-stacked row on the south wall would be up to 7.14 kW

Estimated production up to 8,944 kWh per year

- o Estimated installed cost of \$49,980 - \$64,260 before incentives
- o Qualifying for up to \$17,493 from Focus on Energy Cash Back Reward
- o Qualifying for up to \$16,244 from WE Energies Non-profit grant
- o Estimated 16 yrs. to system cost recovery

7.14 kW Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	7.14
Estimated output year one (kWh/yr)	8,944
Cost	
Estimated installed cost	\$49,980
Focus Incentive	\$17,493
WE Energies Non-Profit Grant	\$16,244
System Cost after all incentives	\$16,244
Value of year 1 to year 10 power production	\$10,197
Economics	
Time to cost recovery (years)	16
Environment	
CO2 emission reduction per year (tons/year)	9.9

Rockfield Elementary Pitched Roof Mounted option – A roof mounted system with 55 flush mounted panels, maximum of 11.55 kW system

- Estimated production up to 13,661 kWh per year
- Estimated installed cost of \$80,850 - \$103,950 before incentives
- Qualifying for up to \$27,322 from Focus on Energy Cash Back Reward
- Estimated 17 years to system cost recovery

11.55 kW Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	11.55
Estimated output year one (kWh/yr)	13,661
Cost	
Estimated installed cost	\$80,850
Focus Incentive	\$27,322
WE Energies Non-Profit Grant	\$26,764
System Cost after all incentives	\$26,764
Value of year 1 to year 10 power production	\$15,575
Economics	
Time to cost recovery (years)	17
Environment	
CO2 emission reduction per year (tons/year)	15.1

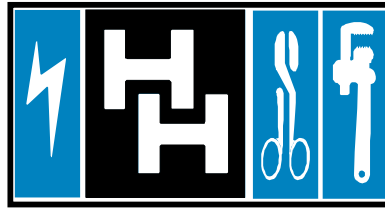
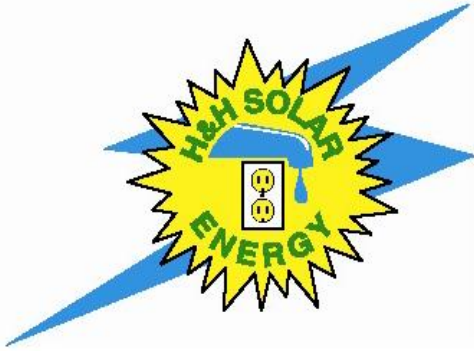
General Flat Roof Mounted option – A roof mounted 5.00 kW, 10.00 kW, & 20.00 kW system

- See table below

5.00 kW Energy Production, Cost, Economics and Environment			
Production			
Solar electric systems rated module capacity (kW dc)	5.00	10.00	20.00
Estimated output year one (kWh/yr)	6,264	12,527	25,054
Cost			
Estimated installed cost	\$45,000	\$90,000	\$180,000
Focus Incentive	\$12,528	\$25,054	\$37,581
WE Energies Non-Profit Grant	\$16,236	\$32,473	\$71,210
System Cost after all incentives	\$16,236	\$32,473	\$71,210
Value of year 1 to year 10 power production	\$7,142	\$14,282	\$28,564
Economics			
Time to cost recovery (years)	20	20	21
Environment			
CO2 emission reduction per year (tons/year)	6.9	13.9	27.8

Next Steps

- a) Evaluate the options presented in this report, and make a decision on system size, location and mounting methods.
- b) Engineering reviews maybe needed.
 - For roof mounted systems, confirm with the building designer and/or qualified structural engineer as to the building roof structure's ability to support the additional weight and wind loading of a solar electric system. Also, review the impact on roofing warrantee of siting panels over roofing.
 - With your installation professional, ensure space is available for balance of system components (e.g., inverter(s) disconnects, etc.) on site, and at that space is available at electric panel/substation, with good access to the solar modules.
- c) Determine the project's economics with your financial professionals. Incentive programs are subject to change, so ensure your information is up to date. For information regarding:
 - Focus on Energy incentives, contact: www.focusonenergy.com or 800 762.7077.
 - WE Energies incentives, contact: Connie Lindholm 800-714-7777 or 414-221-2175; Connie.Lindholm@we-energies.com
- d) Contact your insurance agent and advise them of your intent to install the renewable energy system, and ask for written confirmation of the liability coverage currently provided (as needed to meet utility requirements). Confirm that current insurance provides the needed coverage, and resolve any issues with the agent.
- e) Define any permitting requirements for the installation of the system.
- f) Based on the quotes received from the RFP process, and consultation with financial professionals, make the final decisions on the project's size, location, mounting options and price with your preferred installer.
- g) Apply and receive approval for incentives as appropriate. Commonly your preferred installer will assist with the applications.
- h) Sign the installation contract with your selected installation firm.
 - Insure that all zoning, utility agreements, financial incentive and any other required approvals are in hand prior to making any commitment to purchase.
- i) It is usually much more cost effective to make energy efficiency improvements than install a solar electric system. For information about the Focus on Energy business energy efficiency program contact: Focusonenergy.com or 800.762.7077



Commercial Dual Solar Site Assessment



“Making the sun work for you”

<i>Client Name</i> Germantown School District – Donald Erickson		<i>Date of Site Visit</i> 12/2/09	<i>Date of Report</i> 12/28/09	
<i>Site Address</i> W160n11836 Crusader Ct W180N11501 River Ln		<i>City</i> Germantown	<i>State</i> WI	<i>Zip</i> 53022
<i>County</i> Washington	<i>Email</i> derickson@germantown.k12.wi.us	<i>Phone</i> 262-253-3930		
<i>Electric Utility</i> WE Energies		<i>Gas Utility</i> WE Energies		
<i>Water Heating Fuel Type</i> Natural gas		<i>Focus Territory (yes/no)</i> Yes		

Site Assessor:

Adam C. Gusse

H & H Solar Energy Services, Inc. Madison, WI

Phone: (608) 279-6936 E-mail: adamg@hhsolar.org

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Disclaimer: Material in this report does not imply a recommendation or endorsement of any product or service by Focus on Energy or H&H Solar. The Focus on Energy program or any subcontractor thereof is not responsible for inaccurate or incomplete data in this report.

Executive Summary

The Germantown School District schools have some potential for photovoltaics (PV) and solar hot water, with multiple site opportunities for PV technology. Multiple system size options are presented to demonstrate the possibilities at various locations and incentive levels from Focus on Energy. For solar electric systems, both the middle school and the high school offer several options with low install cost and high visibility for the best opportunities. For solar thermal systems, the High School with higher hot water demand provides the best opportunity. The best economical opportunities for the Germantown School District for both PV and solar thermal are demonstrated in the tables below. Further in-depth discussion of these and the other system options are included later in the report.

- The best site options are the asphalt shingle roof and the awning mounted systems at the Middle School, with the standing seam metal roofs also another good option for either school.
- The flat roof options for both the schools provide large areas for siting a system, with the largest option over 100 kW, but the costs of integrating with the flat membrane roof make the installed costs higher per watt than the awning, metal, or asphalt shingle roofs.
- A solar thermal system for the High School would only reach its true capacity during the school year because of the lowest demand for hot water coinciding with the highest available solar resource. A smaller system size (240-320 sq ft) is recommended to ensure the maximum efficiency of the system throughout the year.
- At the High School, the structural capability of the roof with standing seams above the shop area should be investigated before committing to a system at that location.

The energy production and cost analysis of a standard 5kW, 10kW, and 20 kW options are demonstrated for any of the flat roofed buildings. The maximum system size recommended for each building is also shown for future expansion possibility. The best economical option is to go with the 8.4 kW awning systems because of a lower installed cost per watt, providing 18 years to full cost recovery from producing 10,516 kWh per yr. Alternatively, the flat roof systems would have a slightly higher installed cost per watt, providing a recovery time of 20-22 years, but with much higher production per year. The system size for flat roofs is mainly limited by the budget for the project. The solar thermal projects provide \$350-\$450 in energy savings per yr, with an approximately 22 yr cost recovery time. The system installation costs after incentives are approximately 25-30% of the initial cost after the Focus on Energy and WE Energies grants.

Solar Electric

Key Assumptions for all systems	
Cost of System Per kW (dc) for flat rubber roofs	\$9,000
Cost of System Per kW (dc) for asphalt roofs	\$7,000
Cost of System Per kW (dc) for awning mounted	\$7,000
Cost of System Per kW (dc) for standing seam metal roofs	\$7,000
Electricity Rate (\$/kWh) for Middle and High Schools	\$0.07097
Estimated electricity price inflation rate (%/yr)	5.95%

Middle School Asphalt Roof Mounted Option – A roof mounted system with a maximum of 40 flush mounted panels for a total of 8.40 kW

- Estimated production up to 10,516 kWh per year
- Estimated installed cost of \$58,800 - \$75,600 before incentives
- Qualifying for up to \$20,580 from Focus on Energy Cash Back Reward
- Estimated 18 years to system cost recovery

8.40 kW Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	8.40
Estimated output year one (kWh/yr)	10,516
Cost	
Estimated installed cost	\$58,800
Focus Incentive	\$20,580
WE Energies Non-Profit Grant	\$19,110
System cost after all incentives	\$19,110
Value of year 1 to year 10 power production	\$9,573
Economics	
Years to cost recovery	18
Environment	
CO2 emission reduction per year (tons/year)	11.7

Middle School Awning Mounted option – A roof mounted system with 2 rows of double-stacked panels, maximum of 15.12 kW

- Estimated production up to 18,941 kWh per year
- Estimated installed cost of \$105,840 - \$136,080 before incentives
- Qualifying for up to \$35,000 from Focus on Energy Cash Back Reward
- Estimated 19 years to system cost recovery

15.12 kW Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	15.12
Estimated output year one (kWh/yr)	18,941
Cost	
Estimated installed cost	\$105,840
Focus Incentive	\$35,000
WE Energies Non-Profit Grant	\$35,420
System cost after incentive	\$35,420
Value of year 1 to year 10 power production	\$17,243
Economics	
Years to cost recovery	19
Environment	
CO2 emission reduction per year (tons/year)	21.0

Middle School Standing Seam Metal Roof Mounted Option – A roof mounted system with as many as 6 rows of panels, maximum of 40.32 kW

- Estimated production up to 50,510 kWh per year
- Estimated installed cost of \$282,240 - \$362,880 before incentives
- Qualifying for up to \$50,000 from Focus on Energy Cash Back Reward
- Estimated 22 years to system cost recovery

40.32 kW Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	40.32
Estimated output year one (kWh/yr)	50,510
Cost	
Estimated installed cost	\$282,240
Focus Incentive	\$50,000
WE Energies Non-Profit Grant	\$100,000
System cost after all incentives	\$132,240
Value of year 1 to year 10 power production	\$45,982
Economics	
Years to cost recovery	22
Environment	
CO2 emission reduction per year (tons/year)	56.0

High School Standing Seam Metal Roof Mounted Option – A roof mounted system with as many as 2 rows of double-stacked panels, maximum of 26.88 kW

- Estimated production up to 33,673 kWh per year
- Estimated installed cost of \$188,160 - \$241,920 before incentives
- Qualifying for up to \$47,040 from Focus on Energy Cash Back Reward
- Estimated 20 years to system cost recovery

Energy Production, Cost, Economics and Environment	
Production	
Solar electric systems rated module capacity (kW dc)	26.88
Estimated output year one (kWh/yr)	33,673
Cost	
Estimated installed cost	\$188,160
Focus Incentive	\$47,040
WE Energies Non-Profit Grant	\$70,560
System cost after all incentives	\$70,560
Value of year 1 to year 10 power production	\$30,655
Economics	
Years to cost recovery	20
Environment	
CO2 emission reduction per year (tons/year)	37.3

Solar Hot Water

Key Assumptions	
Cost of System per sq ft.	\$125-175
Assumed Cost of Natural Gas	\$0.95 / therm
Estimated Fossil Fuel Inflation Rate	7.8%
Expected Maintenance Cost per Year	0.1% of installed cost

High School 6 Panel – A roof mounted 240 sq ft system

- Estimated production up to 375 therms per year
- Estimated installed cost of \$30,000 - \$42,000 before incentives
- Qualifying for up to \$7,031 from Focus on Energy Cash Back Reward
- Estimated 22 years to system cost recovery

240 sq ft. Energy Production, Cost, Economics and Environment	
Production	
Solar thermal collector square footage	240
Estimated output year one (therm/yr)	375
Cost	
Estimated installed cost	\$36,000
Focus Incentive	\$7,031
WE Energies Non-Profit Grant	\$7,031
System Cost after all incentives	\$21,938
Value of year 1 to year 10 power production	\$6,390
Economics	
Years to cost recovery	22
Environment	
CO2 emission reduction per year (tons/year)	2.2

High School 8 Panel – A roof mounted 320 sq ft system

- Estimated production up to 485 therms per year
- Estimated installed cost of \$40,000 - \$56,000 before incentives
- Qualifying for up to \$9,094 from Focus on Energy Cash Back Reward
- Estimated 22 years to system cost recovery

320 sq ft. Energy Production, Cost, Economics and Environment	
Production	
Solar thermal collector square footage	320
Estimated output year one (therm/yr)	485
Cost	
Estimated installed cost	\$48,000
Focus Incentive	\$9,094
WE Energies Non-Profit Grant	\$9,094
System cost after incentives	\$29,813
Value of year 1 to year 10 power production	\$8,265

Economics	
Years to cost recovery	22
Environment	
CO2 emission reduction per year (tons/year)	2.9

Next Steps

- a) Evaluate the options presented in this report, and make a decision on system size, location and mounting methods.
- b) Engineering reviews maybe needed.
 - For roof mounted systems, confirm with the building designer and/or qualified structural engineer as to the building roof structure's ability to support the additional weight and wind loading of a solar electric system. Also, review the impact on roofing warrantee of siting panels over roofing.
 - With your installation professional, ensure space is available for balance of system components (e.g., inverter(s) disconnects, etc.) on site, and at that space is available at electric panel/substation, with good access to the solar modules.
- c) Determine the project's economics with your financial professionals. Incentive programs are subject to change, so ensure your information is up to date. For information regarding:
 - Focus on Energy incentives, contact: www.focusonenergy.com or 800 762.7077.
 - WE Energies incentives, contact: Connie Lindholm 800-714-7777 or 414-221-2175; Connie.Lindholm@we-energies.com
- d) Contact your insurance agent and advise them of your intent to install the renewable energy system, and ask for written confirmation of the liability coverage currently provided (as needed to meet utility requirements). Confirm that current insurance provides the needed coverage, and resolve any issues with the agent.
- e) Define any permitting requirements for the installation of the system.
- f) Based on the quotes received from the RFP process, and consultation with financial professionals, make the final decisions on the project's size, location, mounting options and price with your preferred installer.
- g) Apply and receive approval for incentives as appropriate. Commonly your preferred installer will assist with the applications.
- h) Sign the installation contract with your selected installation firm.
 - Insure that all zoning, utility agreements, financial incentive and any other required approvals are in hand prior to making any commitment to purchase.

- i) It is usually much more cost effective to make energy efficiency improvements than install a solar electric system. For information about the Focus on Energy business energy efficiency program contact: Focusonenergy.com or 800.762.7077

Disclaimers:

- All costs, power production, economic and other values in this report are estimates.

THE ECONOMICS ANALYSIS PRESENTED IN THIS REPORT SHOULD BE CONSIDERED ONE METHOD OF EVALUATING THIS PROJECT. THE COMPANY MUST CONDUCT THEIR OWN ECONOMIC EVALUATION WITH A FINANCIAL PROFESSIONAL.

- The estimated installed system cost(s) is/are not a formal estimate or bid.
- The information provided in this report should NOT be considered legal, financial, or tax advice.

Holy Hill Road Property – Optional Land Use Idea

Background from Mr. Bruce Warnimont

Background info:

The Germantown School District purchased about 20 acres of farm land along Holy Hill Road, in Germantown, about 15 years ago. This parcel is on the south side of the road, about half way between Maple and Goldendale Roads, beneath the high tension power lines. The property is still zoned as "Agricultural" and each year the School District collects a token amount of revenue from a farmer who continues to plant and harvest crops on that property. (As a point of information, only about 15 acres is planted, and the state-wide average for corn production is in the neighborhood of 135 bushels per acre. Like all commodities, corn prices can be volatile, but \$3.50 per bushel is a good "talking point" average.)

At about the same time as this purchase, the Village of Germantown Park Commission and/or the Village Board received sincere inquiries from citizens who wanted to use part or all of some of the Village's parks as an area where they could exercise their dogs. The citizens' requests were not enacted, most likely due to the fairly limited amount of Village park space and the high demand for that space by humans. Nevertheless, there is still a high desire among taxpayers to have a local place to exercise and play with their dogs. There are no "dog parks" in the Germantown area; the nearest one that I am aware of, is in Milwaukee County near the Good Hope Road exit at US 41/45.

Many people look for communities with dog parks when they are looking to move their families, and others look at the absence of dog parks as a reason to relocate from their current residences. Dog parks are good for dogs and good for humans: they provide exercise and social opportunities for both. As the passing of time sees this school district becoming more and more urban, and less and less rural, the demand grows.

The subject 20 acres of land owned by the School District would make for a nearly-ideal dog park: it's accessible yet remote, there are no nearby neighborhoods and none planned for that area, and "parks" are an acceptable use in the Village of Germantown's restrictions for agricultural zoning.

This is not a request to undertake the project as a committee or through the school district in any way. Rather, it's my request that the Building and Grounds Committee of the Germantown Board of Education acknowledge the community benefits of a dog park, and invite any organized citizen group or groups to come forward with a development plan for such a park at the property discussed. It may be beneficial to ask the Board to vote on this as well.

Recommendation/Request: *"The Building and Grounds Committee endorses the utilization of the school district owned property in Section 17, Village of Germantown, as a community dog park and invites interested citizen groups to prepare and present appropriate development and operational plans to the Building and Grounds Committee."* If the Committee feels it is appropriate to approach the full Board for endorsement at this time, then it would probably be in order to substitute "Germantown School Board" for "Building and Grounds Committee."