ADVERTISEMENT AND REQUEST FOR PROPOSALS
DEXTER COMMUNITY SCHOOLS
SOLAR ENERGY SYSTEM

Dexter Community Schools (DCS or Owner) requests proposals and qualifications for a new solar walkway canopy plus ground mount solar array with connection to the primary electric service unit at Wylie Elementary School, which serves three elementary schools, a middle school, and the community pool. The location of the solar array will be at the Bus Hub, the entrance is located west of Anchor Elementary School, which is at 7480 Dan Hoey Rd, Dexter, Michigan.

The Proposal must include 1) Design-Build Services and Warranty (Design-Build Contractor) as a lump sum base bid plus alternates and 2) Operation & Maintenance Services (Service Provider).

BID DOCUMENTS
The bid documents are available to Bidders electronically without charge at the following link: https://www.dexterschools.org/page.cfm?p=545.

In addition to this **Request for Proposals - Solar Energy System**, the Owner is also providing the following supplemental documents for reference.

Attachment A	Solar Energy System Site Illustration
Attachment B	Solar Energy System Components Illustration
Attachment C	Solar Energy System Walkway Canopy Illustration
Attachment D	2022 Summary of DTE Electric usage for the meter that serves the primary loop
Attachment E	2022 DTE utility bills containing the monthly demand (kW) data
Attachment F	Bus Hub Site Electrical Plans
Attachment G	Bus Hub Site Civil Plans
Attachment H	Access for Fiber Converter Box on Light Pole
Attachment I	Draft AIA 141 Design-Build Agreement (subject to final approval of Owner)
Attachment J	AIA 201 (attached by this reference as amended by the Owner)

SCHEDULE
The schedule for this proposal is as indicated below. It may be modified at the discretion of the Dexter Community Schools, Principal for Operations. An addendum will be issued in the event of any scheduling change.

Proposal Milestones	Date/Time
Bids Advertised	Thursday, March 23, 2023
Site Walk/Pre-Bid Meeting (at site)	Thursday, April 6, 2023 at 1:00 PM
Questions/Request for Information	Thursday, April 13, 2023 at 1:00 PM
Due Answers to Questions	Thursday, April 20, 2023 at 1:00 PM
Proposal Due	Thursday, April 27, 2023 at 1:00 PM
Bid Opening	Thursday, April 27, 2023 at 1:30 PM
(bids for Design-Build Services will be opened and read aloud)	
Site Walk/Post-Bid Meeting	Thursday, May 4, 2023 at 1:00 PM

Bid Tabulation	Available upon request	Thursday, May 4, 2023 by 1:00 PM
Board Action		Monday, May 22, 2023 at 7:00 PM
Notification of Successful Proposal		Wednesday, May 24, 2023

Identify key project milestones in your proposal including proposed project schedule and completion and system operation dates.

BIDDER QUALIFICATIONS (Incorporate qualifications within REQUIRED PROPOSAL CONTENTS)

1. Architect or Engineer Licensed in the State of Michigan. Provide copy of current license and proof of minimum $500,000 in professional liability (errors and omissions) insurance coverage.

2. Licensed Builder in the State of Michigan. Provide current license number.

3. Provide Bid Bond in the amount of 5% of proposal amount of the lump sum base bid for 1) Design-Build Services.

4. Provide a statement from surety that labor and material payment and performance bonds will be provided if a contract is offered.

5. Provide proof of Commercial insurance, including: Commercial General Liability and Property damage coverage ($1 million Occurrence, $2 million General Aggregate); Auto Liability ($1 million Combined Single Limit coverage and $1 million Bodily Injury); Worker's Compensation (Statutory coverage for Michigan); and Umbrella Liability ($2 million above the stated limits specified for the primary policies). Minimum required limits may be satisfied by primary policies or combination of primary and umbrella excess policies. All bonds and insurance must be provided by US domiciled firms, licensed by the State to do business in Michigan, be US Treasury listed, and A- or higher rated. An insured certificate will be requested from the successful bidder. Dexter Community Schools, its employees, agents and Board of Education shall be listed as additional insured parties on bonds and insurance certificate holder(s).

6. Provide completed AIA or equivalent Qualifications Statement.
    a. Describe any claim, dispute, mediation, arbitration or litigation history placed by the firm against another party, and matters placed against the firm by any party, excluding minor dispute matters under $10,000 in aggregate amount and or worker compensation matters. Any firm that has had any mediation, arbitration or litigation claim placed against it, or has placed any such claim against a K-12 school client is NOT QUALIFIED.

7. Safety is a priority. Provide current EMR and MIOSHA 300A form.
    a. Certify firm will engage subcontractors with EMR < or = 1.0.
    b. Certify firm will keep the site safe and free of debris at all times.
    c. Certify firm will provide its own full time superintendent on site whenever work is underway by itself or any subcontractor of any tier at any time.
    d. Certify firm will keep all construction areas posted and barricaded at all times.

8. Owner intends to file for the Solar Investment Tax Credits under the Inflation Reduction Act (IRA). Bidder to certify Design-Build Contractor will assure 100% compliance with the requirements of the Solar Invest Tax Credit for minimum 30% credit. Please also indicate if Design-Build will incorporate enhancements that would enable the owner to receive 10% bonus credit for using American prevailing wage and/or 10% for using American content specified by the IRA.

REQUIRED PROPOSAL CONTENTS

1. Cover /Transmittal Letter: Cover letter must summarize key provisions of the proposal and must include name, address, office phone number, cell phone and email of the primary contact for the Design-Build Contractor and Operations and Maintenance Service Provider.

2. Executive Summary: Include key provisions of the proposal, including demonstration of understanding of the Dexter Community Schools' goals, pricing, Design-Build Contractor's role on project, its subcontractors proposed, their roles and approximate subcontract amount, a description of proposed system, relevant experience of company, and key timeline dates.

3. Company Profile: years in business, description of company's background, applicable state licensing, OSHA background and safety protocol, insurance, quality assurance/quality control documentation.

4. Project Experience: Include projects completed in the last 5 years similar in scope and size to the proposed project. Include project name, system size, location, and brief 3-5 sentence project description. Highlight company's permitting and interconnection experience with local utilities. Also, include three (3) project references with direct client phone numbers.

5. Project Team: Organization chart and bios (length of time with firm, key projects) of key team members, capability to perform work/workload capacity. Please only profile individuals that will directly be working on this project. Provide cell phones and emails for listed personnel. Clearly identify the project manager.

6. Technical Solution/Scope of Work: Describe your technical approach to the design and construction of the solar project including:

a. Technical Approach, Design, Equipment, Installation
    1) Panel, inverter, racking specifications
    2) Equipment and workmanship warranties

b. Exhibits showing proposed layouts and system single line diagrams

c. PVSYST Report, or equivalent, indicating kWh production of the proposed system on an annual basis.

d. A description of the equipment and services to be provided.

e. Site evaluation, including shading calculations.

f. Proposed monitoring system/solution

g. Operations & Maintenance Plan providing detail of proposed services and frequency of services offered for the project. Please price Operations & Maintenance plan separately from Design-Build lump sum purchase.

7. Production Assurances: Provide at least a 90% kWh guarantee for year 2, degrading by a maximum of 0.7%/year for 20 years.

8. Financial Savings Projection: Present year 1-20 year financial savings, including accounting for Renewable Energy Credits as a line item.

9. Price Proposal: On the **Bid Proposal Form**, provide a cash purchase lump sum base bid for the Design-Build Services and for Alternate No. 1. Provide a separate Operation & Maintenance pricing proposal.

10. Safety: Please include a brief description of the safety practices of your firm, as well as the OSHA Reporting Indicators for the last three (3) years.

11. Proposed Schedule: Identify key project milestones which include plan development, plan review, permitting, planned mobilization, construction work, site restoration, and a firm date for substantial completion. A complete discussion of work hours will be conducted with the successful bidder.

12. Supplemental support services (maintenance, site restoration if ground-mount, etc.) and associated fees (if applicable).

PROPOSAL SUBMISSION

Bidders must submit two (2) paper copies of the written proposal, in a separate sealed envelope marked "Proposal for Solar Energy System," **and include an electronic pdf copy** of entire proposal (by email to bond@dexterschools.org, thumb drive, OR CD) that must be received on or before the bid opening date and time. Bids are to be submitted to:

Dexter Community Schools
Attn: Business Office - Proposal for Solar Energy System
Bates School
2704 Baker Rd
Dexter, MI 48130

Address all questions or requests for clarification to Craig McCalla, Principal for Operations, by EMAIL ONLY to mccallac@dexterschools.org. Only written responses may be relied upon by bidders in preparing their proposal.

Owner intends to contract with the lowest qualified bidder providing, in Owner's sole opinion, the best value to Owner. The Design-Build Contractor will enter into an agreement based upon AIA 141, a draft included as **Attachment I - Draft AIA 141 Design-Build Agreement,** subject to final approval of Owner, including its reference to AIA 201 General Conditions of the Contract for Construction to sets the rights, responsibilities, and relationships of the owner, contractor, and architect.

Owner reserves the right to award or not award, to waive any irregularity in any bid, and to seek any needed clarifications and or adjustments in proposals, as it deems in its best interest. Submitted proposals become the property of the District and will not be returned.

At the Design-Build Contractor's discretion, payment may be made lump sum upon substantial completion OR on a monthly percent complete basis based upon lump sum bid award. Payments are made at the end of each calendar month 10 days after receipt of properly supported payment application. Ten percent (10%) retention payable at final completion, along with Engineer certificate of final completion with no outstanding work items, receipt of all operations and maintenance information and receipt of warranty.

DESIGN-BUILD CONTRACTOR - TECHNICAL SPECIFICATIONS

Except for those items (if any) specifically noted to be excluded as defined below, this bid shall include all of the work and contract requirements, including all bid requirements, contract documents, general and supplemental conditions, and specifications.

Design-Build Guidelines

Design-Build Contractor should include the following guidelines when designing the solar system. The Design-Build Contractor shall develop a design for a new photovoltaic system. The photovoltaic system will include a solar walkway canopy plus ground mount solar array with connection to the primary electric service unit.

1. The system shall be a grid-interactive array that interacts with the project site utility DTE grid.

2. The system interconnection will be coordinated with the project site utility and designed to shut down in the event of an outage, until the utility power is restored.

3. Owner is in the process of replacing the switchgear and transformers at connection site. Design, specifications, and timeline will be made available to Design-Build Contractor.

4. The anticipated system nameplate capacity for the combined solar walkway canopy plus ground mount solar array should be optimally sized by the Design-Build Contractor/Developer using the **Attachment D** and **Attachments E** information to serve the greatest amount of native load of the location while also minimizing the sell-back amount to DTE. Additionally, the Developer shall also recommend any DTE tariff changes that may be in the Owner's best interest after commercial operation of the array..

5. The solar walkway canopy system to be installed along the sidewalk at the Bus Hub. See **Attachment A - Solar Energy System Site Illustration.**

a. See **Attachment C - Solar Energy System Walkway Canopy Illustration** for general design reference. Design is not firm and may include Design-Build Contractor creativity for efficient build and improved functionality.
b. The canopy system to be a minimum of 290 feet in length, but may extend along the entire walkway
c. The canopy supporting structures must be installed along the sidewalk path, but not penetrate the sidewalk concrete and must be a rustproof structure.
d. The minimum height for any part of the solar walkway is 10 feet above adjacent finish grade
e. Design style should coordinate with adjacent school designs
f. All adjacent finish grades shall be regraded with slope(s) to drain, re-seeded, mulched or other maintenance free consideration.

6. The ground mount solar array will be installed on the available site at the entrance to the Bus Hub. See **Attachment A - Solar Energy System Site Illustration.**

a. The ground mount solar array may utilize all usable site in the identified area. Design-Build Contractor responsible for ground mount Site Survey and submission of as-built upon completion. Note: Attachment G - Site Surveys DO NOT contain as-built elevation or grading for the ground mount area.
b. All adjacent finish grades shall be regraded with slope(s) to drain, and incorporate a low maintenance Vegetation Management plan including a Pollination Garden or 4" of pea stone over a weed proof geotextile.

7. It is the intent of the Owner that the real and personal property associated with the Solar Energy System will be exempt from Real and Personal Ad Valorem Property Taxes.

Code Specifications

All power generation and transmission equipment must be UL listed for its designed use. Construction must comply with current adopted State of Michigan Building Code, which includes: International Building Code, National Electric Code (NEC) and State Fire Marshall (if applicable). Proposed construction documents are to be submitted to the State of Michigan for construction permits.

1. Modules: System modules shall be ULl 703 listed, and California Energy Commission (CED) listed.

2. Inverters: Shall be UL 1741 listed and must be CEC-listed and must be CEC-listed with an efficiency of 95% or higher.

3. Other applicable codes and standards:
   a. UL 1703 -"Flat-Plate Photovoltaic Modules and Panels"
   b. AMSE PTC 50 (solar PY performance)
   c. ANSI Z21.83 (solar PY performance and safety)
   d. NFPA 853 (solar PVs near buildings)
   e. NFPA 70 (electrical components)
   f. IEEE 929-2000-"Recommended Practice for Utility interface of Photovoltaic Systems"
   g. IEEE 1262 "Recommended Practice for Qualifications of Photovoltaic Modules"
   h. IEEE 1547 (interconnections)
   i. All applicable State Building Codes and requirements

Labor and Material Specifications

All materials to be provided including, but not limited to, the following:

1. Modules
   a. Provide all labor, material, and equipment necessary to install all major equipment for the solar photovoltaic array which meets capacity requirements described in contract documents.
   b. Modules must be UL or ETL certified and listed components, including mounting systems.

c. Modules must be certified to UL 1703 - "Flat-Plate Photovoltaic Modules and Panels."
d. Quantity to be provided based on total rated capacity described in contract documents.

2. DC optimizers: Provide all labor, equipment, and material necessary to install DC-Optimizers, producing module level DC-optimization, or equivalent

3. Mounting Systems
   a. Provide all labor, equipment, and material necessary to install a racking system that meets requirements described in contract documents.
   b. Racking system shall be a fixed tilt.
   c. Racking system shall be comprised of UL or ETL certified and listed components.

4. Balance of system equipment (BOS)
   a. Provide all labor, material, and equipment necessary to install all mounting and wiring systems used to integrate the solar modules into the structural and electrical systems of the project site. The wiring systems include all disconnects for the DC and AC sides of the inverter as required by the electrical code and utility, ground-fault protection, and overcurrent protection for the solar modules.
   b. All Balance of Systems (wiring. component wiring. conduits, and connections) must be suited for conditions for which they are to be installed.
   c. System shall be supplied with lockable DC and AC disconnect switches.

5. Inverters
   a. Provide all labor, material, and equipment necessary to install inverters.
   b. Inverters must comply with the following requirements:
      1) IEEE 929-2000 - Recommended Practice for Utility Interface of Photovoltaic Systems
      2) UL 1741 - "Standard for Static Inverters and Charge Controllers for use in Photovoltaic Systems"
      3) Inverters shall be non-islanding type designed to shut down on loss of utility power.
      4) Inverters shall be installed in all-weather enclosures (NEMA 4 or 3R) suitable for exterior location, if mounted on exterior.
      5) Inverters shall be located in an easily accessible, weather-protected area, and not be subject to direct rain or sun, preferably located indoors.
      6) As far as practical. the AC output of all inverters located in one building shall be connected to the same distribution panel.

6. Meters
   a. Provide all labor, material, and equipment necessary to install revenue grade meter complete with industry standard capacity for communication with Ethernet, cellular or other common output capabilities.
   b. Provide Fiber Converter Box and Ethernet connection to the existing Fiber Converter Box that is accessible at the base of the light pole at the Bus Hub sidewalk. Refer to Site and Solar Energy System Sketch (Attachment A). Ethernet connection will provide access to the Dexter Community Schools network server for the purposes of metering, monitoring, and data collection of solar production.

c. Be informed that DCS is in the process of replacing the switchgear and transformers serving the primary service at Wylie Elementary School. Assume the replacement of the switchgear will be completed prior to this Design-Build Contractor's connection to DCS's primary switchgear line-up.

7. Structural Requirements
   a. All structures and structural elements, including array structures, shall be designed in accordance with applicable Michigan Building Codes and standards pertaining to the installation of such structures.
   b. The Design-Build Contractor shall provide structural calculations, stamped by a licensed professional structural engineer in good standing with the State of Michigan, or as required by any Authority Having Jurisdiction or Utility Provider.
   c. All structural components, including array structures, shall be designed in a manner commensurate with attaining a minimum 50-year design life. Particular attention shall be given to the prevention of surface rust and corrosion at the connections between dissimilar metals. All foundations shall be elevated 12" above final grades and tops sloped to drain.
   d. The structural design should provide for easy and cost-effective repair or replacement of components.

Mandatory Alternate

Alternate No. 1: Provide all facilities necessary (including internet connection to DCS and metering) to return power to DTE power grid.

Design-Build Contractor Responsibilities

Design-Build Contractor is to take into account that the Owner is in the process of replacing the switchgear and transformers at connection site during summer 2023. Specifications of the replacement will be shared with Design-Build Contractor.

Design-Build Contractor is to assure that the system shall qualify for and be enrolled into DTE's Distributed Generation Program for any unused electricity and available for outflow. Coordination of interconnection agreement is the responsibility of the selected Design-Build Contractor.

Design-Build Contractor is responsible for the final design package and documents including the following, but are not all required in the proposal stage:

1. Description of the solar walkway canopy plus ground mount solar array

2. Construction documents and engineering calculations that are signed and sealed by a State of Michigan licensed engineer.

3. Layout drawing of installation site providing location of all equipment

4. Equipment details and specifications

5. Proposed schedule for equipment procurement and installation

6. Description of how the solar system will connect to the building power system and how the DTE grid-interconnection requirements will be met

7. Description of controls, monitors, and instrumentation to be used for the solar photovoltaic array system and solar walkway canopy. Provide proposed layout of all underground or buried raceways. Bored raceways and conductors shall be coordinated with Owner's utility drawings, confirmed with any necessary underground utility location survey (ground penetrating radar, etc.) so that all new work is ***safely installed well below all existing utilities. All conductors shall be within heavy duty conduit.***

8. Equipment and installation manuals

9. Safety plan

10. Quality control plan

11. Operations and Maintenance manuals for system operations and performance monitoring over the life of the contract including all recommended maintenance

12. Web-based monitoring coordinated with DCS systems. Note all system control shall be web-enabled such that DCS Facilities may oversee and control the system remotely in their offices.

13. Close out report, including the following information: system nameplate sizes and locations, the overall installed cost of the system, and estimated annual kilowatt hour (kWh) production at each location

14. Attendance at a monthly pre-construction, during construction and at least 2 post construction meetings, open houses, and/or tours. Meetings may be conducted on the internet with the Owner's approval prior to each meeting

15. The Design-Build Contractor shall obtain all required electrical and building/ structural permits, arrange for all necessary inspections, and shall pay all fees and expenses in connection with the same from all authorities having jurisdiction and the local utility as part of the work under this contract.

16. The Design-Build Contractor shall conduct and pay for any preliminary and required investigation and reporting including, but not be limited to, review of interconnection, Environmental Transaction Screen (as per ASTM E 1528-14), Geotechnical Pull, Lateral and Compression Testing (as per ASTM 3689, ASTM 1143 and ASTM 3966), and Geotechnical Engineering to meet the ASCE 7 Defined Wind Loads for the Site-Specific Location and Solar Racking System. Preference shall be given to C Channel and I Beam systems.

<u>Warranties</u>
The Design-Build Contractors' standard system warranty minimum coverage should cover modules, inverter, racking and workmanship.

1. Modules: 25-year Power Output and 10-Year Workmanship Limited Warranty

2. Inverter: 10-Year Limited Warranty, and provide a price and/or plan for inverter replacement in year 11 and beyond

3. Racking: 10-Year Limited Warranty priority

4. Workmanship: 24-Month Warranty excluding only force majeure events, explicit Owner misuse, or third party misuse.

Operation and Maintenance Manuals

Design-Build Contractor shall supply Dexter Community Schools, Principal for Operations, two copies of all Component Product Data and Component Operation and Maintenance manuals in writing AND electronically in a pdf file on a thumb drive or CD. The information shall be sufficient for Dexter Community Schools to evaluate and ensure appropriate Operation and Maintenance is being completed over the life of the system. Examples of components include solar panels, conduit, inverter, net metering equipment, etc.

As Built Plans

Project as-builts that detail location of all above and underground utilities and components shall be submitted within 30 days of system start-up including an as-built survey of all installations (including underground work) after the work is completed, sealed by a licensed surveyor or engineer.

SERVICE PROVIDER-OPERATIONS AND MAINTENANCE SERVICES

System Monitoring

Monitoring of system performance and providing public education and outreach is an important element of this proposal. Dexter Community Schools will favor a proposal that includes a turnkey monitoring system that will provide a link to post on the school district's website. The system should display and analyze historical and live solar electricity generation data. Additionally, the regularly collected data should reflect, but not be limited, to the following:

1. Average and accumulated output (kWh/kW and total kWh)

2. Capacity factor

3. Air quality emissions averted (and real-world equivalents conversion)

Operation and Maintenance of Solar System

The Proposal should include a price for an extended warranty and operation and maintenance of the Solar Energy System. The anticipated operation and maintenance services include:

1. Maintaining online monitoring/platform

2. Performance monitoring, notification, and troubleshooting- must have personnel available to notify the Dexter Community Schools, Principal for Operations, of an outage or issue with system production

3. All online access to operational elements shall not be public and be protected for cyber security with Multi-Factor Authentication or other

4. Corrective maintenance to mitigate any risk to the system or minimize downtime

5. Preventative maintenance and inspections to identify and fix problems before they occur, including infrared photography for hot spots, manufacturer recommended maintenance, hardware torque checks, and array cleanings

6. Low maintenance Vegetation Management plan that may include a Pollination Garden. Proposal to include establishment, monitoring and adaptive management, use of native species, with a MSU Pollinator Habitat Planning Scorecard for Solar Sites of 76 or above, included in cost.

DEXTER COMMUNITY SCHOOLS
SOLAR ENERGY SYSTEM
Bid Proposal Form

This proposal has been prepared in response to the **REQUEST FOR PROPOSALS - DEXTER COMMUNITY SCHOOLS SOLAR ENERGY SYSTEM.**

The undersigned certifies that the proposal contained herein meets or exceeds the scope of services as outlined in the RFP, includes all responsibilities as described, and that no activities or requirements have been deleted or reduced from the requested scope of services.

1) Design-Build Services and Warranty (Design-Build Contractor) as a lump sum base bid plus alternates

The lump sum base bid for to provide the services including all taxes, fees, and costs as outlined within the District's RFP will be (spell out in words and numbers):

_____Dollars $_____

Contractor Alternate No. 1 Price $_____(numbers only)

2) Operation & Maintenance (Service Provider).

Please include in your proposal the operation and maintenance terms and cost as cost per KWH and/or monthly fee.

Signed this _____day of _____, 2023.

Signature: _____

Printed Name: _____ Title_____

Firm Name: _____

Address: _____

Business phone: _____ Email address: _____

Contact: _____ Cell Phone: _____

If a corporation, affix seal. Undersigned is authorized to make this proposal and bind the firm to the bid.

Witness Signature: _____

Name Printed: _____ Title _____