

Request for Proposals RFP # 2022111

SOLAR PV PROJECT

**Submitted By:
STAR Transit
500 Industrial Blvd.
Terrell, TX 75160
877-631-5278**



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Section 1 Request for Proposals

1.1 INTRODUCTION

STAR Transit is a political subdivision of the State of Texas organized and operating under the Texas Government Code §791.003. STAR Transit provides services to over 150,000 people per year through a variety of rural and urban public transportation options within several jurisdictions immediately east and south of the City of Dallas. This service area includes Cities such as Seagoville, Royse City, Balch Springs, Mesquite, Hutchins, DeSoto and Kaufman, Rockwall, Navarro, and Ellis Counties. The Mission of the organization is to provide people with safe, affordable, convenient, and desirable mobility options to enrich quality of life by connecting all to services and opportunities. STAR Transit is the recipient of Federal Transit Administration (FTA) and Texas Department of Transportation (TxDOT) funding. This project may be financed jointly by federal, state, and local authorities, including FTA and TxDOT.

The Request for Proposals (RFP) process and the performance of the requested services will be in accordance with the guidelines and regulations of the FTA "Third Party Contracting Guidelines", FTA Circular 4220.1F, and all other applicable federal, state and local laws and regulations. STAR Transit is a tax-exempt organization and is free from all state and federal taxes. No such taxes shall be included in the Offeror's charges to STAR Transit. All costs incurred in the preparation of the proposal responding to this RFP will be the responsibility of the Offeror and will not be reimbursed by STAR Transit. Issuance of this RFP and receipt of proposals does not commit STAR Transit to award a contract. STAR Transit reserves the right to postpone the proposal opening for its own convenience, to accept or reject any or all proposals received in response to this RFP, or to cancel all or part of this RFP for sound business reasons, at any time before the Contract is fully executed and approved on behalf of STAR Transit.

STAR Transit is seeking proposals from qualified and experienced firms for the Solar PV project as described in Section 2, Project Specifications, in this solicitation.

1.2 SOLICITATION SCHEDULE

RFP Issued:	Tuesday, April 19, 2022
Deadline for Questions:	Wednesday, April 27, 2022
Responses to Questions Posted:	Friday, April 29, 2022
Proposals Due:	May 5, 2022 by 3:00 P.M. CST
Interviews (if needed):	May 6-11
Notice to Proceed (NTP):	Anticipated on or before May 17, 2022

STAR Transit reserves the right to make changes to the above-mentioned schedule. All such changes shall be made by an amendment to the solicitation or a letter to all the firms.

PRE-PROPOSAL SITE VISITS

Offerors are encouraged to visit STAR Transit to view the site. STAR Transit is located at 500 Industrial Blvd, Terrell TX 75160. Site visits for the purpose of inspecting STAR Transit's Operational Complex, located at 500 Industrial Blvd, Terrell TX 75160. Unscheduled and/or unannounced visits to STAR Transit may not be allowed.

The Point of Contact for coordination of a site visit is Teresa Elliott; you may contact her at telliott@startransit.org.

Procuring Agency:

STAR Transit
500 Industrial Blvd.
Terrell, Texas 75160

Contracting Officer:

Ashley Berryhill, Finance Director
Phone: 469-323-2302
E-Mail: Aberryhill@startransit.org

SCOPE

STAR Transit is seeking proposals from highly experienced and professional firms to install Solar PV. These firms should be authorized to do business in the state of Texas.

Offerors should not submit a proposal unless they can provide at least two references for similar work done within the past two to five years.

Where two or more Offerors desire to submit a single proposal in response to this RFP, they should do so on a prime/Subcontractor basis rather than on a joint venture basis. STAR Transit intends to contract with a single Offeror and not with multiple Offerors doing business as a joint venture. However, multiple awards may need to be made to complete the entire task list. One award is preferred.

The selected Offeror will NOT be allowed to utilize a finance company for the purpose of factoring invoices. Payment for services will be in the form of check made out to the company indicated in the contract terms.

1.3 OFFEROR COMMUNICATIONS AND REQUESTS

Communication or correspondence in regard to any aspect of this solicitation or offers will only be with the Contracting Officer or her designated representative. Offerors shall not make any contact with or communicate with any other members of STAR Transit, its employees and consultants.

All questions and communication in regard to any aspect of this RFP #2022111 must be in writing and directed to Ashley Berryhill via email at Aberryhill@startransit.org. Offerors may request a clarification or interpretation of any aspect, a deviation, or a change to any requirement of the RFP or any addendum to the RFP up to **April 27, 2022 by 3:00 P.M. CST**. Deviation requests are to be submitted on the deviation form.

Responses to written requests will be provided by STAR Transit in the form of addendum only. Only written responses provided as addendum shall be official and all other forms of communication with any officer, employee or agent of STAR Transit shall not be binding by STAR Transit. Any clarifications or further instructions to Offerors, whether as a result of questions raised by Offerors or initiated by STAR Transit itself, will be sent to all Offerors in written addendum form.

Addendum to RFP

STAR Transit reserves the right to amend the RFP at any time. Any amendments to or interpretations of the RFP will be in written addendum. Prospective Offerors officially known to have received the RFP will be emailed or mailed the addendum. Offerors are responsible to collect the addendum from the Contracting Officer. Failure of any prospective Offeror to receive addendum will not relieve the Offeror from any obligation under its proposal as submitted or under the RFP, as clarified, interpreted or modified. All addendum issued will become part of the RFP. Prospective Offerors must acknowledge the receipt of each individual addendum in their proposal. Failure to acknowledge any addendum in the submitted proposals may at STAR Transit's sole option disqualify the proposal.

If STAR Transit determines that the addendum may require significant changes in the preparation of proposals, the deadline for submitting the proposals may be postponed to allow Offerors sufficient time to revise their proposals and the new due date shall be included in the addendum.

Conditions, Exceptions, Reservations or Understandings

Proposals stating conditions, exceptions, reservations or understandings (hereinafter "deviations") relating to the RFP may be rejected. Offerors may submit an alternate proposal that states deviations so long as a basic proposal not containing deviations is submitted. Offerors may propose alternates either within one overall proposal or by submitting more than one proposal.

Any and all deviations must be explicitly, fully and separately stated in the proposal by completing the Proposal Deviation Form, setting forth at a minimum the specific reasons for each deviation so that it can be fully considered and, if appropriate, evaluated by STAR Transit. All deviations not found by STAR Transit to be unacceptable shall be evaluated in accordance with the appropriate evaluation criteria and procedures

and may result in the Offeror receiving a less favorable evaluation than without the deviation.

1.4 INSTRUCTION TO OFFERORS SUBMISSION REQUIREMENTS

Sealed proposals in one original and one electronic file must be received by **May 5, 2022 by 3:00 P.M. CST**. Proposals and subsequent offers shall be valid for a period of 90 days. Late proposals will be returned to Offeror unopened and will not be considered under any circumstances. Faxed or emailed proposal are **not** acceptable and will not be considered for award.

The sealed envelope will be addressed as below and must contain the Offerors name and address and be clearly marked: "STAR Transit RFP #2022111 Solar PV Project". All proposals are to be submitted to:

STAR Transit
Ashley Berryhill, Finance Director
500 Industrial Blvd.
Terrell, TX 75160

Proposal Format and Contents Requirements

Failure to provide the required information with the Proposal may automatically disqualify the Proposal from consideration for award.

Proposals must be submitted on 8.5 x 11" white paper, using a simple method of fastening. They should be typed, and a lengthy narrative is discouraged. To provide for comparability between proposals, all proposals **must be submitted in the following order separated by sections**. Vendors not addressing these topics or not using the prescribed order may be judged non-responsive and disqualified from the RFP process.

Section 1 Business Organization. State the full name, address, and phone number of the Offeror and, if applicable, the branch office or division that will perform or assist in performing the work. The capacity of the person submitting the proposal should also be provided. Indicate whether the Offeror is licensed to operate in the State of Texas, Kaufman County, Texas, and the City of Terrell, Texas.

If the Offeror is a partnership, limited liability company, limited partnership, or joint venture, the proposal should state the full names and addresses of all partners, members, or joint ventures' who own at least a ten percent interest in the Offeror.

The person signing the proposal must initial any erasures, corrections, or other changes appearing on the proposal form.

Section 2 Required Forms and Certifications: (Required Forms Section)

- Acknowledgment of Addendum - If addendums have been released.
- Request for Change or Approved Equal
- Proposal Deviation - (Only if Offeror requested deviation)
- DBE Compliance Statement
- DBE Good Faith Effort
- Conflict of Interest
- References
- Pricing Schedule
- Suspension and Debarment Certification Form
- Delinquent State Business Tax Certification
- PTN-130

Section 3 Purpose of Proposal. State in precise terms the means by which the Scope of Services will be fulfilled.

Section 4 Statement of Qualifications: The Offerors' experience and history relevant to STAR Transit's needs should be discussed, including a description of the Offeror's direct experience where services comparable in size and scope has been performed in the last two (2) to five (5) years. Offeror shall

provide the name, address and telephone numbers of persons who may be contacted as references.

Willingness to Contract: State that the Offeror is willing to enter into a Contract consistent with the terms herein.

Section 5 Criminal Background: For all persons and entities mentioned in any of the foregoing responses, indicate whether they (1) have ever been convicted of, (2) have an indictment pending for, or (3) have during the last five years been investigated for a criminal offense that is not related to the operation of an automobile. Convictions, indictments, or investigations for the crime of driving while intoxicated shall be disclosed. Convictions indictments, or investigations shall be disclosed regardless of whether for a violation of federal, state, local or non-U.S. laws.

Section 6 Pricing Structure

Section 7 Insurance:

- **Liability Insurance.**
- **Workman's Compensation.**

If Offeror does not have the above insurances in the minimum amounts required, a letter from an underwriter confirming that the Offeror can be insured for the required minimum amounts is to be submitted.

Section 8 Qualification Requirements

- Financial Statements must be made available upon request. Offeror's Financial Statements: Must be prepared in accordance with the United States Generally Accepted Accounting Principles (GAAP) and audited by an independent certified public accountant authorized to practice in the jurisdiction of either STAR Transit or the Offeror OR Financial statements that have been reviewed or compiled by an accountant.
- Financial Guaranty: Willingness of any parent company to provide the required financial guaranty evidenced by a letter of commitment signed by an officer of the parent company having the authority to execute the parent company guaranty.

Equipment & Supplies

The Offeror at its own expense furnish all labor, supplies, equipment and machinery necessary to fulfill the Scope of Services.

Tax Exempt

The Offeror recognizes that STAR Transit is exempt from the payment of certain Federal, State and local taxes, and that such taxes are not to be included in the proposal price. STAR Transit will furnish a Contractor with the necessary tax-exempt certificates.

Inspection

All supplies, equipment, machinery, and labor furnished in performance of the Scope of Services shall be subject to inspection at any time by STAR Transit.

Modification or Withdrawal or Proposals

A modification of a proposal already received will be accepted by STAR Transit only if the modification is received prior to the proposal due date or is specifically requested by STAR Transit. All modifications shall be made in writing and executed and submitted in the same form and manner as the original proposal.

An Offeror may withdraw a proposal prior to the proposal due date by submitting a written request for withdrawal executed by the Offeror's authorized representative. The Offeror may submit another proposal within the time set for receipt of proposals. This provision for modification and withdrawal of proposals may not be utilized by an Offeror as a means to submit a late proposal and, as such, will not alter STAR Transit's right to reject a proposal.

Confidentiality of Proposals

When the award is made, and an agreement is executed proposals are subject to review under the "Public Information Act". To the extent permitted by law, Offerors may designate those portions of the offer which contain proprietary information, trade secrets or confidential commercial and financial information that an Offeror believes should be exempted from disclosure are to remain confidential. Such information shall accompany the proposal, be readily separable from the proposal, and shall be clearly marked "CONFIDENTIAL". Blanket-type identification by designating whole pages or sections as containing proprietary information, trade secrets or confidential commercial and financial information will not assure confidentiality. The specific proprietary information, trade secrets or confidential commercial and financial information must be clearly identified as such.

1.5 EVALUATION CRITERIA AND PROCEDURES

Proposals will be evaluated and ranked on the basis of the following factors, the weights of which are:

REFERENCES	5%
COMPLETENESS/ ADHEARING TO INSTRUCTIONS	10%
PRIOR EXPERIENCE, QUALIFICATIONS AND COMPANY HISTORY	15%
DELIVERY TIME/ SCHEDULE	35%
PRICING STRUCTURE	35%

All aspects of the evaluations of the proposals and any discussions/negotiations, including documentation, correspondence and meetings, will be kept confidential during the evaluation and negotiation process.

Proposals will be analyzed for conformance with the instructions and requirements of the RFP and Contract documents. Proposals that do not comply with these instructions and do not include the required information may be rejected as insufficient or not be considered for the competitive range. STAR Transit reserves the right to request an Offeror to provide any missing information and to make corrections. Offerors are advised that the detailed evaluation forms and procedures will follow the same proposal format and organization specified in Instructions to Offerors. Therefore, Offerors shall pay close attention to and strictly follow all instructions. Submittal of a proposal will signify that the Offeror has accepted the whole of the Contract documents, except such conditions, exceptions, reservations or understandings explicitly, fully and separately stated on the forms and according to the instructions of Form for Proposal Deviation. Any such conditions, exceptions, reservations or understandings which do not result in the rejection of the proposal are subject to evaluation under the criteria of Proposal Evaluation Criteria.

STAR Transit will select for any award the highest ranked proposal from a responsible Offeror, qualified under Qualification Requirements which does not render this procurement financially infeasible and is judged to be most advantageous to STAR Transit based on consideration of the evaluation Proposal Evaluation Criteria.

Evaluations of Competitive Proposals

Qualification of Responsible Offerors. Proposals will be evaluated to determine the responsibility of Offerors. A final determination of an Offerors responsibility will be made upon the basis of initial information submitted in the proposal, any information submitted upon request by STAR Transit, information submitted in a BAFO if requested by STAR Transit and information resulting from STAR Transit's inquiry of Offeror's references and its own knowledge of the Offeror.

Detailed Evaluation of Proposals and Determination of Competitive Range. Each proposal will be evaluated in accordance with the requirements and criteria specified in "Proposal Selection Process".

The following are the minimum requirements that must be met for a proposal to be considered for the competitive range. All of these requirements must be met; therefore, they are not listed by any particular order of importance. Any proposal that STAR Transit finds not to meet these requirements, and may not be made to meet these requirements, may be determined by STAR Transit to not be considered for the

competitive range. The requirements are as follows:

Offeror is initially evaluated as responsible in accordance with the requirements of “Qualification Requirements”, or that STAR Transit finds it is reasonable that said proposal can be modified to meet said requirements. Final determination of responsibility will be made with final evaluations.

Offeror has followed the instructions of the RFP and included sufficient detailed information, such that the proposal can be evaluated. Any deficiencies in this regard must be determined by STAR Transit to be either a defect that STAR Transit will waive in accordance with “Acceptance/Rejection of Proposals” or that the proposal can be sufficiently modified to meet these requirements.

Proposal price would not render this procurement financially infeasible, or it is reasonable that such proposal price might be reduced to render the procurement financially feasible.

STAR Transit will carry out and document its evaluations in accordance with the criteria and procedures of “Proposal Selection Process”. Any extreme proposal deficiencies which may render a proposal unacceptable will be documented. STAR Transit will make specific notes of questions, issues, concerns and areas requiring clarification by Offerors and to be discussed in any meetings held with Offerors which STAR Transit finds to be within the competitive range.

Rankings and spreads of the proposals against the evaluation criteria will then be made by STAR Transit as a means of judging the overall relative spread between proposals and of determining which proposals are within the competitive range or may be reasonably made to be within the competitive range.

Proposals not within the Competitive Range. Offerors of any proposals that have been determined by STAR Transit as not in the competitive range and cannot be reasonably made to be within the competitive range, will be notified in writing.

Discussions with Offerors in the Competitive Range. The Offerors whose proposals are found by STAR Transit to be within the competitive range or may be reasonably made to be within the competitive range, will be contacted by STAR Transit to answer any questions and/or requests for clarifications. Each such Offeror may be invited for a private interview(s) and discussions with STAR Transit to discuss answers to written or oral questions, clarifications, and any facet of its proposal.

In the event that a proposal, which has been included in the competitive range, contains conditions, exceptions, reservations or understandings to any Contract requirements as provided in “Form for Proposal Deviation”, said conditions, exceptions, reservations or understandings may be negotiated during these meetings. However, STAR Transit shall have the right to reject any and all such conditions and/or exceptions and instruct the Offeror to amend its proposal and remove said conditions and/or exceptions; and any Offeror failing to do so may cause STAR Transit to find such proposal to be outside the competitive range.

No information, financial or otherwise, will be provided to any Offeror about any of the proposals from other Offerors. Offerors will not be given a specific price or specific financial requirements they must meet to gain further consideration, except that proposed prices may be considered to be too high with respect to the marketplace or unacceptable. Offerors will not be told of their rankings among the other Offerors.

1. **Best and Final Offers (BAFO).** Offerors are reminded the BAFO’s may not be requested and therefore their first submission should always be their best possible offer. If BAFO’s are requested, once all interviews have been completed, each of the Offerors in the competitive range will be afforded the opportunity to amend its proposal and make its BAFO. The request for BAFO’s shall include:
 - a. Notice that discussions/negotiations are concluded;
 - b. Notice that this is the opportunity for submission of a BAFO;
 - c. A common date and time for submission of written BAFO’s, allowing a reasonable opportunity for preparation of the written BAFO’s;

- d. Notice that if any modification to a BAFO is submitted, it must be received by the date and time specified for the receipt of BAFO's and is subject to the late submissions, modifications, and withdrawals of proposals provisions of the Request for Proposal;
- e. Notice that if Offerors do not submit a BAFO or a notice of withdrawal and another BAFO, their immediate previous offer will be construed as their BAFO.

Any modifications to the initial proposals made by an Offeror in its BAFO shall be identified in its BAFO. BAFO's will be evaluated by STAR Transit according to the same requirements and criteria as the initial proposals "Proposal Selection Process". STAR Transit will make appropriate adjustments to the initial scores for any sub-criteria and criteria which have been affected by any proposal modifications made by the BAFO's. These final scores and rankings within each criterion will again be arrayed by STAR Transit and considered according to the relative degrees of importance of the criteria defined in "Proposal Evaluation Criteria".

STAR Transit will make the award to the responsible Offeror whose proposal is most advantageous to STAR Transit. Accordingly, STAR Transit may not necessarily make an award to the Offeror with the highest technical ranking nor award to the Offeror with the lowest price proposal if doing so would not be in the overall best interest of STAR Transit.

STAR Transit reserves the right to make an award to an Offeror whose proposal it judges to be most advantageous to STAR Transit based upon the evaluation criteria, without conducting any written or oral discussions with any Offerors or solicitation of any BAFO's.

1.6 RESPONSE TO PROPOSALS ACCEPTANCE/REJECTION OF PROPOSALS

STAR Transit reserves the right to reject any or all proposals for sound business reasons, to undertake discussions with one or more Offerors, and to accept that proposal or modified proposal which, in its judgment, will be most advantageous to STAR Transit, price and other evaluation criteria considered. STAR Transit reserves the right to consider any specific proposal which is conditional or not prepared in accordance with the instructions and requirements of this RFP to be noncompetitive. STAR Transit reserves the right to waive any defects, or minor informalities or irregularities in any proposal which do not materially affect the proposal or prejudice other Offerors.

If there is any evidence indicating that two or more Offerors are in collusion to restrict competition or otherwise engaged in anti-competitive practices, the proposals of all such Offerors shall be rejected and such evidence may be a cause for disqualification of the participants in any future solicitations undertaken by STAR Transit.

STAR Transit may reject a proposal that includes unacceptable deviations as provided in "Conditions, Exceptions, Reservations or Understandings"

Single Proposal Response

If only one proposal is received in response to this RFP and it is found by STAR Transit to be acceptable, a detailed price/cost proposal may be requested of the single Offeror. A price or cost analysis, or both, possibly including an audit, may be performed by or for STAR Transit of the detailed price/cost proposal in order to determine if the price is fair and reasonable. The Offeror has agreed to such analysis by submitting a proposal in response to this RFP.

Price analysis: An evaluation of a proposed price that does not involve an in-depth evaluation of all the separate cost elements and the profit factors that comprise an Offeror's price proposal. It should be recognized that a price analysis through comparison to other similar procurements must be based on an established or competitive price of the elements used in the comparison. The comparison must be made to a purchase of similar quantity, involving similar specifications and in a similar time frame. Where a difference exists, a detailed analysis must be made of this difference and costs attached thereto.

Where it is impossible to obtain a valid price analysis, it may be necessary to conduct a cost analysis of the

proposed price.

Cost analysis: A more detailed evaluation of the cost elements in the Offeror's offer to perform. It is conducted to form an opinion as to the degree to which the proposed costs represent what the Offeror's performance should cost. A cost analysis is generally conducted to determine whether the Offeror is applying sound management in proposing the application of resources to the contracted effort and whether costs are allowable, allocable and reasonable.

Any such analyses and the results there from shall not obligate STAR Transit to accept such a single proposal; and STAR Transit may reject such proposal at its sole discretion.

Appeals

Appeals to STAR Transit's decision of approved equals or clarifications of specifications must be in writing and received by STAR Transit by the time specified in the schedule. STAR Transit has no obligation to consider appeals not received within the time specified in the Schedule.

Protests

Protests resulting from the award of a contract through the RFP procedure must be made in writing to STAR Transit's Contracting Officer within three working days of the letter of non-selection to the Offeror. The protest must outline the specific portion of the specification or proposal procedure that had been violated.

Protests by an interested party regarding this procurement shall be made in accordance with Chapter 2155 of the Texas Government Code. After such administrative remedies have been exhausted, an interested party may file a protest with the Federal Transit Administration (FTA) or the U.S. Department of Transportation pursuant to the procedures provided in FTA C 4220.1F, or the Texas Department of Transportation (TxDOT). Alleged violations of certain federal requirements provide a separate complaint procedure. See, for example, Buy America Requirements, 49 CFR 661 and Participation by Disadvantaged Business Enterprise in Department of Transportation Programs, 49 CFR 23.

Failure to comply with the above protest procedures will render a protest untimely and/or inadequate and shall result in its rejection.

Conflict of Interest

Effective January 1, 2006, Chapter 176 of the Texas Local Government Code (House Bill 914) requires that any vendor or person considering doing business with a local government entity disclose the vendor or person's affiliation or business relationship that might cause a conflict of interest with a local government entity. The Conflict of Interest Questionnaire form is included in the Forms Section. Any attempt to intentionally or unintentionally conceal or obfuscate a conflict of interest may automatically result in the disqualification of the Offeror.

Disclosure of Interested Parties

In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties (Form 1295), which is available at https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm, to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. STAR Transit require the selected Contractor to file Form 1295 electronically with the Commission at the time of Contract Award.

Protest Policy

Protests resulting from the award of a contract through the RFP procedure must be made in writing to STAR Transit's Contracting Officer within three working days of the letter of non-selection to the Offeror or proposer. The protest must outline the specific portion of the specification or proposal procedure that had been violated.

As an FTA funding recipient, STAR Transit is required to notify and keep FTA updated about the status of the protest when it receives a third-party contract protest to which this circular applies an award given by STAR

Transit.

The protester must exhaust its administrative remedies by pursuing the recipient's protest procedures to completion before appealing the recipient's decision to FTA.

Protests by an interested party, as in a party that is an actual or prospective Offeror whose direct economic interest would be affected by the award or failure to award the third-party contract at issue, regarding this procurement shall be made in accordance with Chapter 2155 of the Texas Government Code. After such administrative remedies, have been exhausted, an interested party may file a protest with the Federal Transit Administration (FTA) or the U.S. Department of Transportation pursuant to the procedures provided in FTA C 4220.1F. Alleged violations of certain federal requirements provide a separate complaint procedure. See, for example, Buy America Requirements, 49 CFR 661 and Participation by Disadvantaged Business Enterprise in Department of Transportation Programs, 49 CFR 23.

The protester must deliver its appeal to the FTA Regional Administrator within five working days of the date when the protestor has received actual or constructive notice of the recipient's final decision or when the protestor has identified other grounds for appeal to FTA, such as, the recipient's failure to have or failure to comply with its protest procedures or failure to review the protest.

Failure to comply with the above protest procedures renders a protest untimely and/or inadequate and shall result in its rejection. In the event of a timely protest received by the Contracting Officer, the following steps are performed: The Contracting Officer affects a stay of procurement during the protest.

- If the contract has not been awarded, award is delayed until all administrative and judicial remedies have been exhausted. All Offerors or proposers on the vendor mailing list are advised of the protest and of the delay in the procurement.
- The Executive Director may make a determination, in writing, that the award of a contract without delay is necessary to protect the interests of STAR Transit. This written determination is made part of the contract file by the Contracting Officer.
- The Contracting Officer notifies the President/CEO and the affected department head that a bid/proposal or proposal protest has been received.
- The Contracting Officer conducts an investigation into the protest with the assistance of STAR Transit staff or other personnel as required.
- The Contracting Officer may meet with the protesting vendor or request additional information from the vendor during the investigation
- The Contracting Officer issues the findings of the investigation in writing to all interested parties and the written report, including the original protest, is made a part of the contract file.
- The Grants and Budget Department acts as the direct liaison with FTA. The Contracting Officer supplies any records or documents requested by the Grants and Budget Department for FTA.
- The Contracting Officer makes any necessary changes to the procurement process, as pertaining to the protested bid/proposal/proposal, resulting from FTA's decision.
- The Contracting Officer makes the written report of FTA, including all related correspondence, a part of the contract file.

Contractor Status

Contractor is an independent Contractor of STAR Transit, and all persons employed to furnish services or to perform work hereunder are employees, agents or Subcontractors of Contractor and not of STAR Transit. No provision of this agreement shall be construed to give rise to a partnership, joint venture, agency, employer/employee relationship, or any relationship between Contractor and STAR Transit other than that of principal and independent Contractor.

Indemnification/Defense of STAR Transit

Contractor agrees to and does hereby assume full liability and responsibility for and hereby releases and covenants and agrees to indemnify, hold harmless and defend STAR Transit and the members of the Board of Directors and executive committee, officers, principals, agents and employees of each of them (hereinafter collectively "Indemnified Persons") from and against any and all damages, payments, costs, losses, expenses, and liability of every kind whatsoever related to all claims for damages or injuries to persons or property of any nature whatsoever (including any claims which may arise on the part of the Contractor, its officers, agents, principals, employees, and subcontractors) arising out of or incident to this solicitation or the contract(s) resulting from this solicitation, or which are in any way related to such solicitation or contract(s) or to Contractor's activities thereunder, or are incident to the grant or exercises of any of the rights and privileges described in such solicitation or contract(s), other than claims resulting solely from the negligence of one or more of the Indemnified Persons. By way of inclusion and not limitation, the liability and responsibility assumed and the claims, damages, payments and expenses released and indemnified against are specifically agreed to include any growing out of or related to libel, slander, and the like, and infringement of patents, copyrights, trademarks, service marks and the like, including claims arising out of the use by any of the Indemnified Persons of any documentation, publication, appliance, tool, equipment or apparatus supplied under such solicitation or contract(s).

STAR Transit will promptly notify Contractor of any such claim and will cooperate with Contractor in defending against any such claim. In the event any suit or legal proceeding of any kind is brought against any of the Indemnified Persons on account of any claim described in the preceding paragraph, Contractor agrees to assume the defense thereof and to pay all expenses relating thereto and in connection therewith and all judgments and levies that may be obtained against any of the Indemnified Persons as a result of any such suit or proceeding, specifically including fines, penalties, attorney's fees, exemplary damages, and interest; and Contractor agrees to at once cause any such judgments and levies to be dissolved and discharged by paying same, giving bond or otherwise.

Contractor also agrees to pay STAR Transit promptly upon receipt of statements therefore, any and all attorney's fees and other expenses reasonably incurred by them directly or indirectly related to any claims.

No Assignment

Any contract resulting from or related to this solicitation and all rights and obligations thereunder are non-assignable in whole or in part by Contractor without the prior express written consent of STAR Transit, and any attempted assignment without such consent shall constitute a material default of Contractor under the underlying contract, and may be considered void for all purposes at the election of STAR Transit.

1.7 TYPE AND TERM OF CONTRACT

STAR Transit shall negotiate and enter into an agreement which will be one (1) year term with the option to renew in increments of one (1) year terms for up to five (5) years total. The cost of the options periods will be agreed upon by STAR Transit and the offeror.

1.8 INVOICING AND PAYMENT

Invoices are to be submitted to STAR Transit's Administrative Office located at PO Box 703, Terrell, TX 75160. STAR Transit is tax exempt therefore, invoices cannot include any sales taxes.

STAR Transit agrees to pay all invoices on a net 30-day payment cycle or three days after the receipt of State and Federal funds, whichever is later. This Agreement is contingent upon the receipt of State and Federal funds. Loss of such funds will nullify this contract.

1.9 BONDING AND INSURANCE

General Liability Insurance. Contractor will be required to carry liability insurance for the length of the contract at the state minimum requirements.

Workman's Compensation. Contractor will be required to carry Workers Compensation Insurance for the

length of the contract.

After award, proof of the required insurance will be required prior to contract signing.

The General Liability and Workers Compensation policies must include a Waiver of Subrogation in favor of STAR Transit. The insurance policies provided by Contractor shall be endorsed to provide STAR Transit with 60 days advance written notice prior to any cancellation or reduction in coverage, and 10 days' notice for non-payment of premium.

1.10 DISADVANTAGED BUSINESS ENTERPRISES

This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The agency's overall goal of Disadvantaged Business Enterprises (DBE) is 1.7%

The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as STAR Transit deems appropriate. Each subcontract the Contractor signs with a Subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

Offerors are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. Award of this contract is conditioned on submission of the following concurrent with and accompanying sealed bid/proposal:

1. The names and addresses of DBE firms that will participate in this contract;
2. A description of the work each DBE will perform;
3. The dollar amount of the participation of each DBE firm participating;
4. Written documentation of the Offerors commitment to use a DBE Subcontractor whose participation it submits to meet the contract goal;
5. Written confirmation from the DBE that it is participating in the contract as provided in the prime Contractor's commitment; and
6. If the contract goal is not met, evidence of good faith efforts to do so.

Offerors must present the information required above as a matter of responsiveness with initial proposals.

The Contractor is required to pay its Subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the Contractor's receipt of payment for that work from STAR Transit. In addition, the Contractor is required to return any retainage payments to those Subcontractors within 30 days after the Subcontractor's work related to this contract is satisfactorily completed.

The Contractor must promptly notify STAR Transit, whenever a DBE Subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage another DBE Subcontractor to perform at least the same amount of work. The Contractor may not terminate any DBE Subcontractor and perform that work through.

Section 2 Project Specifications

2.1 PURPOSE

The purpose of STAR Transit's RFP # 2022111 is to solicit proposals to install Solar PV System. It is the intent of STAR Transit to select a single vendor to accomplish and/or supply all commodities or services outlined; however, STAR Transit reserves the right to award separate contracts for any one item listed on the proposal/pricing sheets. All Offerors have the option to propose on one or all items listed. Preference is one contracting entity.

2.2 PROJECT LIST

All work will be performed at 500 Industrial Blvd, Terrell, TX 75160.

1. ASSESS THE CURRENT SETUP AND DETERMINE WHAT IF ANY PARTS CAN BE REUSED TO COMPLETE THE PROJECT.
2. COMPLETE REVIEW OF SECO PEA REPORT.
3. COMPLETE A STRUCTURAL EVALUATION.
4. PROVIDE A SYSTEM DESIGN.
5. PROVIDE ELECTRICAL ENGINEERING PLANS.
6. PROVIDE PLANS FOR EACH OF THE FOLLOWING:
 - 6.1 ROOF MOUNTED APPLICATION ON BUILDING I
 - 6.2 ROOF MOUNTED APPLICATION ON BUILDING II
 - 6.3 14 CHARGING STATIONS FOR ELECTRIC VEHICLE (EV) (APPENDIX A FOR EXAMPLE)
7. INSTALLATION
8. TEST AND TURNKEY

All solutions should provide Solar PV Systems that provide the best offsets of energy use for existing facilities and to offset the Electronic Vehicle charging. Systems should include order information for parts and replacement parts.

2.3 SITE INFORMATION

Building I – Admin Building

Building Information: Built in 2000, single story, and approximately 10,000 ft².

Building Use: Closed office, conference/training rooms, breakroom and back of house (BOH) spaces.

Operating Hours: 6 am – 5:30 pm, Monday-Friday, no operation on weekends.

Building Energy: Electricity



Building II – Parking Garage (Bus Barn)

Building Information: Built in 2012, single story, and approximately 10,015 ft²

Building Use: Parking Garage

Operating Hours: 3:30 am – 6:30 pm, 7 days per week

Building Energy Use: Electricity



Section 3 Required Forms

ALL FORMS BELOW MUST BE SUBMITTED WITH PROPOSAL

- ☐ ACKNOWLEDGMENT OF ADDENDUM
- ☐ REQUEST FOR CHANGE OR APPROVED EQUAL
- ☐ PROPOSAL DEVIATION FORM
- ☐ DBE COMPLIANCE STATEMENT
- ☐ DBE SCHEDULE OF UTILIZATION
- ☐ DBE GOOD FAITH EFFORT
- ☐ CONFLICT OF INTEREST
- ☐ REFERENCES - VENDOR
- ☐ PRICING SCHEDULE
- ☐ SUSPENSION AND DEBARMENT CERTIFICATION FORM
- ☐ DELINQUENT STATE BUSINESS TAX CERTIFICATION
- ☐ OFFER
- ☐ PTN-130

Failure to submit ALL of the above items properly completed may be cause for disqualification of your bid/proposal. All forms must be signed by the person authorized to bind the offering Offeror to the terms of the proposal.

3.1 ACKNOWLEDGMENT OF ADDENDUM

RFP # 2022111

The undersigned acknowledges receipt of STAR Transit's Request for Proposals and the following addendums to STAR Transit's Solicitation Package.

ACKNOWLEDGMENT OF ADDENDUM

<input type="checkbox"/>	Addendum No. _____	Dated _____
<input type="checkbox"/>	Addendum No. _____	Dated _____
<input type="checkbox"/>	Addendum No. _____	Dated _____
<input type="checkbox"/>	Addendum No. _____	Dated _____
<input type="checkbox"/>	Addendum No. _____	Dated _____
<input type="checkbox"/>	Addendum No. _____	Dated _____

Failure to acknowledge receipt of all amendments may cause Offeror to be considered nonresponsive to the solicitation. Acknowledged receipt of each addendum must be clearly established and included with bid/proposal/proposal.

Authorized Signature_____
Company Name (print)_____
Name and Title (print)_____
Date

3.2 REQUEST FOR CHANGE OR APPROVED EQUAL

RFP # 2022111

This form must be used for requested clarifications, changes, substitutes or approval of items equal to items specified with a brand name and must be submitted as far in advance of the Due Date as specified in "Solicitation Schedule".

Deviation #:

Solicitation Ref: #2022111

Page:

Section:

Questions/Clarification

or

Approved

Equal:

Authorized Signature

Company Name (print)

Name and Title (print)

Date

STAR
Transit:

3.3 PROPOSAL DEVIATION FORM

RFP # 2022111

The following form shall be completed for each condition, exception, reservation or understanding (i.e., deviation) in the proposal according to “Conditions, Exceptions, Reservations and Understandings”.

Deviation #: _____ Page: _____ Section: _____

<u>Deviation:</u>	<u>Complete Description of</u>
<u>Cons)</u>	<u>Rational (Pros &</u>
<u>Authorized Signature</u>	<u>Company Name (print)</u>
<u>Name and Title (print)</u>	<u>Date</u>

3.4 DBE COMPLIANCE STATEMENT

RFP # 2022111

Check the statement which applies to your bid/proposal.

1. ☐ **BID/PROPOSAL MEETS OR EXCEEDS DBE PERCENTAGE PARTICIPATION GOAL ESTABLISHED FOR THIS PROCUREMENT.**
You must submit the Schedule of DBE Utilization (Forms page A36 in the BPPM) along with bid/proposal. If you are a certified DBE, complete the first set of questions on Schedule of DBE Utilization for yourself and submit your certification number from certifying agency. Submit certification numbers for each DBE you intend to use.
2. ☐ **BID/PROPOSAL DOES NOT MEET THE DBE PERCENTAGE PARTICIPATION GOAL ESTABLISHED FOR THIS PROCUREMENT, BUT YOU HAVE MADE BONA FIDE GOOD FAITH EFFORTS TO REACH THOSE GOALS.**
If this statement applies, you must submit the Schedule of DBE Utilization and the DBE Good Faith Effort Documents (Forms page A-36 in the BPPM) along with bid/proposal, together with all other documentation of good faith efforts which you wish STAR Transit to consider in evaluation your bid/proposal. Only documentation submitted with bid/proposal will be considered. Submit certification numbers for each DBE you intend to use.
3. ☐ **BID/PROPOSAL DOES NOT HAVE ANY DBE PERCENTAGE PARTICIPATION FOR THIS PROCUREMENT, *BUT* YOU BELIEVE THIS PROCUREMENT MEETS THE FOLLOWING EXCEPTION TO STAR TRANSIT'S DBE POLICY:**
"This solicitation is for the procurement of a standard manufactured item or other similar procurement with no subcontracting opportunities."

Firm should check Yes or NO to both questions below and then explain in the exception information area below. Failure to provide an explanation may render the bid/proposal non-responsive. (Subcontracting opportunities may include delivery, assembly, installation, painting, supplies etc. Supplies are items purchased specifically for this procurement other than the standard manufactured item requested by the invitation for bid/proposal).

a) WILL YOU PERFORM THIS ENTIRE CONTRACT WITHOUT SUBCONTRACTORS? YES ☐ NO ☐

b) WILL YOU PERFORM THIS ENTIRE CONTRACT WITHOUT SUPPLIERS? YES ☐ NO ☐

(If you answered NO to either question above, please fully explain why you are seeking the exception. The existence of Subcontractor and supplier opportunities, usually indicate that option #2 and the Good Faith Effort Documents apply.)

Explanation:

Authorized Signature

Company Name (print)

Name and Title (print)

Date

(Note: Failure to complete and return the DBE forms as indicated above, will result in rejection of the bid/proposal. The making of a material misrepresentation of fact could be a basis of disqualification and may cause a firm to be considered for classification as an irresponsible contractor and barred from STAR Transit work for a period of not exceeding six months).

3.5 DBE SCHEDULE OF UTILIZATION

**Information on the DBE program: www.dot.state.tx.us/business/business_outreach/dbe.htm
Certified DBE Vendors: www.dot.state.tx.us/business/tucp/default.htm**

List all DBE's expected to participate in performing the contract resulting from this solicitation. If you have no DBE participation, but you are subcontracting out (i.e. work deliveries, transportation, parts and supplies, etc.) a portion of this procurement, then sign and date this form below and completely and thoroughly fill out and sign the Good Faith Effort Documents.

NOTE: Any firm listed below must be certified by the Texas Unified Certification Program (TUCP) and their corresponding certification number must be listed.

Name of prime Contractor (print) **RFP # 2022111**
Bid/proposal Number

Note: If Prime Contractor is a certified DBE complete first section below for self.

Name of DBE Subcontractor of DBE Prime Contractor:

Address & Telephone Number:

Specify Subcontracting Tier: Type of Work to be Performed:

Dollar Amount for Work: \$ TUCP Certification#:

Name of DBE Subcontractor of DBE Prime Contractor:

Address & Telephone Number:

Specify Subcontracting Tier: Type of Work to be Performed:

Dollar Amount for Work: \$ TUCP Certification#:

Name of DBE Subcontractor of DBE Prime Contractor:

Address & Telephone Number:

Specify Subcontracting Tier: Type of Work to be Performed:

Dollar Amount for Work: \$ TUCP Certification#:

The undersigned will enter into a formal agreement with DBE Subcontractors for work listed above in this schedule conditioned upon execution of a contract with STAR Transit.

Signature

Title

Date

(Offeror may make additional copies of this schedule as needed to list all DBE Subcontractors that will be used on this contract.)

3.6 DBE GOOD FAITH EFFORT DOCUMENTATION (PAGE 1 OF 2)

RFP # 2022111

If the Offeror did not meet or exceed STAR Transit's DBE subcontracting goal, then the Offeror must comply with STAR Transit's DBE policy by documenting that good faith efforts were made. Please place a Yes or No in blanks below for items one, two and three to indicate if you have completed the good faith effort form, attached any related support documents, and provided any additional information/ support/clarification beyond that requested in the good faith effort documents. Item number three (providing additional information) is at the Offeror's responsibility to ensure that sufficient information is provided to STAR Transit, so that good faith efforts can be comprehensively evaluated.

I, the Offeror, have **(YES or NO)**:

- ☐ Yes ☐ No 1) Completely filled out this good faith effort form with signature and date,
- ☐ Yes ☐ No 2) Attached any related supporting documents, and also
- ☐ Yes ☐ No 3) Provided any additional information and/or documents that I (the Offeror) deemed necessary to support and/or clarify the good faith efforts that I made.

It is the Offeror's responsibility to correctly, accurately, and substantively provide all necessary information to STAR Transit, at the time of bid/proposal submission. The information provided by the Offeror must be sufficient enough for STAR Transit to determine that the efforts made by the Offeror to obtain DBE participation were such efforts that an Offeror actively and aggressively seeking to meet those goals would make. Actions or efforts which are merely "pro forma" or "going through the motions" do not constitute good faith efforts to obtain the participation of DBEs. STAR Transit will look not only at the different kinds of efforts that the Offeror has made, but also the quality and intensity of those efforts.

This information will then be evaluated by STAR Transit's DBE Department or a designee of STAR Transit for good faith effort compliance. Failure to comply will render the bid/proposal non-responsive.

Note: The information requested below is not intended to be an inventory or check list. The DOT does not require STAR Transit to insist that any Offeror do any particular one or any combination of the items on this list. It is not intended to be an exclusive or exhaustive list of all actions an Offeror, acting in good faith actively or aggressively seeking to obtain DBE participation would make. Other types of efforts or factors may be relevant in appropriate cases.

- Please list each and every subcontracting and/or supplier opportunity which will be available in the completion of this project, regardless of whether it is to be provided by a DBE or non-DBE. Use additional sheets, if needed.

Subcontracting Opportunities	Supplier Opportunities
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

- Did you obtain a list of DBE firms from STAR Transit's DBE Department? A list may or may not have been included with the Invitation for Bid/proposal. If one was not included, or if additional lists are needed, they can be obtained from the DBE Department upon request. The DBE Department can provide lists, when requested, by subcontracting areas. Yes No
- Did you attend the pre-bid/proposal teleconference scheduled by STAR Transit? **N/A**
- Did you request bid/proposals from DBEs that also attended the pre-bid/ proposal conference? Yes No If Yes, list DBE Firm/Person Contacted. _____
- Did you solicit bid/proposals from DBEs, within the subcontracting and/or supplier areas that you listed previously on question number one above by mail? Yes No
- Did you solicit bid/proposals from DBEs, within the subcontracting and/or supplier areas that you listed previously on question number one above by fax? Yes No
- Did you solicit bid/proposals from DBEs, within the subcontracting and/or supplier areas that you listed previously on

- question number one above by telephone? Yes No
8. Did you solicit bid/proposals from DBEs, within the subcontracting and/or supplier areas that you listed previously on question number one above by some other means? Yes No If Yes, please explain. _____
9. Did you advertise in local newspapers? Yes No If yes, then please attach a copy(s) of advertisements, with the date advertised and list the specific newspapers that were used.
10. Please provide the following information for every DBE firm that you contacted by any method or that initiated contact with you, but will NOT be used on this contract:
- _____ a) Attach a listing of every DBE firm that you solicited a bid/proposal from or that initiated contact with you to ask about and/or submit an unsolicited bid/proposal to you. Include their mailing address, phone and fax numbers, and the date that solicitations were sent. Also, include the method used for the solicitation (i.e. mail, fax, phone, person contact, etc.). If you have a DBE contact name, include that as well.
- _____ b) Indicate the subcontracting area(s) that you solicited bid/proposals on from each DBE firm and/or the subcontracting areas(s) for which each DBE firm submitted a bid/proposal to you, if different from what you solicited.
- _____ c) If DBE firms submitted bid/proposals, but those bid/proposals were rejected, provide an explanation for rejecting those bid/proposals and attach documentation to support the reason for rejecting the bid/proposal (i.e. letters, memos, DBE bid/proposal amount, telephone notes, meeting notes, etc.)
- _____ d) If a DBE firm's bid/proposal was rejected because of price, then list the DBE firm's bid/proposal price and the name and bid/proposal price of the Subcontractor or supplier that you will use in lieu of the rejected DBE firm.
- _____ e) Indicate the number of times that follow-up contact was made with DBE firms after the initial solicitations of interest.
11. Did you contact all DBE firms that you solicited bid/proposals from in a timely manner such that the DBE firms had at least ten days prior to the bid/proposal submission date to prepare and submit a bid/proposal to you? If No, please explain.
12. Did you negotiate in good faith with interested DBE firms by, for instance, providing timely information regarding plans and specifications, breaking down subcontracts into economically feasible units to facilitate DBE participation, maintaining accessible lines of communications, etc.?
13. Did you assist interested DBE firms in obtaining bonding, lines of credit, or insurance required by STAR Transit or by you as prime Contractor? Yes No If Yes, please explain.

ADDITIONAL INFORMATION

Please provide any additional information and/or documents that you (the Offeror) deem necessary to support and/or clarify that you made good faith efforts to meet the DBE subcontracting goal (be sure to attach any support documents).

Note: Failure to complete and return DBE forms as indicated above, will result in rejection of the bid/proposal. The making of a material misrepresentation of fact could be a basis for disqualification and may cause a firm to be considered for classification as an irresponsible Contractor and barred from STAR Transit work for a period of not exceeding six months.

Authorized Signature

Company Name (print)

Name and Title (print)

Date

3.7 CONFLICT OF INTEREST ACKNOWLEDGMENT AND CERTIFICATION

RFP # 2022111

Policy: A conflict of interest may occur if outside activities or personal interests influence or appear to influence objective decision making in the course of STAR Transit-related responsibilities and duties. A conflict may also exist if the demands of any outside activities hinder or distract your job performance or cause you to use STAR Transit resources for other than STAR Transit purposes. Employees are expected to exhibit professional loyalty to the STAR Transit. Employees are expected to avoid conflicts of interest and opportunities for personal gain for themselves individually, members of their immediate families and others which may impede their best judgment.

The following are guidelines for Board of Directors and employees regarding interests outside of the business conducted by STAR Transit:

- A. Employees, or members of their respective families should not have substantial financial or business interest with a competitor, customer or supplier of STAR Transit without first reviewing the nature of activity with STAR Transit's legal counsel.
- B. Each employee's employment should be his/her first business priority. Any other employment or business activity will be considered secondary and should not interfere with individual employee job performance and responsibilities. Approval for secondary employment requires the approval of the STAR Transit's President/CEO.

Disclosures: Your obligation, as a prospective Contractor under this solicitation, is to disclose fully all information you have or may acquire which has to do with any such Benefit, which may come to any Related Person or Other Related Person. In considering the possibility of the existence of such benefit, you also need to consider each person and firm you believe may be involved as a joint venturer, or Subcontractor, or other similar role in carrying out and performing a contract with STAR Transit pursuant to the solicitation. In other words, if you are aware of any business, financial, or other interest, or actual or potential employment relationship between any Related Person or any Other Related Person, on the one hand, and yourself or any other person or firm you believe may be involved in carrying out the contract to be awarded pursuant to this solicitation, on the other hand, you have an affirmative obligation to fully disclose that information to STAR Transit. You are encouraged to contact STAR Transit Director of Administration or the Executive Vice President prior to the deadline for submitting your Response (defined as a bid/proposal, proposal or other response to this solicitation), make such disclosure, and request a ruling as to whether any prohibited conflict of interest does in fact exist.

In order for your Response to be considered RESPONSIVE to this solicitation, it is mandatory that you complete and execute the Acknowledgment and Certification below, and include with your Response, written disclosure of all information relative to any potential conflict of interest which may be known to you, and which you have not disclosed to STAR Transit in writing prior to the submission of your Response.

(POTENTIAL CONTRACTOR)

The undersigned potential Contractor of STAR Transit hereby acknowledges receipt and understanding of the Conflict of Interest provisions set out above; and hereby certifies that, except as heretofore or herewith fully disclosed in writing, to the best of potential Contractor's knowledge and belief, no such conflict exists, or is likely to exist in the future pertaining to this procurement should the contract be awarded to potential Contractor; and potential Contractor further hereby promises to promptly notify STAR Transit in writing if such knowledge or belief changes in the future.

By: _____

Signature and Title of Authorized Official of Potential Contractor

Name of Potential Contractor (print)

(RECOMMENDED SUBCONTRACTOR)

The undersigned potential subcontractor of STAR Transit hereby acknowledges receipt and understanding of the Conflict of Interest provisions set out above; and hereby certifies that, except as heretofore or herewith fully disclosed in writing, to the best of potential Subcontractor's knowledge and belief, no such conflict exists, or is likely to exist in the future pertaining to this procurement should the contract be awarded to potential Subcontractor; and potential Subcontractor further hereby promises to promptly notify STAR Transit in writing if such knowledge or belief changes in the future.

By: _____

Signature and Title of Authorized Official of Recommended Subcontractor

Name of Recommended Subcontractor (print)

Note: Offeror shall make copies of the Conflict of Interest document and Acknowledgment and Certification form and provide same to each Subcontractor Offeror recommends for the contract. Offeror is required to secure an acknowledgment and certification from each Subcontractor Offeror recommends and submit such certification to STAR Transit prior to a Subcontractor beginning any work under this contract.

3.8 REFERENCES

RFP # 2022111

Provide a minimum of two references within the past two to five years in which a similar service was provided. Provide company name, address, contact person, phone, fax, and email. **Be sure to include a valid email as references can be verified via email.**

Company Name:		
Address:		
Contact Person:		
Email:		
Phone:		Fax:

Company Name:		
Address:		
Contact Person:		
Email:		
Phone:		Fax:

3.9 PRICING SCHEDULE**RFP # 2022111**

To be accepted, proposers must thoroughly complete all blanks in this section. Offerors must ensure that all calculations are correct. If there are discrepancies in unit price and total, **unit price will prevail.**

ITEM	DESCRIPTION	PRICE
ASSESSMENT	ASSESS THE CURRENT SETUP AND DETERMINE WHAT IF ANY PARTS CAN BE REUSED TO COMPLETE THE PROJECT.	
	COMPLETE REVIEW OF SECO PEA REPORT	
PLANNING & DESIGN	COMPLETE A STRUCTURAL EVALUATION	
	PROVIDE A SYSTEM DESIGN	
	PROVIDE ELECTRICAL ENGINEERING PLANS	
	PROVIDE PLANS FOR EACH OF THE FOLLOWING:	
	ROOF MOUNTED APPLICATION ON BUILDING I	
	ROOF MOUNTED APPLICATION ON BUILDING II	
	CHARGING STATIONS FOR 14 ELECTRIC VEHICLES (EV)	
CONSTRUCTION	INSTALLATION	
TURNOVER	TEST AND TURNKEY	

All pricing proposals should include all items intending to be invoiced. If additional expenses are needing to be listed please use an additional sheet.

Total Proposal Price: _____

Authorized Signature_____
Company Name (print)_____
Name and Title (print)_____
Date

3.10 SUSPENSION AND DEBARMENT CERTIFICATION FORM

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

This certification is required by the regulations implementing Executive Order 12549 and 12689, Debarment and Suspension, 2 C.F.R. part 180, 2 C.F.R. part 1200, 2 C.F.R. § 200.213, and 2 C.F.R. part 200 Appendix II (I).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON NEXT PAGE)

The prospective primary Respondent/Contractor certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default.

Where the prospective primary Respondent/Contractor is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

DATE: _____

SIGNATURE: _____

NAME / TITLE: _____

RESPONDENT/
CONTRACTOR: _____

INSTRUCTIONS FOR CERTIFICATION

By signing and submitting this proposal, the Respondent/Contractor is providing the certification set out below.

1. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The Respondent/Contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Owner's determination whether to enter into this transaction. However, failure of the Respondent/Contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
2. The certification in this clause is a material representation of fact upon which reliance was placed when the Owner determined to enter into this transaction. If it is later determined that the Respondent/Contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Owner may terminate this transaction for cause or default.
3. The Respondent/Contractor shall provide immediate written notice to the Owner to which this proposal is submitted if at any time the Respondent/Contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "bid/proposal," "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549 and 12689. You may contact the Owner to which this proposal is submitted for assistance in obtaining a copy of those regulations (2 C.F.R. part 180, 2 C.F.R. part 1200, 2 C.F.R. § 200.213 and 2 C.F.R. part 200 Appendix II (I)).
5. The Respondent/Contractor agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a Subcontractor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Owner entering into this transaction.
6. The Respondent/Contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion- Lower Tier Covered Transactions," provided by the Owner entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a Respondent/Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
8. Except for transactions authorized under paragraph 6 of these instructions, if a Respondent/Contractor in a covered transaction knowingly enters into a lower tier covered transaction with a Subcontractor who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Owner may terminate this transaction for cause or default.
9. The Respondent/Contractor also agrees to include these requirements in each subcontract, or a lower tier covered transaction, exceeding \$25,000 financed in whole or in part with Federal assistance provided by FTA.

3.11 DELINQUENT STATE BUSINESS TAX CERTIFICATION

All Offerors shall certify that Offerors is not delinquent in a tax owed the state under Chapter 171, Tax Code, pursuant to the Texas Business Corporation Act, Texas Statutes, Article 2.45.

DATE: _____

SIGNATURE: _____

NAME / TITLE: _____

RESPONDENT/
CONTRACTOR: _____

3.12 OFFER

RFP # 2022111

By execution below Offeror hereby offers to furnish equipment and services as specified in STAR Transit's RFP # 2022111 including any addendums that have been issued and guarantees that the product offered will meet or exceed specifications in this RFP.

Offeror certifies that it has read all of the offer documents and agrees to abide by all of the federal clauses, terms, certifications, and conditions thereof.

The Offeror agrees that the bid/proposal pricing will remain valid for a period of not less than ninety (90) days from the date of submission; and

The submitted bid/proposal includes all pricing needed for award and that no further options will be needed upon award.

Authorized Signature

Legal Company Name (print)

Name and Title (print)

Date

Address

City, State & Zip

Telephone

E-mail

Tax ID # or SSN

3.13 PTN-130 VENDOR CONSOLIDATED CERTIFICATION FORM

Form is included or can be printed and at completed at the link listed below.

<http://www.txdot.gov/inside-txdot/forms-publications/forms/public-transportation.html>



Consolidated Certification Form

Form PTN-130
(Rev. 6/21)
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This form is to assist subrecipients with managing the federal and state clauses related to the procurement they're interested in completing. This document complies with all pertinent federal and state regulations for each procurement type.

To begin, select the procurement's funding source. If TxDOT is the pass-through entity (Direct Recipient), both Federal and State must be checked.

☐ Federal and State ☐ State Only

Federal Clauses – Procurement Types Summary:

All FTA-Assisted Third-Party Contracts and Subcontracts

1. No Federal Government Obligations to Third Parties
2. Access to Third Party Contract Records
3. Changes to Federal Requirements
4. Civil Rights (EEO, Title VI & ADA)
5. Incorporation of FTA Terms
6. Energy Conservation
7. Veterans Preference
8. False or Fraudulent Statements or Claims
9. Disadvantaged Business Enterprises (DBE)
10. Fly America
11. ADA Access
12. Special Notification Requirements for States

Award Exceeding \$10,000

13. Terminating the Contract

Award Exceeding \$25,000

14. Debarment and Suspension

☐ Award Exceeding \$50,000

15. Contracting with the Enemy

☐ Award Exceeding \$100,000

16. Resolution of Disputes, Breaches, or Other Litigation

17. Lobbying Restrictions

☐ Award Exceeding \$150,000

18. Environmental Protection (Clean Air and Water Pollution Control)

All FTA-ASSISTED THIRD-PARTY CONTRACTS AND SUBCONTRACTS

1. No Federal Government Commitment or Liability to Third Parties

Except as the Federal Government expressly consents in writing, the Recipient agrees that:

- A. The Federal Government does not and shall not have any commitment or liability related to the Underlying Agreement, to any Third-Party Participant at any tier, or to any other person or entity that is not a party (FTA or the Recipient) to the Underlying Agreement; and
- B. Notwithstanding that the Federal Government may have concurred in or approved any Solicitation or Third-Party Agreement at any tier that may affect the Underlying Agreement, the Federal Government does not and shall not have any commitment or liability to any Third-Party Participant or other entity or person that is not a party (FTA or the Recipient) to the Underlying Agreement.

2. Access to Third-Party Contract Records

The Recipient agrees to require, and assures that each of its Subrecipients will require, its Third-Party Contractors at each tier to provide:

- A. The U.S. Secretary of Transportation and the Comptroller General of the United States, the state, or their duly authorized representatives, access to all Third-Party Contract records (at any tier) as required under 49 U.S.C. § 5325(g); and
- B. Sufficient access to all Third-Party Contract records (at any tier) as needed for compliance with applicable federal laws, regulations, and requirements or to assure.

3. Changes to Federal Requirements

The Recipient agrees to include notice in each Third-Party Agreement that:

- A. Federal requirements that apply to the Recipient or the Award, the accompanying Underlying Agreement, and any Amendments thereto may change due to changes in federal law, regulation, other requirements, or guidance, or changes in the Recipient's Underlying Agreement including any information incorporated by reference and made part of that Underlying Agreement; and
- B. Applicable changes to those federal requirements will apply to each Third-Party Agreement and parties thereto at any tier.

4. Civil Rights

The following Federal Civil Rights laws and regulations apply to all contracts.

- A. Federal Equal Employment Opportunity (EEO) Requirements. These include, but are not limited to: a. Nondiscrimination in Federal Public Transportation Programs. 49 U.S.C. § 5332, covering projects, programs, and activities financed under 49 U.S.C. Chapter 53, prohibits discrimination on the basis of race, color, religion, national origin, sex (including sexual orientation and gender identity), disability, or age, and prohibits discrimination in employment or business opportunity. b. Prohibition against Employment Discrimination. Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e, and Executive Order No. 11246, "Equal Employment Opportunity," September 24, 1965, as amended, prohibit discrimination in employment on the basis of race, color, religion, sex, or national origin.
- B. Nondiscrimination on the Basis of Sex. Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq. and implementing Federal regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 C.F.R. part 25 prohibit discrimination on the basis of sex.
- C. Nondiscrimination on the Basis of Age. The "Age Discrimination Act of 1975," as amended, 42 U.S.C. § 6101 et seq., and Department of Health and Human Services implementing regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, prohibit discrimination by participants in federally assisted programs against individuals on the basis of age. The Age Discrimination in Employment Act (ADEA), 29 U.S.C. § 621 et seq., and Equal Employment Opportunity Commission (EEOC) implementing regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, also prohibit employment discrimination against individuals age 40 and over on the basis of age.

D. Federal Protections for Individuals with Disabilities. The Americans with Disabilities Act of 1990, as amended (ADA), 42 U.S.C. § 12101 et seq., prohibits discrimination against qualified individuals with disabilities in programs, activities, and services, and imposes specific requirements on public and private entities. Third party contractors must comply with their responsibilities under Titles I, II, III, IV, and V of the ADA in employment, public services, public accommodations, telecommunications, and other provisions, many of which are subject to regulations issued by other Federal agencies.

E. Equal Opportunity: The Agency is an Equal Opportunity Employer. As such, the Agency agrees to comply with all applicable Federal civil rights laws and implementing regulations. Apart from inconsistent requirements imposed by Federal laws or regulations, the Agency agrees to comply with the requirements of 49 U.S.C. § 5323(h) (3) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications. Under this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

I. Nondiscrimination. In accordance with Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

II. Race, Color, Religion, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e et seq., and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and Executive Order No. 11246, "Equal Employment Opportunity in Federal Employment," September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive Order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, or sex (including sexual orientation and gender identity). Such action shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

III. Age. In accordance with the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

IV. Disabilities. In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq., the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

V. Promoting Free Speech and Religious Liberty. The Contractor shall ensure that Federal funding is expended in full accordance with the U.S. Constitution, Federal Law, and statutory and public policy requirements: including, but not limited to, those protecting free speech, religious liberty, public welfare, the environment, and prohibiting discrimination.

5. Incorporation of Federal Transit Administration (FTA) Terms

The provisions within include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in the current FTA Circular 4220 are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any request which would cause a violation of the FTA terms and conditions.

6. Energy Conservation

The Recipient agrees to, and assures that its Subrecipients will, comply with the mandatory energy standards and policies of its state energy conservation plans under the Energy Policy and Conservation Act, as amended, 42 U.S.C. § 6321 et seq., and perform

an energy assessment for any building constructed, reconstructed, or modified with federal assistance required under FTA regulations, "Requirements for Energy Assessments," 49 C.F.R. part 622, subpart C.

7. Veterans Preference

As provided in 49 U.S.C. § 5325(k), to the extent practicable, the Recipient agrees and assures that each of its Subrecipients:

- A. Will give a hiring preference to veterans, as defined in 5 U.S.C. § 2108, who have the skills and abilities required to perform construction work required under a Third-Party Contract in connection with a Capital Project supported with federal assistance appropriated or made available for 49 U.S.C. chapter 53; and
- B. Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

8. False or Fraudulent Statements or Claims

A. Civil Fraud. The Recipient acknowledges and agrees that:

- I. Federal laws, regulations, and requirements apply to itself and its Underlying Agreement, including the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq., and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. part 31.
- II. By executing the Underlying Agreement, the Recipient certifies and affirms to the Federal Government the truthfulness and accuracy of any claim, statement, submission, certification, assurance, affirmation, or representation that the Recipient provides to the Federal Government.
- III. The Federal Government may impose the penalties of the Program Fraud Civil Remedies Act of 1986, as amended, and other applicable penalties if the Recipient presents, submits, or makes available any false, fictitious, or fraudulent information.

B. Criminal Fraud. The Recipient acknowledges that 49 U.S.C. § 5323(l)(1) authorizes the Federal Government to impose the penalties under 18 U.S.C. § 1001 if the Recipient provides a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation in connection with a federal public transportation program under 49 U.S.C. chapter 53 or any other applicable federal law.

9. Disadvantaged Business Enterprises

The recipient must include assurances that third party contractors will comply with the DBE program requirements of 49 C.F.R. part 26, when applicable. The following contract clause is required in all DOT-assisted prime and subcontracts:

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 C.F.R. part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- A. Withholding monthly progress payments;
- B. Assessing sanctions;
- C. Liquidated damages; and/or
- D. Disqualifying the contractor from future bidding as non-responsible. 49 C.F.R. §26.13(b).

Further, recipients must establish a contract clause to require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment the recipient makes to the prime contractor. 49 C.F.R. § 26.29(a). Finally, for contracts with defined DBE contract goals, each FTA recipient must include in each prime contract a provision stating that the contractor shall utilize the specific DBEs listed unless the contractor obtains the recipient's written

consent; and that, unless the recipient's consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE. 49 C.F.R. § 26.53(f) (1).

10. Fly America

The recipient agrees to comply with the air transportation requirements of Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. § 40118, and U.S. General Services Administration (U.S. GSA) regulations, "Use of United States Flag Air Carriers," 41 C.F.R. §§ 301-10.131 – 301-10.143.

11. ADA Access

The Recipient agrees to comply with the following federal prohibitions against discrimination based on disability:

A. Federal laws, including:

- I. Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination based on disability in the administration of federally assisted Programs, Projects, or activities;
- II. The Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. § 12101 et seq., which requires that accessible facilities and services be made available to individuals with disabilities:
 - a. For FTA Recipients generally, Titles I, II, and III of the ADA apply; but
 - b. For Indian Tribes, Titles II and III of the ADA apply, but Title I of the ADA does not apply because it exempts Indian Tribes from the definition of "employer;"
- III. The Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities;
- IV. Federal transit law, specifically 49 U.S.C. § 5332, which now includes disability as a prohibited basis for discrimination; and
- V. Other applicable federal laws, regulations, and requirements pertaining to access for seniors or individuals with disabilities.

B. Federal regulations and guidance, including:

- I. U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. part 37;
- II. U.S. DOT regulations, "Nondiscrimination on the Basis of Disability in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. part 27;
- III. Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB) and U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. part 1192 and 49 C.F.R. part 38;
- IV. U.S. DOT regulations, "Transportation for Individuals with Disabilities: Passenger Vessels," 49 C.F.R. part 39;
- V. U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. part 35;
- VI. U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. part 36;
- VII. U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. part 1630;
- VIII. U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for Persons with Disabilities," 47 C.F.R. part 64, subpart F;
- IX. U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. part 1194;
- X. FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. part 609;
- XI. FTA Circular 4710.1, "Americans with Disabilities Act: Guidance," and
- XII. Other applicable federal civil rights and nondiscrimination regulations and guidance.

12. Special Notification Requirements for States

- A. Types of Information. To the extent required under federal law, the State, as the Recipient, agrees to provide the following information about federal assistance awarded for its State Program, Project, or related activities:
- I. The Identification of FTA as the federal agency providing the federal assistance for a State Program or Project;
 - II. The Catalog of Federal Domestic Assistance Number of the program from which the federal assistance for a State Program or Project is authorized; and
 - III. The amount of federal assistance FTA has provided for a State Program or Project.
- B. Documents. The State agrees to provide the information required under this provision in the following documents: (1) applications for federal assistance, (2) requests for proposals or solicitations, (3) forms, (4) notifications, (5) press releases, and (6) other publications.

Awards Exceeding \$10,000

13. Termination

All contracts in excess of \$10,000 must address termination for cause by the non-federal entity including the manner by which it will be effected and the basis for settlement.

Awards Exceeding \$25,000

14. Debarment and Suspension

The Recipient agrees to the following:

- A. It will comply with the following requirements of 2 C.F.R. part 180, subpart C, as adopted and supplemented by U.S. DOT regulations at 2 C.F.R. part 1200.
- B. It will not enter into any "covered transaction" (as that phrase is defined at 2 C.F.R. §§ 180.220 and 1200.220) with any Third-Party Participant that is, or whose principal is, suspended, debarred, or otherwise excluded from participating in covered transactions, except as authorized by—
 - I. U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200;
 - II. U.S. OMB regulatory guidance, "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 C.F.R. part 180; and
 - III. Other applicable federal laws, regulations, or requirements regarding participation with debarred or suspended Recipients or Third-Party Participants.
- C. It will review the U.S. GSA "System for Award Management – Lists of Parties Excluded from Federal Procurement and Nonprocurement Programs," if required by U.S. DOT regulations, 2 C.F.R. part 1200.
- D. It will ensure that its Third-Party Agreements contain provisions necessary to flow down these suspension and debarment provisions to all lower tier covered transactions.
- E. If the Recipient suspends, debars, or takes any similar action against a Third-Party Participant or individual, the Recipient will provide immediate written notice to the:
 - I. FTA Regional Counsel for the Region in which the Recipient is located or implements the Underlying Agreement;
 - II. FTA Headquarters Manager that administers the Grant or Cooperative Agreement; or
 - III. FTA Chief Counsel.

State of Texas Procurement Contract Clauses

State of Texas - Procurement Types Summary:

All Texas-Assisted Third-Party Contracts and Subcontracts

1. Debarment
2. Family Code Child Support Obligation Certification
3. Debts and Delinquencies Affirmations
4. Disaster Recovery Plan
5. Disclosure of Prior State Employment
6. Entities that Boycott Israel
7. Federal Executive Order 13224 Excluded Parties
8. False Statements
9. Financial Participation Prohibited Affirmation
10. Foreign Terrorist Organizations
11. Disaster Relief Contract Violation
12. Public Information Act
13. Signature Authority
14. State Auditor's Right to Audit
15. Suspension and Debarment
16. Assignment
17. Contracting Information Responsibilities
18. Human Trafficking Prohibition

1. 34 TAC §20.585 Debarment

The Recipient agrees that The State of Texas, in order to protect the interests of the state may:

- A. Conduct an investigation upon a complaint regarding a contractor's acts and omissions in procurement or performance of that contract where the complaint may constitute cause for debarment;
- B. Cancel one or more of the contractor's active or pending contracts upon a complaint regarding the contractor's acts and omissions in procurement or performance of that contract where the complaint may constitute cause for debarment;
- C. Assess actual damages and costs incurred due to contractor's failure to perform as specified in the contract;
- D. Debar a contractor for a specified period of time; and
- E. Take any other action authorized by law.

2. §231.006 Family Code Child Support Obligation Certification

Under Section 231.006(d) of the Texas Family Code, the Sub-recipient certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified GRANT and acknowledges that this Agreement may be terminated and payment or grant funds may be withheld if this certification is inaccurate.

3. §2252.903 Gov't Code Debts and Delinquencies Affirmations

Sub-recipient agrees that any payments due it under the Agreement shall be applied toward any debt or delinquency that is

owed to the State of Texas.

4. §444.190 Gov't Code Disaster Recovery Plan

In accordance with 13 TAC (Texas Administrative Code) §6.94(a)(9), Sub-recipient shall provide descriptions of its business continuity and disaster recovery plans

5. §2254.033 Gov't Code Disclosure of Prior State Employment

In accordance with Section 2254.033 of the Texas Government Code, relating to consulting services, RESPONDENT certifies that it does not employ an individual who has been employed by TxDOT or another agency at any time during the two years preceding the submission of the Response or, in the alternative, RESPONDENT has disclosed in its Response the following:

- A. The nature of the previous employment with TxDOT or the other agency;
- B. The date the employment was terminated; and
- C. The annual rate of compensation for the employment at the time of its termination.

6. §2271.001 Gov't Code Entities that Boycott Israel

Pursuant to Section 2271.001 of the Texas Government Code, Sub-recipient certifies that either:

- A. It meets an exception criterion under Section 2271.002, or
- B. It does not boycott Israel and will not boycott Israel during the term of this Agreement. Sub-recipient shall in a writing to TxDOT state any fact(s) that make it exempt from the boycott certification.

7. Federal Executive Order 13224 Excluded Parties

Sub-recipient certifies that it is not listed on the prohibited vendors list authorized by Executive Order 13224, Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism", published by the United States Department of the Treasury, Office of Foreign Assets Control.

8. §2155.077(a)(2) Gov't Code False Statements

Sub-recipient represents and warrants that all statements and information prepared and submitted in this document are current, complete, true and accurate. Submitting a false statement or material misrepresentation made during the performance of a contract is a material breach of contract and may void this agreement.

9. §2155.004 Gov't Code Financial Participation Prohibited Affirmation

Under Section 2155.004(b) of the Texas Government Code, Sub-recipient certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified agreement/GRANT and acknowledges that this agreement may be terminated, and payment withheld if this certification is inaccurate.

10. §2252.152 Gov't Code Foreign Terrorist Organizations

Sub-recipient represents and warrants that is not engaged in business with Iran, Sudan, or a foreign terrorist organization as prohibited by Section 2252.152 of the Texas Government Code.

11. §2155.006 and 2261.053 Gov't Code Prior Disaster Relief Contract Violation

Under Sections 2155.006 and 2261.053 of the Texas Government Code, the Sub-recipient certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified agreement/GRANT and acknowledges that this agreement may be terminated and payment withheld if this certification is inaccurate.

12. Chapter 552, Gov't Code and §2252.907 Gov't Code Public Information Act

Information, documentation, and other material in connection with this Agreement may be subject to public disclosure pursuant to Chapter 552 of the Texas Government Code (the "Public Information Act"). In accordance with Section 2252.907 of the Texas Government Code, the Sub-recipient is required to make any information created or exchanged with the State pursuant to the Agreement and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the State.

13. §2252.0012 Gov't Code Signature Authority

The Sub-recipient represents and warrants that the individual executing this Agreement is authorized to sign this Agreement on behalf of the Sub-recipient and to bind the Sub-recipient.

14. §2262.154 Gov't Code State Auditor's Right to Audit

The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. The acceptance of funds directly under the contract or indirectly through a subcontract under the contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. Under the direction of the legislative audit committee, an entity that is the subject of an audit or investigation by the state auditor must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

15. §2155.077 Gov't Code Suspension and Debarment

Sub-recipient certifies that it and its principals are not suspended or debarred from doing business with the State of Texas or federal government as listed on the State of Texas Debarred Vendor List as maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration.

16. §2262.056 (b) Gov't Code Assignment

Sub-recipient shall not assign its rights under the Agreement or delegate the performance of its duties under the Agreement without prior written approval from the TxDOT. Any attempted assignment in violation of this provision is void and without effect.

17. §552.372 Gov't Code Contracting Information Responsibilities

In accordance with Section 552.372 of the Texas Government Code, Sub-recipient agrees to:

- A. preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to TxDOT for the duration of the Agreement,
- B. promptly provide to TxDOT any contracting information related to the Agreement that is in the custody or possession of the Sub-recipient on request of TxDOT, and
- C. on termination or expiration of the contract, either provide at no cost to TxDOT all contracting information related to the Agreement that is in the custody or possession of the Sub-recipient or preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to TxDOT. Except as provided by Section 552.374(c) of the Texas Government Code, the requirements of Subchapter J, Chapter 552, Government Code, may apply to the Agreement and the Sub-recipient agrees that the Agreement can be terminated if the Sub-recipient knowingly or intentionally fails to comply with a requirement of that subchapter.

18. §2155.0061 Gov't Code Human Trafficking Prohibition

Under Section 2155.0061 of the Texas Government Code, the Sub-recipient certifies that the individual or business entity named in the Agreement is not ineligible to receive the specified Agreement/GRANT and acknowledges that this Agreement may be terminated and payment withheld if this certification is inaccurate.

Certification to Purchaser

1. The undersigned vendor certifies that the manufactured good(s) furnished will meet or exceed the specifications, and/or that services rendered will comply with the terms of the solicitation or contract.
2. The undersigned vendor certifies that it has read all of the bid, proposal, or contract documents and agrees to abide by the terms, certifications, and conditions thereof.

Name of Company:

Address:

Telephone:

SS# or Tax ID#:

Printed Name of Person Completing Form:

Signature

Date:

Description of Commodity Service:

Disadvantaged Business Enterprise Information

Type of Organization (check the application type of organization)

☐ Sole Proprietorship ☐ General Proprietorship ☐ Corporation ☐ Limited Partnership ☐ Limited Proprietorship

Is your firm a DBE? ☐ Yes ☐ No

If yes, what type?

Third Party Procurement Contract Provisions

Third Party Procurement Contracting Provisions

Select the additional third-party procurement contracting provisions based on the type of solicitation you're procuring:

**Procurements cannot be combined. Example: Construction procurement and Rolling Stock procurement, use separate PTN 130s for each.*

☐ **1. Construction Related Clauses**

☐ Federal and State

☐ State Clauses

☐ **2. Rolling Stock Related Clauses**

☐ Federal and State

☐ State Clauses

☐ **3. Professional Services / Architectural Engineering**

☐ Federal and State

☐ State Clauses

☐ **4. Materials & Supplies Related Clauses**

☐ Federal and State

☐ State Clauses

☐ **5. Operations / Management Related Clauses**

☐ Federal and State

☐ State Clauses

APPENDIX 1 EXAMPLE OF EV CHARGING STATION



SECO PRELIMINARY ENERGY ASSESSMENT REPORT

Star Transit

Terrell, TX



Submitted to:



Star Transit

Tom Henricks

Teresa Elliott

Prepared by:



NORESCO, LLC

Elvin Ruya, EIT, CEM, BEMP, LEED AP BD+C

March 2022



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Executive Summary

NORESCO was contracted by the Texas State Energy Conservation Office (SECO) to perform a Preliminary Energy Audit (PEA) of the Star Transit facilities in Terrell, TX. These facilities have a combined size of 20,000 square feet (SF) between the administration and parking garage buildings. The purpose of this project is to assess the building's energy use and identify opportunities to lower its greenhouse gas (GHG) emissions and energy consumption. In order to accomplish this goal, an evaluation of the building's historical energy consumption and major energy-consuming equipment has been performed, and a preliminary list of energy conservation measures (ECMs) has been assembled.

Based on utility data received, the facility had an actual annual expenditure for the twelve (12) month period from Aug 2019 to Jul 2020 as shown in Table 1. (Aug 2019 to Jul 2020 period has been selected for the analysis which is the most recent pre-pandemic period to represent typical annual energy use of the facility).

Table 1. Annual Energy and Carbon Use Summary

Utility	Annual Consumption	Annual Cost
Electricity (kWh)	121,935	\$ 21,532
Peak Demand (kW)	36	
Metric Tons CO ₂ e (MgCO ₂ e)	54	
Total Energy Cost (\$)		\$ 21,532*

*Most recent 12 months available total \$28,689

NORESCO conducted an energy audit site visit in January of 2022. NORESKO identified and estimated the savings and implementation costs for seven (7) ECMs including both capital and UCRM measures.

Because the facility is in the transition phase of upgrading their current fleet from gas powered to electric, two savings scenarios were considered. The first does not consider the electric vehicle (EV) upgrade and solar photo-voltaic (PV) capital improvement project as shown in Table 2; whereas Table 3 reflects this upgrade.

Table 2 Energy and Cost Savings Summary – Based on Current Energy Use

Annual Energy Use	Estimated Annual Energy Savings	Estimated Annual Cost Savings	Estimated Implementation Cost	Simple Payback Period
Electricity	37,593 kWh	\$6,656	\$11,275	1.7

Table 3 Energy and Cost Savings Summary - Based on EV Addition and Solar System Generation

Annual Energy Use	Estimated Annual Energy Savings	Estimated Annual Cost Savings	Estimated Implementation Cost	Simple Payback Period
Electricity	172,603 kWh	\$95,143	\$559,979	6.0

Star Transit is encouraged to direct any questions or concerns to either of the following contact persons:

SECO
John Kyere, CTCM, MA
john.kyere@cpa.texas.gov
512-463-4867

Noresco
Elvin Ruya, EIT, CEM, BEMP, LEEP AP BD+C
elvin.ruya@noresco.com
832-352-3049

I. Facility Descriptions

The purpose of the onsite survey was to evaluate the facilities major energy consuming equipment in each building including lighting, heating, ventilation, and air-conditioning (HVAC) equipment, miscellaneous equipment, building controls and opportunities to improve the envelope. Evaluating renewable opportunities such as solar panels, EV charging and battery walls were also considered at the request of Star Transit.

The facilities are located at 500 Industrial Blvd, Terrell, TX with a combined size of 20,000 SF. There are two buildings that have been audited highlighted in the Figure 1.



Figure 1. Star Transit Facility Location

I.1.1 Admin Building - Building 1



Figure 2. Admin Building 1

Building Information: Built in 2000, single story, and approximately 10,000 ft². See Figure 2.

Building use: Closed office, conference/training rooms, breakroom and back of house (BOH) spaces

Operating hours: 6am – 5:30 pm, Monday-Friday, no operation on weekends

HVAC system: 6 single zone heatpump units ~11 years old. 1 gas-fired backup generator which is currently not in service.

HVAC controls: Narrow thermostat setpoints (~70°F -72°F), no automatic changeover, thermostats are manually set between heating and cooling, and the majority of them have no automatic setback operation.

Lighting Type: Majority of the fixtures consists of 32W, T8 Fluorescent lamps, plus 34 canister fixtures with 26W compact fluorescent lamps (CFLs).

Lighting Controls: Majority of the office spaces have lighting occupancy sensors that shuts the lights off ~30 min after vacancy.

Building Energy Use: Electricity only

I.1.2 Parking Garage (Bus Barn) - Building 2



Figure 3. Parking Building 2

Building Information: Built in 2012, single story, and approximately 10,015 ft². See Figure 3.

Building use: Parking garage

Operating hours: 3:30am – 6:30 pm, 7 days per week

HVAC system: Unconditioned (i.e., no heating or cooling). Two motorized exhaust fans & outside air dampers operate on a switch. Additional ventilation is provided via roll up doors.

HVAC controls: Motorized dampers operate on a switch. No other controls.

Lighting Type: 32W, T8 Fluorescent lamps and skylights provide lighting to the space. Exterior lights are burned out

Lighting Controls: Interior lights are on 24/7 (24 hours per day, 7 days per week). Majority of the lamps are not providing sufficient light due to lumen depreciation (i.e., they have not been replaced since construction). Exterior lights are burned out and not on any control either.

Building Energy Use: Electricity

Table 4 shows the main space functions in the facility, their size, number of employees and hours of operation.

Table 4 Space Function and Schedule Summary

Space Function	Floor Area (SF)	Total # of Employees	Hours of Operation
Office Space	~10,000	27	6am – 5:30 pm, Monday-Friday, no operation on weekends
Parking Garage	~10,000	No Occupancy, fleet of 14 busses	3:30am – 6:30 pm, everyday

II. Recommended Capital Improvements

This section is intended to demonstrate any potential improvement that requires high capital and might not be justified solely based on energy cost savings. Some of these measures such as HVAC equipment replacement could be suggested based on life expectancy of the equipment (see APPENDIX A). Solar PV installation could be another capital intensive project candidate which typically shows long payback periods. Lastly, replacement of broken or unutilized systems that haven't been contributed to the energy bills might be considered for this category. By replacing these non-functioning systems, code requirements or building/occupant needs will be met while there will be penalties due to consumption increase in the utility bills.

Solar PV System Implementation

Star Transit is in the process of converting their current bus fleet to EV's (electric vehicles). Even though the facility's current electricity usage is not high, with the charging stations their consumption will increase dramatically. Also, the site plan and building roof structure for the PV system installation needs to be considered. Table 5 is a summary of the estimated electricity needed to power the 14 buses in their fleet.

Table 5 Electricity Use Summary for EV Bus Fleet

# bus	Mile/day	Operation hours	Fuel (kWh/mi)	Consumption/bus (kWh/day)	Total Fleet Consumption (kWh/day)	Battery Capacity for each bus (kWh)	Annual EV Demand (kWh)
14	100	12	0.77	77	1078	118	388,080

In order to offset the current electricity and additional EV charging demand, a solar PV system is being considered. However, EV charging would happen during evening hours (6pm-5am). Battery storage could be an off-grid solution, but the magnitude of the electrical storage needed and stock issues, makes this option not feasible. Our recommended solution is a grid-tied operation. Instead of utilizing battery backup, the grid will regulate the connection between demand and supply.

Two scenarios have been analyzed in terms of electricity offset and simple payback period. Material, installation, and operational costs have been considered only for the simple payback calculations. Additional costs such as structural evaluation, hiring an electrician, and charging station connections are excluded for the analysis.

The 1st scenario is a roof mounted application for both buildings. Based on the location and building specifics, solar production is estimated and shown in Figure 4 and proposed roof layout in Figure 5. Additional utility analysis has been performed to optimize the electricity rate to achieve a lower payback period.

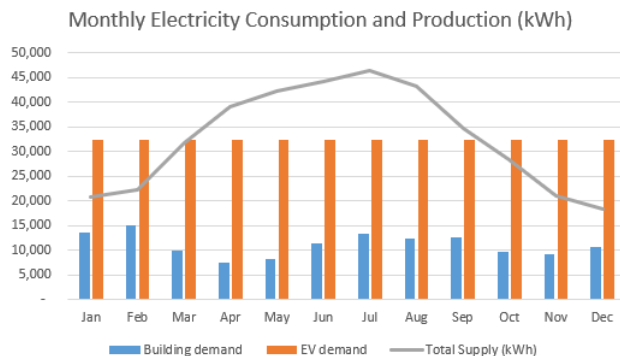


Figure 4 Scenario 1 Demand vs Production

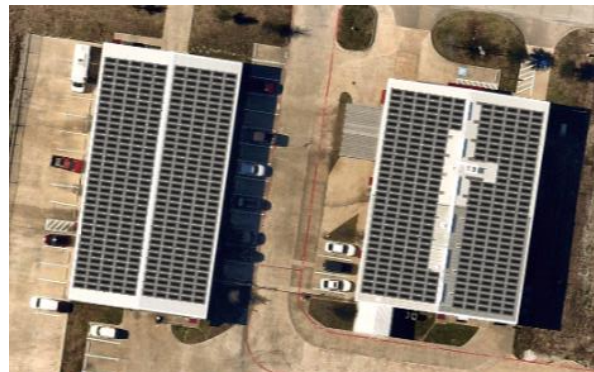


Figure 5 Solar Panel Layout for Scenario 1

The 2nd scenario shown in Figure 6 and Figure 7 consists of both roof and ground mounted options. Since charging stations will be installed in building 2, roof for building 2 and field space around it has been considered

for the evaluation. Due to the specifics of the site, full offset with solar is not feasible because EV charging will require purchasing electricity at night- since battery storage is not an option.

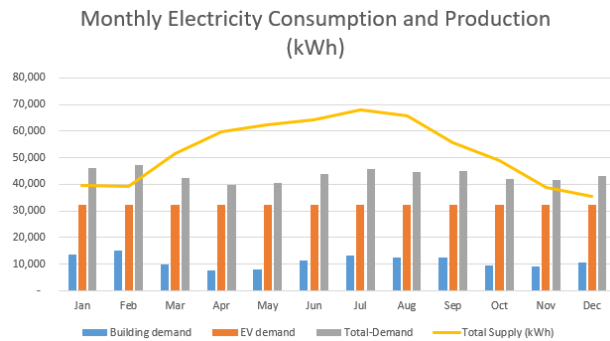


Figure 6 Scenario 2 Demand vs Production



Figure 7 Solar Panel Layout for Scenario 2

Table 6 Capital Measure - Solar System

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Estimated Cost Savings/yr	Simple Payback (yrs)
Building1+2	\$548,705	129,263	\$87,423	6.3
Building2 + Field (next to Building2)	\$903,496	*629,002	\$89,560	10

*Annual energy consumption is met and there is 107,415 kWh excess energy

Details of the Solar System analysis and utility assessment can be found in *Chapter XV - Technical Assistance on Solar Feasibility Analysis and Utility Assessment* chapter of this report.

Exterior Lights – Building 2

There are 4 exterior lights on the barn building whose lamps are burned out. It is assumed that the current lamps are 150W metal halide and when they were still in operation, according to the building staff they were on 24/7. Four (4) 80W LED wall pack fixtures with photocell controls are recommended. Photocell control will reduce the operation to 11 hours per day and LED lamps will consume less energy and have much longer rated lives.

Table 7 Building 2 Exterior Lights Savings

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Estimated Cost Savings/yr	Simple Payback (yrs)
Building 2	\$480	3,971	\$734.67	0.7

III. Recommended Utility Cost Reduction Measures

This section is intended to show potential energy cost saving opportunities which can also be justified with financial analysis. Utility Cost Reduction Measure (UCRM) projects identified during the preliminary analysis are detailed below.

UCRM 1 – Building 1 Lighting Retrofit

Fluorescent T8 lighting fixtures are the most common for each building. It is recommended to replace T8 lamps with new light emitting diode (LED) lamps throughout the buildings. Besides significant reduction in the lighting, cooling, and fan energy usage, LED fixtures have much longer rated life, better color rendition index (CRI) range and similar correlated color temperature (CCT) as shown in the Table 8 below.

Table 8 Fixture Performance Comparison

Technology	CRI	CCT(K)	Life (Hours)
Fluorescent	70-85	3,000-6,000	10,000
LED	70-100	3,000-6,000	100,000

For the calculations, lights in building 1 are assumed to be on an average of 11 hours/day for the weekdays and off during weekends. Material and labor costs are included in the payback calculations.

Table 9 UCRM 1 LED Retrofit

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Electrical Heating Energy Cost Penalty/yr	Estimated Cost Savings/yr	Simple Payback (yrs)
Building 1	\$3,641	19,328	\$245.51	\$3,330	1.1

UCRM 2 - Building 1 Interior Lighting Controls

Interior lights at building 1 are fluorescent and the majority of them are controlled with passive infrared (PIR) sensors which have a 30 min delay as required by the energy code. Because fluorescent lamps experience wear and tear on startup, it is wiser to reduce the number of operating cycles to maintain a longer lamp life. However, this could be mitigated by using long-life lamps such as LED which allows time delays as short as 1-5 minutes. It is recommended to update the time settings of the sensors after the LED upgrade in those rooms.

Even though small offices throughout the building have PIR sensors, open offices, common rooms, corridors are currently on manual switches. Vacancy sensors are recommended for restrooms and other back of house spaces (Vacancy sensors are occupancy sensors that must be turned on manually and then turn off lights automatically. The manual on feature prevents automatic powering on of light circuits when not desired). Spaces controlled by manual switches are only considered for the calculations (12 hr/day for 5-day operation is assumed) for Building 1.

Table 10 UCRM 2 Building 1 Interior Lighting Control

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Electrical Heating Energy Cost Penalty/yr	Estimated Cost Savings/yr	Simple Payback (yrs)
Building 1	\$1,806	4,144	\$52.65	\$714	2.5

UCRM 3 Building 2 Interior Lighting Retrofit and Controls

There are 10 skylights in Building 2 which provide a significant amount of daylighting to the barn space. Most of the lighting fixtures are located right under the skylight which enables retrofitting the T8's with new LED fixtures that have an integrated (fixture by fixture) control option for both occupancy and daylight. By doing so, rewiring all of the fixtures would be avoided and more savings will be achieved due to less wattage and less operating hours.

24/7 operation is assumed for the current operation (15% lights assumed to be not on due to burn out) and 40% reduction is taken into account for the proposed case based on ASHRAE 90.1 and California Title 24 requirements on parking garage lighting controls.

Table 11 UCRM 3 Building 2 Interior Lighting Retrofit and Controls

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Estimated Cost Savings/yr	Simple Payback (yrs)
**Building 2	\$2,400	6,433	\$1,190	2.0

UCRM 4 Improve Thermostat Controls

Existing wireless manual changeover thermostats have a small temperature deadband (~70°F -72°F). Because the changeover is manual, energy waste is assumed to be significant during the swinging seasons. It was also observed that the setback controls have not been well utilized for the unoccupied times. Lastly, placement of thermostats results in comfort issues at the closed offices. The core offices experience noticeably higher temperatures than perimeter offices in winter. In order to address both energy and comfort issues, auto changeover, Wi-Fi connected smart thermostats are recommended which works with smart temperature sensors that detect the temperature of a given room and prioritize heating or cooling needs. Calculations assume setpoints shows below:

Table 12 Thermostat Setpoint Assumptions

Baseline Setpoints		Proposed Setpoints			
Heating (F)	Cooling (F)	Occupied Heating (F)	Heating Setback (F)	Occupied Cooling (F)	Cooling Setback (F)
70	72	70	68	75	80

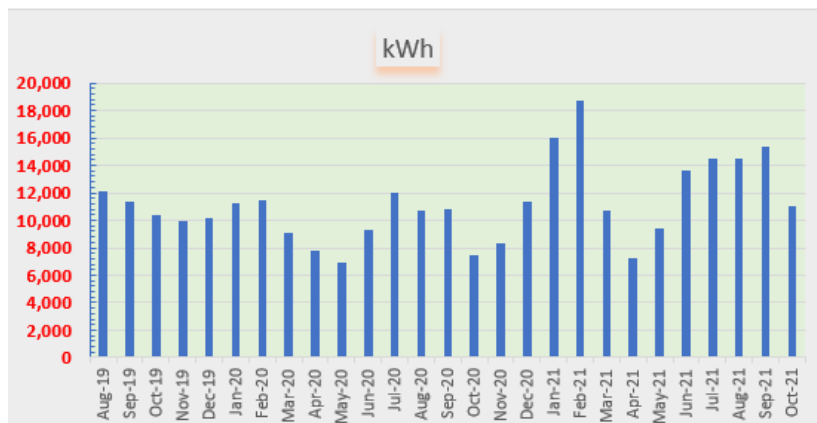
Table 13 UCRM 3 Improve Thermostat Controls

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Estimated Cost Savings/yr	Simple Payback (yrs)
Building 1	\$3,547	7,687	\$1,422	2.5

UCRM 5 Utility Rate Plan Change

Anomalies in the current utility rate structure have been determined during the preliminary analysis. On average, Star Transit is charged \$0.19/kWh (for the most recent 12 months) for their electricity usage which is much higher than a typical small commercial facility in TX (see in Figure 8).

Average \$/kWh Cost	
27 Months	12 months
\$0.1832	\$0.1925

**Figure 8 Star Transit Energy Breakdown**

Currently Star Transit is on a month-to-month “Business Power Plus Flex Plan” with Reliant Energy. Our market research demonstrated that they are eligible for a much lower rate which would save them up to \$100,135.06 over 5 years (see Figure 9) if they make the necessary updates to their plan.

Term	\$/kWh	Annual Savings	Term Savings
12 Months	\$0.07266	\$17,680.91	\$17,680.91
24 Months	\$0.06488	\$18,853.21	\$37,706.41
36 Months	\$0.06135	\$19,385.11	\$58,155.33
48 Months	\$0.05931	\$19,692.50	\$78,770.00
60 Months	\$0.05709	\$20,027.01	\$100,135.06

Figure 9 Proposed Utility Plan Options

IV. Recommended Maintenance & Operation Procedures

Good maintenance and operation procedures significantly improve operating economy, equipment life, and occupant comfort. Generally, maintenance and operation procedural improvements can be made with existing staff and budgetary levels. Below are typical maintenance and operation procedures that have energy savings benefits. The following maintenance and operation procedures should be encouraged and continued to ensure sustainable energy savings.

Table 14 Airside Systems recommended measures

Description	Recommended Frequency
Inspect filters – Replace as necessary	Quarterly
Re balance airside system	3-5 years
Inspect electrical connections and tighten as necessary	Annually
Check for proper function of all dampers (outside air, return air, spill, etc.)	Semi-Annual
Ensure tight shut-off of dampers	Semi-Annual
Lubricate all moving parts	Semi-Annual
Clean and check condensate pans, drains and traps	Semi-Annual

V. LoanSTAR Funding for Utility Cost Reduction Measures

Texas LoanSTAR program is a great alternative for funding options for UCRM implementation. The program was initiated by the Texas Energy Office and approved by the U.S. Department of Energy (DOE). The program maximum loan term for all projects is 15 years (simple payback period). LoanSTAR finances both energy and water efficiency measures and systems commissioning in existing facilities at a very low interest rate. Typical energy savings measures include, but not limited to, energy efficient lighting systems, high efficiency HVAC systems, and energy recovery systems. Lighting retrofits are part of the recommended measures for this project. Additional information on LoanStar Revolving Loan Program and application form can be found in the following links.

<https://comptroller.texas.gov/programs/seco/funding/loanstar/>

[LoanSTAR Revolving Loan Program](#)

[LOANSTAR TECHNICAL GUIDEBOOK](#)

VI. Utility Rate Analysis

The facilities surveyed comprised a total gross area of approximately 20,015 square feet. Annual electric bills for the buildings surveyed were approximately \$21,532 for the 12-month period in Aug 2019-Jul 2020 and \$26,541 for the 12-month period in Aug 2020-Jul 2021.

Aug 2019 – Jul 2020 period has been selected to minimize the possible operational anomalies caused by the COVID-19 pandemic.

VI.1.1 Rate Structure

Star Transit has been on a month-to-month Business Plus Flex Plan with Reliant Energy. Due to being month to month subscription, they have different rates for each month. Demand and consumption are on a blended rate. An average of \$0.18/kWh has been calculated for the 27 months.

Table 15. Electric Rate Analysis

Date	Energy (kWh)	Demand (kW)	Cost (\$)	\$/kWh
Aug-19	12,127	43	\$1,732.88	\$0.1429
Sep-19	11,403	39	\$1,711.25	\$0.1501
Oct-19	10,397	37	\$1,579.65	\$0.1519
Nov-19	9,930	85	\$2,122.02	\$0.2137
Dec-19	10,211	85	\$2,153.92	\$0.2109
Jan-20	11,289	71	\$2,144.84	\$0.1900
Feb-20	11,428	83	\$2,284.24	\$0.1999
Mar-20	9,061	76	\$1,903.47	\$0.2101
Apr-20	7,827	35	\$1,354.08	\$0.1730
May-20	6,960	27	\$1,169.93	\$0.1681
Jun-20	9,278	32	\$1,498.95	\$0.1616
Jul-20	12,024	36	\$1,876.65	\$0.1561
Aug-20	10,687	35	\$1,727.11	\$0.1616
Sep-20	10,825	38	\$1,832.01	\$0.1692
Oct-20	7,451	28	\$1,325.44	\$0.1779
Nov-20	8,334	51	\$1,671.91	\$0.2006
Dec-20	11,318	91	\$2,504.57	\$0.2213
Jan-21	16,040	90	\$3,219.78	\$0.2007
Feb-21	18,679	97	\$3,651.63	\$0.1955
Mar-21	10,692	76	\$2,352.85	\$0.2201
Apr-21	7,251	50	\$1,495.47	\$0.2062
May-21	9,424	51	\$1,911.61	\$0.2028
Jun-21	13,618	38	\$2,343.92	\$0.1721
Jul-21	14,520	41	\$2,505.19	\$0.1725
Aug-21	14,447	39	\$2,473.78	\$0.1712
Sep-21	15,304	36	\$2,593.12	\$0.1694
Oct-21	11,054	32	\$1,964.72	\$0.1777

The energy use index (EUI) represents a facility's annual energy usage per square foot; it is measured in thousands of British thermal units (BTUs) per square foot per year (kBtu/ft²/Year). Similarly, energy cost index (ECI) is measured as cost per square foot per year (\$/ft²/Year). The EUI and ECI for facilities surveyed are summarized below:

Table 16 Energy Cost and Consumption Benchmarks "Aug2019-Jul2020"

Facility Name	Building Size (ft2)	Electricity (kWh/yr)	Electricity (kWh/ft ² /yr)	Electricity Cost/yr (\$)	EUI (kBtu/ft ² /yr)	ECI (\$/ft ² /yr)
Building 1+2	20,015	121,935	6.09	\$ 21,532	20.79	\$1.08

VII. Energy Accounting

VII.1.1 Utility Providers

Reliant Energy provides electricity to the facility. Water and sewer are provided by City of Terrell.

VIII. Energy Consumption and Performance

VIII.1.1 Electrical Consumption, Demand, and Load Factor Profiles

The facility's electrical consumption and local cooling degree days (CDD) and heating degree days (HDD) for the 27 months from January 2018 to December 2020 are presented in Figure 10.

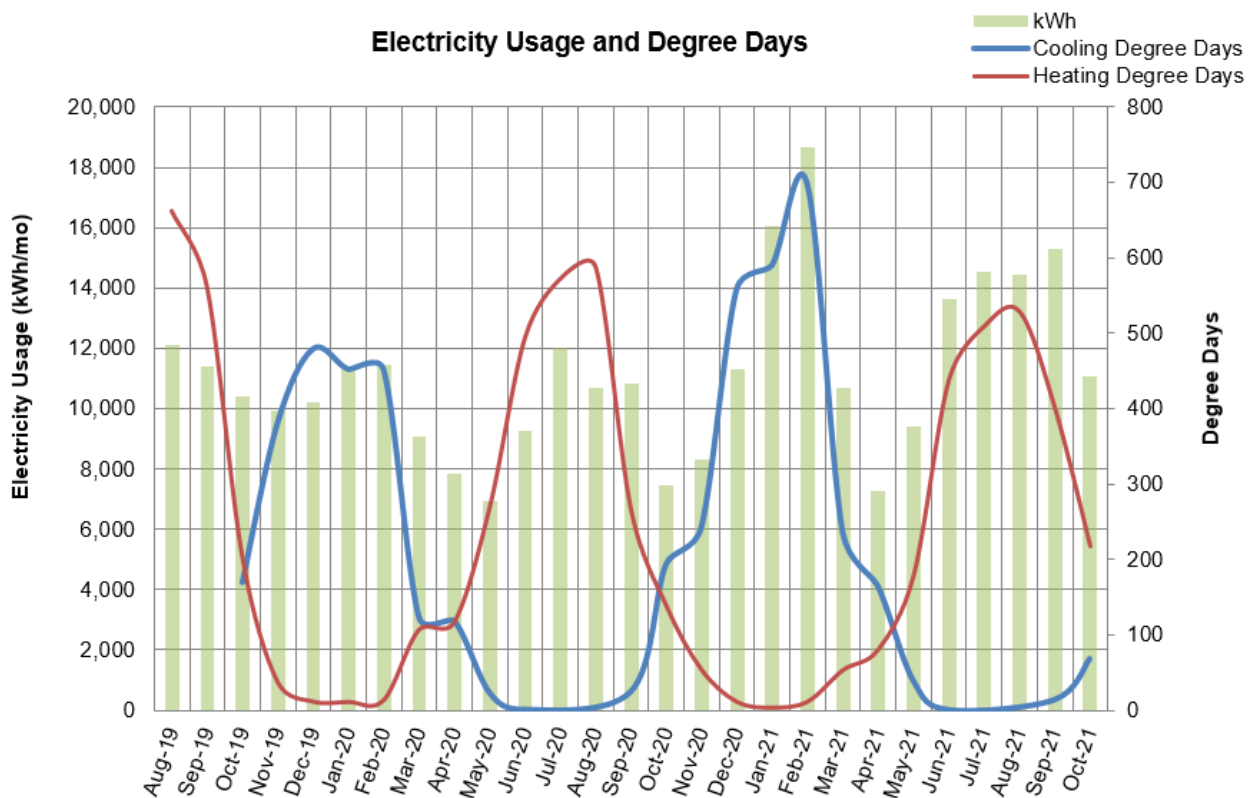


Figure 10 Electricity Usage and Degree Day Profile

The facility's electrical demand and consumption for the 27 months from Aug 2019 to Oct 2021 are presented in Figure 11.

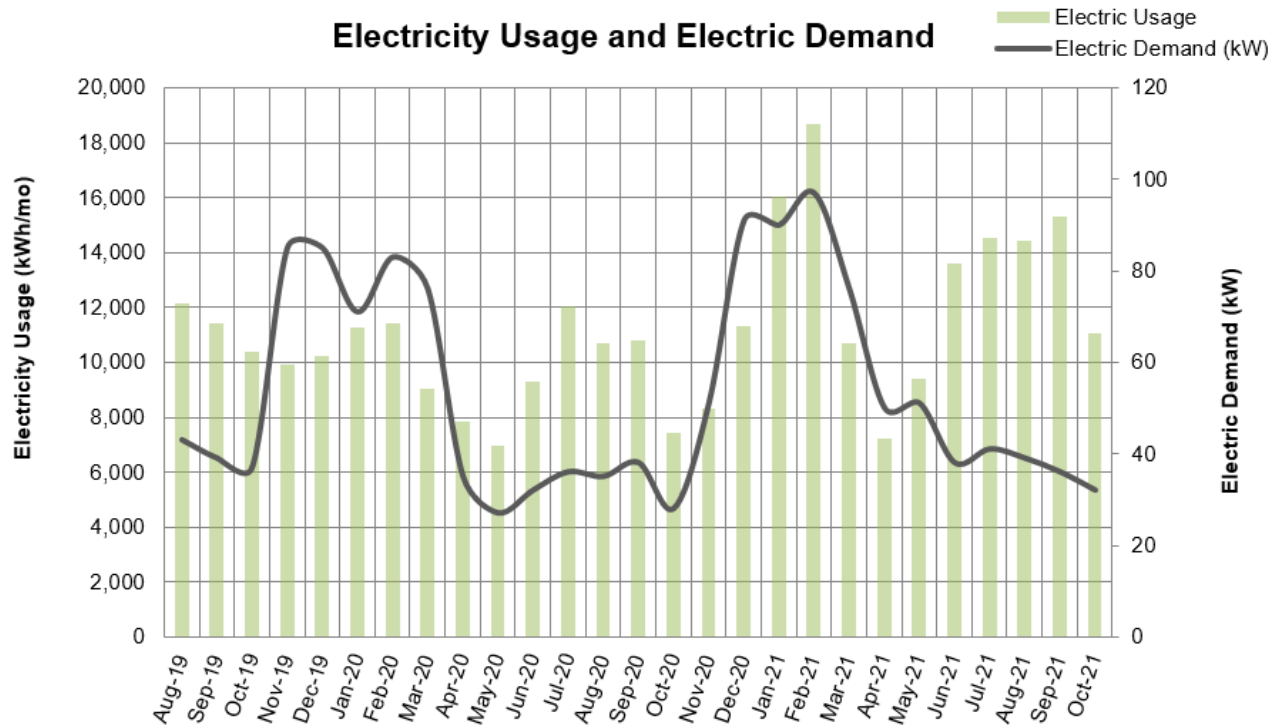


Figure 11. Electricity and Electrical Demand Profile

The facility's electrical load factor for the 27 months from Aug 2019 to Oct 2021 is presented in Figure 12.

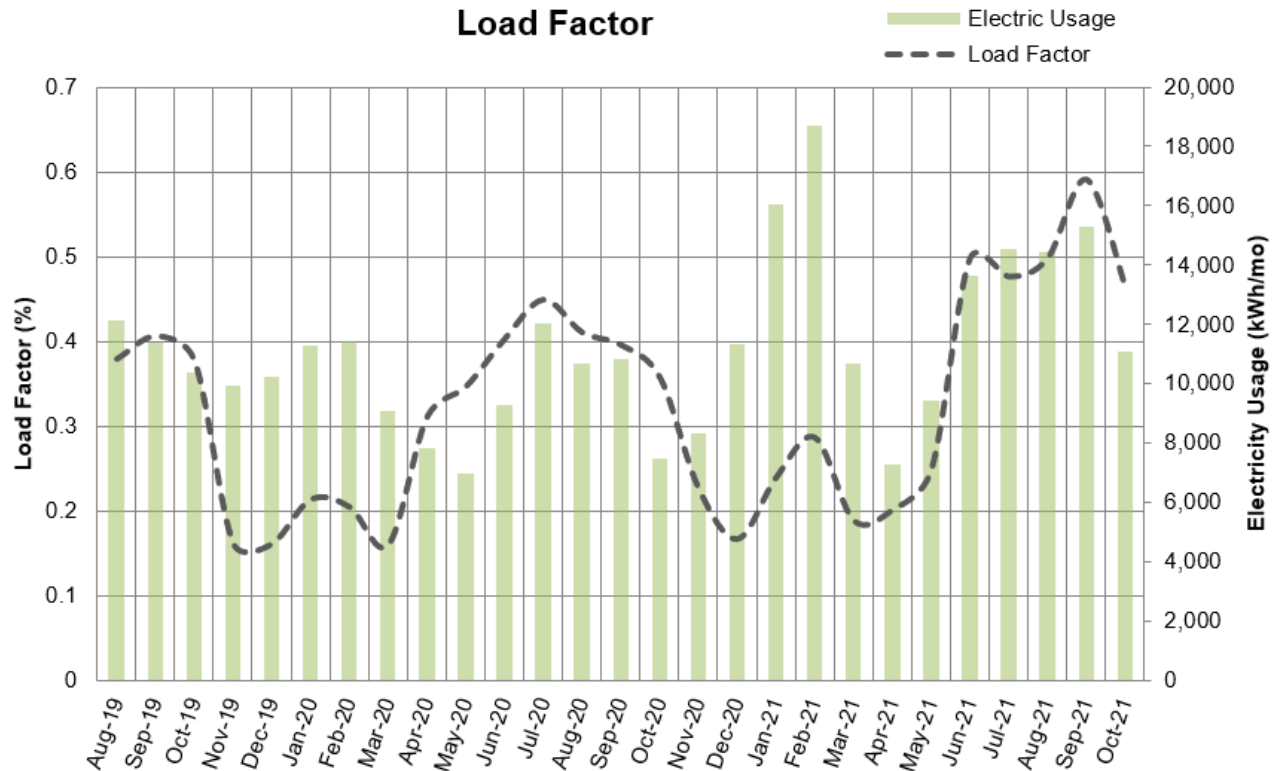


Figure 12. Electricity use and Load Factor Profile

The electrical load factor is equal to the electrical consumption (kWh) divided by the peak load (kW) over a specified time period and is calculated as follows:

$$\text{Load Factor} = \frac{\text{Monthly Consumption (kWh)}}{\text{Peak Demand (kW)} \times \text{Days per Month} \times 24 \text{ hours per day}}$$

A high load factor means power usage is relatively constant. A low load factor indicates a brief period of high demand is incurred. To service that peak, generating capacity is sitting idle for long periods, thereby imposing higher costs on the system. Electrical rates are designed so that customers with a high load factor are charged less overall per kWh. Buildings with low load factors (i.e. <50%) may be good candidates for electrical demand management improvements.

The overall electricity and electrical demand are high during summer times to meet the cooling load but heating period shows the opposite behavior.

VIII.1.2 Energy Usage Distribution

The building utilizes electricity to meet its end use energy requirements.

IX. Water Consumption and Performance

Building 1 has only 2 restrooms and a breakroom including total of four-bathroom sinks, one kitchen sink, five water closets and one urinal, which are the main source of water consumption (service water) for the whole facility. In Sep 2021, the facility installed a car wash station for the fleet which can be seen in the graphic below:

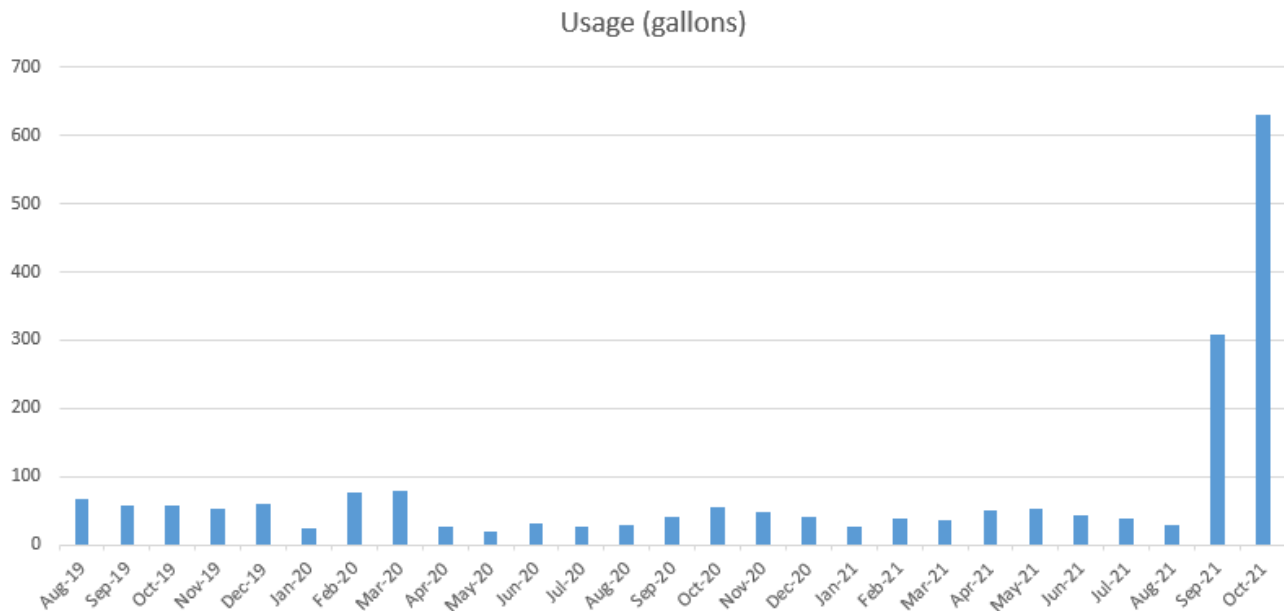


Figure 13 Water Consumption Profile

Due to limited hot water use and the car wash station, there are no recommended water efficiency measures for the facility.

X. EnergyStar Portfolio Manager

NORESCO has created an account for Star Transit and uploaded the utility data into EnergyStar Portfolio Manager. Office building type has been selected for Building 1 and parking garage for Building 2.

Facilities energy data in *Energy Star Portfolio Manager* can be accessed via the following link:

<https://portfoliomanager.energystar.gov/pm/login.html>

ENERGY STAR Portfolio Manager

Welcome to Portfolio Manager
Helping you track and improve energy efficiency across your entire portfolio of properties.

Username:

Password:

[I forgot my password](#)
[I forgot my username](#) **Sign In**

Create a New Account

ENERGY STAR Buildings Homepage

Take a Training

Learn More About Portfolio Manager

These links provide more information from ENERGY STAR and are not available in French.

You are accessing a U.S. Government information system. System usage may be monitored, recorded, and subject to audit. Unauthorized use of the system is prohibited and subject to criminal and civil penalties. Use of the system indicates consent to monitoring and recording.

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[Contact Us](#) | [Privacy Policy](#) | [Browser Requirements](#) | [ENERGY STAR Buildings & Plants Website](#)

Figure 14 Portfolio Manager Login

Username: Startransit

Password: Startransit22!

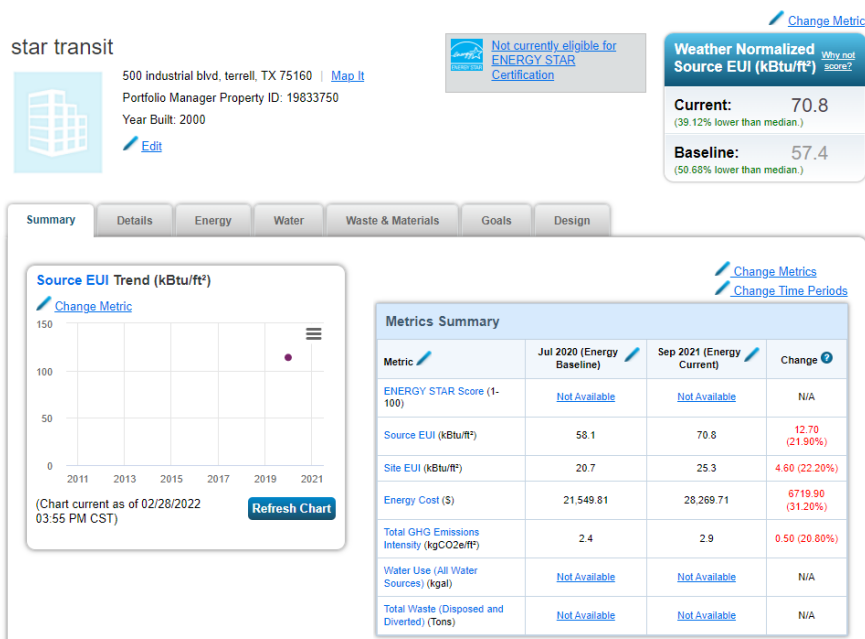
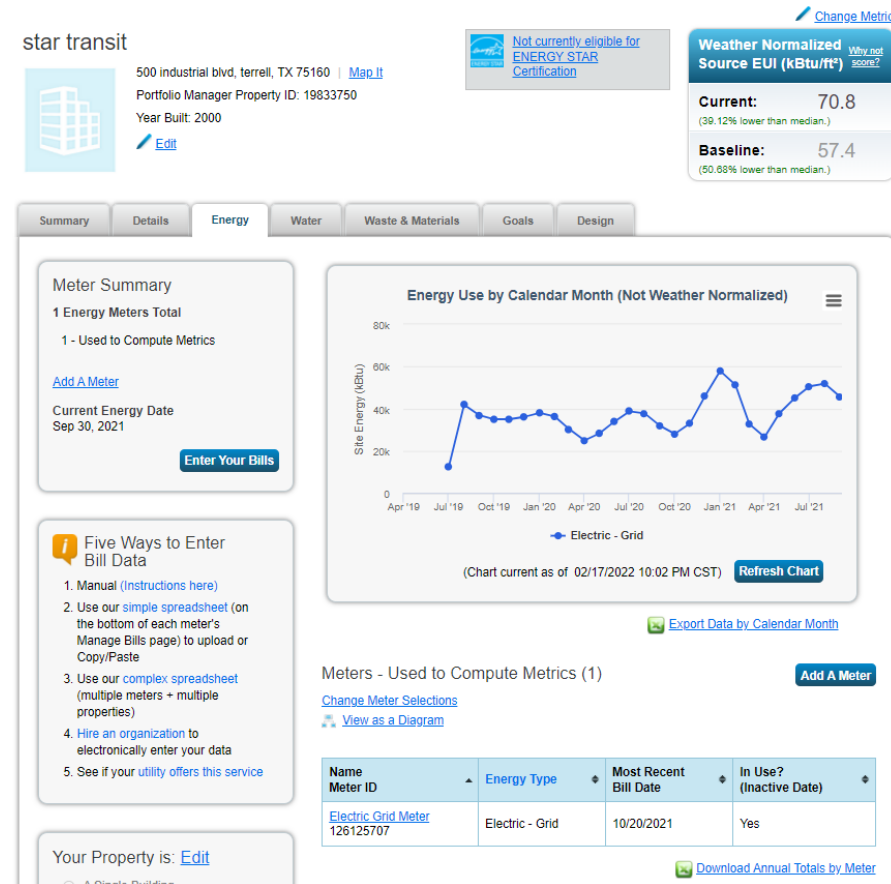


Figure 15 Portfolio Manager Building Profile**Figure 16 Portfolio Manager Facility Energy Profile**

Additional Energy Star Portfolio Manager information could be found in these links:

[Portfolio Manager | ENERGY STAR](#)

[Benchmark Your Building Using ENERGY STAR® Portfolio Manager® | ENERGY STAR Buildings and Plants | ENERGY STAR](#)

XI. Emissions Calculations

Table 17 includes the conversion factors used to calculate the estimated GHG emission savings in Figure 17.

Table 17 GHG Emission Conversion Factors

Fuel Type	Greenhouse Gas	Quantity	Value	Unit
Electricity	CO2	Mass GHG/Energy	979.062	lb GHG/MWh
Electricity	CH4	Mass GHG/Energy	0.069	lb GHG/MWh
Electricity	N2O	Mass GHG/Energy	0.01	lb GHG/MWh

Because the building only has electricity as energy source, other sources are not considered for the calculations. Proposed case calculations include UCRM1, 2, 3, and 4 only.

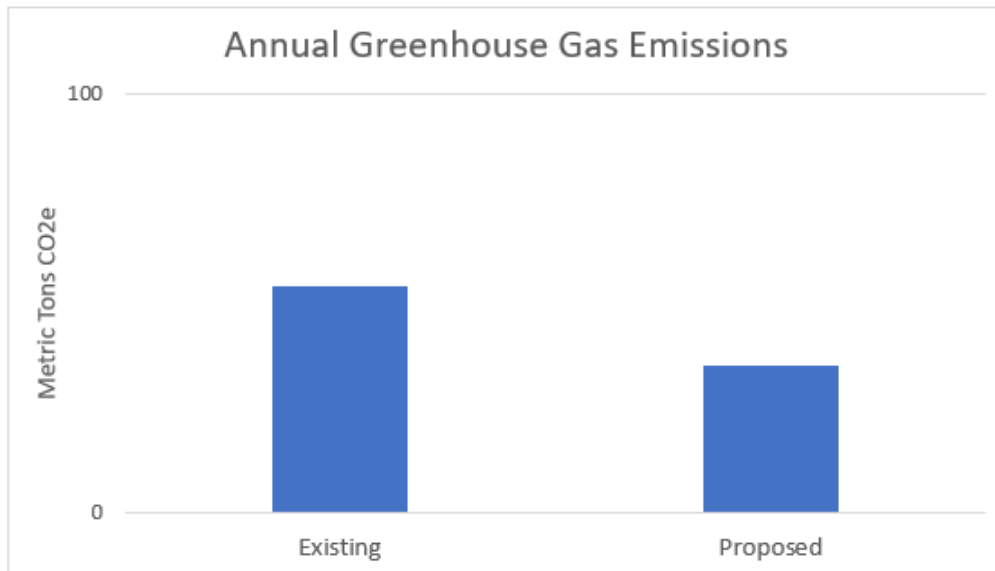


Figure 17. Annual Greenhouse Gas Emissions Summary

XII. Energy Management Policy

Star Transit does not currently have an energy management policy or a dedicated energy manager who would take the lead on planning or implementing the energy & water saving measures. However, they already have taken initiatives on adopting new technologies such as EV (electric vehicle) for the entire fleet which in return will benefit their operation and the environment in long-term. The purpose of having such a policy is to advocate energy efficiency, improve energy & cost-effectiveness, reduce waste and greenhouse gas emissions and to contribute to bigger sustainability goals.

It is recommended to consider the following steps when establishing a plan:

- ✓ Commitment
- ✓ Performance benchmarking/assessment
- ✓ Goal Setting
- ✓ Prioritize strategy initiatives
- ✓ Plan for funding
- ✓ Execution and Monitoring

XIII. Energy Legislation Overview

History of legislation for public sector energy reporting goes back to 2011 (Texas Emissions Reduction Plan). It includes fundamental changes in energy usage to comply with Clean Air Act standards. Senate Bill 12 effective Sep 1st, 2007 extended the timeline for a 5% annual reduction goal to six years. In 2011, Senate Bill 898 superseded SB12, and extended the scope of emissions plan. It required each political subdivision, institution of higher education, or state agency to establish a goal to reduce electrical consumption by at least five percent annually for ten years beginning September 1, 2011. Each entity must report to the State Energy Conservation Office (SECO) regarding the entity's efforts to meet the goal and achieved progress. Form#50-816 (2011) was replaced with a new online energy reporting form in 2019 found at the web link below.

<https://comptroller.texas.gov/programs/seco/reporting/local-gov.php>

XIV. Additional UCRM Funding Options

XIV.1.1 Federal Technical Assistance Programs

Table 12: Federal Technical Assistance Programs in the Transportation Sector

Program	Description	Citation
Air Pollution Control Program (2007)	Assists state, local, and tribal agencies in planning, developing, establishing, improving, and maintaining adequate programs to prevent and control air pollution and implement national air quality standards. Air quality affects energy efficiency because reduced energy use reduces electricity production, a source of air pollution.	42 USC 7405
Alternative Transportation in Parks and Public Lands Program (2005)	Provides funds to support planning and capital expenses for alternative transportation systems in parks.	49 USC 5320
Congestion Mitigation and Air Quality (CMAQ) Improvement Program (2007)	Provides funding to states' departments of transportation, municipal planning organizations, and transit agencies for projects and programs that reduce transportation-related emissions in air quality nonattainment and maintenance areas.	23 USC 149
Clean Cities	Promotes the energy, economic, and environmental security of the United States by supporting local initiatives to adopt practices that reduce the use of petroleum in the transportation sector.	
Clean School Bus USA	Reduces children's exposure to harmful diesel exhaust through a public-private partnership that limits school bus idling, implements pollution reduction technologies, improves route logistics, and switches to clean fuels.	
SmartWay Transport Partnership	Assists the ground freight industry in quantifying emissions and creating a plan to reduce fuel consumption.	
State Energy Program (SEP) Funding	Provides grants to states to assist in designing, developing, and implementing renewable energy and energy efficiency programs.	
Voluntary Airport Low Emission (VALE) Program (2007)	Reduces ground level emissions at commercial service airports located in designated ozone and carbon monoxide air quality nonattainment and maintenance areas	49 USC 40101

Source: AFDC 2009

XIV.1.2 Federal Tax Incentives

Table 11: Federal Tax Incentives Related to Energy in the Transportation Sector

Policy	Description	Citation
Advanced Technology Vehicle (ATV) Manufacturing Incentives (2007)	Direct loans for up to 30% of the cost of re-equipping, expanding, or establishing manufacturing facilities in the U.S. used to produce qualified ATVs or ATV components.	PL 110-140, Section 136
Idle Reduction Equipment Excise Tax Exemption (2008)	Qualified on-board idle reduction devices and systems are exempt from the 12% retail excise tax imposed on heavy-duty trucks and trailers.	PL 110-343, Section 206, 25 USC 4053
Heavy-Duty Hybrid Electric Vehicle (HEV) Tax Credit (2007)	A tax credit of up to \$18,000 is available for the purchase of qualified heavy-duty HEVs with a gross vehicle weight rating of more than 8,500 pounds.	26 USC30B
Light-Duty HEV and Advanced Lean Burn Vehicle Tax Credit (2007)	A tax credit for qualified light-duty HEVs and advanced lean burn technology vehicles placed in service after December 31, 2005. The credit begins to phase out in the second quarter following the calendar quarter in which at least 60,000 of a manufacturer's qualifying HEVs and/or lean burn passenger automobiles and light trucks have been sold.	26 USC30B
High Occupancy Vehicle (HOV) Lane Exemption (2007)	Allows states to exempt certified low emission and energy-efficient vehicles from HOV lane requirements.	23 USC 166
Qualified Plug-In Electric Drive Motor Vehicle Tax Credit	A tax credit for the purchase of a new qualified plug-in electric drive motor vehicle that draws propulsion using a traction battery that has at least four kilowatt hours of capacity, uses an off-board source of energy to recharge the battery, and meets specified emission standards. The credit will begin to be phased out in the second quarter following the calendar quarter in which a minimum of 250,000 qualified plug-in electric drive vehicles have been sold for use in the U.S. This tax credit expires December 31, 2014.	26 USC 30D
Pollution Prevention Grants Program (2007)	Supports state and tribal technical assistance, education, and research programs that help businesses and industries identify better environmental strategies and solutions for complying with federal and state environmental regulations.	42 USC 13104

Source: AFDC 2009

XIV.1.3 PACE (Property Assessed Clean Energy) Programs

TX-PACE is an alternative financing program that helps building owners to have a low-cost, long-term financing options for energy and water efficiency projects.

How It Works

A Building Owner:



If the owner, building, and project all meet PACE requirements:



[TX-PACE](#)

[PACE Program Guidelines](#)

<https://www.aacog.com/735/Texas-Property-Assessed-Clean-Energy-PAC/>

XIV.1.4 Performance Contracting via ESCO (Energy Services Company)

Facility owners can utilize the ESPC (energy savings performance contracting) process to conduct energy audits. The contracted ESCO develops individual and grouped savings measures that can be included in the ESPC project. Short or long payback periods or renewable energy systems can be eligible if they're bundled under one contract. The most common financing option for government ESPC projects is the municipal tax-exempt lease-purchase agreement. Internal financing or bonds are other known types as well. Once the savings measures are implemented, the ESCO continues monitoring the savings through M&V (measurement and verification) process.

XIV.1.5 Utility Net Metering & Solar Buyback programs

When Solar PV systems are considered for a project, utility policies and incentives become the most crucial matter. If an off-grid solution is not feasible, a grid-tied option becomes the only solution and the grid should be able to regulate the excess production vs purchase which is called net metering. Some utility providers offer credits for excess kWh up to total usage on the overall account for each month. They also provide fixed low rates for long term subscriptions which mitigates being affected by the market fluctuations.

XV. Technical Assistance on Solar Feasibility Analysis and Utility Assessment

Star Transit is converting their current fleet to EV (electric vehicle). They requested an evaluation of a potential solar generation system to offset the energy use of the existing facilities and to offset the EV charging. They also requested a utility assessment of both their historical utility bills and potential participation in a net metering program if solar system installation is feasible.

Star Transit facility is located adjacent to an open field where neither of the building's roofs are shaded by other buildings or trees as shown in Figure 18. They also own an open field right next to the parking lot which would allow installing a ground mounted solar farm if needed.



Figure 18 Satellite View of the Facility

Star transit operates 14 buses daily, and each bus travels 100 miles/day. When these buses are replaced with EV, their estimated energy consumption to charge the whole fleet based on the selected bus is 1,078 kWh/day (see EV Star bus and its associated technical data are shown in Figure 19 and Figure 21:



Figure 19 Selected EV Bus



Figure 20 Charging Station Example

Building 2 currently operates as a parking garage for the fleet. It is assumed that new vehicles will also use that area for parking and for charging. If traditional Level-2 charging is installed, each bus will have its own NORESCO Sustainability Services

charger totaling 14 stations. Required charging station is shown in Figure 20 and EV consumption details shown in Table 18.

Table 18 EV Consumption Details

# bus	Mile/day	Operation hours	Fuel (kWh/mi)	Consumption/bus (kWh/day)	Total Fleet Consumption (kWh/day)	Battery Capacity for each bus (kWh)	Annual EV Consumption (kWh)
14	100	12	0.77	77	1078	118	388,080

TECHNICAL DATA



CLASSIFICATION

Heavy-duty class 4

GVWR

14,330 lbs.

PAYLOAD CAPACITY *

4,331 lbs.

LENGTH

25 feet

WIDTH

79.5 inches

HEIGHT *

106.5 in, 116.5 inches overall, 75 in (interior)

WHEELBASE

170 inches

APPROACH & DEPARTURE ANGLES

14.7 (front), 12.4 degrees (rear)

CARGO VOLUME AREA (behind driver to rear)

189 long, 70 wide, 74 inches high

MAX SEATING CAPACITY (w/driver)

20 seating, 6 rows, 17.5-inch-wide seats

SEATING CONFIGURATIONS *

Front facing, perimeter, 4-6 fold-up, 2 ADA

ADA LIFT (BRAUNABILITY)

Side or rear wheelchair lift options

FRAME / BODY / ROOF

Steel

PASSENGER DOOR

Electric

TIRES

205 / 75R / 17.5 (qty. 6)

EMERGENCY EXITS

Hatch, window, door

HVAC

39,239 BTU/h, front, rear, electric

ECU COMMUNICATION

CAN BUS, J1939

ALTOONA CERTIFIED

Yes, 92.2 score, 2nd highest score in history

CARB CERTIFIED

LUGGAGE CARGO AREAS

Rear cargo, luggage rack 50,60,70 in. long

REAR CARGO LUGGAGE CAPACITY

102 cubic feet (38x70x66)

BATTERY

Voltage: 576 V, Chemistry: LiFePo4

BATTERY CAPACITY

118 kWh

RANGE *

153 miles

FUEL ECONOMY *

48 mpge, 0.77 kWh/mi, 1.3 mi/kWh

TOP SPEED

68 mph

MOTOR POWER

150 kW max

TRANSMISSION

Direct Drive, No Transmission

AUTONOMOUS INTEGRATION *

Perrone Robotics (option)

DESIGN LIFE

10 years

LCFS EER VALUE * †

HDV, 5.0 EER, 1 credit every 740 kWh

CHARGING * (AC/DC)

LEVEL-2, J1772

11 kW, 11 hrs

DCFC, CCS-1

61 kW, 2 hrs

WIRELESS DC * (option)

60 kW, 2 hrs

VEHICLE VOUCHER REBATES *

E-mail: grants@greenpowermotor.com

BUY AMERICA *

† California region only

* Specification can vary

By region, application, availability

Figure 21 EV Star Technical Data

EV charging electricity use will be on average 3 times higher than the monthly building utility demand. Thus, utility program options need to be constructed around the EV addition and possible offset via Solar PV arrays. In the Texas market, solar plans and rebates are not as common for commercial buildings as they are for residential buildings. Our research shows that currently the electricity provider of Star Transit does not allow net metering, nor they do provide any incentives/rebates. However, there are other providers which do have specific plans for small commercial businesses like Star Transit.

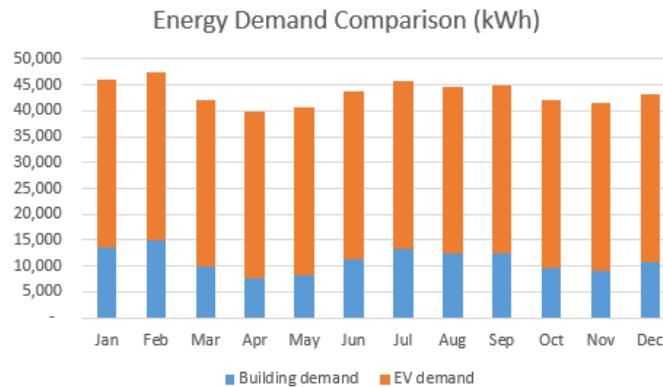


Figure 22 Building Energy vs EV Energy Comparison

Another important detail for the net metering plan is the grid integration. During the daytime, the system will produce more energy than the building uses, the extra electricity will need to flow to the grid as excess generation. The opposite scenario will happen as the electrical fleet is charging during evening/night hours when there is no solar generation; this required electricity will need to be purchased from the grid. So, potential solutions include:

- ✓ A utility plan that offers fixed rates both for purchase and sell, so there are no penalties for the hours that's just production but not enough consumption
- ✓ If utility plans do have penalties for excess generation, then a smaller PV array could be pursued instead of offsetting monthly generation

Our market research shows the first option is feasible which allows excess generation to flow back to the grid and enables selling it at a fixed price which can be used as a credit for upcoming months. Thus, we have considered utilizing both buildings and both sides of the roofs (north and south) in the analyses we conducted. See Figure 23 and Figure 24 for the areas considered for the roof installation.



Figure 23 Building 1 Roof for PV Layout



Figure 24 Building 2 Roof for PV Layout

As it was demonstrated in section Solar PV System Implementation, we detailed out 2 scenarios. The 1st scenario consists of utilizing both roofs for the panel installation, which has a DC system size of 283.3 kW (Figure 25), and the 2nd scenario includes roof mount on building 2 and ground mount for the field around building 2 with a total of 427.1 kW DC system size (Figure 26). Full coverage of the roof area which will block

the use of existing skylights and panels will be mounted on the roof directly without any additional tilt (current roof angle is around 10%) and ~15% system losses are considered in the calculations.

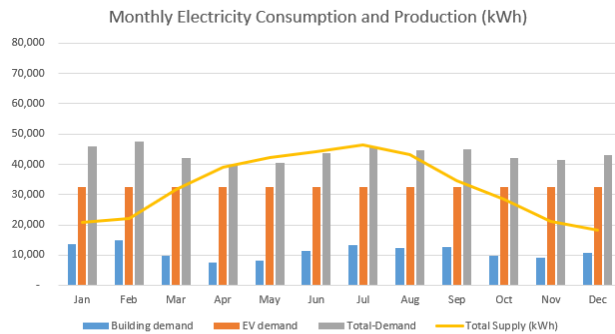


Figure 25 Scenario 1 Consumption vs Production

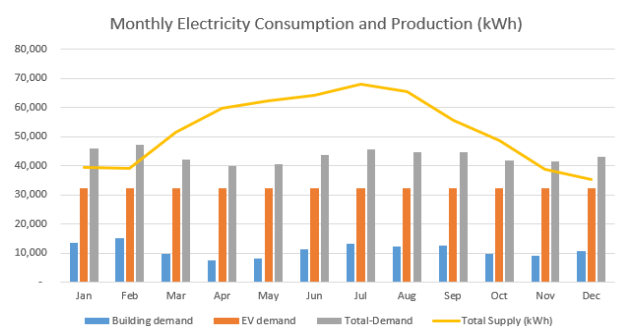


Figure 26 Scenario 2 Consumption vs Production

The considered net metering program for the analysis assumes a fixed \$0.04945/kWh for the purchase and \$0.03/kWh for the excess energy credit rate. Estimated cost savings considers \$0.18/kWh rate that the facility currently pays.

Table 19 Energy & Cost Comparison for Both Scenarios

Facility	Implementation Cost (\$)	Estimated Energy Savings (kWh/yr)	Estimated Cost Savings/yr	Excess Generation (kWh/yr)	Nighttime Demand (kWh/yr)	Simple Payback (yrs)
Scenario 1	\$548,705	129,263	\$82,460	258,817	388,080	6.7
Scenario 2	\$903,496	*629,002	\$89,560	495,495	388,080	10

*Includes excess energy production, thus its higher than the actual energy consumption value.

A ballpark material & implementation cost is used in the calculations; however, there are several quotes received which could be considered during actual bidding phase of the project (see Table 20 and Table 21). Annual total consumption is estimated as 521,587 kWh including building and EV consumption.

Table 20 Roof Only Vendor Quotes

Predicted Annual Consumption (kWh)	Installer	System Size (kW)	Annual Production Estimate (kWh)	Turnkey Price (\$)	Price/Watt (\$)
521,587	Freedom Solar	287.28	375,565	\$548,705	\$1.91
521,587	NuWatt	287.04	336,900	\$473,616	\$1.65
521,587	GreenSun	174	244,383	\$421,080	\$2.42
521,587	Srinerger	108.5	150,729	\$325,350	\$3.0

**Installers are ordered based on the quote receiving date.

Table 21 Roof and Ground Vendor Quotes

Predicted Annual Consumption (kWh)	Installer	System Size (kW)	Annual Production Estimate (kWh)	Turnkey Price (\$)	Price/Watt (\$)
521,587	Freedom Solar	574.98	808,633	\$1,177,848	\$2.05
521,587	GreenSun	334	469,099	\$1,085,500	\$3.25

Lastly, Star Transit wanted to get guidance on phases and tasks of a typical solar project. The scope of this TA only includes preliminary system sizing and layout, utility assessment and preliminary feasibility analysis of a solar PV project. However, Table 22 outlines the remaining tasks to be considered for the full scope of a solar project from roof structure/geotechnical assessments to specification development and construction administration.

Table 22 Phases and Tasks of a Typical Solar Project

Phase	Task
System Selection	Preliminary system sizing and layout
System Selection	Preliminary bidding
System Selection	System size selection
System Selection	Utility Analysis
System Selection	Preliminary structural evaluation (roof mounted option)
System Selection	Preliminary geotechnical evaluation (if ground mounted option is pursued)
	Final Report
Bidding/design	Solar vendor RFP/scorecard development
Bidding/design	Solar vendor selection
Bidding/design	Design firm bidding (Proposal review/scorecarding)
Bidding/design	Design Firm selection
Design	Design oversight
Design	RFI, meetings support
Design	100% Design Drawing, 100% Construction Drawing, and IFC Sets
Bidding/spec	Electrical spec development
Bidding/spec	Solar panel spec development
Bidding/construction	RFP/scorecard development
Bidding/construction	Proposal review/scorecarding
Bidding/construction	Contract negotiation
Bidding/construction	Electrical contractor selection
Construction	Construction oversight, Permitting, Commissioning

XVI. Appendices:

APPENDIX A

ASHRAE Equipment Life Expectancy chart

ASHRAE is the industry organization that sets the standards and guidelines for most all HVAC-R equipment.
For additional info about ASHRAE the website is www.ashrae.org.

Equipment Item	Median Years	Equipment Item	Median Years	Equipment Item	Median Years
Air conditioners		Air terminals		Air-cooled condensers	20
Window unit	10	Diffusers, grilles, and registers	27	Evaporative condensers	20
Residential single or Split Package	15	Induction and fan coil units	20	Insulation	
Commercial through-the wall	15	VAV and double-duct boxes	20	Molded Blanket	20
Water-cooled package	15	Air washers	17		24
Heat Pumps		Ductwork	30	Pumps	
Residential air-to-air	15	Dampers	20	Base-mounted	20
Commercial air-to-air	15	Fans		Pipe-mounted	10
Commercial water-to-air	19	Centrifugal	25	Sump and well	10
Roof-top air conditioners		Axial	20	Condensate 15	
Single-zone	15	Propeller	15	Reciprocating engines	20
Multi-zone	15	Ventilating roof-mounted	20	Steam turbines	30
Boilers, hot water (steam)		Coils		Electric motors	18
Steel water-tube	24 (30)	DX, water, or steam	20	Motor starters	17
Steel fire-tube	25 (25)	Electric	15	Electric transformers	30
Cast iron	35 (30)	Heat Exchangers		Controls	
Electric	15	Shell-and-tube	24	Pneumatic	20
Burners	21	Reciprocating compressors	20	Electric	16
Furnaces		Packaged chillers		Electronic	15
Gas- or oil-fired	18	Reciprocating	20	Valve actuators	
Unit heaters		Centrifugal	23	Hydraulic	15
Gas or electric	13	Absorption	23	Pneumatic	20
Hot water or steam	20	Cooling towers		Self-contained	10
Radiant Heaters		Galvanized metal	20		
Electric	10	Wood	20		
Hot water or steam	25	Ceramic	34		

APPENDIX B

Preliminary Energy Assessment Service Request Form

Form# 50-852



STAR Transit		877-631-5278	
<small>Public Entity Name</small>		<small>Telephone</small>	
Tommy Henricks		Executive Director	
<small>Contact Person</small>		<small>Title</small>	
thenricks@STARtransit.org		Kaufman	
<small>Email Address</small>		<small>County</small>	
500 Industrial Blvd.	Terrell	TX	75160
<small>Street Address</small>	<small>City</small>	<small>State</small>	<small>ZIP Code</small>
PO Box 703	Terrell	TX	75160
<small>Mailing Address</small>	<small>City</small>	<small>State</small>	<small>ZIP Code</small>

Preliminary Energy Assessment Service Eligibility

The State Energy Conservation Office (SECO) provides free preliminary energy assessments (PEAs) for existing public facilities and infrastructure. Eligible entities include municipal and county governments, public school districts, county hospitals, port authorities, major airports, public water authorities and municipally owned utilities. Leased or rented facilities and infrastructure are not eligible for this service.

Principles of Agreement

By submitting this request form, the entity listed above must agree to:

- select a contact person to work with SECO and its designated contractor to establish an energy policy and set realistic energy efficiency goals;
- allow SECO's designated contractor to provide walk-through assessments of selected facilities;
- schedule a time for SECO's designated contractor to make a presentation on the assessment findings to key decision-makers;
- consider implementing the PEA's energy savings recommendations; and
- allow SECO to post portions of this report on its website

Additional Questions

Has this organization used SECO's technical assistance or PEA services in the past?

☐ Yes ☒ No

Is the primary contact for this PEA familiar with SECO's LoanSTAR revolving loan program?

☐ Yes ☒ No

Has this organization used SECO's LoanSTAR revolving loan program in the past?

☐ Yes ☒ No

Signature

This agreement must be signed by your organization's chief executive officer or other signing authority.

Signature

Tommy Henricks

Print Name

10/7/21

Date

Executive Director

Title

Submit completed forms to SECO at seco.forms@cpa.texas.gov

or by mail to: State Energy Conservation Office

Attn: SECO Program Manager

111 E. 17th Street

Austin, TX 78711-1440

LeShawn Manus

10/11/21

APPENDIX C

Commissioned Systems	Maintenance Recommendations	Recommended Frequency (Days)
General		
Ductwork	Check for visible damage – proper insulation – air leaks	1-2 years
	Re balance airside system	3-5 years
	Clean ductwork	3-5 years
	Check fire and smoke dampers for corrosion, obstructions, operation (automated only), fusible links	1 – 3 years
Piping	Chemically test/ treat closed and open HVAC loops for corrosion, fouling and scaling prevention	Continuous
	Inspect corrosion coupons	Annually
	Check for leaks and physical damage and insulation integrity	Annually
	Perform closed loop balancing	3-5 years
	Exercise main and branch isolation and shutoff valves	Annually
	Test backflow prevention devices	Annually

AIRSIDE		
Air Handling Units		
Air Filters	Inspect filters – Replace as necessary.	90 days
	Calibrate manometers and differential pressure transducers.	Annually
Fans	Check belt tension and condition if (applicable). Replace or re-tension as required.	Semi-Annual
	Inspect & Clean	Semi-Annual
	Lubricate fan bearings	90 days
	Inspect drive components (sheaves) for wear and proper alignment.	Semi-Annual
	Inspect blower wheels – physical condition and cleanliness.	Semi-Annual
	Check airside balancing (traverse with anemometer) and output performance.	5 years
Motors	Inspect electrical connections and tighten as necessary.	Annually
	Lubricate motor bearings	90 days

Dampers	Check for proper function of all dampers (outside air, return air, spill, etc.)	Semi-Annual
	Ensure tight shut-off of dampers	Semi-Annual
	Lubricate all moving parts	Semi-Annual
	Ensure fusible links are not damaged, corroded or sprung	Annually
	Face & Bypass dampers are lubricated and tracking	Annually
Coils	Clean heating / cooling coils	As needed
	Clean and check condensate pans, drains and traps	Semi-Annual
	Inspect coils. Repair leaks, straighten damaged/bent coil fins etc	As needed
Valves	Stroke heating/cooling valves to determine proper operation	Semi-Annual
	Check valves for leak-by and external leaks	Semi-Annual
	Exercise manual isolation valves	Annually
Piping/Fittings	Inspect piping for leaks	Formally @ 360 days - Informally at every visit
	Inspect piping insulation for damage	Formally @ 360 days - Informally at every visit
	Remove and clean strainers, upstream of coils	Annually
Ductwork	Inspect supply and return ductwork for cleanliness and air leaks	Annually
	Clean Ductwork	5 - year

Variable Air Volume (VAV) Terminal Units		
Variable Air Volume (VAV) Terminal Units	Check and calibrate the following components:	
	Flow meter	1-2 years
	Supply air temperature sensor	1-2 years
	Zone thermostat	Annually
	Test operation through the BMS	1-2 years
	Perform periodic testing and balancing	Every (5) years
Fans		
Fans	Check belt tension and condition if (applicable). Replace or re-tension as required.	Semi-Annual
	Inspect & Clean	Annually
	Lubricate fan bearings	90 days
	Inspect drive components (sheaves) for wear and proper alignment.	Semi-Annual
	Inspect blower wheels - physical condition and cleanliness.	Semi-Annual
	Check airside balancing (traverse with anemometer) and output performance.	5 years

Building Automation System (BAS)		
Building Automation System	Maintain PC based hardware and	Continuous
	Maintain, update and backup software and firmware including front-end interface systems, subscriptions, licenses and hardware security keys.	Continuous
	Maintain graphics to accurately reflect site operating systems.	Continuous
	Establish and maintain system access security through hierarchical security level access log-in, and password protection protocols.	Continuous
	Establish and maintain user level access login history logs through BMS inherent function and capabilities.	Continuous
	Establish and maintain security policies pertaining to user access level capabilities.	Continuous
	Ensure that monitors do not display persistent data that can cause image "burn-in"	Continuous
	Establish and maintain alarm level management. Distinction between trouble and critical alarms.	Continuous
	Update systems periodically with manufacturer recommended software patches, bug fixes and upgrades that enhance and maintain functionality.	Continuous
	Maintain updated electronic media database system backups at a remote site for loss prevention purposes.	Continuous

APPENDIX D

LoanSTAR Application

RFA# BE-G24-2022



PART 1: General Information

Borrower

<input type="text"/>		<input type="text"/>	<input type="text"/>
<small>Name of Eligible Public Entity</small>		<small>Federal Tax ID</small>	<small>Application Date</small>
<input type="text"/>		<input type="text"/>	<input type="text"/>
<small>Mailing Address</small>		<small>City</small>	<small>State</small> <small>ZIP Code</small>
<input type="text"/>		<input type="text"/>	<input type="text"/>
<small>County Name</small>		<small>Total Amount Requested</small>	
<input type="text"/>		<input type="text"/>	

Signing Authority

<input type="text"/>		<input type="text"/>
<small>Name</small>		<small>Title</small>
<input type="text"/>	<input type="text"/>	
<small>Telephone</small>	<small>Email Address</small>	

Primary Contact (Project Director)

<input type="text"/>		<input type="text"/>
<small>Name</small>		<small>Title</small>
<input type="text"/>	<input type="text"/>	
<small>Telephone</small>	<small>Email Address</small>	

Secondary Contact (Energy Manager)

<input type="text"/>		<input type="text"/>
<small>Name</small>		<small>Title</small>
<input type="text"/>	<input type="text"/>	
<small>Telephone</small>	<small>Email Address</small>	

Administrative Contact for Accounting (Financial Contact)

<input type="text"/>		<input type="text"/>
<small>Name</small>		<small>Title</small>
<input type="text"/>	<input type="text"/>	
<small>Mailing Address</small>	<small>City</small>	<small>State</small> <small>ZIP Code</small>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<small>Telephone</small>	<small>Email Address</small>	

PART 2: Documentation Submitted with Application

Place a check next to the documentation submitted with the application. One (1) electronic copy of the report is required. Reports must comply with SECO guidelines. See attachments for Project Assessment Commitment and Memorandum of Understanding forms.

- ☐ Utility Assessment Report (UAR) – for design-bid-build projects, design-build projects or Energy Savings Performance Contracts (ESPCs)
- ☐ Commissioning Report – for Retro- or Re-Commissioning projects
- ☐ Preliminary Energy Assessment (PEA) and Memorandum of Understanding (MOU) – a UAR is required to be completed within 140 calendar days of execution of the MOU.
- ☐ Project Assessment Commitment and Memorandum of Understanding See attachments for Project Assessment Commitment and Memorandum of Understanding forms– a UAR is required to be completed within 140 calendar days of execution of the MOU.

If UAR cannot be completed within 140 calendar days after notice is received that funding is committed to the project, do **not** proceed. The project is disqualified from loan consideration.

50-831 (10-21/12)



PART 3: Project Information

Complete the following table listing all Utility Cost Reduction Measures (UCRMs). Use Attachment A - Project Financial Worksheets to calculate energy savings.

Facility Name	Address	City	State	ZIP Code
Engineering Firm Name	Address	City	State	ZIP Code
Date of Audit Report				

UCRM NO.	BUILDING	UCRM DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

How long will it take to complete the project? _____ (months)

A. Is the TOTAL LOAN simple payback for the UCRMs less than 15 years?

☐ Yes ☐ No

If Yes, proceed to next question..

If No, project is disqualified from further loan consideration.

B. Is the simple payback for each UCRM less than the Estimated Useful Life of the UCRM?

☐ Yes ☐ No

If No, project is disqualified from further loan consideration.

**PART 4: Funding Source**

The LoanSTAR program has two funding sources. The interest rate for a LoanSTAR general fund loan is 2% per annum. The interest rate for a LoanSTAR repaid ARRA fund loan is 1% per annum, but requires additional reporting documentation.

What is your preferred funding source?

- ☐ 2% LoanSTAR general fund loan (no minimum loan size; maximum loan size is \$8,000,000)
- ☐ 1% LoanSTAR repaid ARRA fund loan (minimum loan size is \$3,000,000; maximum loan size is \$8,000,000)
- ☐ No preference
- ☐ Undecided

PART 5: Certification by Applicant Signing Authority or Chief Financial Officer

I certify that I have reviewed this application, including commitment of "buy-down" funds. The information provided is accurate to the best of my knowledge and in my best professional judgment. If awarded, Borrower will comply with the terms and conditions of the Sample Loan Agreement.

Signature

Date

Printed Name

Title



Attachment A – Project Financial Calculation Worksheet (Required)

Attachment A1. Design-Bid-Build, Design-Build or Commissioning Project Calculation Worksheet

UCRM No.	Building	UCRM Description	Construction Time (Months)	Costs (\$)			Estimated Annual Saving (\$)*	Payback** (yrs)	UCRM Estimated Useful Life (yrs)
				Eng./Design	Construction	Total			
						Totals			

* HVAC savings degradation = 0.75% each year.

** Individual energy efficiency measure payback must be less than or equal to the estimated useful life of the measure.

TOTAL LOAN AMOUNT

Costs for the UAR, metering and monitoring may be included in the loan at Borrower's option.

Costs (\$) Total		
<i>plus</i> UAR Costs		
<i>plus</i> Metering		(note: maximum metering cost is 3 percent of UCRM costs)
<i>plus</i> Monitoring		(note: maximum monitoring cost is 7 percent of UCRM costs)
<i>minus</i> Buy Down		
<i>equals</i> Total Loan Amount		
<i>divided by</i> Total Estimated Annual Savings (\$)		
<i>equals</i> Payback (years)		



Attachment A2. Energy Savings Performance Contract (ESPC) Project Calculation Worksheet

UCRM No.	UCRM Title	Average Annual Savings*							Project Cost (\$)	Payback** (yrs.)	Estimated Project Useful Life (yrs.)
		Electric Energy (kWh/yr)	Demand (kW/yr)	Electric (\$/yr)	Natural Gas (Mcf/yr)	Natural Gas (\$/yr)	Water (kGal/yr)	Water (\$/yr)			
1											
2											
3											
4											
5											
6											
7											
8											
Utility Assessment Report Cost		—	—	—	—	—	—	—		—	—
Initial Measurement & Verification Cost		—	—	—	—	—	—	—		—	—
Construction Bonding Cost		—	—	—	—	—	—	—		—	—
Owner's Administration, Management, Training & Other Costs		—	—	—	—	—	—	—		—	—
Buy Down***		—	—	—	—	—	—	—		—	—
TOTAL LOAN AMOUNT (IMPLEMENTATION TOTAL) (Simple Payback)											
Required Ongoing Monitoring Service Cost		—	—	—	—	—	—	—		—	—
Guaranteed Rebate Savings		—	—	—	—	—	—	—		—	—
Financing Cost		—	—	—	—	—	—	—		—	—
TOTAL PROJECT PAYBACK (Project Payback)		—	—	—	—	—	—	—		—	—

* HVAC savings degradation = 0.75% each year.

** Individual energy efficiency measure payback must be less than or equal to the estimated useful life of the measure.

*** Maximum Buy Down on an individual UCRM must not exceed 50% of the total UCRM cost.



Attachment B- Project Assessment Commitment

Attachment B is not required when a Utility Assessment Report (UAR), Commissioning Report or Preliminary Energy Audit is submitted with the application.

Applicant requests LoanSTAR Funding be reserved for a proposed energy efficiency or commissioning project. The dollar amount requested is Applicant's estimated cost to analyze and implement energy efficiency projects that will be financed through the LoanSTAR Program.

LoanSTAR funds, if reserved, will be subject to the following conditions:

1. Applicant agrees to retain a Professional Engineer (PE), licensed in the State of Texas, to prepare a Commissioning Report or UAR that complies with the LoanSTAR Technical Guidelines or with Performance Contracting Guidelines. The PE shall meet the technical analyst qualifications listed in Volume I, Section I, Paragraph C of the LoanSTAR Technical Guidebook. The PE of record shall accept responsibility for implementation of all retrofit activities in the UAR.
2. Applicant agrees to complete a UAR for design-bid-build or design-build contracts or a Commissioning Report for commissioning projects within 140 days after the execution of the Memorandum of Understanding. Borrower also agrees to submit one (1) electronic copy of the completed Commissioning Report or UAR to the State Energy Conservation Office (SECO). **If the UAR is not received by SECO by the "End Date for Commitment", the reserved LoanSTAR funding will be released to other prospective borrowers.**
3. LoanSTAR project expenditures cannot be incurred before the effective date cited in a fully executed loan agreement. The sole function of a Project Assessment Commitment is to request reservation of LoanSTAR Funding for a Borrower during the period the Commissioning Report or UAR are being prepared. This document shall not be construed as a loan agreement and does not authorize the expenditure of LoanSTAR Funding.

Applicant

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<small>Name of Public Entity</small>		<small>Amount Requested</small>
<small>Name of Signing Authority (printed)</small>		<small>Title</small>
<small>Signature</small>		<small>Date</small>



Attachment C- Memorandum of Understanding (MOU)

Attachment C is not required when a Utility Assessment Report (UAR) or Commissioning Report is submitted with the application.

Execution of this MOU reserves the requested amount of LoanSTAR Funding for the Applicant.

The reserved LoanSTAR Funding is Applicant's estimated cost based on the Preliminary Energy Assessment or Project Assessment Commitment to analyze and implement energy efficiency projects which will be financed through the LoanSTAR Program.

The LoanSTAR funds reserved will be subject to the following conditions:

1. Applicant's Signing Authority certifies that Applicant has retained a Professional Engineer (PE) to prepare a UAR. The PE of record shall accept responsibility for implementation of all retrofit activities in the UAR. The UAR shall be prepared in accordance with the LoanSTAR Technical Guidelines.
2. Applicant's Signing Authority certifies that one (1) electronic copy of the completed reports referenced in item 1 will be delivered to SECO for review. **If the completed reports are not submitted by the "End Date for Commitment", the reserved LoanSTAR Funding will be released to other prospective borrowers.**
3. The sole purpose of this MOU is to reserve LoanSTAR Funding for the Applicant during the period that its UAR is being prepared. This MOU shall not be construed as a loan agreement. It does not authorize the expenditure of LoanSTAR Funding. LoanSTAR project expenditures cannot be incurred before the effective date cited in a fully executed loan agreement.

Applicant

\$
Amount Requested
Name of Public Entity (printed)
Name of Signing Authority (printed)
Title
Signature
Date

State Energy Conservation Office To be completed by SECO

SECO Program Manager Name (printed)
SECO Program Manager Signature
Date
End Date for Commitment (Commitments cannot be extended.)