2019

AEO STATEMENT OF QUALIFICATIONS AEPC PROGRAM

TODAY'S POWER, INC.

PREPARED BY CHRIS BELL, LEARON DALBY & JENNAH DENNEY

1) Executive Summary

Submit an Executive Summary providing a brief overview of your company's proposal to be accepted as a pre-qualified ESCO in the AEPC Program:

Today's Power, Inc. (TPI), a wholly owned subsidiary of Arkansas Electric Cooperatives, Inc., is your energy partner for renewable energy. TPI intends to operate solely as a renewable firm and does not offer any further ECMs as a prequalified ESCO. TPI is willing to partner with other prequalified ESCOs to offer further ECMs at participants request and with agency approval.

TPI was incorporated to design cost-effective systems that maximize savings for not-for-profit utilities and their members to remain competitive in a world where more and more individuals and businesses are becoming their own energy managers. We have the backing and experience of over 75-years in the energy industry. and are experts in the Public Service Commission published rate structures. This allows our partners the opportunity to maximize their return on investment.

Today's Power, Inc. (TPI) is committed to complying with all policies, procedures and rules outlined in AEPC's Program Rules Manual.

TPI meets all the minimum qualifications as specified in the Guaranteed Energy Costs Savings Act making us a qualified provider who can perform under a contract that requires a business to guarantee the work performed by one or more contractor and possesses the proper licenses in the state of Arkansas such as general contracting, master electrician, and NABCEP. Additionally, we have at least 5 years of experience in the analysis, design, implementation, installation, measurement, and verification of energy cost savings measures, energy efficiency and facility improvements.

TPI grants AEO the permission to share our SOQ publicly and may acknowledge that our SOQ be used by Agencies to help select which ESCOs to interview for EPC projects.

2) Company Overview

2a. HISTORY & FOCUS OF COMPANY

Describe the history and focus of the company, including:

- **Structure and evolution of the firm;**
  - TPI is a wholly owned subsidiary of Arkansas Electric Cooperatives, Inc. focusing on renewable energy (solar predominantly), energy storage, EV car chargers, and EV's.
  - **Our mission:**
    - Today's Power, Inc. strives to improve the quality of life of the communities it serves by providing leading technologies and services in sustainable and fiscally responsible manner.
      By using the highest quality materials, building to utility grade standards, and knowledge of how utility rate structures work, we can customize systems to extract maximum value for our customers. This

knowledge has been key in setting TPI apart from other solar companies.

- **Formed in 2014, TPI has:**
  - The backing of over 75-years in the energy industry and has the experience and expertise in utility rate structure to design cost-effective systems in a fiscally sustainable way.
  - Constructed over 20 utility-scale and commercial solar systems equaling a total of over 27,072 kW (approximately 27 MW).
  - Access to an array of advanced and diverse technologies.
  - Developed the only energy storage system in the mid-south utilizing lithium ion battery technology.
  - Has exclusive rights to offer the only networked EV Charging solution that includes a full line from level 2 home, commercial, and DC fast charging options.
  - Deployed public EV Charging infrastructure for over 5 utilities

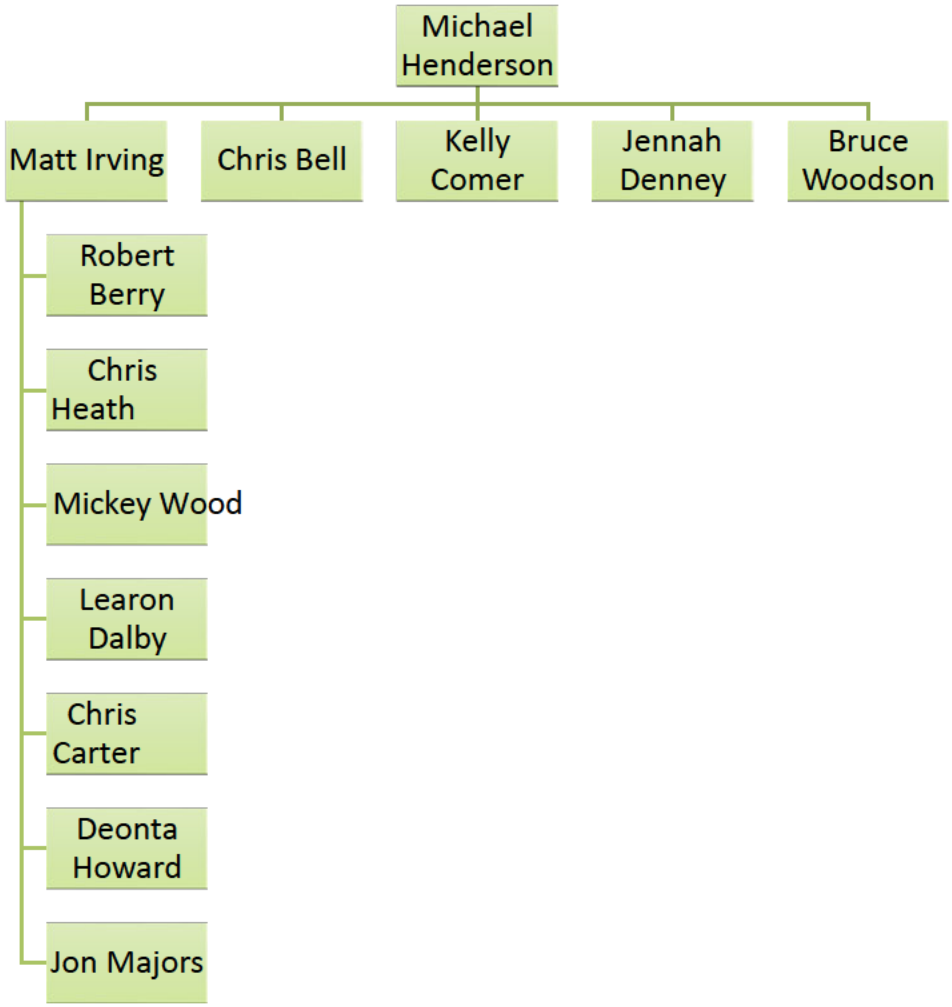
- **Number of years in energy-efficiency related business;**
  - 5
- **Number of public energy-efficiency projects completed by your firm or key members of your firm over the past five years: number under $1 million in project cost; number over $1 million**
  - 50+ under one million. 10+ over 1 million.

2b. INDUSTRY ACCREDITATIONS & MEMBERSHIPS

- Arkansas Advanced Energy Association Member
- NACEP Certified Installers (4)
- Better Business Bureau Accredited Business
- ChargePoint Signature Partner
- Little Rock Chamber Member
- Arkansas State Chamber Member
- Gold Associate member of the National Rural Electric Cooperatives Association
- Arkansas State Licensed General Contractor
- Master Electrician Licenses

3) Management and Staffing

3a. Project Management and Staffing



Michael Henderson	President/EVP & CFO	Today's Power, Inc. / Electric Cooperatives of Arkansas
Matt Irving	VP of Operations	Today's Power, Inc.
Jennah Denney	Public Relations	Today's Power, Inc.
Kelly Comer	Supervisor of Administration & Corporate Counsel	Electric Cooperatives of Arkansas / Today's Power, Inc.
Robert Berry	Project Foreman	Today's Power, Inc.
Mickey Wood	Electrician	Today's Power, Inc.
Jon Majors	Electrician	Today's Power, Inc.
Learon Dalby	Data & Communication Coordinator	Today's Power, Inc.
Chris Carter	Electrician	Today's Power, Inc.
Chris Bell	VP of Finance & Admin	Today's Power, Inc. / Electric Cooperatives of Arkansas
Nexera/Douglass/Arnold Blevins	Electrical Subcontractor	Sub-Contractor
TAG Construction	Civil Subcontractor	Sub-Contractor
Aztec Engineering	Engineering Firm	Sub-Contractor
AECI/Sunshine Solar/AUI/ Russel Pacific	Mechanical	Sub-Contractor
RP Construction	Construction Subcontractor	Sub-Contractor

These are not the only firms we use on projects; this is our history of who we have used. Every project is open to a bid process to ensure we maintain a budget

Electrical:

- Nexera Electric
- Douglass Electric
- Work can be performed in house
- Quality Electric
- Elite Electric
- Industrial Controls and Electrical

Civil:

- TAG
- Blann Tractor

- Hickman Trenching company
- Dirtman Excavating

Mechanical:

- AUI
- Sunshine Solar
- RP Construction
- AECI

Engineering:

- Aztec
- Cromwell
- Phillip Lewis Engineering
- Gurnsey

This shows our ability to select contractors based on pricing, availability and quality of work.

In house:

- Design
- Site evaluation
- Contracts
- Procurement
- Construction services
- Commissioning
- O&M
- Financing

3b. Arkansas State Construction Requirements

TPI is committed to complying with all Arkansas State licensing and labor requirements. TPI possesses the licenses needed to provide the scope of work outlined in this RFQ such as commercial contractors' licenses, electrical licenses and complies with all city, county and state permitting and labor requirements.

4) Company Financial Status

4a. Financial Soundness and Profitability

Financial Soundness

TPI is very financially stable and has had positive margins since it started building solar facilities. We have access to significant short term and long term capital for sound growth. Our balance sheet has increased from [redacted].

Profitability

[redacted]

Financial Report

Appendix A
Contact Information:

Chris Bell – Controller
1 Cooperative Way
Little Rock, AR 72209
501-570-2184

4b. Bonding

Current bonding rating (maximum project size firm can bond)

- [redacted]

Current bonding capacity

- $[redacted]

Current bonding rate

- [redacted]

Confirmation that the company is bondable for 100% of a payment bond on a project

- Yes

Confirmation that the company is bondable for 100% of a performance bond on a project

- Yes

Letter form a licensed surety as evidence of ability to bond for payment and performance

- Attached

5) Marketing Approach

To briefly describe TPI's proposed approach to promoting and marketing the AEPC Program both in concert with AEO and in our individual marketing efforts for EPC they would include the following:

- At TPI we are tightly integrated with the 17 electrical distribution cooperatives across the state and the state agencies, municipalities and businesses in the community they serve. We have become a trusted partner across the mid-south region of the United States. With that being said, at the discretion of AOE, TPI shall;
    - When working with the appropriate organizations, we will offer that energy performance contracting is an option for creative financing of projects of this scope.
    - Let the appropriate organizations know we are on this list as a trusted partner through traditional promotional mediums such as print and digital advertising, social media and e-mailers, as well as by-mail and phone contact.
    - An informational landing page will be added to the TPI website for more information in concert with AEPC & AEO.

6) Interpersonal Communications Approach

To briefly describe TPI's proposed approach to be a positive team member of the AEPC Program, and how you propose to work with AEO, Agencies and the ESCO Community:

- **TPI's proposed approach to be a positive team member of the AEPC Program**
    - At TPI we have a reliable and professional team of dedicated individuals who approach each project with the goal of creating cost-effective systems in fiscally and sustainably responsible ways.
    - Our core values include:
        - **Service Oriented**
            - We focus on providing satisfaction and making ourselves available to others
        - **Integrity**
            - We possess the qualities of being honest and having strong moral principles
        - **Relationships**
            - We foster valuable relationships with our clients, employees, and stakeholders
        - **Creative Freedom**
            - We can make decisions and learn from mistakes and successes
        - **Teamwork**
            - Our team is formed of individuals with similar interests and diverse skill sets that come together to realize and accomplish common goals
        - **Humility**
            - We value the humble acts of courteously respecting others and their opinions
        - **Responsibility**

        - We require justification of our actions.
    - **Safety**
        - We recognize and control hazards

- **TPI's proposed approach to work with AEO, Agencies and the ESCO Community:**
    - TPI will work with AEO, Agencies and the ESCO Community is a professional manner with the goal of pursuing guaranteed energy costs savings while complying with the AEPC Program rules, policies and procedures as outlined in the program manual.
    - TPI will implement comprehensive energy and capital improvement projects in existing building that would otherwise be cost-prohibitive. We will provide these opportunities to procure services in a timely and cost-effective way and offer fair and reasonable pricing.

7) Reporting Approach

Describe your firm's approach to providing signed copies of contracts and measurement and verification reports to AEO in a timely manner. In addition, describe how you will meet the requirements for providing project performance metrics, described in detail in the Program Manual.

- TPI's approach to providing signed copies of contracts and measurement and verification reports to AEO in a timely manner. This shall include email, digital signatures and hand-delivery when required.
- TPI will meet the requirements for providing project performance metrics, described in detail in the Program Manual by maintaining all pertinent financial and accounting records and evidence pertaining to the contract in accordance with generally accepted principals of accounting and specified by the State of Arkansas Law. Access will be granted up on request, to the State of Federal Government entities or any of their duly authorized representatives.

8) Technical Approach

Provide a description of the process your company uses to develop a typical audit in the types of facilities that will participate in the AEPC Program. Note any changes that will be made to comply with requirements of the AEPC Program. Provide a recent sample investment grade audit as an electronic attachment. The audit should be representative of a recent energy efficiency project in a government facility. Provide verification that the sample audit was conducted by the members of the company's team who will be participating in the AEPC Program.

The current process TPI uses to develop a typical audit in the types of facilities that we produce consist of an energy analysis based off historical weather data and usage over a 12-month period.

See recent audit provided by Matt Irving – Director of Operations at Today's Power, Inc. for a solar PV Project using industry standard projection tools in SOLAR IGA SCOPE OF WORK & DELIVERABLES.

- **Standards of Comfort and Construction Specifications**
    - **A brief description of the standards of comfort the company generally uses for light levels, space temperatures, ventilation rates, etc. in the facilities intended for the AEPC Program and any flexibility for specific agency needs. Note any changes that will be made to comply with requirements for AEPC Program.**

        - Any existing standards of comfort will not be interrupted during the installation of a solar, storage, or EVCS project designed and installed by TPI.
- **Baseline Calculation Methodology**
    - **Provide a brief description of the methodology normally used by the company to compute the baseline of energy and water use for a facility. Include a discussion of how the Agency is engaged for development of an agreement on the baseline.**
        - To determine the baseline energy use for a facility, we require the agency to provide 12-months' worth of energy bills from their energy provider by which we use to calculate the accurate amount of solar or storage that needs to be installed to off-set current energy usage and demand.
- **Adjustments to Baseline**
    - **Provide a brief discussion of typical factors that can impact the calculated baseline and the company's general approach to adjusting the calculated baseline if one or more of these factors are present. Include how the Agency is involved for agreement on any adjustments.**
        - Any additional machinery, facilities, or energy efficiency upgrades made after the installation of the solar/storage array would adjust the calculated baseline if one or more of these factors or present. The agency involved, must calculate for the additional load when calculating long-term savings.

9) Company Scope of Services

Provide a brief description that highlights your firm's capabilities to provide services for the following items. Include as many as possible to validate firm's capabilities.

8a. Energy systems in buildings:

- Central plants
    - N/A
- Control and building automation systems
    - Energy storage dispatch control available in manual or automation.
- Daylighting
    - N/A
- Distributed generation
    - Solar PV
    - Energy Storage
    - EVCS
- Fuel switching
    - Automation on energy storage can switch from grid to stored renewable generation.
- Heating systems
    - N/A
- Indoor air quality
    - N/A
- Kitchens
    - N/A
- Laboratories
    - N/A
- Laundry

    - N/A
- Lighting systems: indoor and outdoor
    - N/A
- Renewables (geothermal solar-electric/thermal, wind, biomass)
    - Solar PV
    - Storage
    - Electric Vehicles / Chargers
- Swimming pools and recreational facilities
    - N/A
- Transportation – fleet fuel management, etc.
    - EV Leaseback Program
- Utility management
    - Solar
    - Storage
    - Capacitor Banks
    - Grid Energy Routers
    - General Consulting
    - Wholesale Power Bill Analysis
    - Demand Mitigation
- Ventilation systems
    - N/A
- Water-consuming systems
    - N/A

8b. Project Development and Implementation:

- Investment Grade Energy auditing (ASHRAE Level 3 audit)
    - In lieu IGA, TPI will perform an energy consumption analysis, solar performance analysis to determine the amount solar needed to offset current energy consumption.
- Financing Knowledge: Municipal-tax-exempt lease purchase, Bonds, Self-Financed, other
    - We are equipped with an advanced finance and accounting team that has experience in bonds, tax exemption, self-financed projects and more.
- Identification and application for utility rebates
    - We have vast experience with utility rate structure and rebates as a part of the Electric Cooperatives of AR.
- Commissioning of projects and retro-commissioning of existing buildings
    - We will commission all projects installed by TPI
- Identification of asbestos and other hazardous materials and abatement, recycling or disposal as applicable
    - N/A
- Construction
    - We provide turn-key services which include the engineering, procurement, and construction of energy project as well as operation and maintenance.
- System design engineering: mechanical, electrical, etc.
    - We provide turn-key services which include the engineering, procurement, and construction of energy project as well as operation and maintenance.
- Project/construction management
    - We provide turn-key services which include the engineering, procurement, and construction of energy project as well as operation and maintenance.

- Procurement, Bidding, Cost estimating
    - We provide turn-key services which include the engineering, procurement, and construction of energy project as well as operation and maintenance.
- Project Constructability
    - We provide turn-key services which include the engineering, procurement, and construction of energy project as well as operation and maintenance.

8c. Support Services:

- Measurement and verification of savings
    - We offer system monitoring through metering of our energy systems and provide an economic analysis prior to installation
- Equipment warranties
    - Are available on all projects
- Calculation and reporting of emissions reductions
    - Available on all projects
- Marketing and promotion of a State or Federal EPC Program
    - Available on all projects
- Performance guarantee for every year of the financing term
    - Yes
- Insurance per contract requirements
    - Yes
- Application for an Energy Star Label Application for LEED certification
    - Yes
- Training of maintenance staff and occupants
    - Yes
- Hazardous material handling
    - NA but can facilitate
- Long-term maintenance services of energy systems
    - Yes

10) Project History

In a single table, list public energy efficiency projects developed and implemented by your locally represented firm or its key members within the past five years; Indicate whether project was through your firm or a key member's previous firm. For the Project Timeline entry, include key milestone dates, such as year IGA signed (SPSA), IGA completed (SPSA), contract signed and/or construction completed.

For the purposes of this application IGA will be replaced with the term Solar Power Services Agreement (SPSA).

Project Name	Facility Type	Firm	City & State	Project Size (Dollars)	Project Size (kW)	Project Timeline
Arkansas Electric Cooperative, Inc.	Solar PV	TPI	Little Rock, AR	Confidential	300 kW	Master Lease executed 07/01/2015; Project completed 7/1/2015
Arkansas Valley Electric Cooperative	Solar PV	TPI	Van Buren, AR	Confidential	660 kW	SPSA executed 04/26/2016; Project completed 11/1/2016
Ashley-Chicot Electric Cooperative	Solar PV	TPI	Hamburg, AR	Confidential	1,400 kW	SPSA executed 04/46/2018; Project completed 9/1/2018
Central Electric Cooperative	Solar PV	TPI	Stillwater, OK	Confidential	500 kW	SPSA executed 09/30/2015; Project completed 8/1/2016
City of Fayetteville / Ozarks Electric Cooperative	Solar + Storage	TPI	Fayetteville, AR	Confidential	10,000 kW (solar) / 12,000 kW (storage)	SPSA executed 11/01/2018; Project currently in construction
ERMCO	Solar PV	TPI	Dyersburg, TN	Confidential	500 kW	Master Lease executed 12/01/2015; Project completed 1/31/2016
Farmers Electric Cooperative	Solar PV	TPI	Newport, AR	Confidential	1,400 kW	Project currently in construction
First Electric Cooperative	Solar PV	TPI	Benton, AR	Confidential	1,600 kW	SPSA executed 02/09/2016; Project completed 6/1/2017
Hershey's Chocolate	Solar PV	TPI	Bentonville, AR	Confidential	41 kW	Contract executed; Project completed 7/15/2018
Husqvarna Group	Solar PV & Capacitors	TPI	Nashville, AR	Confidential	1,400 kW	Equipment Purchase

						Agreement and Service Agreement both executed 05/19/2017; Project completed 11/30/2017
North Arkansas Electric Cooperative	Solar PV	TPI	Salem, AR	Confidential	1,400 kW	SPSA executed 04/30/2018; Project completed 3/15/2019
Ouachita Electric Cooperative	Solar PV	TPI	Camden, AR	Confidential	100 kW	SPSA executed 07/28/2015; Project completed 3/1/2016
Ouachita Electric Cooperative	Solar PV	TPI	Holly Springs, AR	Confidential	1,600 kW	SPSA executed 01/31/2017; Project completed 6/30/2017
Ozarks Electric Cooperative	Solar PV	TPI	Springdale, AR	Confidential	1,600 kW	Master Lease executed 08/28/2015; Project completed 6/1/2016
SATCO	Solar PV	TPI	Hampton, AR	Confidential	120 kW	Purchase, Sale and Installation agreement executed 06/09/2017; Project completed 12/1/2017
SAU Technical College	Solar PV	TPI	Camden, AR	Confidential	1,400 kW	Project currently under construction
South Central Electric Cooperative	Solar PV	TPI	Arkadelphia, AR	Confidential	1,400 kW	Project currently under construction
Tri-County Electric Cooperative	Solar PV	TPI	Hooker, OK	Confidential	1,600 Kw	SPSA executed 08/05/2015; Project completed 5/1/2016
Tyson Foods	Solar PV	TPI	Fayetteville, AR	Confidential	51 kW	Purchase, Sale and Installation agreement executed 07/05/2017; Projected completed 7/15/2017
Woodruff Electric Cooperative	Solar PV	TPI	Forrest City, AR	Confidential	1,400 kW	SPSA executed 12/04/2018; Project currently under construction

11) Project References

Provide detailed information for a maximum of three public energy efficiency projects your firm completed or were completed by members of your locally represented firm, which can be used for references. Expand on the information provided in the previous section to give details on individual projects. Include the following information on each project as a minimum (maximum five pages per project reference)

- **Project Identification: Husqvarna Group, Nashville, AR, and facility type (manufacturing)**
  - Contact Information:
    - Todd Anderson
      - (803) 707-2382
      - todd.s.anderson@husqvarnagroup.com
    - Project Size:
      - 1,400 kW
  - Project Dollar Amount: Total contract amount and the total project capital expenditure amount
    - **Confidential**
  - Source of Funding:
    - This project was funded by Husqvarna Global and incorporated the use of the New Market Tax Credit while monetizing the Federal Investment Tax Credit. TPI used equity cash to fund our construction of the project.
  - Project Dates: Actual dates of audit start and acceptance; actual construction starting and ending dates
    - Acceptance: 5/19/2017
    - Actual Construction: 7/1/2017 – 11/30/2017
    - Ending Dates: 11/30/2017
  - Contract Terms:
    - This was an outright purchase.
  - Project Personnel: A list of the name(s) of individuals involved in the project, their role(s) and if these personnel will be assigned to Arkansas projects. (Attach their resumes in the Project Management and Staffing section)

Name	**Title/Role**
Michael Henderson	President
Matt Irving	VP of Operations
Chris Bell	Controller
Robert Berry	Project Foreman
Jennah Denney	PR / Marketing Coordinator

  - Project Schedule: Indicate if project was completed on schedule and, if not, please explain.
    - This project was on schedule
  - List of Improvements: The types of retrofits and operational improvements implemented related to energy, water and other cost savings
    - Solar PV
    - Capacitor Bank

- Project Performance: The amounts of projected annual savings, guaranteed annual savings, and actual annual savings for each project in a table.
  - Projected Annual Savings: **Confidential**
  - Guaranteed Annual Savings: **Confidential**
  - Actual Annual Savings: We do not have record of this since it was an outright sale and we don't have access to their power bills.
- Measurement and Verification: A brief description of the M&V approach for each project including which savings were stipulated, if any
  - All of our systems are equipped with system monitoring.
- Performance Guarantee: A description of the savings guarantee for each project and, if the guaranteed savings were not achieved, how the company compensated the agency for any annual shortfall (e.g. paid funds to meet the guarantee, etc.)
  - A two-year guarantee that the system would produce over 80% of the estimated kWh's. The system performed well and generated more than sufficient kWh's for the two years. The guarantee time period has expired, and Husqvarna is still pleased with the performance.
- Project Status: Post M&V, closed (M&V term completed), Additional EPC Phase in Progress (audit or construction), Non-EPC work in progress, other (explain).
  - All phases complete
- Additional Comments: Comments on any special features, services, conditions, creative approaches, special needs of customer, etc. that may be relevant to the AEPC Program and clientele.
  - TPI takes a very thorough and detailed approach to serving client's needs. We look at their entire power bill along with 15-minute interval billing data to customize a system that fits their needs. We do not try to oversell. The system has to make economic sense. In the case of Husqvarna, we also helped them achieve savings by noticing their power factor was lower than it needed to be and it was easily fixed by installing capacitors that had a quick payback period.

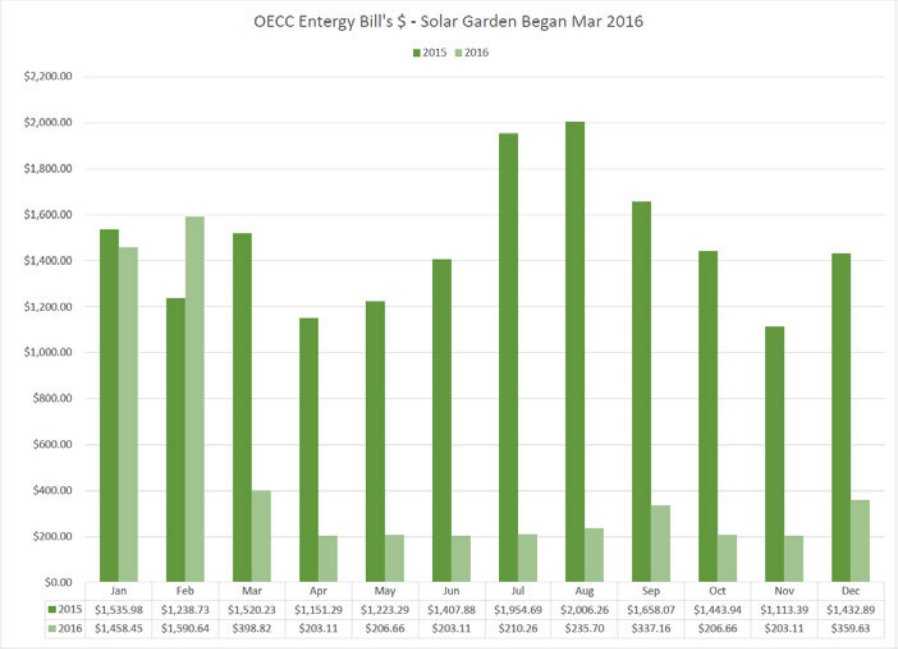
- **Project Identification: Ouachita Electric Cooperative, Camden, AR, and facility type (office facility.)**
  - Contact Information:
    - Mark Cayce
    - Camden, AR
    - Office
      - (870) 675-7026
      - mark.cayce@gmail.com
  - Project Size:
    - 100 kW
  - Project Dollar Amount: Total contract amount and the total project capital expenditure amount
    - **Confidential**
  - Source of Funding: A description of the source of funding used for the project and the company's role (if any) in securing that funding

        - This projected is owned and operated by TPI, whereas Ouachita entered a solar power services agreement to purchase the capacity of the solar array. TPI financed this facility through a private insurance lender for 10 years.
- Project Dates: Actual dates of audit start and acceptance; actual construction starting and ending dates
    - Acceptance: 7/28/2015
    - Actual Construction: 1/1/2016 – 3/1/2016
    - Ending Dates: 3/1/2016
- Contract Terms: A description of the type of contract, financing arrangement, and contract term
    - Solar Power Service Agreement
- Project Personnel: A list of the name(s) of individuals involved in the project, their role(s) and if these personnel will be assigned to Arkansas projects. (Attach their resumes in the Project Management and Staffing section)

Name	**Title/Role**
Michael Henderson	President
Matt Irving	VP of Operations
Chris Bell	Controller
Robert Berry	Project Foreman
Jennah Denney	PR / Marketing Coordinator

- Project Schedule: Indicate if project was completed on schedule and, if not, please explain.
    - This project was on schedule.
- List of Improvements: The types of retrofits and operational improvements implemented related to energy, water and other cost savings
    - At Ouachita Electric Cooperative's office facility, we were able create energy cost savings for a guaranteed 25-years by installing a 100-kW solar PV array at their facility as an energy upgrade.
- Project Performance: The amounts of projected annual savings, guaranteed annual savings, and actual annual savings for each project in a table.

- Projected Annual Savings:



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	$1,535.98	$1,238.73	$1,520.23	$1,151.29	$1,223.29	$1,407.88	$1,954.69	$2,006.26	$1,658.07	$1,443.94	$1,113.39	$1,432.89
2016	$1,458.45	$1,590.64	$398.82	$203.11	$206.66	$203.11	$210.26	$235.70	$337.16	$206.66	$203.11	$359.63

  - Guaranteed Annual Savings: $0
  - Actual Annual Savings: We do not have access to their power bills through Entergy.
- Measurement and Verification: A brief description of the M&V approach for each project including which savings were stipulated, if any
  - All of our systems are equipped with system monitoring.
- Performance Guarantee: A description of the savings guarantee for each project and, if the guaranteed savings were not achieved, how the company compensated the agency for any annual shortfall (e.g. paid underfunds to meet the guarantee, etc.)
  - No guarantee provided
- Project Status: Post M&V, closed (M&V term completed), Additional EPC Phase in Progress (audit or construction), Non-EPC work in progress, other (explain).
  - All phases of this project are complete
- Additional Comments: Comments on any special features, services, conditions, creative approaches, special needs of customer, etc. that may be relevant to the AEPC Program and clientele.

- **Project Identification: South Arkansas Telephone Company, Hampton, AR (Facility Type: Office:**
  - Contact Information:
    - Mark Lundy
    - Hampton, AR
    - Telephone Company
      - (319) 693-9333
  - Project Size: Number of buildings and total project square footage
    - 120 kW

- Project Dollar Amount: Total contract amount and the total project capital expenditure amount
  - **Confidential**
- Source of Funding: A description of the source of funding used for the project and the company's role (if any) in securing that funding
  - This project was funded by SATCO. TPI used equity cash to fund our construction of the project.
- Project Dates: Actual dates of audit start and acceptance; actual construction starting and ending dates
  - Acceptance: 6/9/2017
  - Actual Construction: 1/1/2016 – 3/1/2016
  - Ending Dates: 12/1/2017
- Contract Terms: A description of the type of contract, financing arrangement, and contract term
  - This was an outright purchase by SATCO for the system. TPI funded the project with internal cash and SATCO paid for the entire system once completed.
- Project Personnel: A list of the name(s) of individuals involved in the project, their role(s) and if these personnel will be assigned to Arkansas projects. (Attach their resumes in the Project Management and Staffing section)

Name	**Title/Role**
Michael Henderson	President
Matt Irving	VP of Operations
Chris Bell	Controller
Robert Berry & Dan Crews	Project Foreman
Jennah Denney	PR / Marketing Coordinator

- Project Schedule: Indicate if project was completed on schedule and, if not, please explain.
  - This project was on time
- List of Improvements: The types of retrofits and operational improvements implemented related to energy, water and other cost savings
  - At South Arkansas Telephone Company's off-site facility, we were able create energy cost savings for a guaranteed 25-years by installing a 120-kW solar PV array that produces 100% of their annual consumption.
- Project Performance: The amounts of projected annual savings, guaranteed annual savings, and actual annual savings for each project in a table.
  - Projected: 100% solar by producing 193,000 kWh's annually
  - Guaranteed: $0
  - Actual: This was an outright sale and we do not have access to their power bills.
- Measurement and Verification: A brief description of the M&V approach for each project including which savings were stipulated, if any
  - All of our systems are equipped with system monitoring.
- Performance Guarantee: A description of the savings guarantee for each project and, if the guaranteed savings were not achieved, how the company compensated the agency for any annual shortfall (e.g. paid funds to meet the guarantee, etc.)

        - No guarantee provided
    - Project Status: Post M&V, closed (M&V term completed), Additional EPC Phase in Progress (audit or construction), Non-EPC work in progress, other (explain).
        - All phases of this project are complete.
    - Additional Comments: Comments on any special features, services, conditions, creative approaches, special needs of customer, etc. that may be relevant to the AEPC Program and clientele.

12. Cost and Pricing

12a. Investment Grade Audit (IGA) Costs

Please describe your company's approach to IGA Pricing.

The IGA is an audit that fulfills the obligations outlined in Exhibit A of the AEO IGA Contract. All ESCOs in the AEPC Program are required to use the AEO-developed IGA costs in their competitive proposals to public entities, and in no case shall the prices in the table be exceeded. The cost for the IGA is based on cost per square foot and is intended to be the market rate for an IGA.

The basic cost per square foot of the IGA to be used for typical buildings:

Pricing per kW	300 kW	1,000 kW	10,000 kW
	[redacted]	[redacted]	[redacted]

[redacted] is intended to be representative.

If a specific project includes systems or facilities other than typical buildings (e.g. waste water treatment, baseball fields, pools, street lighting, etc.), the ESCO may provide estimated additional costs in its IGA pricing proposal. The public entity and selected ESCO will negotiate final costs prior to execution of the IGA and Project Proposal contract.

12b. Fuel Escalation.

Please describe your company's approach to fuel escalation rates.

At TPI we find solutions that work today and do not assume what rates will be in the future. It is our approach to create savings that work with today's rate structure.

12c. Equipment/Labor Cost Competition

Describe your company's process to solicit bids on equipment/labor or to ensure price/cost competition and the best value for the public entity

TPI ensures that all our processes, including bids on equipment/labor lead to the construction and design of cost-effective projects**.**

12d. Open Book Pricing

Open book pricing is full disclosure by the contractor to the public entity and AEO of all costs and markups for materials, labor, and services received during the project development, implementation, construction, and performance period phases. Open book pricing requires that all costs, including itemized costs of subcontractors and vendors, are fully disclosed if requested by the public entity at any time during a project, not just at the closing of the project. Describe your company's approach to

open book pricing and its method for maintaining costing records on authorized work performed under actual costs for labor and material, or other basis requiring accounting records.

TPI will provide AEO project specific open book pricing and its methods for maintaining cost accounting records on authorized work performed under actual costs for labor and material, and other basis requiring accounting records.

12e. Project Cost and Pricing Elements

Once the public entity has selected a project scope, estimated project costs and open-book pricing elements will be negotiated and become part of the final IGA contract. The pricing table format to be used is provided in Exhibit C, "AEPC Investment Grade Audit and Project Development Contract."

For the purposes of the IGA contract, an ESCO may provide estimated cost percentage ranges for each of the elements. Once the IGA is completed and final scope is developed, the ESCO will provide true costs and for which each category must fall within the proposed percentage range. ESCOs agree to use the cost and pricing values when developing a final IGA and Project Proposal.

TPI will provide AEO with project specific items as noted in Exhibit C, "APEC Investment Grade Audit and Project Development Contract."

SOLAR IGA SCOPE OF WORK & DELIVERABLES

- **Existing Conditions:** Collect data and background information from Owner concerning facility operation and energy use for the most recent year from the effective date of this Contract as follows:
    - Construction data of buildings and major additions including building envelope.
    - Utility company bills (12 months)
    - Description of all energy-consuming or energy-saving equipment used on the premises.
    - Description of energy management procedures utilized on the premises.
    - Description of any energy-related improvements made or currently being implemented.
    - Description of any changes in the structure of the facility or energy-using or water-using equipment.
    - Description of future plans regarding building modifications or equipment modifications and replacements, or land development.
    - Drawings, as available (may include mechanical, plumbing, electrical, building automation and temperature controls, structural, architectural, modifications and remodels).
    - Original construction submittals and factory data (specifications, pump curves, etc.), as available.
    - Prior energy audits or studies, if any.
- **Identify Scope of Work:** Interview individuals with knowledge of the facility such as the facility manager, maintenance staff, subcontractors and occupants of each building regarding:
    - Facility operation, including energy management procedures.
    - Equipment maintenance problems.
    - Equipment and roof reliability.
    - Projected equipment needs.
    - Occupancy and use schedules for the facility and specific equipment.
    - Facility improvements – past, planned and desired.
    - Develop a preliminary list of potential energy. Consider the following for each system:
        - Maintenance problems.
        - Energy use, loads, proper sizing, efficiencies and hours of operation.
        - Current operating condition.
        - Remaining useful life.
        - Feasibility of system replacement.
        - Hazardous materials and other environmental concerns.
        - Owner's future plans for equipment replacement or building renovations.
        - Facility operation and maintenance procedures that could be affected.
        - Capability to monitor energy performance and verify savings.

- **Recent Audit for a solar PV Project using industry standard projection tools.**

HelioScope — Annual Production Report produced by Matt Irving

Craighead Final Craighead, Brookland AR

Report

Project Name	Craighead
Project Address	Brookland AR
Prepared By	Matt Irving mirving@todayspower.com

Today's Power
Your Energy Partner

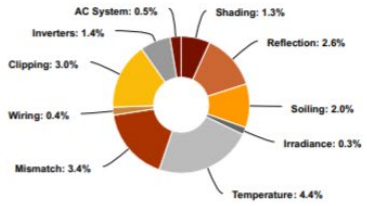
System Metrics

Design	Craighead Final
Module DC Nameplate	1.41 MW
Inverter AC Nameplate	1,000.0 kW Load Ratio: 1.41
Annual Production	2.425 GWh
Performance Ratio	82.2%
kWh/kWp	1,713.8
Weather Dataset	TMY, 10km Grid (35.95,-90.55), NREL (prospector)
Simulator Version	77c98b59b3-5eebe82f27-a5abca7f32-d8dea3204b

Project Location

Monthly Production

Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,631.0	
	POA Irradiance	2,083.9	27.8%
	Shaded Irradiance	2,056.4	-1.3%
	Irradiance after Reflection	2,003.8	-2.6%
	Irradiance after Soiling	1,963.7	-2.0%
	Total Collector Irradiance	**1,963.7**	**0.0%**
Energy (kWh)	Nameplate	2,779,012.8	
	Output at Irradiance Levels	2,769,764.1	-0.3%
	Output at Cell Temperature Derate	2,646,546.8	-4.4%
	Output After Mismatch	2,557,873.0	-3.4%
	Optimal DC Output	2,548,650.2	-0.4%
	Constrained DC Output	2,471,130.7	-3.0%
	Inverter Output	2,436,760.0	-1.4%
	Energy to Grid	**2,424,580.0**	**-0.5%**
Temperature Metrics			
	Avg. Operating Ambient Temp		18.6 °C
	Avg. Operating Cell Temp		28.6 °C
Simulation Metrics			
	Operating Hours		4646
	Solved Hours		4646

Condition Set

Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid (35.95,-90.55), NREL (prospector)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module	Characterization										
	JAM72S03-365/PR (JA Solar)	Spec Sheet Characterization, PAN										
Component Characterizations	Device	Characterization										
	SUN2000-36kTL-GB480 (Huawei Technologies)	Default Characterization										

Components

Component	Name	Count
Inverters	SUN2000-36kTL-GB480 (Huawei Technologies)	25 (1,000.0 kW)
Strings	10 AWG (Copper)	200 (43,971.8 ft)
Module	JA Solar, JAM72S03-365/PR (365W)	3,876 (1.41 MW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	6-20	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Single-axis Trackers (N/S)	Portrait (Vertical)	15°	180°	13.5 ft	1x57	68	3,876	1.41 MW

Detailed Layout

- **Savings Calculation Analysis (Sub costs and bids would be provided here)**
  - Analyze savings and costs for each mutually agreed to energy saving measure and any mutually agreed to capital improvement measures.
  - Utilize assumptions, projections and baselines which best represent the true value of future energy or operational savings. Include accurate marginal costs for each unit of savings at the time the audit is performed, documentation of material and labor cost savings, adjustments to the baseline to reflect current conditions at the facility, calculations which account for the interactive effects of the recommended measures.
  - Use best judgment regarding the employment of instrumentation and recording durations to achieve an accurate and faithful characterization of energy use.
  - Adhere to ranges of project costs stated in contract in all cost estimates.

    The basic cost per square foot of the IGA to be used for typical buildings:

Pricing per kW	300 kW	1,000 kW	10,000 kW
	$ 0.06 - $0.08	$0.045 - $0.05	$0.042 - $0.048

    Pricing is intended to be representative.

    If a specific project includes systems or facilities other than typical buildings (e.g. waste water treatment, baseball fields, pools, street lighting, etc.), the ESCO may provide estimated additional costs in its IGA pricing proposal. The public entity and selected ESCO will negotiate final costs prior to execution of the IGA and Project Proposal contract.

- **Develop a preliminary measurement and verification plan for each measure.**
  - Measure assessments and verifications for Kilo-watt hours may include:
    - Preliminary development with helioscope
      - Details of baseline conditions and data collected
      - Documentation of all assumptions and sources of data
      - Utility rates and how they will be used to calculate cost savings
    - Preliminary development with PVwatts
      - Details of baseline conditions and data collected
      - Documentation of all assumptions and sources of data
      - Utility rates and how they will be used to calculate cost savings
    - Field verification, meter reading completed post installation on a monthly basis and compared to preliminary estimates
      - Reports may be filed monthly and yearly or as required per contract
        - Utility rates and how they will be used to calculate cost savings
        - Details of operations and maintenance (O&M) cost savings claimed
        - Defined O&M reporting responsibilities
        - How and why the baseline may be adjusted
        - How energy savings will be calculated
        - Details of engineering analysis performed

- **Proposed Commissioning Plan**
  - Fixed system
    - Verify DC/AC wiring is completed as designed
    - Verify utility company is prepared via Standard Interconnection Agreement
    - Verify all shut-off and disconnect components function properly
  - Tracking system
    - Verify tracking system is rotating positions and responding to 'commands' as expected
    - Verify DC/AC wiring is completed as designed
    - Verify utility company is prepared via Standard Interconnection Agreement
    - Verify all shut-off and disconnect components function properly

- **Listing of Affected Utility Meters, with Existing Utility Rates (both consumption & demand)**
  - Description and itemization of current billing rates, including schedules and riders.
    - Currently we only charge a rate included in the customer's contract for kWh generated during the month. There are no other charges.
  - Summary of all utility bills (energy) may include, but not limited to:
    - Energy Charges
    - TO/RT0 Energy and Debt Cost Adjustments
    - Service Availability/Access Charges
    - Demand Charges
    - Delivery Charges
    - State/County/Consumption Taxes
  - Identification and definition of base year consumption and description of how established.
    - To determine the baseline energy use for a facility, we require the agency to provide 12-months' worth of energy bills from their energy provider by which we use to calculate the accurate amount of solar or storage that needs to be installed to off-set current energy usage and demand. Energy consumed by the client in the last 12 months
- **Projected Project Performance:**
  - Include chart that shows project description, location and simple payback taking into consideration the following:
    - Guaranteed (utility) and non-guaranteed (operations, maintenance, tariff, and rebate) savings.

SAMPLE FOR DEMONSTRATION PURPOSES ONLY	
Customer Name	
Customer Location	Arkansas
Type of System	Tracking or Fixed
Installed kW	1,000 AC
Annual Generated (kWh estimate)	2,100,000
Installed Cost	[redacted]
[redacted]	[redacted]

[redacted]	[redacted]

- **Project Proforma (FOR DEMONSTRATION PURPOSES ONLY)**
  - Show cash flow with all project costs and savings for length of the financing term (further if we desire to show additional benefits of the solar facility after payoff).

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Retail Rate Energy Savings	188,087	186,582	185,090	183,609	182,140	180,683	179,237	177,804	176,381	174,970
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Retail Rate Energy Savings	173,570	172,182	170,804	169,438	168,082	166,738	165,404	164,081	162,768	161,466
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

Note: Estimates are based on our all-inclusive energy cost per kWh and the customer's current retail rate. Degradation is assumed to be 0.8% each year.