



# Public Service Commission State of North Dakota

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COMMISSIONERS

Randy Christmann  
Sherri Haugen-Hoffart  
Julie Fedorchak

600 East Boulevard Avenue Dept. 408  
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October 12, 2023

Jack Madden  
GDS Associates, Inc.  
1850 Parkway Place Suite 800  
Marietta GA 30067

Re: Case No. PU-23-182  
Northern States Power Company  
Advance Prudence – Sherco Solar 3 Project  
Application

Dear Mr. Madden:

Enclosed please find the executed contract with GDS Associates, Inc. to provide consulting services in the above captioned case.


Best Regards,


A handwritten signature in black ink, appearing to read "V. Schock", with a long horizontal flourish extending to the right.

Victor Schock, Director  
Public Utilities Division

Enclosure

**CONTRACT NUMBER PU-887-23**

<b>Administrator:</b>	State of North Dakota Public Service Commission State Capitol - 12th Floor Bismarck, ND 58505-0480 (701) 328-2400
<b>Date:</b> <u>10/12/23</u>	<b>Case No.</b> PU-23-182
 _____ <b>Steve Kahl</b> Executive Director	

<b>Contractor</b>		
GDS Associates, Inc.		
<b>Name</b>		
1850 Parkway Place, Suite 800	Marietta, GA 30067	770-425-8100
<b>Address</b>	<b>City/State/Zip</b>	<b>Phone</b>
Jack Madden		Senior Vice President
<b>Typed Name</b>		<b>Title</b>
		<u>10/10/2023</u>
<b>Signature</b>		<b>Date</b>

<b>Agreement Information</b>	
Contract No.:	<u>PU-887-23</u>
Start Date:	<u>Upon Execution</u>
End Date:	<u>December 31, 2024</u>
Case No.	<u>PU-23-182</u>
<b>Type of Contract:</b>	<input checked="" type="checkbox"/> Fixed Price <input type="checkbox"/> Cost Reimb. <input type="checkbox"/> Unit Price <input type="checkbox"/> Other

<b>Budget Information</b>	
Cost Center:	<u>7300</u>
Services:	<u>Consulting Services</u>
Expenses:	<u>\$115,335</u>
<b>Type of Contractor:</b>	<input type="checkbox"/> Individual <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Public Agency <input type="checkbox"/> Nonprofit Organization <input type="checkbox"/> Other

This Contract is entered into between the State of North Dakota acting through the Public Service Commission (STATE) and GDS Associates, Inc. (CONTRACTOR). This contract consists of this sheet, general provisions and specific provisions.

## **PURCHASE OF SERVICE CONTRACT**

The parties to this contract are the State of North Dakota, acting through its North Dakota Public Service Commission, Public Utilities Division (STATE) and GDS Associates, Inc., 1850 Parkway Place, Suite 800, Marietta, GA 30067 (CONTRACTOR).

### **1. SCOPE OF WORK**

CONTRACTOR, in exchange for the compensation paid by STATE under this Contract, agrees to provide the services enumerated below. CONTRACTOR shall be registered with the North Dakota Secretary of State and the North Dakota State Procurement Office prior to Contract execution.

CONTRACTOR agrees to perform services outlined in Section 2 per the schedule outlined in Section 2.8 of RFP number 408.23.08.010 and CONTRACTOR's response to RFP number 408.23.08.010 (the "CONTRACTOR's Proposal"). The written proposal provided by CONTRACTOR is attached to and incorporated into this agreement.

### **2. COMPENSATION**

#### **Contractual Amount**

STATE shall pay for the accepted services provided by CONTRACTOR under this Contract an amount not to exceed \$115,335. For the purposes of clarity, the services included in the contractual amount are the Scope of Work Strategy described in Section 2 in the CONTRACTOR'S Proposal.

The Contractual Amount is firm for the duration of the Contract and constitutes the entire compensation due CONTRACTOR for performance of its obligations under this Contract, unless amended, regardless of this difficulty, materials or equipment required, including fees, licenses, overhead, profit and all other direct and indirect costs incurred by CONTRACTOR, except as provided by an amendment to this Contract.

The STATE will make payments based on a monthly payment schedule. Each billing must consist of an invoice listing the contract number, hours worked at the contract rate, the staff person completing the work, and include a progress report. No payment will be made until the Project Manager has reviewed the progress report and approved the invoice.

Adam Renfandt – Project Manager  
Public Utility Analyst – North Dakota Public Service Commission  
600 E Boulevard Ave, Dept 408  
Bismarck, ND 58505-0480  
arenfandt@nd.gov  
701.328.4153

#### **Payment**

1. Payment made in accordance with this Compensation section constitutes payment in full for the services and work performed and the deliverables and work(s) provided under this Contract and CONTRACTOR will not receive any additional compensation hereunder.
2. STATE will make every attempt to make payment under this Contract within forty-five(45) calendar days after receipt of an approved invoice.

3. Payment of an invoice by STATE will not prejudice STATE's right to object to or question that or any other invoice or matter in relation to this contract. CONTRACTOR's invoice will be subject to reduction for amounts included in any invoice or payment made which are determined by STATE, on the basis of audits conducted in accordance with the terms of this Contract, not to constitute allowable costs. At STATE's sole discretion, all payments shall be subject to reduction for amounts equal to prior overpayments to CONTRACTOR.
4. For any amounts that are or will become due and payable to STATE by CONTRACTOR, STATE reserves the right to deduct the amount owed from the payments that are or will become due and payable to CONTRACTOR under this Contract.

#### **Travel**

CONTRACTOR acknowledges travel costs are included in the Contractual Amount and may include travel costs in the monthly invoices submitted to STATE.

#### **Prepayment**

STATE will not make any advance payments before full performance by CONTRACTOR under this Contract.

#### **Payment of Taxes by STATE**

STATE is not responsible for and will not pay local, state, or federal taxes. STATE sales tax exemption number is E-2001. STATE will furnish certificates of exemption upon request by the CONTRACTOR.

#### **Taxpayer ID**

CONTRACTOR shall provide STATE with its federal employer ID number and North Dakota tax ID number upon request.

### **3. TERM OF CONTRACT**

This Contract begins on the date the last party has fully executed the Contract, and ends on December 31, 2024.

#### **No Automatic Renewal**

This Contract will not automatically renew.

#### **Extension Option**

STATE reserves the right to extend the Contract up to three times for an additional period of time not to exceed 12 months per extension.

#### **Renewal Option**

STATE may renew this Contract upon satisfactory completion of the initial Contract term. STATE reserves the right to execute up to three options to renew this Contract under the same terms and conditions for a period of twelve months each.

#### **4. TIME IS OF THE ESSENCE**

CONTRACTOR hereby acknowledges that time is of the essence for performance under this Contract unless otherwise agreed to in writing by the parties.

#### **5. TERMINATION OF CONTRACT**

##### **Termination by Mutual Agreement**

This Contract may be terminated by mutual consent of both parties, executed in writing.

##### **Termination without Cause**

STATE is entering this Contract for the purpose of carrying out the public policy of the State of North Dakota, as determined by its Governor, Legislative Assembly, Agencies and Courts. If this Contract ceases to further the public policy of the State of North Dakota, STATE, in its sole discretion, by written notice to CONTRACTOR, may terminate this Contract in whole or in part.

##### **Termination for Lack of Funding or Authority**

STATE by written notice to CONTRACTOR, may terminate the whole or any part of this Contract under any of the following conditions:

- 1) If funding from federal, state, or other sources is not obtained and continued at levels sufficient to allow for purchase of the services or supplies in the indicated quantities or term.
- 2) If federal or state laws or rules are modified or interpreted in a way that the services are no longer allowable or appropriate for purchase under this Contract or are no longer eligible for the funding proposed for payments authorized by this Contract.
- 3) If any license, permit, or certificate required by law or rule, or by the terms of this Contract, is for any reason denied, revoked, suspended, or not renewed.

Termination of this Contract under this subsection is without prejudice to any obligations or liabilities of either party already accrued prior to termination.

##### **Termination for Cause**

STATE may terminate this Contract effective upon delivery of written notice to CONTRACTOR, or any later date stated in the notice:

- 1) If CONTRACTOR fails to provide services required by this Contract within the time specified or any extension agreed to by STATE; or
- 2) If CONTRACTOR fails to perform any of the other provisions of this Contract, or so fails to pursue the work as to endanger performance of this Contract in accordance with its terms.

The rights and remedies of STATE provided in this subsection are not exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

## **6. FORCE MAJEURE**

Neither Party shall be held responsible for delay or default caused by fire, riot, terrorism, pandemic (excluding COVID-19), acts of God, or war if the event was not foreseeable through the exercise of reasonable diligence by the affected Party, the event is beyond the Party's reasonable control, and the affected Party gives notice to the other Party promptly upon occurrence of the event causing the delay or default or that is reasonably expected to cause a delay or default. If CONTRACTOR is the affected Party and does not resume performance within fifteen (15) days or another period agreed between the Parties, then STATE may seek all available remedies, up to and including termination of this Contract pursuant to its Termination Section, and STATE shall be entitled to a pro-rata refund of any amounts paid for which the full value has not been realized, including amounts paid toward software subscriptions, maintenance, or licenses.

## **7. INDEMNITY**

CONTRACTOR agrees to defend, indemnify, and hold harmless the state of North Dakota, its agencies, officers and employees (STATE), from and against claims based on the vicarious liability of the STATE or its agents, but not against claims based on the STATE's contributory negligence, comparative and/or contributory negligence or fault, sole negligence, or intentional misconduct. The legal defense provided by CONTRACTOR to the STATE under this provision shall be free of any conflicts of interest, even if retention of separate legal counsel for the STATE is necessary. An attorney appointed to represent the STATE shall first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under North Dakota Century Code section 54-12-08. CONTRACTOR also agrees to defend, indemnify, and hold the STATE harmless for all costs, expenses, and attorneys' fees incurred if the STATE prevails in an action against CONTRACTOR in establishing and litigating the indemnification coverage provided herein. This obligation continues after the termination of this agreement.

## **8. INSURANCE**

CONTRACTOR shall secure and keep in force during the term of this agreement and CONTRACTOR shall require from all subcontractors, prior to commencement of an agreement between Contractor and the subcontractor, to secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds, authorized to do business in North Dakota, the following insurance coverages:

- 1) Commercial general liability, including premises or operations, contractual, and products or completed operations coverages (if applicable), with minimum liability limits of \$2,000,000 per occurrence.
- 2) Automobile liability, including Owned (if any), Hired, and Non-Owned automobiles, with minimum liability limits of \$500,000 per person and \$2,000,000 per occurrence.
- 3) Workers compensation coverage meeting all statutory requirements. The policy must provide coverage for all states of operation that apply to the performance of this Contract.

- 4) Employer's liability or "stop gap" insurance of not less than \$2,000,000 as an endorsement on the workers compensation or commercial general liability insurance.
- 5) Professional errors and omissions with minimum limits of \$1,000,000 per claim and in the aggregate, Contractor shall continuously maintain such coverage during the contract period and for three years thereafter. In the event of a change of cancellation of coverage, Contractor shall purchase an extended reporting period to meet the time periods required in this section.

The insurance coverages listed above must meet the following additional requirements:

- 1) Any deductible or self-insured retention amount or other similar obligation under the policies is the sole responsibility of CONTRACTOR. The amount of any deductible or self-retention is subject to approval by the STATE.
- 2) This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and must be placed with insurers rated "A-" or better by A.M. Best Company, Inc., provided any excess policy follows form for coverage. Less than an "A-" rating must be approved by the STATE. The policies must be in form and terms approved by the STATE.
- 3) The duty to defend, indemnify, and hold harmless the STATE under this agreement is not limited by the insurance required in this agreement.
- 4) The State of North Dakota and its agencies, officers, and employees (STATE) shall be endorsed on the commercial general liability policy, including any excess policies (to the extent applicable), as additional insured. The STATE shall have all the benefits, rights and coverages of an additional insured under these policies that may not be limited to the minimum limits of insurance required by this agreement or by the Contractual indemnity obligations of CONTRACTOR.
- 5) The insurance required in this agreement, through a policy or endorsement, must include:
  - a) "Waiver of Subrogation" waiving any right to recovery the insurance company may have against the STATE;
  - b) a provision that CONTRACTOR'S insurance coverage is primary (i.e. pay first) as respects any insurance, self-insurance or self-retention maintained by the STATE and that any insurance, self-insurance or self-retention maintained by the STATE is in excess of the CONTRACTOR'S insurance and does not contribute with it;
  - c) cross liability/severability of interest for all policies and endorsements;
  - d) The legal defense provided to the STATE under the policy and any endorsements must be free of any conflicts of interest, even if retention of separate legal counsel for the STATE is necessary;
  - e) The insolvency or bankruptcy of the insured CONTRACTOR does not release the insurer from payment under the policy, even when such insolvency or bankruptcy prevents the insured CONTRACTOR from meeting the retention limit under the policy.
- 6) CONTRACTOR shall furnish a certificate of insurance to the undersigned STATE representative prior to commencement of this agreement. All endorsements must be provided as soon as practicable.

- 7) Failure to provide insurance as required in this agreement is a material breach of Contract entitling the STATE to terminate this agreement immediately.
- 8) CONTRACTOR shall provide at least 30 day notice of any cancellation or material change to these policies or endorsements. Contractor shall provide on an ongoing basis, current certificates of insurance during the term of the contract. A renewal certificate will be provided 10 days prior to coverage expiration. An updated, current certificate of insurance shall be provided in the event of any change to a policy.

## **9. WORKS FOR HIRE**

CONTRACTOR acknowledges that all work(s) under this Contract is "work(s) for hire" within the meaning of the United States Copyright Act (Title 17 United States Code) and hereby assigns to STATE all rights and interests CONTRACTOR may have in the work(s) it prepares under this Contract, including any right to derivative use of the work(s). All software and related materials developed by CONTRACTOR in performance of this Contract for STATE is the sole property of STATE, and CONTRACTOR hereby assigns and transfers all its right, title, and interest therein to STATE. CONTRACTOR shall execute all necessary documents to enable STATE to protect STATE's intellectual property rights under this section.

## **10. WORK PRODUCT**

All work product, equipment or materials created for STATE or purchased by STATE under this Contract belong to STATE and must be immediately delivered to STATE at STATE's request upon termination of this Contract.

## **11. NOTICE**

All notices or other communications required under this Contract must be given by registered or certified mail and are complete on the date mailed when addressed to the parties at the following addresses:

GDS Associates, Inc.  
1850 Parkway Place, Suite 800  
Marietta, GA 30067

North Dakota Public Service Commission  
600 East Boulevard Ave, Dept. 408  
Bismarck, ND 58505-0480

Notice provided under this provision does not meet the notice requirements for monetary claims against the STATE found at North Dakota Century Code section 32-12.2-04.

## **12. CONFIDENTIALITY**

CONTRACTOR shall not use or disclose any information it receives from STATE under this Contract that STATE has previously identified as confidential or exempt from mandatory public disclosure except as necessary to carry out the purposes of this Contract or as authorized in advance by STATE. STATE shall not disclose any information it receives from CONTRACTOR that CONTRACTOR has previously identified as confidential and that STATE determines in its sole discretion is protected from mandatory public disclosure under a specific exception to the North Dakota open records law, North Dakota Century Code chapter 44-04. The duty of STATE and CONTRACTOR to maintain confidentiality of information under this section continues beyond the term of this Contract.

### **13. COMPLIANCE WITH PUBLIC RECORDS LAW**

Under the North Dakota public records law and subject to the Confidentiality clause of this Contract, certain records may be open to the public upon request.

Public records may include: (a) records STATE receives from CONTRACTOR under this Contract, (b) records obtained by either Party under this Contract, and (c) records generated by either Party under this Contract.

CONTRACTOR agrees to contact STATE immediately upon receiving a request for information under the public records law and to comply with STATE's instructions on how to respond to such request.

### **14. INDEPENDENT ENTITY**

CONTRACTOR is an independent entity under this Contract and is not a STATE employee for any purpose, including the application of the Social Security Act, the Fair Labor Standards Act, the Federal Insurance Contribution Act, the North Dakota Unemployment Compensation Law and the North Dakota Workforce Safety and Insurance Act. CONTRACTOR retains sole and absolute discretion in the manner and means of carrying out CONTRACTOR'S activities and responsibilities under this Contract, except to the extent specified in this Contract.

### **15. ASSIGNMENT AND SUBCONTRACTS**

CONTRACTOR may not assign or otherwise transfer or delegate any right or duty without STATE's express written consent, provided, however, that CONTRACTOR may assign its rights and obligations hereunder in the event of a change of control or sale of all or substantially all of its assets related to this Contract, whether by merger, reorganization, operation of law, or otherwise. Should Assignee be a business or entity with whom STATE is prohibited from conducting business, STATE shall have the right to terminate without cause.

CONTRACTOR may enter into subcontracts provided that any subcontract acknowledges the binding nature of this Contract and incorporates this Contract, including any attachments. CONTRACTOR is solely responsible for the performance of any subcontractor with whom CONTRACTOR contracts. CONTRACTOR does not have authority to contract for or incur obligations on behalf of STATE.

### **16. SPOILIATION – NOTICE OF POTENTIAL CLAIMS**

CONTRACTOR shall promptly notify STATE of all potential claims that arise or result from this Contract. CONTRACTOR shall also take all reasonable steps to preserve all physical evidence and information that may be relevant to the circumstances surrounding a potential claim, while maintaining public safety, and grants to STATE the opportunity to review and inspect the evidence, including the scene of an accident.

### **17. MERGER AND MODIFICATION**

This Contract, including the following documents, constitutes the entire agreement between the parties. There are no understandings, agreements, or representations, oral or written, not specified within this Contract. This Contract may not be modified, supplemented or amended, in any manner, except by written agreement signed by both parties.

Notwithstanding anything herein to the contrary, in the event of any inconsistency or conflict among the documents making up this Contract, the documents shall control in this order of precedence:

- a. The terms of this Contract as may be amended;
- b. STATE RFP number 408.23.08.010
- c. CONTRACTOR's written negotiated proposal dated September 11, 2023.
- d. All terms and conditions contained in any end user agreements (e.g. automated click-throughs, shrink wrap, or bonus wrap) are specifically excluded and null and void, and may not alter the terms of this Contract.

#### **18. SEVERABILITY**

If any term of this Contract is declared to be illegal or unenforceable by a court having competent jurisdiction, the validity of the remaining terms is unaffected and, if possible, the rights and obligations of the Parties are to be construed and enforced as if this Contract did not contain that term.

#### **19. APPLICABLE LAW AND VENUE**

This Contract is governed by and construed in accordance with the laws of the STATE. Any action to enforce this Contract must be adjudicated exclusively in the state District Court of Burleigh County, North Dakota. Each party consents to the exclusive jurisdiction of such court and waives any claim of lack of jurisdiction or forum non conveniens.

#### **20. ALTERNATIVE DISPUTE RESOLUTION – JURY TRIAL**

By entering this Contract, STATE does not agree to binding arbitration, mediation, or any other form of mandatory Alternative Dispute Resolution. The Parties may enforce the rights and remedies in judicial proceedings. STATE does not waive any right to a jury trial.

#### **21. ATTORNEY FEES**

In the event a lawsuit is instituted by STATE to obtain performance due under this Contract, and STATE is the prevailing party, CONTRACTOR shall, except when prohibited by North Dakota Century Code section 28-26-04, pay STATE'S reasonable attorney fees and costs in connection with the lawsuit.

#### **22. NONDISCRIMINATION AND COMPLIANCE WITH LAWS**

CONTRACTOR agrees to comply with all applicable federal and state laws, rules, and policies, including those relating to nondiscrimination, accessibility and civil rights. (See N.D.C.C. Title 34 – Labor and Employment, specifically N.D.C.C. ch. 34-06.1 Equal Pay for Men and Women.)

CONTRACTOR agrees to timely file all required reports, make required payroll deductions, and timely pay all taxes and premiums owed, including sales and use taxes, unemployment compensation and workers' compensation premiums.

CONTRACTOR shall have and keep current all licenses and permits required by law during the Term of this Contract all licenses and permits required by law.

CONTRACTOR's failure to comply with this section may be deemed a material breach by CONTRACTOR entitling STATE to terminate in accordance with the Termination for Cause section of this Contract.

### **23. STATE AUDIT**

Pursuant to N.D.C.C. § 54-10-19, all records, regardless of physical form, and the accounting practices and procedures of CONTRACTOR relevant to this Contract are subject to examination by the North Dakota State Auditor, the Auditor's designee, or Federal auditors, if required. CONTRACTOR shall maintain these records for at least three (3) years following completion of this Contract and be able to provide them upon reasonable notice. STATE, State Auditor, or Auditor's designee shall provide reasonable notice to CONTRACTOR prior to conducting examination.

PREPARED BY GDS ASSOCIATES, INC.

# NORTH DAKOTA PUBLIC SERVICE COMMISSION

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*Northern States Power Company,  
Advance Prudence – Sherco Solar  
3 Project, Application  
Case No. PU-23-182  
Cost Proposal*

RFP #408.23.08.010

September 2023

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# 1 Cost Proposal

The following is GDS Associates, Inc. (GDS) cost proposal in response to the Request for Proposal 408.23.08.010, titled Northern States Power Company, Advance Prudence – Sherco Solar 3 Project, Case No. PU-23-182 (Referred to as “RFP” for remainder of this document) issued by the North Dakota Public Service Commission Public Utilities Division (Commission). The proposed costs reflect the maximum amount for GDS to complete this project. If review of North States Power’s economic analysis reveals they have properly performed the analysis and reflects the impact on North Dakota ratepayers, then the total cost for this effort is likely to be in the \$90,000 range.

## 1.1 LABOR COSTS

Labor costs are based upon GDS rate structure included in Appendix A. GDS agrees to use these labor rates for the duration of the project. Maximum estimated labor cost for this project is \$101,440.00. GDS will bill the commission on a monthly basis for actual labor used on the project.

## 1.2 OTHER COSTS

GDS has included the cost of travel to Bismark, North Dakota in the Expenses Section. The Expenses is based upon two GDS personnel traveling to Bismark, with three days lodging and meals. Total expenses are estimated at \$3,410.00. GDS will bill the Commission only for actual expenses. GDS also agrees to comply with any North Dakota rules on travel expenses.

GDS has included a 10% contingency cost in the cost proposal to cover any unexpected findings or in the event NSP decides to conduct depositions of GDS witnesses. Contingency cost is estimated at \$10,485.00.

## 1.3 TOTAL COST

GDS’ total estimated cost of this project is \$115,335.00 and GDS is willing to commit to a not exceed price of this amount in the contract with the Commission. The breakdown of these costs is shown in Appendix B - Table 1.

## APPENDIX A. GDS Fee Schedule

GDS ASSOCIATES, INC.  
FEE SCHEDULE  
EFFECTIVE JANUARY 1, 2023 – DECEMBER 31, 2023

<u>PERSONNEL</u> <u>CATEGORY/NAME</u>	<u>STANDARD</u> <u>BILLING RATES</u>
<b>OFFICERS AND PRINCIPALS</b>	
1. ROBERT C. SMITH	\$385
2. JACK D. MADDEN	\$355
3. DAVID M. BRIAN	\$355
4. KEVIN J. MARA	\$325
5. ROY M. LEWIS	\$305
6. SETH W. BROWN	\$330
7. BRENT A. SAYLOR	\$315
8. CHRISTOPHER C. DAWSON	\$330
9. MATTHEW S. PAMPERIN	\$290
10. CHARLES E. LOY	\$305
11. JOHN W. CHILES	\$330
12. GARRETT D. COLE	\$320
13. GARY D. BRUNAUT	\$370
14. BRUCE A. BENNETT	\$295
15. PATRICK S. BRIN	\$330
16. JACOB THOMAS	\$315
17. BRAXTON UNDERWOOD	\$290
18. BILL BATEMAN	\$320
19. MATT SISKA	\$270
20. MATHEW BUTLER	\$315
21. KRISTIN MCALPINE	\$265
22. ERNESTO PEREZ	\$305
23. BREANDAN MAC MATHUNA	\$320
24. JEFFREY R. HUBER	\$325
25. JESSICA O. ROZIER	\$305
26. MICHELE SLATER	\$305
<b>EXECUTIVE CONSULTANTS</b>	
27. JAMES W. DANIEL	\$360
28. THOMAS G. GEBHARD, JR.	\$330
29. RICHARD J. HACKNER	\$295
30. JOHN W. HUTTS	\$320
31. LYNN M. LANIER	\$320
32. W. RICHARD LOVELACE	\$230
33. JANICE NICHOLAS	\$320
34. J. STEVEN SHURBUTT	\$325
35. J. BERTRAM SOLOMON	\$435

**GDS ASSOCIATES, INC.  
FEE SCHEDULE  
EFFECTIVE JANUARY 1, 2023 – DECEMBER 31, 2023**

<b><u>PERSONNEL CATEGORY/NAME</u></b>	<b><u>STANDARD BILLING RATES</u></b>
36. RICHARD F. SPELLMAN	\$360
37. BRUCE W. WALTER	\$365
<b>MANAGING DIRECTORS/EXECUTIVE ENGINEERS</b>	
38. HOWARD CHOY	\$325
39. ROBERT C. DEW	\$290
40. KEVIN GOOLSBY	\$320
41. AMBER GSCHWEND	\$320
42. RICHARD F. HASSELMAN	\$325
43. PAUL A. HUBER	\$325
44. STEVEN HUNT	\$345
45. RICHARD A. POLICH	\$325
46. GARY S. SALEBA	\$325
47. JAMES E. STRIEDEL	\$325
48. GAIL D. TABONE	\$325
49. DONALD TRETHERWAY	\$355
50. PAUL WIELGUS	\$325
51. DAN WITTLIFF	\$325
<b>SENIOR PROJECT MANAGERS</b>	\$265-\$330
<b>PROJECT MANAGERS</b>	\$250-\$265
<b>SENIOR PROJECT ENGINEERS</b>	\$245-\$305
<b>PROJECT ENGINEERS/PROJECT CONSULTANTS</b>	\$185-\$215
<b>ENGINEERS/ANALYSTS</b>	\$175-\$185
<b>ASSOCIATE ENGINEERS/ASSOC ANALYSTS</b>	\$150-\$155
<b>SECRETARIES/SR ENGINEERING ASSISTANTS/PROJECT COOR</b>	\$120
<b>CLERICAL/ENGINEERING ASSISTANTS/CO-OPS/INTERNS</b>	\$105

## APPENDIX B. Table 1

**Table 1 - GDS Associates Cost Proposal**  
**North Dakota Public Service Commission RFP 408.23.08.010**  
**Northern States Power Company, Advance Prudence -**  
**Sherco Solar 3**

	TASK DESCRIPTION	Richard Polich	Megan Morello	Matt Smith	Jordan Janflone	Nick Weaver	Jack Madden	Total Labor Hours
1	NSP Application Review and Discovery	20	15	5	0	0	0	40
2	Sherco Solar 3 Project Prudency Assessment	48	30	20	10	10	0	118
3	Initial Testimony	40	10	5	5	5	4	69
	Rebuttal & Surrebuttal Testimony Preparation	12	6	5	5	5	2	35
	Hearing Participation	24	0	24	0	0	0	48
4	Brief & Reply Brief Support	10	5	5	5	5	0	30
	<b>Total Consultant Hours:</b>	<b>154</b>	<b>66</b>	<b>64</b>	<b>25</b>	<b>25</b>	<b>6</b>	<b>340</b>
	<b>CONSULTANT COSTS</b>							
	Hourly Rate:	\$325	\$265	\$305	\$215	\$275	\$355	
	<b>Total Hourly CostsCosts:</b>	<b>\$50,050</b>	<b>\$17,490</b>	<b>\$19,520</b>	<b>\$5,375</b>	<b>\$6,875</b>	<b>\$2,130</b>	<b>\$101,440</b>

EXPENSE	Quantity	Cost
Airfare	2 Trips	\$850 per trip \$1,700
Lodging	6 Days	\$150 per day \$900
Rental Car	3 Days	\$150 per day \$450
Meals	6 Days	\$60 per day \$360
<b>Total Expenses</b>		<b>\$3,410</b>
<b>Base Costs</b>		<b>\$104,850</b>
<b>Contingency</b>	10%	<b>\$10,485</b>
<b>TOTAL PROJECTED COSTS</b>		<b>\$115,335</b>

PREPARED BY GDS ASSOCIATES, INC.

# NORTH DAKOTA PUBLIC SERVICE COMMISSION

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*Northern States Power Company,  
Advance Prudence – Sherco Solar  
3 Project, Application  
Case No. PU-23-182  
Technical Proposal*

RFP #408.23.08.010

September 2023



Rich Polich  
richard.polich@gdsassociates.com  
phone 770.425.8100

September 11, 2023

North Dakota Public Service Commission, Public Utilities Division  
Geraldyn Schmaltz, Procurement Officer  
600 E Blvd Ave., Dept. 408  
Bismarck, ND 58505

**RE: RFP #408.23.08.010-Northern States Power Company, Advance Prudence – Sherco Solar 3 Project, Application, Case No. PU-23-182**

Ms. Geraldyn:

GDS Associates, Inc. (GDS) appreciates the opportunity to respond to the Request for Proposal 408.23.08.010, titled Northern States Power Company, Advance Prudence – Sherco Solar 3 Project, Case No. PU-23-182 (Referred to as “RFP” for remainder of this document) issued by the North Dakota Public Service Commission. GDS provided testimony on behalf of the North Dakota Public Service Commission Staff in Montana Dakota Utilities general rate case in Case No. PU-16-666. GDS has assembled a highly experienced and diverse project team with the experience, skills, and resources that are necessary to assess Northern States Power’s (NSP) justifications for the Sherco Solar 3 project. GDS has assessed solar project economics and impacts on customers for multiple clients. The advanced determination of prudence (ADP) evaluation for Sherco Solar 3 project needs to consider North Dakota ratepayer cost impacts, need for the power, and alternative generation options.

GDS is a multi-service consulting and engineering firm formed in 1986 that now employs a staff of more than 180 in nine office locations across the U.S. Our consultants are recognized leaders in their respective fields, dedicated to their clients, innovative in their approach to meeting unique challenges, and known for consistently being available when needed. Our broad range of expertise focuses on clients associated with, or affected by, electric, gas, water and wastewater utilities.

GDS has examined all parts of the RFP, including the detailed proposal requirements and submittal instructions. As outlined in this proposal, GDS is well positioned to assist and support the Commission with this project, as illustrated by our extensive experience and references outlined in this proposal. GDS has reviewed North Dakota conflict of interest laws and rules and has no conflict of interest associated with performance of the scope of work contained (SOW) in the RFP.

Thank you again for this opportunity and we look forward to answering any questions you might have regarding our proposal and our team’s experience and qualifications. Richard Polich will serve as project manager and single point of contact for further communication regarding the submitted proposal, and his email address and telephone number are as follows:

Email: [richard.polich@gdsassociates](mailto:richard.polich@gdsassociates)  
Phone: 501-316-9805

We look forward to continuing work with the Commission on this project.

Sincerely,

Jack Madden, Senior Vice President, Power Supply Planning



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# 1 RFP Amendments

There were no Amendments issued for RFP No. 408.23.08.010.

## 2 Scope of Work Strategy

GDS has reviewed the Scope of Work contained in Section 3 of the RFP. GDS has also reviewed NSP's Application for Advance Determination of Prudence, Case No. PU-23-182, dated May 19, 2023. Based upon these documents, GDS understands the SOW for this project to be as follows:

1. Provide a detailed analysis of the impact of the Sherco 3 Solar Project on North Dakota ratepayers.
2. Determine if the Sherco Solar 3 project is *necessary* to serve North Dakota load.
3. Determine if the Sherco 3 Solar Project is the best economic alternative generation resource for North Dakota ratepayers and reasonableness of the project to meet NSP's energy, demand, and capacity forecasts.
4. Provide discovery requests to be used in support of above evaluations.
5. Provide original, rebuttal, and surrebuttal testimony in Commission Case No. PU-23-182.
6. Provide responses to NSP's discovery requests.
7. GDS witness participation in formal hearings.
8. Support Commission Staff in preparation and development of initial and reply briefs.

GDS is well equipped and has personnel with the expertise to provide the Commission with a thorough ADP assessment of the proposed Sherco 3 Solar Project.

### 2.1 APPLICABLE DIRECTIVES

GDS certifies by the signature below, it complies with:

- a. The laws of the State of North Dakota, including Conflict of Interest laws and rules.
- b. North Dakota Administrative Code.
- c. All applicable local, state, and federal laws, code, and regulations.
- d. The applicable portion of the Federal Civil Rights Act of 1964.
- e. The Equal Employment Opportunity Act and the regulations issued by the federal government.
- f. The Americans with Disabilities Act of 1990 and the regulations issued by the federal government.

### 2.2 STRATEGY FOR SCOPE OF WORK REQUIREMENTS

NSP is proposing to add a 250 MW self-developed photovoltaic solar project to the integrated NSP System, to be located in Clear Lake, Minnesota. NSP is requesting the Commission (NDPSC) to deem the Sherco Solar 3 project to be a prudent new generation resource for North Dakota. NSP has submitted the direct testimony of three (3) witnesses:

- A. Mr. Allen "Al" Krug – Testimony addressing the policy issues related to NSP's request; specifically, an overview of the proposed project and how it was selected, regulatory issues, and the impact of adding the proposed solar resource.
- B. Ms. Farah Mandich – Testimony addressing the solar project's background, the process by which it was identified and developed, and NSP's economic analysis of the Sherco Solar 3 project.
- C. Ms. Kari Hassler – Testimony addressing forthcoming changes to the MISO resource adequacy construct.

NSP is basing its addition of new solar generation and capacity on the upcoming 210 MW capacity deficit in 2026 that was identified in the Company's 2020-2034 IRP, as well as the opportunity to capitalize on existing MISO interconnection rights at the Sherco site. The capacity need stems from expiring PPAs and retirements of existing generation facilities.

GDS strategy for accomplishing the RFP's SOW will focus its evaluation on the following four factors:

1. NSP need for additional capacity to meet North Dakota loads.
2. Sherco Solar 3's capability to provide capacity and energy to meet NSP's North Dakota load requirements.
3. Sherco Solar 3's impact on North Dakota ratepayer costs.

4. Comparison of Sherco Solar 3 economics to other generation alternative economics.

**2.2.1 PERTINENT ISSUES**

The GDS Team has performed a review of the case documents and finds the following potential pertinent issues and problems with NSP's filing:

- A. Capacity Need – NSP's need for additional capacity to serve North Dakota load is uncertain. The self-build option could result in North Dakota rate payers incurring unnecessary capital costs. In addition, Midwest ISO capacity accreditation for the facility is uncertain and may result in less value to North Dakota customers.
- B. Power purchase agreements could be cheaper option due to tradeoff between solar power costs and fuel costs. A power purchase agreement also shifts risk to the solar power developer and away from ratepayers.
- C. Conflict with Case PU-12-59 settlement – This settlement intended for NSP to add new generation resources closer to North Dakota loads. NSP appears to continue to develop generation resources in other states.
- D. Economic Benefits – Prudence of capacity price, energy price, and terms should be reviewed to ensure this proposal provides the most economic option for North Dakota ratepayers.
- E. EnCompass planning model assumptions – Assumptions and parameters used in the EnCompass model can affect modeling results. Review of the modeling parameters and runs is necessary to determine prudence of adding the wind project.
- F. Cost savings of the solar project - NSP indicates the solar project is likely to save North Dakota ratepayers over its life. Review of modeling assumptions is necessary to determine accuracy of analysis.

**2.2.2 NSP CAPACITY NEEDS AND OPTIONS ASSESSMENT STRATEGY AND APPROACH**

GDS' initial review of the documents provided in NSP's application and testimony finds the application lacks sufficient information to assess NSP's modeling of Sherco Solar 3's contribution to North Dakota capacity needs and what alternative generation resources were considered. NSP is focused on its near term need for additional capacity for all its loads and how Sherco Solar 3 can meet that need by utilizing Sherco's existing transmission interconnection. In addition, GDS finds NSP's discussion on MISO capacity accreditation for solar projects is not complete nor compelling in defining the benefits of Sherco Solar 3.

GDS strategy is to assess and determine the value of the project's ability to provide necessary capacity to meet North Dakota loads. Initial steps will be focus on understanding NSP's resource modeling to determine if additional capacity is needed to serve North Dakota loads and if Sherco Solar 3 is the right generation resource to supply that capacity need. GDS will review NSP's resource modeling to determine if it has properly addressed North Dakota's load requirements. In the event the modeling performed by NSP is has not addressed North Dakota's capacity needs, GDS is prepared to obtain the necessary information and model the North Dakota portion of NSP's load to determine the prudence of Sherco Solar 3.

**2.2.3 SHERCO SOLAR 3 ECONOMICS STRATEGY AND APPROACH**

A major factor of NSP's justification for Sherco Solar 3 is the ability to add capacity that utilizes the Sherco site's existing transmission interconnection, thus avoiding the delays associated with going through MISO's interconnection process. While the declining cost of solar, coupled with production tax credits, provides the incentive to build solar generation, it may not be the most economical long term solution to serving North Dakota loads.

GDS's will focus on the cost impact to North Dakota ratepayers of Sherco Solar 3 and perform an evaluation of economic alternatives. Initial steps will be to review NSP's economic modeling, assumptions, and alternative

generation resources to determine if NSP’s econometric modeling incorporated was consistent with good utility practice. This initial review will also assess if NSP has adequately identified the impact on North Dakota ratepayers and provides a compelling case of the benefits to those ratepayers. If this has not been achieved by NSP, GDS is prepared to model the impacts on North Dakota ratepayers to determine if Sherco Solar 3 is a prudent choice for North Dakota.

#### **2.2.4 PROJECT APPROACH AND METHODOLOGY**

GDS’s approach to this project has been used for preparing, presenting, and support of expert witness testimony in numerous regulatory proceedings. Much of the methodology is outlined in the deliverables and project schedule. The following provides more depth regarding the manner in which GDS will prepare the expert witness testimony and provide case support.

##### **2.2.4.1 TESTIMONY PREPARATION**

- A. Document Review – The GDS Team will review and analyze all documents and testimony filed by NSP in Case No. PU-23-182.
- B. Review Pertinent Cases – The GDS Team will review NDPSC orders of prior cases affecting this case, as well as pertinent documents of current proceedings. Based upon our preliminary review of this case, GDS will include in its review the Sherco Solar 1 and 2 projects in Case No. PU-21-152, the NSP ADP filings for its Lyon County to Sherburne County 345 kV transmission line in Case No. PU-23-142, the Monticello nuclear plant life extension ADP application in Case No. PU-23-064, and the Integrated Resource Plan of Northern States Power in Case No. PU-19-220.
- C. Strategy Session – GDS Team will meet with NDPSC Staff to review case strategy, prepare discovery, and outline testimony.
- D. Prepare and Review Discovery – The GDS Team will prepare discovery questions based upon our review and analysis of NSP filings. All discovery responses will be reviewed for pertinent information.
- E. NDPSC Discussions – GDS Team will hold discussions with NDPSC personnel to review findings, determine direction of testimony and assess discovery.
- F. Draft Testimony – GDS Team will prepare draft testimony for review by NDPSC.
- G. Final Testimony – GDS Team will incorporate comments of NDPSC personnel into final versions of testimony.

##### **2.2.4.2 DISCOVERY RESPONSES**

GDS Team will prepare responses to discovery questions submitted by other parties in this case. The discovery responses will be drafted by the GDS Team and submitted to NDPSC Staff for review within three days of receipt of the questions. Once responses have been approved by NDPSC Staff, GDS will finalize the responses, sign the submittal documents, and provide final versions to the NDPSC Staff.

##### **2.2.4.3 HEARING PARTICIPATION**

Cross Examination – GDS expert witness shall appear for cross examination in this case at a time convenient to all parties, subject to GDS witness availability.

##### **2.2.4.4 NDPSC BRIEF SUPPORT**

GDS Team will provide NDPSC support in preparation of case Technical Briefs.

#### **2.3 VALUE-ADDED OPTIONS**

GD’s scope of work for this project includes economic modeling of the Sherco Solar 3 project to assess rate impact on North Dakota ratepayers. GDS also proposes to isolate North Dakota capacity needs from NSP’s overall capacity needs to determine if NSP needs additional generation resources to serve North Dakota loads and when that

capacity is needed. This information could be useful in provided the Commission the opportunity to stress development of new generation resources within North Dakota.

#### **2.4 LOCATION OF WORK**

GDS efforts will be completed by personnel at their respective work locations. GDS personnel will travel to Bismark, ND, as required by the Commission to testify at formal hearings or for other purposes.

#### **2.5 STATE FURNISHED PROPERTY AND SERVICES**

GDS will utilize information available to Commission Staff in support of testimony development. In addition, GDS expects to utilize Commission Staff for the following activities:

- a. Coordination of approach to testimony and testimony development.
- b. Support issuance of discovery requests to NSP.
- c. Support responses to NSP discovery requests.
- d. Case management and filings.

#### **2.6 RISK MANAGEMENT**

GDS will take all necessary steps to avoid risk to GDS personnel. GDS will take precautionary steps to ensure COVID is not transmitted to others during the hearing process. This includes requiring any GDS personnel traveling to North Dakota for hearings to be tested for COVID three days prior to their hearing appearance and to wear face masks during travel to the hearings. Should the Commission require additional COVID protection measures, GDS will comply with those requirements.

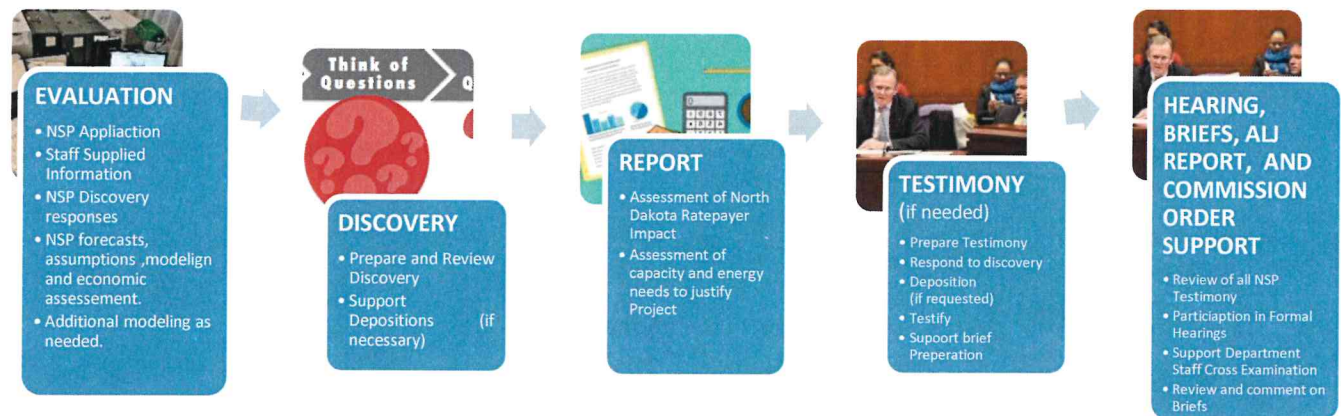
The schedule for submitting testimony is very tight and will require GDS to develop discovery requests soon after execution of the contract. GDS envisions two rounds of discovery prior to filing original testimony. To accommodate the schedule, GDS has already downloaded copies of all publicly available NSP testimony. GDS will need access to the non-public testimony and is prepared to execute non-disclosure agreements as soon as possible after contract execution, so we can obtain non-public testimony. GDS will draft an initial round of discovery requests based on publicly available testimony within five days of contract execution and a second round based on non-public testimony within five days of receipt of that testimony.

Travel always has the risk of delays and length of cross examination is not often know in advance to appearances. GDS will coordinate with Commission staff on the timing of travel for hearings, so that travel delays or changes in timing of testimony are not impacted by travel plans.

## 2.7 PROJECT MANAGEMENT PLAN

The GDS Team will approach this project with the Work Plan shown in *Figure 2-1*, adopting the tasks outlined in the RFP. The initial Task will be an assessment of NSP’s application, and any information provided by Commission staff. GDS will then draft discovery requests to obtain any additional information needed to complete the prudency evaluation of the Sherco 3 Solar project. GDS will need to review the detail of NSP’s forecasts and perform additional modeling if needed. GDS proposes to also include, in parallel, the evaluation of NSP’s power supply resource plans.

FIGURE 2-1: GDS WORK PLAN



Once GDS has completed its evaluation, it will review the results of the evaluation with Commission Staff prior to drafting testimony. Together with Commission Staff, GDS will develop the testimony strategy and how to reflect the GDS analysis into testimony.

Last, GDS has found that frequent communication is important in project management and keeping Commission Staff informed. GDS’ first step will be a project kickoff meeting within a few days of contract execution. GDS will then establish a bi-weekly conference call to review project status and address critical issues.

GDS proposes to organize this project into the following series of tasks to allow Commission Staff to track project status:

1. Task 1: NSP Application Review and Discovery
2. Task 2: Sherco Solar 3 Project Prudency Assessment
3. Task 3: Testimony Development, Formal Hearing Participation, and Response to Discovery
4. Task 4: Support of Commission Staff Briefs

**2.8 PROPOSED SCHEDULE AND DELIVERABLES**

GDS recognizes that the schedule for this project is subject to change. The following is a proposed project schedule based upon the projected September 21, 2023 start of the contract (stated in section 1.4 of RFP) and the approximate schedule of events (stated in section 3.3.D of RFP):

**TABLE 2-1: PROPOSED PROJECT SCHEDULE**

Date	Efforts
September 22, 2023	Kickoff Meeting. GDS to be provided all Case No. PU-23-182 un-redacted documents, including those identified as containing “Trade Secret Data.” Assumes contract is awarded on September 21 <sup>st</sup> and delay of GDS effort to allow time for protests.
September 22 – October 10, 2023	GDS preliminary document review. Discussions with Commission Staff to present GDS proposed direction of testimony and 1 <sup>st</sup> round of discovery.
October 10, 2023 – November 2, 2023	More rounds of discovery as necessary. Review testimony outline with Commission Staff.
November 2, 2023	GDS provides first draft testimony.
November 16, 2023	GDS testimony filed.
November 16 – Mid-December, 2023	GDS provides discovery responses
December 15, 2023	Rebuttal testimony filed.
December 15-29, 2023	Additional discovery as necessary. Review surrebuttal testimony with Commission Staff.
January 3, 2024	GDS provides draft surrebuttal testimony.
January 8, 2024	GDS surrebuttal testimony filed.
Early January – Mid-February, 2024	GDS provides pre-hearing support if a formal hearing is required.
Late February 2024	GDS witness participation in formal hearings if required.
March-May 2024	GDS provides support for post-hearing documents, initial brief, and reply briefs as needed.

**2.8.1 DELIVERABLES**

The deliverables of this project will be as follows:

**2.8.1.1 TASK 1 - NSP APPLICATION REVIEW AND DISCOVERY**

- Initial assessment of NSP filing
- Discovery requests

**2.8.1.2 TASK 2 - SHERCO SOLAR 3 PROJECT PRUDENCY ASSESSMENT**

- Evaluation of NSP IRP and justification for Sherco 3 Solar Project

**2.8.1.3 TASK 3 - TESTIMONY DEVELOPMENT, FORMAL HEARING PARTICIPATION, AND RESPONSE TO DISCOVERY**

- Initial Testimony

- Rebuttal and Surrebuttal Testimony if necessary
- Responses to discovery requests
- Participation in formal hearing
- Assistance to Commission Staff with cross examination

**2.8.1.4 TASK 4 - SUPPORT OF COMMISSION STAFF BRIEFS**

- Comments on initial and reply briefs

### 3 Experience and Qualifications

GDS Associates, Inc. (“GDS”) is an industry-trying and proven consulting and engineering firm in the energy business, and our consultants have a significant record of serving the power sector with distinction across the United States.

#### 3.1 COMPANY BACKGROUND

Founded in 1986, GDS provides engineering and consulting services to electric utility clients across the country, covering a broad range of services in the areas of power supply planning, energy procurement, risk management, fuels, wholesale and retail rates, cost of service, demand-side management, financial consulting, transmission planning, access and pricing, generation development and monitoring, and many others. Cooperatives, municipal systems, and regulatory agencies make up most of GDS’ clients, and we gear our business toward being able to provide the multitude of services that those entities need all “under one roof”. With GDS offices located across the U.S., as shown in *Figure 3-2*, GDS serves a diverse client base with a variety of energy consulting services, as well as information technology, market research, and statistical services.

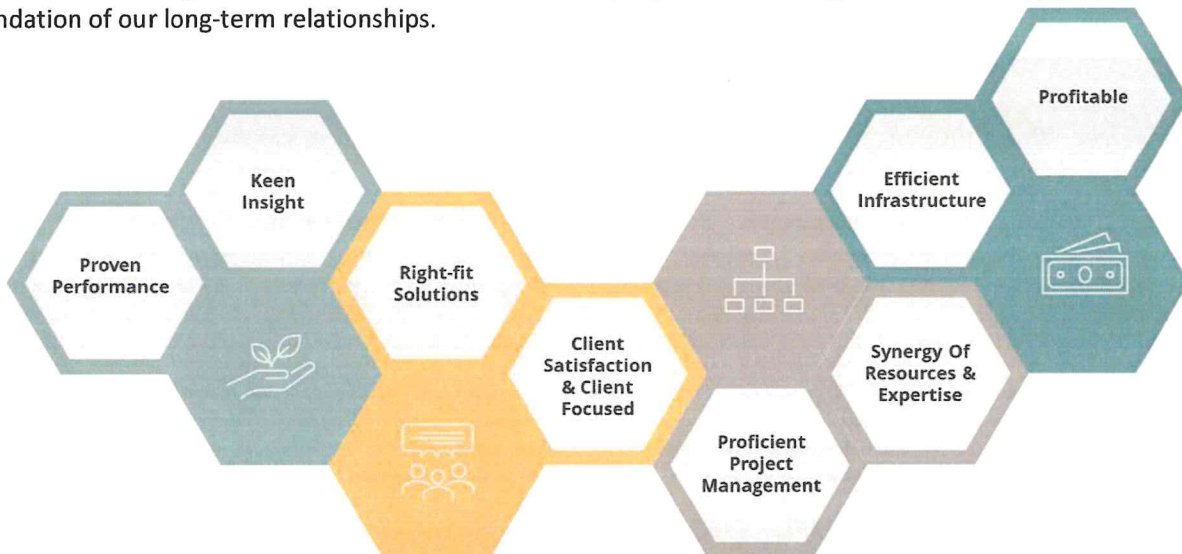
#### 3.2 CORPORATE CORE VALUES & MISSION STATEMENT

The size and depth of GDS permits us to offer clients multiple sources of assistance, ensuring complete, competent, and timely service. GDS’ long history of meeting client needs has established our reputation within the industry. In fact, most of our project assignments are derived from repeat work for existing clients or from client referrals. GDS recognizes that no two clients or problems are exactly alike, so we strive to deliver “right-fit” solutions for each client’s situation. GDS conducts its business in accordance with stated core values and our mission statement which we follow steadfastly in providing services to our clients. We understand that our clients want to get it right the first time. Our goal is to be a wise investment for you, while ensuring the consistent quality that is the foundation of our long-term relationships.

GDS ASSOCIATES, INC

The **GDS MISSION** is to “help our clients succeed by anticipating and understanding their needs and by efficiently delivering quality services with confidence and integrity.”

GDS is a multi-service consulting and engineering firm formed in 1986 and currently has clients in 45 states and Canada and has seen revenue grow from \$19.7 million in 2005 to over \$47 million in 2021. Over that same period the number of employees has increased from 118 to over 190.



### 3.3 CORE BUSINESS

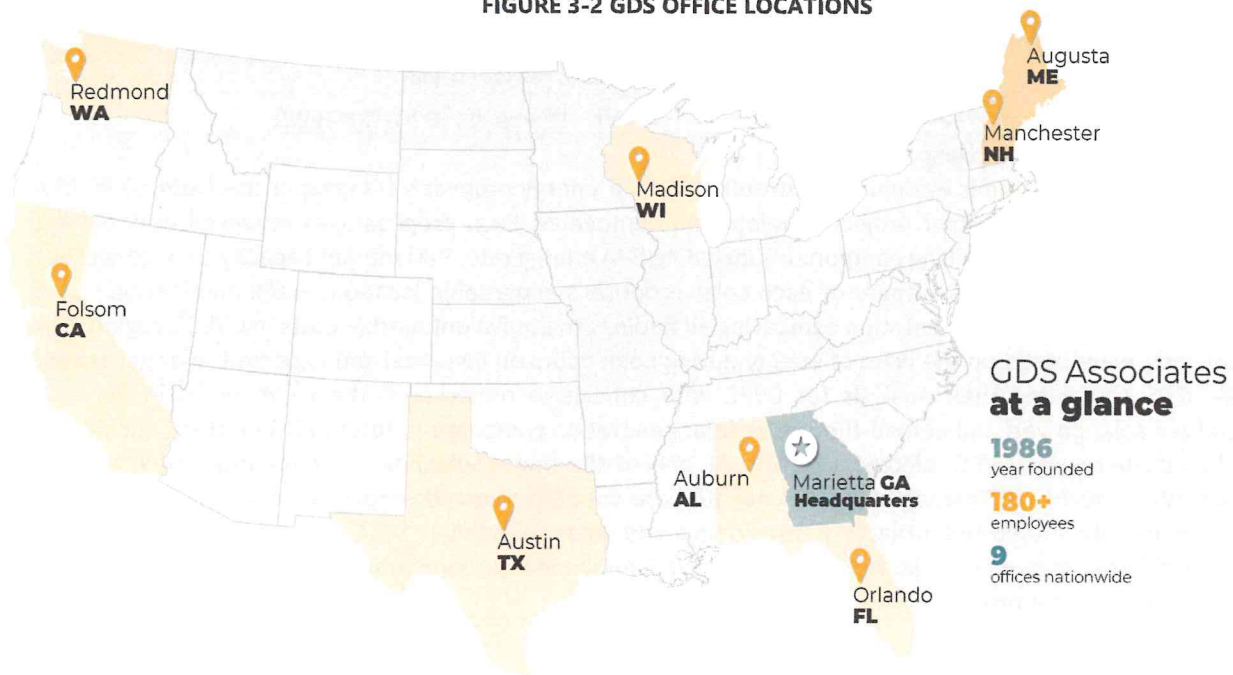
GDS consultants are recognized leaders in their respective fields, dedicated to their clients, innovative in their approach to meeting unique challenges, and known for consistently being available when needed. Our comprehensive range of expertise focuses on clients associated with, or affected by, electric, natural gas, water and wastewater utilities. In 2022, we provided consulting services for over seven hundred clients.

*Figure 3-1* provides a list of consulting areas in which GDS has specialized skills. For more information regarding these services please visit our website at <https://www.gdsassociates.com>.

**FIGURE 3-1 KEY GDS CONSULTING AREAS**



**FIGURE 3-2 GDS OFFICE LOCATIONS**



### 3.4 RELEVANT CLIENT SPECIFIC EXPERIENCE

GDS is in a premier position to assist the Commission with this ADP. GDS has vast experience in the MISO region, in a variety of power supply planning, transmission, regulatory, and financing efforts, and is capable of assisting the Commission with quality technical and consulting services immediately. We are pleased to provide a description of our most recent and relevant project experience that illustrates our qualifications, and we welcome the opportunity to provide additional project experience upon request.

<b>Project Name</b>	<b><i>North Dakota Public Service Commission Case PU-15-096</i></b>	
<b>Company Name</b>	<b><i>North Dakota Public Service Commission</i></b>	
<b>Contact Name &amp; Title</b>	<b>Michael R. Diller, Director</b>	
<b>Phone</b>	<b>701.328.4079</b>	<b>Email <a href="mailto:mdiller@nd.gov">mdiller@nd.gov</a></b>
<b>Project Description &amp; Work Deliverables</b>		
GDS provided testimony in the Northern States Power Company’s case in the matter of Advance Determination of Prudence for its 345 MW Power Purchase Agreement (PPA) with Mankato Energy Center. The testimony covered four main areas including review of NSP’s Integrated Resource Plans (IRP), the need for additional generation resources, the cost impact on North Dakota customers of the PPA, and an assessment of capacity risks.		

<b>Project Name</b>	<b><i>North Dakota Public Service Commission Case PU-16-666</i></b>	
<b>Company Name</b>	<b><i>North Dakota Public Service Commission Advocacy Staff</i></b>	
<b>Contact Name &amp; Title</b>	<b>Victor Schock, Public Utilities Analyst</b>	
<b>Phone</b>	<b>701.328.4079</b>	<b>Email <a href="mailto:vschock@nd.gov">vschock@nd.gov</a></b>
<b>Project Description &amp; Work Deliverables</b>		
GDS provided testimony in the Montana-Dakota Utilities Co., A Division of MDU Resources Group, Inc. Electric Rate Increase Application. The testimony covered return on equity, cost analysis of Lewis & Clark RICE Project, disallowances, revenue requirement, cost of service and rate design.		

<b>Project Name</b>	<b><i>Economic Assessment of Solar Proposals (10 MW AC)</i></b>	
<b>Company Name</b>	<b><i>Central Virginia Electric Cooperative (CVEC) (VA)</i></b>	
<b>Contact Name &amp; Title</b>	<b>Bruce Maurhoff, Senior VP &amp; Chief Operating Officer</b>	
<b>Phone</b>	<b>434.263.7622</b>	<b>Email <a href="mailto:bmaurhoff@mycvec.com">bmaurhoff@mycvec.com</a></b>
<b>Project Description &amp; Work Deliverables</b>		
GDS performed an economic evaluation of unsolicited solar energy proposals (ranging in size from 10-80 MW AC) received from several solar project development companies. Each proposal was reviewed in detail and assessed based on multiple billing components including PPA energy rate, PJM market capacity cost, congestion cost, and SRECs. A detailed summary of each solar proposal’s geographic location, economic feasibility and timeline was outlined in a presentation comparing all findings to equivalent market costs in CVEC’s region. PJM market costs were based on the price of energy during peak hours on historical and expected solar generation curves. GDS completed their analysis for CVEC with conclusive remarks on the value of both merchant (centralized solar power) and behind-the-meter solar generation compared to future PJM market benchmarks. Based on those results, CVEC selected a 10 MW AC behind-the-meter solar solution contemplated at multiple sites (5 MW AC each). GDS managed the PPA negotiations with the selected vendor, oversaw the due diligence on the second site, monitored project commissioning, and recommended an SREC registry for possible sales to commercial/retail customers. Later, GDS helped CVEC implement a community solar program by offering subscriptions from the project.		

<b>Project Name</b>	<b>Solar Market Update &amp; Cost Analysis</b>	
<b>Company Name</b>	<b>City Water &amp; Light, Jonesboro (Arkansas)</b>	
<b>Contact Name &amp; Title</b>	<b>Jake Rice, General Manager</b>	
<b>Phone</b>	<b>870.935.5581</b>	<b>Email <a href="mailto:jrice@jonesborocwl.org">jrice@jonesborocwl.org</a></b>
<b>Project Description &amp; Work Deliverables</b>		
GDS evaluated the behind-the-meter benefits that fixed tilt and single-axis tracking solar systems plus multiple duration lithium-ion batteries can provide to commercial end-users, municipal utilities or electric cooperatives in Arkansas. A valuation of benefits was performed that included avoided energy, avoided generation capacity, avoided network transmission and distribution, avoided environmental compliance, and avoided ancillary service costs using a market-based Value of Solar (VOS) approach.		

<b>Project Name</b>	<b>Renewable &amp; Other Request for Proposals</b>	
<b>Company Name</b>	<b>Memphis Gas, Light &amp; Water (Tennessee)</b>	
<b>Contact Name &amp; Title</b>	<b>Allan Long, Utilities Compliance Manager</b>	
<b>Phone</b>	<b>901.322.5770</b>	<b>Email <a href="mailto:ALong@mlgw.org">ALong@mlgw.org</a></b>
<b>Project Description &amp; Work Deliverables</b>		
GDS is currently assisting MLGW with a Renewable and Other Generation RFP that focuses on procuring the recently suggested IRP volumes of both wind and solar generation while evaluating and balancing their portfolio with other potential renewable and non-renewable generation as well as structured market products. Throughout this process, GDS will help MLGW solicit bids for up to 1,000 MW of local solar generation in Shelby County, Tennessee, and up to 2 GW of MISO solar and wind generation. GDS is managing the RFP process and will help evaluate the bids received and negotiate final contracts with competitive suppliers that come out of the process on behalf of MLGW.		

### 3.5 PROJECT TEAM

GDS has brought together a highly experienced and diverse project team to support our qualification statement to Tallahassee. Richard Polich will be the project lead and primary witness in this proceeding. Megan Morello will be providing analytical analysis and research. Matt Smith’s solar expertise will be used to verify NSP’s projections for Sherco Solar 3’s energy production and costs. Should GDS need to model North Dakota loads to develop capacity forecasts, this work will be performed by Jordan Janflone. Nick Weaver will provide rate impact analysis for the projects. Jack Madden, Senior Vice President will review testimony as part of GDS quality control. All consultants below are available to provide support on an “as needed” basis for the duration of the project scope.

TABLE 3-1: GDS PROJECT TEAM

Team Personnel	Title	Task
Rich Polich, P.E.	Managing Director	Project lead, primary witness, generation expertise
Megan Morello, P.E.	Project Manager	Analytical analysis, research, engineering expertise
Matt Smith	Senior Project Engineer	Solar expertise
Jordan Janflone	Project Consultant	Load forecast modeling
Nick Weaver	Senior Project Manager	Rate impact analysis
Jack Madden	Senior Vice President	Testimony review, quality control



**Richard Polich, P.E., Managing Director**, has more than 30 years’ experience as an energy industry engineer, manager, and leader, combining his business and technical expertise in the management of governmental, industrial and utility projects. He has worked extensively in nuclear, coal, IGCC, natural gas, green/renewable generation. Mr. Polich has developed generation projects in wind, solar, and biomass in Australia, Canada, Caribbean, South

American and United States. His generation experience includes engineering of systems and providing engineering support of plant operations. Notable projects include the Midland Nuclear Project and its conversion to natural gas combined cycle, start-up testing support for Consumers’ coal-fired Campbell 3, Palisades nuclear steam generator replacement support, Covert Generating Station feasibility evaluation, and a Lake Erie offshore wind project. He also has extensive experience in utility rates and regulation, having managed Consumers Energy’s rates group for a number of years. In that function his responsibilities included load and revenue forecasting, overseeing the design of gas and electric rates and testifying in regulatory proceedings. Mr. Polich has testified in over thirty regulatory and legislative proceedings.

Mr. Polich has been involved in the nuclear industry since 1978. While at GDS, Mr. Polich has provided Utah Associated Municipal Power System project cost analysis for a small modular nuclear power project. Last year, he provided advisory services to the Vermont Public Utility Commission on the ownership transfer, nuclear decommissioning trust fund adequacy and decommissioning methodology of Vermont Yankee. Mr. Polich has supported GDS oversight efforts of the construction of the Vogel Nuclear Plant units 2&3 for the Georgia Public Service Commission. He has also provided decommissioning assessment analysis on St. Lucie Nuclear, and Grand Gulf Nuclear projects. Mr. Polich was part of the design engineering team for the Erie Nuclear Plant by the design engineering firm, Gilbert Commonwealth. Key responsibilities were the design of systems and component specifications associated with the nuclear steam supply systems (NSSS) and steam turbine thermal cycle. Worked directly with Babcock and Wilcox on NSSS design and ancillary system specifications. Mr. Polich was also senior engineer on the Midland Nuclear project, responsible for oversight of Bechtel design engineering and interfacing with NSSS vendor Babcock & Wilcox on ancillary systems. His responsibilities also included negotiation with the Nuclear Regulatory Commission on new regulation requirements. Mr. Polich’s role evolved into onsite engineering during construction of the Midland Nuclear Plant and as a project trouble shooter at the Palisades Nuclear Plant.



**Megan Morello, P.E., Project Manager**, has over 6 years of experience as an energy industry engineer and consultant, providing technical expertise in the management of industrial and utility projects. She has worked extensively with coal, natural gas, and renewable generation. Ms. Morello advises electric cooperative and municipal clientele on power generation asset management and procurement of new power resources. She provides research, analysis, and engineering support of power plant operations, integrated resource planning, procurement planning, RFP processes and evaluation, preparation of annual operating budgets, economic feasibility evaluations of generating resources, analyses of plant ownership opportunities, environmental allowance monitoring, resource adequacy planning and analysis, and regular market participation analysis. She evaluates and monitors operations data for various electric utility assets and provides analyses of plant performance to clients.

Ms. Morello has also worked with state regulatory offices to provide litigation support for utility rate cases, including assessments of power plant outages, utility industry best practices for operation and maintenance, and coal ash management as it pertains to state and federal regulatory requirements. Her experience also includes providing consulting services regarding natural gas usage and procurement, performing energy studies related to energy utility infrastructure, and performing solar and battery storage feasibility studies.



**Matthew Smith, Senior Project Engineer** has over 17 years of engineering experience in renewable power generation technology and Battery Energy Storage Systems (BESS). A large part of his professional career has been centered around technical analysis of solar, wind, and BESS’s, and supporting the economic feasibility analysis for performance and maintenance of those assets, including developing O&M schedules and programs to maintain reliability and safety of the projects. As such, Mr. Smith has supported over 5,000 MWac of solar generation facilities and managed operations for over 300 MWac of BESS. He has extensive subject matter expertise in battery performance and operations, maintenance, and capacity sizing to support operational requirements, either as part of solar generation projects or as stand-alone assets. Mr. Smith has developed proforma for more than 2000 MWH of pipeline projects and supported commercial agreement analysis for those assets. Matt is a certified Six

Sigma Black Belt and holds two US patents. He has Bachelors and Masters degrees in Chemical Engineering from the University of South Florida.



**Jordan Janflone, Project Consultant** with GDS, began working with GDS in 2017 after earning his undergraduate degree. Mr. Janflone has experience in financial, statistical, and big data analysis, including load forecasting, demand response analysis, and cost of service studies. Jordan has worked to create and develop an SAE model for commercial load forecasts, a model that GDS had not developed in the past. He also creates and updates short-term and long-term load forecasts for many cooperatives and municipalities. Jordan has contributed to electric, gas, water, and wastewater cost of service studies for clients in many states. He has performed data analysis of large datasets for demand response studies, energy efficiency programs, interval data analysis, and commercial building studies. Mr. Janflone holds a B.S. in Economics with a minor in Public Policy from the Georgia Institute of Technology and is currently pursuing a certificate in Applied Statistics using SAS.



**Nicholas Weaver, Senior Project Manager**, has over 15 years of experience providing consulting services to municipal, and investor-owned utilities, regulatory bodies, and utility customers. He has developed numerous cost-of-service and rate design studies and forecasts for municipal electric, water and wastewater clients, most recently the cities of Liberty, Texas, Ector County Utility District, and the City of San Marcos, Texas. Mr. Weaver also reviewed the City of Burlington's electric rate filing schedules and model for the Vermont Public Service Division.

Mr. Weaver developed the standard schedules that will serve as the basis of the City's cost-of-service and rate design study as well as the associated manual. He has participated in over 100 utility regulatory projects, including the development of rates for Advanced Metering Infrastructure (AMI) deployment, rate design for storage battery and electric vehicle time-of-use rates, and net metering rates.

Mr. Weaver has presented expert witness testimony before the Public Utility Commission of Texas, the Railroad Commission of Texas, and the Vermont Public Utility Commission, and has acted as an expert consultant to the Fair Trading Commission of Barbados in matters of utility revenue requirements, rate base, cost allocation and rate design. Barbados' electrical system has one of the largest percentages of distributed generation in the world and is planning on transitioning to 100% renewable power by 2030 so many of the rate design questions centered on balancing the need to recover costs while not discouraging the growth of distributed generation.



**Jack Madden, P.E., Senior Vice-President and Treasurer** for GDS, has over 35 years of experience in the area of cooperative and municipal electric utility power supply planning, analysis and contracting. He has been responsible for production cost simulation, performing economic analyses of long- and short-range power supply alternatives, operations budgeting, utility financing, financial forecasting, and fuel supply analyses. Mr. Madden was instrumental in the filing of an initial rate at the FERC by a G&T electric cooperative and has also provided support for wholesale rate filings at the Texas Public Utilities Commission. He has provided testimony on power supply and rate matters and an investigation into the readiness of the markets for retail competition before the Texas Public Utility Commission and has provided testimony on wholesale power supply and rate matters before the FERC. Mr. Madden has directed many requests for proposals ("RFPs") for capacity and energy purchases, renewable energy resources, conventional generation resources, and storage resources. Mr. Madden is heavily involved in RTO market design and stakeholder processes. Mr. Madden holds an MBA from Georgia State University and a BS degree in Industrial Engineering from the Georgia Institute of Technology.

## **4** Contract Provisions

GDS accepts the terms and conditions in the Sample Contract.

## **5** Open Records and Confidentiality

This proposal does not contain any confidential information.

## APPENDIX A. Resumes

# RICHARD POLICH

MANAGING DIRECTOR, P. E.



## CONTACT

- 770-425-8100
- Rich.polich@gdsassociates.com
- gdsassociates.com
- Marietta GA 30067

## EDUCATION

- Master of Business Administration, University of Michigan, 1990
- Bachelor of Science, Mechanical Engineering, University of Michigan, 1979
- Bachelor of Science, Nuclear Engineering, University of Michigan, 1979

## PROFESSIONAL AFFILIATIONS / CERTIFICATIONS

- Professional Engineer (PE) - *certified in the State of Michigan*
- National Society of Professional Engineers
- American Nuclear Society
- American Society of Mechanical Engineers

## EXPERTISE

- Technical Management in Governmental, Industrial, and Utility Projects
- Project Cost Analyses
- Advisory Services
- Project Oversight
- Decommissioning

## PROFILE

Mr. Polich has more than 30 years' experience as an energy industry engineer, manager, and leader, combining his business and technical expertise in the management of governmental, industrial and utility projects. He has worked extensively in nuclear, coal, IGCC, natural gas, green/renewable generation. Mr. Polich has developed generation projects in wind, solar, and biomass in Australia, Canada, Caribbean, South American and United States. His generation experience includes engineering of systems and providing engineering support of plant operations. Notable projects include the Midland Nuclear Project and its conversion to natural gas combined cycle, start-up testing support for Consumers' coal-fired Campbell 3, Palisades nuclear steam generator replacement support, Covert Generating Station feasibility evaluation, and a Lake Erie offshore wind project. He also has extensive experience in utility rates and regulation, having managed Consumers Energy's rates group for a number of years. In that function his responsibilities included load and revenue forecasting, overseeing the design of gas and electric rates and testifying in regulatory proceedings. Mr. Polich has testified in over thirty regulatory and legislative proceedings.

Mr. Polich has been involved in the nuclear industry since 1978. While at GDS, Mr. Polich has provided Utah Associated Municipal Power System project cost analysis for a small modular nuclear power project. Last year, he provided advisory services to the Vermont Public Utility Commission on the ownership transfer, nuclear decommissioning trust fund adequacy and decommissioning methodology of Vermont Yankee. Mr. Polich has supported GDS oversight efforts of the construction of the Vogel Nuclear Plant units 2&3 for the Georgia Public Service Commission. He has also provided decommissioning assessment analysis on St. Lucie Nuclear, and Grand Gulf Nuclear projects. Mr. Polich was part of the design engineering team for the Erie Nuclear Plant by the design engineering firm, Gilbert Commonwealth. Key responsibilities were the design of systems and component specifications associated with the nuclear steam supply systems (NSSS) and steam turbine thermal cycle. Worked directly with Babcock and Wilcox on NSSS design and ancillary system specifications. Mr. Polich was also senior engineer on the Midland Nuclear project, responsible for oversight of Bechtel design engineering and interfacing with NSSS vendor Babcock & Wilcox on ancillary systems. His responsibilities also included negotiation with the Nuclear Regulatory Commission on new regulation requirements. Mr. Polich's role evolved into onsite engineering during construction of the Midland Nuclear Plant and as a project trouble shooter at the Palisades Nuclear Plant.

## PROFESSIONAL PROJECT EXPERIENCE

### NUCLEAR PROJECT EXPERIENCE

**Vermont Yankee.** Provided the Vermont Public Utility Commission advisory services on the asset transfer of Vermont Yankee from Entergy Nuclear Operations, Inc. to NorthStar Group Holdings, LLC. This effort has included assessment of financial strength of new company, adequacy of Nuclear Decommissioning Trust Fund to fund decommissioning efforts, evaluation of decommissioning methodology and State of Vermont Risk.

**Vogtle Nuclear Plant Units 3 & 4.** Mr. Polich has provided advisory services to the team performing the oversight of the construction of the Vogel Plant Units 3 & 4 as part of GDS project oversight responsibilities for the Georgia Public Service Commission.

**St. Lucie Nuclear Plant.** Provided a risk assessment, decommissioning funding study and ownership evaluation for City of Vero Beach. This included review of project maintenance history, steam generator replacement project, analysis of decommissioning needs and funding and assessing current value of Vero Beach's ownership share.



# RICHARD POLICH

MANAGING DIRECTOR, P. E.

## CONTACT

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- Rich.polich@gdsassociates.com
- gdsassociates.com
- Marietta GA 30067

## PROFESSIONAL PROJECT EXPERIENCE [continued]

**Grand Gulf Nuclear Project.** Assessed the adequacy of decommissioning funding and funding level for the grand Gulf Nuclear plant for Cooperative Energy. Project purpose was to assess changes in decommissioning funding rates and to determine if sufficient funds would be available for plant decommissioning.

**Consumers Energy Midland Nuclear Plant.** Responsible for overseeing EPC contractor design and construction of primary and secondary nuclear systems. Included review of systems for compliance with Nuclear Regulatory Commission regulations. Key projects included:

- Leading team to analyze plant and determine best methods for compliance with new CFR Appendix R Fire Protection rules
- Design of primary cooling system pump oil collection and disposal systems.
- Oversight of redesign of component cooling water systems.
- Analysis of diesel generator capability to meet emergency shutdown power requirements.
- Primary interface with Dow Chemical for steam supply contract.

**Ohio Edison Company Erie Nuclear Project.** Design engineer responsible for the design, equipment specifications, bid evaluations and regulatory licensing for nuclear steam supply system and ancillary systems. Key projects included:

- Project Thermal Analysis
- Development of NSS valve specifications
- Major equipment bid Proposal Evaluation and recommendations
- Interface with Babcock & Wilcox on NSSS Design

## RATES AND REGULATORY EXPERIENCE

### *North Dakota Public Service Commission Staff*

**Case No. PU-16-666 MDU General Rate Case.** Provided testimony on behalf of the North Dakota Public Service Commission Staff regarding return on equity, cost of capital, revenue requirement, and generation resource costs.

**Case No. PU-15-96 NSP Determination of Prudence.** Provided testimony on behalf of the North Dakota Public Service Commission Staff regarding analysis and recommendation concerning Northern States Power's ("NSP") need for additional generation resources.

**Consumers Energy - Supervisor of Pricing and Forecasting.** Managed the group responsible for setting and obtaining regulatory approval for the company's electric and gas rates. Developed new approaches to electric and natural gas competitive pricing, redesigned electric rates to simplify rates and eliminate losses and defined new strategies for customer energy pricing. Negotiated new electric supply contracts with key industrial electric customers resulting in over \$800M in annual revenue. Testified in multiple regulatory proceedings.

**EOS Energy Options & Solutions – Consulting Company.** Provided testimony for multiple clients in both Detroit Edison and Consumers Energy in over 30 regulatory proceedings. Testimony topics included rates, public policy and deregulation. Also testified in several legislative proceedings in both Michigan and Ohio, addressing energy policy. Provided expert witness testimony in Massachusetts regarding wind energy projects.

## NATURAL GAS COMBINED CYCLE EXPERIENCE

**Consumers Energy.** 1,560 MW Midland Cogeneration Venture. Member of a small team selected to investigate the feasibility of converting the mothballed Midland Nuclear Plant into a fossil fueled power plant.



# RICHARD POLICH

MANAGING DIRECTOR, P. E.

## PROFESSIONAL PROJECT EXPERIENCE [continued]

Established new plant configuration that repowered the existing nuclear steam turbine with natural gas fired combustion turbines and heat recovery steam generators. Developed the new thermal cycle and heat rate, determined how to supply steam to Dow chemical for cogeneration, developed models for projecting plant performance, defined which portions of the nuclear plant were useful in the new combined cycle plant and forecasted project economics.

### *Nordic Energy – Vice President*

- Project Manager for the development of two 1,150 MW IGCC projects proposed to Georgia Power and Xcel Energy in response to RFPs. Responsibilities included establishing thermal cycles, equipment selection, site selection, supervising engineering, developing project proforma and proposals.
- Project Manager for 230 MW power barge to be located on the Columbia River near Portland Oregon. Lead the project development team responsible for securing equipment, designing the power plant, design of barges, assessing site feasibility, developing project economics and interconnection applications.

## RENEWABLE ENERGY EXPERIENCE

*Matinee Energy Utility Scale Solar Developer.* Engineering design and project development consultant for utility scale solar photovoltaic projects. Development activities include site selection, equipment specifications, financial analysis and preparation of proposals. Also responsible for engineering and securing electrical interconnection.

*Windlab Developments USA Wind Power Developer.* Responsible for greenfield development of the US platform for wind energy projects east of the Mississippi. Developed the company's engineering protocol for wind project design and construction, responsible for managing engineering design and construction of projects, and established six wind power projects (750 MW). Responsible for negotiation of Power Purchase Agreements, electrical interconnection studies, interface with Midwest ISO and submitting Generation Interconnection Application.

*Tradewind Energy Wind Power Project Developer.* Project developer for 800 MW of wind power projects in Michigan and Indiana. Introduced new project management methods to the development process which resulted in savings of over \$200,000 annually on each project.

*Third Planet Windpower Wind Power Project Developer.* Engineering and project management consultant to support the startup of new wind power company. Established engineering standards used for selection of wind project equipment and project construction, analysis tools for evaluating projecting wind project power production, and performed project economic modeling.

*Nordic Environmental Power Wind Power Project Developer.* Electric transmission system consultant on the development of several wind power projects. Supported Noble's decisions on transmission grid interconnect and negotiate interconnection agreements.

## ENERGY EFFICIENCY EXPERIENCE

*Arkansas Energy Office Weatherization Assistance Program Evaluation.* Evaluated the performance and operations of Arkansas's Weatherization Assistance Program. This included review of program effectiveness, program operations, energy efficiencies attained, adequacy of energy efficiency measures and subcontractor performance.

*CLEAResult Arkansas Energy Efficiency Programs.* Energy efficiency operations and program support for 400% increase in Arkansas energy efficiency programs. Developed processes for data collection, field staff deployment and job assignments.

## CONTACT

- 770-425-8100
- Rich.polich@gdsassociates.com
- gdsassociates.com
- Marietta GA 30067



# RICHARD POLICH

MANAGING DIRECTOR, P. E.

PROFESSIONAL PROJECT EXPERIENCE [continued]

## CONTACT

- 770-425-8100
- Rich.polich@gdsassociates.com
- gdsassociates.com
- Marietta GA 30067

## ECONOMIC IMPACT ASSESSMENT

*Michigan Department of Environmental Quality Economic Impacts of a Renewable Portfolio Standard and Energy Efficiency Program for Michigan.* Project Manager for this report which focused on the economic impact of renewable portfolio standard and energy efficiency programs on the State of Michigan. The evaluation used in this report encompassed using integrated resource planning models, econometric modeling and electric pricing models for the entire State of Michigan.

*West Michigan Business Alliance Alternative and Renewable Energy Cluster Analysis.* Prepared the report provided a road map for Western Michigan businesses to establish new business in the renewable energy industry.

## POWER PROJECT EXPERIENCE

*Detroit Edison St Clair Power Station.* Performed coal combustion analysis associated with conversion Powder River Basin coal. Work included pulverizer mill performance testing, boiler combustion analysis on new coal, and unit performance analysis.

*Consumers Energy Campbell 3.* Supported start-up efforts of this 800 MW pulverized coal power plant. Part of team that performed analysis of boiler data and determined the cause of superheater failure. Also part of team to analyze performance test data for warranty evaluation.

*Consumers Energy Weadock Plant.* Design oversight and specified various plant upgrades during major maintenance outage. Included replacement of high-pressure superheater, design of new steam supply pipes, valve specifications and supported plant restart.

## PAPERS & PUBLICATIONS

- *Engineering and Economic Evaluation of Offshore Wind Plant Performance and Cost Data*, 2011, Produced for the Electric Power Research Institute, KEMA, Inc.
- *FERC's 15% Fast Track Screening Criterion*, 2012, Paper reviewing the FERC 15% screening criteria for electrical interconnection, KEMA, Inc.
- *Island of Saint Maarten Sustainable Energy Study*, 2012, Produced for the Cabinet of Ministry VROMI, KEMA Inc.
- *A Study of Economic Impacts from the Implementation of a Renewable Portfolio Standard and an Energy Efficiency Program in Michigan*, 2007, Produced for the Michigan Department of Environmental Quality
- *Alternative and Renewable Energy Cluster Analysis*, 2007, Produced for the West Michigan Strategic Alliance and The Right Place

## COURSES & SEMINARS

- Association of Energy Engineers
- Certified Energy Manager Green Building Council
- Associated LEED Certification Training CLEAResult Leadership Academy



# MEGAN MORELLO

PROJECT MANAGER, P.E.



## CONTACT

770-425-8100  
Megan.morello@gdsassociates.com  
gdsassociates.com  
Marietta GA 30067

## EDUCATION

Bachelor of Science, Mechanical Engineering, Georgia Institute of Technology, 2014

## PROFESSIONAL AFFILIATIONS / CERTIFICATIONS

Licensed Professional Engineer (PE) – in the State of Georgia  
American Society of Mechanical Engineers

## EXPERTISE

Technical Management in Governmental, Industrial, and Utility Projects  
Power Generation Asset Management and Procurement  
Integrated Resource Planning and Analysis  
Procurement Planning  
Utility Litigation Support

## PROFILE

Ms. Morello has over 6 years of experience as an energy industry engineer and consultant, providing technical expertise in the management of industrial and utility projects. She has worked extensively with coal, natural gas, and renewable generation. Ms. Morello advises electric cooperative and municipal clientele on power generation asset management and procurement of new power resources. She provides research, analysis, and engineering support of power plant operations, integrated resource planning, procurement planning, RFP processes and evaluation, preparation of annual operating budgets, economic feasibility evaluations of generating resources, analyses of plant ownership opportunities, environmental allowance monitoring, resource adequacy planning and analysis, and regular market participation analysis. She evaluates and monitors operations data for various electric utility assets and provides analyses of plant performance to clients.

Ms. Morello has also worked with state regulatory offices to provide litigation support for utility rate cases, including assessments of power plant outages, utility industry best practices for operation and maintenance, and coal ash management as it pertains to state and federal regulatory requirements. Her experience also includes providing consulting services regarding natural gas usage and procurement, performing energy studies related to energy utility infrastructure, and performing solar and battery storage feasibility studies.

## PROJECT EXPERIENCE

### POWER SUPPLY ANALYSIS

Ms. Morello provides ongoing support and consulting services to electric cooperative and municipal clientele on power generation asset management and procurement of new power resources. She has extensive experience with research, analysis, and providing engineering support for plant operations, annual operating budgets, environmental allowance monitoring, resource adequacy planning, and market participation analysis in MISO, SPP, and ERCOT. She evaluates and monitors operations data for various electric utility assets and provides analyses of plant performance to clients.

- City of Alexandria, LA
- City of Kirkwood Electric Dept, MO
- East Texas Electric Cooperative, TX
- Hannibal Board of Public Works, MO
- Henderson Municipal Power & Light, KY
- Lafayette Utilities System, LA
- Northeast Texas Electric Cooperative, TX
- Virginia Municipal Electric Association, VA

### INTEGRATED RESOURCE PLANNING AND GENERATION POTENTIAL STUDIES

*City Water & Light, Jonesboro, AR (CWL).* Performed a screening of future power generation supply alternatives for consideration in IRP planning to meet long-term capacity and energy requirements. Assessed current market conditions and legislative/regulatory policy implications that could impact generation options. Performed an analysis of CWL's load profile and load forecast, compiled pricing estimates and operations data for various generation options, and provided a detailed report covering potential combined cycle plants, peaking plants, solar facilities, battery storage, and solar/battery hybrid combined resources.

*Owensboro Municipal Utilities, KY.* Assisted with the development of Owensboro's 2022 Integrated Resource Plan (IRP) and evaluation of alternative power supply resources. Prepared analysis of various natural gas generation resources and developed production dispatch model for comparison of IRP portfolio options.



# MEGAN MORELLO

PROJECT MANAGER, P. E.

## CONTACT

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- Megan.morello@gdsassociates.com
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- Marietta GA 30067

## PROFESSIONAL PROJECT EXPERIENCE [continued]

*Fayetteville Public Works Commission, NC (FPWC).* Assisted with the development of FPWC's 2021 Integrated Resource Plan (IRP) and evaluation of alternative power supply resources. Prepared production dispatch model for comparison of IRP sensitivity cases.

*Huntsville Utilities, AL.* Performed an analysis of Huntsville Utilities' power supply flexibility agreement with TVA and assessed the potential for self-supplying a portion of its power needs. Performed a study of feasible generation resources, compiled pricing estimates and operations data for various options, and provided a detailed report covering natural gas, solar, and battery storage options, including levelized cost of energy (LCOE) estimates.

*Hastings Utilities, NE.* Assisted with the development of Hastings Utilities' 2020 IRP study. Conducted a strategic power supply plan and analyzed generation and power supply alternatives in comparison to their existing resource portfolio.

## POWER PROJECT PROCUREMENT EXPERIENCE

*Central Electric Power Cooperative, SC (CEPCI).* Assisted with the preparation of a request for proposals (RFP) for new natural gas generation resources. Performed assessment of responses/proposals received, including both ownership and power purchase agreement (PPA) options. Compiled proposed projects' data and assessed potential generation equipment, operating data, pricing structure, project costs, and LCOE for each proposal. Provided recommendations and engineering support for selection of projects.

*Memphis Gas, Light, and Water, TN (MLGW).* Prepared a request for proposals (RFP) for a thermal generation PPA for MLGW in accordance with selected IRP portfolios, including a proposal template and bid forms for submittals. Supported RFP process and supplied information for bidder Q&A. Compiled details of proposed projects including generation equipment, operating data, and PPA pricing structure. Performed evaluation and scoring of proposals based on the supplied data and provided recommendations to MLGW for selection of projects.

## REGULATORY / JUDICIAL PROCEEDINGS

### *Minnesota Department of Commerce (MN DOC) -*

- *Case number E999/AA-20-171:* Performed an investigation of Minnesota Power Company's unplanned outages at the Boswell coal power plant. Reviewed outages, assessed preventative maintenance plans in comparison with utility best practices, prepared and analyzed discovery questions and responses, and assisted with expert witness testimony.
- *Case number G002/CI-21-610:* Performed an investigation of Xcel Energy gas plant unplanned outages during a February 2021 extreme weather event. Reviewed outages, assessed prudence of maintenance practices in comparison with utility best practices, prepared and analyzed discovery questions and responses, and assisted with expert witness testimony.

*North Carolina Department of Justice (NC DOJ).* Provided litigation support to NC DOJ in case numbers E-2 Sub 1142 and E-7 Sub 1146 regarding Duke Energy Progress (DEP) and Duke Energy Carolinas (DEC) management of coal combustion residuals (CCR). Addressed related legal, regulatory, and financial implications. Reviewed CCR management practices, dam safety inspection reports, remediation options analyses, and closure plans at DEP and DEC coal facilities. Provided assessment of CCR-related problems, compliance with environmental regulations, corrective actions and penalties, and compliance with best practices. Assisted with preparation and analysis of discovery questions and responses, and preparation of expert witness testimony.



# MEGAN MORELLO

PROJECT MANAGER, P.E.

## PROJECT EXPERIENCE [continued]

*Office of the People's Counsel for the District of Columbia (DC OPC).* Consulted DC OPC on case number FC 1156, regarding the Potomac Electric Power Company's (PEPCO) Benning/Anacostia site environmental remediation. Addressed the site investigation, remediation, and the associated costs PEPCO sought to recover. Provided research, prepared and analyzed discovery questions and responses, and assisted with expert witness testimony on behalf of ratepayers.

*South Carolina Office of Regulatory Staff (SC ORS).* Provided litigation support to SC ORS in case numbers 2018-318-E, 2018-319-E, and 2022-254-E regarding Duke Energy Progress (DEP) and Duke Energy Carolinas (DEC) management of coal combustion residuals (CCR). Addressed related legal, regulatory, and financial implications. Reviewed CCR management practices, dam safety inspection reports, remediation options analyses, and closure plans at DEP and DEC coal facilities. Provided assessment of CCR-related problems, compliance with environmental regulations, corrective actions and penalties, and compliance with best practices. Assessed proposed and implemented changes to CCR regulations from the EPA. Assisted with preparation and analysis of discovery questions and responses, and preparation of expert witness testimony.

### NATURAL GAS SUPPLY CONSULTING EXPERIENCE

*Metropolitan Atlanta Rapid Transit Authority (MARTA).* Provided consulting services regarding natural gas usage and procurement for MARTA in Atlanta, GA. Work included the monitoring and verification of fuel usage, resolution of vendor disputes, preparation of requests for bids and fuel supply contract terms, RFP administration, evaluation of proposals, advising on applicable natural gas credits, and assisting with forward purchasing options.

*Emory University and Healthcare (Emory).* Provided consulting services regarding natural gas usage and procurement for Emory University and Healthcare in Atlanta, GA. Work included the preparation of requests for bids and fuel supply contract terms, RFP administration, and evaluation of proposals. Ongoing work includes providing regular market insight for the purposes of budgeting and hedging, as well as assisting with forward purchasing options.

### ENERGY STUDIES EXPERIENCE

*Georgia Environmental Finance Authority (GEFA).* Performed solar and battery resiliency studies on behalf of GEFA for multiple cities, counties, and towns throughout Georgia. Assessed the feasibility of and provided cost estimates for the installation and operation of solar and battery storage systems for municipal buildings, offices, and emergency shelters. Created a "best practices guide" and a resiliency system procurement RFP template for use in future assessments.

*Minnesota Department of Commerce (MN DOC).* Performed conservation study to estimate the potential energy savings and carbon reduction of improvements to electric utility infrastructure assets owned and operated by utilities serving Minnesota customers.

## CONTACT

770-425-8100  
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# MATTHEW SMITH

SENIOR PROJECT ENGINEER,  
M S C h E



## CONTACT

- 770-425-8100
- Matthew.smith@gdsassociates.com
- gdsassociates.com
- Marietta GA 30067

## EDUCATION

- University of South Florida, Master of Science Degree in Chemical Engineering, 2003
- University of South Florida, Bachelor of Science Degree in Chemical Engineering, 2001

## PROFESSIONAL AFFILIATIONS / CERTIFICATIONS

- U.S. Patent # 9.948.119 – Controlling battery utilization to uniformly degrade parallel batteries (April 2018)
- U.S. Patent # 10.634.730 – Selective replenishment of utility scale battery electric storage systems (April 2020)
- Six Sigma Black Belt Certification: “Solar Thermal Collector Efficiency.”

## EXPERTISE

- Technical Analyses of Solar, Wind, and BESS
- Economic Feasibility Analyses
- Battery Performance & Operations

## PROFILE

Mr. Smith has over 20 years of experience in the electric utility industry working with solar, wind, and energy storage power generation technologies. As such, he has supported development and asset management in markets nationwide serving power generation, energy imbalance, frequency regulation, demand response, peaking capacity, renewables integration, and demand side management. His extensive experience in managing renewable and battery energy storage projects enables Mr. Smith to lead solar and energy storage analytics programs, procurements, and lifecycle management strategies for clients across the US. Key areas of specializations are:

- Solar / Storage Asset Sizing and Use-Case Analytics
- Early-Stage Feasibility and Land Usage Requirements
- Project Capital and Operational Cost Estimations
- Solar and Energy Storage Procurement Planning
- Variable O&M Studies
- Techno-Economic Analyses
- Technical Specification of Energy Systems
- Contract Commercial Terms and Conditions Development
- Request for Proposal Development
- Commissioning and Operational Owners Representative
- Existing System Performance and Safety Analysis
- Operational and Warranty Support Services

## PROFESSIONAL EXPERIENCE

**GDS Associates, Inc., Senior Project Engineer**, Marietta, GA, 2020 – Present

Mr. Smith is a Subject Matter Expert (SME) for all aspects of solar plus energy storage, including lithium-ion battery technology, use-case development, siting requirements, codes and standards, system design, procurement strategies, performance engineering, product warranties, contracting, and industry trends.

**NextEra Energy, Senior Engineer**, Juno Beach, FL, 2007 - 2019

Managing safe and reliable operations to target long-term performance expectations was the goal of his engineering work at NextEra. Mr. Smith led numerous engineering studies in economic operations and reliability for solar/wind/BESS generation including leading a team to develop a battery degradation monitoring applications for BESS assets under varying “use-cases”, including ancillary, peak shaving, and ramping services in RTO markets. In addition, Mr. Smith developed BESS operational and maintenance programs, including appropriate augmentation plans to extend life and performance of battery systems, and supervised battery reliability for NextEra’s fleet. Key accomplishments:

**Clean Energy Research Center, Assistant Director**, University of South Florida, 2003 - 2007

Mr. Smith was the Operations Director at USF’s Clean Energy Research Center and conducted an immense amount of technical research in the areas of hydrogen energy storage materials, photovoltaic crystal growth, semiconductor

## RELATED PROJECT EXPERIENCE

Mr. Smith’s experience over the past 2 years with focus on solar and storage project development and RFP administration and evaluation:

- Borough of Chambersburg, Pennsylvania, *RFP Administration and Evaluation of BTM Solar Proposals (15 MW AC)*



# MATTHEW SMITH

SENIOR PROJECT ENGINEER,  
M S C h E

## CONTACT

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## RELATED PROJECT EXPERIENCE [continued]

- Central Electric Power Cooperative (SC), *BESS RFP Development and Evaluation (150 MW AC)*
- Central Virginia Electric Cooperative, *RFP Administration and Evaluation of BTM Solar Proposals (23 MW AC Total) + 6 MWH BESS*
- City of Martinsville, Virginia, *RFP Administration and Evaluation of BTM Solar Proposals (8 MW AC) + 13 MWH BESS*
- City Water & Light; Jonesboro, Arkansas, *RFP Administration and Evaluation of 10 BTM Solar Proposals (10 MW AC)*
- Holy Cross Energy, Colorado, *Solar and Storage RFP (20+ MW AC + BESS)*
- North Carolina Eastern Municipal Power Agency, *RFP Administration and Evaluation of BESS (20-40 MWH BESS)*
- Paragould Light, Water & Cable, Arkansas, *RFP Administration and Evaluation of BTM Solar Proposals (3 MW AC)*
- Alchemy Renewable Energy, *Independent Report on Solar Portfolio (36 MW AC, 20 MW AC)*
- NextEra Energy, *Led proforma development for > 2 GWH of batteries and provided asset management for > 200 MWH of operational assets*

## PROFESSIONAL PRESENTATIONS & PUBLICATIONS

- Alvarez, Hadis Moradi, M. Smith, A. Zilouchian, "Modeling a Grid-Connected PV/Battery Microgrid System with MPPT Controller," IEEE Photovoltaic Specialist Conference, June 2017.
- Energy storage workshop instructor at the 2015 A.S.M.E. Power and Energy Conference
- Panelist for a thermal energy storage discussion at the 2012 A.S.M.E. International Congress.
- Matthew Smith, "Performance Analysis of Solar Thermal Power Plants," CSP Today, Fall 2010, San Francisco, CA
- Matthew Smith, Luis Rivera, Sessa Srinivasan, John Wolan, Elias Stefanakos, "Destabilized LiBH<sub>4</sub>/MgH<sub>2</sub> for reversible hydrogen storage," AIChE-NED Fall 2006 National Meeting, San Francisco, CA
- Sessa S. Srinivasan, Nikolai Kislov, Jeremy Wade, Matthew T. Smith, Elias K. Stefanakos, Yogi Goswami, "Mechanochemical synthesis, structural characterization and visible light photocatalysis of TiO<sub>2</sub>/ZnFe<sub>2</sub>O<sub>4</sub> nanocomposites," Materials Research Society, 2006
- S. S. Srinivasan, M. T. Smith, D. Deshpande, E.K. Stefanakos, Y. Goswami, M. Jurczyk, A. Kumar, "Synthesis and characterization of nanoscale transition metal complex for hydrogen storage," Materials Research Society Symposium Proceedings, Vol. 884E, Warandale, PA, 2005
- M. Chettiar, E. Weaver, B. Krakow, E.K. Stefanakos, G. Moore, and M. Smith, "Byproduct Hydrogen Production," 2004 Fuel Cell Seminar, San Antonio, Texas, November 1-5, 2004



# JORDAN JANFLONE

PROJECT CONSULTANT



## CONTACT

- 770-425-8100
- Jordan.janflone@gdsassociates.com
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## EDUCATION

Bachelor of Science, Economics,  
Minor in Public Policy, Georgia  
Institute of Technology, 2017

## EXPERTISE

- Financial & Statistical Data Analysis
- Load Forecasting
- Demand Respond Analysis
- Cost of Service Studies
- Customer Survey Design & Analysis

## PROFILE

Mr. Janflone began working with GDS in 2017 after graduating from the Georgia Institute of Technology. He has experience in financial, statistical, and big data analysis, including load forecasting, demand response analysis, cost of service studies, benefit-cost analysis, and customer survey design and analysis.

## PROFESSIONAL PROJECT EXPERIENCE

- Supported the development of long and short-term load forecasts for various electric utilities, including weather normalization analysis. Forecasts included the use of statistically adjusted engineering (SAE) and econometric models.
- Developed an SAE model for long-term commercial load forecasts for various electric utilities.
- Aided in evaluating the results from load forecasts and preparing final reports.
- Assisted in the design of cost-of-service models for municipals and cooperatives in Georgia, Indiana, and Virginia. Modeling included the classification of a utility's plant data, development of cost-based load allocators, and development of financial statements to determine overall revenue requirements.
- Performed software programming, data analysis, and data modeling for a demand response study for various utilities, including IOU's, G&T cooperatives, and distribution cooperatives.
- Cleaned and analyzed customer interval data for cost-of-service studies and rate design.
- Assisted in the design of customer surveys and survey sample size for residential, commercial, and industrial customers of both cooperatives in Texas, and IOUs in Indiana.
- Analyzed customer survey results and provided summary statistics to support market segmentation, end-use saturation, demand response program satisfaction, and general customer satisfaction.
- Performed data analysis and software programming on multiple energy efficiency projects for IOUs in Indiana.
- Analyzed interval data for an industrial customer in Louisiana to determine if a reduction of customer's NCP was possible.
- Performed software programming, data analysis, and data modeling for a demand response study for an IOU in Connecticut.

Processed interval data for multiple Texas G&T's for billing purposes.

## PROFESSIONAL SOFTWARE/PROGRAMMING EXPERIENCE

- Statistical Analysis System (SAS)
- Visual Basic for Applications (VBA)
- MetrixND forecasting software
- Microsoft Office Suite



# NICHOLAS WEAVER

SENIOR PROJECT MANAGER



## CONTACT

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## EDUCATION

Graduate Accounting Courses,  
University of Alabama Birmingham,  
2017-2018

Undergraduate Accounting  
Courses, University of Alabama  
Birmingham, 2015-2017

Bachelor of Art, History, University  
of Texas at Austin, 2008

## EXPERTISE

Cost of Service & Rate Design  
Cost/Benefit Analyses  
Retail Rate Benchmarking Studies

## PROFESSIONAL EXPERIENCE

**GDS Associates, Inc.**, 2010-Present  
*Senior Project Manager*

**Texas Association of Professional Educators**, 2009-2010

## PROJECT EXPERIENCE

### *Wholesale Customer Cost of Service – Water Cost of Service and Rate Design (2018), EPCOR Arizona, AZ (IOU)*

Develop cost of service for two wholesale customers taking untreated water from transmission line. Determine cost of service under different scenarios, rate impacts, compare resulting revenues to current contract rates.

### *Interim Transmission Cost of Service Filing – Electric Cost of Service and Rate Design (2018), Guadalupe Valley Electric Cooperative, TX (Cooperative), Public Utility Commission of Texas Docket 48002*

Update transmission plant investment schedules for Interim TCOS filing.

### *Retail Rate Benchmarking Study – Water/Wastewater Rates (2018), Woodland Oaks Utilities, TX (IOU)*

Research neighboring utilities and identify comparable systems. Create comparison of monthly and annual revenues based on average residential customer.

### *Cost/Benefit Analysis of Lubbock Power & Light's Proposed Move to ERCOT – Electric Cost of Service and Rate Design (2017), Lubbock Light & Power, TX (Municipal), Public Utilities Commission of Texas Docket 47576*

Determine retail rate impact on Lubbock and ERCOT end-use customers and ERCOT IOU Transmission costs. Assist with determination of impact on SPS customers and system. Draft and edit portions of report to client. Draft direct and rebuttal testimony, draft requests for information and responses, analyze intervenor testimony and settlement offers.

### *Analysis of Southwest Power Service Proposed Wind Facility – Electric Cost of Service and Rate Design (2017), Golden Spread Electric Cooperative, TX (Cooperative), Public Utility Commission of Texas Docket 46936*

Analysis of cost-benefit model developed by SPS to support investment in wind plant. Draft direct testimony and requests for information and responses, make changes in SPS model requested by expert witness.

### *Analysis of SWEPCO Rate Filing – Electric Rate (2017), NUCOR Steel, TX (Industrial), Public Utility Commission of Texas Docket 46449*

Analyze impact of proposed rate increase and rate structure changes on large industrial customer. Make changes to cost of service and rate design schedules to reflect expert witness positions. Draft testimony and requests for information. Assist attorneys with analysis of settlement.

### *Gas Cost of Service – Natural Gas Cost of Service and Rate Design (2017), Terrebonne Parish Consolidated Government, LA (Governmental)*

Develop cost of service and rate design for delivery system in Louisiana. Project was terminated after first draft was developed due to economic and political factors in client's service area.



# NICHOLAS WEAVER

SENIOR PROJECT MANAGER

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## PROJECT EXPERIENCE [continued]

*Analysis of El Paso Electric Company Rate Case – Electric Cost of Service and Rate Design (2017), City and State Customer Class Group (Husch Blackwell, LLP), TX, Public Utility Commission of Texas Docket 46831*

Analysis of electric rate filing package modify revenue requirement model in concert with rate case expert witness.

*Assessment and Valuation of Water Supply System – Water (2017), City of Hutto, TX (Municipal)*

Assist with development of discounted cash flow model for use in contract dispute with customer.

*Wholesale Distribution Cost of Service – Electric Cost of Service and Rate Design (2017), Cherokee County Electric Cooperative, TX (Cooperative)*

Develop cost of service and rates for redundant source of energy for municipal customer.

*Wholesale Distribution Cost of Service – Electric Cost of Service and Rate Design (2017), Sharyland Utilities, Inc., TX (IOU), Public Utilities Commission of Texas Docket 46947*

Development of cost of service and rates for a battery installation built to respond to peaking demand. Determination of cost to serve battery and design of rates had several unique aspects as times battery was selling to grid were unknown and variable.

*Development of Rate Filing Package – Electric Cost of Service and Rate Design (2016), Sharyland Utilities, Inc. TX (IOU), Public Utilities Commission of Texas Docket 45414*

Lead development and population of filing schedules and cost of service study. Analysis of changes to revenue requirement, rate design and customer classification.

*Determination of Customer Refunds – Electric Cost of Service and Rate Design (2016), Sharyland Utilities, Inc. TX (IOU)*

Review customer billing data and determine amounts of refunds due to individual customers resulting from misclassification of customer accounts as commercial instead of residential.

*Analysis of Enstar Natural Gas Transportation Rate Case – Natural Gas Cost of Service and Rate Design (2016), Anchorage Municipal Power and Light, AK (Municipal)*

*Valuation of Water System – Water Rates (2016), Inline Utilities, Inc., TX (IOU)*

Create model for valuation of system assets using trending indices. Assist engineers with evaluation and classification of assets and preparation of report on findings.

## CONTINUING EDUCATION

NARUC Utility Rate School, 2011, Intro to Electric Power, Dr. Ross Baldick, 2012

## EMPLOYMENT HISTORY

GDS Associates, Inc., 2010-Current

Texas Association of Professional Educators, 2009-2010



# JACK MADDEN

SENIOR VICE PRESIDENT &  
TREASURER, P. E.



## CONTACT

- 770-425-8100
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## EDUCATION

- Master of Business Administration,  
Georgia State University, 1985
- Bachelor of Industrial Engineering,  
Georgia Institute of Technology,  
1984

## PROFESSIONAL AFFILIATIONS/ CERTIFICATIONS

- Registered Professional Engineer  
(PE) in the State of Georgia
- Institute of Industrial Engineers
- Beta Gamma Sigma Honor Society
- National Society of Professional  
Engineers

## EXPERTISE

- Power Supply Planning, Analyses &  
Contracting
- Production Cost Simulation
- Economic Analyses of Long- and  
Short-Range Power Supply  
Alternatives
- Operations Budgeting
- Utility Financing
- Financial Forecasting
- Fuel Supply Analyses

## PROFILE

Mr. Madden has over 35 years of experience in the areas of cooperative and municipal electric utility power supply planning, analysis and contracting. He has been responsible for production cost simulation, performing economic analyses of long- and short-range power supply alternatives, operations budgeting, utility financing, financial forecasting, and fuel supply analyses. Mr. Madden was instrumental in the filing of an initial rate at the FERC by a G&T electric cooperative and has also provided support for wholesale rate filings at the Texas Public Utilities Commission. Mr. Madden has provided testimony on power supply and rate matters and an investigation into the readiness of the markets for retail competition before the Texas Public Utility Commission and has provided testimony on wholesale power supply and rate matters before the FERC.

Recently, Mr. Madden has been responsible for the preparation and issuance of many requests for proposals ("RFPs") as well as the evaluation of responses, contract negotiations with the successful respondents, and the acquisition of transmission and ancillary services agreements required to implement the new arrangements. These arrangements have included full and partial requirements purchases, unit power purchases, capacity and energy block purchases in organized markets, purchase of an ownership share in existing coal and gas-fired generation and the construction of new gas-fired combined-cycle generation. In the last few years, Mr. Madden has managed RFPs specifically seeking wind and solar energy resources in several locations in the U.S. and negotiated the resulting contracts.

Mr. Madden has also been involved in the development, contracting, and operation of several power plants, including natural gas-fired peaking and combined-cycle, coal-fired, hydroelectric, wind, and solar generation. In his role at GDS, Mr. Madden directs the provision of generation-related services to clients around the country.

## PROJECT EXPERIENCE

*East Texas Electric Cooperative, Inc.*, Nacogdoches, Texas. Mr. Madden has been responsible for the evaluation of responses to several of ETEC's RFPs for base load, intermediate and peaking power supply resources, as well as partial requirements services. He has also been involved in the feasibility evaluation of new hydroelectric projects for possible development. Mr. Madden has been involved in the development of a comprehensive strategic plan for ETEC, including the possible purchase or construction of power supply resources for its member distribution cooperatives and the construction of a cooperatively-owned transmission system. He has been instrumental in negotiation of contracts for the purchase and/or construction of combined-cycle, peaking and base load resources. Mr. Madden was also largely responsible for the development of a pooled rate for ETEC and the filing of ETEC's initial rate at the FERC. In 2014, Mr. Madden managed an RFP for wind resources, resulting in purchase power agreements ("PPA") from wind resources located in Oklahoma. Mr. Madden is currently responsible for parts of the power supply planning efforts of ETEC, which includes load in Entergy/MISO, SWEPCO/SPP and ERCOT. Mr. Madden continues to assist ETEC on an ongoing extensive basis.

*Northeast Texas Electric Cooperative*, Longview, Texas. Mr. Madden has been responsible for the evaluation of responses to several of NTEC's RFPs for intermediate and peaking power supply resources, as well as partial requirements services. Mr. Madden has been responsible for helping NTEC manage its relationship with SWEPCO, its long-term partial requirements supplier.



# JACK MADDEN

SENIOR VICE PRESIDENT &  
TREASURER, P.E.  
PROJECT EXPERIENCE [continued]

## CONTACT

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Mr. Madden has been involved in the development of a comprehensive strategic plan for NTEC, including the possible purchase or construction of power supply resources for its member cooperatives and the construction of a cooperatively-owned transmission system. He has been instrumental in negotiation of contracts for the development, construction, and operation of a 550 MW natural gas-fired combined-cycle plant.

Mr. Madden issued a solicitation seeking 150 MW of power. The RFP resulted in the client participating in joint-development of a natural gas-fired combined-cycle generating unit located in Texas. Mr. Madden was extensively involved with all aspects of this joint development including negotiating all the project documents between the owners, negotiating the Engineering, Procurement, and Construction contract, securing transmission and gas pipeline interconnection, securing water supply for the project, the O&M Agreement, LTSA, and securing financing from the federal government. In 2014, Mr. Madden managed an RFP for wind resources, resulting in purchase power agreements ("PPA") from wind resources located in Oklahoma. Mr. Madden continues to assist NTEC on an ongoing basis.

*Central Virginia Electric Cooperative, Arrington, Virginia.* Mr. Madden has been responsible for the power supply planning and contracting efforts of CVEC, an independent electric distribution cooperative. Mr. Madden has led efforts by CVEC to build a diversified electric resource portfolio as the cooperative came out from under a long-term requirements contract. These efforts have included joint participation in a gas-fired combined-cycle project, wind energy from a resource located in Ohio, hydroelectric purchases from the Southeastern Power Administration, market-based block purchases of various quantity, term, and shape (5x16, 7x24, etc.). In addition, Mr. Madden led CVEC's efforts in the development of two behind-the-meter solar generation facilities to round out CVEC's portfolio, as well as help it meet the Virginia voluntary renewable portfolio targets in an economic manner. Mr. Madden continues to assist CVEC on an ongoing basis.

*Blue Ridge Power Agency, Danville, Virginia.* Mr. Madden has been responsible for the power supply planning and contracting efforts of BRPA, a joint-action agency comprised of municipal utilities, a state university and a distribution cooperative. This has included contracting for deregulated power supply, resulting in over \$100 million of savings over seven years, negotiation of replacement contracts and, more recently, negotiation of contracts whereby some members purchase power from an investor-owned utility under long term formula rate contracts and others joined AMP, a municipal joint action agency. For the AMP members, Mr. Madden has assisted BRPA in evaluating resources proposed by AMP, including a coal-fired resource, peaking generation, a combined-cycle unit, hydroelectric projects, as well several market purchases both through and independent of AMP. Mr. Madden was also instrumental in the negotiation of BRPA's transmission and ancillary services agreements. Mr. Madden continues to assist BRPA on a regular basis.

*Sam Rayburn G&T Electric Cooperative, Inc., Nacogdoches, Texas.* Mr. Madden prepared studies on the feasibility of purchasing off-system power and reserves from Entergy Services, Inc. Mr. Madden also assisted in the development and implementation of a resource scheduling system, and in the development of a new power supply arrangement with Gulf States Utilities, now Entergy. He has also been involved in budgeting and long-range financial forecasting. SRG&T merged with ETEC in 2018



# JACK MADDEN

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## PROJECT EXPERIENCE [continued]

*Indiana-Michigan Municipal Distributors Association.* Mr. Madden has assisted the members of IMMDA in their power supply procurement efforts for several years. This included the issuance of an RFP resulting in a restructured arrangement with their incumbent power supplier, Indiana-Michigan Power ("I&M"). Recently, Mr. Madden has let efforts whereby IMMDA members gave notice to terminate their I&M contract and purchased supplies from other providers; these arrangements have saved the IMMDA members substantial amounts of money. More recently, Mr. Madden has helped most of the Michigan IMMDA members join MPPA and the Indiana IMMDA members purchase power from Wolverine.

*Sam Rayburn Municipal Power Agency, Livingston, Texas.* Mr. Madden has assisted in the preparation of an Engineer's Report which was used in the Agency's refinancing of approximately \$243 Million of long-term debt. Mr. Madden has been responsible for preparing the annual operating budgets for the Agency and assisting in the development of rates to members. He also has assisted in the preparation of the annual Comprehensive Engineering Report as required by the Agency's bond Indenture. Other power supply work Mr. Madden has performed for the Agency includes analyses of off-system purchases, the estimation and true-up of entitlement assignment payments and the feasibility of hydro project development. Mr. Madden has also assisted the Agency in its efforts to market excess capacity and energy.

*Bristol Virginia Utilities, Bristol, Virginia.* Mr. Madden completed the negotiation of terms and conditions for a Power Sales Agreement between BVU and Cinergy Services, Inc. (135 MW total). The supply from Cinergy was selected in a competitive bidding process, which was managed by Mr. Madden. The power cost savings from the new arrangement approached \$70 million. Mr. Madden was also involved on behalf of BVU in Cinergy's filing for transmission service under Section 211 of the Federal Power Act and in negotiating settlement terms relating to a FERC stranded cost filing made by TVA against BVUB. TVA eventually withdrew the complaint. Mr. Madden also assisted BVU's move to the transmission system of AEP and eventual return to TVA.

*The City of Radford, Virginia.* Mr. Madden issued a solicitation seeking up to 75 MW of power. This project included development of the RFP, evaluating the proposals received, selecting the winning respondent(s), negotiating the resulting contracts, and assisting in the implementation of the chosen arrangement. The savings from the resulting contract with AEP Services, Inc. was expected to be more than of \$30 million. Mr. Madden was responsible for the development of a solicitation to replace AEP current contract at its expiration in June 2006, resulting in Radford entering a long-term formula rate contract with an investor-owned utility. Mr. Madden continues to assist with the power supply planning efforts of Radford.

*The City of Dowagiac, Michigan.* Mr. Madden issued a solicitation seeking up to 20 MW of power, purchased from ComEd. This project included development of the RFP, evaluating the proposals received, selecting the winning respondent(s), negotiating the resulting contracts, negotiating the transmission contracts necessary, as well as arranging for dynamic scheduling of the load from a remote-control area, and assisting in the implementation of the chosen arrangement. These arrangements resulted in significant savings. More recently, Mr. Madden has assisted Dowagiac in purchases under formula rates from I&M.



PREPARED BY GDS ASSOCIATES, INC.

# NORTH DAKOTA PUBLIC SERVICE COMMISSION

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*Northern States Power Company,  
Advance Prudence – Sherco Solar  
3 Project, Application  
Case No. PU-23-182*

RFP #408.23.08.010

**September 2023**