



PROPOSAL

RFP 22-13 Docket No. TBD, Louisiana Public Service Commission,
ex parte. In re: “*Entergy Louisiana, LLC's Hurricane Ida Storm
Restoration Cost Recovery Filing.*”

Critical Technologies Consulting, LLC

Innovative Ideas for Shaping the Future
May 5, 2022

Critical Technologies Consulting, LLC

Kathryn H. Bowman
Executive Counsel
Louisiana Public Service Commission
602 North Fifth Street (Galvez Bldg)
P.O. Box 91154
Baton Rouge, Louisiana 70821-9154

May 5, 2022

Dear Ms. Bowman,

We are pleased to submit this Proposal to the Louisiana Public Service Commission for Independent Engineering consulting services related to RFP 22-13 Docket No. TBD, Louisiana Public Service Commission, ex parte. In re: *“Entergy Louisiana, LLC’s Hurricane Ida Storm Restoration Cost Recovery Filing.”*

Critical Technologies Consulting, LLC, (CTC Team) with our main office located in Mesa, Arizona, and satellite offices in Massachusetts, New Jersey, and Kentucky is registered as a small woman-owned business that specializes in consulting and independent engineering, procurement, estimating, and construction management (EPC) consulting power projects. To better serve the Louisiana Public Service Commission, its Staff, and the consumers, we are working closely to supply the required services in this Docket with Larkin & Associates, PLLC, Certified Public Accountants (L&A) whom we have worked with on numerous Projects over the past 12 years. CTC Team is made up of a group of highly specialized professionals. As a team, CTC Team personnel have worked together on numerous projects over the past 35 years as you will see in our proposal.

L&A brings with CTC an immense amount of expertise in accounting consulting including reviews of processes and procedures which document the expenditures made by electric utilities over the various programs the utilities implement including extreme weather events. L&A experts have provided testimony and rebuttal testimony in front of public service commissions and other regulatory state and federal bodies.

We have worked with L&A staff in various projects in the past and they have a superb organization and extensive experience complementing CTC Team’s. Jointly, our joint L&A/CTC Team (from now on, the CTC Team) has the knowledge, experience and understanding of the issues, design challenges involving restoration, upgrading, and hardening of equipment and systems to increase resilience, appropriate associated costs and impacts on rates, installation methods, and operational issues and innovativeness in how the rates should be established to minimize short term impact to the consumers while being fair to Entergy Louisiana, LLC (ELL), which are to be addressed in this Docket. From here on, any reference to CTC Team includes L&A.

Our joint expertise and experience working with a variety of clients and our extensive technical and accounting expertise in Consulting, Prudency Reviews, Engineering/Procurement, Construction Management, and Operations & Maintenance experience with numerous electric utilities ensures that we will deliver the best value for this assignment.

Sincerely,

Ben Hill, President
Critical Technologies Consulting, LLC.



PROPOSAL

EXECUTIVE SUMMARY

CTC is pleased to present our response to the recent RFP 22-13 Docket No. TBD, Louisiana Public Service Commission, ex parte. In re: “*Entergy Louisiana, LLC's Hurricane Ida Storm Restoration Cost Recovery Filing.*”

We have included in this proposal a Scope of Representation, a detailed proposed Action Plan, and a discussion of the anticipated Approach to supporting the Commission and Staff in this matter including a collaboration approach to work with Staff and counsel. To better serve the Louisiana Public Service Commission, its Staff and the consumers, we are working closely to supply the services in this Docket with Larkin & Associates, PLLC, Certified Public Accountants (L&A). We also include the experience and qualifications of our team, a preliminary list of deliverables, our proposed rate schedule, and an estimate of the costs based on the scope of work and potential schedule for the assignment. We have no conflicts of interest in the execution of the work contemplated in this Docket. Additionally, we have included the experience and qualifications of L&A.

CTC is an independent consultant, with specialized electric utility consultants on staff, which brings to the Public Service Commission and Staff a team of highly experienced personnel with the necessary electric utility technical, management and regulatory expertise and backgrounds to provide real value to the Staff and the Commission.

CTC will endeavor to assist Staff, legal counsel and securitization consultant to perform the services identified in LPSC RFP 22-13 with the approval of Staff and the Commission.

In assisting Staff, the CTC/L&A team will review the application (including the direct testimony of several witnesses, any supporting documentation, and associated cost effects); review all documentation associated any withdrawals made and use of the Hurricane Ida escrow account, including whether such withdrawals/use are prudent; draft data requests and review responses thereto; potentially participate in informal meetings with Staff and ELL, Staff and Intervenors, or Staff, ELL, and Intervenors; assist in drafting a recommendation(s), including testimony, to the Commission, including any exhibits supporting the same; review and respond to any rebuttal testimony; assist in preparing any necessary direct and cross-answering testimony; assist in trial preparation, including cross-examination of witnesses and drafting pleadings and motions related thereto; and review and analyze potential stipulation terms.

As outside consultants to the Staff and Commission, our allegiance is to the Commission, it's Staff and the Rate Payers of Louisiana. We, CTC, and L&A (jointly CTC Team in this document) do not have any conflict of interests in this matter. Additionally, we have added to our consulting team, Mr. Virden Jones, past Director of the Mississippi Public Utility Staff, who has many years of experience evaluating and resolving storm restoration issues.

While it is clear that ELL ultimately restored power to all consumers, it may have been done without the full prudence approach the Louisiana Public Service Commission expects ELL to exercise after the experience and restorations (and associated rate increases) Louisiana



suffered over the past 5 years. It is worth noting that particular emphasis will be made in our prudency reviews of ELL documents and ELL testimony as to what was known and should have been known at the time of Hurricane Ida to determine whether some expenditures were made without this full prudency approach in planning, designing, decisions and in actions taken.

We will conduct our consulting assistance and prudency reviews with objectivity, being fact based and not based on personal opinions. We will be looking to protect the interests of the Commission and the Rate Payers, including the residential communities.

The CTC Team team's experience consists of a broad range of technical and accounting, industrial, and commercial related expertise involving electric utilities, independent transmission developers/operators, independent power producers, Independent System Operators (ISOs), Public Service Commissions at various states, and other federal and state governments throughout the US which is directly applicable to the needs and the restoration issues involved in this Docket.

Louisiana has been facing extreme weather conditions over the past 15 years which damaged its electric utility infrastructure. These kinds of weather patterns appear to continue into the future. The various jurisdictional electric utilities (IOUs, electric Co-Ops and others) have restored the power to the consumers, and the associated restoration costs have been reflected in rate increases for the various utilities. These restorations have taken time and money, as reflected in the March 28, 2022 letter from Entergy Louisiana, LLC's (ELL) Hurricane Ida Storm Restoration Cost Recovery Filing explaining the basis of ELL's upcoming filing.

CTC Team's proposal herein addresses the challenges and the associated work scope which the LPSC has identified in the RFP 22-13 as follows:

- The CTC Team (CTC and L&A personnel) and Staff will be conducting a prudency review into the current ELL restoration efforts (past, present, and future) and associated costs and schedules.

This investigation will assess the restoration policies, procedures, plans, decisions, and actions taken by ELL, past, present, and future as to the reasonability of their implementation, and thus, the reasonability of the associated costs and to determine if the decisions made and associated costs were reasonable at the time they were incurred, given the circumstances and what was known or should have been known at the time.

- As a result of the future predictions by NOAA and other US weather agencies of hurricanes becoming more frequent and stronger than in the past, the joint team of L&A and CTC Team personnel will be taking note of the prudency of decisions made, actual expenditures, the proper accounts where were they recorded and whether the restoration activities included upgrading of structures, systems and components so that when future hurricanes come onshore in Louisiana, the ELL's electrical infrastructure from generation, transmission and distribution are more reliable and safe than in prior years.

This prudency review will be conducted utilizing the process of a "due diligence" with a system of "document requests" and "questions" and "responses" from ELL managed by



CTC Team and Staff. The CTC Team will look at the reasonability and prudence of the decisions made and whether the associated costs were reasonable at the time they were incurred, given the circumstances and what was known or should have been known at the time.

- CTC Team will issue a draft ELL IDA Restoration Prudence Review Report to be reviewed and approved by Staff and ultimately the Commissioners, presenting the results, conclusions, and recommendations as a result of this assignment. A presentation summary of this Report will be made to the Commissioners and Staff.
- Testimony and rebuttal testimony will be provided by the CTC Team as requested by Staff and legal counsel.
- The CTC Team of accountants, technical and management consultants are highly experienced in analyzing the operations, books, and records of utility companies, particularly investor-owned utilities, for the purpose of setting just and reasonable rates, including, but not limited to, calculation of rate base, rates of return, capital structure, formula rates, and all related studies and calculations and prior cost recovery filings with the LPSC.
- As the prudence review proceeds, the CTC Team will evaluate the expenditures and their purpose, and discuss with ELL whether any of such expenditures could be eligible for funding under the Infrastructure Investment and Jobs Act potentially lowering the potential impact on rates to the consumer.

CTC Team dedicated and accomplished team, includes individuals both from CTC itself and Larkin & Associates, PLLC, (CTC Team from now on in this document) with backgrounds and experience in providing solutions to challenges such as:

- Conducting due diligences and prudence reviews working with public service commissions, utilities and independent power producers and transmission and distribution operators, investment bankers, regulatory entities, financial analysts, and lawyers in project financing transactions where CTC Team personnel conducted independent technical, commercial, and environmental evaluations for the financiers and owners/operators in major generation and transmission and distribution projects located throughout the US.
- Providing engineering and design from concept to details on various electric power generation, transmission and distribution systems which require significance resilience for the safe and reliable operation for the benefit of consumers such as high voltage transmission lines, distribution systems and nuclear power, CHP facilities and natural gas combined cycle plants.
- Working with regulatory personnel and economists at various PSCs and ISOs for the technical, schedule and accounting due diligence reviews of transmission, distribution, and generation projects including regulatory issues such as prudence reviews of utility infrastructure restoration projects.
- CTC Team personnel expertise includes technical and accounting expertise in towers, substations, distribution systems including transformers and laterals, and other



equipment involved in the safe and reliable generation, transmission, and distribution of electric power.

In summary, The CTC Team uniquely provides the Staff with the degrees of competence and the amount of practical experience in the field of public utility practice, and similar practices before this or other regulatory agencies, and familiar knowledge of ratemaking standards and regulatory law, in addition to the CTC Team's knowledge and experience on utilization of securitization for cost recovery. CTC Team is committed to collaboratively work closely with Staff, the Commissioners, outside counsel assigned by the Commission, and ELL to successfully complete the objectives established by the Commissioners for this Docket.

INTRODUCTION

This proposal addresses the Request for Proposals ("RFP") issued by the Louisiana Public Service Commission on April 5, 2022, RFP 22-13 Docket No. TBD, "*Entergy Louisiana, LLC's Hurricane Ida Storm Restoration Cost Recovery Filing*" for an **outside consultant** to assist Commission Staff in the review of Entergy Louisiana, LLC's ("ELL" or "Company") request for determination of the amount of recoverable costs incurred, and to be incurred, to restore its facilities following the damage of Hurricane Ida.

The Louisiana Public Service Commission ("Commission" or "LPSC") issued this RFP in accordance with the requirements of the LPSC General Order dated November 10, 2014 regarding the selection of contract employees (the "Contract Order").

Overview

On August 29, 2021, Hurricane Ida made landfall near Port Fourchon, Louisiana, as a strengthening Category 4 hurricane with sustained winds of 150 miles per hour. Hurricane Ida tied 2020's Hurricane Laura as the strongest storm to make landfall in Louisiana since 1856, and is tied for the fifth strongest to ever make landfall in the continental United States. Based on initial estimates, restoration associated with Hurricane Ida exceeds the damage caused by Hurricanes Laura, Delta, and Zeta from 2020.

On March 28, 2022, ELL submitted a pre-filing notice letter to the Commission indicating the Company's intentions to make an initial filing requesting to recover costs incurred, and to be incurred, by ELL to restore its damaged facilities. ELL is not seeking to replenish the storm escrows in this upcoming docket as the Commission recently approved such in Order No. U-35991. The Commission also approved, in Docket No. U-35991, a \$1 billion Hurricane Ida escrow account, which will be subject to true-up in this upcoming docket.'

As with past storms, ELL expects to make one or more supplemental filing after the initial filing requesting the Commission authorize the permanent financing of such recoverable storm costs under Act 55, Act 64, Act 293, or any other applicable statute. At this time, a decision has not been made as to which method ELL will seek authorization under. The filings made by ELL in



Docket No. U-35591 are illustrative of the type of application, testimony and exhibits that ELL may file for Hurricane Ida, which could include up to twelve witnesses.

CTC Team will be assisting Commission in-house Staff (Legal, Utilities, and Auditing Divisions) and possibly outside counsel and a securitization consultant in reviewing ELL's request and providing a recommendation to the Commission. Pursuant to Order No. U-35591 (Quantification Order), all issues regarding the prudence of Hurricane Ida-related expenditures, (including those covered by the escrow account), are subject to examination by the Commission, its Staff, and all Intervenors in the full Hurricane Ida filing, which is the subject of this proposal.

Under the direction of the Commission, the CTC Team and L&A personnel (jointly the “CTC Team” in this document) will assist Staff, outside counsel and the securitization consultant in conducting the assistance Staff is looking for under this Docket as a “prudency review” of the ELL Application and filings utilizing the various tools and techniques appropriate to this review.

SCOPE OF REPRESENTATION

Critical Technologies Consulting (CTC Team) is pleased to submit its proposal to the Louisiana Public Service Commission as an outside consultant, with specialized engineers and accountants on staff, to assist its Staff and:

- Review the application (including the direct testimony of several witnesses, any supporting documentation, and associated cost effects).
- Review all documentation associated any withdrawals made and use of the Hurricane Ida escrow account, including whether such withdrawals/use are prudent.
- Draft data requests and review responses thereto via a document request (DR) system which will be established with suggested response dates to be able to meet the estimated period of representation of approximately 10 months.
- Potentially participate in informal meetings with Staff and ELL, Staff and Intervenors, or Staff, ELL, and Intervenors.
- Assist in drafting a recommendation(s), including testimony, to the Commission, including any exhibits supporting the same.
- Review and respond to any rebuttal testimony.
- Assist in preparing any necessary direct and cross-answering testimony.
- Assist in trial preparation, including cross-examination of witnesses and drafting pleadings and motions related thereto working closely with Staff and outside counsel.
- Review and analyze potential stipulation terms.

Additionally, CTC Team shall be available to participate in meetings, conference calls, status conferences, hearings, and other conferences with the Commission and its Staff, as well as attending any Business and Executive Session(s) that Staff deems necessary. The scope of work provided herein shall continue through the conclusion of the docket (presently estimated



to be approximately 10 months), including the issuance of bonds should ELL decide to securitize.

This proposal includes an outline of a plan of action for conducting the review of the application, including the activities described above. CTC Team understands that the Commission and its Staff shall have the right to determine how the tasks will be carried out.

In addition, this proposal includes our extensive qualifications and experience necessary to meet the requirement of this RFP No. 22-13, including experience with securitization of costs and prior public service commissions' storm recovery processes.

PERIOD OF REPRESENTATION

The time-period estimated to complete the Scope of Representation is approximately 10 months. This is merely an estimate at this time since the actual ELL application and filings have not been received by the Commission. (The Commission makes no representations as to the accuracy of the Period of Representation)

CTC Team will issue monthly progress reports to the Staff as to the progress of the assignment and other important evaluation issues. The collaboration of Staff, CTC Team, Staff outside counsel and ELL are essential to the completion of the objectives of this Docket in the time approximately estimated.

PROPOSED PLAN OF ACTION

The CTC Team Proposed Plan of Action consists of the following steps or summary tasks:

1. During the Kick-off Session with Staff, CTC Team will identify for the review and approval of Staff and Staff's legal counsel, the approach to the prudency review of the Application and filings, through the use of a "document request" system and questions/answers to be provided by ELL. A preliminary schedule will be discussed including a summary discussion on ELL's past, current and planned restoration efforts. Notes of meeting will be issued covering both sessions.
This session will be followed with a Kick-off Session with ELL which will include a discussion on the Application and filings and the schedule which has been targeted. The success of this review process will depend on the close collaboration among the parties.
2. Review prior information/documentation and "lessons learned" available from Staff and/or CTC Team, publicly obtained information available from other utilities and



Public Service Commissions from States facing similar challenges in the restoration of their systems after major hurricanes.

3. Identification of the major issues for discussion between Staff, CTC Team, and Staff's legal counsel and the securitization consultant prior to the commencement of the detailed prudency review.
4. Assist Staff in the conduct of the review of the ELL Application and filings including testimony covering restoration decisions and efforts concerning Hurricane IDA, past, current, and future decisions, and actions. This review will include the review of the ELL restoration policies, procedures, plans, decisions, and actions taken by ELL, as to the reasonability of their implementation. This prudency review includes the withdrawal of funds from the escrow account and whether these withdrawals were prudent. The objectives of these prudency reviews are to determine if the decisions made and associated costs were reasonable at the time they were incurred, given the circumstances and what was known or should have been known at the time.

Draft data and documentation requests and review responses thereto via a document request (DR) system which will be established with suggested response dates to be able to meet the estimated period of representation of approximately 10 months.

5. Based on the documents and responses supplied by ELL and the research conducted by the CTC Team with Staff, CTC Team will draft a single comprehensive report (ELL IDA Restoration Prudency Review Report) on the results, conclusions, and recommendations of the prudency review of ELL's IDA restoration plans, decisions, actions, and associated costs.
6. As requested by Staff, the CTC Team would be defending, participating, and testifying (direct and cross-answering testimony) regarding the results, conclusions and recommendations resulting from this prudency review.
7. As requested by Staff, will participate in informal meetings with Staff and ELL, Staff and Intervenors, or Staff, ELL, and Intervenors.
8. Issuance of monthly progress reports.
9. Additionally, the CTC Team shall be available at the request of Staff to prepare presentations, participate in meetings, conference calls, status conferences, hearings, and other conferences with the Commission and its Staff, as well as attending any Business and Executive Session(s) that Staff deems necessary. The scope of work provided herein shall continue through the conclusion of the docket (presently estimated to be approximately 10 months), including the issuance of bonds should ELL decide to securitize. As the prudency review proceeds, the CTC Team will evaluate the expenditures and discuss with ELL whether any of such expenditures could be eligible



for funding under the Infrastructure Investment and Jobs Act lowering the potential impact on rates to the consumer

The various Tasks associated with the CTC Team Proposed Plan of Action are shown below using the Scope of Representation and scope of work presented in the Request for Proposals RFP 22-13 Docket. Note that the restoration of the electric utility infrastructure would cover the systems and equipment involved in generation, transmission and distribution systems providing and delivering the electricity to the consumers.

The detailed Descriptions of the Proposed Plan of Action are presented in the following Tasks:

1. During the Kick-off Session with Staff, CTC Team will identify for the review and approval of Staff and Staff's legal counsel, the approach to the prudency review of the Application and filings, through the use of a "document request" system and questions/answers to be provided by ELL. A preliminary schedule will be discussed including a summary discussion on ELL's past, current and planned restoration efforts. Notes of meeting will be issued covering both sessions.

This session will be followed with a Kick-off Session with ELL which will include a discussion on the Application and filings, its review, and the "document request" question/answer system. The success of this review process will depend on the close collaboration among the parties.

This review will follow the prudency guidelines and direction approved by Staff and Staff legal counsel in the conduct of the review work.

A preliminary schedule will be discussed including a summary discussion on ELL's past, current and planned restoration efforts. Notes of meeting will be issued covering both sessions.

2. Review prior information/documentation including LPSC Orders, briefings, reports and documents and "lessons learned" which have been received and/or prepared up to this point by Staff. CTC Team would also be reviewing available public information or reports from DOE NREL and NETL and electric utilities from states facing similar challenges covering the latest processes in restoration planning and execution.
3. Identification of the major issues to be discussed among Staff, CTC Team, and Staff's legal counsel prior to the commencement of the detailed prudency review. These discussions will be the basis of the preliminary development of the document requests during the prudency review.

Coordinate with Staff to cover these key points and major issues which Staff, Staff's legal counsel and CTC Team personnel have already focused and prioritize those issues for discussions with ELL.

4. Assist Staff in the conduct of the review of ELL restoration decisions and actions taken as part of its restoration efforts accomplished after Hurricane IDA, past, current and



future. This prudency review will assess the ELL'S restoration policies, procedures, plans, decisions, and actions taken by ELL, as to the reasonability of their implementation. This prudency review includes the withdrawal of funds from the escrow account and whether these withdrawals were prudent. The prudency review's objective is to determine if the decisions made and associated costs were reasonable at the time they were incurred, given the circumstances and what was known or knowable at the time. This review will follow the guidelines Staff and Staff legal counsel would like CTC Team to follow in the conduct of the work.

5. As approved and/or directed by Staff this prudency review would include:
 - a. Review the ELL application and filings (including the direct testimony of several witnesses, any supporting documentation, and associated cost effects).
 - b. Review all documentation associated any withdrawals made and use of the Hurricane Ida escrow account, including whether such withdrawals/use are prudent.
 - c. Draft data and documentation requests and review responses thereto via a document request (DR) system which will be established with suggested response dates to be able to meet the estimated period of representation of approximately 10 months.

This documentation review would include reviews of ELL corporate and/or restoration project guidelines and procedures used by ELL in the planning, selection of contractors and suppliers, engineering and design and execution of the past, current and future restoration tasks and determination of whether the ELL procedures and guidelines were followed in the execution of the restoration work. In addition, this review will include the description of the restoration tasks, schedules of implementation, associated costs, recording of those costs in appropriate accounts ELL has established according to their guidelines and procedures, and other prudency review related requests.

While it is clear that ELL ultimately restored power to all consumers, it may have been done without the full prudency approach the Louisiana Public Service Commission expects ELL to exercise after the experience and restorations (and associated rate increases) Louisiana suffered over the past 5 years. It is worth noting that particular emphasis will be made in our prudency reviews of ELL documents and ELL testimony as to what was known and should have been known at the time of Hurricane Ida to determine whether some expenditures were made without this full prudency approach in planning, designing, decisions and in actions taken.

- d. Potentially participate, as requested by Staff, in informal meetings with Staff and ELL, Staff and Intervenors, or Staff, ELL, and Intervenors.
- e. Assist in drafting a recommendation(s), including testimony, to the Commission, including any exhibits supporting the same.
- f. Review and respond to any rebuttal testimony.



- g. Assist in preparing any necessary direct and cross-answering testimony.
- h. Assist in trial preparation, including cross-examination of witnesses and drafting pleadings and motions related thereto working closely with Staff and outside counsel.
- i. Review and analyze potential stipulation terms.

Based on the documents and responses supplied by ELL and the evaluations conducted by CTC Team with Staff, CTC Team will draft a single comprehensive report (ELL IDA Restoration Prudency Review Report) describing the review results of ELL's IDA restoration plans, decisions, actions and associated costs with emphasis on the determination of whether the decisions made and associated costs were reasonable at the time they were incurred, given the circumstances and what was known or should have been known at the time.

- 6. As requested by Staff, CTC Team would be defending, participating, and testifying (direct and cross-answering testimony) regarding the results, conclusions and recommendations resulting from the prudency review. This would also include the review and respond to any rebuttal testimony; assist in preparing any necessary direct and cross-answering testimony; assist in trial preparation, including cross-examination of witnesses and drafting pleadings and motions related thereto working closely with Staff and outside counsel; and the review and analysis potential stipulation terms.
- 7. As requested by Staff, CTC Team will participate in informal meetings with Staff and ELL, Staff and Intervenors, or Staff, ELL, and Intervenors.
- 8. Issuance of monthly progress reports covering the accomplishments during the prior month and the associated costs.
- 9. Additionally, CTC Team shall be available at the request of Staff to participate in meetings, conference calls, status conferences, hearings, and other conferences with the Commission and its Staff, as well as attending any Business and Executive Session(s) that Staff deems necessary. The scope of work provided herein shall continue through the conclusion of the docket (presently estimated to be approximately 10 months), including the issuance of bonds should ELL decide to securitize. As the prudency review proceeds, the CTC Team will evaluate the expenditures and discuss with ELL whether any of such expenditures could be eligible for funding under the Infrastructure Investment and Jobs Act lowering the potential impact on rates to the consumer (summary included in Appendix C).

CTC Team recognizes Staff will also require outside counsel in RFP 22-13 for the legal aspects of the issues described in this RFP (RFP-22-13). CTC Team commits to work hand-in-hand with the Legal Firm selected by the Staff.



DELIVERABLE PRODUCTS

CTC Team will develop reports and documentation as requested by Staff.

There are reports CTC Team has identified as part of its proposed Action Plan for use to communicate with Staff and jointly develop strategies and plans to support the Commission on this Docket. These reports are as follows:

Task # 5: ELL IDA Restoration Prudency Review Report

A draft outline of the ELL IDA Restoration Prudency Review Report will be prepared approximately 4 months after receipt of the Application and major testimony filings are received by CTC Team. It will indicate any additional information needed in areas being reviewed. The final draft of this report will be available approximately 4 to 5 months after this event depending on the quality and total information supplied then by ELL.

Key components of this report will include the:

- Basis of the reviews conducted.
- Findings, results, and conclusions of the reviews.
- Recommendations including potential follow ups.
- List of documents reviewed.

The CTC Team will prepare a power point presentation of the Prudency Report to the Staff, Staff legal counsel and the Commissioners.

Task # 6: Testimony and other Staff requested reports

This involves the preparation, review, and issuance to Staff of reports and/or testimony as requested and agreed with Staff.

Task # 8: Progress Reports CTC Team will issue monthly Progress Reports (in power point format) presenting the progress achieved, issues to be addressed and future actions.

APPROACH TO THE ASSIGNMENT

CTC Team is committed to assist Commission Staff and Staff's legal counsel in the review of Entergy Louisiana, LLC's ("ELL" or "Company") request for determination of the amount of recoverable costs incurred, and to be incurred, to restore its facilities following the damage of Hurricane Ida.

On March 28, 2022, ELL submitted a pre-filing notice letter to the Commission indicating the Company's intentions to make an initial filing requesting to recover costs incurred, and to be



incurred, by ELL to restore its damaged facilities. ELL is not seeking to replenish the storm escrows in this upcoming docket as the Commission recently approved such in Order No. U-35991. The Commission also approved, in Docket No. U-35991, a \$1 billion Hurricane Ida escrow account, which will be subject to true-up in this Docket No. TBD.

As with past storms, ELL expects to make one or more supplemental filing after the initial filing requesting the Commission authorize the permanent financing of such recoverable storm costs under Act 55, Act 64, Act 293, or any other applicable statute. At this time, a decision has not been made as to which method ELL will seek authorization under. The filings made by ELL in Docket No. U-35591 are illustrative of the type of application, testimony and exhibits that ELL may file for Hurricane Ida, which could include up to twelve witnesses.

CTC Team will assist Staff in the review of the ELL Application and filings including testimony requesting to recover costs incurred, and to be incurred, by ELL to restore its damaged facilities. The objectives of these prudency reviews are to determine if the decisions made and associated costs were reasonable at the time they were incurred, given the circumstances and what was known or should have been known at the time. This review of the above documents includes the withdrawal of funds from the escrow account and whether these withdrawals were prudent.

CTC Team will work collaboratively with Staff, Staff legal counsel and ELL to maintain communications and conduct the above reviews as expeditiously as possible.

These reviews will be conducted utilizing the process of a “due diligence” with a system of “document requests” and responses from ELL managed by CTC Team and Staff to lead to the development of the “ELL IDA Restoration Prudency Review Report”. All these efforts will be conducted to conclude at the estimated target date of approximately 10 months after the receipt of the Application and filings. Physical or video conference meetings are expected to be held with the participants under this Docket.

As outside consultants to the Staff and Commission, our allegiance is to the Commission, it’s Staff and the Rate Payers of Louisiana.

CTC Team will assign a very seasoned Project Manager to lead this assignment and bring forth the combined independent consulting engineering capabilities of CTC Team. The CTC Team will work as an integrated team with Staff sharing concepts, processes, investigations, opinions and most importantly developing results, conclusions and recommendations which will achieve the Commission’s goals and objectives.

Various CTC Team personnel will be brought to the assignment as needed by the issues and topics to be covered. In the “Estimated Cost” section, we provide an estimate of the time for the personnel by “Task” identified in Section 4, the Proposed Plan of Action.

Of particular interest is the determination by ELL that these restoration costs ELL is requesting approval for recovery under LPSC processes are not going to be eligible to be funded under the “Infrastructure Investment and Jobs Act (IIJA).

As Project Director (Senior Executive Consultant), we have selected Mr. Albert Ferrer. Mr. Ferrer has an extensive background in the energy sector and in performing due diligence



assignments, analysis', studies, oversight of major energy projects, and brings a tremendous amount of organizational experience and expertise to this assigned docket. Mr. Ferrer will be assisted by other CTC Team key personnel as well as other staff members necessary for the success of meeting the commissions objectives for this docket.

CONFLICTS OF INTEREST

CTC Team and its personnel do not have any conflicts of interest concerning this Docket scope of representation and none of the CTC Team personnel have any work with ELL and any its subsidiaries and entities subject to the Louisiana Public Service Commission (LPSC) regulatory responsibilities.

CTC Team personnel have worked in the past for various utilities, public service commission staffs, ISOs, IPPs, regulatory bodies and other entities in the power and oil and gas fields as part of their employment history with other companies in the past. Their resumes indicate that kind of experience.

CTC Team currently represents the Louisiana Public Service Commission, Arkansas Public Service Commission, and the Public Utility Commission of New Orleans in the evaluation of the prudence of the decisions by Entergy during the operations and outages at the Grand Gulf Nuclear facility. A detailed report of technical deficiencies at Grand Gulf as well as a detailed Prudence review and written as well as oral testimony are being performed.

Additionally, CTC Team represents the Louisiana Public Service Commission in Docket No. R-35394 related to a "Proceeding to Examine Options Pertaining to Pole Viability, Pole Attachments, and all Areas that may Affect the Reliability and Sustainability of Louisiana's Electric Utility Distribution Grid" and in Docket No. R-36226, Louisiana Public Service Commission, ex parte. In re: "Evaluation of Louisiana's electric grid regarding status, maintenance, and whether there is more that could have been done and can be done to benefit Louisiana customers.

These assignments are not considered as a conflict of interest, in fact, they complement/feed the activities and tasks envisioned in this proposal.

CTC TEAM RESUME AND QUALIFICATIONS

The CTC Team has the requisite knowledge of the topics involving this Docket and discussed in the RFP 22-13, in addition to those provided in the Commission's General Order dated November 10, 2014. CTC Team has been pre-qualified by the Commission to receive this RFP under Docket No. TBD.



CTC Team has assembled a very experienced and qualified team of personnel with the requisite knowledge, of the topics covered in the RFP's Scope of Representation and the proposed Action Plan to achieve the Commission's strategic objectives under this Docket.

The CTC Team personnel is qualified and prepared to assist Staff in conducting the reviews and evaluations as outlined above, answer questions with respect to all of the issues addressed in this RFP 22-13 and is qualified and prepared to render testimony, review and respond to any rebuttal testimony and assist in the preparation of any necessary direct and cross-answering testimony. While working closely with Staff and outside counsel, the CTC Team will assist in trial preparation, including cross-examination of witnesses and drafting pleadings and motions related thereto, and review and analyze potential stipulation terms.

The expertise of the CTC Team personnel covers the technical and business operations including accounting of utilities in the generation of electricity and its transmission and distribution to the consumers.

In addition to those qualifications expressed above, CTC Team personnel are qualified and prepared to render expert testimony regarding and have knowledge of:

1. The Commission's General Order dated March 12, 1974 prohibiting "promotional practices" by public utilities.
2. Construction, engineering and design, operation and maintenance and restoration programs of electric utility infrastructure, including but not necessarily limited to the generation, distribution and transmission systems.
3. Familiarity with cost allocation methodologies for the allocation of investment and expenses among affiliates and utilities, including the relationship of a parent company to its subsidiary operating companies; the transfer of investment and costs among affiliates and utilities, and the provision of services among affiliates and utilities.

As indicated above, CTC Team personnel are qualified and prepared to draft and render expert testimony and be cross-examined with respect to all the issues addressed in this RFP 22-13 and which are likely to arise in the proceeding and be qualified and prepared to render testimony at a hearing and/or a B&E regarding the same and have knowledge of:

1. A detailed understanding of the major functional areas of a regulated investor-owned electric utility.
2. Appropriate accounting standards and practices for electric public utilities, public utility accounting, and generally accepted auditing standards.
3. Storm damage reserve accounting, utility depreciation and taxation issues.
4. LPSC and FERC approved cost-of-service cost methodologies for electric utilities.
5. Basic components and requirements of ELL' s Formula Rate Plan, including cost of capital, including capital structure, cost of debt, cost of equity, and rates of return.
6. Alternative sources of funds to offset hurricane damage costs such as insurance proceeds, governmental aid, and income tax benefits.



7. Prior Commission Orders involving storm recovery and/or other securitized debt.
8. Cost allocation methodologies for the allocation of investments and expenses among affiliates, including the relationship of the holding company to its subsidiary operating companies, the transfer of investment and costs between operating companies, and the provision of services among affiliates.
9. Appropriate mechanisms, allocation among customer classes and rate design.
10. Securitization requirements and procedures and the ratemaking treatment of the benefits of securitization.

More specifically, the personnel assembled by CTC Team for this assignment, are experienced professionals in multidisciplinary areas specifically applicable to the needs specified in this Docket including:

- The CTC Team (L&A) have over 60 specifically applicable accounting and regulatory utility experience at various states including testimony and rebuttal testimony services
- Providing technical advice regarding industry standards and widely accepted industry practices regarding electric utility infrastructures, design, operations and maintenance and restoration plans and programs thereof, as outlined above.
- Having expertise in analyzing the operations, books, and records of utility companies, particularly investor-owned utilities, for the purpose of setting just and reasonable rates, including, but not limited to, calculation of rate base, rates of return, capital structure, formula rates, and all related studies and calculations and prior cost recovery filings with the LPSC.
- Engineering and design, procurement, construction of all aspects of electric generation, transmission and distribution including restoration programs
- Project Technical/Financial Transactions and Asset Acquisitions.
- Program Management and Operations Management.
- Independent commercial and regulatory technology evaluations including distributed systems, transmission systems and generation sources
- Independent evaluations of transmission and distribution systems for acquisition by confidential clients (in Louisiana).
- Emergency plans and restoration programs development and execution involving disruptive events at renewable, fossil, and nuclear power stations.
- Development of resiliency plans and programs.

The CTC Team professional experience consists of a combined expertise:

- Our CTC team has an average of 35 years of experience of working in the engineering field involving engineering, procurement, and construction services to electric utilities



from generation to transmission, distribution to interconnection to residential, commercial and industrial customers and the management of such services.

- Bringing the potential of over 40 personnel with a variety of specialized expertise in the areas important to the issues on this Docket.
- Since the mid-1980s, CTC Team personnel have worked in over 300 projects involving independent engineering services and consulting to a variety of clients, from utilities, lenders, investors, operators, DOE, PSC staffs, local regulatory agencies, and many other clients in various states such as Arkansas, Louisiana, Georgia, Texas, Florida, Mississippi, Alabama, Missouri, Massachusetts, NY, Connecticut, Maine, New Hampshire, Virginia, California, Arizona, New Mexico, North and South Carolina, Utah, and other states and international locations.
- Preparing papers and white papers for private and government clients involving the use of microgrids and intermediate grids as a means of adding resilience to the transport of the electricity in transmission and distribution facilities to provide more reliability, resilience, sustainability and safety for the customers, especially after extreme events.
- Conducting independent technical and operational reviews for the DOE's new design projects of long transmission lines funded by the DOE Loan Guarantee Program.
- Evaluating as independent engineers, the interconnections and generation, transmission, and distribution of power in various states in the US and international locations such as Chile, Brazil, Guatemala, Mexico, Peru, and others.

Successfully utilizing the strengths, talents, and expertise of our seasoned professionals, we provide customized, innovative, high quality and customer focused prudency review consulting services to the Staff. Our professionals have the industry expertise and knowledge closely following technical, accounting, managerial, and business market trends in the electric utility industry covering transmission and distribution and generation systems.

Appendix D includes the CVs of our very experienced and qualified professionals who may be assigned as needed to assist the Commission Staff as engineering consultants and experts in their fields. We have included a resume for each key staff member and consultant who may be assigned to work on this Docket, including names, education, and professional experience. CTC Team reserves its ability to supplement its team, if necessary, and with approval of Commission Staff, to provide the Commission with the very best service on this Docket.



RECENT ASSIGNMENTS FOR CTC

Client	Description	Location
Louisiana Public Service Commission Staff	Proceeding to Examine Options Pertaining to Pole Viability, Pole Attachments, and all Areas that may Affect the Reliability and Sustainability of Louisiana’s Electric Utility Distribution Grid	State of Louisiana
Louisiana Public Service Commission Staff	Evaluation of Louisiana's electric grid regarding status, maintenance, and whether there is more that could have been done and can be done to benefit Louisiana customers.	State of Louisiana
Stone Pigman (Representing LPSC) Denton (representing CNO) Stinson, LLP (representing APSC)	Technical reviews/reports/testimony related to the Grand Gulf Nuclear Power Plant imprudence case before FERC.	Grand Gulf Nuclear Power Plant Louisiana Arkansas City of New Orleans
Mississippi Public Service Commission Staff (MPUS)	Conducted Independent Engineering due diligence on the new 600 MW Integrated Gasification Combined Cycle (IGCC) – including the technical and commercial viability, cost, schedule, engineering, and construction monitoring, including 7 switchyard modifications and 150 miles of new Transmission poles and cabling.	Kemper Project Meridian, MS
Banking Lenders Group (Mizuho)	Independent engineering of a 1000 Liters/second desalination plant including 100 miles of 36” in-ground piping and 75 miles of Transmission poles and cables.	Antofagasta Chile
Enbridge Project	500kV GIS/GIL Transmission Project. The project scope included conducting an independent technical evaluation and fatal flaws analysis, technology review and a risk assessment for this 500kV transmission project which consists of the engineering-procurement-construction of three 500kV GIS switching stations, 30-miles of 500kV overhead transmission line and 3-miles of double-circuit underground Gas Insulated 500kV transmission line installed in a tunnel.	California
Florida Public Service Commission and FP&L	Conducted a detailed technical and commercial independent engineering due diligence and provided written reports and testimony on the prudence of FP&L in the implementation of various upgrades of the FP&L nuclear power plants and transmission systems to accommodate these upgrades	St Lucie and Turkey Point and switchyards and substations



Client	Description	Location
Mississippi Public Service Commission Staff (MPUS)	Independent Engineering services and monitoring of the installation of a flue gas desulfurization system for (2) 500 MW Coal Fired Units – Cost, Schedule, Risk Management, and Construction Monitoring.	Plant Daniel Mississippi
Independent System Operator (ISO) New England	Conducted independent evaluations of the technical quality, costs, and schedules of projects in the ISO que to determine if they can meet the schedules agreed with the ISO	New England States
US Department of Energy Loan Guarantee Program	Participated in independent engineering assignments in over 15 transmission and renewable energy projects under the US DOE Loan Guarantee projects. Provided detailed IE reports on each project with an evaluation of the new technologies involved including commercial viability, assessment of the scoping, construction contracts and cost and schedules and risk management of each project. Conducted construction monitoring over these projects after financial close.	Various States in the US including Nevada, Arizona, Texas, California, etc.
Office of Arkansas Attorney General	Review for Prudence of actions and expenditures during forced outages for potential adjustment of customer rates for the Public Service Commission/AG Office.	Grand Gulf Nuclear Power Plant Arkansas Mississippi
AEI Energy El Arrayan	115 MW Wind Farm (50 Units) Acting as Independent Engineer representing the Lenders in reviews of the ongoing project and in approval of financial disbursements by the Lenders monthly. This also included 20 miles of new roadways and 45 miles of new transmission and distribution poles and cabling with 3 new switchyards.	La Serena, Chile
Georgia Public Service Commission Staff	Representing the Public Service Commissioners and the Ratepayers of the State of Georgia, CTC Team is responsible for the overall monitoring of the construction, financial, cost and schedule adherence, project progress, and providing twice yearly written and oral testimony in GPSC Hearings.	Vogtle Nuclear Power Plant Units 3&4 (New Construction)
PacifiCorp/ Rocky Mountain Power	Red-Butte 345kV Transmission Line Scope included design for this ~200-mile Greenfield transmission line with towers through the mountains of UT and the (2) remote substation expansions including the addition of a series capacitor.	Red-Butte, Utah
X24, 69kV Transmission and Distribution Reconductoring & Refurbishment Project	Preparation of Scope Documents and Construction Documents. Engineered structure modifications and replacement structures in accordance with client, regional, and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD. Calculated insulator swing and integrated it into the structure work list to determine where insulator swing issues existed and how much weight needed to be added to meet swing tolerance. Provided field support during construction.	Mass to Vermont



Client	Description	Location
Y25, 69kV Line Reconductoring Project	Preparation of scope document. Preparation of Construction Document. Conducted field inspections. Engineered structure modifications and replacement structures in accordance with client, regional and NESC standards. Analysis using PLS-CADD. Created spreadsheet to calculate insulator swing and the amount of weight to add to each conductor to eliminate uplift and to ensure an insulator swing of less than 30 degrees under user defined conditions.	Mass to Vermont
Ticonderoga-Republic, Republic-Whitehall, 115kV Refurbishment Project, NY	Line refurbishment of (112) mile long transmission line primarily made up of wood pole structures. Environmental issues and excessively long spans were some of the challenges associated with this project as this line runs through the Adirondack Mountains of upstate NY. Preparation of Construction Document. Conducted field inspections. Engineered structure modifications and replacement structures in accordance with client, regional and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD.	Ticonderoga, NY
Private Investor	Conducted an independent technical evaluation and condition assessment of the transmission and distribution assets of a utility in Louisiana for potential lease or acquisition	Louisiana
AEI Energy and Lenders Jaguar Energy Guatemala	300 MW CFB Coal Project, Acting as Independent Engineer representing the Lenders in reviews of the ongoing project and in approval of financial disbursements by the Lenders monthly, including 70 miles of transmission and distribution poles and cabling.	Antigua, Guatemala
AEI Energy Fenix Project	520 MW Combined Cycle Project Acting as Independent Engineer representing the Lenders in reviews of the ongoing project and in approval of financial disbursements by the Lenders on a monthly basis including 66 miles of Transmission and Distribution poles and cabling and 1000 feet of outfall piping.	Lima, Peru
U.S. Department of Energy (DOE) Loan Guarantee Program	716 MW Integrated Gasification Combined Cycle (IGCC) – Cost, Schedule, Engineering and Construction Evaluation.	Taylorville, IL
US Department of Energy (DOE) Loan Guarantee Program	South Texas Nuclear Power Project Units 3 and 4 – Preparation of an Independent Project Review and Analysis including Preparation of the Cost and Construction of the project.	Bay City, TX
LS Power	Two 600 MW Long Leaf Energy Project – Basic Design Development.	Georgia
City Public Service	4 LM6000 Combined Cycle units. Owner Engineer.	Texas



Client	Description	Location
Rochester Gas & Electric	300 MW Coal Fired Power Plant – CFB Boiler Based Expansion.	New York
Reunion Power	35 MW and 45 MW Biomass Power Project FEED Study.	Ludlow, VT
Unistar	Independent technical and commercial review of the 1600 MW Gen 3+ Nuclear Power Project.	Calvert Cliffs, MD
Department of Energy	Oversight of the removal of the 440 Building, Nuclear Weapons Plant at Rocky Flats Environmental Technology Site	Rocky Flats, CO
Department of Energy	Complete Cost Estimate – Title I, Engineering Phase for the Accelerator Production of Tritium (APT) Project.	Los Alamos, NM Aiken, SC
Department of Energy	MFFF – Independent Evaluation of Project Construction Costs for Savannah River.	Aiken, SC

RECENT ASSIGNMENTS FOR LARKEN ASSOCIATES (PARTIAL LIST)

- FLORIDA POWER & LIGHT COMPANY, DOCKET NO. 20210015-EI
- LOUISIANA PUBLIC SERVICE COMMISSION V. SYSTEM ENERGY RESOURCES, INC. AND ENTERGY SERVICES INC., DOCKET NO. EL18-152-000
- SYSTEM ENERGY RESOURCES, DOCKET NO. ER18-1182-001
- IN THE MATTER OF THE 2011 THROUGH 2016 REVIEW OF THE ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION RIDER CONTAINED IN THE TARIFFS OF OHIO POWER COMPANY, CASE NO. 17-30-EL-RDR
- MISSISSIPPI POWER COMPANY KEMPER COUNTY, DOCKET NO. 2017-AD-112
GEORGIA POWER COMPANY’S SEVENTEENTH SEMI-ANNUAL VOGTLE CONSTRUCTION MONITORING REPORT, DOCKET NO. 29849
- MISSISSIPPI POWER COMPANY, DOCKET NO. 2015-UN-080
- VIRGINIA ELECTRIC AND POWER COMPANY, CASE NO. PUE-2015-00027
- SAN DIEGO GAS & ELECTRIC COMPANY; APPLICATION NO. 14-11-003
- KENTUCKY POWER COMPANY, CASE NO. 2014-00396
- PENNSYLVANIA FIRSTENERGY: WEST PENN POWER COMPANY, PENNSYLVANIA ELECTRIC COMPANY, PENNSYLVANIA POWER COMPANY, AND METROPOLITAN EDISON COMPANY, DOCKET NOS. R-2014-2428742, R-2014-2428743, R-2014-2428744, AND R-2014-2014-2428745
- DUKE ENERGY, INC., CAUSE NO. 43114-IGCC-12/13
- MONONGAHELA POWER COMPANY AND THE POTOMAC EDISON COMPANY, CASE NO. 14-0702-E-42T
- MISSISSIPPI POWER COMPANY, KEMPER PRUDENCE REVIEW, DOCKET NO. 2013-UA-189
- GEORGIA POWER COMPANY, REVIEW OF ANNUAL SURVEILLANCE REPORT



- APPALACHIAN POWER COMPANY, CASE NO. 14-1152-E-42T
- APPALACHIAN POWER COMPANY, CASE NO. PUE-2014-00026
- CHUGACH ELECTRIC ASSOCIATION, INC., DOCKET NO. U-14-001
- ALASKA POWER COMPANY, DOCKET NO. U-14-002
- UNS ELECTRIC, INC., DOCKET NO. E-04204A-12-0504
- DUKE ENERGY, INC., CAUSE NO. 43114-IGCC-11
- GEORGIA POWER COMPANY, DOCKET NO. 36989
- CHUGACH ELECTRIC ASSOCIATION, INC., DOCKET NO. U-13-007
- POTOMAC ELECTRIC POWER COMPANY (DISTRICT OF COLUMBIA), FORMAL CASE NO. 1103
- VIRGINIA ELECTRIC AND POWER COMPANY, CASE NO. PUE-2013-00020
- GEORGIA POWER COMPANY, DOCKET NO. 36498
- DUKE ENERGY INDIANA, INC., CAUSE NO. 43114-IGCC-10
- POTOMAC ELECTRIC POWER, CASE NO. 9311
- ARIZONA PUBLIC SERVICE COMPANY, DOCKET NO. E-01345A-11-0224
- TUCSON ELECTRIC POWER COMPANY, DOCKET NO. E-01933A-12-0291
- OHIO POWER COMPANY AND COLUMBUS SOUTHERN POWER COMPANY, CASE NO. 10-2929-EL-UNC
- SOUTH CAROLINA ELECTRIC & GAS, DOCKET NO. 2012-218-E
- INDIANA MICHIGAN POWER COMPANY, CAUSE NO. 44075
- DOMINION NORTH CAROLINA POWER, DOCKET NO. E-72, SUB 479
- COMMONWEALTH EDISON, DOCKET NO. 12-0321
- AMEREN ILLINOIS COMPANY, DOCKET NO. 12-0293
- DUKE ENERGY, INC., CAUSE NO. 43114-IGCC-4S1
- DELMARVA POWER & LIGHT COMPANY, DOCKET NO. 11-528
- AMEREN ILLINOIS COMPANY, DOCKET NO. 12-0001
- COMMONWEALTH EDISON, DOCKET NO. 11-0721
- COLORADO PUBLIC SERVICE COMPANY, DOCKET NO. 11AL-947E
- APPALACHIAN POWER COMPANY, DOCKET NO. PUE-2011-00037
- HAWAIIAN ELECTRIC COMPANY, DOCKET NO. 2010-0080
- COMMONWEALTH EDISON, DOCKET NO. 10-0467
- PUGET SOUND ENERGY, INC., DOCKET NOS. UE-111048 AND UG-111049
- KANSAS CITY POWER & LIGHT COMPANY, DOCKET NO. 10-KCPE-415-RTS
- WESTERN MASSACHUSETTS ELECTRIC COMPANY, DOCKET NO. 10-70
- UNITED ILLUMINATING COMPANY, DOCKET NO. 10-07-09
- GEORGIA POWER COMPANY, DOCKET NO. 31958-U
- MISSISSIPPI POWER COMPANY, DOCKET NO. 2009-UA-14
- MONONGAHELA POWER COMPANY AND THE POTOMAC EDISON COMPANY, BOTH D/B/A ALLEGHENY POWER COMPANY, TRANS-ALLEGHENY INTERSTATE LINE COMPANY, AND FIRSTENERGY CORP., CASE NO. 10-0713-E-PC
- APPALACHIAN POWER COMPANY AND WHEELING POWER COMPANY BOTH D/B/A AMERICAN ELECTRIC POWER CO., CASE NO. 10-0699-E-42T
- IN THE MATTER OF THE APPLICATION OF DELMARVA POWER & LIGHT COMPANY FOR AN INCREASE IN ELECTRIC BASE RATES, PSC DOCKET 09-414
- PUGET SOUND ENERGY, DOCKET NO. UE-090704
- ARIZONA ELECTRIC POWER COOPERATIVE, APPLICATION TO APPROVE RATES, DOCKET NO. E-01773A-09-0472



- SOUTHWEST TRANSMISSION COOPERATIVE, INC., APPLICATION TO APPROVE RATES, DOCKET NO. E-04100A-09-0496
- PROGRESS ENERGY FLORIDA; DOCKET NO. 090079-EI
- PROCEEDING ON THE MOTION OF THE COMMISSION AS TO THE RATES, CHARGES, RULES AND REGULATIONS FOR CONSOLIDATED EDISON COMPANY NEW YORK, INC. FOR ELECTRIC SERVICE, CASE NOS. 09-E-0428
- AVISTA UTILITIES, DOCKET NO. UE-090134
- POTOMAC ELECTRIC POWER COMPANY, FORMAL CASE NO. 1076
- HAWAIIAN ELECTRIC COMPANY, APPLICATION FOR APPROVAL OF RATE INCREASES & REVISED RATE SCHEDULES AND RULES, DOCKET NO. 2008-0083
- ARIZONA PUBLIC SERVICE COMPANY, APPLICATION FOR AN INTERIM INCREASE IN RATES, DOCKET NO. E-01345A-08-0172

ESTIMATE OF COSTS

CTC Team presents below the schedule of hourly rates to be used for the services to be provided.

Our standard hourly rates per hour normally vary per consultant from \$150.00/hour to \$395.00/hour, however, we have discounted our fees for the Commission such that they range from \$120.00/hour to \$265.00/hour as shown below:

Rate Schedule for 2022:

Position	Standard Rate	Discounted Rate
Senior Executive Consultant	\$395	\$265
Executive Consultant	\$370	\$230
Senior Consultant	\$285	\$190
Consultant	\$200	\$165
Senior Specialist	\$250	\$190
Specialist	\$225	\$165
Research and Management	\$150	\$135
Analyst	\$135	\$120
Expenses	Actual Cost	Actual Cost

For this assignment CTC Team spent some time allocation and estimated costs for the scope of work (presented in the proposed Plan of Action above). CTC Team developed a cost estimate target of **\$280,050** for the services and we are estimating nine (9) trips to the Commission offices or other sites for a cost estimate of \$2000 per trip or \$18,000 in expenses for a total cost of **\$298,050**.



CONCLUSIONS

Recent articles in technical and non-technical journals are concluding that extreme weather events are going to continue to occur in larger frequency and strength in the USA, which necessitate careful proactive planning, emergency programs and innovative restoration and upgrading programs to provide safety, reliability, and resilience to the Louisiana electric utility infrastructure.

The CTC Team believes that it is well qualified to provide the Staff with the independent prudency expertise, technical and utility business expertise, cost estimating, accounting expertise, innovation, codes and standards knowledge, utility knowledge, emergency planning and restoration management knowledge needed to assist Staff in the prudency reviews and evaluations of the ELL application and various filings expected, requesting the LPSC to recover costs incurred, and to be incurred, by ELL to restore its damaged facilities as the result of Hurricane IDA.

CTC Team key team members are experienced in participating in cases involving public utility regulation, including the presentation of direct testimony, reports and recommendations, assistance in developing cross examination of witnesses, and the analysis of comments and exceptions to proposed recommendations.

Collectively, the CTC Team professionals possess a full understanding and ability to assist Commission Staff in reviewing the issues related to this Docket. Indeed, the combination of our team members' educational backgrounds, achievements, specific expertise, and prior experience best positions us to provide the LPSC and Staff with the most innovative, extensive, and comprehensive consulting services to assist Staff in achieving the goals and objectives of the Commission under this RFP 22-13 for this Docket No. TBD.

PROPOSED SCHEDULE – BY TASK

The time-period estimated to complete the Scope of Representation is approximately 10 months. This is merely an estimate at this time since the actual ELL application and filings have not been received by the Commission. (The Commission makes no representations as to the accuracy of the Period of Representation)

The successful implementation of the above tasks in the estimated schedule is based in CTC Team, Staff, Legal Counsel, and ELL coordinating closely to expedite all efforts on a as needed basis.

CTC Team presents in Appendix B the breakdown of costs it has estimated based on the Tasks described in the proposed Plan of Action above. CTC Team will keep the Staff apprised of the performance on each of the Tasks as the schedule progresses.

CTC Team will issue monthly progress reports to the Staff and Commissioners as to the progress of the assignments, costs, and other important development issues.

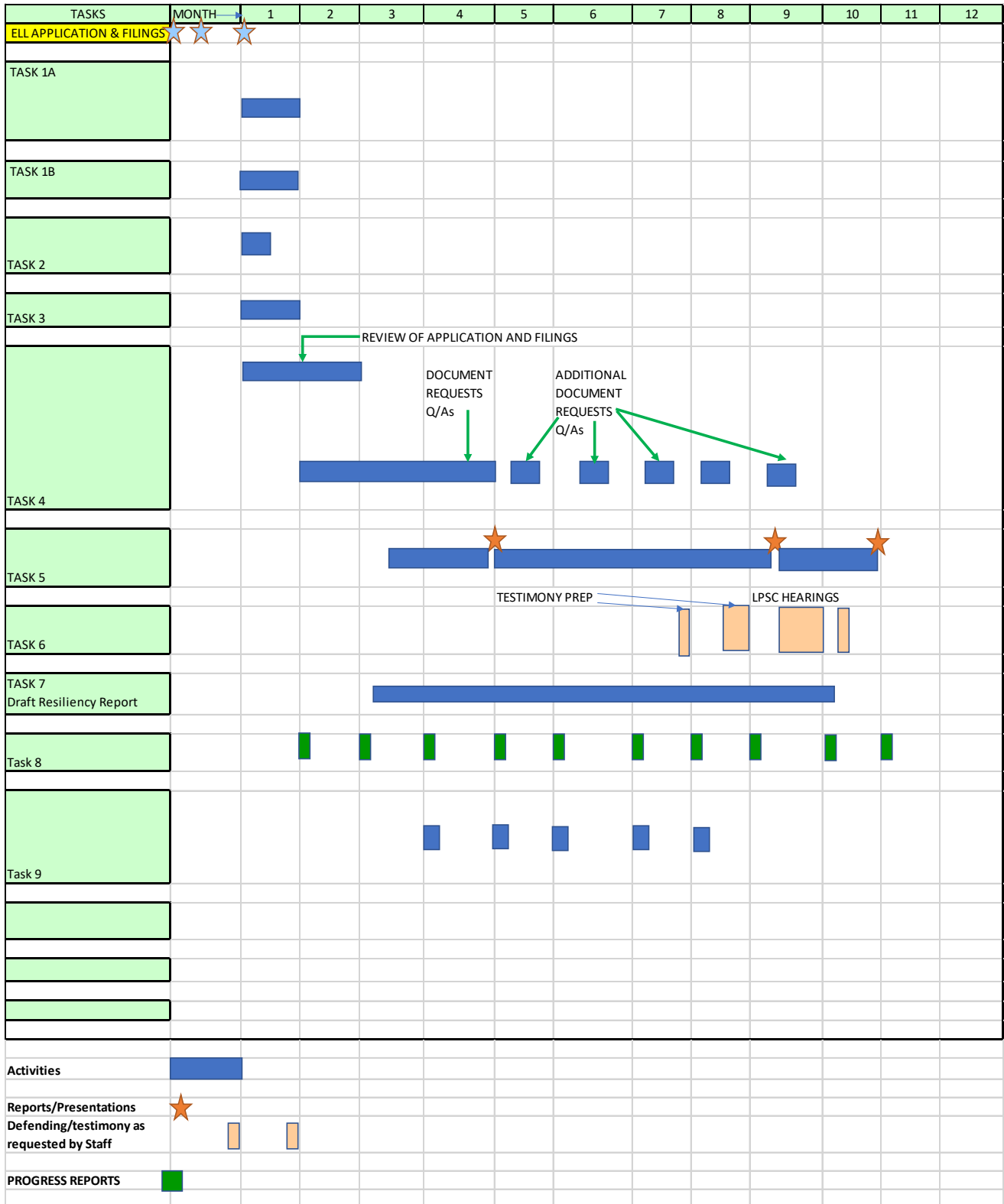


Description of Tasks

<p>1A. During the Kick-off Session with Staff, CTC will identify for the review and approval of Staff and Staff's legal counsel, the approach to the prudency review of the Application and filings, through the use of a "document request" system and questions/answers to be provided by ELL. A preliminary schedule will be discussed including a summary discussion on ELL's past, current and planned restoration efforts. Notes of meeting will be issued covering both sessions.</p>
<p>1B. Kick-off Session with ELL which will include a discussion on the Application and filings and the schedule which has been targeted. The success of this review process will depend on the close collaboration among the parties.</p>
<p>2. Review prior information/documentation and "lessons learned" available from Staff and/or CTC, publicly obtained information available from other utilities and Public Service Commissions from States facing similar challenges in the restoration of their systems after major hurricanes.</p>
<p>3. Identification of the major issues for discussion between Staff, CTC and Staff's legal counsel prior to the commencement of the detailed prudency review.</p>
<p>4. Assist Staff in the conduct of the review of the ELL Application and filings including testimony covering restoration decisions and efforts concerning Hurricane IDA, past, current and future decisions and actions. This review will include the review of the ELL restoration policies, procedures, plans, decisions and actions taken by ELL, as to the reasonability of their implementation. This prudency review includes the withdrawal of funds from the escrow account and whether these withdrawals were prudent. The objectives of these prudency reviews are to determine if the decisions made and associated costs were reasonable at the time they were incurred, given the circumstances and what was known or knowable at the time. Draft data and documentation requests and review responses thereto via a document request (DR) system which will be established with suggested response dates to be able to meet the estimated period of representation of approximately 10</p>
<p>5. Based on the documents and responses supplied by ELL and the research conducted by CTC with Staff, CTC will draft a single comprehensive report (ELL IDA Restoration Prudency Review Report) on the results, conclusions and recommendations of the prudency review of ELL's IDA restoration plans, decisions, actions and associated costs.</p>
<p>6. As requested by Staff, CTC would be defending, participating and testifying (direct and cross-answering testimony) regarding the results, conclusions and recommendations resulting from this prudency review.</p>
<p>7. As requested by Staff, CTC will participate in informal meetings with Staff and ELL, Staff and Intervenors, or Staff, ELL, and Intervenors.</p>
<p>8. Issuance of monthly progress reports.</p>
<p>9. Additionally, CTC shall be available at the request of Staff to prepare presentations, participate in meetings, conference calls, status conferences, hearings, and other conferences with the Commission and its Staff, as well as attending any Business and Executive Session(s) that Staff deems necessary. The scope of work provided herein shall continue through the conclusion of the docket (presently estimated to be approximately 10 months), including the issuance of bonds should ELL decide to securitize. As the prudency review proceeds, the CTC Team will evaluate the expenditures and discuss with ELL whether any of such expenditures could be eligible for funding under the Infrastructure Investment and Jobs Act lowering the potential impact on rates to the consumer</p>



Below is a Bar Chart of the Tasks listed above:





APPENDICES

- A. Compliance to Requirements
- B. Detailed Breakdown of Costs (Spreadsheet)
- C. Summary Outline only - Infrastructure Investment and Jobs Act – Division D Energy
- D. Key Personnel Resumes



APPENDIX A

Compliance to Requirements

RFP 22- 13 Requirements	Qualifications
<p>The Commission's Contract Order requires Applicants to be prequalified by the Commission in order to be eligible.</p>	<p>CTC Team was pre-qualified by Commission staff in April, 2020, thus meeting General Order dated November 14, 2014.</p>
<p>Applicants shall at a minimum be experienced in analyzing the operations, books, and records of utility companies, particularly investor-owned utilities (IOU's), for the purpose of setting just and reasonable rates, including, but not limited to, calculation of rate base, rates of return, capital structure, formula rates, and all related studies and calculations and prior cost recovery filings with the LPSC.</p>	<p>The CTC Team of experts have hands on experience in all aspects of electric utilities' (particularly IOUs) planning, construction, operations and maintenance for the purpose of setting just and reasonable rates and other aspects of electric utility rate setting as pointed out in the requirements</p>
<p>Applicants shall be qualified and prepared to draft and render expert testimony and be cross-examined with respect to all of the issues addressed in this RFP and which are likely to arise in the proceeding and be qualified and prepared to render testimony at a hearing and/or a B&E regarding the same and have knowledge of:</p> <ul style="list-style-type: none"> • A detailed understanding of the major functional areas of a regulated investor-owned electric utility. • Appropriate accounting standards and practices for electric public utilities, public utility accounting, and generally accepted auditing standards. • Storm damage reserve accounting, utility depreciation and taxation issues. • LPSC and FERC approved cost-of-service cost methodologies for electric utilities. • Basic components and requirements of ELL's Formula Rate Plan, including cost of capital, including capital structure, cost of debt, cost of equity, and rates of return • Alternative sources of funds to offset hurricane damage costs such as insurance proceeds, governmental aid, and income tax benefits. • Prior Commission Orders involving storm recovery and/or other securitized debt. 	<p>The CTC Team of experts have experience in drafting and rendering testimony and have been cross-examined with respect to all the issues addressed in RFP 22-13</p> <p>Further, the CTC Team have extensive expertise in utility and/or IPP operations and maintenance of generation (fossil, renewables and nuclear), transmission and distribution including microgrids and have extensive experience in planning and implementing utility emergency and restoration programs. Further, these experts have in-depth knowledge of all the areas bulleted on the left of this column and are able and capable to provide direct and rebuttal testimony at a hearing and/or B&E meetings.</p>



<ul style="list-style-type: none">• The cost allocation methodologies for the allocation of investments and expenses among affiliates, including the relationship of the holding company to its subsidiary operating companies, the transfer of investment and costs between operating companies, and the provision of services among affiliates.• Appropriate mechanisms, allocation among customer classes and rate design.• Securitization requirements and procedures and the ratemaking treatment of the benefits of securitization.	
<p>Further, consideration will be given to factors which indicate degrees of competence such as the amount of practical experience in the field of public utility practice, similar practice before this or other regulatory agencies, and knowledge of Louisiana ratemaking standards and regulatory law, in addition to the Applicant's knowledge and experience on utilization of securitization for cost recovery.</p>	<p>Further, the CTC Team of experts have extensive experience and competence in the practical experience in the field of public utility practice including rate making standards, and other related topics such as regulatory law and securitization for cost recovery, having provided such expertise and knowledge in front of many regulatory agencies in Mississippi, Florida, Georgia, Virginia, South Carolina, Alabama, Illinois, and in many other states.</p>



APPENDIX B

Detailed Breakdown of Costs

	Senior /Executive			Specialist			Technical			Research & Management		
	Average			Average			Average			Average		
Task	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total
1	75	\$265	\$19,875	40	\$190	\$7,600	2	\$160	\$320	2	\$135	\$270
2	53	\$265	\$14,045	30	\$190	\$5,700	0	\$160	\$0	8	\$135	\$1,080
3	50	\$265	\$13,250	35	\$190	\$6,650	10	\$160	\$1,600	10	\$135	\$1,350
4	140	\$265	\$37,100	44	\$190	\$8,360	20	\$160	\$3,200	20	\$135	\$2,700
5	80	\$265	\$21,200	55	\$190	\$10,450	10	\$160	\$1,600	30	\$135	\$4,050
6	110	\$265	\$29,150	30	\$190	\$5,700	40	\$160	\$6,400	0	\$135	\$0
7	110	\$265	\$29,150	0	\$190	\$0	0	\$160	\$0	0	\$135	\$0
8	70	\$265	\$18,550	20	\$190	\$3,800	0	\$160	\$0	0	\$135	\$0
9	80	\$265	\$21,200	30	\$190	\$5,700	0	\$160	\$0	0	\$135	\$0
	768		\$203,520	284		\$53,960	82		\$13,120	70		\$9,450
Total all Task Work										\$280,050		
Expenses = Nine (9) Trips at \$2000/Trip = \$18,000										\$18,000		
TOTAL ESTIMATED COST										\$298,050		



APPENDIX C

Summary Outline only - Infrastructure Investment and Jobs Act – Division D Energy

The following are “excerpts” from the Infrastructure Investment and Jobs Act:

Infrastructure Investment and Jobs Act

DIVISION D ENERGY

TITLE I--GRID INFRASTRUCTURE AND RESILIENCY

Subtitle A--Grid Infrastructure Resilience and Reliability

SEC. 40101. PREVENTING OUTAGES AND ENHANCING THE RESILIENCE OF THE ELECTRIC GRID.

(a) Definitions.--In this section:

(1) Disruptive event.--The term “disruptive event” means an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster.

(2) Eligible entity.--The term “eligible entity” means--

- (A) an electric grid operator;
- (B) an electricity storage operator;
- (C) an electricity generator;
- (D) a transmission owner or operator;
- (E) a distribution provider;
- (F) a fuel supplier; and
- (G) any other relevant entity, as determined by the Secretary.

(B) Requirement.--As a condition of receiving a grant under the program, an eligible entity shall submit to the Secretary, as part of the application of the eligible entity submitted under subparagraph (A), a report detailing past, current, and future efforts by the eligible entity to reduce the likelihood and consequences of disruptive events.



(d) Grants to States and Indian Tribes.--

(1) In general.--The Secretary, in accordance with this subsection, may make grants under the program to States and Indian Tribes, which each State or Indian Tribe may use to award grants to eligible entities.

(5) Priority.--In making grants to eligible entities using funds made available to the applicable State or Indian Tribe under the program, the State or Indian Tribe shall give priority to projects that, in the determination of the State or Indian Tribe, will generate the greatest community benefit (whether rural or urban) in reducing the likelihood and consequences of disruptive events.

(e) Use of Grants.--

(1) In general.--A grant awarded to an eligible entity under the program may be used for activities, technologies, equipment, and hardening measures to reduce the likelihood and consequences of disruptive events, including--

(A) weatherization technologies and equipment;

(B) fire-resistant technologies and fire prevention systems;

(C) monitoring and control technologies;

(D) the undergrounding of electrical equipment;

(E) utility pole management;

(F) the relocation of power lines or the reconductoring of power lines with low-sag, advanced conductors;

(G) vegetation and fuel-load management;

(H) the use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events, including--

(i) microgrids; and

(ii) battery-storage subcomponents;

(I) adaptive protection technologies;

(J) advanced modeling technologies;

(K) hardening of power lines, facilities, substations, of other systems; and

(L) the replacement of old overhead conductors and underground cables.



SEC. 40103. ELECTRIC GRID RELIABILITY AND RESILIENCE RESEARCH, DEVELOPMENT, AND DEMONSTRATION.

(a) Definition of Federal Financial Assistance.--In this section, the term "Federal financial assistance" has the meaning given the term in section 200.1 of title 2, Code of Federal Regulations.

(b) Energy Infrastructure Federal Financial Assistance Program.--

(2) Establishment.--Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a program, to be known as the "Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency", to provide, on a competitive basis, Federal financial assistance to eligible entities to carry out the purpose described in paragraph (3).

(3) Purpose.--The purpose of the program is to coordinate and collaborate with electric sector owners and operators--

(A) to demonstrate innovative approaches to transmission, storage, and distribution infrastructure to harden and enhance resilience and reliability; and

(B) to demonstrate new approaches to enhance regional grid resilience, implemented through States by public and rural electric cooperative entities on a cost-shared basis.

(b) Authorization of Appropriations.--There is authorized to be appropriated to the Secretary to carry out the Smart Grid Investment Matching Grant Program established under section 1306(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17386(a)) \$3,000,000,000 for fiscal year 2022, to remain available through September 30, 2026.



APPENDIX D

Key Personnel Detailed Resumes



Ben Hill
President/Senior Executive Consultant

Education

Bachelor of Science, Business Management – Stony Brook University

Certificate in Construction Project Management: University of Florida

Career Highlights

As an Executive Consultant for Construction and Project Management in the Power market, provided all construction and project related activities as well as Owner Engineering, Independent Engineering, and Construction Management Services.

Provided Construction and Project Consulting Services in the power arena including IGCC, coal, nuclear, gas, and renewables. Typical activities included overall project management, pre-construction studies such as labor analysis, cost studies and analysis, economic impacts, construction development of plans and procedures, nuclear plant outage coordination, project layout and reviews of conceptual designs, constructability reviews and preparation of bid documents. Performed post-construction claims mitigation and analysis to determine prudence of performance. Also performed acquisition due-diligence studies.

Prior Project Experience
(Partial Listing)

- ❖ **Louisiana PSC; Arkansas PSC, City of New Orleans Commission – Grand Gulf Prudence Review**
Represent the Louisiana Public Service Commission, Arkansas Public Service Commission and the Public Utility Commission of New Orleans in evaluation of the prudence decisions by Entergy during the operations and outages at the Grand Gulf Nuclear facility. A detailed report of technical deficiencies at Grand Gulf as well as a detailed Prudence review and written as well as oral testimony is being performed.

- ❖ **Georgia Public Service Commission – Vogtle Nuclear Construction Project**



CTC Team, through its subsidiary Vogtle Monitoring Group (VMG) is providing expert witness testimony, on-site construction monitoring, and evaluating services as well as reviewing and evaluating the reasonableness of the costs in an ongoing basis at the Vogtle Nuclear Power Plant Unit 3 and 4 Project for the Georgia Public Service Commission Staff.

- ❖ **Mississippi Public Utility Staff (MPUS), 582 MW Integrated Gasification Combined Cycle (IGCC) Facility, Meridian, MS**
Represent the MPU Staff and Citizens of the State of Mississippi, monitoring the engineering, procurement, and construction activities by the project participants to assure compliance with their execution plan, budget, and timeframe approved by the MPU Staff. Recently performed detailed cost and schedule reviews/analysis for prudence relative to a Motion submittal by the Owner to the MPUS to increase the approved recoverable budget for the project. Also monitor ongoing construction, engineering, and procurement activities to assure they were within industry standards and methods.
- ❖ **Braunig Peaking Turbines Project**, Owner Engineer for a 200 MW peaking facility for City Public Service in San Antonio, Texas. Performed all Pre-Project development activities, ie Development and Review of Design Criteria, preparation of Bid Document for Major Equipment as well as the EPC Contractor, Evaluation of Potential Bidders, which included visiting Reference Plants to determine Contractor capabilities and detailed review of the execution schedule and monitoring of progress. Performed sequence of construction analysis, approval of execution plans, monitoring construction progress as owner engineer, Claims Mitigation analysis, and final close out of the project.
- ❖ **AEI Energy – Jaguar Project** – 300 MW CFB Coal Plant Antigua, Guatemala- Performed all Independent Engineers reviews, reports and studies necessary to represent the Lenders in the design, construction, and operation of the facility.
- ❖ **AEI Energy – El Arrayan Project** – 115 MW Wind Farm (50 Units) La Serena, Chile- Performed all Independent Engineers reviews, reports and studies necessary to represent the Lenders in the design, construction, and operation of the facility.
- ❖ **AEI Energy – Fenix Project** – 520 MW Combined Cycle Plant, Lima, Peru - Performed all Independent Engineers reviews, reports and studies necessary to represent the Lenders in the design,



construction, and operation of the facility.

- ❖ **Wolverine Clean Energy Venture**, 600 MW greenfield coal project Owner Engineer Construction Representative. Performed contractor analysis, traffic study, economic impact study for the community, major equipment layout and sequence of construction, and execution plans, schedule monitoring for successful completion.
- ❖ **Starwood Solar One Project**, 290MW Concentrated Solar Facility Performed a detailed Labor and Productivity Study and detailed sequence of construction due to extremely restricted site. Proposed methods of construction contracting, prepared construction execution plans, and performed a detailed sequencing of component deliveries and assembly at the offsite facility, as well as the on-site installation process. Due to restricted site conditions, the detailed site assembly process, component and material deliveries, site assembly and final installation were all critical to schedule achievement.
- ❖ **Imperial Valley Project**, 300 MW CSP Electric Generation Facility Performed a detailed Due Diligence for International Power America (IPA) to determine viability and credibility of the project. Performed analysis of the sequence of construction, including detailed review of the proposed automated on-site fabrication facility and sequencing of product delivery and assembly.
- ❖ **Kennecott Utah Copper Project**, 250 MW Phased Upgrade Power Project - Performed a detailed Labor and Productivity Study for the Greater Northern Utah Area. Evaluated various locations for specific equipment selections, sequenced the construction process, as this was an extremely restricted site, and performed preliminary schedule and detailed cost study.
- ❖ **Taylorville Energy Center**, 716MW Integrated Gasification Combined Cycle (IGCC) facility Performed Independent Engineering and Construction analysis services for the Department of Energy Loan Guarantee Program to determine the viability and achievability of the execution of this project. Project execution, cost analysis, potential site analysis of conditions, and procurement of components were all reviewed for achievability and applicability. (The project was later canceled prior to the start of construction.)



- ❖ **South Texas Nuclear Project, Units 3 and 4** Performed Independent Engineering and analysis services for the Department of Energy Loan Guarantee Program to determine the viability and achievability of the execution of this project. Performed Construction Management oversight services for the project. Project Execution, detailed cost analysis, and procurement of components, as well as site conditions, were reviewed for achievability. (The project was later canceled prior to the start of construction.)
- ❖ **Florida Power and Light** - Performed a detailed review of “decisions” relative to the EPU uprates at the Turkey Point Nuclear Plant and Saint Lucie Nuclear Power Plant to determine prudence of major decisions prior to presentation to the Public Service Commission for rate increase approval. Also performed detailed reviews of the EPU Uprate plans for both outages at each site.
- ❖ **Calvert Cliffs Nuclear Project, Unit 3 & 4** - Performed Independent Engineering and analysis services for the Department of Energy Loan Guarantee Program to determine the viability and achievability of the execution of this project. Performed Construction Management oversight services for the project. Project execution, cost analysis, and procurement of components as well as site conditions, were reviewed for achievability.
- ❖ **Rocky Flats Engineers and Constructors, LLC (Stone & Webster).** As Vice President, responsibilities included the overall management of the Design/Build, Firm Fixed Price, and Unit Rate contracts. This included the oversight of design and construction efforts of major modifications to existing facilities as well as demolition, removal of nuclear waste materials, and characterization of many major buildings and components. This was for the Department of Energy at the Rocky Flats Environmental Technology site. This contract included over 400 task orders ranging in value from a few thousand dollars to over 50 million dollars. The majority of these task orders, were performed on a Firm Fixed price basis and were competitively bid. The total value of this contract was approximately \$350 million. Held a “Q” Clearance.
- ❖ **Browns Ferry Nuclear Plant.** As Superintendent of Construction, I served as the Shift Site Manager, responsibilities included the overall site management to support the successful restart of Browns Ferry Unit 3. Management included all field supervision,



work plan writers, field engineering, cost and scheduling, interface with design engineering group and Senior Site Representative. Later, responsibilities included oversight of the Maintenance and Modification activities. Also, responsible for Outage Coordination for refueling outages and detailed planning and implementation for all major upgrades to the facility.

- ❖ **Quad Cities Nuclear Station.** As Chief Construction Supervisor – Mechanical, served as a work plan writer.

- ❖ **Clinton Nuclear Power Station.** As Chief Construction Supervisor Mechanical, responsibilities included management of all Mechanical Department activities including corrective maintenance to plant components and modifications to various plant systems as well as the detailed planning and execution of Clinton’s Maintenance Outages.
On special assignment to Illinois Power Company, responsibilities included coordination of all pre-outage, outage, and post-outage activities. Position required an extensive amount of interface with all Illinois Power departments. Major pre-outage efforts included the development of execution schedules, manpower requirements, and mobilization. Major outage efforts involved coordination of all activities including status and tracking of all work as well as continued interface with owner personnel. Post-outage requirements involved the formulation of the Outage Critique.

- ❖ **River Bend Nuclear Station.** As Senior Construction Supervisor – Mechanical, responsibilities included installation of all ductwork, equipment, and seismic supports for the HVAC systems in all Category I, safety-related areas of the plant. Included the direct supervision of the fabrication, installation, testing, and successful completion of the systems.

- ❖ **Shoreham Nuclear Power Station.** As Construction Engineer, responsibilities included coordinating activities of structural steel contractor for the installation of the CO2 Fire Protection System. Duties were to identify and solve technical problems associated with the above-named contractors; check and validate contractors’ claims for back-charges and progress payments; monitor schedule and progress of same contractors; initiate work directives to contractors or work to be performed outside scope to assure that all specifications are met; and all other duties assigned by the Structural Supervisor.



Ralph Smith, C.P.A.
(Larkin & Associates, PLLC)

Senior Executive Consultant

Education

Bachelor of Science in Administration in Accounting, with distinction, University of Michigan,

Master of Science in Taxation, Walsh College, Michigan. Master's thesis dealt with investment tax credit and property tax on various assets.

Juris Doctor, cum laude, Wayne State University Law School, Detroit, Michigan. Recipient of American Jurisprudence Award for academic excellence.

Continuing education required to maintain CPA license and CFPR certificate. Passed all parts of CPA examination in first sitting, 1979. Received CPA certificate in 1981 and Certified Financial Planning certificate in 1983. Admitted to Michigan and Federal bars in 1986.

Career Highlights

Mr. Smith's professional credentials include being a Certified Financial Planner™ professional, a Certified Rate of Return Analyst, a licensed Certified Public Accountant and attorney.

He functions as project manager on consulting projects involving utility regulation, regulatory policy and ratemaking and utility management.

His involvement in public utility regulation has included project management and in-depth analyses of numerous issues involving telephone, electric, gas, and water and sewer utilities.

Prior Project Experience
(Partial Listing)



Larkin & Associates, PLLC, is a Certified Public Accounting and Regulatory Consulting Firm. The firm performs independent regulatory consulting primarily for public service/utility commission staffs and consumer interest groups (public counsels, public advocates, consumer counsels, attorneys general, etc.) Larkin & Associates, PLLC has extensive experience in the utility regulatory field providing expert witness testimony in over 600 regulatory proceedings, including numerous gas, electric, water and wastewater, and telephone utility cases.

During my service in the regulatory section of our firm, I have been involved in rate cases and other regulatory matters concerning numerous electric, gas, telephone, water, and sewer utility companies. My present work consists primarily of analyzing rate case and regulatory filings of public utility companies before various regulatory commissions, and, where appropriate, preparing testimony and schedules relating to the issues for presentation before these regulatory agencies.

I have performed work in the field of utility regulation on behalf of industry, state attorneys general, consumer groups, municipalities, and public service commission staffs concerning regulatory matters before regulatory agencies in Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, New Jersey, New Mexico, New York, Nevada, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, Washington, D.C., West Virginia, and Canada as well as the Federal Energy Regulatory Commission and various state and federal courts of law.



Albert Ferrer
Sr. Executive Consultant/ Project Director

Education

Executive Development Program, Northeastern University

Global Institute for Leadership Development Program

MS Nuclear Engineering, New York University

BS Mechanical Engineering, Manhattan College

Career Highlights

Executive Vice President of Consulting Services with over 40 years of professional experience in the US and international power industry. Al Ferrer is responsible for business development and marketing of all the power consulting services Critical Technologies Consulting provides to its clients including Owner's Engineering, Independent Engineering, due diligence, acquisition services, power plant performance improvement, CO2 strategies, operational risk management, air emissions control retrofits, upgrades and life extension, covering nuclear, coal, gas and combined cycle, biomass, geothermal, IGCC, circulating fluid bed, renewables such as solar, wind and biomass, and other power plant generation technologies.

He worked for Stone & Webster most of his career with his last position serving as Senior Vice President and Managing Director. He worked for Burns and Roe as VP of the Consulting Division and brought the Consulting Division from 8 personnel to 85 personnel when he left. He has directed and executed work in the US, Canada, Chile, Brazil, Mexico, Malaysia, Indonesia, Thailand, Japan, and Korea. He holds a BS in Mechanical Engineering and an MS in Nuclear Engineering and has participated in Executive Management Educational Programs. He has extensive prudency review in the power industry.

Prior Project Experience
(Partial Listing)

- ❖ **New England ISO CONE** Directed the New England ISO CONE analysis and the technical, cost and schedule of the projects in the que and execution of the work for ISO New England and Concentric Energy Advisors.
- ❖ **Transmission and Distribution Facilities, B Capital Partners, Louisiana** Project Director in charge of a Due Diligence Review of the electrical transmission and distribution systems of a



confidential municipal utility to assist B Capital in presenting a proposal to operate and manage these systems.

- ❖ **Conducted for the Mississippi PSC an Independent Engineering due diligence and construction monitoring and prudency review** on the new 600 MW Integrated Gasification Combined Cycle (IGCC) – including the technical and commercial viability, cost, schedule, engineering, and construction monitoring, including 7 switchyard modifications and 150 miles of new Transmission poles and cabling.
- ❖ **Conducted for the Florida PSC and FP&L an independent detailed technical and commercial engineering due diligence and prudency review** and provided written reports and testimony on the prudency of FP&L in the implementation of various upgrades of the FP&L nuclear power plants and associated transmission systems to accommodate these upgrades.
- ❖ **Participated and directed independent engineering assignments** for the US-DOE over 15 transmission and renewable energy projects under the US DOE Loan Guarantee projects. Provided detailed IE reports on each project with an evaluation of the new technologies involved including commercial viability, assessment of the scoping, construction contracts and cost and schedules, operations, and risk management of each project. Conducted construction monitoring over these projects after financial close.
- ❖ **El Campesino and Octopus Regas Terminal and 600MW Combined Cycle Projects, Santiago, Chile – Consortium of Banks: SG, CA, MUFG & DNB – Joint Project by EDF, Chenier & Biobio Genera** Program Director for Independent Due Diligence on a gas-to-wire project including an LNG FSRU and terminal, subsea and onshore pipeline, H Class Single Shaft CCGT and about 140 miles of transmission and distribution lines. Conducted a detailed technical due diligence of the project Financial Model analyzing project profitability and developing a wide spectrum of sensitivity scenarios. Included due diligence on the Chilean pipelines and compressor stations.
- ❖ Mississippi Public Utility Staff (MPUS), 582 MW Integrated Gasification Combined Cycle (IGCC) Facility, Meridian, MS
Represent the MPU Staff and Citizens of the State of Mississippi, monitoring the engineering, procurement, and construction activities by the project participants to assure compliance with



their execution plan, budget, and timeframe approved by the MPU Staff. Recently performed detailed cost and schedule reviews/analysis for prudency relative to a Motion submittal by the Owner to the MPUS to increase the approved recoverable budget for the project. Also monitor ongoing construction, engineering, and procurement activities to assure they were within industry standards and methods.

- ❖ **Los Guindos Due Diligence, GE Capital, Chile:** Project Director for a technical due diligence for a refinancing transaction of an existing GE 9E 135 MW gas turbine and the non-recourse financing of an GE 9E 135 MW. Due diligence reviews of all project agreements, contractual risk assessments and the financial model. Assisted the Natixis, MUFG and SMBC banks in the EPC contract negotiation until the issuance of the execution copy of the contract.
- ❖ **Minera Spence Project, Mizuho, Chile (Ongoing)** Project Director for the construction monitoring phase. Currently in charge of the Due Diligence Review for MUFG (Mizuho). The project consists of designing a desalination plant to take the ocean water and desalinate it to a certain grade to then send it to Spence Mine. The mine will have a nominal treatment capacity of 95,000-100,000t/d. The desalination plant will supply approximately 800l/s desalinated water to be used in the industrial processes, as well as a 154km pipeline and electrical distribution lines and pumping system, and a 4,000m³ storage tank.
- ❖ **Pesqueria power plant re-financing, Techgen, Mexico:** Project Director for review of a re-financing of a 1GW combined cycle gas turbine project in Mexico for Credit Agricole Bank. The transaction is a syndicated loan refinancing that involves 10 commercial intranational banks.
- ❖ **Gas-to-Power Project Development, ExxonMobil LNG Executives, USA** Headed a three-day capacity building workshop for eight members of the global LNG ExxonMobil executives. The objective of the workshop was to educate the teams on the gas-to-power model from a project financing and development point of view. The workshop included the basis of non-recourse financing and its application to global gas to power projects including all project agreement, financing agreement and project structuring.
- ❖ **CHP La Plata Acquisition Due Diligence, YPF S.A. Argentina** Project Director for a technical due diligence of an acquisition of a



100 MW combined heat and power plant in the La Plata refinery in Argentina. Besides the technical aspects, advised the CEO of YPF S.A. on the key risk aspects of the acquisition and how to quantitatively incorporate this risk in the acquisition final price.

- ❖ **YPF/GE Fast Power Project, Citi Bank, Credit Suisse and Export Development Canada, Argentina** Project Director for a technical due diligence of two power plants, a 266 MW 9FA.04 unit plant located in the province of Tucuman, and a 108 MW LMS100 unit plant in Neuquén. The due diligence was conducted during an advanced stage of engineering and construction. The extent to which facilities and services were shared with existing operating facilities resulted in contractual complexity. Review of all project agreements including the EPC, CSA, AMA, LLA, and the PPA for both plants. The project reached financial close and represents the first international project financing in Argentina in more than 15 years.
- ❖ **Project Aconcagua Acquisition Due Diligence, YPF S.A., Argentina** Project Director for a technical due diligence over a large fleet of power generation plants owned by YPF EE to incorporate a partner with up to 50% of the company, while maintaining co-control. The fleet included co-generation, small and large CCGT, open cycle and aero-derivatives, solar, wind and Biomass. Review of detailed plans for the projects under development producing a risk matrix and a paper of recommendations for YPF EE to consider.
- ❖ **1,500 MW Porto de Sergipe I Gas-to-Power Project, IFC and IIC, Brazil** Project Director for a technical due diligence of a 1,500 MW gas to power including a 7HA.02 CCGT, 170,000 m³ FSRU and a submerged soft yoke (SSY) mooring system. Onshore and offshore technical due diligence. Review of all project agreements including the EPC, O&M, CSA, EPCI, BBC, OSA and the PPA producing a consistency matrix and advising all lenders on the project overall risks. Contingency sizing for the project using probabilistic analysis and montecarlo simulation. Review of the financial model. Negotiation on behalf of the lenders with GE to introduce 25 amendments to the EPC contracts. Scope included the undersea and overland pipelines due diligence.
- ❖ **Abengoa El Norte III Acquisition Due Diligence, acquisition and execution, Macquarie Capital, Mexico.** Project Director for a technical due diligence for atypical and unusual acquisition of a partially constructed power plant that was owned by Abengoa



before bankruptcy. Review of the PPA and the financial model. Consistency analysis with the remaining project agreements. Probabilistic availability and reliability model. Risk analysis conducted. Developed the final schedule to build the facility

- ❖ **Coal-to-Urea Market and Techno-Economic Feasibility Study, Navajo Transitional Energy Company (NTEC), Arizona**
Directing the Consulting assignment with the Navajo Nation concerning coal to liquids and coal to power Phase 1 activities. Phase 2 activities include the market study for the coal to liquids project (ammonia-urea) they are considering. The outcomes and reporting to be provided to the US department of Energy for assessment to provide sovereign loan guarantees.
- ❖ **Pio Pico Energy Center, San Diego, CA, GE Capital Program**
Director for this merger and acquisition technical advisor project conducting a full Due Diligence on a three-unit simple cycle peaking facility.
- ❖ **Gas-to-Power Plant (GTPP) and LNG Import Terminal, Panama, MKM/Gorgeous Partners**
Provided advisory work on project structuring, lenders key requirements, techno-financial aspects required for project success. Analysis included technology evaluation, LNG procurement, offshore terminal optioneering and key pre-requisites to be considered for profitability enhancements.
- ❖ **South African Gas to Power**
Provided consulting services to the South African Gas-to-Power Project with Intergen.
- ❖ **Wisconsin Light and Power**
Expert Witness for the Wisconsin Light and Power case involving Project Estimates for a Confidential Project which was settled out of court as a result of my testimony.
- ❖ **Confidential Client**
Executed due diligence for an 1800MW Combined Cycle plant near Manchester, UK for a US client (hedge fund) this included the critical flaw analysis prior to the Capacity Auction.



Constantinos (Dinos) Nicolaou
Exec VP/Executive Consultant

Education

Master of Business Administration – University of Puget Sound, Tacoma, Washington

Bachelor of Science, Economics and Accounting – Staten Island College (CUNY)

Career Highlights

Mr. Nicolaou has over 38 years' experience in project controls and construction planning and scheduling for engineering, construction, start up and outage projects, within both home and field offices, for major energy projects. His background encompasses IGCC, nuclear and fossil generating stations, with extensive hands-on experience in the use of PRIMAVERA and several other scheduling tools.

Prior Project Experience

(Partial Listing)

- ❖ **Louisiana PSC; Arkansas PSC, City of New Orleans Commission – Grand Gulf Prudence Review**
Represent the Louisiana Public Service Commission, Arkansas Public Service Commission and the Public Utility Commission of New Orleans in evaluation of the prudence decisions by Entergy during the operations and outages at the Grand Gulf Nuclear facility. A detailed report of technical deficiencies at Grand Gulf as well as a detailed Prudence review and written as oral testimony is being performed.
- ❖ **Georgia Public Service Commission – Vogtle Nuclear Construction Project**
CTC Team, through its subsidiary Vogtle Monitoring Group (VMG) is providing expert witness testimony, on-site construction monitoring, and evaluating services as well as reviewing and evaluating the reasonableness of the costs in an ongoing basis at the Vogtle Nuclear Power Plant Unit 3 and 4 Project for the Georgia Public Service Commission Staff.
- ❖ **Mississippi Public Utility Staff (MPSC) 600 MW Integrated Gasification Combined Cycle (IGCC) Facility, Meridian, MS -**
Represent the MPU Staff and Citizens of the State of Mississippi, performing an Independent Review and providing comments regarding the Project Schedule prepared by Southern Company and KBR. Attend regular meetings with MPUS and Southern Company



Staffs in order to reconcile variances in the Project Schedule.

Participate in site construction inspections in order to validate work progress and labor productivity to measure against the Project Schedule. Advise MPUS staff of any issues.

- ❖ **Taylorville Energy Center**, 716MW Integrated Gasification Combined Cycle (IGCC) Facility - Performed Independent Review and provided comments regarding the Project Schedule prepared by the KBMD team. Prepared the Project Schedule section of the detailed report issued to the U.S. Department of Energy (DOE) for the DOE's evaluation of the project for the Loan Guarantee Program. (The project was later canceled prior to the start of construction.)
- ❖ **South Texas Nuclear Project, Units 3 and 4** – Prepared an Independent Project Schedule Review and Analysis for the U.S. Department of Energy Loan Guarantee Program. Attended meetings on a regular basis with the Project Team to discuss findings. Prepared the Project Schedule section of the detailed report issued to the DOE. (The project was later canceled prior to the start of construction.)
- ❖ **MNPC (Malaysia) and EGAT (Thailand) Feasibility Study** - Project Controls Manager responsible for developing baseline cost and schedule, establishing performance measurement system and monthly reporting on an Integrated Resource loaded schedule.
- ❖ **Pennsylvania Power and Light (PPL) U.S. EPR Bell Bend Project** - Lead Scheduler
- ❖ **MNES US-APWR Project** - Lead Scheduler for the EPC level II schedule. Validated both cost and schedule including declared critical paths.
- ❖ **Calvert Cliffs EPR Project** - Lead Scheduler in an Independent Engineer DOE-sponsored review of the Calvert Cliffs project's EPC Level II schedule, including interviews and meetings with Bechtel and Unistar.
- ❖ **Westinghouse AP1000** - Lead Scheduler in the External Independent Review of the Westinghouse AP1000 Nuclear Power Plant. This level III EPC Integrated Project Schedule had over 65,000 activities, was Engineering resource loaded, and included a series of interviews with Westinghouse.



- ❖ **Indian Point NPP, Units 2 and 3, New York** – Served as Engineer for several refueling outages, starting in 1998. Responsible for project schedule and cost control, including development of detailed level II and III Primavera schedules, collection and control of all labor, and material costs, weekly monitoring of project outage work.

- ❖ **Served as Lead Scheduler on the Burns and Roe Independent Review Team of the U.S. Department of Energy (DOE)**-sponsored programs which included Independent Cost Estimates (ICE) and External Independent Reviews (EIR) for the following:
 - The Columbus Closure EIR Project – Columbus, Ohio
 - Yucca Mountain EIR - Las Vegas, Nevada (Baseline, CD-1 and ICE)
 - The Mound (MEMP) Closure – Dayton, Ohio (PRS 66 and total Project EIR)
 - The Neutrinos Project (NuMI) at Fermi Lab in Illinois
 - The Hanford Project Clean-up EIR in Washington
 - The Oak Ridge Cleanup EIR in Tennessee
 - Review of National Ignition Facility (NIF), at DOE's Lawrence Livermore National Lab in California
 - The EIR of Sandia's MESA Project - Albuquerque New Mexico

- ❖ **Vogtle Nuclear Power Station** - Responsible for project controls assignments including all phases of schedule development, maintenance and reporting for the plant. Prepared schedules involving engineering, construction, pre-operations, startup and testing, pre- fueling, and refueling outages. Also used Project/2 scheduling system and maintained overall database.

- ❖ **Brookhaven Graphite Research Reactor Project** - Responsible for the development of integrated project schedules, WBS, cost plans, and performance reports required for decommissioning.

- ❖ **Yucca Mountain Project** - Responsible for the review of integrated schedules, cost plans and cost performance reports. Also prepared External Independent Reviews on this project.

- ❖ **La Salle Nuclear Power Station** - Responsible for providing overall supervision establishment of scheduling and cost control required

- ❖ **WPPS Nuclear Project Units 3 and 5** - Responsible for engineering, construction interface, and project controls coordination.



Virden Jones, C.P.A.

Senior Executive Consultant

Education

Vanderbilt University, Nashville, Tennessee, BA History (1971)
Emory University, Atlanta, Georgia, MBA (1975)

Career Highlights

- ❖ Seasoned regulator with strong analytical skills and broad experience in financial accounting and ratemaking practices.
- ❖ Excellent communicator capable of explaining complex issues in understandable terms utilizing strong written and verbal communication skills.
- ❖ Experienced manager capable of directing employees, delegating responsibility, and encouraging excellent performance.
- ❖ Skilled negotiator willing to compromise to reach mutually beneficial outcomes for ratepayers and utilities.

Prior Project Experience (Partial Listing)

Executive Director - Mississippi Public Utilities Staff

Appointed by Governor Haley Barbour in 2011 to complete the 3-year unexpired term of my predecessor. Reappointed for a 6-year term in 2014 by Governor Phil Bryant. Have general authority and responsibility to supervise and manage the office and personnel (28 positions) of the Public Utilities Staff and to formulate written policies and procedures for effective and efficient operations. Assist in annual budget preparation and legislative budget approval process. Hire new employees when necessary and outside consultants as required in the circumstances. Work with division directors in overseeing the performance of the Staff. Represent the Staff as necessary before the Commission and the Legislature. Responsible for review and approval of all reports, recommendations, stipulations, and orders submitted to the Commission.



Accomplishments:

- ❖ During my terms, the Staff investigated and made recommendations to the Commission concerning major cases including Entergy Mississippi, LLC's ("EML") petition to join the Midcontinent Independent System Operator (MISO) regional transmission organization (and its related petition to divest its transmission assets to ITC Corp); EML's 2014 General Rate Case; EML's purchases of the Hinds Generation Facility and the Choctaw Generation Facility; Atmos Energy Corporation's ("Atmos") multi-year System Integrity Plan, its Rural Development Program, and its Supplemental Growth Rider to promote economic development. We worked with the independent monitors of Mississippi Power Company's ("MPC") Kemper County IGCC Project to develop strategies for monitoring and making recommendations regarding prudence of the project to the Commission and led negotiation team that developed a comprehensive settlement of all cost recovery issues related to this failed project. We recently settled MPC's 2019 general rate case which resulted in a rate decrease while still supporting an improved credit rating.
- ❖ Established joint Commission staff and Public Utilities Staff work groups to exchange information and collaborate on non-contested petitions filed with the Commission. This group assisted in the development of new Commission Rules on Energy Efficiency, Net Metering and the Integrated Resource Plan Rule.
- ❖ Made several presentations to the Mississippi Senate Energy Committee concerning the Staff's role in public utility regulation. Also, organized and presented training programs to assist new Commissioners and their staffs.

**Director - Electric, Gas & Communications Division, Mississippi
Public Utilities Staff**

Joined Staff in September 1998 as Financial Modeling Manager.



Promoted to Director of Electric, Gas and Communications Division in October 1999. Managed a staff of 5 accountants performing rate case reviews, fuel audits, purchase gas adjustment audits, formulary rate plan evaluation reviews, storm damage audits, and reviews of miscellaneous filings. Wrote direct testimony and served as primary Staff witness in all contested electric and gas matters before the Commission. Work directly with legal counsel and Executive Director in negotiating stipulated agreements with electric and gas utilities on various matters. Reviewed proposed or existing rate mechanisms and made recommendations for improvements to Executive Director and, if necessary, to the Commission. Conducted training programs for Commission staff and provided support to complaint investigators on unresolved complaints.

Accomplishments:

- ❖ Led Staff review in two major general rate cases filed by Mississippi Power Company in 2001 and Entergy Mississippi, Inc. in 2002. Participated in negotiations for stipulated settlements which reduced MPC's proposed increase from \$46.4 million to \$39.0 million and EMI's proposed increase from \$68.8 million to \$48.2 million.
- ❖ Served as lead investigator of Mississippi Valley Gas - Atmos Energy Corporation merger proceeding in 2001. Participated in negotiating a joint stipulation which, among other things, prevented the addition of a proposed \$45 million acquisition adjustment to rate base, protected the jobs of Mississippi Valley Gas employees and resulted in an expense sharing mechanism designed to protect ratepayers by reducing rate shock.
- ❖ Evaluated and recommended approval of the proposal by Entergy Mississippi, Inc. to acquire the 480 MW Attala Generating Facility at a bargain price of \$111 million in 2005. Helped negotiate a temporary recovery mechanism which allowed the Company to complete the transaction without the necessity of filing a lengthy general rate case.
- ❖ Oversaw the audits in 2006 of Hurricane Katrina storm damages incurred by Mississippi Power Company, Entergy Mississippi, Inc., Centerpoint Energy Resources, Inc. and Willmut Gas & Oil Company. Prepared pre-filed testimony and



- served as Staff expert witness in the Commission's hearing to certify the costs.
- ❖ Provided expert testimony in the financing order proceeding to provide additional Hurricane Katrina relief to investor-owned electric utilities pursuant to securitization legislation which resulted in 100% recovery of remaining eligible storm restoration expenses, increased property damage reserves for each electric utility and financed a new \$40 million Storm Operations Center and Office Annex for Mississippi Power Company.



Michael Tomadakis, PE

Senior Executive Consultant

Education

MS, Electrical Engineering, Worcester Polytechnic Institute (WPI)

Power Engineering Management (WPI)

BS, Electrical Engineering, Wentworth Institute of Technology (WIT)

Emerging Leaders 24-month program + 2-weeks immersive training in London

Registrations:

Professional Engineer: MA #49228, 2011 TX #119633, 2015

Awards:

Mott MacDonald Technology and Innovation Award, First Place for Development of Integrated 3D Technologies

Career Highlights

Considerable experience in leadership, operations, management, project management, engineering, design, team building, and business development. Guiding, mentoring, and aspiring leaders in a holistic manner, considering all facets of business. Implements training and process development, mentors aspiring leaders, and sets the team standard for professionalism and excellence.

He has managed transmission (OH and UG), substation and distribution projects from 12kV to 500kV AC and up to +/- 600kV DC. He has considerable experience with wind and solar collector systems and works closely with developers, utilities, and ISO's (NYISO, ISONE, PJM, CAISO). He has solid technical skills, strong business acumen and excellent written/verbal communication skills. He has an aptitude for engineering, project management, and problem solving for even the seemingly most impossible of situations.

Prior Project Experience (Partial Listing)

- ❖ **CleanLine Energy's 700-mile +/- 600kV DC Plains and Eastern Project, OK, AR, TN:** As Project Manager, facilitated Engineer and EPC Planning services for design, permitting, ROW acquisition



and the Department of Energy's NEPA process. Presented at several open house forums to educate the public about the project.

- ❖ **PacifiCorp/Rocky Mountain Power**, Sigurd to Red-Butte 345kV Transmission Line, UT: Project Manager. Project Scope included the conceptual design for this ~200mile Greenfield transmission line through the mountains of UT and the (2) remote substation expansions including the addition of a series capacitor. Responsibilities included geotech data acquisition, ROW acquisition support including preparation of legal exhibits, Access Road design, BLM and National Forrest technical support including giving presentations, RFQ preparation and Evaluation of the OEM and EPC contractors, and more. This project was culturally, environmentally and geographically challenging.
- ❖ **Enbridge 500kV GIS/GIL Transmission Project, CA** Technical lead, primary author and director of this due-diligence project. The project scope included conducting fatal flaws analysis, technology review and a risk assessment for this 500kV transmission project which consists of the engineering-procurement-construction of three 500kV GIS switching stations, 30-miles of 500kV overhead transmission line and 3-miles of double-circuit underground Gas Insulated 500kV transmission line installed in a tunnel.
- ❖ **TNMP TNP1/Twin-Oaks 345kV Substation, TX** Project Manager for the Engineering, Construction, and Testing/Commissioning associated with the replacement of (11) 345kV breakers in two different stations. The intent was to replace the existing single-pole, live tank breakers and free-standing CT's with new dead-tank units. This project is particularly challenging due to the extremely aggressive construction/testing schedule and close coordination with the Power Plants to ensure no interruption of production.
- ❖ **WETT OE Contract, TX** Project Manager for this Owner's Engineer contract with Wind Energy Transmission of Texas (WETT), a Texas electrical transmission utility and CREZ player. Responsibilities include managing of engineering/design resources, scoping tasks, estimating and developing task orders, developing, maintaining schedule and budget, and ensuring a high degree of quality in deliverables.
- ❖ **Spicewood 138/15kV Substation, TX** Construction Project Manager responsible for the materials/equipment procurement and construction associated with this refurbishment project. The scope of this project entails the complete removal and rebuilding



of two substation bays including all structural steel, breakers, switches, AC/DC cable, control and communications cable, foundations, two power transformers, and all other miscellaneous apparatus associated with this refurbishment project.

- ❖ **HTLS Transmission Conductor Assessment and Design Specification, Ireland** Project Manager and Lead Engineer responsible for the schedule, budget, resource management associated with the technical assessment of various HTLS (High Temperature Low Sag) conductors on the market today ultimately delivering our client an assessment report with our recommendations on which HTLS conductor is best suited for their needs of up-rating existing transmission lines while reusing existing facilities. Developed a standard specification for our client outlining the criteria, deliverables, and installation methods associated with reconductoring with the recommended HTLS conductor.
- ❖ **110kV Cauteen Bay Conductor Rating, Ireland** Project Manager and Lead Engineer tasked with analyzing a proposed conductor design to verify that it would meet the required 2500A steady state current carrying capacity. A complete report was submitted outlining the findings of the analysis and recommendations based on said findings. Created steel specification to be sent out to bid to various manufacturers based on the strain-bus design tensions and calculated structure loads per appropriate weather cases. Calculated short circuit forces acting on the strain bus and gantry support structures per IEC 865-1.
- ❖ **Boggeragh 110kV Transmission Line, EirGrid, Ireland** Project manager and Lead Engineer responsible for the schedule, budget, and resource management associated with the owner's engineering support services that required reviewing the 110kV transmission line PLS-CADD design and construction drawings/documents including Plan and Profile drawings and Sag Charts. Design had to conform to the National Normative Aspects (NNA) for Ireland as well as EirGrid's specifications
- ❖ **Garvagh 110kV Transmission Line, EirGrid, Ireland** Project manager and Lead Engineer responsible for the schedule, budget, and resource management associated with the owner's engineering support services that required reviewing the 110kV transmission line PLS-CADD design and construction drawings/documents including Plan and Profile drawings and Sag



Charts. Design had to conform to the National Normative Aspects (NNA) for Ireland as well as EirGrid's specifications.

- ❖ **Sabiya 138kV GIS to AIS switchyard, Kuwait** Responsible for completing the physical design within the allotted scope, schedule and budget for the GIS to AIS riser and yard. Primarily responsible for the GIS-AIS riser design/drawings & physical design/drawings for the AIS yard including the Bill of Materials. Worked closely with the client and project team to deliver on within the allotted budget and schedule.
- ❖ **Barking C 132kV Substation, National Grid, UK** Responsible for creating a detailed scale model of an existing 132kV AIS indoor substation in 3D. Upon completion of the detailed existing model, design modifications from Mott MacDonald's Brighton (UK) office were implemented into the 3D model to determine feasibility of the proposed modifications and to develop detailed drawings to facilitate the future replacement of some of the AIS equipment with GIS equipment in several bays.
- ❖ **Ivanpah 115kV Transmission Lines, CA** Project Manager and Lead Engineer responsible for the detailed design of several new overhead and underground 115kV transmission lines that will support a new solar power facility in California. Work directly with the EPC contractor to optimize the design and overall project cost. Work with the cable manufacturer to maximize efficiency of the underground transmission line cables and overall design. Set and monitor project budget, maintain project schedule and responsible for project invoicing.
- ❖ **Duley Rd. 230kV Substation, NY** Responsible for the detailed design and on-site support through construction/commissioning of a greenfield 230/34.5kV substation for a windfarm. Scope consisted of a 3-breaker 230kV ring bus and 34.5kV collection feeders.
- ❖ **Ryan Rd. 230kV Substation, NY** Responsible for the detailed design and on-site support through construction/commissioning of a greenfield 230/34.5kV substation for a windfarm. Scope consisted of a 230kV breaker and a half bay addition and 34.5kV collection feeders.
- ❖ **Wethersfield 230kV Switchyard, NY** Responsible for the timely completion and management of resources to aid in the production of the following: power one-line, general arrangement



design/drawings, physical design/drawings, grounding grid design & study per IEEE-80, lightning protection design & study per IEEE-998, Bill of Materials, control building layout/design, conduit schedule, cable schedule and lighting design. All designs had to meet NEC and NESC standards. All designs and drawings had to conform to client standards. Worked closely with client and contractors throughout the design-build process. This was a new construction site that had to adhere to bulk power requirements for primary and secondary protection schemes, guidelines and criteria.

- ❖ **Altona Wind-Park Collector System, NY** Lead engineer supporting the engineering, design and construction of 34.5kV collector systems. Supplied on-site construction management/support for these projects. Worked closely with client throughout the process. Successfully designed low resistivity turbine grounding system in highly resistive soil location. Conducted load flow and short circuit analysis of collector branches using SKM. Conducted cable sizing calculations. Designed support structures for overhead cable per NESC loading and overload criteria.
- ❖ **Chateaugay Wind-Park Collector System, NY** Lead engineer supporting the engineering, design and construction of 34.5kV collector systems. Supplied on-site construction management/support for these projects. Worked closely with client throughout the process. Successfully designed low resistivity turbine grounding system in highly resistive soil location. Conducted load flow and short circuit analysis of collector branches using SKM. Conducted cable sizing calculations. Designed support structures for overhead cable per NESC loading and overload criteria.
- ❖ **NYISO Consulting Service Agreement**, Various Tasks: Working with ISO, developers and regional utilities to facilitate obtaining IA, LGIA and PPA for entities that wish to interconnect into the power grid. Tasks include conceptual design, feasibility analysis, scheduling, cost estimating, design review and other miscellaneous tasks.
- ❖ **Calpine Sutter 230kV UG Transmission Line, USA:** Project Manager / Lead Engineer responsible for preliminary design, cost estimates, feasibility and study report for several options to connect the Sutter 600MW power plant in California to a new 230/500kV substation on the PG&E 500kV network. Worked with



the client to optimize the various scenarios to their needs and took various technologies and approaches into consideration such as HPFF and solid dielectric technologies and means/methods of installation as the location of installation is in a flood-zone and rice farms that are submerged in water.

- ❖ **CPV Valley 345kV Interconnection, NY** Project Manager and Lead Engineer responsible for the schedule, budget and technical design/advisory associated with preliminary design and owners engineering services to accommodate an interconnection of a combined-cycle power plant into an existing bulk power 345kV transmission line. The ultimate design yielded a six breaker AIS ring at the power plant, a one mile UG transmission line, and a four breaker GIS switchyard inside a metal building which is intended to create a looped connection with the exiting 345kV line. Michael supported the client through the SIS phase to obtain an LGIA working with the NYISO and the interconnecting utilities.
- ❖ **Longview 500kV Transmission Line Design, USA** Owners Engineer responsible for reviewing the designs/drawings associated with the 500kV transmission line and switchyard design. Responsible for checking transmission associated designs, drawings and bill of materials for the EPC contractor.
- ❖ **Q169, 115kV Reconductoring/Refurbishment Project using ACSS, MA** Project Manager & Lead Engineer. Line Reconductoring Project, install 795 ACSS Condor to uprate the existing line without replacing supporting structures. Preparation of scope document. Preparation of Construction Document. Conducted field inspections. Engineered structure modifications and replacement structures in accordance with client, regional and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD. Determined location of two new load break switches. Prepared steel specs for both switches including the calculations for loading trees. Designed 110 ft single pole three way load break switch in a landfill near a marsh anchored to a concrete capped pile foundation. Designed caisson foundations for 22 structures in a marsh.
- ❖ **Lockport-Mortimer 113 & 114, 115kV Refurbishment Project, NY** Project Manager & Lead Engineer. Line refurbishment of two parallel (56) mile long transmission lines primarily made up of steel lattice structures. Preparation of Construction Document. Conducted field inspections. Engineered structure modifications and replacement structures in accordance with client, regional



and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD.

- ❖ **Ticonderoga-Republic, Republic-Whitehall, 115kV Refurbishment Project, NY** Project Manager & Lead Engineer. Line refurbishment of (112) mile long transmission line primarily made up of wood pole structures. Environmental issues and excessively long spans were some of the challenges associated with this project as this line runs through the Adirondack Mountains of upstate NY. Preparation of Construction Document. Conducted field inspections. Engineered structure modifications and replacement structures in accordance with client, regional and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD.
- ❖ **Y25, 69kV Line Reconductoring, MA/VT** Project Manager & Lead Engineer. Reconductoring Project, MA & VT. Preparation of scope document. Preparation of Construction Document. Conducted field inspections. Engineered structure modifications and replacement structures in accordance with client, regional and NESC standards. Analysis using PLS-CADD. Created spreadsheet to calculate insulator swing and the amount of weight to add to each conductor to eliminate uplift and to ensure an insulator swing of less than 30 degrees under user defined conditions.
- ❖ **X24, 69kV Reconductoring/Refurbishment Project** Project Manager & Lead Engineer. Preparation of Scope Documents and Construction Documents. Engineered structure modifications and replacement structures in accordance with client, regional, and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD. Created a spreadsheet that calculated insulator swing and integrated it into the structure work list to determine where insulator swing issues existed and how much weight needed to be added to meet swing tolerance. Provided field support during construction.
- ❖ **National Grid 301 and 326 Lines, 345kV Line Refurbishment** Detailed engineering and Design associated with a major refurbishment effort of a twenty-five mile and fifteen mile 345kV transmission line. Scope included development of construction drawings and construction package. Line and engineered structure modifications and replacement structures in



accordance with client, regional, and NESC standards. Analysis using PLS-CADD.

- ❖ **Cape Cod Canal 345kV Line Relocation, MA** Preliminary Engineering and Design to evaluate the feasibility of this line relocation option. Preparation of preliminary design drawings for proposed structure types and plan & profile drawings. Preparation of construction cost estimates for the proposed line relocation. Design had to meet client, regional, and NESC standards. Analysis using PLS-CADD.

- ❖ **National Grid, 345kV River Crossing** Project Manager & Lead Engineer Improved clearance of two parallel 345kV transmission lines over the Oneida River in New York. Located and designed new structures and foundations for 130-foot steel pole structures to cross the 1100-foot space across the Oneida River. Improved Lightning Protection for the crossing was considered as part of the design. Line and engineered structure modifications and replacement structures in accordance with client, regional, NESC and ACOE standards. Analysis using PLS-CADD.

- ❖ **Porter-Rotterdam 30, 230kV Refurbishment Project, NY** Preparation of Scope Documents and Construction Documents associated with the refurbishment of (75) mile long transmission line. Engineered structure modifications and replacement structures in accordance with client, regional, and NESC standards. Analysis using PLS-CADD.

- ❖ **Porter-Rotterdam 31, 230kV Refurbishment Project, NY** Preparation of Scope Documents and Construction Documents associated with the refurbishment of (75) mile long transmission line. Engineered structure modifications and replacement structures in accordance with client, regional, and NESC standards. Analysis using PLS-CADD.

- ❖ **S171N and S171S, 115kV Line Refurbishment and Shieldwire Addition Project, RI** Lead Engineer. Preparation of scope document. Preparation of Construction Document. Conducted field inspections, engineering of structure modifications and replacement structures in accordance with client, regional and NESC standards. Analysis for various aspects of the transmission line using PLS-CADD.



- ❖ **Tacoma Light and Power, Tacoma River Crossing** Created a program using MATLAB to conduct Aeolian vibration analysis on the 5800-foot span crossing the Tacoma River.

- ❖ **Tri-Lakes Reliability Project, NY** Compared the benefits and setbacks of overhead construction vs. underground construction of a new line-segment in the Adirondack region of NY. Conducted research into the benefits and setbacks of using EPR or XLPE dielectric cables for use in the underground application. Aided in the study to determine most reliable structure construction for overhead lines in this region.



REGINALD S. GAGLIARDO
Vice President/Executive Consultant

Education

Bachelor of Science in Electrical Engineering, New Jersey Institute of Technology

MIT Sloan Executive Education - Managing Technical Professionals and Organizations.

Numerous Burns and Roe, POWER Engineers and industry professional development courses.

Professional Registrations

Registered Professional Engineer (Retired) in New York, New Jersey and a number of other states.

Professional Affiliations and Industry Participation

American Nuclear Society; Institute of Electrical and Electronics Engineers (Senior and Life Member)

Fiatech - Member of the Board of Advisors and Conference Planning Committee for this industry consortium that provided leadership in the development, demonstration, and deployment of fully integrated and automated technologies for capital construction projects.

Construction Industry Institute - Member, and later Chair, of the Fully Integrated and Automated Project Process (FIAPP) Steering Team.

Construction Industry Institute - Member of the Academic Advisory Council to provide liaison between the construction industry and academia and to develop recommendations for CII research.

New Jersey Institute of Technology – Member of the Advisory Board for the development of the College of Computing Sciences.

Career Highlights

Extensive technical and project management experience in providing engineering services for nuclear and non-nuclear power generating stations and federal projects.

- Senior-level positions for the leadership, direction and development of engineering, procurement, construction, project controls, quality assurance and information technology divisions.



- Business unit direction and leadership for management, marketing, sales and technical execution of projects for commercial nuclear and special purpose facilities.
- Strategy planning, development and implementation.
- Special assignments and initiatives for CEO and Executive Management.
- Contributions to industry initiatives to improve productivity, competitiveness and technology.

**Prior Project Experience
(Partial Listing)**

- ❖ **POWER ENGINEERS** (acquired Burns and Roe in June 2014)
Vice President, Nuclear Services and Advanced Technology

Responsible for the leadership, direction and operation of the Nuclear Services and Advanced Technology business unit from strategy selection through business development and project delivery. Provided direction and leadership for marketing, project management, engineering, project controls, procurement, consulting, and construction support services. Developed operational, financial and organizational initiatives to achieve performance targets. Projects ranged from: nuclear feasibility studies for international Clients; to consulting for advanced nuclear designs; to modifications and retrofits for operating power plants and government facilities.

- ❖ **BURNS AND ROE ENTERPRISES**
Senior Vice President, Nuclear Services and Advanced Technology

Responsibilities were the same as POWER Engineers position above.

Senior Vice President, Corporate Resources & Technology

Responsible for the leadership, direction and management of multiple technical divisions, including Engineering & Design, Construction Services, Supply Management, Project Controls, Quality Assurance and Information Technology Services. Primary duties included: effective support to and oversight of the technical aspects of projects; assurance of the quality of work; performance of work to budgets and schedules; training and development of personnel; improvement of work processes, standards and procedures; support to business development initiatives; and



implementation of information technology and computer-aided applications.

As part of this assignment, led the effort to upgrade the company's Quality Assurance Plan and the associated project and technical procedures. Led the successful corporate initiative to obtain the company's **N-Stamp (ASME Boiler and Pressure Vessel Code Section III)**.

Served as the Burns and Roe representative on the **Board of Governors of the Uranium Disposition Services, LLC** for the design, construction and start-up of the Depleted Uranium Hexafluoride Projects in Ohio and Kentucky for the U. S. Department of Energy.

Served on the "Proof of Concept" Review Team to provide recommendations regarding the types of facilities that should be advanced for the **Yucca Mountain Project** for the U. S. Department of Energy.

Vice President/Director, Engineering

Responsible for the leadership, technical direction, supervision and administration of engineering and design work for fossil fueled, nuclear and waste-to-energy power generating plants and other industrial and special purpose facilities. Primary areas included management and development of engineering personnel, preparation of project technical documents as well as the overall assignment and coordination of engineering and design for all projects. In addition, duties included the development of in-house training programs, technical specifications and standards, engineering practices and procedures, and computer-aided engineering applications. Provided oversight of branch office engineering functions and consolidated two separate multi-discipline engineering divisions into one combined division to serve multiple market sectors and business units resulting in greater flexibility and better utilization. For the first part of this period, also held co-position of Chief Electrical Engineer.

Chief Electrical Engineer

Responsible for the technical direction, supervision and administration of electrical engineering and electrical design work for power generating plants, both fossil and nuclear, and other industrial facilities. Duties included engineering quality and productivity, development of project design criteria, one line diagrams, building and equipment layouts, equipment sizing, specification and selection, design and installation documents, calculations and the overall coordination of electrical engineering



and design efforts for all projects. In addition, responsibilities included the development of in-house training programs, technical specifications and standards, recommended engineering practices and computer-aided engineering applications.

During this period, undertook special assignment at the request of TVA management to review, improve and strengthen the TVA **Project Management Program** for the modification and upgrade program at the **Browns Ferry Nuclear Plant**.

Manager, Nuclear Plant Services

Responsible for the overall leadership, direction, technical supervision and management of assigned projects, project managers and engineering staff. Duties included the direction and coordination of engineering and design services, procurement support, construction support, and budgets and schedules. Also, responsible for Client satisfaction, liaison and responsiveness, development of new business, and fulfillment of contractual requirements. Projects involved modification and upgrade of operating nuclear power plants, including the Recovery Program for Three Mile Island Unit 2. Plants involved Pressurized Water and Boiling Water Reactors and included Three Mile Island Lessons Learned, 10CFR50 Appendix R Fire Protection Program, NRC-mandated and other plant betterment modifications. Progressed through the positions of Project Engineer and Project Manager.

Competitively bid, obtained and executed over multiple years a **Preferred Engineering Services Contract** for GPU Nuclear's **Oyster Creek Nuclear Generating Station** and developed numerous engineering packages to implement regulatory requirements, including Appendix R, and other improvement modifications.

Group Supervisor, Electrical Engineering

Responsible for the technical direction and supervision of electrical engineering and design work for new and operating nuclear power plants. Duties included: development of project criteria, technical specifications and calculations; planning and scheduling; coordination with other engineering disciplines; and liaison with the Client, vendor, and field support personnel.

Following the accident on March 28, 1979, was deeply involved in the **Three Mile Island Unit 2 Recovery Program** both at the site and the home office. Served as the electrical supervisor for the electrical post-accident modifications and in various project management capacities as well as being the cognizant engineer for a number of the modifications. Duties included management and



direction of the site and home office electrical groups, system design, equipment specification and selection, Client and NRC liaison, and construction support.

Senior Electrical Engineer

Responsible for the electrical interface with the nuclear steam supply system vendor; DC and AC distribution systems; heat tracing and freeze protection systems; local control boards; solid state component controls (first nuclear use); multiplexing; specifications; calculations; electrical separation criteria; instrumentation shielding and grounding criteria; and development of electrical documents.

Electrical Design Squad Leader

Responsible for the supervision and performance of electrical control wiring design for nuclear power plants; development of schedules and budgets; and interface with Client, vendor, and site personnel.



Christopher Hill
Senior Specialist

Education

Warren University

Bachelor's Degree: Management of Information Systems

Microsoft Corp

Microsoft Certified Systems Administrator – Windows 2000, XP, Windows 7, Windows 10

Comptia

A+ Certified

Net+ Certified

Server+ Certified

Career Highlights

Business and Information Technology Executive with 26 years of experience in multiple industries. Excellent record of creating tangible benefits in large organizations. Areas of specialty are system configuration, resource utilization, process design, waste identification and elimination, and security and identity management. Highly effective in roles requiring project planning, scope analysis, communications, and deployment. CIO for independent construction monitoring service and consulting firm.

- 24 years of experience in Information Technology Management in various industries: Industrial Construction, Aviation, Mill/Manufacturing, and big-box retail.
- 6 complete Life-cycle SAP implementations involving SAP R/3, APO, CRM, SCEM 5.0, BW and NetWeaver.
- 20 years of experience in Fortune 500 Companies.
- Bilingual: English and Spanish
- Six Sigma Yellow Belt, Change Acceleration Process (CAP) Certification, Facilitation certified

SELECTED CAREER ACHIEVEMENTS

• **As Chief Information / Information Security Officer: Critical Technologies Consulting LLC.** - Planned, sourced, developed, and implemented total information and business suite solution. Leveraged SaaS and PaaS opportunities to reduce IT and infrastructure costs by 20% from 2016 to 2021.

• **As Business Analyst Lead / Subject Matter Expert (Warehouse: IM/MM): International Paper** - directed activities in the analysis, design,



testing, training, and implementation of warehouse management (MM/SD/IM) solution in SAP ECC. Responsible for identifying business requirements & enhancements, cost/benefit analysis, project planning & deployment, and developing a 5-year strategic road map for IM and warehouse management team.

- **As Project Manager (IM/MM/SD): Honeywell** - designed, planned, and launched a Material Resource Planning (MRP) initiative to support the Global Supply Chain cost reduction objective for Honeywell Aircraft Landing Systems (SAP ECC6.0). **International Paper** – Led business process design, testing, training, and deployment readiness for Enterprise Identity Management system replacement (replaced Oracle Identity Management with SailPoint). **Critical Technologies Consulting** – Total responsibility for design, build, testing, deployment of cloud-based project document repository system for major construction projects. Designed, analyzed, and implemented corporate technical infrastructure (Microsoft Azure AD, Exchange, Office 365)

- **As SAP Configuration and Security Manager: International Paper** - directed multiple implementations of SAP R/3 including total system upgrade from SAP R/3 4.7c to SAP ECC 6.0. Responsibilities included configuration design and implementation across multiple SAP systems (R/3, APO, SCEM, and Sap Netweaver) for multiple business process areas including Transportation and Logistics, S&D, Inventory Management, and Warehouse Management.

- **As Site Support and Administration Supervisor: Stone & Webster** - responsible for all support staff (procurement and subcontracting, cost & accounting, Information Technology, Document Control, and Safety) on a 250-million-dollar Heat Recovery Steam Generator project. Designed and implemented electronic document control system for engineering, quality, and safety records (estimated savings \$150,000.00). Directed 15+ resources in materials management and procurement/subcontracting activities supporting construction and engineering.

Prior Project Experience (Partial Listing)

Critical Technologies Consulting LLC in Mesa, Az

Chief Information / Information Security Officer – June 2015 to Present
Responsible for complete technical set up including infrastructure, communications, and storage. Responsibilities included:

- Manage domain acquisition, SaaS/PaaS utilization, communications, and hardware & software procurement for all projects.



- Established data integrity and business continuity standards (including disaster recovery practices) for corporate and project sites.
- Coordinated and remotely controlled operating system upgrades from Windows 7 to Windows 10 with zero lost time.
- Provide 24/7 remote support assistance for all contracted clients

International Paper, Corporate Headquarters in Memphis, Tennessee

COE Sr. Process Steward - Security – May 2014 to Present

Responsible for managing security / access management, enterprise security controls processes, job role design, Sarbanes-Oxley compliance, and identifying Oracle Identity Management enhancements. Responsibilities included:

- Manage and approve all activity and job role changes including Sarbanes-Oxley compliance, segregation of duties, Role repository management, Change Management, testing, training, and documentation.
- Responsible for user management processes of all IP Global Supply Chain/Business users including manufacturing mills, all distribution network facilities, centrally based business users, and Executive Leadership.
- Responsible for security management process assessments and improvements across the Global supply chain operating model facilities and corporate headquarters
- Responsible for design of security solution for EMEA and Global Cellulose Fiber deployments (2017 and 2018)
- Responsible for design of security standards for new Omega Replace project (2018-2019)
- Responsible for business process and role design for Enterprise Identity and Access Management system deployment (SailPoint)

International Paper, Corporate Headquarters in Memphis, Tennessee

SAP Global Supply Chain (Warehouse and Transportation) Configuration and Security Lead – October 2005 to May 2014

Responsible for managing design, configuration and change management in a multiple version/release implementation of SAP R/3 Responsibilities included:

- Managed and performed all configuration and security changes for Warehouse/Logistics team across R/3, ECC6, APO, and SCEM, to support sustain activities. Coordinated all development work in relation to Warehouse/Logistics team in ECC6.



- Managed all change control processes in six (6) Life-cycle implementations in SAP R/3 4.7c and ECC 6.0 for Deliver Warehouse/Logistics team, including total system upgrade from SAP 4.7c to SAP ECC 6.0
 - Designed and led implementation of warehouse support organization and COE training program.
 - Designed, tested, and implemented external portal access model for 3PL and non-internal employee users.
 - Responsible for security upgrade design and implementation from SAP R/3 4.7c to ECC 6.0.
 - Led Disaster Recovery and Business Continuity plan security and access designs.
 - Received three “Key Driver Award” for outstanding leadership contributions to overall SAP implementation – (2014, 2015, 2017).

Honeywell-ALS Corporation, Aircraft R&O Facility in Memphis, Tennessee

Logistics Manager (Procurement/Materials/Shipping) & Subject Matter Expert (MRP & MM) - October 2002 to October 2005

Responsible for design, configuration, and deployment of the SAP Solution (Project investment \$12 million). Responsibilities included:

- Responsible for Material Resource planning execution for 5000-part manufacturing facility utilizing the Glovia ERP system.
- Led design, testing, and implementation of Inventory Management solution including Global MRP strategy.
- Designed, created, tested, and implemented complete security architecture for all Global Supply Chain and finance activities.
- Directed efforts for “big-bang” S&D module SAP implementation: Project planning, technical build, GAP resolution, system test definition and execution, cutover planning, and go-live activities.
- Key contributor for build, test, and implementation of global MRP and centralized procurement solution for new SAP system.

Shaw - Stone & Webster, MintFarm HRSG Project at Longview, Washington

Site Support and Administration Supervisor – July 2001 to August 2002

Responsible for directing 20+ resources in support of a \$250 Million Power Generation Project. Responsibilities included:

- Managed field support operations staff including Procurement & Subcontracts, Cost and Accounting, Materials, Safety, Information Technology and Administration teams.
- Managed 55,000 sq. ft. Warehouse, “lay down” yard and pipe fabrication shop on-site.



- Designed and implemented a global records management system for engineering and quality documentation (Est. \$150,000.00 savings for life of project – 1 year 2 months).
- Expanded current financial reporting system to include interfaces with sub-contractors and vendors systems to improve financial reporting and accuracy.

Shaw - Stone & Webster, Centralia WFGD Project at Centralia, Washington
Site Administration Supervisor - November 1999 to July 2001

Responsible for processes and personnel in Warehouse, Procurement, and Construction/Engineering/Quality Documentation.

- Managed 30,000 sq.ft. warehouse, lay down yard and pipe fabrication shop on-site.
- Managed MRO procurement team to support construction activities.
- Managed Records Management and Controls team on site



Jason Martineau **Consultant**

Education

Bachelor of Science in Electrical Engineering, Arizona State University

Certified Instructor for Instrumentation and Controls.

NCCER assessor for Electrical and Instrumentation.

Prior Project Experience **(Partial Listing)**

❖ Hidalgo, Orla, Tx MarkWest Energy

As the E/I technician in a Cryogenic gas processing plant, responsible for all electrical maintenance including 4160V switchgear and motors, 480 V switchgear and motors, and all electrical problems. Calibrate and maintain all instrumentation including pressure transmitters, level transmitters, temperature transmitters, control valves and pressure switches. Trouble shoot Allen-Bradley PLC 5000 and use Wonderware to interface with the operators.

❖ Cholla Power Plant, Joseph City, Arizona
Arizona Public Service Co.

As an Electrical, Instrument and Controls Specialist, Journeyman, responsible for the following functions and duties:

1. Performed repairs, modifications, calibrations, and preventive maintenance on pneumatic, digital, analog, programmable, and other auxiliary equipment. Performed repairs on controls systems for turbine generator, burner management, coal handling, scrubbers, wastewater process, ash handling, EPA monitor/controls, chemical controls, sample systems, waste byproduct process and associated equipment. Works on solid state utility wide controls equipment, computers, microprocessors, and communications equipment.
2. Troubleshoot instrumentation systems, loops, and basic equipment to the component using appropriate test equipment.



3. Perform print corrections by revising drawing or makes new drawings for submission to be drafted.
4. Tune complete control loops.
5. Maintain detailed work reports.
6. Maintain interface with operations and other crafts.
7. Calibration of PH controls and instrumentation.
8. Maintenance, troubleshoot and repair of 480 and 4160 breakers.
9. Have worked with Allen-Bradley, ABB Bailey, Wonderware and some Honeywell control equipment.
10. Have used composer and wintools programming for Bailey. Also some MODICOM.
11. Use CITEC for pc interface with such programs.

❖ Four Corners Power Plant, Fruitland, New Mexico
Arizona Public Service Co.

As an Electrical, Instrument and Controls Specialist Apprentice in the Maintenance and Modification department at the Four Corners Coal Fired Power Plant Facility, responsible for the same functions and duties as mentioned above. Worked daily with experienced journeyman and was responsible to perform the functions described above.



Tara Jenkins
Research and Management
Education

UNIVERSITY OF MEMPHIS – Memphis, TN Graduated August 2017

- *Bachelor of Business Administration (BBA), Accountancy*
- *Graduated Magna Cum Laude*

Career Highlights

Highly motivated and proactive professional accountant with over 15 years of experience in accountancy and bookkeeping. Proficient in bookkeeping and project coordination. Confident in communication skills including negotiation and presentation; attentive to details, organized and process-minded. Continually seeks process improvements and operational efficiency including time-management and technology skills. Proficient with MS Office (Word, Excel, Outlook, PowerPoint), SharePoint, Sage (Peachtree) and QuickBooks. Comprehensive knowledge of accounting and auditing principles, payables/receivables, payroll functions, general ledger postings, invoicing, as well as account reconciliations. Driven to succeed and to help businesses be more confident through consulting and collaboration.

Prior Project Experience
(Partial Listing)

JENKINS BK, LLC, *Owner/CEO* — Worldwide

- Performance of CFO & fullscale bookkeeping services for multiple small/medium size businesses.
- Analyze budget vs. actual spending and forecast probabilities
ROCKER 7 FARMS, INC, *Accountant/Office Manager*—Buckeye, AZ
- Managed all Accounting and Bookkeeping functions of the business
Journal entries, preparation of monthly financial statements and analysis
- Performance of all payroll functions
- Reconcile bank and credit card accounts for multiple entities
- Identify and implement improvements to streamline processes and increase efficiency and productivity

K2 SHARE, LLC, *Assistant to CFO and HR Director* – College Station, TX



Critical Technologies Consulting, LLC.

- Generated 50+ reports weekly for controller, HR director, and all Chief Executives

ALLIANCE OB/GYN SPECIALISTS, PLLC, *Office Manager/Accountant* – Denton, TX

- Managed 15+ employees and 3 physicians
- Performed all accountant & bookkeeping functions for the company
- Oversaw 2 smaller entities
- Compiled 20+ pages of actionable, comprehensive monthly reports for owners, including daily tracking, profit and loss, physician's personal and office budgets; set goals and made recommendations based on report findings
- Directly responsible for accounts payable, accounts receivable, payroll, credentialing, hiring, firing, and steady patient flow
- Trained new employees for all office positions



Rosalie Mannarino, CPA
Specialist/Analyst

Education

RUTGERS UNIVERSITY, Rutgers Business School, New Brunswick, NJ
Master of Accountancy, GPA: 3.75, Cum Laude
Bachelor of Science in Accounting, GPA: 3.6

CERTIFICATIONS

Certified Public Accountant, State of New York

TECHNOLOGY

Skills: Lacerte, EasyAcct, Microsoft Excel, Microsoft Word, Microsoft PowerPoint and Oracle

Career Highlights

As a Certified Public Accountant, she has counseled Clients in various industries with a focus on implementing Financial Management and Controls Development Strategies in the power industry. She has been part of CTC Team's successful team in the support of detailed analysis, modeling, and reporting actual cost associated with capital expenditures on major projects in which CTC Team is under Contract. Her years at **PricewaterhouseCooper LLP, New York, NY** coupled with her Power industry experience enables her as a unique asset to CTC Team in the Nuclear Power arena.

Prior Project Experience
(Partial Listing)

- ❖ **Critical Technologies Consulting, LLC (CTC Team)** Financial Advisor/Specialist.

Provide expert Earned Value Measurement expertise on Actual Cost of Work Performed (ACWP) by

- Reviewing monthly expenditures on various Projects CTC Team has been engaged over the years, inspect books and expenditures.
- Review budgets and identify variances to the cost estimates.
- Review variance analysis based on disbursements made as compared to estimated disbursements from the previous forecasting.



- Review appropriate financial statements to determine financial health of sub-contractors to develop both cost and schedule risks associated with the projects under review.
- Validate cash flow requirements to support the projects various subcontractors/ Companies are committed to in order to determine reasonableness of escrow accounts and that disbursements are accurately made to the various sub-contractors and or vendors.

❖ **AMC Networks, New York, NY**

- Implemented processes that reduced manual inputs, thereby minimizing human error and creating efficiencies
- Prepared monthly journal entries, including accounting for revenue and programming content, as well as balance sheet and income statement accounts
- Reviewed journal entries and account analysis prepared by senior accountant including resolving open reconciling items
- Reviewed payments to ensure proper general ledger coding, proper approval levels and adequacy of the supporting documentation
- Responsible for preparation of quarterly reporting package schedules for internal and external reporting purposes
- Responsible for interaction with operations, AMC Networks finance, legal, tax and third parties to ensure complete understanding of complex nature of the relationships and the appropriate accounting for these transactions
- Reviewed residual calculations on a quarterly basis to ensure the correct amount is being reported
- Reviewed the cash procedures at the IFC Center, identified areas of potential exposure, and collaborated with the team to remediate our findings

❖ **PricewaterhouseCoopers LLP, New York, NY**

Senior Auditor, Senior Associate, Investment Management

- Lead various teams to financial audits of top 500 major company clients. The auditing process included accuracy of reporting, appropriateness of inclusion of all disbursements in accordance to GAAP.
- Audits lead to interfacing with high level management interaction, questionnaire and the art of discovery and eventual resolution.
- Designed/executed planning and substantive procedures for various types of clients in the Asset Management Practice,



including mutual funds, asset management companies and employee benefit plans

- Researched and evaluated technical accounting policies and audit issues to ensure that financial statements are prepared in accordance with U.S. Generally Accepted Accounting Principles
- Demonstrated management and leadership skills as a senior by planning and organizing an audit engagement to be in compliance with applicable standards, coordinating with managers, partners, client contacts, and internal specialist groups, and supervising and reviewing the work of others
- Managed engagement teams, project economics and trained/supervised staff on each client engagement

❖ **Wine So Fine & Liquors, Inc., Staten Island, NY**

Partner/Accountant

- Evaluated financial health of a possible acquisition and filed payroll tax, sales tax and corporate tax returns
 - Developed/administered budgets and ensured prompt payment of all bills and made weekly deposits
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