



# PROPOSAL

**RFP 24-06 – Docket No. U-36625,  
Entergy Louisiana LLC, ex parte. Application for  
approval of the Entergy Future Ready  
Resilience Plan (Phase 1)**

*Critical Technologies Consulting, LLC*

Innovative Ideas for Shaping the Future  
July 22, 2024

# *Critical Technologies Consulting, LLC*

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July 22, 2024

Dear Ms. Bowman,

We are pleased to submit this Proposal to the Louisiana Public Service Commission ("Commission" or "LPSC") for outside engineering consultants related to RFP 24-06, Docket No. U-36625, Entergy Louisiana, LLC, ex parte. Application for approval of the Entergy Future Ready Resilience Plan (Phase 1).

The outside engineering consultants will assist the commission staff in monitoring and reviewing Entergy Louisiana's ("ELL" or the Company") implementation of resilience projects approved by the commission in Order No. U-36625.

Critical Technologies Consulting, LLC, (CTC) with our main office located in Mesa, Arizona, and satellite offices in Massachusetts, New Jersey, and associate office in Louisiana is registered as a small woman-owned business that specializes in consulting and independent engineering monitoring services which cover design, procurement, and construction management (EPC) consulting in all aspects of energy and power projects including the identification, development, and analysis of substation, transmission, and distribution projects on utility grid systems. We are made up of highly specialized professionals with extensive credentials. As a team, CTC personnel have worked together on numerous projects over the past 37 years as you will see in our proposal. We have participated in over one hundred independent monitoring and prudency reviews. Recently, CTC independently assisted under a prudency review the WVPSC in reducing a rate increase by a utility by \$230 Million, which the ratepayers of West Virginia did not have to pay. We have the knowledge, experience, and understanding of the issues, technical and business challenges, costs, installation methods, operational and maintenance issues, and interface

challenges that need to be reviewed and analyzed as required by this LPSC RFP-24-06.

Our expertise and experience working with a variety of clients and our extensive Independent Consulting, Engineering/Procurement, Construction Oversight and Management, and Operations and Maintenance experience with numerous energy projects including their interconnections to the state and local grids, ensures CTC can deliver the best value for this assignment.

CTC personnel have led the development of draft regulations covering the Grid transmission and distribution system in Louisiana under Dockets No. R-35394 and R-36226 covering interconnections, substations transformers pole systems and “best methods” for operations and maintenance of transmission and distribution grid systems. The CTC staff participated also as Independent Engineering and Consultants to ensure that the interests of the ratepayers and investors were protected. CTC conducted technical and operational due diligence reviews of the electrical interconnections, power generation, and fuel supply systems of various power plant projects throughout the country by reviewing and providing constructive comments so that these facilities would be successful in meeting their intended purposes while meeting client and regulatory requirements of the state public service commissions and FERC.

CTC has used this expertise and experience to develop approaches to perform the engineering monitoring services which will result in the best price for the ratepayers of Louisiana. **During the execution of this work scope, CTC has two primary objectives. The first objective is to ensure the costs are minimized and are prudent, reasonable, and fair to the ratepayers of Louisiana; while the second objective is to ensure Entergy is successful in the development and implementation of the work scope of the Resilience Plan. These two objectives are critical to the overall enhancement of the safe, reliable, and resilient Grid and for a better lifestyle for the citizens of Louisiana.**

CTC is prepared to perform the scope of Services as shown in RFP 24-06 for the cost of **\$3,631,850 and expenses of \$120,000**. This scope is covering an approximately 5-year period and an estimated 2,100 independent Projects.

We sincerely hope you find our proposal acceptable and we look forward to working with you on this important Project.

Sincerely,

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Ben Hill, President  
Critical Technologies Consulting, LLC.

# *Critical Technologies* *Consulting, LLC*

*Innovative Ideas for Shaping the Future*

**Independent Monitoring & Consulting in  
Engineering, Procurement, Construction, Operations  
& Maintenance, Due Diligence, and Risk Management**



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## PROPOSAL

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### EXECUTIVE SUMMARY

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On December 19, 2022, ELL (the “Company”) filed an application seeking approval of a proposed \$5 billion accelerated electric grid hardening investment. After working through the Commission's docketed process, ELL filed a Motion for Approval of a Framework, which proposed was a subset of the Company's original application. The Framework consisted of approximately \$1.9 billion in projects that focused on substation, transmission, and distribution projects on ELL's grid, as well as approximately \$88 million in transmission dead-end structures. ELL's Framework proposes projects over a five-year period, beginning in 2024 and continuing through 2028.

Also included in the Framework is monitoring by the Commission, through the support of a qualified engineering consultant, during the implementation of the Grid Hardening Projects. As outlined in Order No. U-36625 and its attachments, the anticipated monitoring will include a pre-construction review of general design standards, flood mitigation, and wind loading specifications, along with certain data and information being provided by ELL to the Commission's qualified engineer during the implementation process.

We have included in this proposal a Scope of Representation, a proposed Approach, and an Action Plan, to support the Commission Staff in this matter. 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.

**During the execution of this work scope, CTC has two primary objectives. The first objective is to ensure the increased cost to the ratepayers of Louisiana are minimized, while the second objective is to ensure Entergy is successful in the development and implementation of the work scope. These two objectives are critical to the overall enhancement of a better lifestyle for the citizens of Louisiana.**

The CTC Team brings a set of expertise and in-depth experience which results in CTC being able to provide the Commission and its Staff with the following unique features:

1. CTC offers its independent monitoring services fulfilling the requirements of the LPSC RFP-24-06 and the associated LPSC Order Number U-36625 and will monitor ELL for the successful execution of the Grid Hardening Projects and the transmission dead-end structures while ascertaining that the costs spent are



prudent and provide the lowest costs for the ratepayers. ELL is accountable to the requirements contained in the Framework approved by the Commission in its Order Number U-26625, dated May 10, 2024.

2. CTC developed the regulations involving the LPSC Dockets No. R-35294 and R-36226 covering the transmission and distribution towers and poles improvement program and the use of effective grid operations and maintenance processes and procedures to improve the effectiveness of grid operations and maintenance in Louisiana.
3. CTC in its monitoring activities of the Grid Hardening Projects and the transmission dead-end structures will also minimize ELL's potential scope, costs or schedule "creep" so as not to increase cost impacts on ratepayers, but also assist ELL in executing these resilience projects successfully. CTC's role is not to execute engineering, but using its extensive experience in monitoring energy projects to provide oversight that provides the Commission with an assurance that the ELL execution of these resilience projects are prudently and successfully completed in accordance with the approved Framework.
4. CTC personnel assigned to this project have very extensive experience in conducting independent monitoring assignments involving over a hundred energy projects over the past 25 years.

Recently, CTC independently assisted under a prudency review the WVPSC in reducing a rate increase by a utility by \$230 Million, which the ratepayers of WV do not have to pay. We have the knowledge, experience, and understanding of the issues, technical and business challenges, costs, installation methods, operational and maintenance issues, and interface challenges that need to be reviewed and analyzed as required by this LPSC RFP-24-06.

This expertise and experience will benefit ELL ratepayers. CTC understands that RFP-24-06 is seeking an opinion associated with the review of documents and the monitoring of implementation of projects but is not seeking engineering services for capital outlay projects.

5. CTC has developed an approach to minimize its own cost impacts by:
  - a. Providing extensive reviews, assessments, and monitoring of the work ELL will be accomplishing in their analyses of its grid systems, establishing engineering parameters, purchasing equipment, contracting with construction contractors and installers, and bringing these resilience projects successfully to completion.
  - b. For the 35 projects labeled with the Program Name "Substation Flooding" or "Transmission Rebuild," with project cost estimates of more than \$1,000,000, CTC will conduct field inspections both during the construction process and after



construction completion. For all other projects, CTC will select a sample of completed projects for field inspections to be conducted after construction and ELL's quality assurance and/or quality control procedures.

- c. The detailed reviews of progress reports and documentation to be provided by ELL may include drone videos/photos of key projects which ELL is utilizing as part of its project management reporting. CTC will also use these tools to conduct its monitoring services.
- d. By conducting thorough reviews of the ELL safety, quality, and acquisition of equipment and contractor's procedures and processes ELL will use in the implementation of these resilience projects, CTC will be able to monitor ELL activities to meet these processes once the activities move forward. CTC will not interfere with ELL activities, only provide monitoring services and report on a regular basis to the Commission and its Staff.
- e. Having been involved as an independent consultant with the LPSC in this area for 3 to 4 years. We have the experience and knowledge to monitor that the work ELL will be accomplishing is safe, high quality, and successful while minimizing costs to the ratepayers.

CTC brings to the Staff a team of highly experienced personnel with the necessary technical, utility, and regulatory expertise and backgrounds in project development, project evaluations, issuance of RFPs, and their implementation to provide real value to the Commission while protecting the interests of the ratepayers. CTC has on staff licensed engineers.

The CTC team will assist the Staff and bring the CTC team's experience collaboratively in the design and independent reviews of sources of generation whether renewable or non-renewable, interconnections to the Louisiana grid systems, and the various modes of operation at high levels of capacity factors with the lowest reasonable costs. The reliability and availability of the sources covered by the RFP will be reviewed to see that they are available under normal modes of operation and will be able to achieve fast recovery under extreme weather events to minimize impacts to the ratepayers.

We include in this proposal materials that describe our expertise and qualifications, along with a narrative that describes our anticipated approach to supporting the Commission Staff in this matter. We do not have any conflicts of interest that would impair our ability to provide these services to the Commission and we are free to do so.

CTC is prepared to perform the scope of Services as shown in RFP 24-06 for the cost of **\$3,631,850 and expenses of \$120,000.**



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## INTRODUCTION

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Critical Technologies Consulting (CTC) is pleased to submit its proposal to the Louisiana Public Service Commission as outside engineering consultants to assist Commission Staff in its monitoring and review of Entergy Louisiana's ("ELL" or the Company") implementation of resilience projects approved by the Commission in Order No. U-36625.

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## SCOPE OF REPRESENTATION

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CTC has reviewed and familiarized itself with Order No. U-36625 prior to submitting this bid proposal in response to RFP 24-06. The anticipated scope of services is outlined in the Framework filed by the Company on April 15, 2024, in Docket No. U-36625, and approved in Order No. U-36625.

The scope of services CTC will provide includes, but is not be limited to: the review project data regarding implementation of projects within the Resilience Plan at regular intervals throughout implementation but no less than quarterly; meet with ELL's implementation team to discuss said data; review pre-construction general design standards, flood mitigation specifications, and wind-loading specifications of projects within the Resilience Plan; conduct pre-construction reviews and submit any questions or concerns to ELL; conduct periodic field inspections of a subset of projects within the Resilience Plan; review reports filed by ELL after any Major Event Days (as defined by the Institute of Electrical and Electronics Engineers 1366-2012 standard); participate in meetings and/or calls — as necessary — with Commissioners or Commission Staff regarding the ongoing implementation monitoring; be available to speak at a B&E — when requested — to provide an update on the ongoing implementation monitoring; and assist Commission Staff in any discrepancies, issues, or concerns that may arise associated with ELL's implementation of the projects within the Resilience Plan.

CTC understands that while the RFP-24-06 is seeking engineering services, it is seeking an opinion associated with the review of documents and the monitoring of implementation of projects but is not seeking engineering services for capital outlay projects. CTC consultants are committed to accomplishing these reviews and monitoring services in accordance with the RFP requirements and for the benefit of the Louisiana ratepayers.



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## PERIOD OF REPRESENTATION

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CTC understands that if selected the time period estimated to complete the Scope of Representation will last approximately 5 years. However, this is merely an estimate and it is understood that the Commission makes no representation as to the accuracy of the Period of Representation.

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## PROPOSED APPROACH AND PLAN OF ACTION

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The Proposed Plan of Action for CTC to assist Staff is broken into various **Tasks** shown below using the Scope of Representation and scope of work presented in the Request for Proposals RFP 24-06: (note the “qualified engineering consultant” herein is CTC)

1. Upon authorization to proceed, CTC consultants will proceed to re-review all the documentation available covered by the Commission Order No. U-36625 including the attachments which describe the Framework approved by the Commission per the Order. An agenda will be formulated to meet, discuss, and agree with the Commission Staff including a list of requests for information (RFIs) both to be transmitted to ELL prior to the Kick-off session described in Task 2.
2. CTC shall call for a pre-Kick-off session with the Staff and then jointly with ELL to review the monitoring work to be done and the associated timelines. Then the Kick-off Session would be held with CTC, Staff, and ELL personnel and their consultants concerning the items and issues covered in the proposed agenda and the RFIs. Among them will be:
  - A. The analyses and reports already available including the methodology used to identify and scope the Grid Hardening Projects and their associated class 5 estimates.
  - B. The determination of the order of criticality of the customers and the associated systems which feed them the power that have been identified in the list of Grid Hardening Projects attached to the Commission approved Framework (“Framework”).
  - C. The overall schedule of the resilience work to be accomplished covered by the Framework including the analyses, engineering, design, procurement, contracting, construction, and commissioning activities. The issuance of reports



including progress reports, which will be made available to the independent monitor (CTC).

- D. Discuss the monitoring activities that would be accomplished by the independent monitor over the duration of the Resilience Plan ELL will be executing.
  - E. Discuss the overall schedule for the monitoring consultant (CTC) to perform its scope of work.
  - F. Discuss and agree on the various interfaces in terms of communications, RFIs, and ELL responses.
3. The review of project data and details on the implementation of Grid Hardening Projects, at the project level, within the Resilience Plan at regular intervals throughout the implementation process, but no less than quarterly.
- Such data and reports shall include, but not be limited to: project scopes of work and brief project descriptions, project budgets tracking any changes from Class V estimates to actual bid costs, major equipment purchases and delivery dates, project schedules including estimated project start and completion dates, project status and percent complete of current phase (e.g. design phase, bid phase, construction phase), changes in project status from the previous reporting period, total project funding committed and expended, overall progress against annual spending and project milestones, external factors affecting construction timelines and pricing changes, and similar information.
4. To track and review these data and details, the qualified engineering consultant (CTC) and ELL and/or its vendors will meet not less than quarterly throughout the implementation of the Grid Hardening Projects, and more often as determined is necessary by the parties.
  5. Review pre-construction general design standards, flood mitigation specifications, and wind-loading specifications of projects within the Resilience Plan.
  6. Conduct reviews of the ELL Resilience Plan processes including safety plans, quality plans and processes, and procedures covering estimations, procurement of equipment and contracting of contractors, and commissioning of these projects within the Resilience Plan.
  7. Conduct pre-construction review of general design standards, flood mitigation specifications, and wind-loading specifications of the Grid Hardening Projects. The



engineering consultant (CTC) will conduct pre-construction reviews and submit any comments or questions to ELL within 30 calendar days. For good cause, the Commission's engineering consultant (CTC) may request an extension, up to 90 days total, inclusive of the initial 30 days, for the review.

8. CTC shall also conduct periodic field inspections of a subset of the Grid Hardening Projects. For the 35 projects labeled with the Program Name "Substation Flooding" or "Transmission Rebuild," with project cost estimates of more than \$1,000,000, the qualified engineering consultant after receipt of the progress reports and other appropriate information will conduct field inspections both during the construction process and after construction completion.

For all other projects, the qualified engineering consultant will select a sample of completed projects for field inspections to be conducted after construction and ELL's quality assurance and/or quality control procedures. The engineering consultant will notify ELL at least 30 calendar days in advance of the date of the field inspection and not more than 15 calendar days after the engineering consultant has been informed that ELL has begun its quality assurance and/or quality control procedures regarding which project(s) will be inspected and request any project information necessary to complete the inspection.

The engineering consultant will note any concerns found for any inspected Grid Hardening Projects within 20 calendar days of the inspection. To the extent any deficiencies in construction, flood mitigation, and/or wind-loading specifications are identified by the engineering consultant, the LPSC staff and ELL will work in good faith to remedy the identified concerns.

In the event Staff and the Company are unable to resolve any remaining issues within 30 days, the matter will be referred to a third-party engineering firm selected by both Staff and ELL. Once selected, the third-party engineering firm shall have 30 days to render a determination on the issues remaining between Staff and ELL regarding the project at issue.

With respect to the field inspections, to the extent the Commission's engineering consultant documents any deficiency or collection of deficiencies which constitute a material deviation from the scope and purpose of the project, ELL shall remedy such deficiency or collection of deficiencies at no additional cost to customers. Within 30 days of notification of such deficiencies, ELL shall submit to Staff a detailed remediation plan, including activities to be undertaken and a detailed schedule for their execution. Neither the Commission nor its qualified engineering consultant shall be liable or in any way responsible for any deficiencies, failures, or



suboptimal performance in the design or construction of projects constructed or assets installed under this agreement.

9. Starting no later than nine (9) months following issuance of a Commission Order approving this Framework and every three months thereafter for the duration of the implementation of the Grid Hardening Projects, ELL shall file a Public version of the reporting provided to Staff's qualified engineering consultant detailed in Section 9.a, above.
10. ELL agrees that it shall comply with any rules promulgated by the Commission, including, but not limited to those in Docket Nos. R-35394, R-36226, and R-36227. CTC will monitor ELL's compliance with the rules included in the listed Dockets.
11. ELL shall maintain a publicly available webpage where visitors can readily access information regarding implementation progress of the Grid Hardening Projects, including where feasible information about specific projects, spending and construction reports, photographs of projects completed and/or under construction, and similar information.
12. Review reports filed by ELL after any Major Event Days (as defined by the Institute of Electrical and Electronics Engineers 1366-2012 standard).
13. CTC personnel will participate in meetings and/or calls — as necessary — with Commissioners or Commission Staff regarding the ongoing implementation monitoring; be available to speak at a B&E — when requested — to provide an update on the ongoing implementation monitoring.
14. CTC will assist Commission Staff in any discrepancies, issues, or concerns that may arise associated with ELL's implementation of the projects within the Resilience Plan.

CTC understands that the Commission and its Staff reserve the right to determine how tasks under this RFP will be carried out, including setting internal deadlines to ensure the proceeding moves along in an orderly fashion.



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### **DELIVERABLE PRODUCTS**

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CTC will develop presentations, reports, and documentation as requested by Staff.

There are reports CTC has presently identified as part of its proposed Action Plan for use to communicate with Staff and jointly develop strategies and plans to support the Commission's Staff on this monitoring assignment.

In addition, CTC will issue a monthly progress report in PowerPoint format as follows:

#### Progress Report

At the beginning of every month, a progress report covering the activities accomplished the prior month will be issued in PowerPoint format to Staff to indicate what has been accomplished, the key issues being addressed, schedule progress, cost monitoring, and any recommendations CTC may have for Staff to consider.

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### **CONFLICTS OF INTEREST**

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CTC and its personnel do not have any conflicts of interest concerning this Docket scope of representation and none of the CTC personnel have any work with ELL nor ELS or any of the entities subject to the Louisiana Public Service Commission (LPSC) regulatory responsibilities.

CTC personnel have worked for other state public service commission staffs, ISOs, IPPs, regulatory bodies, utilities, electric coops, municipalities, investors, lenders 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 currently represents the Louisiana 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 supports the Louisiana Public Service Commission Staff in Dockets No. R-35394 and Docket No. R-36226. These assignments are not considered as conflicts of interest.



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## CTC RESUME AND QUALIFICATIONS

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The CTC team has the requisite knowledge of the topics involving this Docket and discussed in the RFP 24-06, in addition to those provided in the Commission's General Order dated November 10, 2014. CTC has been pre-qualified by the Commission to receive this RFP under Docket U-37131.

CTC 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.

Key personnel among the CTC personnel have substantive experience in the methodology of the project development of various renewable and non-renewable energy project sources. They have been involved in all aspects of transmission and distribution, generation development, interconnections into the grid systems, and the various operational modes expected from these sources.

CTC personnel are qualified and prepared to render expert testimony regarding the topics in this RFP-24-06 at the B&E. CTC personnel also have a working knowledge of LPSC rulemaking and jurisdictional issues.

Having assisted Staff as outside consultants in Dockets No. R-35394 and R-36226 involving regulations covering transmission and distribution, CTC also has the experience and the working knowledge of LPSC rulemaking and jurisdictional issues, and has, a knowledge of:

1. Commission Order No. U-36625, and all requirements associated with monitoring contained therein.
2. Familiarity with just and reasonable costs and prudent investments associated with providing reliable and quality service as recommended by NARUC.
3. A detailed understanding of the major functional areas of a regulated electric utility, particularly an investor-owned.
4. MISO tariffs, rules and planning processes, generally, and specifically related to resource adequacy planning processes and use of zonal resource credits.

Further, Applicants must be, or have on staff, a licensed engineer. Such engineer shall be licensed and in good standing with all applicable engineering licensing and certification boards. Applicants must be able to provide technical advice regarding industry standards and widely accepted industry practices regarding transmission grids, and maintenance thereof, as outlined above. Consideration will be given for experience and knowledge of transmission system standards, as well as utility regulation and cost allocation methodologies.



In addition to the above expertise, the team assembled by CTC for this assignment, are experienced professionals in multidisciplinary areas specifically applicable to the needs specified in this Docket including construction, generation, interconnection, and reliable and resilient operation at the lowest reasonable cost for such sources.

The CTC team's professional experience consists of a combined expertise of:

- An average of 37 years of experience working in the engineering field involving engineering, procurement, construction, and operations and maintenance 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 RFP-24-06.
- Since the mid-1980s, CTC personnel have worked on over 300 projects involving independent engineering services and consulting to a variety of clients, from utilities, lenders, investors, operators, DOE, PSC staffs, State Attorney Generals, 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, Canada, Virginia, California, Arizona, New Mexico, North and South Carolina, Utah, and other states and international locations. We have successfully evaluated and implemented projects involving various modes of power generation including reciprocating engines, solar, wind, combustion turbines combined cycle plants, and others.

Recently, CTC independently assisted the West Virginia Public Service Commission Utility Division Staff, as an independent consultant, conducting a prudency review that included a Report and providing testimonies to reduce a rate increase requested by a utility by \$230 Million, which the ratepayers of WV now do not have to pay. We have the knowledge, experience, and understanding of the issues, technical and business challenges, costs, installation methods, operational and maintenance issues, and interface challenges that need to be reviewed and analyzed as required by this LPSC RFP-24-06.

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



**RECENT ASSIGNMENTS**

<b>Client</b>	<b>Description</b>	<b>Location</b>
<b>Louisiana Public Service Commission Staff</b>	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 (Dockets R-35394 and R-36226)	<b>State of Louisiana</b>
<b>Stone Pigman (Representing LPSC)</b> <b>Denton (representing CNO)</b>	Technical reviews/reports/testimony related to the Grand Gulf Nuclear Power Plant imprudence case before FERC.	<b>Grand Gulf Nuclear Power Plant</b> <b>Louisiana</b> <b>City of New Orleans</b>
<b>Mississippi Public Service Commission Staff (MPUS)</b>	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.	<b>Kemper Project Meridian, MS</b>
<b>West Virginia Public Service Commission</b>	Detailed Prudence review of costs associated with three (3) coal power plants related to disregard of direction from the Public Service Commission Orders.	<b>West Virginia</b>
<b>Cohen Milstein Law Firm</b>	Detailed Prudence and Fraud reviews associated with costs of the V.C. Summer Nuclear Power Plants	<b>South Carolina</b>
<b>Banking Lenders Group (Mizuho)</b>	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.	<b>Antofagasta Chile</b>
<b>Private Investor</b>	Conducted an independent technical evaluation and condition assessment of the transmission and distribution assets of a utility in Louisiana for potential lease or acquisition	<b>Louisiana</b>
<b>Florida Public Service Commission and FP&amp;L</b>	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	<b>St Lucie and Turkey Point Nuclear Plants and switchyards and substations</b>
<b>Mississippi Public Service Commission Staff (MPUS)</b>	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.	<b>Plant Daniel</b> <b>Mississippi</b>
<b>Independent System Operator (ISO) New England</b>	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	<b>New England States</b>
<b>US Department of Energy Loan Guarantee Program</b>	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.	<b>Various States in the US including Nevada, Arizona, Texas, California, etc.</b>



<b>Client</b>	<b>Description</b>	<b>Location</b>
<b>Office of Arkansas Attorney General</b>	Review for Prudence of actions and expenditures during forced outages for potential adjustment of customer rates for the Public Service Commission/AG Office.	<b>Grand Gulf Nuclear Power Plant Arkansas Mississippi</b>
<b>AEI Energy El Arrayan</b>	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.	<b>La Serena, Chile</b>
<b>Georgia Public Service Commission Staff</b>	Representing the Public Service Commissioners and the Ratepayers of the State of Georgia, CTC 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.	<b>Vogtle Nuclear Power Plant Units 3&amp;4 (New Construction)</b>
<b>PacifiCorp/ Rocky Mountain Power</b>	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.	<b>Red-Butte, Utah</b>
<b>X24, 69kV Transmission and Distribution Reconductoring &amp; Refurbishment Project</b>	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.	<b>Mass to Vermont</b>
<b>AEI Energy and Lenders Jaguar Energy Guatemala</b>	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.	<b>Antigua, Guatemala</b>
<b>AEI Energy Fenix Project</b>	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.	<b>Lima, Peru</b>
<b>U.S. Department of Energy (DOE) Loan Guarantee Program</b>	716 MW Integrated Gasification Combined Cycle (IGCC) – Cost, Schedule, Engineering and Construction Evaluation.	<b>Taylorville, IL</b>
<b>US Department of Energy (DOE) Loan Guarantee Program</b>	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.	<b>Bay City, TX</b>
<b>City Public Service</b>	4 LM6000 Combined Cycle units. Owner Engineer.	<b>Texas</b>



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

**ESTIMATE OF COSTS**

CTC 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 \$160.00/hour to \$425.00/hour, however, we have discounted our fees for the commission such that they range from \$135.00/hour to \$270.00/hour as shown below:

**Rate Schedule for 2024:**

<b>Position</b>	<b>Standard Rate</b>	<b>Discounted Rate For RFP-24-06</b>
<b>Senior Executive Consultant</b>	\$425	\$270
<b>Executive Consultant</b>	\$395	\$265
<b>Senior Consultant</b>	\$310	\$210
<b>Consultant</b>	\$225	\$190
<b>Construction Consultant</b>	\$255	\$210
<b>Senior Specialist</b>	\$270	\$215
<b>Specialist</b>	\$245	\$195
<b>Research and Management</b>	\$180	\$155
<b>Analyst</b>	\$160	\$135
<b>Expenses</b>	Actual Cost	Actual Cost

For this assignment, CTC has developed a cost estimate of **\$3,631,850** for the scope of services to be provided. We have included expenses of **\$120,000**. Total assignment cost not to exceed **\$3,751,850**.



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## CONCLUSIONS

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The CTC team believes that it is well qualified to provide the Staff with the independent engineering expertise, innovation, codes and standards knowledge, utility knowledge, planning, and management knowledge needed to assist Staff in completing all necessary reviews and data related to this RFP-24-06.

CTC 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. In a recent case before the West Virginia Public Service Commission, CTC issued reports recommendations, and testimonies that resulted in the reduction of \$230 Million in potential rate increases, These are costs the WV ratepayers do not have to pay.

Collectively, the CTC professionals possess a full understanding and ability to assist Commission Staff in reviewing and monitoring the performance of ELL in implementing this Resilience Plan. 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 monitoring services.

The following are some of the unique features CTC offers which result in reasonably lower costs for this assignment:

- The reviews of the scoping, safety, quality, and acquisition of resources processes and procedures pre-construction followed by CTC confirming the projects are implemented using these processes will provide a demonstration that ELL is implementing these projects prudently and at minimum costs to the ratepayers. CTC will not interfere with ELL activities, only provide monitoring services and report, on a regular basis, to the Commission and its Staff.
- Close coordination with Commission Staff, ELL and CTC personnel will demonstrate that savings can be accrued just from the improved communications.
- We all have the same goal to see that ELL complete these resilience projects successfully at minimum costs for the benefit of the Louisiana ratepayers.
- Review the publicly available webpage to see that it's achieving the ELL goal of communicating to the public.
- For the 35 projects labeled with the Program Name "Substation Flooding" or "Transmission Rebuild," with project cost estimates of more than \$1,000,000,



CTC will conduct field inspections both during the construction process and after construction completion.

- For all other projects, CTC jointly with Commission Staff will select a sample of completed projects for field inspections to be conducted after construction and ELL's quality assurance and/or quality control procedures.
- The detailed reviews of progress reports and documentation to be provided by ELL may include drone videos/photos of key projects which ELL is utilizing as part of its project management reporting. CTC will also request to use these available ELL tools to conduct its monitoring services to minimize its costs.
- CTC will see that ELL complies with any rules promulgated by the Commission, including, but not limited to those in Docket Nos. R-35394, R-36226, and R-36227.
- Review reports by ELL after MEDs and provide recommendations to Staff.
- See that ELL is successful and the interests of the Louisiana ratepayers are protected.

**PROPOSED SCHEDULE – BY TASK**

Task Schedule																		
Task	2024		2025				2026				2027				2028			
	3 QT	4 QT	1 QT	2 QT	3 QT	4 QT	1 QT	2 QT	3 QT	4 QT	1 QT	2 QT	3 QT	4 QT	1 QT	2 QT	3 QT	4 QT
1	←→																	
2		✦																
3			←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
4			←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
5	←→			←→	←→			←→	←→			←→	←→			←→	←→	
6	←→			←→	←→			←→	←→			←→	←→			←→	←→	
7	←→			←→	←→			←→	←→			←→	←→			←→	←→	
8			←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
9			←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
10			←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
11			←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
12	As Needed		←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
13	As Needed		←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→
14	As Needed		←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→



**APPENDIX A**

**Detailed Breakdown of Costs**

	Senior /Executive			Specialist			Construction & Technical			Research & Management		
	Average			Average			Average			Average		
Task	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total
1	160	\$270	\$43,200	100	\$195	\$19,500	100	\$185	\$18,500	60	\$140	\$8,400
2	160	\$270	\$43,200	100	\$195	\$19,500	100	\$185	\$18,500	0	\$140	\$0
3	1600	\$270	\$432,000	1600	\$195	\$312,000	1400	\$185	\$259,000	400	\$140	\$56,000
4	450	\$270	\$121,500	350	\$195	\$68,250	300	\$185	\$55,500	100	\$140	\$14,000
5	300	\$270	\$81,000	140	\$195	\$27,300	0	\$185	\$0	80	\$140	\$11,200
6	300	\$270	\$81,000	140	\$195	\$27,300	180	\$185	\$33,300	40	\$140	\$5,600
7	1100	\$270	\$297,000	1000	\$195	\$195,000	600	\$185	\$111,000	200	\$140	\$28,000
8	800	\$270	\$216,000	400	\$195	\$78,000	1000	\$185	\$185,000	0	\$140	\$0
9	200	\$270	\$54,000	160	\$195	\$31,200	0	\$185	\$0	100	\$140	\$14,000
10	100	\$270	\$27,000	80	\$195	\$15,600	100	\$185	\$18,500	0	\$140	\$0
11	100	\$270	\$27,000	100	\$195	\$19,500	80	\$185	\$14,800	100	\$140	\$14,000
12	160	\$270	\$43,200	100	\$195	\$19,500	80	\$185	\$14,800	100	\$140	\$14,000
13	600	\$270	\$162,000	120	\$195	\$23,400	120	\$185	\$22,200	0	\$140	\$0
14	650	\$270	\$175,500	120	\$195	\$23,400	100	\$185	\$18,500	100	\$140	\$14,000
	6680		\$1,803,600	4510		\$879,450	4160		\$769,600	1280		\$179,200
<b>Total all Task Work</b>										<b>\$3,631,850</b>		
Expenses = Twenty (20) Trips at \$2000/Trip = \$40,000; site visits at \$1000/Visit = \$80,000										80	<b>\$120,000</b>	
<b>TOTAL ESTIMATED COST</b>										<b>\$3,751,850</b>		



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**APPENDIX B**

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**Key Personnel Bio's or Resumes**

(Where BIOs are shown, Resumes have been sent previously or are known by the LPSC)



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**BEN HILL - BIO**

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**President/Senior Executive Consultant**

*Bachelor of Science, Business Management – Stony Brook University*

*Certificate in Construction Project Management: University of Florida*



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.

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**ALBERT FERRER - BIO**

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**Executive V P – Independent Engineering & Consulting  
/ Project Director**



**Al Ferrer, Executive VP, BS Mechanical, MS Nuclear Eng.**

With over 40 years of professional experience in the US and international power and water industry, Mr. Ferrer manages our Worldwide Consulting Sector. He has extensive experience in Engineering, Independent Engineering, Due Diligence, Acquisition Services, Industry Plant Performance improvement, Operational Risk Management, Upgrades and Life Cycle Extensions, and numerous other services. He has directed and executed Projects in the US, Canada, Brazil, Mexico, Malaysia, Indonesia, Thailand, Japan, Korea, Peru, Chile, and Guatemala. He has experience implementing desalination, nuclear, gas, and combined cycle,



biomass and biogas, geothermal, IGCC, circulating fluid bed, renewables such as solar, wind both offshore and onshore, and other industrial plant renewable generation technologies such as biodiesel, biogas, and algae-based fuels. He has directed and executed work in the US and worldwide. He has implemented various utility grade solar facilities of up to 150 MW and conducted due diligence on solar plants of up to 250 MW. He holds a BS in Mechanical Engineering and a MS in Nuclear Engineering and has participated in Executive Management Educational Programs.

Mr. Ferrer has been key to the Minera Spence project in maintaining an open and independent point of view on all the challenges Minera Spence Desal Project has experienced. He can be an invaluable asset in assisting the Lenders and Caitan achieve COD.

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### **CONSTANTINOS (DINOS) NICOLAOU - BIO**

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#### **Exec VP/Executive Consultant**



#### **Dinos Nicolaou, CTC-VP, MBA**

Has over 40 years of experience in all areas of project controls, Financials, Earned Value Management System, Cost, Planning and Scheduling, Scope Control, and Risk Management for all phases of a project, at home and in field offices. His background encompasses several industries with most in power generation including Nuclear, and transportation projects. He has reported to all levels of Management including Presidents of major Companies and Deputy Secretaries (DOE)

He has been an Executive Consultant representing the Public Service Commission of Mississippi, Arizona, and Georgia and Attorney General for the State of Arkansas as an Independent Monitor on a multi-billion-dollar projects. He has been part of and led External Independent Reviews and Independent Cost estimates for DOE for 15 years throughout the USA.



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**CHRISTOPHER JUSTIN - PE**

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**Senior Consultant**

**THE PENNSYLVANIA STATE UNIVERSITY**, *University Park, Pennsylvania*  
August 2005 – May 2009  
*B.S. degree in Chemical Engineering graduated with honors in May 2009*

**LICENSED PROFESSIONAL ENGINEER (#38632)**, *Louisiana*



ENERGY EFFICIENCY CONSULTANT, *Emergent Grid Solutions*  
*Plan Your Energy*

Applied for the Department of Energy's Buildings Upgrade Prize. Created an in-depth plan to address the non-technical barriers to the adoption of energy efficiency (EE) upgrades in Louisiana

Obtained Letters of Support from the New Orleans Office of Resilience & Sustainability, Louisiana Housing Corporation (LHC), Greater New Orleans Interfaith Climate Coalition (GNOICC), Housing NOLA, A/C Ambulance, Feed the Second Line, etc.

Presented Home Energy Rebates opportunity to the Southeast Louisiana Coalition of the Air Conditioning Industry (SELACACI) board; surveyed members about EE upgrades.

Assisting the Department of Energy & Natural Resources (DENR) in developing federal programs compiling best practices for rebate implementation and advising DENR and LHC on how to maximize program efficacy. Educating community stakeholders (GNOICC, Together Louisiana, etc...) and business leaders (SELACACI) on Home Energy Rebate programs. Assisting Louisiana Public Service Commission in reviewing energy efficiency programs.

Researching cost-effectiveness and energy savings from EE programs in other states and comparing them with Louisiana's EE programs. Met with several Commissioners and Staff to advise on braiding EE programs.

Redlined RFQ and RFP for selection of Program Administrator.

Helping midsize businesses develop and implement their growth marketing strategies.

**REFINERY PLAN IMPLEMENTER, PROCESS ENGINEER**, *Motiva (Shell/Saudi Aramco), Norco Refinery*



Calculated Solomon Energy Intensity Index (EII) for the refinery.

Compared site's actual energy consumption vs "standard" energy consumption for a refinery of similar size and configuration and helped inform site leadership on which opportunities to prioritize in order to maximize return on investment for energy saving projects.

Managed 24/7 business direction based on changing schedules and unit operating capabilities.

Directed Production Unit Managers toward the attainment of Daily Operating Plans and Summarized key activities daily for Motiva CEO and Site Leadership Team.

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### **DWAYNE TEMPLET - BIO**

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#### **Construction Specialist**



Forty years of experience in overseeing multimillion-dollar construction and maintenance projects. Experience includes construction management, project management, QA/QC management, task management, electrical and instrumentation inspection and directly managing crews of up to 200 in a variety of projects. Backed by a proven history of on-time, on-budget, and high-quality project completion. Expertise includes EPCM and Self-Perform covering Turnkey Grass Roots, Unit Expansions, Capital Improvements and Outage/Turnarounds, Oil and Gas Power, Nuclear Power, Petro-Chemical, Crude, Oil and Gas

Fractionators, Hydrocrackers, Tank Farm, River Docks, and many more including various chemical and acid units.



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**REGINALD S. GAGLIARDO – PE - BIO**

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**Executive Consultant**



**Reg Gagliardo, VP - Consulting, P.E.**

Over 40 years of extensive technical and project management experience in providing services for nuclear and non-nuclear power generating stations, industrial plants, and DOE facilities. This experience includes senior-level positions for the leadership, direction, and development of the engineering, procurement, construction support, project controls, quality assurance, and information technology divisions. Expertise includes management, planning, and execution of projects; project scope, budget, and schedule development, monitoring, and maintenance; project performance turn-around; assurance of work quality; assessment, training, and development of personnel; preparation and improvement of work processes, standards, and procedures; and business strategy and development initiatives. During his career, he has served in as a senior management representative on several LLCs and in industry groups. He is a Life Senior Member of the Institute of Electrical and Electronics Engineers and a Member of the American Nuclear Society.

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**CHRISTOPHER HILL - BIO**

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**Senior Specialist**



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 an 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.



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**MICHAEL TOMADAKIS, PE - BIO**

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**Consultant**

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.

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**RAM K. SAINI, PE - BIO**

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**Consultant**

Over 45 years of experience in the engineering and design of electrical systems in the United States of America with Burns and Roe & Power Engineers, Inc. on the Power Generation and High Voltage Power Delivery Projects. Supervised and managed the development of conceptual and detailed electrical engineering and design documents for:

Mew and retrofit of existing power generation facilities including nuclear, coal-fired, combustion gas, waste-to-energy, compressed air energy storage, ocean thermal energy (OTEC) and wind turbine generation projects, solar power plants, and battery energy storage system projects.

Engineering and Design of High Voltage AC and AC/DC Converter Station Projects conforming to National and Regional Grid Codes and allowing inter-regional power exchanges. Prepared Generator Interconnection Applications for Independent System Operators (ISOs) and reviewed and provided comments on Feasibility Studies, System Impact Studies, Facility Studies, and HV system upgrade costs performed and submitted by ISOs for interconnection of new power plants to high voltage transmission systems. Performed on-site inspections of new and existing project facility sites and prepared Due Diligence Reports.



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**ROSALIE MANNARINO - BIO**

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**Research and Management**



**Rosalie Mannarino, CPA**

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's successful team in the support of detailed analysis, modeling, and reporting actual cost associated with capital expenditures on major projects in which CTC 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 in the Nuclear Power arena.