BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

***IN RE*: APPLICATION OF ENTERGY LOUISIANA, LLC FOR RECOVERY IN RATES OF COSTS RELATED TO HURRICANE IDA AND FOR RELATED RELIEF**	)))))	**DOCKET NO. U-** 36350

DIRECT TESTIMONY

OF

JASON E. WILLIS

ON BEHALF OF

ENTERGY LOUISIANA, LLC

APRIL 2022

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EXHIBIT LIST

I. INTRODUCTION AND QUALIFICATIONS

Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is Jason E. Willis. My business address is 2107 Research Forrest Dr, The Woodlands, TX 77380. I am employed by Entergy Services, LLC ("ESL")[1] as Vice President, Power Plant Operations.

Q2. ON WHOSE BEHALF ARE YOU SUBMITTING THIS DIRECT TESTIMONY?

A. I am submitting this Direct Testimony on behalf of Entergy Louisiana, LLC ("ELL" or the "Company").

Q3. HAVE YOU TESTIFIED BEFORE A REGULATORY COMMISSION BEFORE?

A. Yes. I have previously submitted testimony to the Public Utility Commission of Texas Docket No. 51997.

Q4. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I earned a Bachelor of Science degree in Nuclear Engineering Technology from Thomas Edison State University and a Master of Arts degree in Management from the University of Alabama. I also spent nine years in the United States Navy where I served as an Engineering Watch Supervisor and Instructor with the Navy Nuclear Power Program.

[1] ESL is an affiliate of the five Entergy Operating Companies ("EOCs") and provides administrative and support services to the EOCs. The five EOCs are Entergy Arkansas, LLC; Entergy Louisiana, LLC; Entergy Mississippi, LLC; Entergy New Orleans, LLC; and Entergy Texas, Inc.

After my time in the Navy, I spent over eight years working for Susquehanna Nuclear in various roles. First, I served as a Control Room Supervisor and Refueling Team Supervisor where I directed and supervised nuclear power plant operations during routine and abnormal conditions. Subsequently, I served as the Operations Outage Manager where I coordinated, planned, and executed the refueling and inspection outages for a nuclear facility consisting of two units.

In 2015, I was promoted to the Operations Shift Manager for this same Susquehanna two-unit nuclear facility. I oversaw a crew that managed and operated the facility. Finally, during 2016-2017, I spent eighteen months as Assistant Operations Manager, supporting the Operations Manager to operate six crews and off-shift support staff to operate the day-to-day functions of the nuclear facility.

I left Susquehanna in August 2017 and joined Southern Nuclear as the Leader in Training and Assistant to Plant Manager and Recovery Manager until July 2018. In this capacity, I led the nuclear station team's development of action plans to improve behaviors that led to a better-functioning nuclear station.

Subsequently, in August 2018, I joined Entergy as Senior Manager, Operations for the Cooper Nuclear Station in Brownville, Nebraska, where I was responsible for the safe and reliable operation and maintenance of the station. Within six months of taking this position, I led my team to the top in fleet from the last place in fleet out of eight fleet components. Based upon my track record at Cooper Nuclear Station, I was promoted to Vice President of Power Plant Operations in May 2020 where I was responsible for Entergy Texas, Inc.'s service territory prior to assuming my current role.

Q5. PLEASE DESCRIBE YOUR CURRENT JOB RESPONSIBILITIES.

A. As the Vice President, Power Plant Operations, I am responsible for the safe, compliant, and reliable operation of our generation fleet including the strategic planning for all assets across our Louisiana service territory.

Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony summarizes the effect of Hurricane Ida on the power generation assets of ELL and the Company's efforts to restore the generating capability of our power generation facilities following these storms. I quantify the specific costs incurred through March 31, 2022, as well as estimated future costs necessary to address the storm's impact on the Company's power generation resources, and I provide support for the conclusion that these costs are reasonable and necessary.

II. EFFECT OF HURRICANE IDA ON ELL'S FOSSIL AND NUCLEAR FUELED GENERATION ASSETS

Q7. PLEASE SUMMARIZE THE DAMAGE THE ELL FOSSIL FUELED UNITS INCURRED AS A RESULT OF HURRICANE IDA.

A. Hurricane Ida made landfall near Port Fourchon, Louisiana on August 29, 2021. Hurricane Ida affected five generating plant sites owned and operated by ELL. These plants are located near Montz, Westwego, and Killona and includes the J. Wayne Leonard Power Station, Little Gypsy, Ninemile Point (Units 4 and 5), Ninemile (Unit 6), and Waterford (Units 1, 2, 3, and 4).

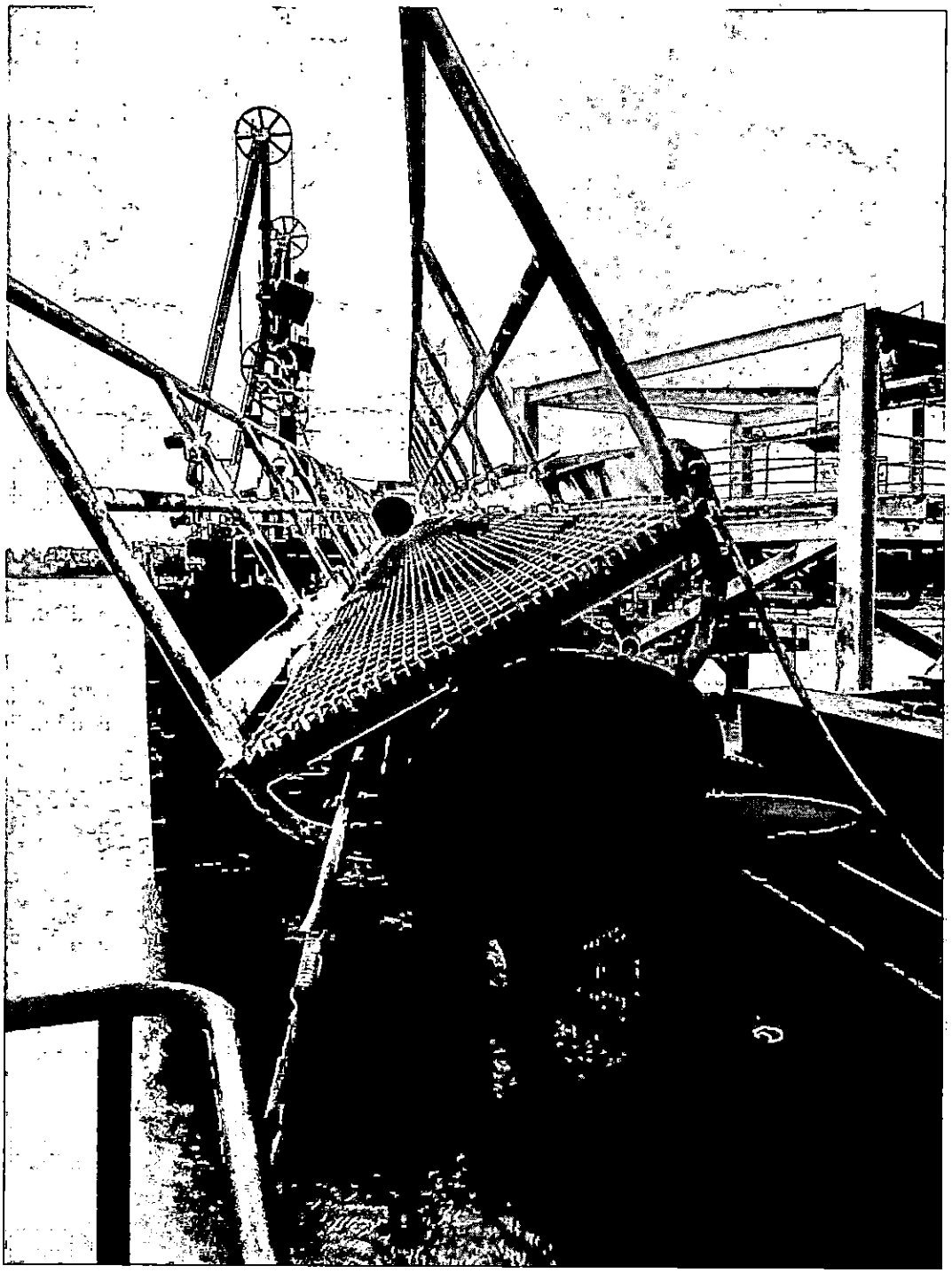
J. Wayne Leonard Power Station suffered moderate wind damage to, among other things, its combustion turbine air intake shroud, cooling tower structure, and administrative and ancillary buildings. Little Gypsy suffered significant damage as a result of wind and water intrusion, with significant restoration work needed for its elevators, fan house lagging, roof repairs/replacements, conditioners, roll up doors, building interiors, building accessories, furniture, window and door replacements, telemetry house rebuild, plant gates, plant signage, and other items.

Photograph 1 – Damage to J. Wayne Leonard Power Station

Ninemile Point Units 4 and 5 suffered moderate wind damage to, among other things, its boiler lagging and roofing, its critical HVAC systems, and field control components. Ninemile Point Units 4 and 5 also experienced water intrusion which damaged its distributed electrical control system electrical cabinets and components. Ninemile Unit 6 experienced moderate wind damage to, among other things, its heat trac, boiler pump feed doors, control room roof, and turbine house siding. Ninemile Unit 6's generator's exciter thyristor was also moderately damaged by water intrusion.

The Waterford fossil fueled facilities experienced significant damage from wind, water intrusion, and debris from the Mississippi river. Waterford Units 1 and 2 experienced significant damage to their control room and relay room as well as all elevators. Numerous buildings associated with Waterford Units 1 and 2 also experienced significant roof damage. Waterford Unit 4 experienced moderate damage to its cable tray and instrumentation. Additionally, the Waterford dock was damaged by river debris and a number of site vehicles were completely destroyed.

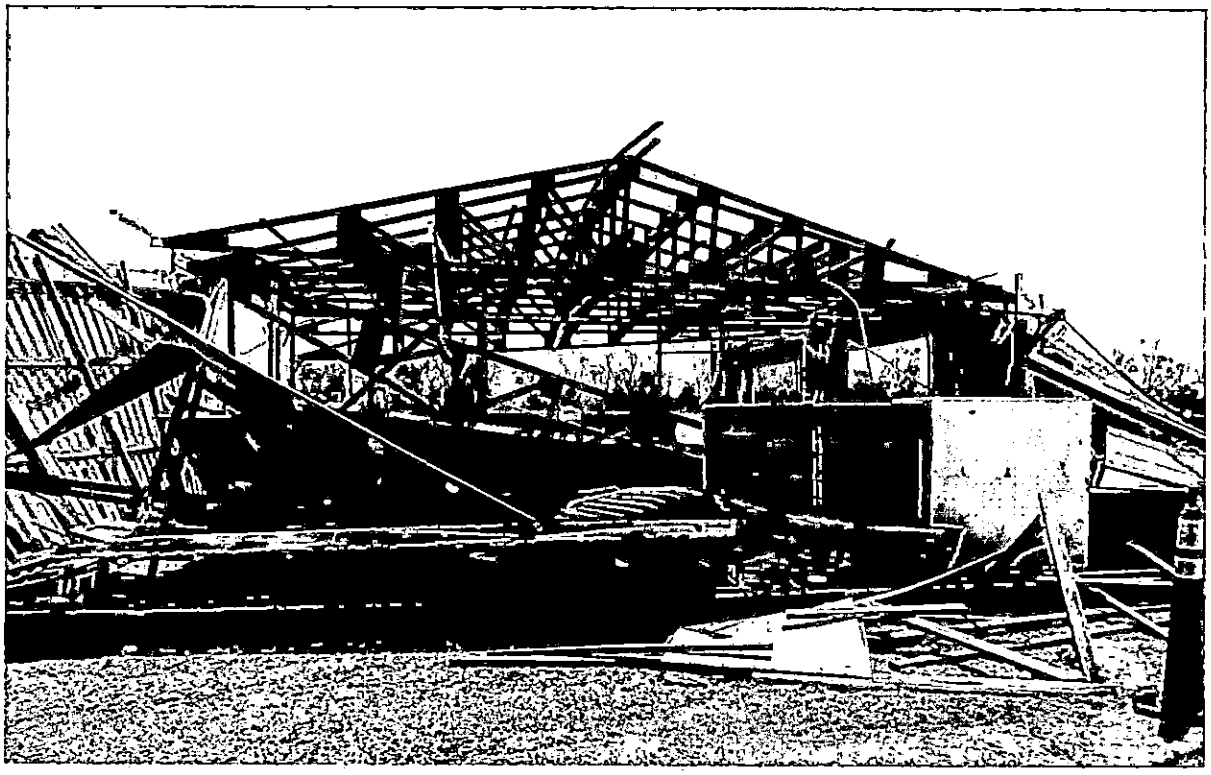
Photograph 2 – Damage to the Waterford Facility Dock



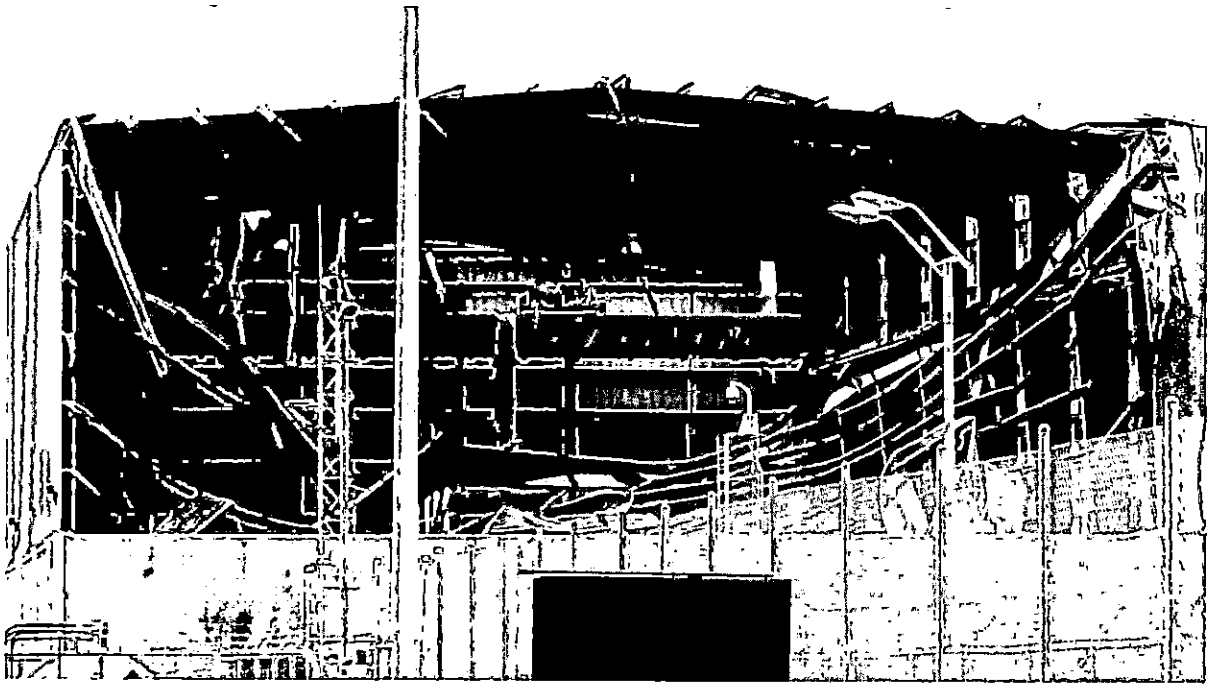
Q8. PLEASE SUMMARIZE THE DAMAGE THE ELL NUCLEAR FUELED UNITS INCURRED AS A RESULT OF HURRICANE IDA.

A. Although significant, the damage to the Waterford 3 nuclear plant was limited to ancillary or auxiliary structures and did not impact any critical operational facilities. The plant suffered major damage to 35 support facilities at the station. These include administrative buildings, warehouses, and testing facilities needed to support operation of the nuclear plant. There was minimal damage to the generating portion of the plant and the wind damage did not impact the ability to operate or safely shutdown the unit. The major buildings damaged at Waterford 3 include the low-level radiation waste building, the Maintenance Support Building, the West Side Access Building, and the Generation Support Building.

Photograph 3 – Damage to Waterford 3 Ancillary Facilities



Photograph 4 – Damage to Waterford 3 Ancillary Facilities



Q9. DID THE DAMAGE CAUSED BY HURRICANE IDA REQUIRE REPAIRS TO UNITS THAT WERE NOT IN AN OPERATIONAL STATUS AT THE TIME OF THE STORM?

A. Yes. As detailed above, the facilities at Waterford Unit 1 sustained significant damage as a result of Hurricane Ida. The Company has performed limited repairs on the facility to ensure no immediate safety risks exist, however the Company has not engaged in more significant repairs that would be needed if the unit were to be returned to operational status.

III. ELL'S STORM PREPARATIONS AND RESTORATION

Q10. PLEASE DESCRIBE ELL'S PLANNING TO ADDRESS MAJOR STORMS AND ITS ACTIVITIES PRIOR TO LANDFALL OF HURRICANE IDA.

A. Prior to landfall of Hurricane Ida, Power Generation Operations activated its Emergency Response Center in The Woodlands, Texas. This Emergency Response Center operated as a command center that maintained communications with the ELL power generation plants, all other EOC plants, and the System Command Center in Jackson, Mississippi. In addition, the Emergency Response Center supported emergency situations at the power generating facilities impacted by Hurricane Ida and assisted the plants' personnel in restoration activities, such as securing and coordinating requested material, supplies, and contractors. The Emergency Response Center was manned by Power Generation Operations personnel, ESL management personnel, and other ESL staff personnel during each hurricane. Power Generation also maintained an ESL management employee in the System Command Center to assist with communication between the Emergency Response Center in The Woodlands and the System Command Center in Jackson.

Similarly, the Nuclear Incident Commander staffs the System Command Center with members of the management team from nuclear headquarters in Jackson, Mississippi. Staffing assignments and levels at the System Command Center in advance of approaching storms is based on guidance found in the Storm Incident Specific Response Plan, Nuclear. This team embedded at the System Command Center assists the potentially effected units with storm response, communications, and resources as needed by the station.

Ahead of landfall of Hurricane Ida, the Little Gypsy plants and Waterford 3 were proactively shutdown. The Little Gypsy plants were shut down ahead of landfall to place the units in a safe condition and evacuate personnel to a safe location. Waterford 3 was proactively shutdown because the Waterford 3 Emergency Plan requires the nuclear unit to be shut down and cooled down prior to hurricane force winds (75 miles per hour sustained winds) being experienced at the station boundary. This shutdown and cooldown were performed in accordance with our emergency plan guidance. Personnel were sequestered at the station to ensure safe shutdown of the unit.

Q11. WHAT OTHER PLANNING PREPARATIONS DID ELL MAKE TO ADDRESS THE MAJOR STORM ACTIVITIES PRIOR TO THE LANDFALL OF HURRICANE IDA?

A. Prior to the storms, ELL's plants activated their Emergency Hurricane Procedures, which describe what must be accomplished in anticipation of a hurricane. These procedures provide a timeline and triggers for coordinating preparation in advance of a tropical storm or hurricane. Roles and responsibilities, as well as preparation checklists, are detailed to ensure that the plants and personnel are ready for storm conditions.

Q12. WHAT WERE THE SPECIFIC TASKS REQUIRED TO RESTORE OR REPAIR THE DAMAGED GENERATION RESOURCES?

A. As detailed above, the majority of units' damage by the storm only required relatively minor repairs or clean-up in order to return the units to service. The units which experienced more significant damage could not have a portion of their post-storm repairs completed until after the units were back in service. One of the more difficult tasks required to restore the damaged generation resources after Hurricane Ida was the acquisition of temporary generators of adequate size to supply power to and test all of ELL's equipment at the generation facilities. ELL utilized a number of personnel from its generation fleet and contract personnel to supplement existing staff in order to return units to service as soon as possible after the storms and to assist in post-storm repairs. One additional complication ELL was forced to deal with in making these repairs was to ensure that all COVID-19 safety protocols were strictly followed. Company witnesses Phillip R. May, John W. Hawkins, Jr., and Michelle P. Bourg provide more detail regarding the challenges faced by the Company during its restoration efforts in their Direct Testimonies.

Q13. PLEASE DESCRIBE HOW THE COMPANY WAS INVOLVED IN PROVIDING FIRST LIGHT TO THE GREATER NEW ORLEANS AREA.

A. As described in detail in the testimonies of Mr. May, Ms. Bourg, and Mr. Hawkins, the Company was able to return first light to the greater New Orleans area within 48 hours following Hurricane Ida passage through the area. Power Generation was able to support this significant effort by returning our generation units to operational status so that generation could meet load as soon as it came online. Critical to this effort was Ninemile

Unit 6, which in conjunction with Entergy New Orleans's New Orleans Power Station, provided initial generation to the area, allowing the region to build load and return customers to service. These two units were also instrumental in providing much needed stability to the broader electric system.

IV. RESTORATION COSTS

Q14. WHAT WERE THE TOTAL GENERATION RESTORATION AND RECONSTRUCTION COSTS RELATED TO HURRICANE IDA?

A. As a result of Hurricane Ida, ELL seeks approval of the following generation-related restoration and reconstruction costs:

Table 1

	Costs Incurred Through March 31, 2022	Estimated Costs to be Incurred After March 31, 2022	Total Restoration and Reconstruction Costs
Fossil	$24,291,139	$1,628,374	$25,919,513
Nuclear	$43,737,749	$24,834,823	$68,572,572
Total	$68,028,888	$26,463,197	$94,492,085

These dollar amounts are reflected in Exhibit JEW-1 and in the cost summary presented by Company witness Sarah M. Harcus as Exhibit SMH-1 to her Direct Testimony.

Q15. WHY HAS ELL INCLUDED ESTIMATED COSTS IN ITS TOTAL REQUESTED AMOUNTS?

A. ELL has included estimated costs in its total requested amounts because there are specific projects that have not been completed as of March 31, 2022 that are necessary to repair or

replace facilities damaged by Hurricane Ida. A summary of the estimated costs has been included on Exhibits JEW-2 and JEW-3.

Q16. WHAT ARE THE CATEGORIES OF COSTS INCLUDED IN THE TOTAL REQUESTED AMOUNT?

A. As shown in Exhibit JEW-1, the restoration costs outlined above have been assigned to one of five major categories, which are: (1) Materials, (2) Contract Work, (3) Labor, (4) Employee Expenses, and (5) Other. A general description of what costs are assigned to each of these categories is available in Ms. Harcus's Direct Testimony.

Q17. CAN YOU DESCRIBE HOW THE COMPANY HAS ACCOUNTED FOR THESE COSTS AND ENSURED THAT NO NON-STORM COSTS HAVE BEEN INCLUDED?

A. Ms. Harcus's Direct Testimony discusses how the Company has accounted for these costs and ensured that no non-storm costs have been included in the amounts discussed above.

Q18. WERE THE GENERATION-RELATED EXPENSES INCURRED BY THE COMPANY TO ADDRESS DAMAGES CAUSED BY HURRICANE IDA REASONABLE AND NECESSARY?

A. Yes. The generation costs presented by ELL in this filing were all reasonable and necessary to ensure that generation was and will be available when needed by the Company's customers and to address the impact caused by Hurricane Ida to ELL's generation facilities. When electrical power systems experience a major system outage, as was the case when the Company's service area was struck by this storm, generation, transmission, and

distribution must be restored to service in conjunction with one another, which takes time and careful coordination. Power Generation works to have the units ready to resume operations once transmission and distribution are ready for the units to begin generating. Under the circumstances, ELL was able to quickly return the fossil-fueled and nuclear-fueled generation units damaged by these storms to service for its customers. The costs ELL incurred in restoring these generation plants were reasonable and necessary.

Q19. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, at this time.

AFFIDAVIT

STATE OF TEXAS

COUNTY OF MONTGOMERY

NOW BEFORE ME, the undersigned authority, personally came and appeared, **Jason Evan Willis**, who after being duly sworn by me, did depose and say:

That the above and foregoing is his sworn testimony in this proceeding and that he knows the contents thereof, that the same are true as stated, except as to matters and things, if any, stated on information and belief, and that as to those matters and things, he verily believes them to be true.

Jason Evan Willis

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 12th **DAY OF APRIL, 2022**

Carol Tompkins

NOTARY PUBLIC

My commission expires: February 1, 2025

CAROL TOMPKINS
My Notary ID # 130989368
Expires February 1, 2025

Summary of Generation Storm Costs for Hurricane Ida

Description	Power Generation	Nuclear	Total
Direct			
Contract Work	$ 16,746,799	$ 29,520,586	$ 46,267,385
Employee Expenses	48,158	192,693	240,852
Labor	978,023	-	978,023
Materials	2,332,166	3,484,228	5,816,394
Other	3,386,508	6,332,068	9,718,577
ESL Billings	528,205	4,091,074	4,619,278
Loaned Resources	271,279	117,100	388,379
	24,291,139	43,737,749	68,028,888
Uninvoiced Mutual Assistance	-	-	-
Total Costs incurred as of 3/31/2022	24,291,139	43,737,749	68,028,888
Estimated Costs	1,628,374	24,834,823	26,463,197
Total Storm Costs	$ 25,919,513	$ 68,572,572	$ 94,492,085
Capital	1,077,507	46,321,864	47,399,371
O&M / Other	24,842,006	22,250,708	47,092,714
Total Costs	$ 25,919,513	$ 68,572,572	$ 94,492,085

Estimated Cost Detail for Hurricane Ida (Power Generation)

Vendor Name	Cost	Service Provided
ATLAS SERVICES INC	451,960	Construction
VECTA ENVIRONMENTAL SERVICES LLC	400,000	Construction
UNSELECTED VENDOR	231,663	Construction, Rentals, Signs
REVENEW INTERNATIONAL LLC	225,000	Storm Cost Audit
MARVIN ELECTRIC	100,650	Electrical Services
NATIONAL BUSINESS FURNITURE	53,000	Office Furniture
TRAINA MECHANICAL INC	49,078	Facilities
BENGAL CRANE AND RIGGING LLC	31,912	Equipment Rental and Operation
UNITED RENTALS NORTH AMERICA INC	21,932	Equipment Rental
CITIBANK USA NA	19,007	Various
GRAINGER INC	13,624	Office Item Replacement
WASTE MANAGEMENT NATIONAL SERVICES INC	7,890	Equipment Rental
SATELLITE SHELTERS INC	7,234	Equipment Rental
AD GRAPHICS	7,000	Plant Signs
EXCEL CONTRACTORS LLC	5,424	Construction
AMERICAN METAL FAB, INC	3,000	Facilities
Total Estimated Costs	1,628,374	

Estimated Cost Detail for Hurricane Ida (Nuclear)

Vendor Name	Cost	Service Provided
OUTTA-HAND CONSTRUCTION LLC	12,820,930	Construction
DAY & ZIMMERMANN NPS INC	3,516,939	Misc Labor
GRAINGER INC	1,835,120	Misc Material Purchases
MATRIX BUSINESS CONCEPTS LLC	887,237	PM Support
STAR SERVICE INC (NEW ORLEANS)	781,010	HVAC Repairs
MARVIN'S ELECTRIC SERVICE INC	701,511	Electrical Support
UNITED RENTALS NORTH AMERICA INC	474,275	Misc Equipment Rentals
LION TECHNOLOGY INC	394,545	Relocating/Purchasing Conference Equipment
WESCHLER INSTRUMENTS	379,528	Simulator Instrumentation
REGAL CONSTRUCTION LLC	329,570	Construction
ERS RENTAL SOLUTIONS LLC DBA ENERGY	301,209	Generator Rentals
HENNIGAN ENGINEERING CO INC DBA	224,554	Misc Labor and VAC Truck Rentals
SHADOWTECH LABS INC	214,438	SOCA Intrusion Detection Equipment
IES INDUSTRIAL ELECTRONIC SERVICES LTD	212,653	Audio Conferencing System
ATOS IT SOLUTIONS AND SERVICES INC	195,983	IT Support
WILLIAMS SCOTSMAN INC	183,284	Trailer Rentals
CIVIL CONSTRUCTION CONTRACTORS LLC	135,528	Construction
KASS GLASSWORKS LLC	131,904	Glass Repairs/Replacements
PRO FIRE & WATER RESTORATION COMPANY	129,028	Debris Removal
TELEDYNE BROWN ENGINEERING	124,638	Radioanalytical Services
KONECRANES INC	122,126	Evaluation of Crane Condition
ENERGYSOLUTIONS INC	122,126	Rad Waste Disposal
BHI ENERGY I SPECIALITY SERVICES LLC	122,126	RP Personnel Support
STRUCTURAL INTEGRITY ASSOC	113,984	Design Evaluation
CITIBANK NA	113,122	Various
NU-LITE ELECTRICAL WHOLESALERS	82,321	Lights
DELTA DOOR & HARDWARE INC	78,720	Doors
SISODRA LODGING DBA LAPLACE MOTEL	40,504	Lodging for Roofers
AUSTIN MOHAWK AND COMPANY LLC	29,135	Security Out Building Materials
INVERIS TRAINING SOLUTIONS INC FKA	13,035	Troubleshoot Firing Range Computer System
BROWN INDUSTRIAL CONSTRUCTION	12,139	Berm Repairs
BEAR COMMUNICATIONS INC	11,600	Firing Range Materials
Total Estimated Costs	24,834,823	