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PROJECT NO. 32182

PUC INVESTIGATION OF  
METHODS TO IMPROVE  
ELECTRIC AND  
TELECOMMUNICATIONS  
INFRASTRUCTURE TO MINIMIZE  
LONG TERM OUTAGES AND  
RESTORATION COSTS  
ASSOCIATED WITH GULF COAST  
HURICANES

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PUBLIC UTILITY COMMISSION

OF

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**AEP TEXAS CENTRAL COMPANY, TEXAS NORTH COMPANY, AND  
SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO  
COMMISSION STAFF'S REQUEST FOR AN UPDATE TO 2006 SUBMITTAL  
ON VEGETATION MANAGEMENT AND GROUND-BASED INSPECTIONS  
FOR OVERHEAD FACILITIES, AND TO PROVIDE INVENTORIES OF  
TRANSMISSION LINES WITHIN FIFTY MILES OF THE TEXAS COAST**

**DECEMBER 1, 2008**

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**PROJECT NO. 32182**

<b>PUC INVESTIGATION OF</b>	<b>§</b>	
<b>METHODS TO IMPROVE</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>ELECTRIC AND</b>	<b>§</b>	
<b>TELECOMMUNICATIONS</b>	<b>§</b>	<b>OF</b>
<b>INFRASTRUCTURE TO MINIMIZE</b>	<b>§</b>	
<b>LONG TERM OUTAGES AND</b>	<b>§</b>	<b>TEXAS</b>
<b>RESTORATION COSTS</b>	<b>§</b>	
<b>ASSOCIATED WITH GULF COAST</b>	<b>§</b>	
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**AEP TEXAS CENTRAL COMPANY, TEXAS NORTH COMPANY, AND  
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TRANSMISSION LINES WITHIN FIFTY MILES OF THE TEXAS COAST**

NOW COMES AEP Texas Central Company, AEP Texas North Company (together "AEP Texas"), and Southwestern Electric Power Company (collectively, the "AEP Companies") and files this informational report in response to Commission Staffs request in a letter from David Featherston, Director of Infrastructure and Reliability Division, dated October 15, 2008.

**I. Distribution line Vegetation Management and Ground-based Inspection**

The AEP Companies' vegetation management program is essentially the same as reported in the filing submitted to the Public Utility Commission of Texas (PUC or Commission) in September 2006.<sup>1</sup> The vegetation management program includes work plans that are long-term (multiple years) and contain specific work prescriptions. An effective prescription includes:

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<sup>1</sup> Please see the AEP Companies' Response to the Commission Staff's August 22, 2006 Memorandum filed on September 29, 2006 as Item No. 147 on the Commission's Interchange for further description of the AEP Companies' vegetation management program.

1. the type of treatment (mechanical, manual, herbicidal) to be used based on tree types and environmental conditions,
2. A priority and schedule of treatment by line/circuit; and
3. Consideration of the cost of the treatment prescribed.

Overhead facilities are inspected on a 5-year cycle. The program consists of a visual inspection of poles, conductors, and pole-mounted equipment (transformer, regulators, reclosers, capacitors, etc.) and related materials (insulators, brackets, terminations, cutouts, surge arresters, etc.). It also includes inspection for foreign attachments (CATV, telephone, etc.) to the Companies' poles to assess any potential safety, electrical, or mechanical deficiencies. All safety, electrical, and mechanical deficiencies observed are noted and the appropriate corrective action is taken.

During 2007, AEP Texas inspected 14,029 miles of distribution line and performed vegetation management on 1,070 miles of distribution line. To date in 2008, it has inspected 10,363 miles of distribution lines and performed vegetation management on 1,140 miles of line.

During 2007, Southwestern Electric Power Company inspected 1,554 miles of distribution lines, and performed vegetation management on 498 miles of distribution line. To date in 2008, it has inspected 1,243 miles of distribution lines and performed vegetation management on 383 miles of line.

## **II. Transmission Line Vegetation Management and Ground-based Inspections**

The AEP Companies' vegetation management and ground-based inspection program as it relates to transmission facilities remain essentially the same as reported in September 2006. The guidelines that the AEP Companies follow in their inspection

scheduling, however, have been slightly modified in order to provide, in most cases, more frequent inspections of transmission facilities. The AEP Companies believe that the modification in inspection frequency is beneficial towards the reliability of the transmission system by providing more up to date information on the integrity of the transmission facilities inspected. The inspection guidelines are provided in more detail in the table below.

Within their transmission rights-of-way (ROW), the AEP Companies conduct a vegetation management program, which is an integrated program utilizing a variety of management techniques. Maintenance of transmission ROW does not occur on a rigid “cycle” basis in which maintenance of transmission ROW is scheduled based on the time since last trimming in the ROW; rather, the maintenance is through the implementation of a comprehensive, systematic integrated vegetation management (IVM) program designed to insure that the vegetation along each transmission line is managed at the proper time and in the most cost-effective and environmentally sound manner.

Vegetation on AEP’s transmission system is managed on a prescriptive basis. Ongoing evaluation of the system through ground and aerial inspections by both Transmission Line and System Forestry personnel, together with guidance from the program objectives, provides the basic information used by System Forestry to develop its annual plan. Circuit criticality, historical data, line voltage, location, vegetative inventory information and land use are among the items considered when developing the annual vegetation management plan. These plans are dynamic during the year as a result of vegetation patrols and changing conditions. As succession occurs within the plant communities along the rights-of-way, these annual work prescriptions will change

based on the sizes and types of vegetation present. Specific annual prescriptions may also address isolated locations requiring “yard tree” trimming and the removal of danger trees outside the maintained right-of-way or control of fast growing brush before the circuit is again maintained in its entirety. AEP’s Forestry Operations staff and its contractors continuously work to insure the appropriate prescription is utilized to maximize effectiveness and efficiency.

AEP Forestry Operations is a centralized organization that employs or contracts degreed foresters. Certified utility line clearance contractors provide the labor force for the ground based clearing and herbicide applications. FAA-licensed aerial contractors provide patrol, side trimming and herbicide application services. Contract work is designated and inspected by AEP foresters to ensure that the work is complete, performed in a timely manner, to AEP and industry standards, at reasonable cost, and with courtesy to property owners and to the public. Foresters travel throughout their assigned regions of the AEP companies to accomplish these tasks.

AEP seeks to insure through inspection and maintenance of its transmission system that the transmission lines perform their functions safely and provide optimum service and reliability to our customers. AEP utilizes periodic line inspections to observe and report the present physical condition of the transmission line and ROW. AEP’s inspection program, as shown in the table below, provides information on the general condition of the transmission system, in addition to indicating areas requiring immediate corrective action. Items found during routine inspection that require urgent attention are scheduled as soon as possible for repair. Inspections can also reveal certain trends, such

as increasing structure or hardware deterioration that are taken into consideration for future planning, budgeting and scheduling of resources.

AEP's line inspection program for its transmission facilities utilizes the following guidelines:

Inspection Program	Facilities Included	Recommended Minimum Frequency (See Note 1)
Routine Aerial Inspection	All Lines	Once per year
Comprehensive Inspection	Wood Structures (coastal areas)	Once every 4 years
	Wood Structures (non-coastal areas)	Once every 5 years
	Non-Wood Structures (coastal Areas)	Once every 5 years
	Non-Wood Structures (non-coastal areas)	Once every 10 years
Routine Ground Based Inspection (Non-Periodic)	All lines	As needed. Estimate 10% of system each year. (See Note 2)
Ground Line Inspection & Treatment (AEP West Only)	Wood Structures (AWPA Decay Zone 5) See Note 3	Once every 10 years
	Wood Structures (AWPA Decay Zones 3 and 4)	Once every 15 years

Note 1: Recommended frequencies are minimums. Many conditions may warrant more frequent inspections, including but not limited to regulatory requirements, historical performance, system conditions, abnormal system configuration, or other intrinsic characteristics.

Note 2: Routine Ground Based Inspections (Non-Periodic) are conducted as needed to supplement or complement other inspection types, including but not limited to inspecting lines where routine aerial inspections are prohibitive, exercising rights of ingress and egress, complementing aerial comprehensive inspection methods, maintaining property owner relationships, etc.

Note 3: AWP is the American Wood-Preservers' Association

A summary of the activities of AEP's transmission line inspection program including the number of miles inspected is as follows:

Activities	2007 worked performed	As of June 30, 2008 worked performed
Routine Aerial Inspection	16,033 miles	6,265 miles

Comprehensive Inspection	1,792 miles	513 miles
Ground Line Inspection & Treatment	438 miles	445 miles

A summary of activities of AEP Texas Companies' transmission Vegetation management Program including the number of miles inspected is as follows:

Activities	2007 work performed	As of June 30, 2007 worked performed
Forestry Routine Aerial Inspections	7,095 miles	6,450 miles
Forestry Work Completed	1,700 miles	500 miles

### III. Inventory of Transmission Facilities

In response to the Commission Staff's request for an inventory of transmission line facilities within 0-10 miles and 10-50 miles of the Gulf Coast, AEP Texas Companies<sup>2</sup> have conducted an inventory of their transmission facilities along the Texas coast, and provide the requested information in the attached Tables as follows:

Table 1.1	AEP Inventory Of Transmission Lines Within 10 Miles Of The Coast <sup>3</sup>
Table 1.2	AEP Inventory Of Transmission Line Structures Within 10 Miles Of The Coast
Table 2.1	AEP Inventory Of Transmission Lines Within 10 To 50 Miles Of The Coast
Table 2.2	AEP Inventory Of Transmission Line Structures Within 10 To 50 Miles Of The Coast

The AEP Companies note that a matter of uncertainty may exist in the determination of the point of measurement relative to the areas where the transmission facilities are located. The shoreline along the Gulf of Mexico in AEP Texas' service area varies depending on whether barrier islands exist along the shore. In order to provide a

<sup>2</sup> The Commission Staff request is not applicable to Southwestern Electric Power Company, as it has no transmission facilities located within 50 miles of the coast.

<sup>3</sup> The measurement is from the Intracoastal Waterway



more identifiable benchmark, AEP Texas used the Intracoastal Waterway as the point to measure from in determining the transmission facilities within the required distances. For facilities within 0-10 miles of the coast, AEP Texas measured the distance on each side of the Intracoastal Waterway so that facilities on the barrier islands were included.

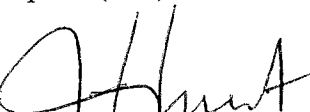
#### **IV. Conclusion**

AEP Texas Companies appreciates the opportunity to provide the foregoing responses to Staff's request.

Dated: December 1, 2008

RESPECTFULLY SUBMITTED,

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ATTORNEY FOR AEP TEXAS  
CENTRAL COMPANY and AEP  
TEXAS NORTH COMPANY

**Table 1.1: AEP Inventory of Transmission Lines within 10 miles of the Coast\***

\*measured from the Intracoastal Waterway

Voltage, kV	Line No.	Line Miles in Zone	Description of Structures Used
69	5033	7.95	Wood Poles Wood H-Frames
69	5082	4.29	Concrete Poles
69	5081	3.19	Wood Poles
69	1035	1.87	Wood Poles Wood H-Frames
69	1033	1.42	Wood Poles Wood H-Frames
69	5080	7.91	Wood Poles Wood H-Frames
69	5153	2.45	Wood Poles Wood H-Frames Concrete Poles Steel Poles Steel H-Frames
69	1036	8.27	Wood Poles Wood H-Frames
69	5103	5.21	Wood Poles Wood H-Frames
69	5110	3.06	Wood Poles Wood H-Frames
69	3088	2.61	Wood Poles Wood H-Frames
69	5113	5.23	Wood Poles Steel Poles
69	5108	8.10	Wood Poles Wood H-Frames Concrete Poles
138	5136	8.77	Wood Poles Wood H-Frames Steel Towers
138	5111	9.78	Steel Poles
138	5027	0.28	Wood Poles
138	5016	0.12	Steel Poles Steel Towers
138	5112	8.19	Steel Poles Steel Towers
138	3035	5.92	Wood Poles Wood H-Frames
138	1034	1.48	Wood Poles Steel Poles Steel Towers
138	1071	7.01	Wood Poles Wood H-Frames Steel Poles
138	3022	0.06	Wood Poles
138	5123	1.46	Wood Poles Steel Towers
138	5072	2.90	Wood Poles Wood H-Frames Concrete Poles
138	5079	3.46	Wood H-Frames Concrete Poles Steel Poles
138	5105	0.63	Wood Poles
138	5077	4.84	Wood Poles Wood H-Frames
138	5150	3.69	Concrete Poles Steel Poles
138	1075	10.34	Wood Poles Wood H-Frames
138	1074	7.87	Wood Poles Wood H-Frames
138	1076	1.10	Wood Poles Wood H-Frames
138	1080	1.97	Wood Poles Wood H-Frames
138	5118	3.89	Wood Poles Concrete Poles
138	5120	2.01	Wood Poles Concrete Poles
138	5032	1.74	Wood Poles Steel Poles Steel Towers
138	1077	12.91	Wood Poles Wood H-Frames
138	5124	0.90	Wood Poles
138	5100	1.03	Wood Poles
138	5073	5.44	Concrete Poles Steel Towers
138	5142	1.18	Steel Poles
138	3115	4.41	Wood Poles Steel Towers
138	3114	0.45	Steel Towers
138	1091	16.21	Wood Poles Wood H-Frames Concrete Poles Steel Poles Steel H-Frames
138	3126	5.98	Wood Poles Wood H-Frames
138	5160	4.11	Concrete Poles Steel Towers
138	5151	1.57	Steel Poles Steel Towers
138	5072	0.21	Concrete Poles
138	1070	6.67	Wood Poles
138	1095	1.27	Wood Poles
138	5121	0.38	Wood Poles
345	3130	0.74	Steel Poles Steel H-Frames
345	5115	0.45	Steel Towers
Total Miles =		212.96	

**Table 1.2: AEP Inventory of Transmission Line Structures within 10 miles of the Coast\***

\*measured from the Intracoastal Waterway

<b>345 kV Structure Type</b>	<b>Qty.</b>
Wood Poles	0
Wood H-Frames	0
Concrete Poles	0
Steel Poles	1
Steel H-Frames	2
Steel Towers	2
Total	5

<b>138 kV Structure Type</b>	<b>Qty.</b>
Wood Poles	639
Wood H-Frames	450
Concrete Poles	136
Steel Poles	159
Steel H-Frames	4
Steel Towers	142
Total	1530

<b>69 kV Structure Type</b>	<b>Qty.</b>
Wood Poles	461
Wood H-Frames	272
Concrete Poles	42
Steel Poles	3
Steel H-Frames	1
Steel Towers	0
Total	779

**Table 2.1: AEP Inventory of Transmission Lines within 10 to 50 miles of the Coast\***

\*measured from the Intracoastal Waterway

Voltage, kV	Line No.	Line Miles in Zone	Description of Structures
69	5033	0.04	Wood Poles
69	5137	0.65	Wood Poles Wood H-Frames
69	5037	12.25	Wood Poles Wood H-Frames Steel Towers
69	3040	0.33	Wood Poles Wood H-Frames
69	3041	1.16	Wood Poles Wood H-Frames
69	3139	6.35	Wood H-Frames Steel Towers
69	3077	16.22	Wood Poles Wood H-Frames
69	5028	4.95	Wood Poles
69	3037	9.15	Wood Poles Wood H-Frames Steel Towers
69	3138	5.71	Wood Poles Wood H-Frames
69	1033	8.05	Wood Poles Wood H-Frames Steel Poles
69	5036	12.72	Wood Poles Wood H-Frames Concrete Poles
69	3129	13.51	Wood Poles Wood H-Frames
69	1032	10.52	Wood Poles Wood H-Frames
69	3079	0.98	Wood Poles
69	3043	6.10	Wood Poles
69	3048	3.05	Wood Poles
69	5091	0.57	Wood Poles Steel Poles
69	5085	0.84	Wood Poles Steel Poles
69	5086	1.34	Wood Poles Steel Poles
69	3046	6.54	Wood Poles
69	1047	3.57	Wood Poles Steel Poles Steel Towers
69	5044	13.84	Wood Poles Wood H-Frames
69	3049	15.45	Wood Poles Wood H-Frames
69	3116	0.86	Wood Poles Wood H-Frames
69	3117	3.41	Wood Poles
69	3028	2.24	Wood Poles Wood H-Frames
69	5080	0.62	Wood Poles
69	3074	13.14	Wood Poles Wood H-Frames
69	1042	2.79	Wood Poles Wood H-Frames Concrete Poles
69	1048	2.02	Wood Poles Wood H-Frames
69	3140	0.59	Wood Poles
69	3094	2.62	Wood Poles Wood H-Frames
69	5050	0.89	Wood Poles Wood H-Frames
69	5089	1.90	Wood Poles Wood H-Frames Concrete Poles
69	5096	1.34	Wood Poles Steel Poles
69	5029	16.80	Wood Poles Wood H-Frames
69	1046	4.16	Wood Poles Wood H-Frames
69	1037	0.89	Wood Poles Steel Poles
69	3008	14.20	Wood Poles Wood H-Frames
69	3009	4.52	Wood Poles Wood H-Frames
69	3123	2.60	Wood Poles
69	5035	2.08	Wood Poles Wood H-Frames Steel Towers
69	5049	0.45	Wood Poles Wood H-Frames Steel H-Frames
69	5001	36.43	Wood Poles Wood H-Frames Steel Poles Steel Towers
69	5026	3.85	Wood Poles Wood H-Frames Steel Poles Steel H-Frames
69	3083	3.74	Wood Poles Wood H-Frames
69	3038	6.03	Wood Poles Wood H-Frames
69	3134	15.42	Wood Poles Wood H-Frames
69	5059	0.45	Wood Poles
69	5167	0.40	Concrete Poles
69	5131	1.89	Wood Poles
69	3073	19.28	Wood Poles Wood H-Frames
69	5054	5.66	Wood Poles Wood H-Frames
69	3033	9.84	Wood Poles Wood H-Frames
69	283902	0.25	Wood Poles
69	3023	13.97	Wood Poles Wood H-Frames
69	3032	10.29	Wood Poles Wood H-Frames Steel Poles
69	3142	0.48	Wood Poles Wood H-Frames

**Table 2.1: AEP Inventory of Transmission Lines within 10 to 50 miles of the Coast\***

\*measured from the Intracoastal Waterway

Voltage, kV	Line No.	Line Miles in Zone	Description of Structures
69	5134	7.59	Wood Poles Wood H-Frames
69	1027	10.47	Wood Poles Wood H-Frames Steel Poles
69	1055	18.22	Wood Poles Wood H-Frames
69	1056	4.66	Wood Poles Wood H-Frames
69	3071	7.29	Wood Poles Wood H-Frames
69	3088	18.97	Wood Poles Wood H-Frames
69	5063	12.16	Wood Poles Wood H-Frames
69	5074	6.49	Wood Poles Wood H-Frames
69	1028	7.45	Wood Poles Wood H-Frames
69	5030	0.82	Wood Poles Wood H-Frames
69	5055	7.32	Wood Poles Wood H-Frames
69	5062	9.52	Concrete Poles Steel Poles Steel H-Frames
69	5038	18.94	Wood Poles Wood H-Frames Steel Towers
69	5043	8.62	Wood Poles Wood H-Frames
69	5042	3.04	Wood Poles Wood H-Frames Steel Towers
69	5052	1.07	Wood Poles Wood H-Frames Concrete Poles
69	5051	0.22	Wood Poles
69	5053	1.28	Wood Poles Wood H-Frames
69	5061	3.56	Concrete Poles Steel H-Frames
69	3029	11.77	Wood Poles Wood H-Frames
69	5075	2.72	Wood Poles Wood H-Frames Steel Poles
69	5024	0.15	Wood Poles Wood H-Frames
69	3076	1.11	Wood Poles Steel Poles Steel Towers
69	3075	3.48	Wood Poles Wood H-Frames
69	3081	4.67	Steel Poles
69	3082	3.04	Wood Poles Wood H-Frames
69	3020	15.00	Wood Poles Wood H-Frames Steel Towers
69	1041	7.81	Steel Poles
69	3025	15.97	Wood Poles Wood H-Frames
69	3024	7.01	Wood Poles Wood H-Frames
69	1062	4.33	Wood Poles Wood H-Frames Concrete Poles Steel H-Frames
69	5060	4.07	Concrete Poles
69	3042	2.82	Wood Poles Wood H-Frames
69	5198	0.17	Wood H-Frames Steel Poles
69	5161	0.82	Steel Poles
69	5025	1.18	Wood Poles Wood H-Frames
69	1029	16.51	Wood Poles Wood H-Frames Steel Towers
69	5093	1.52	Wood Poles Steel Poles
69	3148	2.34	Steel Poles
69	3039	0.01	Wood Poles
69	3047	1.48	Wood Poles
138	3019	51.72	Wood Poles Wood H-Frames Steel H-Frames
138	5101	1.82	Wood Poles Wood H-Frames
138	5099	1.63	Wood Poles
138	5136	3.61	Wood H-Frames
138	3016	1.14	Steel Towers
138	5087	4.66	Wood Poles Concrete Poles Steel Poles
138	5094	1.55	Steel Poles
138	5111	0.47	Steel Poles
138	3035	13.64	Wood Poles Wood H-Frames
138	3036	15.05	Wood Poles Wood H-Frames
138	3125	0.96	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	3012	25.59	Wood Poles Wood H-Frames
138	3031	3.89	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	5143	1.66	Wood Poles Wood H-Frames Steel Poles
138	5140	1.34	Steel Poles
138	5005	20.72	Wood Poles Wood H-Frames Concrete Poles Steel Poles
138	3034	5.72	Wood Poles Wood H-Frames
138	5128	0.60	Wood Poles Steel Towers

**Table 2.1: AEP Inventory of Transmission Lines within 10 to 50 miles of the Coast\***

\*measured from the Intracoastal Waterway

Voltage, kV	Line No.	Line Miles in Zone	Description of Structures
138	5135	2.72	Wood Poles Wood H-Frames
138	5011	5.87	Wood Poles Wood H-Frames Steel Poles
138	3002	9.86	Wood Poles Wood H-Frames
138	3014	3.95	Wood Poles Wood H-Frames Steel Towers
138	3021	2.11	Concrete Poles
138	3026	2.08	Concrete Poles
138	5079	4.21	Wood Poles Concrete Poles Steel Poles
138	3006	9.72	Wood Poles Wood H-Frames
138	1122	6.75	Wood Poles
138	5107	0.94	Steel Poles
138	5106	20.59	Wood Poles Steel Poles
138	3015	11.83	Wood Poles Wood H-Frames
138	3007	20.01	Wood Poles Wood H-Frames
138	3112	15.48	Wood Poles Wood H-Frames Steel Poles
138	3111	18.27	Wood Poles Wood H-Frames Steel Towers
138	1054	1.71	Wood Poles Wood H-Frames
138	1063	6.01	Wood Poles Wood H-Frames
138	5092	0.70	Steel Poles Steel Towers
138	5007	1.47	Steel Poles Steel Towers
138	5141	1.88	Concrete Poles Steel Poles
138	5008	0.15	Wood Poles
138	3124	2.52	Wood Poles Wood H-Frames Steel Towers
138	3018	19.81	Wood H-Frames Steel Poles Steel Towers
138	5002	5.49	Wood Poles Wood H-Frames Steel Poles
138	5119	6.08	Concrete Poles Steel Towers
138	5003	12.40	Wood Poles Wood H-Frames
138	5129	0.29	Wood Poles
138	1073	9.41	Wood Poles Wood H-Frames
138	1075	11.89	Wood Poles
138	1074	15.87	Wood Poles Steel Poles
138	1097	10.10	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	1008	21.65	Wood Poles Wood H-Frames
138	3011	22.51	Wood Poles Wood H-Frames
138	5126	3.53	Steel Poles
138	5149	21.90	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	5004	27.96	Wood Poles Wood H-Frames Steel Towers
138	5090	6.93	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	1036	0.08	Wood Poles
138	5152	27.16	Wood Poles Wood H-Frames
138	5015	11.50	Wood Poles Wood H-Frames Steel Poles
138	3146	25.64	Wood Poles Wood H-Frames Concrete Poles Steel Poles Steel H-Frames
138	1080	18.33	Wood Poles Wood H-Frames Steel Poles
138	5127	6.04	Wood Poles Steel Poles
138	5020	2.61	Wood Poles Wood H-Frames Concrete Poles
138	1005	24.28	Wood Poles
138	5095	1.50	Wood Poles Wood H-Frames Steel Towers
138	5058	12.34	Wood Poles Wood H-Frames Concrete Poles Steel Poles
138	5010	6.50	Steel Poles
138	5032	0.14	Steel Poles
138	3030	0.37	Wood Poles Wood H-Frames Steel Poles
138	5154	1.96	Steel Poles Steel Towers
138	1010	31.93	Wood Poles Wood H-Frames
138	1009	22.14	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	5073	5.25	Steel Poles Steel Towers
138	1099	14.00	Wood Poles Wood H-Frames Steel Towers
138	5031	0.64	Concrete Poles Steel Poles
138	5142	4.95	Wood Poles Wood H-Frames Steel Poles
138	1053	0.18	Wood Poles Wood H-Frames
138	3113	5.83	Wood Poles Wood H-Frames

**Table 2.1: AEP Inventory of Transmission Lines within 10 to 50 miles of the Coast\***

\*measured from the Intracoastal Waterway

Voltage, kV	Line No.	Line Miles in Zone	Description of Structures
138	3114	5.68	Wood Poles Steel Towers
138	5006	36.06	Wood Poles Wood H-Frames
138	3127	1.44	Wood Poles Wood H-Frames
138	3122	6.11	Wood Poles Wood H-Frames Steel Towers
138	5070	0.21	Steel Poles
138	3118	15.81	Wood Poles Wood H-Frames Steel Towers
138	3119	15.59	Wood Poles Wood H-Frames Steel Poles Steel Towers Steel H-Frames
138	3005	21.63	Wood Poles Wood H-Frames Steel Towers
138	3010	28.77	Wood Poles Wood H-Frames Steel H-Frames
138	3001	46.45	Wood Poles Wood H-Frames Steel Poles Steel Towers Steel H-Frames
138	3084	6.97	Steel Poles Steel H-Frames
138	3013	7.65	Steel Towers
138	3145	9.38	Wood Poles Wood H-Frames Steel Poles Steel Towers
138	3126	4.23	Wood Poles Wood H-Frames
138	5012	1.33	Wood Poles Wood H-Frames Steel Poles
138	1079	5.34	Wood Poles Concrete Poles
138	5116	1.59	Wood Poles Steel Poles Steel H-Frames
138	5013	3.85	Steel Poles
138	5021	6.21	Wood Poles Steel Poles
138	5125	5.08	Wood Poles Concrete Poles Steel Poles
138	5160	4.02	Concrete Poles Steel Towers
138	5151	0.14	Steel Poles
138	5166	2.79	Concrete Poles Steel Poles
138	5072	0.07	Wood Poles
138	326126	2.56	Wood Poles
138	5165	4.95	Wood Poles Wood H-Frames Steel Poles
138	5078	10.35	Wood Poles Wood H-Frames Concrete Poles Steel Poles Steel H-Frames
138	C-164	5.28	Steel Poles
138	5009	19.14	Concrete Poles Steel Poles Steel Towers Steel H-Frames
138	3017	0.09	Wood Poles
138	5019	0.17	Wood Poles
138	5018	0.18	Wood Poles
138	5017	0.22	Wood Poles
138	5022	0.21	Wood Poles
138	3027	0.09	Wood Poles
345	3128	5.12	Wood Poles Wood H-Frames Steel Poles Steel Towers
345	3143	79.30	Steel Poles Steel Towers Steel H-Frames
345	5109	27.82	Steel Poles Steel H-Frames
345	5145	97.57	Steel Poles Steel H-Frames
345	5138	124.05	Steel Poles Steel Towers Steel H-Frames
345	1083	32.43	Steel Poles Steel Towers Steel H-Frames
345	1098	9.75	Steel Poles Steel Towers Steel H-Frames
345	3130	12.50	Steel Poles Steel H-Frames
345	5114	20.61	Concrete Poles Steel Poles Steel Towers Steel H-Frames
345	3132	14.26	Steel Towers Steel H-Frames
345	5115	130.15	Steel Poles Steel Towers Steel H-Frames
Total Miles =			2172.65

**Table 2.2: AEP Inventory of Transmission Line Structures within 10 to 50 miles of the Coast\***

\*measured from the Intracoastal Waterway

<b>345 kV Structure Type</b>	<b>Qty.</b>
Wood Poles	4
Wood H-Frames	43
Concrete Poles	1
Steel Poles	480
Steel H-Frames	2162
Steel Towers	135
<b>Total</b>	<b>2825</b>

<b>138 kV Structure Type</b>	<b>Qty.</b>
Wood Poles	1754
Wood H-Frames	4935
Concrete Poles	286
Steel Poles	985
Steel H-Frames	66
Steel Towers	446
<b>Total</b>	<b>8472</b>

<b>69 kV Structure Type</b>	<b>Qty.</b>
Wood Poles	1928
Wood H-Frames	3855
Concrete Poles	167
Steel Poles	314
Steel H-Frames	10
Steel Towers	61
<b>Total</b>	<b>6335</b>