

# **ANNEX L**

## **Energy**



# **STATE OF TEXAS EMERGENCY MANAGEMENT PLAN**

Revised December 2010/Updated June 2013

**RECORD OF CHANGES**

<b>CHANGE #</b>	<b>DATE OF CHANGE</b>	<b>DESCRIPTION</b>	<b>CHANGED BY</b>
01	7/24/12	Addition of Appendix 5 to annex	Clarisa Marcee
02	2/4/13	New cover	Jo Manning
03	2/4/13	New "Record of Changes"	Jo Manning
04	2/4/13	Delete "RRTF"	Jo Manning
05	2/4/13	Corrected typos	Jo Manning
06	6/27/13	An updated Appendix 5 added	Clarisa Marcee
07	6/27/13	Reattached Appendices 3 and 4	Clarisa Marcee

**STATE OF TEXAS**  
**EMERGENCY MANAGEMENT PLAN**

**ANNEX L**  
**Energy**

**APPROVAL AND IMPLEMENTATION**

This annex is hereby accepted for implementation and supersedes all previous editions.

1/20/2011  
Date

  
\_\_\_\_\_  
**Brian Lloyd**  
Executive Director  
Public Utility Commission of Texas

**STATE OF TEXAS**

**EMERGENCY MANAGEMENT PLAN**


**ANNEX L**

**Energy**

**APPROVAL AND IMPLEMENTATION**

This annex is hereby accepted for implementation by the following supporting agency:

Jan 21, 2011  
Date

  
\_\_\_\_\_  
John Tintera  
Executive Director  
Railroad Commission of Texas

**STATE OF TEXAS  
EMERGENCY MANAGEMENT PLAN**

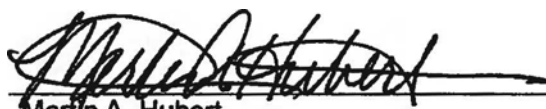
**ANNEX L  
Energy**

**APPROVAL AND IMPLEMENTATION**

This annex is hereby accepted for implementation by the following supporting agency:

Date

1/26/11

  
\_\_\_\_\_  
Martin A. Hubert  
Deputy Comptroller  
Texas Comptroller of Public Accounts

## TABLE OF CONTENTS

<b>I. AUTHORITY AND REFERENCES .....</b>	<b>1</b>
A. STATE .....	1
B. ADMINISTRATIVE RULES .....	1
<b>II. PURPOSE .....</b>	<b>2</b>
A. PURPOSE OF THIS PLAN.....	2
B. APPLICABILITY.....	2
C. PLANNING FOR OTHER UTILITIES .....	2
<b>III. EXPLANATION OF TERMS .....</b>	<b>2</b>
A. ACRONYMS .....	2
B. DEFINITIONS .....	3
<b>IV. SITUATION AND ASSUMPTIONS .....</b>	<b>4</b>
A. SITUATION.....	4
B. ASSUMPTIONS.....	4
<b>V. CONCEPT OF OPERATIONS.....</b>	<b>5</b>
A. PUBLIC UTILITY COMMISSION (PUC).....	5
B. RAILROAD COMMISSION (RRC) .....	8
C. STATE SUPPORT AND ASSISTANCE POLICY.....	12
D. ASSISTANCE TO LOCAL GOVERNMENTS AND AFFECTED UTILITY PROVIDERS .....	13
E. MULTIPLE AGENCY SUPPORT OPERATIONS .....	13
F. NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) / (ICS) .....	14
<b>VI. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES.....</b>	<b>14</b>
A. ORGANIZATION .....	14
B. ASSIGNMENT OF RESPONSIBILITIES.....	14
<b>VII. COORDINATION AND CONTROL.....</b>	<b>17</b>
<b>VIII. EMERGENCY RESPONSE LEVELS/ACTION GUIDES.....</b>	<b>17</b>
<b>IX. CONTINUITY OF GOVERNMENT.....</b>	<b>17</b>
<b>X. ADMINISTRATION.....</b>	<b>17</b>
A. AGREEMENTS AND UNDERSTANDING .....	18
B. STATUS REPORTS.....	18
C. EXPENDITURES AND RECORD KEEPING .....	18
D. POST-INCIDENT REVIEW .....	18

XI. DEVELOPMENT AND MAINTENANCE .....18

    A. DEVELOPMENT .....18

    B. MAINTENANCE .....19

**APPENDICES**

APPENDIX 1 Energy Support Organization ..... L-1-1

APPENDIX 2 Action Guide to Annex L ..... L-2-1

APPENDIX 3 ERCOT Map by County ..... L-3-1

APPENDIX 4 ERCOT Boundaries and Major Utilities ..... L-4-1

APPENDIX 5 ERCOT Energy Emergency Alert Communications ..... L-5-1

## STATE OF TEXAS

### EMERGENCY MANAGEMENT PLAN

#### I. AUTHORITY AND REFERENCES

This plan applies to emergency management operations during disaster response. Strategic planning guidance and authorities governing its enactment and implementation include:

##### A. STATE

1. See Basic Plan, Section I.
2. Public Utility Regulatory Act, Texas Utilities Code Annotated. § 38.073 (Vernon 1998 & Supp. 2005) (PURA). Authority of (Public Utility) Commission during an Emergency.
3. Texas Natural Resources Code Annotated. §§ 81.051 and 81.052 (Vernon 2001). Jurisdiction and Authority of the Railroad Commission to Make Rules.
4. Texas Natural Resources Code Annotated. § 85.206 (Vernon 2001). Authority of Railroad Commission to Adopt Emergency Orders.

##### B. ADMINISTRATIVE RULES

1. Public Utility Commission of Texas (PUC)
  - a. 16 Texas Administrative Code § 25.52. Reliability and Continuity of Service.
  - b. 16 Texas Administrative Code § 25.53. Electric Service Emergency Operations Plans.
  - c. 16 Texas Administrative Code § 25.94. Report on Infrastructure Improvement and Maintenance.
  - d. 16 Texas Administrative Code § 25.95. Electric Utility Infrastructure Storm Hardening.
  - e. 16 Texas Administrative Code § 25.200. Load Shedding, Curtailments, and Re-dispatch.
2. Railroad Commission of Texas (RRC)
  - a. 16 Texas Administrative Code § 7.45. Quality of Service.
  - b. 16 Texas Administrative Code § 8.1. Pipeline Safety Regulations.
  - c. Order of Oil and Gas Docket Gas Utilities Division No. 20-62,505 Docket No. 489. Curtailment plan.
  - d. Railroad Commission agreement that Texas Energy Reliability Council help coordinate deliveries of natural gas, February 26, 2009.



## II. PURPOSE

### A. PURPOSE OF THIS PLAN

1. Identify resource group tasks for the provision of energy during emergency situations.
2. Define the organization, responsibilities, and procedures for facilitating the curtailment and/or restoration of service by energy providers and suppliers for service disrupted by an emergency situation.
3. Provide guidance for obtaining emergency energy for critical operational functions and facilities until energy service can be restored.

### B. APPLICABILITY

This Annex is intended to mitigate energy emergencies that result from natural, technological, or man-made disasters that are typically localized and of short duration. It is not intended to address regional or nationwide energy shortages caused by the disruption of production, transportation, and distribution of energy supplies caused by war, civil unrest, acts of terrorism or political decisions that may be of long duration. During an Incident of National Significance, the State will integrate, as required, its activities with Federal Emergency Support Function (ESF) #12, Energy.

### C. PLANNING FOR OTHER UTILITIES

This Annex does not address water and wastewater utilities or telecommunications providers. Planning for the acquisition and distribution of potable drinking water is contained in Annex V, Food and Water, and in the State's Emergency Drinking Water Contingency Annex of the State Drought Preparedness Plan. Planning for the restoration of water and wastewater systems is discussed in Annex K, Public Works and Engineering. Emergency planning for telecommunications systems is detailed in Annex B, Communications.

## III. EXPLANATION OF TERMS

### A. ACRONYMS

AMI	Automated Measurement Instrument
CNG	Compressed Natural Gas
CPA	Comptroller of Public Accounts
ECC	Emergency Communication Coordinator
EOP	Emergency Operations Plan
ERCOT	Electric Reliability Council of Texas
ICS	Incident Command System
ISO	Independent System Operator
IT	Information Technology
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
PUC	Public Utility Commission of Texas
EMRT	Emergency Management Response Team
RRC	Railroad Commission of Texas

SCADA	Supervisory Control and Data Acquisition
SECO	State Energy Conservation Office
TERC	Texas Energy Reliability Council
TIPRO	Texas Independent Producers and Royalty Owners Association
TRRN	Texas Regional Resource Network
TXOGA	Texas Oil and Gas Association

## B. DEFINITIONS

1. Black Start: The process of restoring a power plant to operation without relying on the external electric power transmission network.
2. Crude Oil: Oil or condensate produced from oil or gas wells upstream of refinery facilities.
3. Energy: The production and provision of electrical power, natural gas, petroleum products and fuels. This definition considers the production, generation, refining, transportation/transmission, distribution, conservation of energy products and services and maintenance of energy systems, products and their components.
4. Gas Distribution System: A natural gas distribution company system that provides natural gas to residential, commercial and other customers.
5. Interstate: Involving two or more states.
6. Intrastate: Occurring within a state.
7. Liquid Product: Gasoline, diesel, propane and other liquid fuels downstream of gas processing and refinery facilities.
8. Natural Gas: Gaseous hydrocarbons produced from an oil or gas well. Production, transmission and distribution of natural gas may require various kinds of production and measurement equipment, gas gathering systems, gas processing plants, natural gas transmission pipelines, gas storage fields and other facilities.
9. Reentry: A phased process of allowing appropriate agencies and vendors access to areas affected by hazards. Re-entry marks the transition from the response phase into the recovery phase of the disaster. It includes efforts to restore continuity of government and critical infrastructure/key resources to support the community, and concludes with the return of residents and business owners to the affected area, if possible.
10. Smart Grid: The Smart Grid will be achieved by applying sensing, measurement and control devices with two-way communications to electricity production, transmission, distribution and consumption parts of the power grid. These devices communicate information about grid condition to system users, operators and automated devices, making it possible to dynamically respond to changes in grid condition. The Smart Grid will enhance the capacity and efficiency of existing electric power networks and improve power reliability and quality.

11. Utility (Electric): An entity that owns or operates for compensation equipment or facilities to produce, generate, transmit, distribute, sell or furnish electricity in this State.

#### IV. SITUATION AND ASSUMPTIONS

##### A. SITUATION

1. See Basic Plan, Section III.
2. Investor-owned electric utilities are required by State regulators to have Emergency Operations Plans (EOPs) for emergency response and restoration of disrupted service.
3. Natural gas pipeline operators are required by State regulators to have emergency operating procedures for emergency response and safe restoration of any service outage.
4. Extended electrical outages can directly impact other utility systems including water and wastewater systems and natural gas and petroleum processing facilities. Extended shortages or disruptions can cause curtailment of natural gas or liquid fuels that may directly impact electric power generation or transportation fuel supplies.

##### B. ASSUMPTIONS

1. Local community and regional energy system providers will act to restore their individual systems according to their EOPs. Restoration efforts include assistance obtained from other energy providers pursuant to mutual aid agreements, from contractors and, if needed, with assistance from this resource group.
2. The loss of energy infrastructure or a significant curtailment of service may have an immediate and, in some cases, long-term effect upon a community or region of the State.
3. Regardless of the cause of an energy emergency, the prompt restoration of energy production and distribution systems is vital to the well-being of individual citizens and the economy of Texas.
4. The business of utilities and other energy suppliers is to serve their customers. Restoration activities commence immediately (weather and access permitting) upon indication of service disruption. The State acts in a support role to assist utilities, as required.
5. Generation and transmission capacities are monitored and regulated by the Electric Reliability Council of Texas (ERCOT) which is known as an Independent System Operator (ISO). ERCOT directs and regulates power generation and power transmission for approximately 85 percent of the State of Texas. Any variation in power levels is analyzed and resolved by ERGOT. A few areas in Texas are operated by the electric utilities in coordination with other transmission operators and reliability organizations. See Appendices 3 and 4 for maps of ERCOT areas and neighboring reliability organizations that serve Texas.
6. Production, storage, transmission, and distribution supplies of crude oil and natural gas are monitored and regulated by the Railroad Commission of Texas (RRC). Any disruption

or shortage of supply is addressed and resolved through high-level communications between the RRC, private industry, and industry trade organizations.

## V. CONCEPT OF OPERATIONS

### A. PUBLIC UTILITY COMMISSION (PUC)

#### 1. Electric Power Systems in Texas

- a. Various types of electric utilities provide electricity in Texas, including investor-owned utilities, municipal utilities, non-profit member-owned electric cooperatives, and river or utility authorities.
- b. Electric utility systems include the following three components:
  - 1) Generation facilities for producing electricity.
  - 2) Transmission facilities for transporting high voltage electricity.
  - 3) Distribution facilities for delivering electricity to commercial and residential consumers.
- c. For electric facilities in Texas, transmission lines serve as the system backbone, tying together generating stations and primary substations where high voltage is reduced to a lower voltage for distribution to consumers. Transmission systems are interconnected so that utilities can share generation responsibility to manage the demand for electric power across the State. Because electricity cannot be efficiently stored on a large scale, supply must always instantaneously meet demand, or blackouts will occur.
- d. ERCOT is responsible for assuring adequate power supply and reliable power grid operation within its system, which covers approximately 85 percent of Texas (see Appendix 2, map of ERGOT with counties, and Attachment 3, map of ERCOT with the other grids). The neighboring grids that serve the remaining 15 percent of the State—the Southwest Power Pool, the Western Electricity Coordinating Council, and the Southeastern Electric Reliability Council—operate like ERCOT. ERCOT monitors the grid in real time to deploy energy and ancillary services to resolve capacity shortfalls and transmission congestion and to maintain system reliability. ERCOT falls under both federal and PUC regulatory authority.

#### 2. Electric System Emergencies

There are two types of electric system emergencies:

- a. External: Damage to or destruction of electrical systems (generation, transmission or distribution) due to natural catastrophes (hurricanes, tornadoes, ice storms, high winds), technological emergencies (component failure) or man-made disasters (accidental or terrorist events).

- b. Internal: Blackouts occur when the electric grid system fails due to electrical or mechanical problems that disrupt the operation of generation or transmission facilities or the inability of facilities to meet demand.

### 3. Cyber Security

- a. In its efforts to support greater reliability of the electric grid, the PUC has placed an increased emphasis on securing the electrical infrastructure, both physical and cyber. While the major focus of power system operations has traditionally been on the availability of power, the integrity of information has become increasingly important. The ongoing development of the Smart Grid requires deployment of advanced technologies that generate, transmit and consume large volumes of data. To ensure proper function, this data must be kept secure. This requires not only new technology and the expertise to use it, but also new processes and procedures, along with enhanced regulatory oversight.
- b. Utilities are not only responsible for ensuring the reliability of the physical electric grid components they operate, but are also responsible for ensuring the reliability of the cyber components they operate. The PUC has been working to strengthen ties with various entities in the fields of security and law enforcement, with the goal of helping utilities protect themselves against deliberate attacks, industrial espionage, and other malicious threats. Rather than employing existing standard security practices that are typically in place with the Information Technology infrastructure of an enterprise, these practices must be altered to accommodate the unique characteristics of the electrical infrastructure, and tailored so that they will not cause a disruption in energy operations.

### 4. New Energy Portfolios

The PUC, ERCOT and the utility providers have been integrating renewable energy into overall energy portfolios. Due to the intermittent nature of renewable sources of energy, the power system makes use of them when available, but contingencies and resources are in place to seamlessly handle sudden drops in output. However, the difficulties presented in an emergency are not usually due to problems with energy generation but with transmission and distribution lines. Entities with critical loads or high-value operations should investigate backup power generation.

### 5. State Response to Major Electrical Outages

- a. Utility providers are well skilled and equipped to assess and repair damage to their transmission and distribution systems. The role of the PUC in an emergency is to gather information, disseminate and report on that information, and facilitate requests for assistance. To that end, the PUC maintains an active Emergency Management Response Team (EMRT). Under the direction of the PUC's Homeland Security Coordinator, team members are prepared to provide 24-hour coverage at the State Operations Center (SOC) during emergencies and major electric service disruptions. The PUC's Emergency Management Coordinator is responsible for scheduling team members and overseeing the day-to-day operations of the EMRT at the SOC, in addition to assisting the Homeland Security Coordinator in establishing priorities and solving problems.

- b. The extent of a service disruption and its expected duration help define tasks that must be undertaken by local governments to protect public health and safety as well as property. When it appears that electrical outages will be long-term and could potentially have a major impact on the population, local governments must take measures to provide food, water, climate control, and medical care to affected residents by expedient means. If that is unfeasible, it may be necessary to evacuate and relocate affected residents. Local governments may request State assistance if they are unable to carry out these population support tasks with their own resources.
- c. For major disasters, the State may assist utility providers in obtaining and analyzing initial damage assessments for the affected area. Timely damage assessment is vital in estimating restoration time, which is a major factor in determining the extent of essential population support needs and the positioning of emergency resources.
- d. When an emergency situation results in a massive power outage, the PUC and the impacted generation and/or transmission providers open direct lines of communication. The main tool of the EMRT is the PUC utility outage database. In an emergency, utilities enter the number of customers affected per zip code, along with other pertinent information such as estimated restoration targets. The PUC can run reports with a variety of data for use at the SOC in determining restoration priorities and the allocation of state resources. The public can access outage information for their electric utility through the PUC website.
- e. The EMRT will communicate SOC requests for priority service restoration at critical facilities to utility providers. In turn, utilities relay requests to the PUC for special assistance, such as vehicle waivers at inspection stations during re-entry, assistance in locating lodging for responders, and assistance in locating and securing equipment staging areas if local authorities have been unable to fill them. The EMRT will provide all necessary help to craft solutions and to facilitate the restoration process.

## 6. ERCOT Response to Major Electrical Outages

ERCOT has several processes and procedures to respond to various events that could affect the ERCOT grid. These events can range from shortages in power, localized power disruptions, severe storms and total system blackout. In order to convey system conditions to ERCOT market participants and the PUC, ERCOT issues a series of notices. Depending on the severity of the event, these are classified as an Operating Condition Notice, an Advisory, a Watch and finally an Emergency Notice. ERCOT continuously maintains situational awareness and has developed a Black Start Restoration Plan to address the worst case scenario. In addition, ERCOT conducts an annual Black Start drill with transmission and generation companies that test this plan. The PUC will maintain communications with ERCOT emergency personnel to ensure that all restoration concerns are being addressed.

## 7. Utility Response

The utility that owns the damaged infrastructure is the primary respondent in any emergency. Each utility has an EOP, and is in the best position to assess the damage, formulate a plan for restoration, and to execute the plan. Utilities maintain both mutual aid agreements with utilities inside and outside Texas and contracts with vendors to fill the needs of employees and outside crews as they make their repairs in the affected area.

They work with their ISOs to minimize the impact of the outages to the grid and to restore the system as efficiently as possible. When the SOC is activated, representatives of the major utilities are present in the SOC to work with the PUC and other State agencies to help return the State to normal conditions in a safe and efficient manner.

## 8. Interconnections

On rare occasions, damage to infrastructure can necessitate a temporary interconnection between a utility inside ERCOT and one outside ERCOT in order to provide power to a critical facility or group of customers, stabilize conditions on either grid, or to otherwise solve a serious outage condition. The two utilities must include their ISOs in the discussions, confirm that the integration is technically feasible, and file the appropriate waivers with the Federal Energy Regulatory Commission and the Department of Energy (DOE). The PUC can assist in obtaining the appropriate federal authorizations.

## B. RAILROAD COMMISSION (RRC)

### 1. Protection of energy supplies

a. The RRC will monitor the following internal preventative actions:

- 1) Begin pre-emergency monitoring if the potential for an energy emergency exists. RRC personnel monitor weather conditions, news reports, oil and natural gas prices, and websites that provide data on energy supplies.
- 2) Continually monitor any service disruptions of pipelines, gas plants, and refineries after a disruption is reported.
- 3) Maintain a geospatial map and database of oil and natural gas wells, pipelines, and other infrastructure components. The agency's Critical Infrastructure/Key Resource geospatial mapping data is available to the RRC SOC Team and the Texas Division of Emergency Management (TDEM) before and during an energy emergency.
- 4) Encourage utilities, through seminars and correspondence, to employ updated cyber security capabilities on Supervisory Control and Data Acquisition (SCADA) systems, Advanced Measurement Instruments (AMI) and to maintain backup plans in the event of facility failure.

b. The RRC requires natural gas providers to:

- 1) Follow emergency operating procedures of the natural gas provider in the event of an emergency.
- 2) Follow the curtailment plans the natural gas providers are required to file with the RRC Gas Services Division. A curtailment plan describes the order in which natural gas service will be curtailed to customers or classes of customers in the event of a natural gas supply disruption. Gas utilities are required to report to the Gas Services Division a curtailment of natural gas to a customer either before an actual curtailment occurs or within two hours after curtailment.

- 3) Maintain a record of service disruptions and report certain service interruptions to the Gas Services Division.

## 2. Emergency Response Team

- a. Under the direction of the Safety Officer, a trained team of RRC employees serves at the SOC upon activation during an emergency. These RRC employees, referred to as the SOC team, provide 24-hour coverage at the SOC in rotating shifts. Each SOC team member is familiar with the RRC's emergency contact lists and the RRC's geospatial map that includes wells, pipelines and other critical infrastructure facilities. The SOC team coordinates emergency activities with RRC District Office personnel located in the field throughout the State. Resources available to the SOC team and District Office field staff include the agency's vehicle fleet, laptop tough book computers, air cards, cell phones, geospatial map data, and access to private lands, where necessary. The SOC team may also assist gas distribution system operators and liquefied petroleum gas (LPG)/compressed natural gas (CNG)/liquefied natural gas (LNG) suppliers with initial rapid impact assessment activities, disaster area work crew mobility and logistic issues and with waivers for state regulation of non-licensed energy supply trucks.
- b. The Safety Officer is the RRC's first point of contact following activation of the SOC, and the agency's lead emergency contact with Texas Division of Emergency Management (TDEM) and other emergency personnel.
- c. The RRC has multiple District Offices throughout the State. Designated District Office personnel maintain contact with the RRC's SOC team during an emergency. RRC District Office personnel may be available to assist local governments, Disaster District Committees (DDCs) and the SOC team.
- d. The RRC's Gas Services Division Director serves as the agency's liaison with the Texas Energy Reliability Council (TERC), a team of natural gas industry representatives. During an emergency, the agency's RRC/TERC liaison communicates with TERC, the Safety Officer, the SOC team, and gas industry personnel regarding the supply of natural gas.
- e. The RRC/TERC liaison works closely with the RRC's Emergency Communications Coordinator (ECC), a Gas Services Division employee, who oversees a team of natural gas specialists that gather and disseminate data during an emergency.

## 3. State Response to Oil and Gas Emergencies

The RRC assists emergency responders in the SOC in monitoring the production, delivery, and receipt of oil and gas in the affected disaster area, determining how much and what type of energy source is to be allocated, determining if resources can be reallocated from non-affected areas to affected areas and being prepared, as appropriate, to update TDEM and the RRC Media Affairs representative on the status of energy supply in the disaster area.



a. Natural Gas

1) Outages, damages, restoration, and curtailments

The ECC appointed by the RRC/TERC liaison monitors, evaluates, and distributes information pertaining to natural gas outages, damages, restoration time, and curtailment to the RRC/TERC liaison, who relays such information to the SOC team. The ECC also directs the Gas Services Division Staff, maintains contact lists, and performs other duties described in the Gas Services Division's Emergency Response Process maintained by the Director of the Gas Services Division.

2) Natural gas supplies

TERC monitors natural gas supplies during an emergency and furnishes information about supplies and supply shortages to the RRC/TERC liaison. The RRC/TERC liaison reviews and analyzes information provided by TERC and relays this information to the SOC team. TERC, working with the RRC/TERC liaison, facilitates the voluntary allocation of natural gas resources to ensure that high priority needs of Texas consumers are met.

3) Supply shortages, short-term

For natural gas supply shortages of short duration, voluntary measures are coordinated by TERC and affected utility providers to reduce natural gas consumption.

4) Supply shortages, extended

In the event of natural gas supply shortages of an extended duration, members of TERC, the RRC/TERC liaison, the ECC and SOC team, working cooperatively, aided by Federal ESF #12, present recommendations to the Chief of TDEM, the State Director of Homeland Security and the Governor regarding what necessary actions the State should take to respond to the shortage. These authorities take action to allocate supplies as required. Emergency actions may include:

- a) Diverting producer and/or pipeline supplies to specific areas of need.
- b) Directing storage operators to increase delivery rates.
- c) Directing large industrial customers or electric generation plants to cut back on their gas consumption to allow supplies to go to higher priority users.

5) Demand Management

The Chief of TDEM, State Director of Homeland Security, and the Governor have authority to order cutbacks in the use of natural gas in state-owned facilities and to activate a campaign to encourage voluntary reductions in consumption by residential and other customers through public service announcements.

6) Production

Working through the Texas Oil and Gas Association (TXOGA) and the Texas Independent Producers and Royalty Owners Association (TIPRO), the RRC may encourage natural gas producers to maximize the production of natural gas. The RRC may place pro-rated gas fields on a capacity basis, subject to balancing of correlative rights, after the emergency is over. For the duration of an emergency, the RRC may also return to production oil and gas wells that are subject to administrative seal or severance actions.

b. Petroleum Liquids

1) Crude oil production

The RRC regulates the exploration and production of crude oil. In the event of an emergency resulting in a crude oil supply disruption, the RRC may allow oil producers and transporters to temporarily maximize oil production. The RRC may:

- a) Increase the gas-oil production ratio limitation on oil wells.
- b) Temporarily lift top oil allowable so that oil wells may produce at their full capacity, subject to reconciliation after the emergency.
- c) Encourage the transfer of crude oil from storage facilities to refining facilities.
- d) Allow oil wells that have been shut down due to regulatory violations to be returned to production (if appropriate) for the duration of the emergency.

2) LPG, LNG, CNG

The RRC regulates transportation and storage of LPG, LNG and CNG fuels. In the event of an emergency, TDEM may require State facilities to temporarily switch to these fuels where possible. In support of TDEM's actions, the RRC may:

- a) Encourage the private sector to switch to these fuels.
- b) Assist in identifying the location and availability of these fuels within an affected area.
- c) Contact natural gas suppliers in affected locations and request that CNG trailers are provided at police stations, emergency command posts, and warming shelters to run gas-fired electrical generators until natural gas service is restored.
- d) Issue temporary waivers to out of state LPG suppliers to make emergency deliveries of LPG possible.

- e) Assist LPG truck drivers in securing permission to exceed their maximum hour's limitations.

#### 4. Recovery

- a. The Gas Services Division monitors natural gas outages and natural gas service restoration efforts.
- b. RRC personnel assist in identifying resources that can be directed toward fuel energy restoration efforts.
- c. RRC personnel assist natural gas utility company work crews with sheltering, logistics and securing re-entry authorization waivers for working in the impacted area. In addition, RRC staff may assist with repairing or replacing damage to natural gas distribution systems and coordination of waste removal and disposal.
- d. In accordance with RRC procedures, the RRC Media Affairs representative informs the media about energy services to the affected area(s).
- e. The Safety Officer, RRC/TERC liaison, SOC team and District Office personnel assist operators of oil and gas wells and facilities by the timely dissemination of vital emergency information and coordinate available resources for recovery operations.

### **C. STATE SUPPORT AND ASSISTANCE POLICY**

1. The State's primary goals in managing an energy emergency are to:
  - a. Protect public health and safety and to minimize property loss.
  - b. Assist local governments and energy providers in the restoration of facilities that are beyond their capacity to restore
  - c. Prevent energy supply disruptions.
  - d. Ensure the collection of outage and restoration information in a timely manner and appropriately disseminate the information among State agencies.
  - e. Ensure that the outage information, appropriate problem solutions and energy concerns are effectively coordinated among the utilities to facilitate restoration efforts.
  - f. Ensure emergency energy information, education, and conservation guidance is provided to the public regarding energy and utility services restoration.
2. In accordance with the Basic Plan, State emergency support and assistance, if required, will be provided as quickly and as efficiently as possible. Attempts to provide assistance will be consistent with priority of need as outlined in Section IV of Annex N (Direction & Control). The decision to expend State funds to provide support and assistance will be made after consideration of both priority of need, availability of resources, and cost to the State. However, in situations where lives and property are immediately threatened, the most rapid means of response will be utilized.

3. Requests for emergency assistance will be resolved at the lowest level direction and control facility with appropriate response resource capabilities. Requests for assistance normally flow upward from cities to the county, and if unresolved at the county level, continue upward to the responsible DOC. If the DOC is unable to accommodate the request, it is then forwarded to the SOC and, if needed, to other states or the federal government.

#### **D. ASSISTANCE TO LOCAL GOVERNMENTS AND AFFECTED UTILITY PROVIDERS**

1. All electric utilities maintain lists of critical facilities that include restoration priorities. Local governments may also develop a list of their critical facilities and their utility restoration priorities. This list is typically published in the local emergency management plan.
2. Energy resource group members will provide assistance, as necessary, to local officials in determining service restoration priorities for critical facilities. Requests for assistance with emergency power equipment, such as generators, should be directed to the Public Works Response Team. Resource group members will also determine whether or not the State can assist by providing State-owned resources, requesting assistance from the Federal government, or by locating appropriate contractors and suppliers who can meet the need.
3. Resource group members will also assist local energy providers in any intrastate or interstate coordination efforts to obtain restoration assistance.

#### **E. MULTIPLE AGENCY SUPPORT OPERATIONS**

This plan provides for the commitment of appropriate State resources that may require action by multiple agencies outside of those described in Annex L. The Energy agencies may have to routinely coordinate with the following resource groups:

1. Public Works & Engineering

In areas where restoration of electrical power and natural gas service is constrained by the inability of responders to reach work sites due to road closure by debris or damage. Public Works & Engineering may be able to facilitate debris clearance and repairs.

2. Transportation

This resource group may be able to facilitate the movement of utility emergency response equipment and/or personnel within Texas and from other states. In addition, electric utilities will coordinate with the Texas Department of Transportation for the removal of downed power lines from streets and thoroughfares.

3. Resource Management

This resource group may be requested to identify suppliers for emergency resources (such as generators, boilers or alternative sources of fuel).

#### 4. Public Information

This resource group may be requested to disseminate meaningful information to the public such as:

- a. Outage status reports and estimated service restoration times in specific areas as necessary.
- b. Energy conservation measures.
- c. Requests for consumers to switch to alternative fuel sources if possible.
- d. Emergency evacuation routes and evacuation plans.
- e. Public Service Announcements with useful phone numbers (Red Cross, Salvation Army, and official event numbers), shelter information and Internet sites for emergency information.

#### 5. Evacuation

This resource group includes the Fuel Coordination Team that ensures the availability and distribution of fuel in the private sector during a crisis, particularly along evacuation routes.

#### F. NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)/INCIDENT COMMAND SYSTEM (ICS)

Emergency response operations conducted pursuant to NIMS require damage assessments and restoration of energy operations to be completed in accordance with ICS operating standards. All personnel directing and/or working these response and recovery operations must be trained on ICS protocols and procedures to effectively perform their duties.

### VI. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

#### A. ORGANIZATION

The State Emergency Management Plan identifies the agencies and organizations tasked with performing specific emergency support functions based on their authority and capability in that particular functional area. The primary agency for Annex L is the PUC. Other agencies and organizations are designated to provide support based on their ability to provide equipment, personnel, and expertise to assist the primary agency in support of functional tasks. The RRC and the Comptroller of Public Accounts/State Energy Conservation Office (CPA/SECO) are designated as support agencies to this Annex, and their contributions are described below.

#### B. ASSIGNMENT OF RESPONSIBILITIES

##### 1. General

- a. This annex, as a standard practice, provides for the employment of multiple agencies and organizations during response and recovery operations. Requests for support are expected to routinely occur during the course of a significant emergency response and recovery operation, regardless of the type of incident.

- b. All agencies and organizations assigned to the Energy resource group are responsible for the following tasks:
  - 1) Designating and training representatives of their agencies in accordance with applicable NIMS requirements to serve as group members and ensuring that appropriate Action Guides and standard operating procedures (SOPs) are developed and maintained.
  - 2) Identifying staff requirements and maintaining current notification procedures to ensure appropriately trained agency personnel are available for extended emergency duty in the SOC and Disaster District Emergency Operations Centers (EOCs), the Multi-Agency Coordination Center, Joint Field Office, field command posts, traffic control and monitoring points as needed.
  - 3) Developing and maintaining procedures to ensure current inventory of agency resources and contact lists are available.
  - 4) Developing and maintaining procedures for the identification, location, commitment, deployment, and accountability of agency emergency support resources. Major resources paid for with Federal funds should be entered into the Texas Regional Resource Network (TRRN), as required, to facilitate assistance pursuant to mutual aid agreements. The TRRN complies with the relevant NIMS performance and interoperability classification standards.
  - 5) Providing personnel, equipment and other assistance in support of response and recovery operations as capable.
  - 6) Providing assistance and coordination for the development and implementation of intrastate and interstate mutual aid.
  - 7) Providing situational and operational status reports in accordance with existing procedures, and as requested by the primary agency.

## 2. Primary Agency

The primary agency for the Energy resource group is the PUC. This agency is responsible for the state-level coordination of assets and services, and will accomplish the following:

- a. Identify and coordinate staffing requirements appropriate to the emergency situation for its own agency.
- b. Assist in monitoring the production, transmission, and distribution of electricity to disaster areas.
- c. Obtain damage summaries from electrical utilities; provide accurate and timely information regarding electricity outages (customers impacted, critical facilities impacted, estimated duration of outages, realistic restoration schedule) that can be used by direction and control facilities in determining resource allocation.

- d. Receive requests for assistance from utilities and other State agencies, formulate an appropriate response, and implement the response, obtaining decision-maker approval where required.
- e. Collect emergency operations information from Energy resource agencies and produce reports and updates in a timely manner.
- f. Coordinate emergency information or actions with utility companies.
- g. Assist electric utilities, as requested, with damage assessment activities.
- h. Facilitate the restoration process, minimizing the impact on the affected area(s), and proactively interface with utilities and the SOC to look for solutions to problems. If requested, coordinate with electric utilities to facilitate repairs to damaged systems.
- i. Develop, maintain and distribute this Annex, appropriate SOPs and the Energy and Utilities Action Guide.
- j. Assist public information personnel, as appropriate, in updating the media on the status (outage and restoration information) of utilities in the disaster impact area.

### 3. Support Agencies/Organizations

All tasked support agency representatives must be aware of the capabilities of their parent organizations to provide assistance and support, and be prepared to provide recommendations to primary agency representatives. Agency representatives must respond to mission assignments from the designated coordination and control authority for deployment and commit agency assets to support the response and recovery effort. Some agencies will provide personnel and/or equipment, while support from other agencies will be knowledge and expertise in working with response agencies, the vendor community, or commercial organizations or associations in supplying services or in restoration of disrupted services.

#### a. The RRC will:

- 1) Communicate internally and externally regarding natural gas supplies, allocations, curtailments, shortages, service disruptions and recovery operations.
- 2) Communicate with appropriate industry personnel, trade organizations, state agencies and Federal counterparts to facilitate problem solving for gas and petroleum supply, allocation and consumption issues including the increase of energy production and reduction in energy consumption.
- 3) Closely monitor downstream processing, transmission and usage of natural gas and LPG/CNG/LNG in the disaster area for disruption or shortages in distribution system supplies.
- 4) Closely monitor upstream production of crude oil and natural gas in the disaster area for disruption or shortages in gathering system supplies.

- 5) Closely monitor intrastate and interstate pipeline systems in the disaster area for disruption or shortages in petroleum product transmission.
  - 6) Provide TDEM with clear and concise supply, allocation, or reallocation solutions for disruptions or shortages of petroleum resources affecting distribution and consumption in the disaster area.
  - 7) Update TDEM and the RRC Media Affairs representative on the operational status of upstream natural gas, crude oil production, and pipeline systems as well as downstream processing, transmission, and usage of natural gas, LPG/CNG/LNG, and petroleum products during the extent of the disaster or incident.
- b. CPA/SECO will assist the PUC and RRC with the following:
- 1) Provide electricity consumers with information concerning demand management and energy conservation tips.
  - 2) Disseminate information through the State Agency Energy Advisory Group.
  - 3) Provide technical assistance with regard to energy conservation measures.
  - 4) Aid in developing public information materials.

## VII. COORDINATION AND CONTROL

Coordination and control of emergency response and recovery operations in Texas will be exercised in accordance with Sections V.B and VI of the State of Texas Emergency Management Plan and in accordance with NIMS and relevant National Response Framework requirements.

The PUC's Emergency Management Coordinator will serve as the primary agency representative, and will coordinate Energy resource group activities within the SOC. Because PUC personnel are not represented in the DDCs, all requests for energy assistance at that level will first be directed to the affected electric utilities for resolution. If not resolved, requests will be forwarded to the SOC for consideration by Energy resource group members.

## VIII. EMERGENCY RESPONSE LEVELS/ACTION GUIDES

See Basic Plan, Section VII, for a list of the response levels and the activities that characterize each level. Appendix 2 to Annex N, Direction and Control, maintained by TDEM, addresses all hazards, functions, agencies and response levels. Appendix 1 to this Annex contains a supplemental Action Guide which outlines additional actions the group members should take at each emergency response level to ensure the group is prepared to respond and support emergency response operations.

## IX. CONTINUITY OF GOVERNMENT

See Basic Plan, Section VIII.

## X. ADMINISTRATION



## A. AGREEMENTS AND UNDERSTANDING

All agreements and understandings entered into for the purchase, lease, or use of equipment and services will be in accordance with the provisions of State law and procedures. The Proclamation of a State of Disaster issued by the Governor may suspend select rules and regulations affecting support operations. The specific impact of the situation will be determined by the nature of the emergency. Group members will be advised of any administrative and/or procedural changes impacting emergency operation procedures.

## B. STATUS REPORTS

The primary agency will maintain the current status of all outstanding assistance requests and unresolved issues. This information will be summarized into periodic status reports and submitted in accordance with applicable operating procedures.

## C. EXPENDITURES AND RECORD KEEPING

1. Each State agency is responsible for establishing administrative controls necessary to manage the expenditure of funds and provide reasonable accountability and justification for Federal reimbursement in accordance with the established guidelines.
2. The first source of expenditures of State agencies in response to an emergency, imminent disaster, or recovery from a catastrophic incident should originate from funds regularly appropriated by the Legislature.
3. In accordance with established procedures, State agencies may seek financial assistance from Disaster Contingency Funds.

## D. POST-INCIDENT REVIEW

1. Following the conclusion of any significant emergency event/incident or exercise, the primary agency representatives will conduct a critique of the group's activities during the event/incident or exercise. Support agencies will provide written and/or oral inputs for this critique and the primary agency representative will consolidate all inputs into a final written report.
2. Chapter 418, Government Code, requires State agencies, political subdivisions, and inter-jurisdictional agencies to conduct an evaluation of their response to a disaster, to identify areas needing improvement, and to issue a report of the evaluation to IDEM no later than 90 days after TDEM makes the request.

## XI. DEVELOPMENT AND MAINTENANCE

### A. DEVELOPMENT

1. TDEM has the overall responsibility for emergency planning and coordination of State resources in the conduct of emergency operations.
2. The Chairman of the PUC is the approving authority for this Annex and is responsible for its approval and implementation.

## **8. MAINTENANCE**

The PUC's Emergency Management Coordinator (EMC) is responsible for the development, maintenance and distribution of this Annex.

The PUC's EMC, in conjunction with the Chief of TDEM, will also be responsible for conducting an annual review, coordinating all review and revision efforts, and incorporating information learned from exercises and actual events into this Annex.

**APPENDIX 1**

**ENERGY SUPPORT ORGANIZATION**

Primary Agency	Public Utility Commission of Texas (PUC)
Support Agencies	Railroad Commission of Texas (RRC) Comptroller of Public Accounts/State Energy Conservation Office (CPA/SECO)

## **APPENDIX 2**

### **ACTION GUIDE TO ANNEX L**

#### RESPONSE LEVEL IV - NORMAL CONDITIONS

- A. Promulgate rules requiring utilities to report major service outages to responsible agencies.
- B. Identify, train and equip agency personnel for emergency operations.
- C. Develop/maintain agency resource lists and emergency contact info.
- D. Maintain this annex.
- E. Participate in emergency drills and exercises.

#### RESPONSE LEVEL III-INCREASED READINESS CONDITIONS

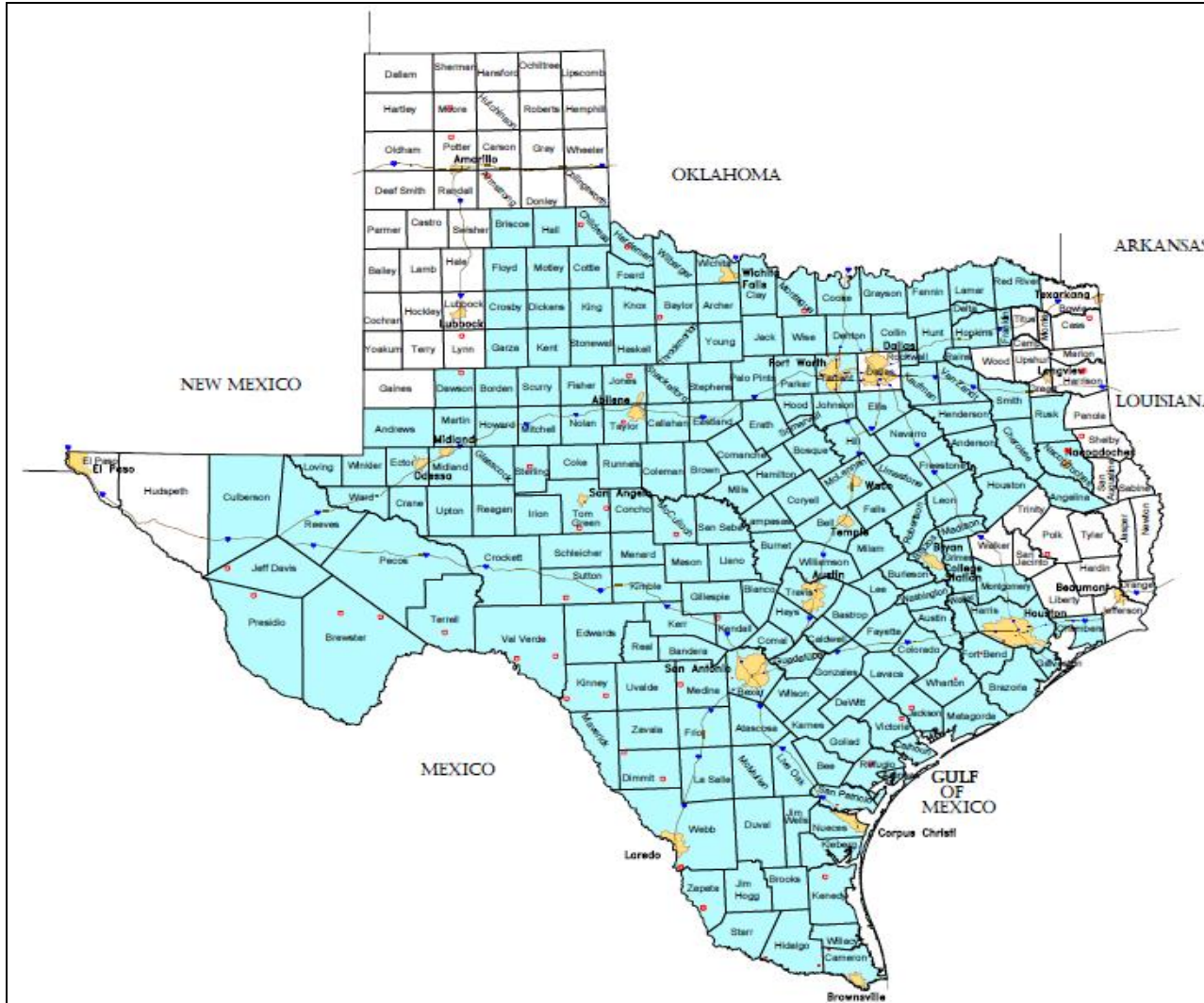
- A. Monitor the situation.
- B. Review emergency plans and procedures.
- C. Identify specific personnel to staff resource group positions in emergency facilities.
- D. Alert personnel for emergency duty.
- E. Ensure staff-recall rosters are up to date.
- F. Check emergency contact information for utilities, critical facilities and key staff.
- G. Ensure utilities and energy providers are aware of any emergency situation if it is not readily apparent.

#### RESPONSE LEVELS II & I- ESCALATED RESPONSE CONDITIONS & EMERGENCY CONDITIONS

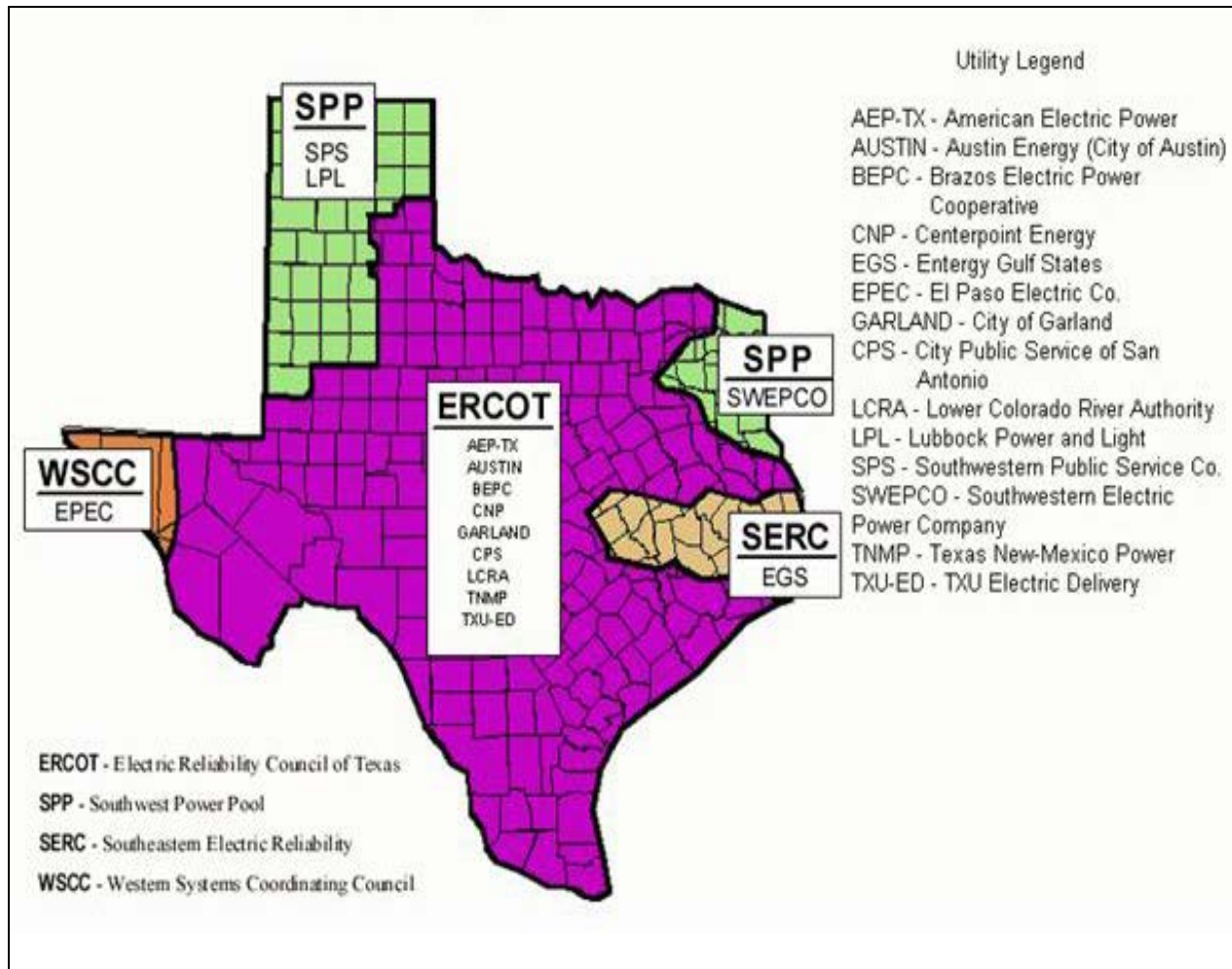
- A. Staff energy resource group positions in designated emergency facilities.
- B. Assist in obtaining initial utility damage assessments, including areas and number of customers affected and estimated out-of-service times.
- C. Obtain regular status reports from utilities serving the affected area.
- D. Provide periodic status reports to State and Disaster District EOCs.
- E. Identify priority service restoration needs requested by local governments or State agencies to utilities.
- F. Respond to requests for emergency energy/utility assistance, coordinating as necessary with other resource groups.

- G. Coordinate with utility providers, TDEM and agency public affairs staffs to provide information to the public on the emergency and, where appropriate, measures to deal with utility outages and to conserve energy.
- H. If requested, identify qualified personnel to assist in damage assessment for public non-profit utilities.
- I. If requested, coordinate with State agencies and local governments to facilitate utility emergency response including identifying lodging, food, fueling, and equipment staging facilities.

Appendix 3  
ELECTRIC RELIABILITY COUNCIL OF TEXAS (ERCOT) MAP  
BY COUNTY



**APPENDIX 4  
ELECTRIC RELIABILITY COUNCIL OF TEXAS (ERCOT)  
BOUNDARIES AND MAJOR UTILITIES**



## Appendix 5 ERCOT Energy Emergency Alert Communications

Emergency Levels	Operating Reserves	Grid Operators' Actions	Automated Emergency Notifications	Follow-up Communications from External Affairs	Media/Public Notifications
Normal Conditions	<b>Reserves &gt; 3,000 MW</b>	Normal operations			
Control Room Advisory	<b>Reserves &lt; 3,000 MW</b>	Issue "Advisory" to utilities - informational only -- no additional authority for operators' actions.	Public Utility Commission (PUC) and NERC regional entity (TRE) notified via daily emails; operations notices at Control Room discretion.		
Control Room Watch	<b>Reserves &lt; 2,500 MW</b>	Use quick-start capacity and non-spinning reserves (available within 30 minutes).	Automated Emergency Notification System phone call and email to PUC staff, the independent market monitor (IMM), TRE and FERC; operations notice at Control Room discretion.	If potential emergency situation, additional information sent to the Grid Emergency email list (SOC, PUC, OPC, RRC, TCEQ, Board, Govmt/Lege, IMM, TRE, FERC, and Market Participants' media contacts/PIOs)	Consider Conservation Alert to support grid reliability
Conservation Alert	As needed to encourage conservation when tight operating reserves are a concern	Monitor need for additional generation and voluntary demand response resources.	None -- conservation messages entered and deployed manually in non-emergency situations.	Coordinate public notification with PUC staff; notify media of change in conditions.	Spotlight home page of ercot.com and mobile app; social media, app messages and/or news release
Energy Emergency Level 1 <b>POWER WATCH - Conservation Needed (appeal optional if situation short-lived)</b>	<b>Reserves &lt; 2,300 MW</b>	Use capacity available from other grids (via asynchronous connections; 500 MW on average) and commit all available units; implement weather-sensitive and 30- minute ERS resources if needed	Above plus State Operations Center (notifies city, county officials & law enforcement), Office of Public Utility Counsel, govmt/lege staff and ERCOT Board; media contacts for utilities	If needed, notify GridEmergency list with additional information	News release, if appropriate; Emergency Alerts list,** Twitter and Facebook, mobile app alerts; spotlight on ercot.com and mobile app
Energy Emergency Level 2 <b>POWER WARNING - Conservation Critical</b>	<b>Reserves &lt; 1,750 MW</b>	Deploy demand response resources: Load Resources under contract (1,000 MW on average) and/or Emergency Response Service* (400-500 MW on average), in either order. Begin block load transfers of load to other grids if appropriate.	Above plus major news services and media contacts for utilities	Same as above	News release, if appropriate; Emergency Alerts, Twitter and Facebook, mobile app alerts, spotlight on ercot.com and mobile app
Energy Emergency Level 3 <b>POWER EMERGENCY - Rotating Outages</b>	<b>Reserves continuing to trend downward or frequency at or below 59.8 Hz</b>	Instruct transmission operators to implement rotating outages. Areas affected are at the discretion of the utilities.	Same as above	Same as above	News release; Emergency Alerts list, Twitter and Facebook, mobile app alerts, spotlight on ercot.com and mobile app

\*Emergency Response Service includes 10-minute services, 30-minute and Weather-Sensitive Demand Response pilots

\*\* Sign up for Emergency Alerts and News Bulletins list at <http://lists.ercot.com>