Appendices

State Energy Security Plan

New Mexico Energy, Minerals, and Natural Resources Department
Energy Conservation and Management Division

NEW MEXICO
emnrd
Energy, Minerals and Natural Resources Department

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Appendix A: Energy Source and Provider Inventory

NM PRC Regulated IOUs

Utility Name	Owner
El Paso Electric	Infrastructure Investment Fund, J.P. Morgan
Public Service Company of New Mexico	Public Service Company of New Mexico
Xcel Energy	Xcel Energy

NM PRC Regulated Electric Cooperatives

Utility Name	Counties Served
Central New Mexico Electric Co-op	Bernalillo, Chaves, De Baca, Guadalupe, Lincoln, San Miguel, Sandoval, Santa Fe, Socorro, Torrance, Valencia
Central Valley Electric Co-op	Chaves, Eddy, Lea, Otero
Columbus Electric Co-op	Grant, Hidalgo, Luna
Continental Divide Electric Co-op	Bernalillo, Cibola, McKinley, Sandoval, Valencia
Duncan Valley Electric Co-op	Grant, Hidalgo
Farmers Electric Co-op	Curry, De Baca, Guadalupe, Harding, Quay, Roosevelt, San Miguel
Jemez Mountains Electric Co-op	McKinley, Rio, Arriba, San Juan, Sandoval, Santa Fe
Kit Carson Electric Co-op	Taos, Colfax, Rio Arriba
Lea County Electric Co-op	Chavez, Eddy, Lea
Mora-San Miguel Electric Co-op	Guadalupe, Mora, San Miguel, Santa Fe
Navopache Electric Co-op	Catron
Northern Rio Arriba Electric Co-op	Rio Arriba
Otero County Electric Co-op	Chaves, Lincoln, Otero, Socorro
Rio Grande Electric Co-op	Eddy, Otero
Roosevelt County Electric Co-op	Chaves, Curry, De Baca, Roosevelt
Sierra Electric Co-op	Catron, Luna, Sierra, Socorro
Socorro Electric Co-op	Catron, Cibola, Sierra, Socorro, Valencia
Southwestern Electric Co-op	Harding, Quay, Union
Springer Electric Co-op	Colfax, Harding, Mora, San Miguel, Union

Utility Name	Counties Served
Tri-State Generation and Transmission Association, Inc.	Hidalgo, Grant, Luna, Dona Ana, Sierra, Catron, Socorro, Cibola, McKinley, San Juan, Rio Arriba, Sandoval, Santa Fe, Colfax, Union, Mora, Harding, San Miguel, Guadalupe, Torrance, Valencia, Bernalillo, De Baca, Chaves, Lincoln, Otero, Quay
Western Farmers Electric Co-op	Eddy, Chaves, Lea, Roosevelt, Curry, De Baca, Quay, San Miguel, Guadalupe, Harding

Tribal Utilities

Utility Name
Pueblo of Acoma
Navajo Tribal Utility Authority
Jicarilla Apache Nation Power Authority

Municipal Utilities

Utility Name
City of Aztec
City of Farmington
City of Gallup
City of Truth or Consequences
Los Alamos Utilities
Northern Rio Arriba
Raton Utilities
Town of Springer

Oil Sources and Providers

Name	
3 Nights Operating LLC	Harvard Petroleum Company, INC
801 LLC	Hilcorp Energy Company
Abo Empire, LLC	Judah Oil
Acacia Operating Company, LLC	KEM Ventures, LP
Action Oil CO Inc	Marathon Oil Permian LLC
Addington, LLC	Matador Production Company
Ameredev Operating, LLC	Maverick Operating, LLC

Name	
Americo Energy Resources LLC	McGowan Working Partners, LLC
Amtex Energy Inc	MorningStar Operating LLC
Apache Corporation	Moss Petroleum Co
Armstrong Energy Corp	Murchison Oil and Gas, LLC
Aspen Oil Inc	Occidental Permian LTD
Benson-Montin-Greer Drilling Corp	Phoenix Hydrocarbons Operating Corp.
Burnett Oil Company	Pitts Energy Co
Cambrian Management LTD	Redwood Operating LLC
Catena Resources Operating, LLC	Rim Operating Inc
Cattle LLC	Sagebrush Oil Inc
CFM Oil, LLC	San Juan Resources, Inc
Cimarex Energy Co.	Saxet Oil Corporation
CML Exploration, LLC	Schalk Development Co
C O Fulton	SCO Permian, LLC
Contango Resources, LLC	Seguro Oil and Gas, LLC
Cross Border Resources, INC.	Shackelford Oil Co
Cross Timbers Energy, LLC	SIMCOE LLC
Devon Energy Production Company, LP	Southwest Royalties Inc
Dinero Operating Co	Sozo Natural Resources Inc
DJR Operating, LLC	Spur Energy Partners LLC
DKD Production, LLC	Stevenson Oil Company
D Operating Inc	Sundown Energy LP
Driftwood Oil, LLC	Sunlight Exploration, Inc.
Eastland Oil CO	Tandem Energy Corporation
Enerdyne, LLC	Texland Petroleum-Hobbs, LLC
EOG Resources Inc	Texon Oil Company, Inc.
Fae II Operating LLC	Vintage Drilling, LLC
Forty Acres Energy, LLC	Warren American Oil
Four Corners Exploration Co	Watts Inc
Franklin Mountain Energy LLC	Whiting Oil and Gas Corporation
Grand Banks Energy CO	Yarbrough Oil LP

Name	
Gulf Exploration	Yates Energy Corp
Harlow Enterprises INC	Yates Industries LLC

Natural Gas Sources and Providers

Name	
3 Bear Delaware LLC	Navajo Tribal Utility Authority
City of Las Cruces	New Mexico Gas Company
City of Lordsburg	Northern Natural Gas Company*
DCP Midstream	Oktex Pipeline Company, LLC*
Deming Gas System	Petroleum Fuels Company
EMW Gas Association	Raton Gas Company
Eastern New Mexico Gas Association	SIMCOE LLC
El Paso Gas Company	Socorro Natural Gas Company
Energy Transfer Company	SPC Resources, LLC
Enlink Permian, LLC	Summit Midstream Permian 2 LLC
Enterprise Products Operating LLC	Targa Resources Operating LLC
Frontier Field Services LLC	Town of Mountainair
Grama Ridge Storage and Transportation, LLC	Transcolorado Gas Transmission Company*
Harvest Midstream Company	Transwestern Pipeline Company*
Hilcorp Energy Company	Village of Wagonmound Gas System
Holly Energy Partners Operating L.P	SPC Resources, LLC
IACX Roswell LLC	West Texas Gas Utility LLC*
Las Vegas Natural Gas System	Western Midstream Partners, LP*
Longwood RB Pipeline, LLC	Western Refining Logistics, LP*
Los Alamos County Utilities	WWM Operating, LLC*
Luci Energy Delaware	Zia Natural Gas Company
Markwest New Mexico, LLC*	Western Refining Logistics, LP*
Merrion Oil and Gas	WWM Operating, LLC*
Natural Gas Pipeline Co of America (KMI)*	Zia Natural Gas Company

**Refers to interstate pipelines*

New Mexico Solar Sources and Providers

Name	
ADT Solar	Positive Energy Solar
Affordable Solar	Quantum Solar Power
Chaves Solar	Solar Smart Living, LLC
Erus Energy	Sunfire Solar Systems, LLC
Infinity Solar USA	SunPower
NM Solar Group	Sunshine Saves Inc.
Ocotillo Solar Electric	Titan Solar Power

Wind Sources and Providers

New Mexico Wind Project	Electric Utility or Cooperative	Location	Date Online
Anderson Wind Project	N/A	Chaves	2015
Aragonne Mesa	Arizona Public Service	Guadalupe	2007
Caprock Phase I & II	N/A	Quay	2004 & 2005
El Cabo Wind Farm	N/A	Torrance	2019
Grady Wind Energy Center	N/A	Curry	2019
Guadalupe Mountains	N/A	Chaves	UC
High Lonesome Mesa	SPS	Torrance	2009
La Joya Wind Project	N/A	TBD	Commission in 2023
Llano Estacado	SPS	Curry	2003
Macho Springs Power	Tucson Electric Power	Luna	2014
NM Wind Energy Center	PNM	DeBaca & Quay	2003
Red Mesa Wind Energy Center	PNM	Cibola	2010
Roosevelt Wind Farm	N/A	Roosevelt	2015
San Juan Mesa	SPS	Roosevelt	2005
Taiban Mesa Wind	N/A	TBD	TBD
Wildcat Wind Ranch	Exelon	Lea	2012

Hydropower Sources and Providers

Dam Name	Owner
Navajo	City of Farmington
Elephante Butte	U.S Bureau of Reclamation
Abiquiu	Los Alamos Utilities
El Vado	Los Alamos Utilities

Appendix B: Energy Emergency Contact List

Entity	Contact	Role Description
Governor	Phone: 505-476-2220 Email: Diego.Arencon@exec.nm.gov	Declares a state of emergency and activates state EOC.
Governor's Authorized Representative **NM DHSEM Secretary**	Secretary David Dye Phone: 505-476-9655 Mobile: 505-589-8158 Email: david.dye@dhsem.nm.gov Dep. Secretary may serve as the Secretary's delegate.	Serves as Governor's delegated representative during an emergency. Activates/Deactivates the EOC levels. Serves as the State Coordinating Officer to interface with FEMA Federal Coordinating Officer during a declared emergency where federal resources are requested.
EOC Director	Phone: 505-476-9635 Email: nm.eoc@dhsem.nm.gov	Directs and controls EOC operations, response, and resources, upon EOC activation. Key POC for federal assistance and interstate mutual aid requests. Response for support to field Incident Response Teams. Interfaces with PIO on emergency communications to the public.
EOC Watch/Duty Officer	Phone: 505-476-9635 Email: nm.eoc@dhsem.nm.gov	Monitors 24/7 request line for state-level EOC support and recommends activation of the EOC to EOC Director. Staff monitors conditions for potential events and energy disruption.
EMNRD ECMD ESF #12 Representative	Jacqueline Waite, ECMD Bureau Chief Phone: 505-629-2858 Email: jacqueline.waite@emnrd.nm.gov	Monitors energy sector status and information for potential disruption. Informs EOC and Governor's office of an energy disruption that has the potential to become an energy emergency. Leads ESF #12. Monitors emergency events and coordinates with NM DHSEM, NM PRC, state, local, Tribal, and private partners.

NM PRC	**Pipeline Safety Bureau** Jason Montoya, Pipeline Safety Bureau Chief Phone: 505-946-8314 Email: jason.montoya@prc.nm.gov **Utilities Division** Ed Rilkoff, Utilities Division Director Phone: 505-690-7690 Email: ed.rilkoff@prc.nm.gov	POC for state-regulated energy providers (electricity, liquid fuels, natural gas). Coordinates with EMNRD ECMD to support ESF #12 to monitor emergency events and work with NM DHSEM, state, local, Tribal, and private partners to respond.
Fusion Center	Phone: 505-250-5739 Email: intelligence.fusion@dhsem.nm.gov	Monitors for threats or trends to energy sectors, primarily man-made or terrorist related, and provides situational awareness to state agencies. Provides analysis support on risks and vulnerabilities, specifically cyber. Supports analysis and situational awareness for state agencies and the private energy sector during an event. Key interface with DOE CESER, FBI, and CISA.
Policy Group	EOC Director is the POC.	Provides support to EOC and Governor's office during an event on policy issues, Executive Orders, and waiver needs.
FEMA	Phone: 202-646-2500	Assists the state EOC at the request of the State Coordinating Officer (DHSEM Secretary) and EOC Director. Provides financial assistance to recover from an emergency after a Federal Disaster Declaration receives Presidential approval.

Appendix C: Stakeholder List

Providers				
Electricity Providers	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
El Paso Electric	James Schichtl	575-523-7591	915-543-5711	james.schichtl@epelectric.com
Public Service Company of New Mexico	Ron Darnell	888-342-5766	505-473-3200	ron.darnell@pnm.com
PNM Resources	Joshua Elicio			Joshua.Elicio@pnmresources.com
PNM Resources	Gary Todd			gary.todd@pnmresources.com
PNM Resources	Marc Arellano	505-241-4454	505-550-8731	marc.arellano@pnmresources.com
PNM Resources	Shannon Jackson	505-241-2529	505-514-3978	Shannon.Jackson@pnm.com
Xcel Energy	Brenarr Treat	800-895-1999	575-626-5355	Bernarr.R.Treat@xcelenergy.com

Providers				
Electrical Transmission and Distribution Providers	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Tri-State Generation and Transmission Association	Vince Martinez	505-867-0817	505-274-9855	vmartinez@tristategt.org
Tri-State Generation and Transmission Association	Pete Slintak			pslintak@tristategt.org
Tri-State Generation and Transmission Association	David Sayles			dsayles@tristategt.org

Providers				
Electric Distribution Cooperative Members	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Central New Mexico Electric Cooperative	Alena Bradenberger	575-832-4483		alena.bradenberger@cnmec.org
Central New Mexico Electric Cooperative	Raymond Butler			raymond.butler@cnmec.org
Central New Mexico Electric Cooperative	David Berryman			david.berryman@cnmec.org
Central New Mexico Electric Cooperative	Ed Burkhart			ed.burkhart@cnmec.org
Central Valley Electric Cooperative	Joanna Callaway	575-746-3571	575-746-3571	joannacallaway@cvecoop.org
Central Valley Electric Cooperative	Brad Pollard			bpollard@cvecoop.org
Columbus Electric Cooperative	Chris Martinez	575-546-8838	575-546-8838	chrism@col-coop.com
Continental Divide Electric Cooperative	Robert E. Castillo	505-285-6656		rcastillo@cdec.coop
Farmers' Electric Cooperative, Inc. of New Mexico	Antonio Sanchez	800-445-8541		antonio@fecnm.org
Jemez Mountains Electric Cooperative	Matthew Casados			mcasados@jemezcoop.org

Providers				
Electric Distribution Cooperative Members	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Jemez Mountains Electric Cooperative	Michael Hastings	575-829-3550		mhastings@jemezcoop.org
Jemez Mountains Electric Cooperative	Bill Barva			bbarva@jemezcoop.org
Kit Carson Electric Cooperative	Richard Martinez			rmartinez@kitcarson.com
Kit Carson Electric Cooperative	Luis Reyes	575-758-2258		lreyes@kitcarson.com
Lea County Electric	Bobby Ferris	575-396-3631		bferris@lcecnet.com
Mora-San Miguel Electric Cooperative	Gwen Mascarenas	575-387-2205		gmascarenas@morasanmiguel.coop
Northern Rio Arriba Electric Cooperative	Anthony Mercure	575-756-2181		amercure@noraelectric.org
Otero County Electric Cooperative	Mario Romero	575-682-2521		marior@ote-coop.com
Otero County Electric Cooperative	Andrew Carrell			andyc@ote-coop.com
Roosevelt County Electric	Jeremy Neal			nealj@rcec.coop
Roosevelt County Electric	Eric Segovia	575-356-4491		segoviae@rcec.coop
Sierra Electric Cooperative	Denise Berrara	575-744-5231		deniseb@secpower.com
Socorro Electric Cooperative	Ellena Tapia	575-835-0560		etapia@socorroelectric.com
Southwestern Electric Cooperative	Bobby Williams	575-374-2451		
Springer Electric Cooperative	David Spradlin	575-483-2421		spradlin@springercoop.com

Providers	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Electric Distribution Associate Member Cooperatives				
Duncan Valley Electric Cooperative		928-359-2503		
Navopache Electric Cooperative	Janet Porter Carrejo	928-368-5118		Carrejo8@navopache.org
Rio Grande Electric Cooperative	Theresa Quiroz	830-563-2444		tquiroz@rgec.coop

Pipeline Operators	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Natural Gas Pipelines				
Transwestern Pipeline Company, LLC	Jerry Graves		713-989-2015	jerry.graves@energytransfer.com
El Paso Natural Gas		800-334-8047		
Harvest Midstream				
DCP Midstream	Mike Fullman	888-204-1781	303-605-1628	mfullman@dcpmidstream.com
Targa Resources	Denny Latham			dlatham@targaresources.com
Targa Resources	Vincent DiCosimo, Corporate Vice President	575-391-6030	832-326-8000	VDiCosmino@targaresources.com
Enterprise Products Partners (Crude and NG)		713-381-6500		RoyaltyRelationsOKC@Eprod.com

Oil, Natural Gas, and Propane Providers				
Natural Gas Providers	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Exxon Mobile	James Williams			james.williams@exxonmobil.com
Exxon Mobile	Steven Kilde			steven.kilde@exxonmobil.com
New Mexico Gas Company	Denise Wilcox	888-664-2726		denise.wilcox@nmgco.com
New Mexico Gas Company	Daniel Peltier			Daniel.Peltier@nmgco.com
New Mexico Gas Company	Charles Thompson			chuck.thompson@nmgco.com
New Mexico Gas Company	Kyle Brayton			kyle.brayton@nmgco.com
New Mexico Gas Company	Anthony Lujan			Anthony.lujan@nmgco.com
Zia Natural Gas	Naomi Dearing	575-447-0088	575-378-4277	ndearing@ZNGC.com

Natural Gas Underground Storage	Primary Contact	Phone	Cell Phone	Email
Enstor Gas LLC – Grama Ridge Storage and Transportation Facility	Todd Cash	877-395-7712	281-374-3085	todd.cash@enstorinc.com
El Paso Natural Gas Co. – Washington Ranch Facility	Dave Conover	866-762-8442		david_conover@kindermorgan.com

Petroleum	Primary Contact	Phone	Cell Phone	Email
Marathon	VJ Smith	866-876-2455		vjsmith@marathonpetroleum.com
Magellan	Garrison Haning	800-720-2417	918-574-7420	garrison.haning@magellanlp.com
Conoco Phillips	Ramiro Martinez			ramiro.h.martinez@conocophillips.com
Conoco Phillips	Andrew Lundquist	281-293-1000		andrew.lundquist@conocophillips.com
Conoco Phillips	Ocean Munds-Dry	505-920-5201	505-920-5201	Ocean.Munds-Dry@conocophillips.com
Conoco Phillips	Gabrielle Gerholt			gabrielle.a.gerholt@conocophillips.com
Holly Petroleum, Inc. (subsidiary of HollyFrontier Corp.)	Joshua Jemente	575-748-3311		joshua.jemente@hollyfrontier.com

Municipal Utilities	Primary Contact	Phone	Cell Phone	Email
City of Socorro Public Utilities (gas, water, sewer)	Lloyd Martinez	575-835-0240	575-838-7535	lmartinez@socorronm.gov
Los Alamos Department of Public Utilities (electric, gas, water, sewer)	Eric Martinez	505-662-8333	505-662-8360	eric.martinez@lacnm.us
Los Alamos Department of Public Utilities (electric, gas, water, sewer)	Philo Shelton			Philo.Shelton@lacnm.us
Santa Fe Public Utilities Department (water, sewer)	Nancy Jimenez	505-955-4233	505-955-4364	nljimenez@santafenm.gov
Raton City Public Service Company (electric, water, sewer)	Terry Sykes	575-445-9861	575-445-3861	tsykes@cityofraton.com
Rio Rancho City Utilities (water, sewer)	BJ Gottlieb	505-891-5020	505-891-5016	bjgottlieb@rrnm.gov
Santo Domingo Tribal Utilities	Kevin Montoya	505-465-0055	505-218-1590	kevin.montoya@kewa-nsn.us

New Mexico Intrastate Pipeline Operators			
Name	**Primary Contact**	**Phone**	**Email**
3 Bear Delaware Operating NM LLC	Elizabeth Klein	303-882-4404	iklein@3bearllc.com
Aka Energy Group LLC	Mark Coufal	970-238-1355	mcoufal@akaenergy.com
Bluefish Pipeline LLC	John Degenstein	701-732-0742	john.degenstein@tcr-ny.com
CCI San Juan San Juan River Plant	Todd Wescott		todd.westcott@cci.com
Centurion Pipeline L.P.	Y-van Ty	346-803-2718	Yvan_ty@centurionpl.com
City of Albuquerque Solid Waste Management Department	Jake Daugherty	505-761-8324	ddaugherty@cabq.gov
City of Deming	Jim Massengill	575-546-8848	jmassengill@cityofdeming.org
City of Las Cruces	Orland Whitney		owhitney@lascruces.gov
City of Las Cruces	Lucio M. Garcia	575-528-3521	lugarcia@las-cruces.org
City of Las Vegas	Kenny Lucero	505-454-3822	klucero@ci.las-vegas.nm.us

New Mexico Intrastate Pipeline Operators			
Name	**Primary Contact**	**Phone**	**Email**
City of Socorro	Rick Trujillo	575-835-2490	rtrujillo@socorronm.gov
Conoco Phillips	Josh Zavala	832-486-2388	josh.zavala@conocophillips.com
CP Energy LLC	Jeff Kobs	405-562-4920	jeff.kobs@cpenergy.com
Crestwood New Mexico Pipeline LLC	Dalton Jaus	713-380-3241	dalton.jaus@crestwoodlp.com
DBM Pipeline LLC	Nicholas Shaw	832-636-1323	
DCP Operating Company, LP	Dwayne Hillman	432-620-4063	hillmad@dcpmidstream.com
Eastern New Mexico Natural Gas Association Inc.	George Sena	575-355-2468	enmnaturalgas@gmail.com
EMW Gas Association	Ronnie Reynolds	505-384-2369	ronnie@emwgas.org
Energy Transfer	Todd Nardozzi	713-989-7126	Todd.Nardozzi@energytransfer.com
Enterprise Crude Pipeline LLC	Gordon Williams	713-381-6211	gswilliams@eprod.com
Harvest Midstream Company	Jeff Woolley	505-947-4161	jwoolley@harvestmistream.com
Hilcorp Energy Company	Ian Ellington	832-839-4608	iellington@hilcorp.com
Holly Energy Partners	Bridgette Taylor	214-954-6652	Bridgette.Taylor@hollyenergy.com
Legacy Reserves LP	Heath Loftin	432-212-6313	hloftin@legacylp.com
LM Touchdown	Greg Watson	214-224-0808	glw@lmenergypartners.com
Los Alamos County Utilities	Dennis M. Segura	505-662-8131	dennis.segura@lacnm.us
Lucid Artesia Company	Glen Blake	575-810-6025	gblake@lucid-energy.com
Lucid Energy Delaware LLC	Glen Blake	575-810-6025	gblake@lucid-energy.com
Merrion Oil & Gas	Philana Thompson	505-486-1171	pthompson@merrion.bz
MPLX G&P	Tony Minutillo	303-531-9520	tminutillo@MPLX.com
New Mexico Gas Company Inc.	Rebecca Carter	505-697-3832	racarter@tecoenergy.com

New Mexico Intrastate Pipeline Operators			
Name	**Primary Contact**	**Phone**	**Email**
Occidental Permian Ltd.	Carl Morales	325-207-3374	Carl_morales@oxy.com
ONEOK NGL Pipeline, L.L.C.	Gary Numedahi	918-595-1546	gary.numedahl@oneok.com
Petroleum Fuels Co.	Cathy Bell	713-678-0677	cbell@pfcmidstream.com
Raton Natural Gas Company	David N. Link	505-984-0282	david@rngcompany.com
San Mateo Black River Oil Pipeline LLC	Casey Snow	972-371-5439	csnow@matadorresources.com
SIMCOE LLC	Bill Winters	970-903-3778	william.winters@ikavenergy.com
SPC Resources	Lelan Anders	281-908-1752	landers@santopetroleum.com
Sphere 3 Environmental Inc.	Casey Snow	972-371-5439	csnow@matadorresources.com
Targa Resources Operating LLC	Julie Pabon	713-584-1090	jpabon@targaresources.com
Town of Mountainair	Dennis Fulfer	505-847-2321	townclerk@mountainairnm.gov
Trinity Pipeline, LP, DBA Trinity	Mike Mendoza	432-683-8263	mmendoza@trinityco2.com
Village of Corona	Terri Racher	575-849-5511	villageofcorona@plateautel.net
Village of Wagon Mound	Gary Sanchez	575-666-2408	wagonmound.utilities1@gmail.com
Williams Field Services Company	Jason Lambert	801-584-6657	jason.lambert@williams.com
XTO Energy Inc	Jameson Gowin	817-201-9373	jameson.gowin@exxonmobil.com
Zia Natural Gas Company	Jacob Kinney	575-378-4277	jkinney@zngc.com

Jurisdiction / Agency				
COUNTY GOVERNMENT	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Bernalillo County	Richard Clark	505-468-1301	505-382-4640	rclark@bernco.gov
Bernalillo County	Tom Walmsley	505-468-1309	505-977-5212	twalmsley@bernco.gov
Bernalillo County	Jerome Macdonald	505-468-1376	505-553-0864	jpmacdonald@bernco.gov
Bernalillo County	Marcella Benton	505-468-1304	505-252-3640	mlbenton@bernco.gov
Bernalillo County	Nicole Martinez	505-468-1459	505-288-0835	ncmartinez@bernco.gov

Jurisdiction / Agency				
COUNTY GOVERNMENT	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
Bernalillo County	Evelyn Chacon	505-468-1308		echacon@bernco.gov
Bernalillo County	Charina Costales-Webb	505-468-1306	505-377-3179	cwebb@bernco.gov
Catron County	Dusty Choate	575-533-6499	505-553-0662	dusty.choate@catroncountynm.gov
Chaves County / City of Roswell	Karen Sanders	575-624-6740	575-910-5033	k.sanders@roswell-nm.gov
Chaves County / City of Roswell	Jill Pollock	575-624-6800	206-718-4563	j.pollock@roswell-nm.gov
Cibola County	Dustin Middleton	505-285-2558	505-290-5120	dmiddleton@co.cibola.nm.us
Colfax County	Thomas Vigil	575-445-7050	575-707-3579	tvigil@co.colfax.nm.us
Curry County / City of Clovis	Dan Heerding	575-763-9485	575-763-9485	dheerding@cityofclovis.org
Curry County / City of Clovis	Paul Nelson	575-763-9690		pnelson@cityofclovis.org
Curry County / City of Clovis	Ruthan Kelly	575-763-9485		rkelly@cityofclovis.org
De Baca County	Linda Boyd	575-355-2405	575-799-8247	dbcrecc@plateautel.net
De Baca County	Pasha Vinson	575-355-2405	575-512-5379	pashavinson@plateautel.net
Dona Ana County / City of Las Cruces	Stephen Lopez	575-647-7902	575-496-8282	stephenl@donaanacounty.org
Dona Ana County / City of Las Cruces	Amanda Bowen	575-647-7901	575-520-4331	amandab@donaanacounty.org
Eddy County	Jennifer Armendariz	575-647-7902		jarmendariz@eddyoem.com
Grant County		575-628-5454	575-499-5111	
Guadalupe County	Ben Rael	575-574-0065	575-495-4044	brael@guadco.us
Harding County	Jennifer Baca	575-472-3306	575-512-6134	jennifer.baca@hardingcounty.org
Hidalgo County / City of Lordsburg	Scott Richins	575-673-2927	575-512-6319	scott.richins@hidalgocounty.org
Lea County	Lorenzo Velasquez	575-542-8827	575-534-5113	lvelasquez@leacounty.net
Lincoln County	JP "Joe" Kenmore	575-391-2961	575-605-6561	jkenmore@lincolncountynm.gov
Lincoln County	Arron Griewahn	575-336-8600	575-808-1381	agriewahn@lincolncountynm.gov
Los Alamos County	Beverley Simpson	575-336-8600	575-937-2824	beverley.simpson@lacnm.us
Los Alamos County	Cody Ulrich	505-662-8283	505-709-8632	cody.ulrich@lacnm.us
Luna County	Phillip Rodriguez	505-662-8290	505-709-0436	emergency_management@lunacountynm.us
McKinley County	Adam Berry	575-543-6569	575-544-7457	adam.berry@co.mckinley.nm.us
McKinley County	Doug Watchman	505-722-4248	806-535-6477	douglas.watchman@co.mckinley.nm.us
Mora County	David Montoya	505-722-4248	928-206-6651	dmontoya@countyofmora.com
New Mexico Renewable Energy Transmission Authority	Brian Johnson	575-447-0161	575-447-0161	brian@nmreta.net
New Mexico Renewable Energy Transmission Authority	Christopher Hyer			chris@nmreta.net

Jurisdiction / Agency				
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Otero County	William "Bill" Farmer	575-439-2613		wfarmer@co.otero.nm.us
Otero County	Steven "Josh" Sturgeon	575-461-8535	575-403-5286	jsturgeon@co.otero.nm.us
Quay County		505-747-1941	505-927-8501	
Rio Arriba County	Alfredo Montoya	575-359-2869	575-607-5700	aamontoya@rio-arriba.org
Roosevelt County	Johnny Montiel	505-334-4714	505-320-8656	jmontiel@rooseveltcounty.com
San Juan County	Mike Stark			mstark@sjcounty.net
San Juan County	Mike Mestas	505-334-4706	479-970-4070	mmestas@sjcounty.net
San Miguel County / City of Las Vegas	Dennis Esquibel	505-425-6190		desquibel@co.sanmiguel.nm.us
San Miguel County / City of Las Vegas	Connie Abila	505-425-6190	505-934-3222	cabila@co.sanmiguel.nm.us
Sandoval County	Theresa Greeno	505-771-7197	505-903-8739	tgreeno@sandovalcountynm.gov
Sandoval County	Ryan Slota	505-867-7522	505-670-0207	rslota@sandovalcountynm.gov
Santa Fe County		505-992-3072	575-740-7213	
Sierra County	Ryan Williams	575-894-6215	505-716-2333	rwilliams@sierraco.org
Socorro County	Gail Rogers-Tripp	575-835-2029	575-418-8578	grogers@co.socorro.nm.us
Socorro County	Jerry Wheeler	575-835-8119	575-779-9381	jwheeler@co.socorro.nm.us
Taos County	Bobby Lucero	575-737-6459	575-779-3820	bobby.lucero@taoscounty.org
Taos County	Mark Ortega	575-737-6454	505-705-0836	mark.ortega@taoscounty.org
Union County	Robert Wingo	575-207-5454	505-264-6240	emergencymgr@unionnm.us
Valencia County	Sarah Gillen	505-866-2043	505-264-6240	sarah.gillen@co.valencia.nm.us

Jurisdiction / Agency				
MUNICIPAL GOVERNMENT	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
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Albuquerque, City of	Nick Zubel	505-967-5638	505-244-8654	nzubel@cabq.gov
Albuquerque, City of	Michael Archuleta	505-206-4959	505-244-8651	mlarchuleta@cabq.gov
Albuquerque, City of	Craig Tucker	505-269-4320	505-244-8653	ctucker@cabq.gov
Albuquerque, City of	Saif Ismail	505-235-9274	505-244-8600	sismail@cabq.gov
Albuquerque, City of	James Gray	505-221-7756	505-244-8600	jpgray@cabq.gov
Angel Fire, Village of	Kelli Murtagh	505-239-8483	575-377-3232	kmurtagh@angelfirenm.gov
Belen, City of	Steven Gonzales	505-366-4229	505-966-2742	steven.gonzales@belen-nm.gov
Cloudcroft, Village of	Sue Dreikosen	202-674-6534	575-682-5869	ccvillageem@cloudcroftvillage.com
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Jurisdiction / Agency				
MUNICIPAL GOVERNMENT	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
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Farmington, City of	Ryan Briggs			rbriggs@fmtn.org
Famington, City of	Ed Smylie	505-320-6807	505-599-1369	esmylie@fmtn.org
Gallup, City of	Jesus "Chuy" Morales	505-870-5433	505-863-1380	
Los Ranchos, Village of	Jeff Phillips	505-385-9992	505-385-9992	jphillips@losranchosnm.gov
Mesilla, Town of	Edward Lerma	575-323-4864	575-526-4138	edwardl@mesillanm.gov
Mesilla, Town of	Kevin Hoban	575-642-3412	575-523-1311	firechief@mesillanm.gov
Portales, City of	M. Antoinette Brezovsky	575-760-4350	575-359-4811	mbrezovsky@portalesnm.gov
Red River, Village of	Ron Burnham		575-754-6567	rburnham@redriver.org
Ruidoso, Village of	Joe Kasuboski	575-626-1036	575-257-3473	joekasuboski@ruidoso-nm.gov
Rio Rancho, City of	Jeff Wenzel	505-235-9198	505-891-5855	jwenzel@rrnm.gov
Rio Rancho, City of	Rose Martinez	505-263-6955	505-891-5856	romartinez@rrnm.gov
Santa Fe, City of	Brian Williams	505-469-1484	505-955-6537	bgwilliams@santafenm.gov
Silver City, Town of	Jeffrey Fell	575-956-3260	575-956-1272	assistantchief@silvercitynm.gov
T or C, City of				TorCPD@torcnm.org
Tucumcari, City of	Casey Mackey			firechief@cityoftucumcari.com

TRIBAL GOVERNMENT	**Primary Contact**	**Phone**	**Cell Phone**	**Email**
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Jicarilla Apache Nation	Chris Holyfield	575-759-4286	575-419-0012	cholyfield@jan-riskmgmt.com
Jicarilla Apache Nation	Adrian Notsinneh, Legislative Council Member			tsgonzales89@yahoo.com
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Nambe Pueblo	Monica Vigil	505-455-4415	505-660-4876	mvigil@nambepueblo.org
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TRIBAL GOVERNMENT	Primary Contact	Phone	Cell Phone	Email
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Jurisdiction / Agency				
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DOE - Carlsbad Field Office	Mike McCoy	575-200-9589	575-200-9589	mike.mccoy@cbfo.doe.gov
DOE - Los Alamos Field Office	Rodney Roberson	505-309-2961	703-498-5540	rodney.roberson@em.doe.gov
DOE/NNSA Los Alamos Field Office	Cassandra Begay	505-665-2024	505-423-2590	cassandra.begay@nnsa.doe.gov
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Jurisdiction / Agency				
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Jurisdiction / Agency				
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New Mexico State University	Johnny Carrillo (FD)	575-646-2519		jcarr622@nmsu.edu
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NM DOH Epidemiology	24/hr On-Call	505-827-0006	505-827-0006	
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Jurisdiction / Agency				
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NM DHSEM	Mark Chappell			mark.chappell@dhsem.nm.gov
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NM DHSEM - Homeland Security Bureau	Gabriel (Gabe) Garcia - Critical Infrastructure Advisor	505-639-3347		Gabriel.Garcia@dhsem.nm.gov
NM DHSEM - Response & Recovery Bureau	Jorge Rubio - Operations Manager	915-342-7475		Jorge.Rubio@dhsem.nm.gov
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NWS - Santa Teresa/El Paso	Jason Laney (WCM)	575-589-4088	915-274-9123	jason.laney@noaa.gov
Southwest BFP and EPC	Dustin Cox	505-383-9298	505-220-8251	dcox@nmda.nmsu.edu
New Mexico State University	Olga Lavrova			olavrova@nmsu.edu
New Mexico State University	Marshal Wilson	575-646-3007	575-339-5035	mwilson@nmda.nmsu.edu
US DHS - CISA	Sarah Gambill - Protective Security Advisor (NM)	202-738-0386		Sarah.Gambill@cisa.dhs.gov
UNM Sandoval Regional Medical Center	Jess Lewis			jejlews@srmc.unm.edu
University of New Mexico	Byron Piatt	505-277-0330	505-934-5588	bpiatt@salud.unm.edu

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New Mexico Rural Electric Cooperatives Association	Ed Rougement			erougemont@nmelectric.coop
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New Mexico Oil and Gas Association	Megan Maestas, Director of Government Affairs			meg@nmoga.org
National Association of State Energy Officials	Sarah Trent			strent@naseo.org

Association	Name	Phone	Cell Phone	Email Address
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Interstate Natural Gas Association of America	Rob Mosher			rmosher@ingaa.org
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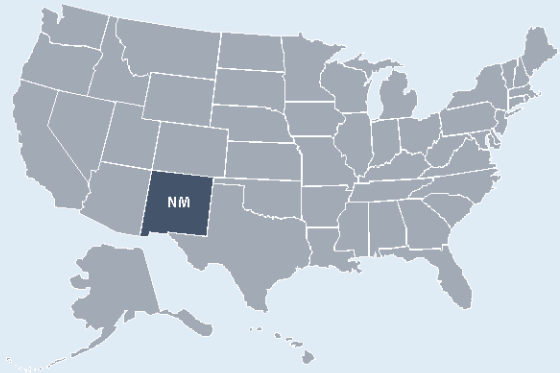
Appendix D: DOE CESER Energy Sector Risk Profile for New Mexico

State of New Mexico
ENERGY SECTOR RISK PROFILE

U.S. DEPARTMENT OF ENERGY
Cybersecurity, Energy Security, and Emergency Response



New Mexico State Facts

POPULATION
2.10 M

HOUSING UNITS
0.94 M

BUSINESS ESTABLISHMENTS
0.04 M

ENERGY EMPLOYMENT: 44,112 jobs
PUBLIC UTILITY COMMISSION: NM Public Regulation Commission
STATE ENERGY OFFICE: NM Energy, Minerals and Natural Resources Department, Energy Conservation and Management Division
EMERGENCY MANAGEMENT AGENCY: NM Department of Homeland Security and Emergency Management
AVERAGE ELECTRICITY TARIFF: 9.35 cents/kWh
ENERGY EXPENDITURES: $3,520/capita
ENERGY CONSUMPTION PER CAPITA: 327 MMBtu
(19th highest of 50 states and Washington, D.C.)
GDP: $100.3 billion

Data from 2020 or most recent year available.
For more information, see the Data Sources document.

ANNUAL ENERGY CONSUMPTION

ELECTRIC POWER: 24,050 GWh
COAL: 7,300 MSTN
NATURAL GAS: 195 Bcf
MOTOR GASOLINE: 24,000 Mbbl
DISTILLATE FUEL: 18,200 Mbbl

ANNUAL ENERGY PRODUCTION

ELECTRIC POWER GENERATION: 125 plants, 35.2 TWh, *9.5 GW total capacity*
- **Coal:** 3 plants, 14.7 TWh, *2.8 GW total capacity*
- **Hydro:** 5 plants, 0.2 TWh, *0.1 GW total capacity*
- **Natural Gas:** 20 plants, 11.8 TWh, *3.8 GW total capacity*
- **Nuclear:** 0 plants
- **Petroleum:** 3 plants, 0.2 TWh, *0.1 GW total capacity*
- **Wind & Solar:** 88 plants, 8.3 TWh, *2.7 GW total capacity*
- **Other sources:** 6 plants, 0.1 TWh, *0.0 GW total capacity*

COAL: 13,800 MSTN
NATURAL GAS: 1,850 Bcf
CRUDE OIL: 329,500 Mbbl
ETHANOL: 0 Mbbl

Data from EIA (2018, 2019).

This State Energy Risk Profile examines the relative magnitude of the risks that the state of New Mexico's energy infrastructure routinely encounters in comparison with the probable impacts. Natural and man-made hazards with the potential to cause disruption of the energy infrastructure are identified. Certain natural and adversarial threats, such as cybersecurity, electromagnetic pulse, geomagnetic disturbance, pandemics, or impacts caused by infrastructure interdependencies, are ill-suited to location-based probabilistic risk assessment as they may not adhere to geographic boundaries, have limited occurrence, or have limited historic data. Cybersecurity and other threats not included in these profiles are ever present and should be included in state energy security planning. A complete list of data sources and national level comparisons can be found in the Data Sources document.

New Mexico Risks and Hazards Overview

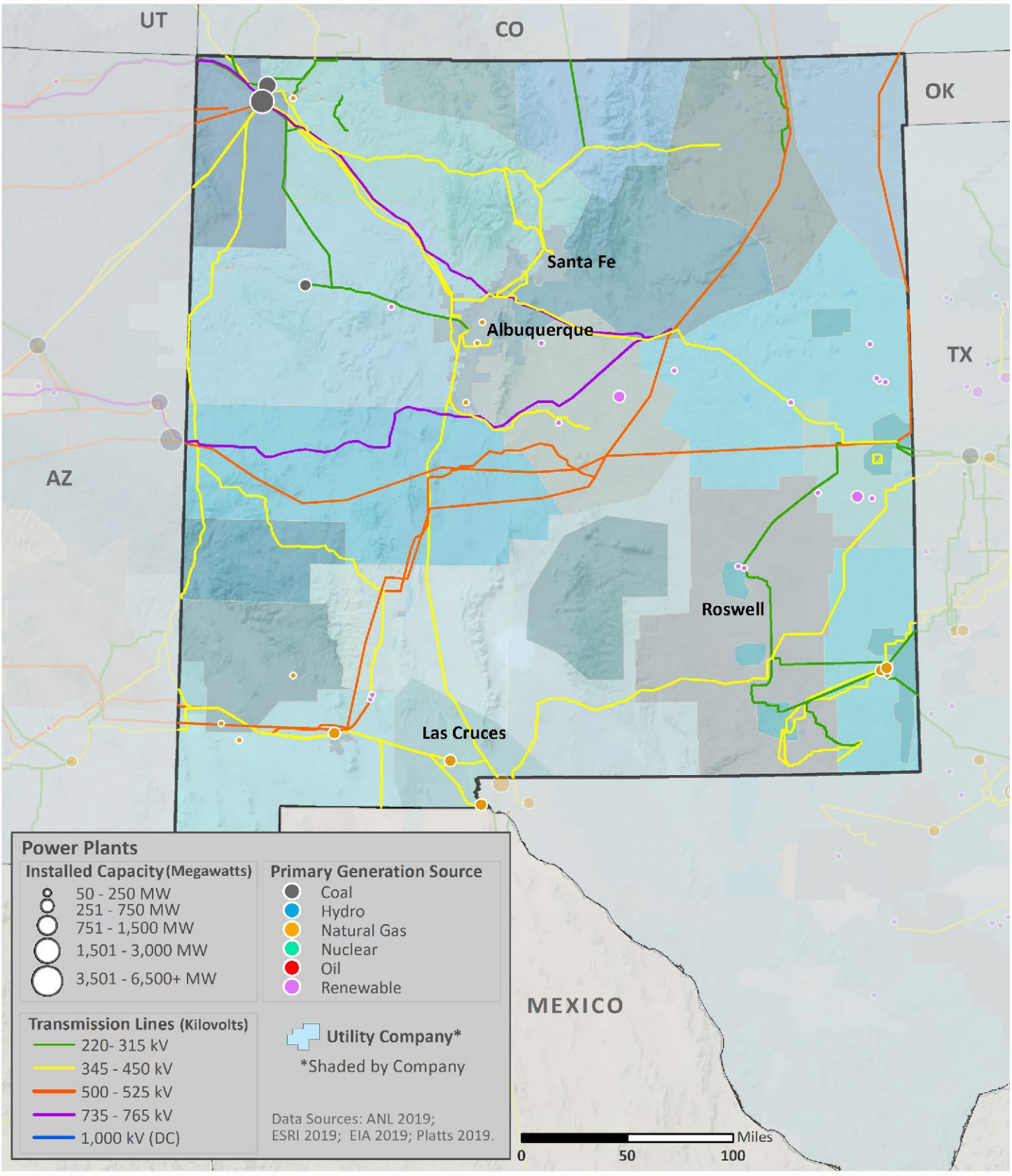
- The natural hazard that caused the greatest overall property loss between 2009 and 2019 was **Winter Storms & Extreme Cold** at $39 million per year *(7th leading cause nationwide at $418 million per year)*.
- New Mexico had 56 Major Disaster Declarations, 0 Emergency Declarations, and 8 Fire Management Assistance Declarations for 14 events between 2013 and 2019.
- New Mexico registered 7% fewer Heating Degree Days and 37% greater Cooling Degree Days than average in 2019.
- There is 1 Fusion Center located in Santa Fe.

Annualized Frequency of and Property Damage Due to Natural Hazards, 2009–2019

	HAZARD FREQUENCY – Annualized	PROPERTY DAMAGE – Annualized ($Million per year)
Drought	16	$0
Earthquake (≥ 3.5 M)	2	$0
Extreme Heat	1	$0
Flood	33	$6
Hurricane	0	$0
Landslide	<1	$0
Thunderstorm & Lightning	113	$6
Tornado	9	$1
Wildfire	5	$7
Winter Storm & Extreme Cold	21	$39

Data Sources: NOAA and USGS

ELECTRIC


UT
CO
OK
TX
AZ
MEXICO
Santa Fe
Albuquerque
Roswell
Las Cruces
Power Plants
Installed Capacity (Megawatts)
50 - 250 MW
251 - 750 MW
751 - 1,500 MW
1,501 - 3,000 MW
3,501 - 6,500+ MW
Primary Generation Source
Coal
Hydro
Natural Gas
Nuclear
Oil
Renewable
Transmission Lines (Kilovolts)
220- 315 kV
345 - 450 kV
500 - 525 kV
735 - 765 kV
1,000 kV (DC)
Utility Company*
*Shaded by Company
Data Sources: ANL 2019; ESRI 2019; EIA 2019; Platts 2019.
0
50
100
Miles

Electric Infrastructure

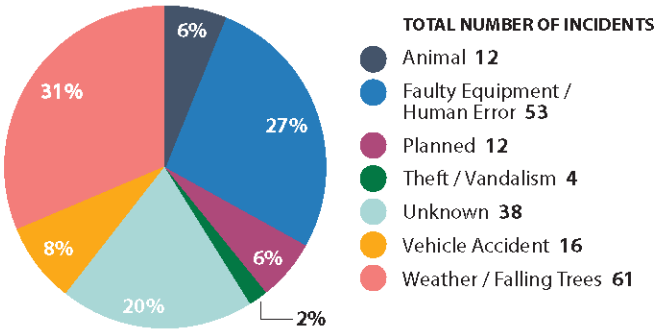
- New Mexico has 24 electric utilities:
  - *1 Investor owned*
  - *16 Cooperative*
  - *7 Municipal*
  - *0 Other utilities*
- Plant retirements scheduled by 2025: 6 electric generating units totaling 464 MW of installed capacity.
- In 2018, the average New Mexico electric customer experienced 1.1 service interruptions that lasted an average of 2.3 hours.
- In New Mexico, between 2008 and 2017:
  - *The greatest number of electric outages occurred in **July** (leading month for outages nationwide)*
  - *The leading cause of electric outages was **Weather or Falling Trees** (leading cause nationwide)*
  - *Electric outages affected 91,741 customers on average*

Electric Customers and Consumption by Sector, 2018

	CUSTOMERS	CONSUMPTION
Residential	85%	28%
Commercial	14%	38%
Industrial	<1%	34%
Transportation	<1%	<1%

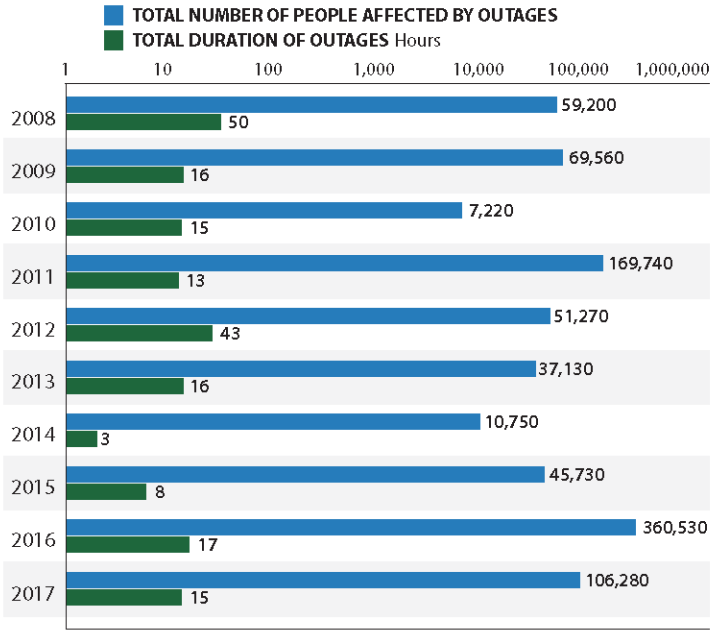
Data Source: EIA

Electric Utility-Reported Outages by Cause, 2008–2017



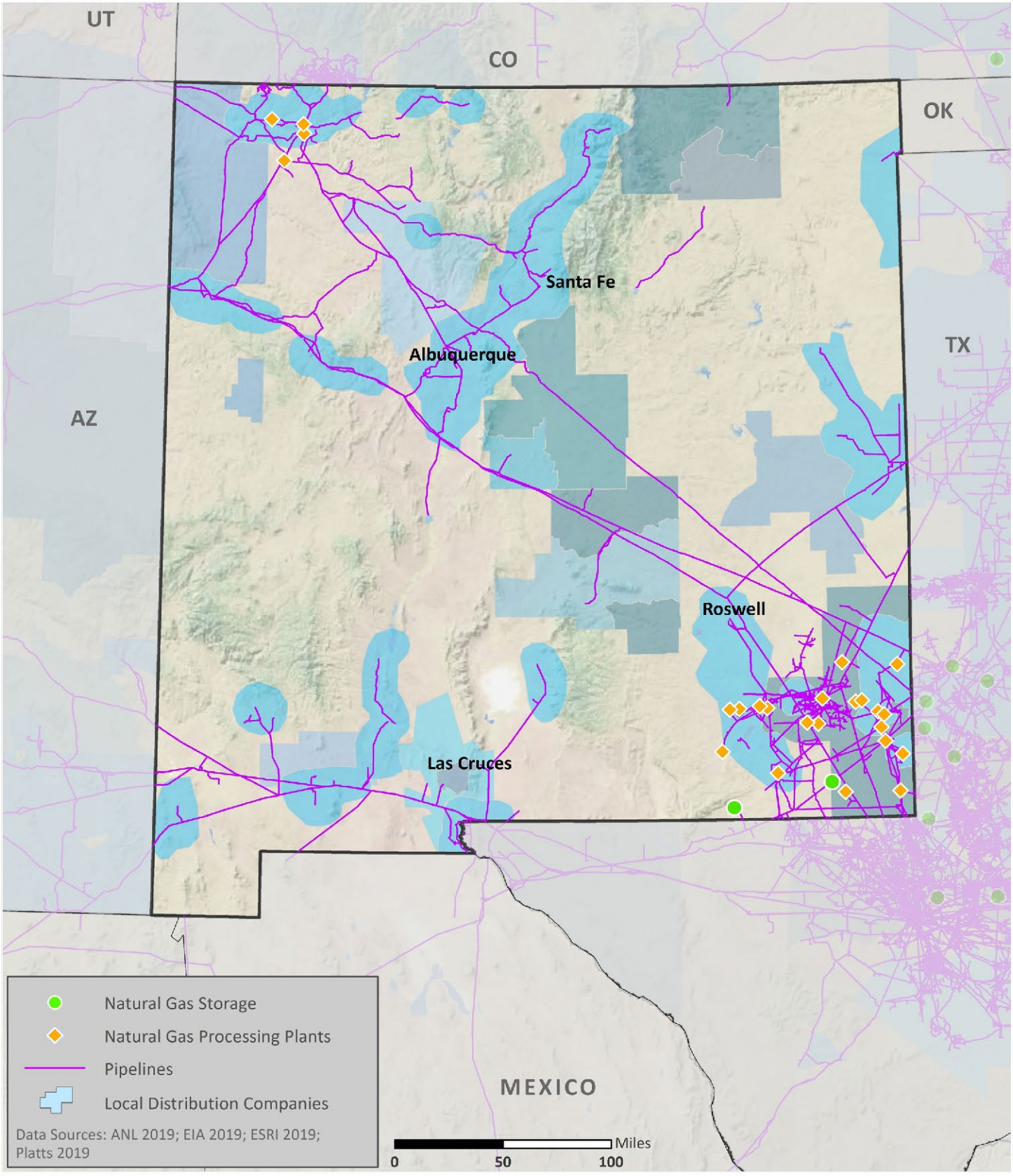
Data Source: Eaton

Electric Utility Outage Data, 2008–2017



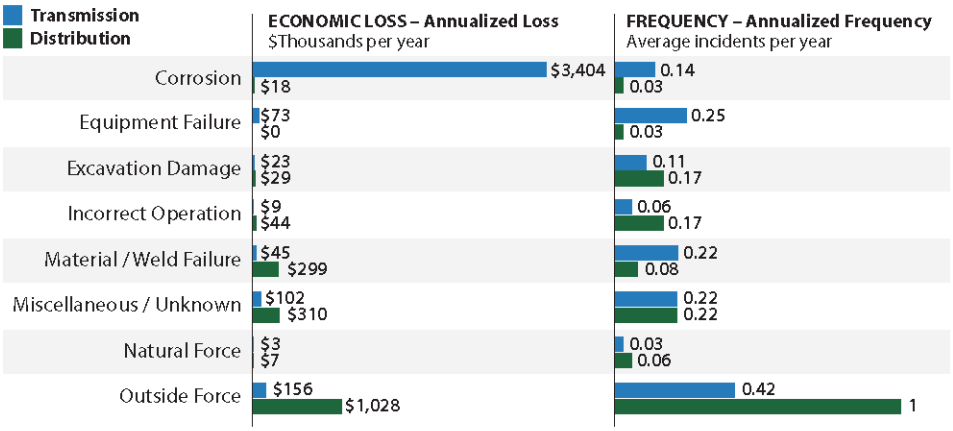
Note: This chart uses a logarithmic scale to display a very wide range of values.
Data Source: Eaton

NATURAL GAS


UT
CO
OK
TX
AZ
MEXICO
Santa Fe
Albuquerque
Roswell
Las Cruces
Natural Gas Storage
Natural Gas Processing Plants
Pipelines
Local Distribution Companies
Data Sources: ANL 2019; EIA 2019; ESRI 2019; Platts 2019
0
50
100
Miles

Natural Gas Transport

Top Events Affecting Natural Gas Transmission and Distribution, 1984–2019



Data Source: DOT PHMSA

- As of 2018, New Mexico had:
  - *6,440 miles of natural gas transmission pipelines*
  - *14,347 miles of natural gas distribution pipelines*
- 69% of New Mexico's natural gas transmission system and 42% of the distribution system were constructed prior to 1970 or in an unknown year.
- Between 1984 and 2019, New Mexico's natural gas supply was most impacted by:
  - ***Corrosion** when transported by transmission pipelines (4th leading cause nationwide at $20.15M per year)*
  - ***Outside Forces** when transported by distribution pipelines (leading cause nationwide at $76.59M per year)*

Natural Gas Processing and Liquefied Natural Gas

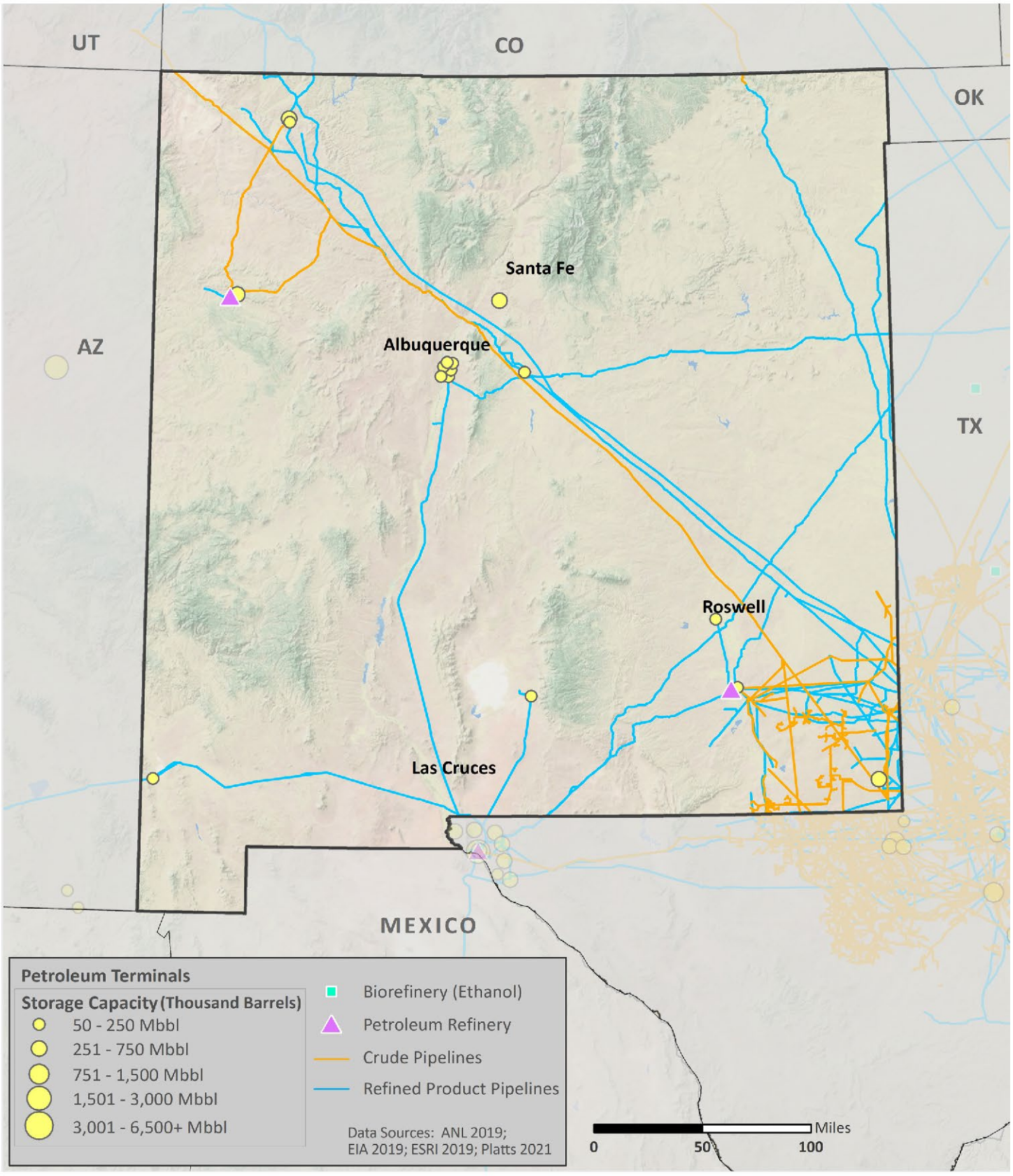
Natural Gas Customers and Consumption by Sector, 2018

	CUSTOMERS	CONSUMPTION
Residential	92%	17%
Commercial	8%	13%
Industrial	<1%	9%
Transportation	<1%	<1%
Electric Power	<1%	61%
Other	<1%	<1%

Data Source: EIA

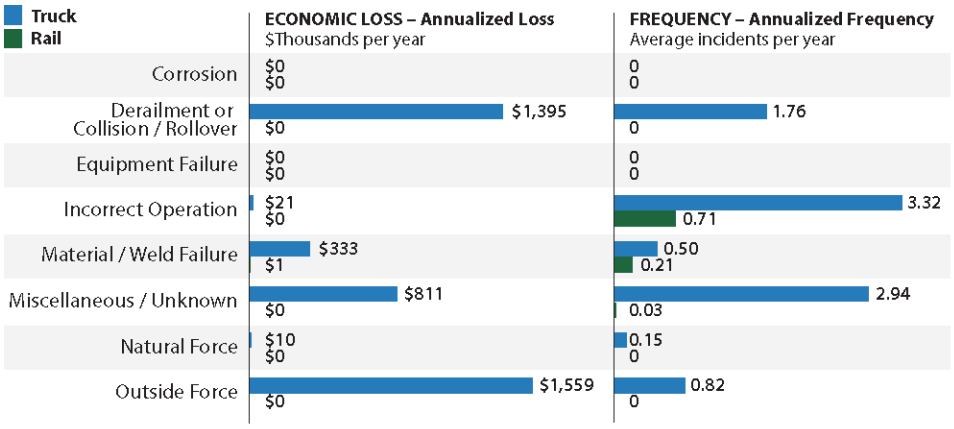
- New Mexico has 24 natural gas processing facilities with a total capacity of 3,847 MMcf/d.
- New Mexico has 0 liquefied natural gas (LNG) facilities with a total storage capacity of 0 barrels.

PETROLEUM


UT
CO
OK
AZ
TX
MEXICO
Santa Fe
Albuquerque
Roswell
Las Cruces
Petroleum Terminals
Storage Capacity (Thousand Barrels)
50 - 250 Mbbl
251 - 750 Mbbl
751 - 1,500 Mbbl
1,501 - 3,000 Mbbl
3,001 - 6,500+ Mbbl
Biorefinery (Ethanol)
Petroleum Refinery
Crude Pipelines
Refined Product Pipelines
Data Sources: ANL 2019; EIA 2019; ESRI 2019; Platts 2021
Miles
0
50
100

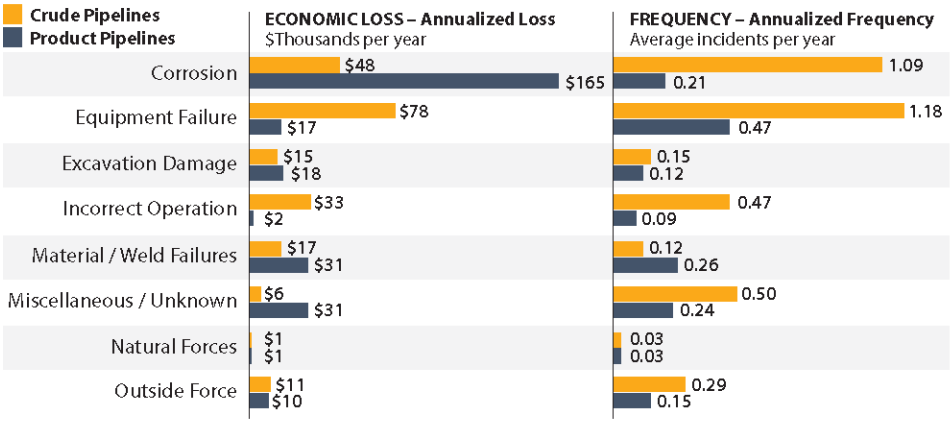
Petroleum Transport

Top Events Affecting Petroleum Transport by Truck and Rail, 1986–2019



Data Source: DOT PHMSA

Top Events Affecting Crude Oil and Refined Product Pipelines, 1986–2019



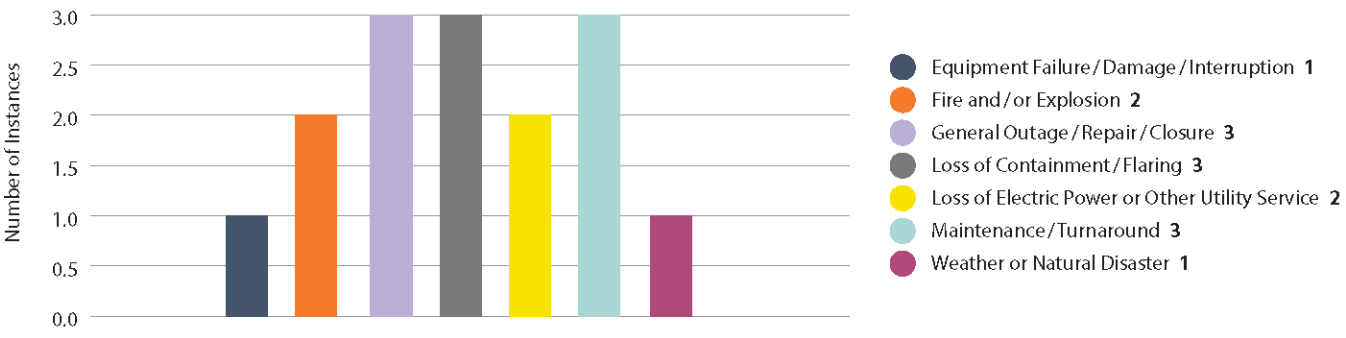
Data Source: DOT PHMSA

- As of 2018, New Mexico had:
  - *2,055 miles of crude oil pipelines*
  - *2,164 miles of refined product pipelines*
  - *0 miles of biofuels pipelines*
- 45% of New Mexico's petroleum pipeline systems were constructed prior to 1970 or in an unknown year.
- Between 1986 and 2019, New Mexico's petroleum supply was most impacted by:
  - ***Outside Forces*** *when transported by truck (2nd leading cause nationwide at $60.45M per year)*
  - ***Material Failures*** *when transported by rail (5th leading cause nationwide at $0.05M per year)*
  - ***Equipment Failures*** *when transported by crude pipelines (8th leading cause nationwide at $2.88M per year)*
  - ***Corrosion*** *when transported by product pipelines (2nd leading cause nationwide at $15.20M per year)*
- Disruptions in other states may impact supply.

Petroleum Refineries

- New Mexico has 2 petroleum refineries with a total operable capacity of 136 Mb/d.
- Between 2009 and 2019, the leading causeS of petroleum refinery disruptions in New Mexico were:
  - ***General Outages, Repairs, or Closures*** *(3rd leading cause nationwide)*
  - ***Loss of Containment or Flaring*** *(leading cause nationwide)*
  - ***Maintenance*** *(2nd leading cause nationwide)*

Causes and Frequency of Petroleum Refinery Disruptions, 2009–2019



Data Source: Hydrocarbon Publishing

Appendix E: Cascading Energy Disruption Tabletop Exercise AAR

Cascading Energy Disruption

After-Action Report/Improvement Plan - 12/12/2022

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine and related frameworks and guidance. Exercise information required for preparedness reporting and trend analysis is included; users are encouraged to add additional sections as needed to support their own organizational needs.

Exercise Overview

Exercise Name	Cascading Energy Disruption
Exercise Dates	November 29, 2022
Scope	This exercise is a Tabletop planned for four hours at the NM DHSEM facility in Santa Fe. Exercise play is limited to a TTX discussion-based exercise.
Focus Area(s)	Protection, Response, and Recovery
Capabilities	Planning, Operational Communications, Operational Coordination, Infrastructure Systems, Situational Assessment
Objectives	• Examine and clarify state agency roles, responsibilities, authorities, and actions during an energy disruption. • Evaluate the accuracy of the contact directory for information gathering. • Conduct a walk-through of state communication systems and protocols that contribute to maintaining a common operating picture. • Explore communications systems for information sharing with essential services and the general public.
Threat or Hazard	Cascading failures due to an energy disruption
Scenario	**Module 1:** It is late June, and a heat dome has settled in over New Mexico. The National Weather Service has issued Excessive Heat Watches impacting most of the state. The extreme temperatures have created a strain on the electrical grid. • Problems have started to occur in areas of the grid that have older equipment. Homes and infrastructure have lost power and it is suspected that the Angel Fire Substation that feeds into Colfax County has had an equipment failure. • The power station failure has impacted the waste-water treatment plant resulting in a complete shutdown. • Assessments of other critical infrastructure including drinking water systems and a natural gas pumping station are ongoing. **Module 2:** It is 6 hours after the onset of the incident. All critical infrastructure systems have been evaluated, and the incident is stabilizing. • Electricity and wastewater infrastructure are currently affected. The natural gas pumping station is currently operational, but assessment is ongoing. • Neighboring jurisdictions are contacting the County and State EOC requesting updates on when the disrupted services will be restored. Kit Carson Electric and the local jurisdiction are receiving calls from the public and the media asking about the outage and some social media sources are posting inaccurate information.

Sponsor	New Mexico Department of Homeland Security and Emergency Management
Participating Organizations	New Mexico Department of Homeland Security and Emergency Management, New Mexico Department of Energy, Minerals, and Natural Resources, New Mexico Public Regulation Commission, Taos County OEM, Kit Carson Electric Cooperative
Point of Contact	**Federico Hernandez,** Training and Exercise Unit Manager DHSEM 505-470-4712 **Erin Taylor,** Energy Planning and Program Bureau Chief NM ENMRD 505-476-3457 **Jacqueline Waite,** Clean Energy Program Manager NM ENMRD 505-629-2858 **Mark Ortega,** Deputy Emergency Manager Taos County 575-779-3820 **Jamie Mares,** Kit Carson Electric jmares@kitcarson.com

Analysis of Capabilities

Aligning exercise objectives and capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned capabilities, and performance ratings for each capability as observed during the exercise and determined by the evaluation team.

Table 1. Summary of Core Capability Performance

Objective	Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Examine and clarify state agency roles, responsibilities, authorities, and actions during an energy disruption.	Operational Communications, Operational Coordination		S		
Evaluate the accuracy of the contact directory for information gathering.	Planning		S		
Conduct a walk-through of state communication systems and protocols that contribute to maintaining a common operating picture.	Situational Assessment, Infrastructure Systems		S		
Explore communications systems for information sharing with essential services and the general public.	Planning				U

Ratings Definitions:

Performed without Challenges (P): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with **applicable plans, policies, procedures, regulations, and laws.**

Unable to be Performed (U): The targets and critical tasks associated with the capability were not performed in a manner that achieved the objective(s).

The following sections provide an overview of the performance related to each exercise objective and associated capability, highlighting strengths and areas for improvement.

Objective 1

EXAMINE AND CLARIFY STATE AGENCY ROLES, RESPONSIBILITIES, AUTHORITIES, AND ACTIONS DURING AN ENERGY DISRUPTION.

The strengths and areas for improvement for each capability aligned with this objective are described in this section.

Capability 1: Operational Communications

STRENGTHS

The partial capability level can be attributed to the following strengths:

Strength 1: There was a strong representation of participants with diverse and specialized experiences that participated in the TTX.

Strength 2: Valuable discussions occurred where roles were delineated, and respective capabilities were explained.

AREAS FOR IMPROVEMENT

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Because of the diversity of the participants, representatives from different entities tend to utilize different terminology.

Reference: Exercise AAR Report, EEG notes.

Analysis: Basic ICS training is not required or provided by some agencies. Developing relationships with these entities and inviting them to basic training would be beneficial and would assist in closing terminology gaps.

Area for Improvement 2: There is a need to clarify and better define some of the directions and trigger points in the State Energy Security Plan (SESP).

Reference: Exercise AAR Report, EEG notes, SESP.

Analysis: Because we are dealing with a wide range of incident response experiences for the entities identified in the SESP, it would be beneficial to better define roles and trigger points for actions that need to be taken by the respective agencies and entities involved.

Capability 2: Operational Coordination

STRENGTHS

The partial capability level can be attributed to the following strengths:

Strength 1: Taos County and Kit Carson Electric have communications plans in place and understand the importance of putting resources on standby due to predicted weather that could impact the energy grid.

Strength 2: There is a clear understanding that Kit Carson Electric would be the lead response agency with County and State EOCs supporting with resources.

AREAS FOR IMPROVEMENT

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: There are discrepancies between color coding systems between private industry and Community Lifelines. Further coordinated training and exercises would help respective entities better understand color-coded systems.

Reference: Exercise AAR Report, EEG notes, SESP.

Analysis: Private industry and response organizations have developed independent system rating scales over the years. There is a need to cross-train and clearly identify what system to use in communicating impacts during an incident.

Objective 2:

EVALUATE THE ACCURACY OF THE CONTACT DIRECTORY FOR INFORMATION GATHERING

The strengths and areas for improvement for each capability aligned with this objective are described in this section.

Capability 3: Planning

STRENGTHS

The partial capability level can be attributed to the following strengths:

Strength 1: Participants are familiar with their roles and the notification chains in the contact directory.

Strength 2: The local jurisdiction is familiar with the DHSEM duty line number and with the points of contact for the local energy provider.

Strength 3: Taos County and Kit Carson Electric cross-train and have developed a strong working relationship.

AREAS FOR IMPROVEMENT

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: It was unclear as to what plans and agreements are in place with the private sector and how that would come into play during recovery.

Reference: Exercise AAR Report, EEG notes.

Analysis: Because many scenarios have not played out in a real-world response, it is unclear how the private sector would fit into the recovery after a critical grid outage and how operational costs would be recouped.

Area for Improvement 2: Discussions arose about misconceptions of many as to who will pay for damage and repairs in the recovery phase after a major incident.

Reference: Exercise AAR Report, EEG notes, SESP.

Analysis: There seem to be high expectations in some political positions and with the public about what damages and repairs are covered in specific situations by local, state of federal funds.

Objective 3

CONDUCT A WALK-THROUGH OF STATE COMMUNICATION SYSTEMS AND PROTOCOLS THAT CONTRIBUTE TO MAINTAINING A COMMON OPERATING PICTURE

The strengths and areas for improvement for each capability aligned with this objective are described in this section.

Capability 4: Situational Assessment

STRENGTHS

The partial capability level can be attributed to the following strengths:

Strength 1: The contact list in the SESP is easy to read.

Strength 2: The Web EOC training was helpful to some of the participants.

AREAS FOR IMPROVEMENT

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: The Community Lifelines concepts brought some confusion into the discussions. Additional training in this area is needed.

Reference: Exercise AAR Report, EEG notes.

Analysis: The Community Lifelines concepts are new to many, and it is difficult to clearly define and articulate the purpose and end state of the short time of the TTX.

Area for Improvement 2: Because of the nature of a power outage and the impacts on communications infrastructure, it would be difficult to know if public messaging is being received. A re-examination of communications plans may be needed to assure contingency planning is sufficient.

Reference: Exercise AAR Report, EEG notes.

Analysis: Some EOPs and communications plans may not fully consider the impacts of a wide-ranging power disruption on the ability to communicate critical information to stakeholders and the public.

Capability 5: Infrastructure Systems

STRENGTHS

The partial capability level can be attributed to the following strengths:

Strength 1: Participants were able to identify who was responsible for the response to a critical power infrastructure incident.

Strength 2: There was a clear understating of the command and coordination structures between the local jurisdiction and the power company.

AREAS FOR IMPROVEMENT

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: There is a need to clearly identify when an electric power outage moves from being an event to an incident. Clarification of management action points that describe event/incident levels and provide management action suggestions at the different levels would assist entities in responding appropriately.

Reference: Exercise AAR Report, EEG notes, SESP.

Analysis: Because of the multiple entities and agencies that are involved in responding to a cascading energy disruption, the incident response skill sets can vary. Additional planning, training, and exercises would benefit all entities in closing the gaps.

Objective 4

EXPLORE COMMUNICATIONS SYSTEMS FOR INFORMATION SHARING WITH ESSENTIAL SERVICES AND THE GENERAL PUBLIC.

The strengths and areas for improvement for each capability aligned with this objective are described in this section.

Capability 3: Planning

STRENGTHS

The unable to be performed capability level can be attributed to the following strengths: (due to time constraints, these areas were not fully exercised)

Strength 1: The Community Lifelines rating scales were incorporated and discussed during the TTX.

Strength 2: Basic Web EOC Training was conducted during the TTX.

AREAS FOR IMPROVEMENT

Area for Improvement 1: Community Lifelines concepts are difficult to understand and with the time allotted in the TTX, it was not fully covered.

Reference: Exercise AAR Report, EEG notes.

Analysis: This is a complex topic that requires additional training. Developing a basic, intermediate, and advanced curriculum for this subject would help provide the proper level of instruction to the target audience.

Area for Improvement 2: WebEOC is a great tool, but the skill sets and ability to fully utilize the program vary. The time necessary and the depth of the subject area could not be fully covered during the TTX.

Reference: Exercise AAR Report, EEG notes, SESP.

Analysis: Developing video self-paced training segments for specific WebEOC subject areas and making the training available to users would assist in building up user skill sets. Practical hands-on follow-up use in training and exercise is recommended.

Improvement Plan

Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Capability 1: Operational Communications	1. Representatives from different entities utilize different terminology.	Conduct ICS training for the different agencies and stakeholders.	Training	DHSEM	State Training Officer	01/01/2023	ongoing
	2. Better define trigger points and actions in the SESP.	Work with the SESP planning team to incorporate definitions and trigger points in the SESP.	PI Planning	EMNRD	SESP Planning Team Partner Agency Representatives	01/01/2023	06/01/2023
Capability 2: Operational Coordination	1. There are differences in color-coded incident rating systems between private industry and state and federal agencies.	Conduct training and exercises with the agencies and private sector that would be involved in an energy disruption response.	Training	DHSEM, EMNRD	State Training Officer and SESP Partner Agencies	01/01/2023	ongoing
Capability 3: Planning	1. Unclear what plans and agreements come into play during the recovery phase.	Review existing plans and agreements and update them as needed.	Planning	DHSEM	Operations Manager, Training and Exercise Unit Manager, Local Jurisdictions	01/01/2023	ongoing
	2. Unclear on the fiscal responsibility during the recovery phase of a major incident.	Provide training and exercises that include fiscal processes during the recovery phase of an incident.	Training	DHSEM	State Training Officer, Recovery Unit	01/01/2023	12/01/2023
	3. There is a need to provide a clear understanding of Community Lifeline concepts.	Develop basic and intermediate Community Lifeline training that can be used to explain concepts.	Training	DHSEM	State Training Officer	01/01/2023	12/01/2023
	4. Additional training is needed in WebEOC to make users proficient.	Develop WebEOC video training segments.	Training	DHSEM	State Training Officer, Operations Manager	01/01/2023	12/01/2023

Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Capability 4: Situational Assessment	1. The Community Lifelines concepts are difficult to understand.	Develop basic and intermediate Community Lifeline training that can be used to explain concepts.	Training, Exercise	DHSEM	State Training Officer	01/01/2023	12/01/2023
	2. Validate the effectiveness of communications systems during a major incident.	Review communications plans and systems and provide training and exercise opportunities to test.	Training, Exercise Training, Planning, Exercise	DHSEM	State Training Officer, State Exercise Coordinator, Response Unit	01/01/2023	ongoing
Capability 5: Infrastructure Systems	1. There is a need to identify when an event escalates to an incident and define management actions at the various phases.	Work with the SESP planning team to incorporate definitions and trigger points in the SESP.	Planning	EMNRD	SESP Planning Team Partner Agency Representatives	01/01/2023	06/01/2023

This IP is developed specifically for DHSEM and its partner agencies as a result of the Cascading Energy Disruption TTX conducted on November 29, 2022

Exercise Participants

Participating Organizations
State
New Mexico Department of Homeland Security and Emergency Management
New Mexico Department of Energy, Minerals, and Natural Resources
New Mexico Public Regulation Commission
Taos County
See attached roster
Kit Carson Electric
See attached roster

Participant Roster

Appendix B Participant Roster								
Name:	Cascading Energy Disruption TTX							
Location:	DHSEM Classroom, 13 Bataan Blvd, Santa Fe, NM 87508							
Dates	11/29/2022							
Name	**Email**	**Dept**	**Position Title**	**Work Address 1**	**City**	**State**	**Zip**	**Phone**
La Salle Eli	eli.lasalle@prc.nm.gov	NM PRC	Engineer	PO Box 1269	Santa Fe	NM	87504	505-551-2304
Hernandez Federico	federico.hernandez@dhsem.nm. gov	NMDHSEM	Training Specialist					505-470-4712
Macias Juan	Juan.Macias@dhsem.nm.gov	New Mexico DHSEM	Mass Comm	13 Battan Blvd	Santa Fe	NM	87507	505-795-1763
Chavez Shawnelle	Shawnelle.chavez@dhsem.nm.gov	Department of Homeland Security and Emergency Management	Homeland Security Specialist	13 Bataan Blvd	Santa Fe	NM	87507	505-819-1427
Rubio Jorge	jorge.rubio@dhsem.nm.gov	DHSEM	Operations Manager	13 Bataan Blvd	Pojoaque Valley	NM	87501	915-342-7475
Lucero Bobby	bobby.lucero@taoscounty.org	Taos County Emergency Management	Director					575-737-6459
Waite Jacqueline	Jacqueline.Waite@state.nm.us	NM Energy, Minerals & Natural Resources Department	Clean Energy Program Manager	1220 S. St. Francis Drive	Santa Fe	NM	87505	505-629-2858
Rye Ali	Ali.rye@dhsem.nm.gov	NMDHSEM	Response and Recovery Bureau Chief					505-334-4706
Sand Emily	emily.sand@state.nm.us	NM Department of Homeland Security And Emergency Management	Operations Officer	13 Bataan Blvd	Santa Fe	NM	87508	505-570-7793
Mares Jaime	jmares@kitCarson.com	Kit Carson Electric Cooperative	Safety Coordinator	118 Cruz Alta Rd	Taos	NM	87571	575-779-8854
Ortega Mark	mark.ortega@taoscounty.org	Taos County - Office of Emergency Management	Emergency Management Coordinator	P.O. Box 737 Questa,NM	Questa	NM	87556	575-737-6459
Wachter Zachary	zach.wachter@state.nm.us	NMDHSEM	Local Preparedness Coordinator	P.O. Box 2711	Santa Fe	NM	87502	505-250-7397
Martinez Richard	rmartinez@kitcarson.com	Kit Carson Electric Cooperative		116 Cruz Alta Rd	Taos	NM	87571	575-613-0619
Holmes Cynthia	cynthia.holmes@dhsem.nm.gov	NMDHSEM	Preparedness Bureau Chief	13 Bataan Blvd	Santa Fe	NM	87506	505-259-901
Martinez Richard	richard.martinez@prc.nm.gov	NM PRC		PO Box 1269	Santa Fe	NM	87504	520-471-809
Ortega John	jortega@kitcarson.com	Kit Carson Electric	Asst Chief	PO Box 578	Taos	NM	87571	575-758-258
Lovato Jose	mark.ortega@taoscounty.org	Kit Carson Electric Cooperative		116 Cruz Alta Rd	Taos	NM	87571	575-741-043

Appendix B Participant Roster								
Taylor Erin	erin.taylor@state.nm.us	EMNRD	Bureau Chief	1220 South St. Francis Drive	Santa Fe	NM	87505	505-470-442
Brannin Wynn	wynn.brannin@state.nm.us	NM DHSEM	Statewide Emergency Coordinator					505-476-9678

Report for NM DHSEM AAR_2022 Cascading Energy Disruption TTX

Response Counts

Completion Rate:	**100%**	
	Complete	8

Totals: 8

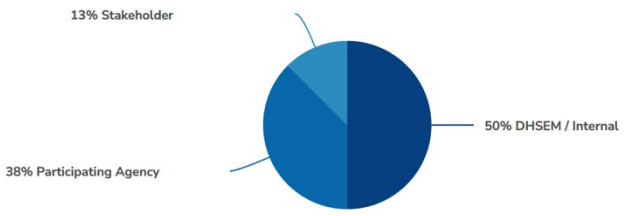
1. Name:

ResponseID	Response
1	Bobby Lucero
2	Cynthia Holmes
3	Zach Wachter
4	John Ortega
5	Juan Macias
6	Jacqueline Waite
7	Wynn Brannin
8	Mark Ortega

3. Please provide any input regarding the effectiveness of the TTX in defining the roles, responsibilities, authorities, and actions during an energy disruption.

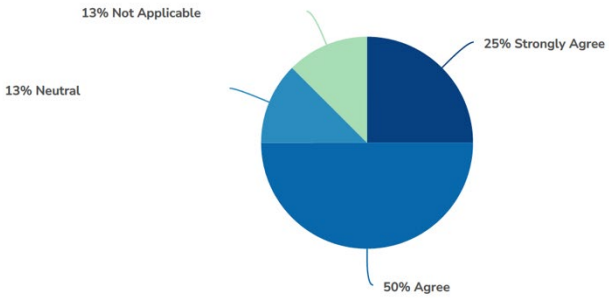
ResponseID	Response
1	There was a lot of knowledge, and information that was shared from all involved. I feel that this was a huge success for everyone.
2	The TTX was valuable for letting people express what their roles are, and also to learn what they thought other people's roles are and then what other people's roles _really_ are.
3	I feel this TTX was an effective to for the stated objective.
5	Learning the capabilities of the other agencies
6	The discussions were helpful, especially those delineating the progression of involvement from local to state to regional. It's still not clear to me exactly how or under what circumstances EMNRD would be notified of an energy disruption or when or why the ESF-12 would be activated. I also think the SESP needs to clearly define terms (incident/event) using FEMA conventions. The EM world seems to speak a different language than EMNRD, PRC and utilities.
7	All Co-op should have something like this.
8	I think the table top was really helpful in defining roles during an emergency. It has lead to conversations on future trainings here in Taos County with Kit Carson.

4. What group best describes your roles and responsibility during an energy disruption?



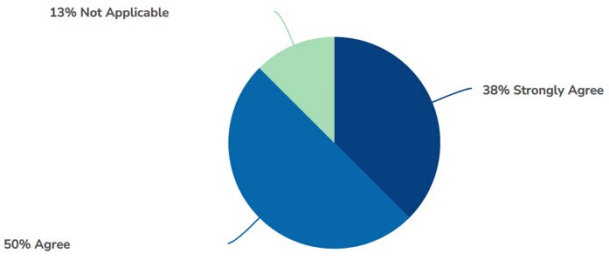
Value	Percent	Responses
DHSEM / Internal	50.0%	4
Participating Agency	37.5%	3
Stakeholder	12.5%	1
	Totals: 8	

5. The ESP contact directory was easy to use and was all-inclusive for contacts I would need during an energy disruption.



Value	Percent	Responses
Strongly Agree	25.0%	2
Agree	50.0%	4
Neutral	12.5%	1
Not Applicable	12.5%	1
	Totals: 8	

6. I understand communication tools and processes that will contribute to maintaining a common operation picture.

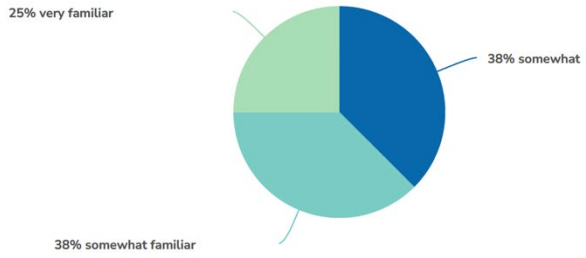


Value	Percent	Responses
Strongly Agree	37.5%	3
Agree	50.0%	4
Not Applicable	12.5%	1
	Totals: 8	

7. Please provide any additional comments or recommendations for improving ESP communication protocols.

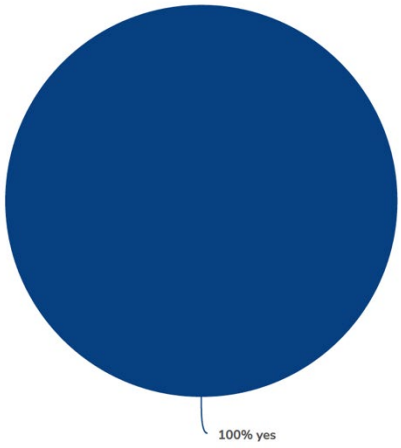
ResponseID	Response
2	The contact list was easy to read, but some people or jurisdictions are out of date. One thing that might help is a QR code that links to an online list. The online list is easier to keep updated.
3	Team 1 failed to use their ESP as a resource during the exercise.
6	I think it would be helpful to have some clearly defined triggers for utilities to inform not just local EMs and DHSEM, but EMNRD and PRC (i.e., the EEAC team), of outages, especially if they are impacting significant populations. DOE will be asking us for information. It's also still not clear if there is a space in WebEOC for communicating about events related to energy. It's also still not clear how staff should work with our agency PIOs and how agency PIOs would ideally work together.

8. Prior to this TTX, how familiar were you with the subject matter? Please pick the one answer that best describes your familiarity with the subject.



Value	Percent	Responses
somewhat	37.5%	3
somewhat familiar	37.5%	3
very familiar	25.0%	2
	Totals: 8	

9. Do you feel that your participation in this TTX improved your knowledge in the subject area?



Value	Percent	Responses
yes	100.0%	8
	Totals: 8	

10. Please identify what you feel went well during this TTX.

ResponseID	Response
1	The communications, the participation from all stakeholders, and the feedback.
2	People had a good opportunity to discuss what parts they play in an energy disruption. Participants got to ask questions of the SEOC staff, and discuss possible difficulties.
3	Clarification of roles. Identification of double tasking and other agencies that should be involved. Identified need for JIS implementation. This TTX also did a very good job showing participants the interdependency of their roles in recovery and mitigation.
5	Good Communication and understanding the capabilities of other agencies
6	The discussions were good, and so was hearing about the questions and why they are important from the DHSEM perspective. I also learned a lot about utilities' mitigation and resilience functions.
8	There were a lot of good conversations during the table top. I thought everyone made the decision to make notification up the chain early in the process, even if it was just to advise of the incident.

11. Please identify any items for improvement.

ResponseID	Response
1	None at this time.
2	If we get to do another TTX on this topic with these partners, it might be helpful to include some nearby jurisdictions
3	Group one struggled to address all the questions in the time allotted.
5	A communication platform for all to use and to have inventory of different agencies needs
6	Regarding the TTX agenda, the WebEOC part at the end was hard, and it was less relevant to KCEC.
8	The WebEOC training was great. I wish there was more of what is expected and the whole process passed to all municipalities.

12. Is there any other information you would like to contribute to this AAR process?

ResponseID	Response
1	I think that this training really gave us all a better understanding of the over process, and all stakeholders that should be involved. Also, building that relationship with everyone to be stronger to complete our mission, and protect the community.
2	More info to follow on the EEG
3	Kit Carson electric seemed very cognizant of their roles and responsibilities.
6	We thank DHSEM for putting this together. We requested a follow-up meeting with DHSEM Ali Rye to talk more about ESF-12.
8	It was a really great exercise.

Appendix F: Regional Energy Security Tabletop Exercise AAR

Exercise Overview

Operation Knockout was an in-person, discussion-based tabletop exercise with incorporated panel discussions facilitated over the span of one and a half days in May 2023. Exercise discussions focused on response and recovery capabilities under one complex scenario. Exercise play was limited to this venue and stakeholder representatives from public and private sector entities with energy emergency responsibilities participated in the event.

Event Overview

This Exercise was designed by the New Mexico Energy, Minerals and Natural Resources Department (EMNRD), Hagerty Consulting, and the National Association of State Energy Officials (NASEO) to bring federal, state, tribal, and local stakeholders together with energy and utility industry representatives in a collaborative environment to discuss response and recovery capabilities under one complex scenario.

Exercise Name	Operation Knockout
Exercise Dates	May 1 – 2, 2023
Location	La Fonda on the Plaza Ballroom 100 E. San Francisco Street, Santa Fe, NM 87501
Scope	A total of 62 participants participated in the day and a half event and exercise play was limited to this venue and its represented cross-section of organizations involved in discussions.
Focus Area(s)	Mitigation, Protection, Preparedness, and Response
Core Capabilities	• Community Resilience • Intelligence and Information Sharing • Long-Term Risk Assessment and Mitigation • Operational Communications • Operational Coordination • Planning • Public Information and Warning • Situational Assessment and Reporting • Clarity and Consistency of Messaging

Objectives	1. Identify public and private sector roles, responsibilities, authorities, and actions during a natural gas and electrical disruption following a cyber-attack and during a period of extreme heat. 2. Identify communication and coordination protocols between state agencies, the private sector, federal government, other states, and tribal nations used to facilitate energy emergency responses. 3. Develop a collective understanding of how a cyberattack might impact existing energy delivery and operational coordination. 4. Identify cascading impacts to local communities, including Tribal Nations likely to occur following a long-term electricity disruption.
Threat or Hazard	A cyberattack on natural gas infrastructure business and operating systems affecting natural gas supply and power generation, and physical attacks on electrical substations causing prolonged large-scale power outages, occurring during a period of extreme heat.
Scenario	See Appendix A
Participating Organizations	See Appendix B
Point of Contact	Jacqueline Waite, Energy Planning and Programs Bureau Chief Energy Conservation and Management Division (ECMD), EMNRD Telephone: (505) 629-2858 Email: Jacqueline.Waite@emnrd.nm.gov

In addition to the Tabletop Exercise, the event was supplemented by four panel presentations that provided an overview and facilitated discussions on the following topics:

- Setting the Stage: Energy Security in New Mexico
- Cybersecurity Risks and Incident Response Coordination
- Natural Gas-Electricity Interdependencies
- Extended Outages and Local Implications

Key Findings

The exercise planning team evaluated the feedback, notes, and overall exercise and found these strengths and opportunities for improvement based on each objective reviewed below.

Objective 1

Identify public and private sector roles, responsibilities, authorities, and actions during a natural gas and electrical disruption following a cyber-attack and during a period of extreme heat.

Strengths

1. Private industry has reporting protocols and mechanisms for assessing and managing a cyberattack.
2. DHS CISA, in coordination with the State Fusion Center, is a resource for mitigating against and responding to a cyberattack. There are also resources available through the U.S. Department of Energy (DOE) Office of Cybersecurity, Energy Security, and Emergency Response (CESER), American Public Power Association (APPA) and National Rural Electric Cooperative Association (NRECA) to support municipal utilities and rural electric cooperatives in preparing for and responding to a cyberattack. The New Mexico Rural Electric Cooperative Association (RECA) is also working on ways to pool resources/generate economies of scale to give cooperatives the tools they need.
3. For planning purposes, cooperatives have strong awareness of the residents they serve, including customer-members who are most vulnerable to electricity outages.

Areas for Improvement

1. There are no statutory or regulatory requirements placed on the private sector to communicate with the public sector about existing or possible disruptions. The public sector must either do its own proactive monitoring (where possible) and/or wait for the private sector to disclose information. The private sector has valid concerns surrounding public perception and does not want to alarm customers prematurely or unnecessarily. However, unintended impacts of delayed or lack of communication unintentionally limits situational awareness of incidents that public safety entities could utilize in their planning for outage impacts (particularly for especially for vulnerable populations with access and functional needs, such as the need to establish cooling centers in extreme heat emergencies). This puts

emergency management in a reactive, rather than the preferred proactive stance.

2. EMNRD, New Mexico Public Regulation Commission (PRC) and New Mexico Division of Homeland Security and Emergency Management (DHSEM) lack a full set of authoritative Geographic Information System (GIS) data for energy systems, service territories and other critical infrastructure needed to identify vulnerable communities and plan for cascading impacts to communities. DHS CISA and the State Fusion Center may be good resources for filling in these gaps, but additional coordination is required.
3. It is unclear who has the authority to declare an energy emergency and what would trigger such a declaration. [1]

Objective 2

Identify communication and coordination protocols between state agencies, the private sector, federal government, other states, and tribal nations used to facilitate energy emergency responses.

Strengths

1. Investor-Owned Utilities (IOU) and several rural electric cooperatives have publicly available real-time outage data and/or mass alert capabilities that local emergency management, DHSEM and EMNRD can access. Publicly available data is also consolidated by the DOE EAGLE-I tool (with varying degrees of accuracy) and is used by DSHEM and EMNRD as an initial alert system for identifying potential issues.
2. The Emergency Support Function (ESF) structure under DHSEM is set up for success in coordinating information, planning and response activities across state agencies and with local emergency management. DHSEM and EMNRD have recently established clear lines of communication within this structure related to energy emergencies.

Areas for Improvement

1. While DHS CISA is a valuable resource of intelligence and can assist the State in planning for cascading impacts related to an energy emergency, there is an additional need for training on how and when they get involved and through which agency their resources and support can be requested.

[1] Ch. 12, art. 12-1 – 12-9 NMSA 1978 "Energy Emergency Powers Act", <https://nmonesource.com/nmos/nmsa/en/item/4374/index.do#!b/a12>

2. Intelligence and information sharing between government entities and the private sector may be delayed as noted above and clear triggers and pathways for this communication need to be established. Due to these challenges, state resources for public information and warning may be underutilized. With coordination through a Joint Information Center (JIC), the State would be able to support utilities in their efforts to combat and mitigate misinformation, calm and educate citizens, and encourage energy conservation when appropriate (e.g., by individuals who can conserve during extreme heat events) with clear and consistent messaging.
3. ESF #12- Energy response, including situational awareness and managing requests for support from the energy sector, is highly dependent on relationships and EMNRD's ability to track down outage and restoration data from entities directly. It is often the case that local emergency management, PRC and DHSEM are alerted to an energy situation prior to EMNRD's awareness. This creates a situation where EMNRD is playing catch-up and possibly distracting energy managers with follow-up requests for information. A best-case scenario would involve EMNRD adding value by communicating directly with energy providers to fill in information gaps for emergency managers, and to communicate and/or connect private sector needs to state partners and resources.
4. While PRC collects disruption and outage data for regulated entities in an annual report, there is not a clear standard for reporting (e.g., including major events, Institute of Electrical and Electronics Engineers, or IEEE, standard) and that information could be more consistently applied to understanding energy system vulnerabilities and resilience pathways.[2] EMNRD could help with this but has limited visibility and no regulatory authority. EMNRD and PRC coordination, and EMNRD access to outage data and response times (when not publicly available), could be rectified with additional authorities and/or non-disclosure agreements guaranteeing the security of information.
5. Accounting for outages by electricity providers is still difficult as the grid is not yet modernized. New Mexico's IOUs do not have Advanced Metering Infrastructure (AMI) enabled with Supervisory Control and Data Acquisition (SCADA) systems and, while many cooperatives do have AMI, they are not SCADA enabled. Thus, outage data is as good as customer reports. AMI will, however, be another potential target of cyberattacks.
6. Protocols for communication during an energy emergency among State cabinet-level executive branch staff, and especially among Public Information Officers (PIOs), were not exercised. Future exercises with this target audience are needed.

[2] New Mexico Administrative Code (NMAC) § 17.9.560.15 (E) (2020)

Objective 3

Develop a collective understanding of how a cyberattack might impact existing energy delivery and operational coordination.

Strengths

1. In the case of New Mexico Gas, operations would not necessarily be disrupted by a cyber-attack as the flow of gas can be controlled manually. In the case of Public Service Company of New Mexico (PNM), once notified of a possible breach from a supplier, the company can isolate its systems and perform an immediate analysis of operational and informational technologies. PNM can operate in the short-term off non-gas generation resources. Tri-State Generation and Transmission can fuel switch and access additional resources regionally if natural gas supply were to be restricted.

Areas of Improvement

1. Unlike physical attacks, cyberattacks are harder to respond to because impacts, needs and restoration times are more difficult to assess. It can take time for affected entities to confirm a cyberattack. Depending on the company size and resources, attacks on operating systems could have long term impacts on communities, including cascading impacts on community lifelines. Communication pathways may also be disrupted.
2. The process through which emergency management is notified of a cyberattack can also be further refined to help expedite information sharing and support during a potential incident.

Objective 4

Identify critical impacts to local communities, including Tribal Nations, that are likely to occur following a long-term electricity disruption.

Strengths

1. There is consensus that water/wastewater and healthcare facilities would be priorities for power restoration among utility service providers.
2. DHSEM can deploy resources from other parts of the state or region, especially if provided time to prepare.

3. When deployed, the New Mexico National Guard is an effective support with a wide range of resources and skillsets including site security, traffic management, augmentation for logistical operations, and transportation support.
4. Tribal governments have traditionally communicated directly with the federal government, including the U.S. Bureau of Indian Affairs (BIA), and by doing so have been able to secure resources during emergencies.
5. Utilities, including the states' rural electric cooperative members of the New Mexico RECA, have established mutual aid agreements.

Areas of Improvement

1. Emergency management expressed concern with downstream impacts stemming from long-term outages relating to civil unrest, which is understood to be more likely after 5 days of disrupted routines and supplies. Solutions to managing this unrest were not explicitly addressed.
2. Electricity is essential to water pumping and treating. Boil water advisories are determined by the New Mexico Environment Department (NMED) staff after testing and NMED was not present at this exercise to provide insight. Consistent messaging around water quality is key and it will be important to coordinate with and boost messaging of local water infrastructure leads to keep people safe.
3. There is a general lack of understanding about the state of back-up power for critical infrastructure. A participant cited a report by the New Mexico Association of Emergency Management Professionals (NMAEMP) that noted approximately 30% of the State's law enforcement and fire agency facilities have back-up power generation capability. In addition, back-up generators are scarce statewide. Utilities are concerned that private generators may not be connected to the grid properly such that they could put line crews in danger. Moreover, generators need to be tested and fueled on a regular basis. On-site renewable generation and storage with the ability to island or safely interconnect with the local utility is an option with significant capital investment.
4. Utilities reported that restoration priorities are often constrained by physical networks and circuits. Education around this would help emergency managers and the State know how best to communicate with the public in ways that are aligned with the private sector.
5. Tribal communities are isolated and vulnerable when critical infrastructure is cut. Basic supplies can be very difficult to acquire. Tribes report a lack of consistent information from energy service providers. The converse of the above strength is that Tribal governments report they are hesitant to reach out to local and State officials due to past experiences engendering mistrust, and the perception that

the state is simply not as equipped as the federal government to meet their needs. Joint training and exercises with DHSEM and other State and local entities may start to provide a foundation for positive collaboration in future emergencies.

6. Mutual aid may be constrained by supply chain issues and individual service provider inventories. A resilient system is one with backup materials and equipment, but not all service providers have the resources to secure these or to share. Substation transformers, for example, cost upwards of $2 million and take two years to acquire. Federal grid resilience funding may be applied to help stockpile some equipment. There is an opportunity for the federal government and EMNRD to potentially help mitigate supply chain issues through future planning efforts.
7. Availability and cost of providing meals and lodging for out-of-state or regional line crews is a limiting factor for rural communities. While DSHEM is an available resource to support, additional conversation around what this process entails would be valuable.

Analysis

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. The table below includes the exercise objectives, aligned core capabilities, and performance ratings as observed during the exercise and determined by the evaluation team. Note the capabilities were not officially evaluated, and the analysis results represent the combined viewpoints of facilitators and participants captured in a post-exercise survey at the objective level.

Objective	Core Capabilities	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Identify public and private sector roles, responsibilities, authorities, and actions during a natural gas and electrical disruption following a cyber-attack and during a period of extreme heat.	• Operational Coordination • Planning • Situational Assessment and Reporting		S		
Identify communication and coordination protocols between state agencies, the private sector, federal government, other states, and tribal nations used to facilitate energy emergency responses.	• Intelligence and Information Sharing • Operational Communications • Operational Coordination • Planning • Public Information and Warning			M	
Develop a collective understanding of how a cyberattack might impact existing energy delivery and operational coordination	• Operational Coordination • Planning • Intelligence and Information Sharing • Long-Term Risk Assessment and Mitigation		S		

Objective	Core Capabilities	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Identify critical impacts to local communities, including Tribal Nations, that are likely to occur following a long-term electricity disruption.	• Planning • Intelligence and Information Sharing • Operational Coordination • Community Resilience • Clarity and Consistency of Messaging		S		

Ratings Definitions:

Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

Appendix G: Federal Hazard Mitigation Grant Resources

Hazard Mitigation Assistance Program

FEMA offers nationally competitive resources to support hazard mitigation through the Hazard Mitigation Assistance (HMA) Grant Program that could support investments in New Mexico's energy sector. The HMA Grant Program represents one of the largest pockets of mitigation funding nationwide and has experienced an uptick in successful projects to support the energy sector in recent years. While eligible applicants include jurisdictions with a FEMA-approved Hazard Mitigation Plan, public-private partnership is a core tenant of the program. Local jurisdictions and private organizations are encouraged to collaborate to identify competitive projects that break the cycle of disaster damage, reconstruction, and repeated damage, and include long-term solutions that reduce the impact of disasters in the future. The suite of resources available through FEMA's HMA Program are described below.

Hazard Mitigation Grant Program (HMGP)

- **Purpose:** HMGP ensures that state, local, Tribal, and territorial governments have the financial opportunity to plan for and implement mitigation measures that reduce the risk of loss of life and property from future natural disasters during the reconstruction process following a disaster. HMGP funding is available when authorized through a major disaster declaration. A governor, Tribal chief executive, or equivalent, may request that HMGP funding be available to the state or territory that was affected by the declared disaster.
- **Cycle:** Post-Disaster
- **Local Match:** 25%
- **Available Funding:** Calculated by a percentage of incident expenditures over a 12-month timeframe.

Hazard Mitigation Grant Program Post Fire (HMGP Post Fire)

- **Purpose:** HMGP Post Fire assistance is available to help communities implement hazard mitigation measures after wildfire disasters in any area that receives a Fire Management Assistance Grant (FMAG) declaration. Unlike HMGP, the availability of HMGP Post Fire assistance is not contingent on a major disaster declaration and is instead triggered by an FMAG declaration. States and territories that have received an FMAG declaration and certain federally recognized tribes are eligible to apply for assistance under HMGP Post Fire.

- **Cycle:** Annual
- **Local Match:** 25%
- **Available Funding:** Calculated based on an average of historical FMAG declarations from the past 10 years.

Flood Mitigation Assistance (FMA)

- **Purpose:** FMA is a competitive program that provides funding to states, local communities, federally recognized Tribes, and territories. Funds can be used for projects that reduce or eliminate the risk of flood damage to structures insured by the National Flood Insurance Program (NFIP).
- **Cycle:** Annual
- **Local Match:** 0%, 10%, or 25%
- **FY 2022 Funding:** $800 million, nationally competitive program.

Building Resilient Infrastructure and Communities (BRIC)

- **Purpose:** BRIC supports state, local, Tribal, and territorial governments as they undertake hazard mitigation activities, reducing the risks they face from disasters and natural hazards. The BRIC program seeks to fund effective and innovative activities that will reduce risk, increase resilience, and serve as a catalyst to encourage the whole community to invest in and adopt mitigation policies.
- **Cycle:** Annual
- **Local Match:** At least 25%, or 10% for economically disadvantaged rural communities (EDRC).
- **FY 2022 Funding:** $2.3 billion, nationally competitive program.

Pre-Disaster Mitigation (PDM) Congressional Community Projects

- **Purpose:** PDM makes federal funds available to state, local, Tribal and territorial governments to plan for and implement sustainable cost-effective measures designed to reduce the risk to individuals and property from future natural hazards, while also reducing reliance on federal funding from future disasters. This funding is offered in addition to funds provided through other FEMA grant programs for projects that will support growing mitigation needs nationwide and requires support by a Member of Congress.
- **Cycle:** Annual
- **Local Match:** At least 25%, or 10% for EDRC.
- **FY 2022 Funding**: $233 million, nationally competitive program to fund 100 congressionally directed projects.