

POWER OUTAGE PREPAREDNESS

2020 PNM ENERGY SOLUTIONS WEBINAR SERIES



Talk to us.



AGENDA

- ✓ Power Outages
- ✓ PNM Action plan to minimize outage impacts
- ✓ Understand PNM outage planning and restoration
- ✓ Tips to prepare your business for an outage
- ✓ Reporting an outage
- ✓ Useful tools and resources
- ✓ Questions & Answers



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KEY TAKEAWAY FROM TODAY'S WEBINAR

To provide PNM business customers with the following:

- PNM Outage information
- Outage tools & resources to aid in planning and preparation
- Tips to minimize outage impact to business operations



TODAY'S SPEAKERS



Apollonia Gonzales
Sr. Strategic Account Manager



Mike Davis
Manager, PNM Distribution Operations Center

HOUSEKEEPING

- You will receive an email with the presentation from today's webinar and you can find it on PNM.com/business-events
- Please ask your questions by typing into the chat box during the Q&A session.
- We are committed to answering all submitted questions. If we are unable to get to them today, we will provide a response after the presentation

ABOUT PNM

PUBLIC SERVICE COMPANY OF NEW MEXICO

- Founded in 1917
- New Mexico based energy company focused on clean energy transformation
- Over 500K retail customers
- 2,811 MW resource portfolio
- Over 15K miles transmission and distribution lines



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POLL QUESTIONS

Have you experienced a power outage within the last 12 months at your place of business?

- Yes
- No

Did your company invest in power reliability equipment, such as UPS devices, back up generators, and/or other back up power methods?

- Yes
- No



Image Credit: <https://www.123rf.com/clipart-vector/yes.html?sti=mmchdujqnlh1y9v6o>



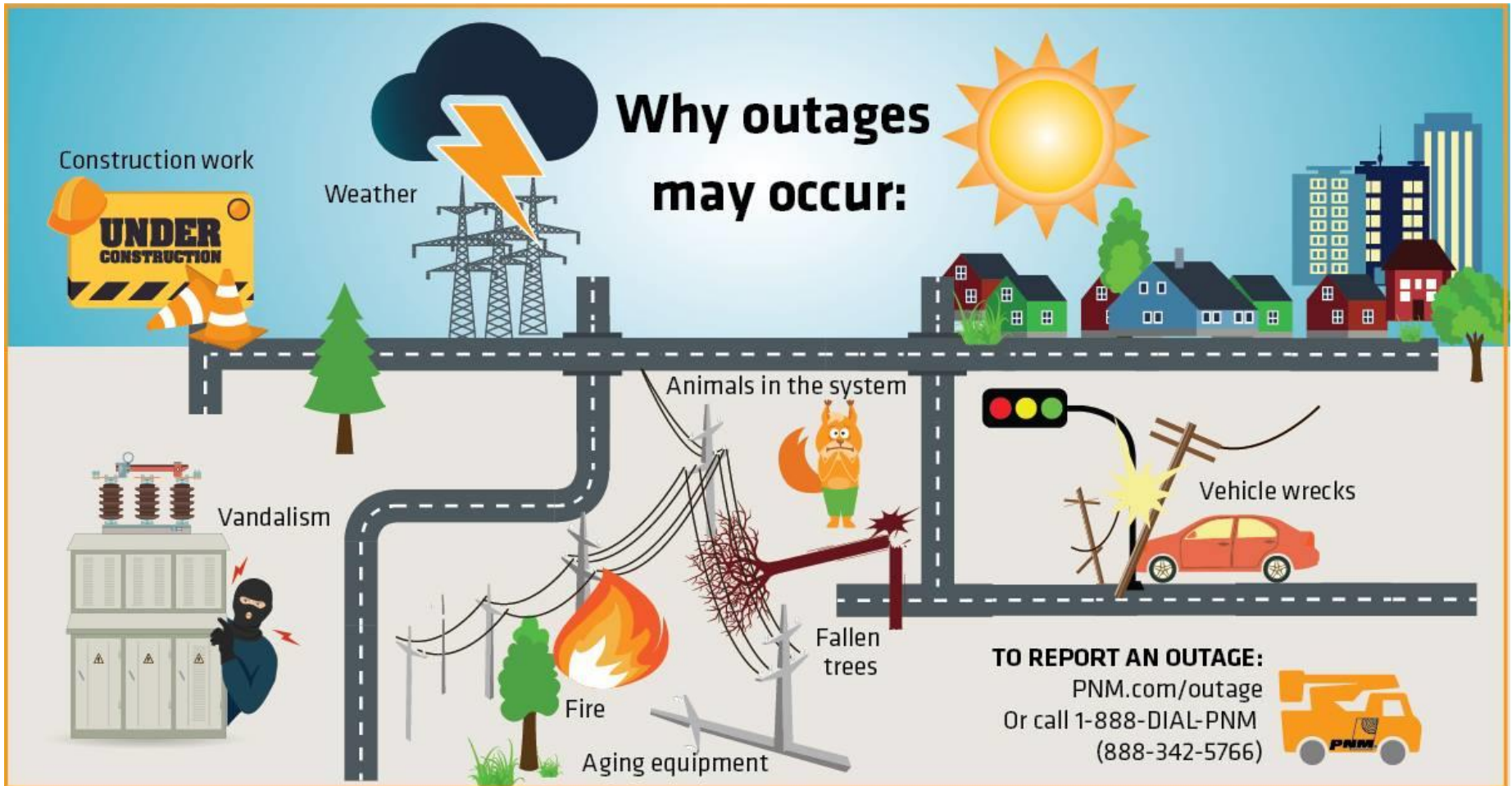
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POWER OUTAGES



WHY OUTAGES OCCUR



PNM STORM AND OUTAGE PREPARATION

STEPS PNM TAKES TO IMPROVE AND PROVIDE SAFE AND RELIABLE POWER

At PNM SAFETY is our number one priority

Pre-Storm Preparation

Post Storm Damage Assessments

Manpower and Material Estimates for Restoration

Repair High Voltage Line and Other Essential Facilities

Working Priority Restoration

Greatest Customer Count

Yard-to-Yard Restoration of the Hard-to-Repair



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COMMON POWER DISTURBANCES

Disturbance Type	Description	Local Effects
Transient (Surge)	A sub-cycle disturbance in the AC waveform, resulting in a sharp but brief voltage increase	<ul style="list-style-type: none"> - Computer lock-up, processing errors, data loss - Burned Circuit boards, electrical insulation damage, equipment damage
Sag/Swell	Any short term (1/2 cycle to 3 seconds) decrease (sag) or increase (swell) in voltage	<ul style="list-style-type: none"> - Memory loss and data errors - Equipment shutdown; motors stopping or stalling and decreased motor life - Flickering lights
Noise	An unwanted high frequency electrical signal that alters the normal voltage pattern (sine wave)	<ul style="list-style-type: none"> - Lock-up of sensitive equipment - Data loss and processing errors - Distorted audio and video reception
Harmonic Distortion	The alteration of the normal voltage pattern due to equipment generating frequencies other than the standard 60 cycles per second	<ul style="list-style-type: none"> - Electrical equipment/wiring overheating - Decreased motor performance - Improper operation of breakers, relays, or fuses
Under/Overvoltage	Any long-term change (more than 1 minute) below or above normal voltage levels	<ul style="list-style-type: none"> - Dim or bright lights - Equipment shutdown, overheating of motors or lights - Reduced efficiency or life of equipment

References: Power Quality Considerations – Bill Brown, P.E., Square D Engineering Services,

<http://www.goodielelectric.com/electrical-contractor-services-2/commercial-electrical-services/power-quality-testing/>



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PNM SAFETY & TIPS DURING AN OUTAGE

WWW.PNM.COM/SAFETY

ELECTRICAL SAFETY

OUTAGES

STORM SAFETY

WILDFIRE SAFETY

KID SAFETY

FIRST RESPONDER SAFTY

PNM EMPLOYEE SAFETY

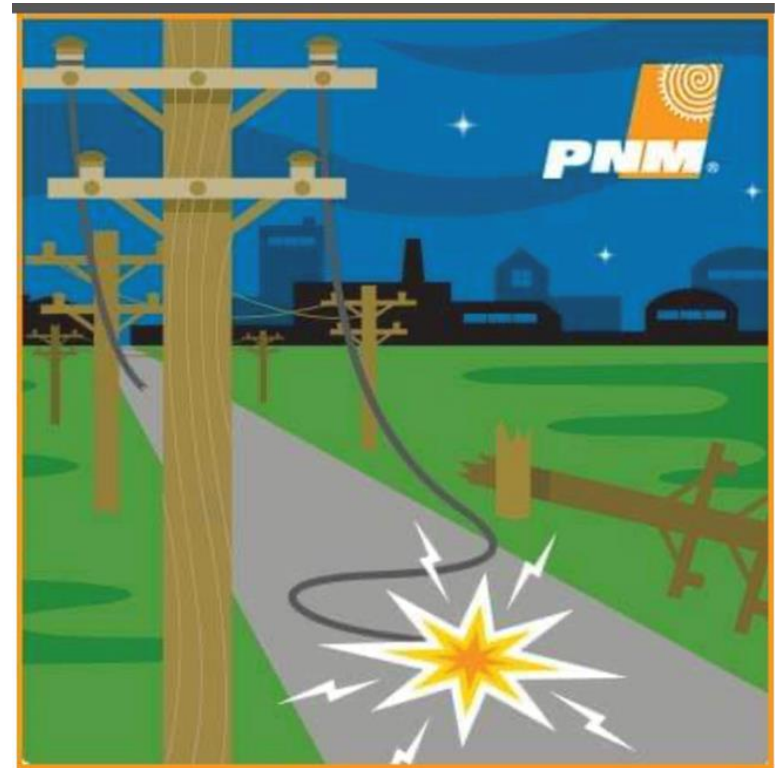
HOT AIR BALLOON SAFETY

ENERGY AND COPPER THEFT

TREE TRIMMING

CALL BEFORE YOU DIG

SCAM CALLS



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HOW PNM MAINTAINS POWER RELIABILITY

PROACTIVE APPROACH TO IMPROVE/MAINTAIN SYSTEM RELIABILITY

Track outage occurrence

Perform root cause analysis

Perform routine maintenance on critical grid infrastructure

Capital system improvements/upgrades

Improved customer notification system

24/7 on call outage team



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COMMON STEPS BUSINESSES TAKE TO STRENGTHEN RELIABILITY AND MINIMIZE OUTAGE IMPACTS

BE PREPARED WITH THESE TIPS TO MINIMIZE THE IMPACT



Business Continuity Plan



Emergency Response Training



Prepare Outage Kit



Install UPS Device



Backup Generation



Emergency Backup Fuel



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REPORTING AN OUTAGE



IN THE EVENT OF AN OUTAGE

PNM CONTACT INFORMATION

- **Emergencies: Dial 911**
- Have your PNM account number and/or phone number associated with account when calling to report an outage
- Report outages by
 - ✓ Calling **888-DIAL-PNM (888-342-5766)**
 - ✓ Texting Option
 - Register your device by texting #REG to 78766
 - Report outage by texting #OUT to 78766
 - ✓ or ONLINE at [PNM.com/outage](https://www.pnm.com/outage)



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BECOME FAMILIAR WITH PNM.COM

The screenshot shows the PNM website homepage. At the top left is the PNM logo. To its right are links for "About PNM", "Contact Us", "Log In/Sign Up", and "Español". Further right is a "Talk to us." button with the PNM.com logo, and social media icons for Twitter and Facebook. A search bar is located to the right of these icons. Below the top navigation is a secondary menu with "Services for:" followed by "Homes", "Businesses", "Community", "Environment", "Safety", and "My Account".

The main banner features a red and orange background. On the left, there is a "Log In to My Account" button and a "Quick Links" menu with options: "Pay My Bill", "Moving? Start, Stop or Transfer Service", "Report an Outage", "Billing Options", and "New Construction & Upgrade Services". The central text in a red hexagonal shape reads: "Scammers are targeting PNM customers, especially on the weekend because they know we're closed. This is spoofing. They mask caller ID w/ our name/number so you'll answer, claiming past due balances, threatening to shutoff power, and demanding you pay up with a prepaid gift card." To the right of this text is an illustration of a hooded figure holding a smartphone, with a "SPOOFING EXAMPLE" showing a call log for "PNM" with a masked number. A "Live Chat" button is on the far right. A "Learn more >>" link is at the bottom right of the banner.

Below the banner are three promotional boxes: "Renewable Energy" with a "< 5%" discount, "Outage Center" with a truck icon and text "Report power and streetlight outages", and "Easy Ways to Pay" with text "Online, by phone and more". A fourth box on the right says "Save Money" with "Get rebates and discounts" and a piggy bank icon.

A yellow callout box on the left contains the text "Click on OUTAGE CENTER LINK" with a yellow arrow pointing to the "Outage Center" box.

PNM WEBSITE: OUTAGE CENTER LINK

www.pnm.com/outage

Provides the following:

- LIVE OUTAGE MAP
- OPTION TO REPORT OUTAGE
- OPTION TO REPORT A STREETLIGHT OUT
- SAFETY & TIPS
- SIGN UP FOR OUTAGE ALERTS

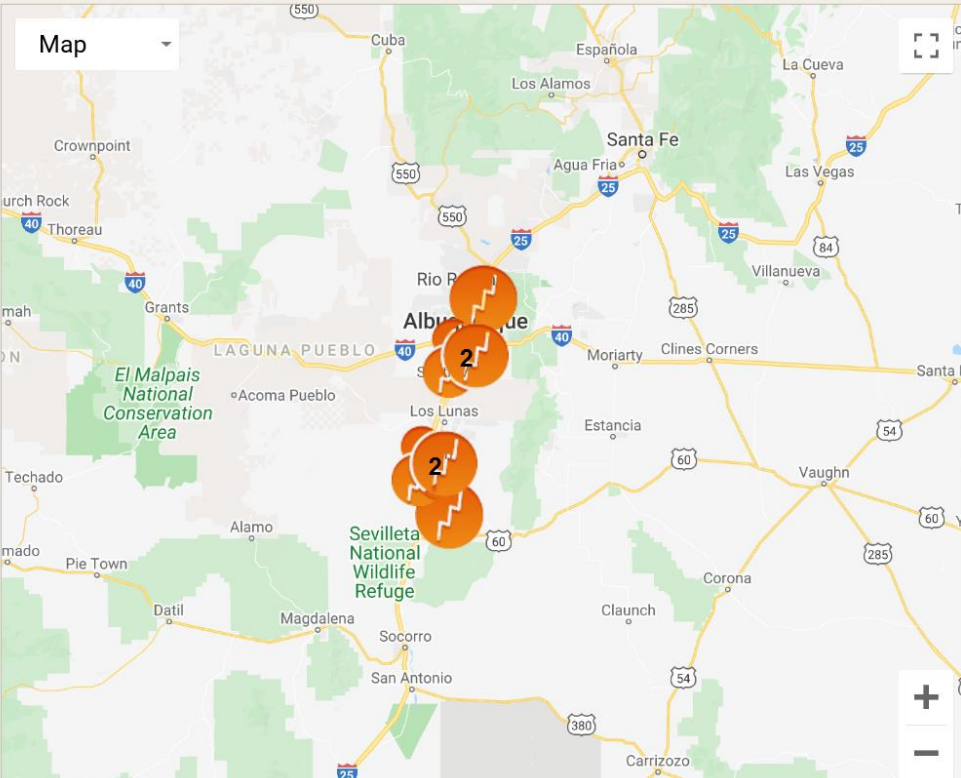
The screenshot shows the PNM Outage Center website. At the top, there is a navigation bar with the PNM logo, links for 'About PNM', 'Contact Us', 'Log In/Sign Up', and 'Español'. A 'Talk to us.' button with a speech bubble icon and social media icons for PNM.com, Twitter, and Facebook are also present. Below the navigation bar, the page title 'Outage Center' is displayed. The main content area features a large heading 'Outage Center' and a sub-heading 'Outage Center'. A paragraph of text states: 'PNM electricity reliability is among the best in the nation, but when outages do affect you, the Outage Center provides you with resources to report new outages or view known outages on our outage map.' Below this text, there are four main sections: 1. 'VIEW ONLINE OUTAGE MAP' with a map icon and the text 'See outage locations, and estimated restore times.' 2. 'REPORT AN OUTAGE' with a truck icon and the text 'Click to report or Text #OUT to 78766' and 'Message & data rates apply. Text #HELP for options or #STOP to cancel.' 3. 'REPORT A STREETLIGHT OUT' with a streetlight icon. 4. 'SAFETY & TIPS during an Outage' with a power line tower icon. 5. 'SIGN UP FOR OUTAGE ALERTS' with a power line tower icon and the text 'We'll let you know when power is expected to be restored'.

LIVE OUTAGE MAP – SNAP SHOT

View Outage Map - Internet Explorer
https://www.pnm.com/search-an-outage

Find It

Last Updated: Jul 20, 2020 03:13 PM (MDT)



Map

Customers affected

- 1-49
- 50 - 250
- More than 250

Report an Outage

Report your outage online or call us 24 hour a day.

Call 1-888-DIAL-PNM (888-342-5766). Say "outage" to get started.

Or

Report Your Outage Online

Live Chat

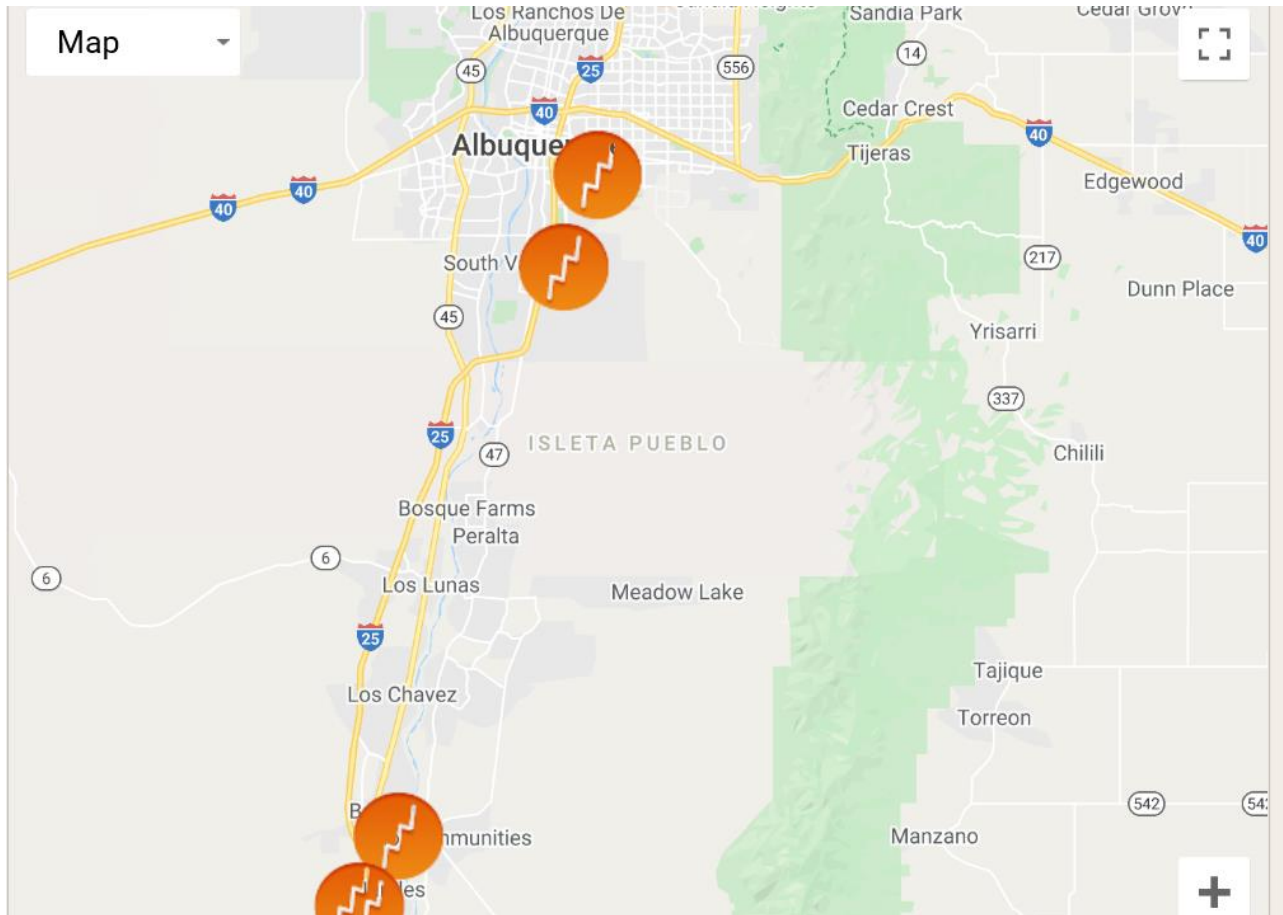
Feedback



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LIVE OUTAGE MAP – SNAP SHOT – ZOOMED IN



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TOOLS AND RESOURCES - SAFETY

ELECTRIC SAFETY FOUNDATION INTERNATIONAL: WWW.EFSI.ORG

PREPARE YOUR BUSINESS AND RECOVER FROM A NATURAL DISASTER

While we can't prevent natural disasters, we can ensure our businesses are electrically safe **before** and **after** the storm. Practicing electrical safety and being **prepared** can lead to a smooth recovery and an opportunity to renovate the electrical efficiency of your business.

IN THE EVENT OF A NATURAL DISASTER

- Create** emergency shutdown and start up procedures.
- Turn off** power source if requested by utility.
- Charge** all electronic communication devices.
- Unplug** and **elevate** electronics.

AFTER THE STORM

- Avoid **flooded areas**.
- Always use a **GFCI** and **transfer switch** with portable generators.
- Have a **qualified electrician** inspect any submerged or water damaged electrical equipment.

PREPARE FOR FUTURE STORMS

- Microgrids**: Microgrids can prevent long term power outages by providing localized generation and storage.
- Smart Grids**: Smart grids provide **smart distribution** along with **self-healing** and **autonomous restoration** of power.
- Relocate Energy Sources**: Having energy sources and major equipment on **higher floors** may prevent water damage during future storms.

ESFi.org | www.facebook.com/ESFi.org | www.twitter.com/ESFidatorg | www.youtube.com/ESFidatorg

ALWAYS ASSUME ALL DOWNED LINES ARE LIVE

Downed power lines can be **deadly**. Always assume a downed power line is **live** and avoid approaching them or anything near them.

Use Precaution

- Downed power lines can energize the ground up to **35 feet** away. Even more in wet conditions.
- Never drive over** downed power lines or anything in contact with them.
- If you see a downed power line, **call 911**.
- Never try to move** a downed power line.

If a vehicle contacts a **power line** or **utility pole**...

STAY AWAY AND CALL 911

- Consider **all lines** to be live and dangerous.
- Warn others to stay at least **35 feet** away.
- Stay in place or inside your vehicle unless you see **fire** or **smoke**.
- Tell others** not to approach vehicle, downed lines, or anything that may be in contact with downed lines.
- Call 911**.

In the Event of Fire or Smoke

- Do not** touch the ground and vehicle at the **same time**.
- Jump from the vehicle with your **feet together**.
- Shuffle away**, avoid lifting your feet.

ESFi.org | www.facebook.com/ESFi.org | www.twitter.com/ESFidatorg | www.youtube.com/ESFidatorg



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TOOLS AND RESOURCES - PREPAREDNESS

PREPAREDNESS IS ESSENTIAL FOR IN CASE OF AN ELECTRICAL OUTAGE

FEMA: Ready Business Power Outage Tool Kit

- https://www.fema.gov/media-library-data/1510690314175-1e6c4874b251c3022ac4b57b0369e2da/Power_Outage_Ready_Business_Toolkit_Interactive_Final_508.pdf

Department of Homeland Security: Ready.gov (Power Outages)

- <https://www.ready.gov/power-outages>

Department of Homeland Security: Ready.gov (Business)

- <https://www.ready.gov/business>

Red Cross: Power Outage Safety

- <https://www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/power-outage.html>

QUESTIONS?
QUESTIONS?



UPCOMING WEBINARS

2020 PNM ENERGY SOLUTIONS WEBINAR SERIES

- **Energy Efficiency Programs – Find the right fit for your business**
Thurs., August 20 at 2:00 pm
- **Electric Vehicles – An introduction to transportation electrification**
Thurs., September 17 at 2:00 pm
- **Understanding Your PNM Bill**
Thurs., October 22 at 2:00 pm
- **Copper Theft Awareness – What you need to know to protect your business**
Thurs., November 13 at 2:00 pm

[PNM.com/business-events](https://www.pnm.com/business-events)



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Thank you for attending!

PNM Business Customers

Phone: (888) 245-3659

Hours: Weekdays, 7:30 a.m. to 6 p.m.



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