

PACIFIC GAS AND ELECTRIC COMPANY PUBLIC SAFETY POWER SHUTOFF POLICIES AND PROCEDURES

MAY 2019



Together, Building
a Better California

Following the wildfires in 2017 and 2018, some of the changes included in this document are contemplated as additional precautionary measures intended to further reduce future wildfire risk.

PACIFIC GAS AND ELECTRIC COMPANY

PUBLIC SAFETY POWER SHUTOFF

POLICIES AND PROCEDURES

The following is a description of Pacific Gas and Electric Company's (PG&E) policies and procedures related to proactively turning off power for safety – and later restoring power – when necessary due to extreme weather and wildfire danger. This is often called proactive de-energization and restoration in the industry; PG&E is calling this **Public Safety Power Shutoff**.

Given the continued and growing threat of extreme weather and wildfires, and as an additional precautionary measure following the 2017 and 2018 wildfires, we are expanding and enhancing our Community Wildfire Safety Program to further reduce wildfire risks and help keep our customers and the communities we serve safe. Our ongoing and expanded wildfire safety actions include:



REAL-TIME MONITORING AND INTELLIGENCE

- Coordinating prevention and response efforts by monitoring wildfire risks in real time from our Wildfire Safety Operations Center
- Expanding our network of PG&E weather stations to enhance weather forecasting and modeling
- Supporting the installation of new high-definition cameras in high fire-threat areas



NEW AND ENHANCED SAFETY MEASURES

- Further enhancing vegetation management efforts to increase focus on vegetation that poses a higher potential for wildfire risk
- Conducting accelerated safety inspections of electric infrastructure in high fire-threat areas
- Disabling automatic reclosing of circuit breakers and reclosers in high fire-risk areas during wildfire season
- Proactively turning off electric power for safety (Public Safety Power Shutoff) when extreme fire danger conditions are forecasted



SYSTEM HARDENING AND RESILIENCY

- Installing stronger and more resilient poles and covered power lines, along with targeted undergrounding
- Upgrading and replacing electric equipment and infrastructure to further reduce wildfire risks
- Working with communities to develop new resilience zones to provide electricity to central community resources during a Public Safety Power Shutoff event

Visit pge.com/wildfiresafety for more information

Public Safety Power Shutoff is one component of the Community Wildfire Safety Program. PG&E has created a set of procedures for:

- Monitoring **fire danger conditions**
- Determining what **combination of conditions** necessitates turning off lines for safety
- Identifying **potentially impacted areas**
- **Notifying customers**, municipalities, agencies and critical facilities
- **Restoring power as quickly as possible** once it is safe to do so

1 | MONITORING FOR EXTREME FIRE DANGER CONDITIONS

PG&E's Wildfire Safety Operations Center monitors potential fire threats across our service area in real time and coordinates prevention and response efforts.

■ 24-HOUR STAFFING

The Wildfire Safety Operations Center is staffed 24 hours a day, primarily during wildfire season, and operational other times of the year, depending on conditions.

■ HIGHLY-QUALIFIED TEAM

The onsite team is composed of highly-qualified individuals knowledgeable in electric operations, fire safety, meteorology and other areas.



■ REAL-TIME MONITORING

The center provides real-time monitoring of conditions from on-the-ground field teams, PG&E weather stations and live video feeds, as well as databases, emergency alert systems and social media from agencies such as CAL FIRE, National Weather Service, National Oceanic and Atmospheric Association (NOAA), California Highway Patrol (CHP) and local public safety authorities.

PG&E'S WEATHER STATION NETWORK



To further advance our weather forecasting capabilities, PG&E is expanding its network of weather stations to monitor and forecast weather conditions and better assess where extreme wildfire danger could occur so we can respond quickly and appropriately to keep our customers safe.

- Data collected by these stations is streamed in real time and is available to state and local agencies and the public through online sources such as the [National Weather Service](#) and [MesoWest](#).
- With these new weather stations, PG&E is able to capture localized data related to temperature, wind speeds and humidity levels to provide improved awareness of current fire danger conditions.
- PG&E's team of meteorologists feeds information to the Wildfire Safety Operations Center team to review data and determine any needed action to help reduce wildfire risks, such as a Public Safety Power Shutoff.

2 | CRITERIA FOR DETERMINING A PUBLIC SAFETY POWER SHUTOFF

A Public Safety Power Shutoff will only be done when the most extreme fire danger conditions are forecasted to help reduce the likelihood of an ignition and help keep our customers and communities safe.

No single factor drives a Public Safety Power Shutoff as each situation is unique. PG&E carefully reviews a combination of many criteria when determining if power should be turned off for safety. These factors generally include, but are not limited to:

- **A Red Flag Warning declared** by the National Weather Service
- **Low humidity levels**, generally 20 percent and below
- **Forecasted sustained winds** generally above 25 mph and wind gusts in excess of approximately 45 mph, depending on location and site-specific conditions such as temperature, terrain and local climate
- **Condition of dry fuel** on the ground and live vegetation (moisture content)
- **On-the-ground, real-time information** from PG&E's Wildfire Safety Operations Center and field observations from PG&E crews

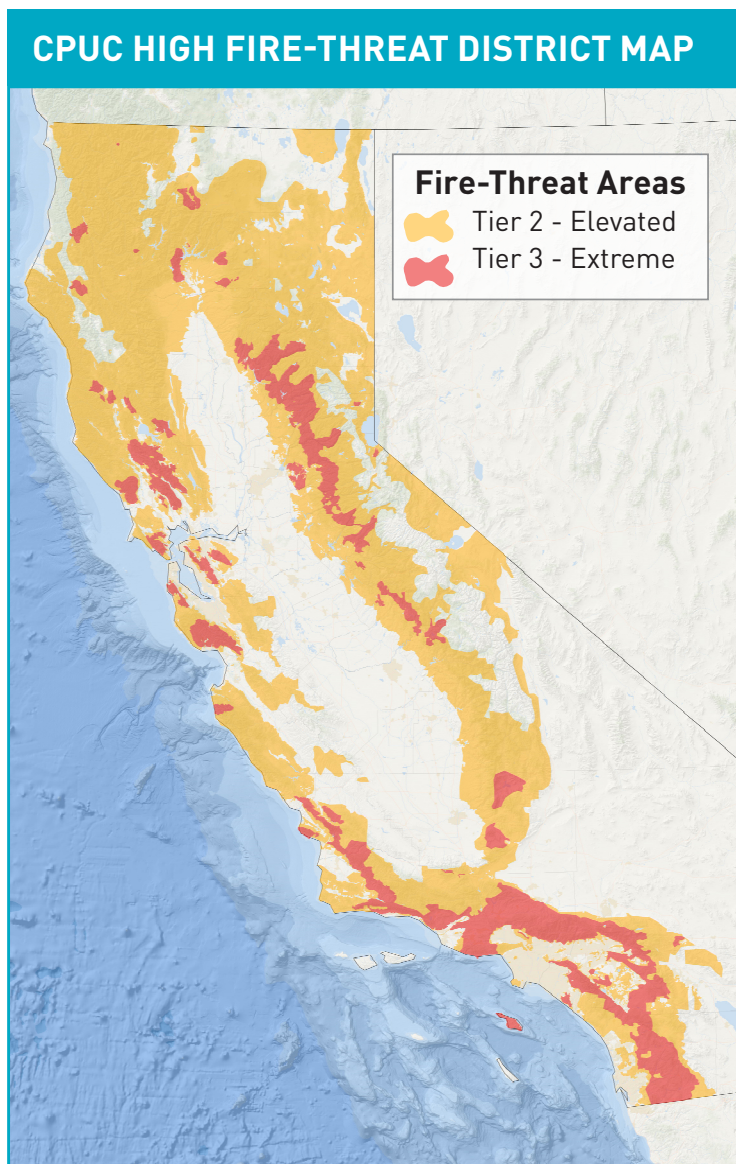
We anticipate that a Public Safety Power Shutoff could occur several times per year in PG&E's service area, although it is impossible to predict with complete certainty when, where and how often extreme weather conditions could occur given the rapidly changing environmental conditions.



3 | POTENTIALLY IMPACTED AREAS

Beginning with the 2019 wildfire season, as an additional precautionary measure to further reduce wildfire risks and keep our customers and communities safe, we are expanding our Public Safety Power Shutoff program to include all electric lines that pass through high fire-threat areas — both distribution and transmission.

While customers in high fire-threat areas are more likely to be affected, any of PG&E's more than 5 million electric customers could have their power shut off if their community relies upon a line that passes through a high fire-threat area.



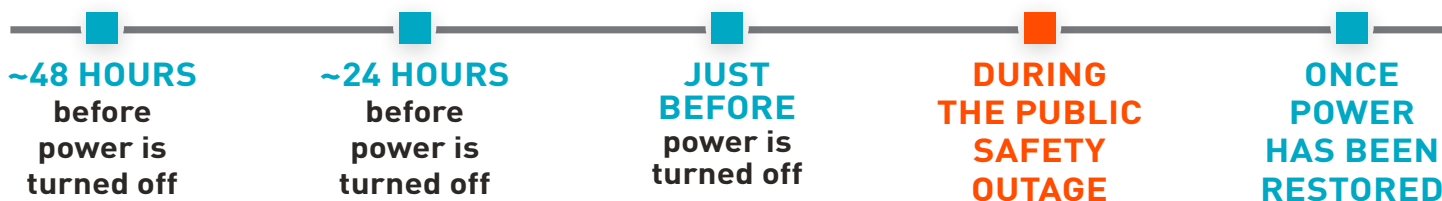
- The most likely electric lines to be considered for shutting off for safety will be those that pass through areas that have been designated by the CPUC as at elevated (Tier 2) or extreme (Tier 3) risk for wildfire.
- Although a customer may not live or work in a high fire-threat area, their power may be shut off if their community relies upon a line that runs through an area experiencing extreme fire danger conditions.
- The specific area and number of affected customers will depend on forecasted weather conditions and which circuits PG&E needs to turn off for public safety.

Source: California Public Utilities Commission (CPUC); cpuc.ca.gov/FireThreatMaps

4 | NOTIFICATION OF PUBLIC SAFETY POWER SHUTOFF

Extreme weather threats can change quickly. Our goal, dependent on weather, is to provide customers, communities, critical service providers and public safety authorities with advance notice prior to turning off power. We will also provide updates until power is restored.

TIMING OF CUSTOMER NOTIFICATIONS (when possible)



HOW WE'LL NOTIFY CUSTOMERS

We will attempt to reach customers through **calls, texts and emails** using the contact information we have on file. We will also use **pge.com** and **social media** channels, and we will keep **local news** and **radio outlets** informed and updated.

1 NOTICE TO CUSTOMERS

Our goal, dependent on forecasted weather and other factors, is to send customer alerts at 48 hours, again at 24 hours and again just prior to shutting off power, when possible.

- We are asking customers to go online to pge.com/mywildfirealerts to be sure we have their updated contact information. We will use this information to reach out to them by phone, text and email in advance of a Public Safety Power Shutoff, if forecasted weather conditions allow, and throughout the event until power is restored.
- In addition to notifying customers directly, we will provide outage updates and information through social media, local news, radio and the pge.com website.
- Public Safety Power Shutoff events may be cancelled if forecasted weather conditions improve. In that event, we would notify customers that forecasted weather conditions have improved in their area and we are not planning to turn off their electricity for safety.
- We are also encouraging customers to visit pge.com/wildfiresafety for tips to prepare an emergency preparedness plan for their home or business.
- Note, there is no advance notice when we need to turn off power at the request of a state or local agency due to an active wildfire or other emergency response situation.

2 NOTICE TO STATE, COUNTIES AND CITIES

We will make every attempt to advise public safety authorities, first responders, local municipalities and critical service providers in advance of notifying customers of a Public Safety Power Shutoff.

- We will reach out via phone or email to our primary contacts with notice that we are monitoring conditions and that extreme fire danger conditions could cause power outages or require us to shut off power for safety.
- We will also send alerts through automated calls, texts and emails.
- Upon request, we can provide the content of our customer alerts to share via the city or county website, Nixle, Nextdoor and Reverse 911.

3 NOTICE TO CRITICAL CUSTOMERS

PG&E has identified and is doing direct outreach to customers who provide critical services, such as hospitals, fire stations, water agencies and telecommunications providers.

- We want to be sure they know we may need to turn off power for safety when extreme weather conditions are forecasted so they can take steps to prepare, such as securing backup generation.
- We are also asking these customers to confirm that we have their correct contact information so we can provide early warning notification, when possible, depending on conditions.

4 NOTICE TO MEDICAL BASELINE CUSTOMERS

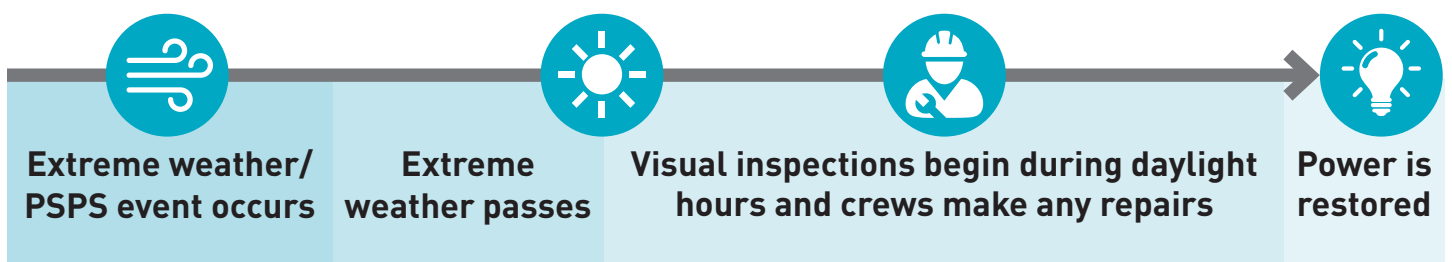
We are conducting additional outreach to customers who are enrolled in PG&E's Medical Baseline program, which provides additional energy at the lowest price for customers who are dependent on life-support equipment and/or require special heating or cooling needs for certain medical conditions.

- We are asking customers to please evaluate the safety of their situation and consider if there is a friend or family member they can stay with during an outage.
- If the customer has a backup generator, we encourage them to do a safety check and make sure they have enough fuel to last for a few days. More generator safety tips can be found at [pge.com/generatorsafety](https://www.pge.com/generatorsafety).
- Customers should keep emergency numbers on hand and are encouraged to check with local authorities regarding resources that may be available.
- In the event that we need to turn off electricity for safety, we will make every effort to notify Medical Baseline customers of a shutoff before it occurs.
- Outreach will be done through automated calls, texts and emails. For customers we are unable to reach, we will knock on doors when possible, with a primary focus on those customers who rely on electricity for critical life-sustaining equipment.
- We are encouraging customers who receive one of these communications to please answer our call or respond to our text or email so we can be sure they received this important safety message.
- We advise all customers to call 911 immediately if any family member experiences a medical emergency.

5 | RESTORATION OF POWER

After the extreme weather has passed and it is safe to do so, our crews will work to visually inspect our power lines to ensure they are free from damage and safe to energize. Inspections will take place during daylight hours.

We expect to be able to visually inspect the system for damage and restore power to most of our customers within **24 to 48 hours after extreme weather has passed**. Because extreme weather can last several hours or days, for planning purposes, we suggest customers prepare for outages that could last longer than 48 hours.



6 | WORKING WITH OUR CUSTOMERS TO PREPARE

Given the growing threat of extreme weather, we want all of our customers to be prepared for power outages. If extreme fire danger conditions threaten a portion of the electric system serving your community, it will be necessary for us to turn off electricity in the interest of public safety.

We know how much our customers rely on electric service and want to work together to help them prepare for power outages related to extreme weather and wildfire threats. Here are some important steps customers can take today.



Update your contact information

Visit pge.com/mywildfirealerts or call us at **1-866-743-6589**. Also contact your local government and Office of Emergency Services for additional resources.



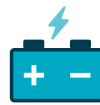
Build or restock your emergency supply kit

Stock supplies to last a week – include flashlights, fresh batteries, first aid supplies, food, water and cash.



Plan for any medical needs

Talk with your doctor and plan for medications that need refrigeration or medical devices that require power.



Ensure any backup generators are ready to safely operate

Generator safety tips can be found at pge.com/generatorsafety.



Keep a hard copy of emergency phone numbers on hand



Designate an emergency meeting location



Know how to manually open your garage door



Consider staying with a friend or relative, if necessary, during an outage.

MORE INFORMATION | For more information about PG&E's Community Wildfire Safety Program, please visit pge.com/wildfiresafety. Customers can update their contact information for wildfire safety alerts at pge.com/mywildfirealerts.

Customers can also visit prepareforpowerdown.com to learn more about how to prepare for a Public Safety Power Shutoff. See fact sheet in appendix.

APPENDIX | PUBLIC SAFETY POWER SHUTOFF SUMMARY

We are reaching out to our customers and communities to let them know that, if extreme fire danger conditions are forecasted, it may be necessary for us to turn off their power for safety.

1

MONITOR

PG&E continually monitors for extreme weather threats and high fire danger.

We will consider several factors before shutting off power.



Weather Forecast

Periods of increased risk are identified by wind speed, humidity and temperature.



Observations

On-the-ground, real-time observations are made.



Fuel Conditions

Conditions such as dry vegetation are factored in.



Notice

Inform CAL FIRE, Cal OES* and local agencies of conditions and potential Public Safety Power Shutoff.

**California Governor's Office of Emergency Services*

2

INFORM

If we need to turn off power, we will attempt to contact customers in advance to allow time to prepare.

We will use a multi-faceted effort to inform communities.



Automated Outreach

PG&E will provide automated outreach through calls, texts and emails.



Direct Outreach

We will take additional steps to reach customers who are enrolled in our Medical Baseline program, as needed.



Coordination

Coordination will take place with first responders and local officials.

3

SHUT OFF / RESTORE

We know how much people rely on electric service and we will work to restore power as soon as it is safe to do so.

We will take steps to keep you informed and get power restored as quickly as possible.



Inspections

PG&E crews will be in the field conducting safety inspections and determining when power can be safely restored.



Updates

Customers will receive updates until power is restored.



Safely Restore Power

Power will be restored as soon as extreme weather conditions have passed and safety inspections are complete and repairs made, if needed.

Visit pge.com/wildfiresafety to learn more about how to prepare your home or business for the growing threat of extreme weather and wildfire.

Following the wildfires in 2017 and 2018, some of the changes included in this document are contemplated as additional precautionary measures intended to further reduce future wildfire risk.

APPENDIX | PUBLIC SAFETY POWER SHUTOFF CRITERIA

We monitor conditions across our system and evaluate whether to proactively turn off electric lines for safety when extreme fire danger conditions are forecasted.

**No single factor drives a Public Safety Power Shutoff.
Some factors include:**

**A RED FLAG
WARNING
DECLARED
BY THE NATIONAL
WEATHER SERVICE**



**LOW HUMIDITY
LEVELS
GENERALLY 20%
AND BELOW**



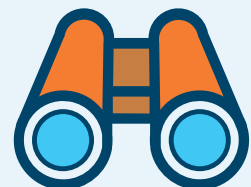
**FORECASTED SUSTAINED WINDS
GENERALLY ABOVE 25 MPH AND WIND
GUSTS IN EXCESS OF APPROX. 45 MPH,
DEPENDING ON LOCATION AND SITE-SPECIFIC
CONDITIONS SUCH AS TEMPERATURE, TERRAIN
AND LOCAL CLIMATE**



**CONDITION
OF DRY
FUEL ON THE
GROUND AND
LIVE VEGETATION
(MOISTURE CONTENT)**



**ON-THE-
GROUND,
REAL-TIME
OBSERVATIONS
FROM PG&E CREWS**



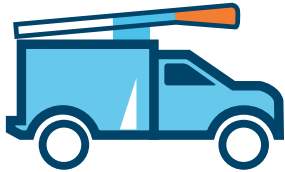
APPENDIX | WORKING TO RESTORE POWER

We know how much customers rely on electric service. If we need to turn off power for safety, we will work to restore service as soon as it is safe to do so. The outage, which includes the weather event plus restoration time, could last several days.



WEATHER ALL CLEAR

After the extreme weather has passed and it's safe to do so, our crews begin **patrols and inspections**.



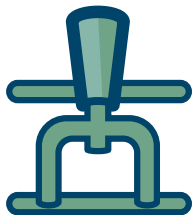
PATROL & INSPECT

Crews visually inspect our electric system to look for potential weather-related damage to the lines, poles and towers. This is done by vehicle, foot and air during daylight hours.



ISOLATE & REPAIR DAMAGE

Where damage is found, **crews work to isolate the area** so other parts of the system can be restored. Crews work **safely and as quickly as possible** to make repairs.



RESTORE POWER

Once it is safe to energize, **a call is made to the PG&E Control Center** to complete the energization process. **Power is then restored to customers.**



NOTIFY CUSTOMERS

Customers are **notified that power has been restored.**

APPENDIX | PUBLIC SAFETY POWER SHUTOFF

THE POWER OF BEING PREPARED

PUBLIC SAFETY POWER SHUTOFF

Visit [PREPAREFORPOWERDOWN.COM](https://www.prepareforpowerdown.com) today to learn more about the power of being prepared.

THE THREATS OF WILDFIRE AND EXTREME WEATHER IN CALIFORNIA ARE REAL.

As a result, California's three largest energy companies, at the direction of the California Public Utilities Commission (CPUC), are coordinating to prepare all Californians for the threat of wildfires and power outages during times of extreme weather. To help protect customers and communities during extreme weather events, electric power may be shut off for public safety in an effort to prevent a wildfire. This is called a **Public Safety Power Shutoff**.

Shutting Off Power for Safety

As a safety precaution, San Diego Gas & Electric (SDG&E), Southern California Edison (SCE) and Pacific Gas and Electric (PG&E) monitor local fire danger and extreme weather conditions across California and evaluate whether to turn off electric power. The decision and action to turn off power is made by each individual energy company and is based on a combination of factors. **Factors include, but are not limited to:**



HIGH WINDS
(including Red
Flag warnings)



**LOW
HUMIDITY**



**DRY
VEGETATION**
that could serve
as fuel



**FIRE
THREAT**
to electric
infrastructure



**ON-THE-
GROUND
OBSERVATIONS**



**PUBLIC
SAFETY
RISK**

What You Can Expect

If a Public Safety Power Shutoff is needed due to extreme conditions, you can expect:

- **Early Warning Notification** – Your energy company will aim to send customer alerts before shutting off power.
- **Ongoing Updates** – Your energy company will provide ongoing updates through social media, local news outlets and their website.
- **Safety Inspections** – After extreme weather has passed, your energy company will inspect the lines in affected areas before power is safely restored.
- **Power Restoration** – Power outages could last multiple days depending on the severity of the weather and other factors. It is important that you and your family have an emergency preparedness plan in place.

SEE THE OTHER SIDE FOR SAFETY TIPS

[PREPAREFORPOWERDOWN.COM](https://www.prepareforpowerdown.com) provides a variety of resources, including tips for preparing for extreme weather, wildfires and Public Safety Power Shutoffs. An emergency preparedness checklist and additional resources are available on the reverse side of this fact sheet.

APPENDIX | PUBLIC SAFETY POWER SHUTOFF

WORKING WITH CALIFORNIANS TO PREPARE

While Public Safety Power Shutoff events are more likely to occur in high fire-risk areas, all Californians could be impacted by emergency events and need to be prepared with a plan. Customers should also update their contact information with their energy company so they can receive notifications. Below are specific steps you and your family can take to be ready, should there be an extended power outage that lasts multiple days.

STAY SAFE. TAKE ACTION.

CREATE YOUR EMERGENCY PLAN TODAY BY FOLLOWING THE TIPS LISTED BELOW:

- **Update your contact information** with your local energy company
- **Identify backup charging methods** for phones and keep hard copies of emergency numbers
- **Plan for any medical needs** like medications that need to be refrigerated or devices that require power
- **Plan for the needs of pets and livestock**
- **Build or restock your emergency kit** with flashlights, fresh batteries, first aid supplies and cash
- **Designate an emergency meeting location**
- **Know how to manually open your garage door**
- **Ensure any backup generators are ready to safely operate**
- **Identify the unique needs of your family and loved ones in the area for your emergency plan**

Additional information on creating an emergency plan is also available at prepareforpowerdown.com.

LEARN MORE FROM YOUR LOCAL ENERGY COMPANY



sdge.com/wildfire-safety



sce.com/PSPS



pge.com/wildfiresafety

Additional Preparedness Resources:

- ready.gov – Disaster preparedness information from the U.S. Department of Homeland Security
- readyforwildfire.org – CAL FIRE's wildfire preparedness website
- cpuc.ca.gov/wildfiresinfo – Information on the CPUC's wildfire safety efforts
- caloes.ca.gov – California Governor's Office of Emergency Services website
- firesafecouncil.org – California Fire Safe Council website
- noaa.gov – National Oceanic and Atmospheric Administration website