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New Zealand Government



National Emergency  
Management Agency  
Te Rākau Whakamarumarū

# Space weather

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**Transcriber's Note:** At the top of the page, three logos are displayed in a row. On the left is **Civil Defence**. In the centre is **New Zealand Government**. On the right is **National Emergency Management Agency: Te Rākau Whakamarumarū**.



Notes for the Large Print Reader

Main text is in Arial typeface, 18 point.

Headings are indicated as:

**Heading 1**

**Heading 2**

# Space weather

Space weather comes from activity on the surface of the Sun. Extreme solar storms are rare. They do not harm humans or animals. But they can damage our electricity networks.

Space weather can cause power cuts that could last up to six days. Find out what to do before, during and after space weather.

## Reduce the impacts of space weather

Space weather has the potential to damage our electricity networks, and all or part of the grid can be turned off to protect it. Transpower is the system operator and looks after New Zealand's electricity grid on behalf of New Zealand.

Power cuts disrupt our lives. The electricity grid will only be switched off to protect our electricity networks from long-term damage.

Power cuts can also impact everyday services like:

- EFTPOS,
- water and sewerage,
- petrol and diesel pumps at service stations, and

- supply of food and other items to supermarkets.

We can all reduce the impacts of space weather. Think about the parts of your home that rely on electricity.

- Are there any parts that will make you less safe in a power cut?
- Do you rely on electricity for entry or security?
- Plan backups to keep you and your whānau safe in a power cut.

## **Get ready before space weather**

Space weather will not harm you or your animals. But you might be without power for many days.

Make a household emergency plan online at [getready.govt.nz/household-plan](https://getready.govt.nz/household-plan). Think about what would happen if you had no power.

Find top tips for managing the impact of having no power at [getready.govt.nz/no-power](https://getready.govt.nz/no-power)

Make a list of appliances to unplug during a power cut. Unplugging appliances can help stop electrical surges when the power turns back on.

If you are medically dependent on power, make sure you have a back up plan. Talk to your electricity retailer about how you can stay safe if there is no power. Learn how you can prepare for power cuts if you rely on electricity for

medical reasons on the Electricity Authority's website at <https://www.ea.govt.nz/your-power/consumer-care-obligations/if-you-rely-on-electricity-for-medical-reasons/>

## **What to do during space weather**

Stay informed in an emergency. Listen to emergency services and local Civil Defence authorities.

Battery- or solar-powered radios, or your car radio, will still work during space weather. Phone lines may not work well when space weather starts. But they should work fine after some time. Keep a list of important phone numbers.

We are still learning about space weather. We do not expect it to affect solar power systems and generators that are not connected to the national electricity grid. You can still use these to power your phone, appliances or mobile phone. You can also use your car to charge essential items like mobile phones.

Do not use outdoor gas appliances such as patio heaters, camping cookers or barbecues indoors.

If you use a portable generator, it's important it's used properly to keep yourself, your whānau, workers, and others safe. WorkSafe have advice on using portable generators after an emergency at

<https://www.worksafe.govt.nz/topic-and-industry/natural-events-and-emergencies/using-portable-generators-after-a-natural-event-or-emergency/>

Eat food from your fridge first, then your freezer. Then eat the food in the cupboard or your emergency kit.

Find out more about how to keep your food safe on the Ministry for Primary Industries website at

<https://www.mpi.govt.nz/food-safety-home/food-safety-in-natural-disasters-and-emergencies/>

## **What to do after space weather**

Follow the advice of your local Civil Defence Emergency Management Group and emergency services. Find your local Civil Defence Emergency Management Group at <https://www.civildefence.govt.nz/find-your-civil-defence-group/>

Rolling power cuts can continue for some time. Switch off appliances when you're not using them. Treat all power lines, sockets and equipment as "on".

Check food in your fridge or freezer before eating. If it smells funny or looks different, throw it out. Do not refreeze food that has been defrosted.

## **End of Space weather**