

FACT SHEET

WORKING SAFELY ON OR AROUND TELSTRA SMALL CELLS

What is a small cell?

A small cell is a low powered mobile base station designed to augment mobile phone coverage within a targeted area. The equipment is of a much smaller scale than a regular mobile base station and is designed to introduce improved mobile coverage and speeds. Small cell equipment and antennas are a common form of infrastructure used by Telstra and other carriers to provide essential communication services within the community.

Small cells may be located on a range of existing or new structures including lighting columns, electrical distribution poles and buildings.



Figure 1: Typical Telstra Pole Mounted Small Cells

How do I work safely on or near a small cell?

Small cells use low power levels and are designed to comply with Australia's mandatory electromagnetic energy (EME) safety standards. Individuals who work in close proximity to small cell antennas must follow safe work practices when performing work on or near them.

Failure to comply with safe work procedures may result in personal exposure to Radio Frequency (RF) levels above the safety limits when working close to the small cell antenna.

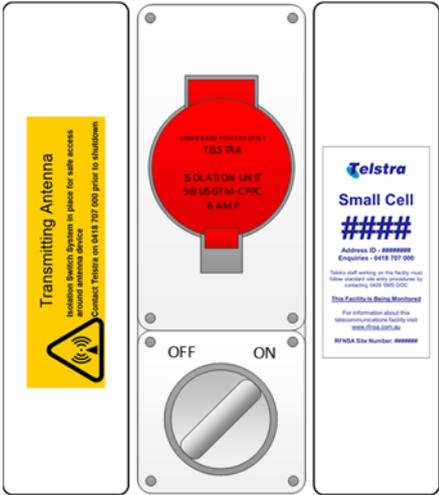
How do I know if there is a Telstra small cell nearby?

Site specific risk controls can vary depending on the requirements of the structure owner and each of the carrier's own standards and procedures. Field workers must identify whether a small cell is in the vicinity of their work area, taking particular care when working at height. If the site is a **Telstra small cell**, the **Telstra Small Cell Isolation Procedure** must be followed. See below.

A potential EME hazard is identified by a sign with the Non-Ionising Radiation symbol. Field workers must follow safe work practices (set out below) and the on-site signage and instructions from the structure/asset owner.

Telstra adopts the use of isolation switches to manage EME risk at locations where Telstra small cells are present. Isolation switches are used to "switch off" the small cell and ensure safe access to the area.

The following signage is typically affixed to a structure and indicates the presence of a Telstra small cell and isolation switch:

Affixed to small cell antenna	Affixed 2m below the lowest small cell antenna	Affixed to side of pole hosting small cell antenna
 <p>Non-Ionising Radiation Symbol</p>		<p>“MARK 1” TYPE ISOLATION SWITCH</p>  <p>OR</p> <p>“MARK 2” TYPE ISOLATION SWITCH</p> 

If there is no isolation switch at the site, you must contact the relevant carrier/facility owner on the contact details listed on the signage at the site.



Telstra Small Cell Isolation Procedure - Mark “1” Type Isolation Switch

If the Isolation Switch looks like this, then it is a **Mark 1** switch and the following procedure is to be followed. (If the Isolation Switch is a Mark 2 switch please refer to the “Mark 2” procedure below).



This Procedure applies to the Telstra Mobile Network Small Cell facility installed on your infrastructure.

You must ensure that prior to accessing the area around the Small Cell antenna/s, the Small Cell is switched off. When you turn off the Small Cell, an alarm is triggered at Telstra’s Global Operations Centre (GOC), alerting us to the fact that the Small Cell has been disabled.

If you have advance notice that you or someone else will need to access the pole you must contact the GOC on 0418 707 000 or via MS-RACS@team.telstra and advise that the Small Cell will be switched off or “powered down”. You will need to specify the location of the Small Cell (obtained from the site identification label), the date, time and duration that access is required.

The GOC is staffed 24 hours per day, 7 days a week. By informing us of the planned power down, we will know that the Small Cell has been disabled due to the Isolation Switch being activated and not due to a fault.

In the event of an emergency, you should activate the Isolation Switch immediately and contact the GOC when safe to do so.

Procedure for Activation of the Isolation Switch Mark 1

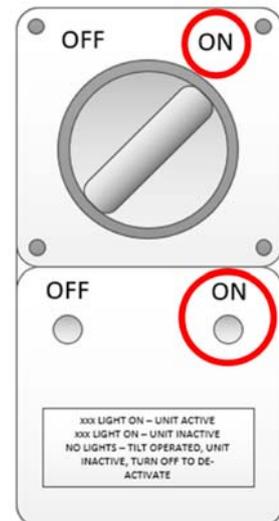
Step 1: Locate the site identification label. It will typically be situated on the pole or in close proximity to the pole, directly on or near the RF Isolation Switch. The information on this label will assist you with completing the next step.



Step 2: Contact the GOC on 0418 707 000 or via MS-RACS@team.telstra and advise that the Small Cell will be switched off or powered down to ensure the safety of people working in close proximity to the antenna/s. You will need to specify the location of the Small Cell, the date, time and duration that access is required.

Step 3: Check the status of the lights and position of the rotary dial on the isolation switch. The “UNIT ACTIVE” light should be illuminated as indicated on the switch labelling and the rotary dial in the “ON” position. This means that the site and antenna/s are energised.

If no lights are illuminated, the site *may* be de-energised due to mains supply failure to the unit or activation of the tilt-over switch. Continue with isolation procedure to ensure the site is safely de-energised throughout work activities.



Step 4: Turn Isolation Switch to the “OFF” position and observe the lights. When the “UNIT INACTIVE” light is solidly illuminated as indicated on the labelling, the Small Cell is off or powered down.

If no lights are illuminated, the site *may* be de-energised due to mains supply failure to the unit or activation of the tilt-over switch. The switch must be in the “OFF” position to continue.

Step 5: Confirm with the GOC staff that the Small Cell has been successfully de-activated, has sent alarm information and it has been received at the GOC. Unless there is an emergency, you **must** not enter the area around the antenna/s until the GOC has confirmed the Small Cell is off.

Step 6: A “Danger Tag” should be affixed to the Isolation Switch enclosure to ensure the Small Cell is not accidentally switched on while works are in progress.

Step 7: Proceed with the work activities.

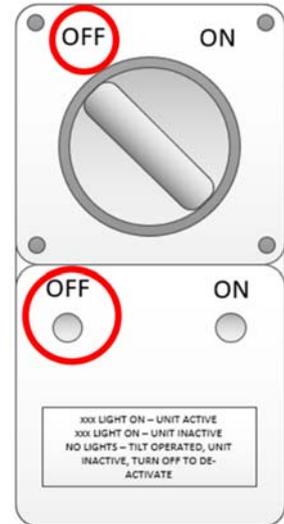
Procedure for De-Activation of the Isolation Switch Mark 1

Step 8: Confirm that all work activities have been completed and people have vacated the area around the antenna/s to ensure the Small Cell can be safely re-activated.

Step 9: Remove the “Danger Tag” from the Isolation Switch enclosure.

Step 10: Restore the Isolation Switch to the “ON” position. Observe the lights. The “UNIT ACTIVE” light should be illuminated as indicated on switch labelling.

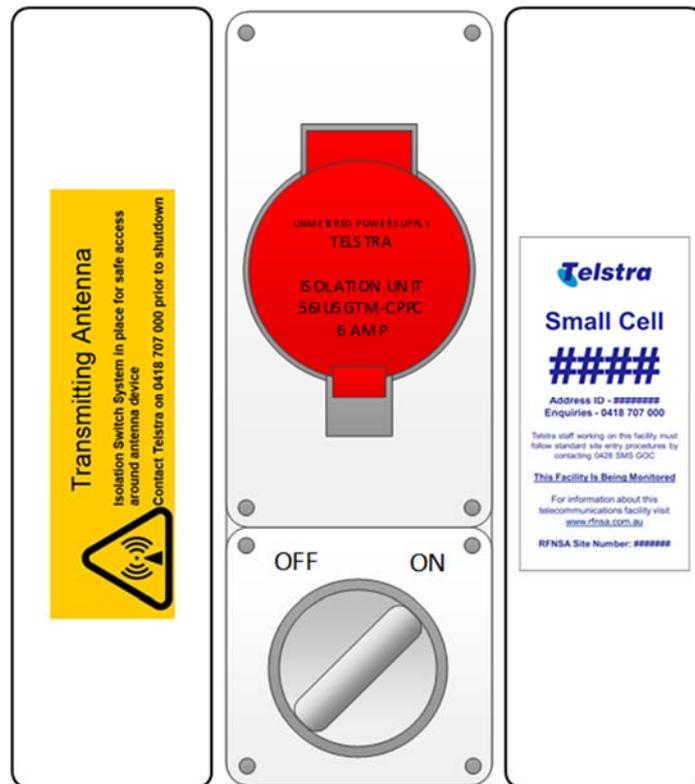
Step 11: Contact the GOC on 0418 707 000 or via MS-RACS@team.telstra and advise that the works have been completed and the isolation switch has been restored to its normal operational position.





Telstra Small Cell Isolation Procedure - Mark “2” Type Isolation Switch

If the Isolation Switch looks like this, then it is a **Mark 2** switch and the following procedure is to be followed. (If the Isolation Switch is a Mark 1 switch please refer to the “Mark 1” procedure above).



This Procedure applies to the Telstra Mobile Network Small Cell facility installed on your infrastructure.

You must ensure that prior to accessing the area around the Small Cell antenna/s, the Small Cell is switched off. When you turn off the Small Cell, an alarm is triggered at Telstra’s Global Operations Centre (GOC), alerting us to the fact that the Small Cell has been disabled.

If you have advance notice that you or someone else will need to access the pole you must contact the GOC on 0418 707 000 or via MS-RACS@team.telstra and advise that the Small Cell will be switched off or “powered down”. You will need to specify the location of the Small Cell (obtained from the site identification label), the date, time and duration that access is required.

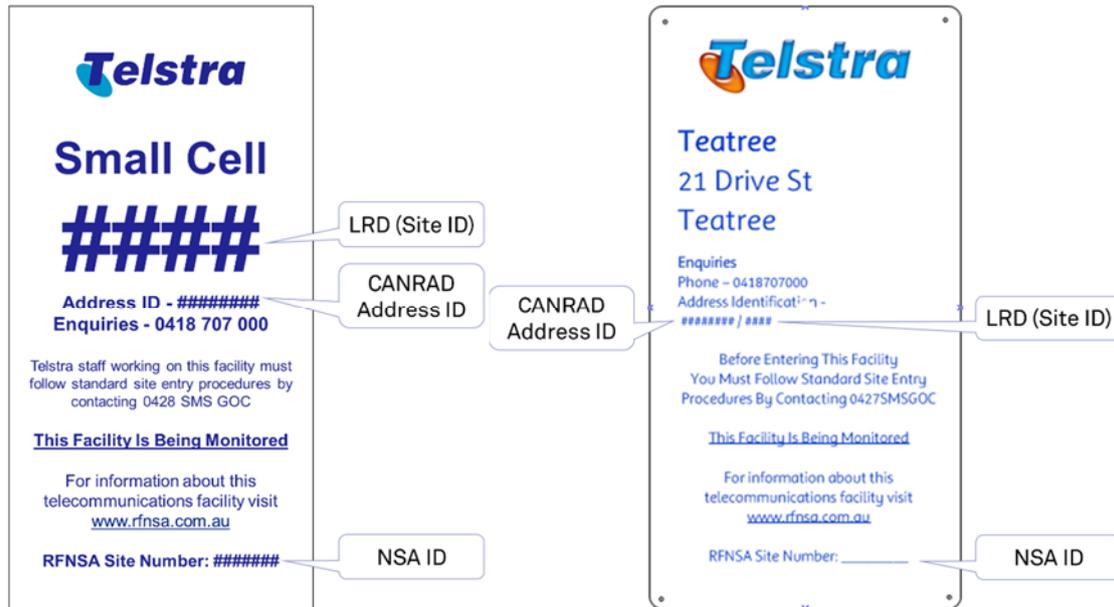
The GOC is staffed 24 hours per day, 7 days a week. By informing us of the planned power down, we will know that the Small Cell has been disabled due to the Isolation Switch being activated and not due to a fault.

In the event of an emergency, you should activate the Isolation Switch immediately and contact the GOC when safe to do so.



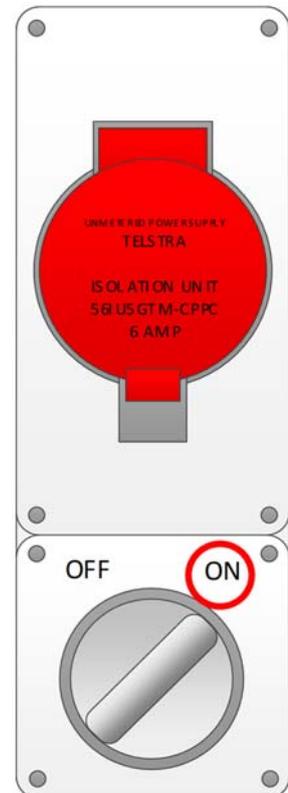
Procedure for Activation of the Isolation Switch Mark 2

Step 1: Locate the site identification label. It will typically be situated on the pole or in close proximity to the pole, directly on or near the RF Isolation Switch. The information on this label will assist you with completing the next step.



Step 2: Contact the GOC on 0418 707 000 or via MS-RACS@team.telstra and advise that the Small Cell will be switched off or powered down to ensure the safety of people working in close proximity to the antenna/s. You will need to specify the location of the Small Cell, the date, time and duration that access is required.

Step 3: Check the position of the rotary dial on the isolation switch. The rotary dial in the "ON" position. This means that the site and antenna/s are energised.



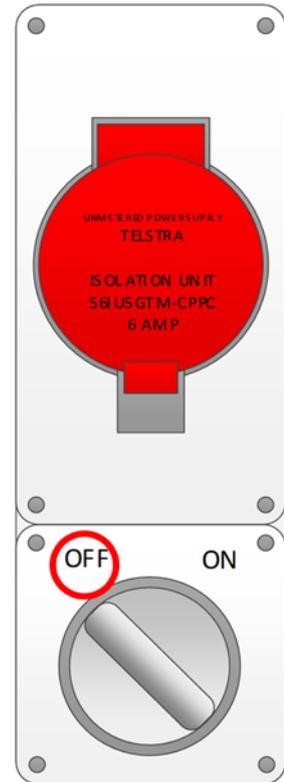
Step 4: Turn Isolation Switch to the “OFF” position. The Small Cell is now off or powered down.

The switch must be in the “OFF” position to continue.

Step 5: Confirm with the GOC staff that the Small Cell has been successfully de-activated, has sent alarm information and it has been received at the GOC. Unless there is an emergency, you **must** not enter the area around the antenna/s until the GOC has confirmed the Small Cell is off.

Step 6: A “Danger Tag” should be affixed to the Isolation Switch enclosure to ensure the Small Cell is not accidentally switched on while works are in progress.

Step 7: Proceed with the work activities.



Procedure for De-Activation of the Isolation Switch Mark 2

Step 8: Confirm that all work activities have been completed and people have vacated the area around the antenna/s to ensure the Small Cell can be safely re-activated.

Step 9: Remove the “Danger Tag” from the Isolation Switch enclosure.

Step 10: Restore the Isolation Switch to the “ON” position. The Small Cell is now on or powered up.

Step 11: Contact the GOC on 0418 707 000 or via MS-RACS@team.telstra and advise that the works have been completed and the isolation switch has been restored to its normal operational position.