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Foreign-Produced Power Inverters and Advanced Robotic Devices Added to FCC Covered List

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On July 28, 2026, the Federal Communication Commission's Public Safety and Homeland Security Bureau announced the addition of foreign-produced power inverters and advanced robotic devices to the Covered List. This action, which took effect immediately, follows national security determinations (NSDs) that these devices pose supply chain vulnerabilities and cybersecurity risks to critical infrastructure.

Advanced robotic devices

The FCC's action on advanced robotic devices also follows an NSD that advanced robotic devices are being increasingly used in monitoring and securing critical infrastructure, as well as being applied across the industrial manufacturing sector, and are vulnerable to data exfiltration, remote disruption and dependencies on unsecure over-the-air updates.

The NSD's definition of "advanced robotic device," as adopted by the FCC, is a mechanical mobile device that satisfies the following four prongs:

1. Is capable of locomotion, obstacle avoidance, navigation or movement on the ground.
2. Operates at a distance from a human operator or supervisor based on commands or in response to sensor data or any combination thereof.
3. Has a combined weight of the device and, if applicable, ground station or docking station of more than 4.4 pounds.
4. Contains:
    - A sensor capable of perceiving its environment.
    - A component capable of providing network connectivity with connection speeds of at least 200 kbps in either direction.
    - Software running either locally or remotely that controls the robot's autonomous navigation or movement perception, data collection or remote command and control.

The defiition explicitly includes autonomous mobile robots, humanoid robots and quadrupeds with such capabilities, but encompasses other devices that fall within the four prongs. The rule appears to apply to many home robotics products, such as robotic vacuums, lawn mowers and comparable products, along with terrestrial robotic delivery devices.

The definition explicitly excludes connected vehicles, vehicles operated only on a rail line, uncrewed aircraft or uncrewed aircraft systems, unmanned underwater vehicles, fixed/nonmobile robots, or medical devices, such as surgical instruments, external limb prostheses, and ambulatory and mobility assistive devices (e.g., canes, crutches, walkers, wheelchairs).

Power inverters

The FCC's action follows an NSD finding that power inverters' remote connectivity creates vulnerabilities in the US energy grid. These vulnerabilities could let foreign or other malicious actors access inverters and exploit such access through various cyberattacks. As described in the NSD, power inverters facilitate the connection of direct current energy generation sources to the predominately alternating current electricity of the US energy grid, and it is estimated that more than 46 GW of electric power on the grid currently relies on inverters.

While the NSD focused heavily on power inverters' connection to the grid, the NSD's definition of "power inverter," adopted by the FCC, makes no reference to the electrical grid. Specifically, under the NSD's

definition, “power inverters:”

- Are any bi-directional power devices or systems that convert direct current electricity to alternating current electricity or convert alternating current electricity to direct current electricity (including microinverters, string inverters, central inverters and hybrid (battery-based) inverters).
- Contain components that enable remote communication, control, sensing, data-collection or monitoring through Wi-Fi, cellular, Bluetooth or other similar connections.

The FCC may issue guidance clarifying this definition, but we anticipate that a connected device that either converts AC-to-DC or DC-to-AC (or both) is within the definition and subject to the Covered List. Similarly, until the FCC issues guidance to the contrary, manufacturers should not assume that devices not connected to the grid are outside the scope of the definition.

Effect of inclusion on the Covered List

Products placed on the Covered List cannot receive FCC equipment authorization, which effectively prevents such products from being marketed and sold in the US. The action only applies to new foreign-produced power inverters and advanced robotic devices that have not received equipment authorization prior to July 28, 2026. Devices that were granted authorization by the FCC before that date can continue to be sold in the US. Companies that produce power inverters or advanced robotic devices outside of the US can seek Conditional Approval from the Department of War or Department of Homeland Security (DHS) to exempt their devices from the Covered List going forward.

Opportunities to mitigate effects

Waiver of certain ‘permissive changes’ prohibitions

On the same day, the FCC also announced a waiver that permits previously authorized power inverters and advanced robotic devices to receive basic software and firmware updates that mitigate harm to US consumers, such as changes that ensure the continued functionality of the device (e.g., vulnerability patches and updates to facilitate compatibility with different operating systems). Accordingly, any foreign-produced power inverters or advanced robotic devices that were authorized prior to July 28, 2026, may undergo these permissive changes through at least January 1, 2029.

Producers may also be able to petition for a waiver to make certain Class I and Class II permissive changes to hardware of already certified devices. Such permissive hardware changes should not:

- Improve performance or capability or alter the functionality of the previously authorized device.
- Be used to market the device as a distinct model.
- Involve swapping a US-produced component for a foreign-produced component.

The FCC has granted similar waivers for permissive changes to hardware in routers with existing authorizations that were subsequently placed on the Covered List.

‘Conditional Approval’

Producers of power inverters and advanced robotic devices on the Covered List may apply for Conditional Approval that would exempt the approved entity from Covered List restrictions. As with other devices that are included on the Covered List, entities seeking Conditional Approval for foreign-produced power inverters or advanced robotic devices must be prepared to provide information on the entity’s corporate and management structure, details regarding existing manufacturing and component supply chain, and a US manufacturing and onshoring plan.

What affected companies can do now

If your company manufactures, distributes or integrates these devices, you should consider the following

immediate steps:

1. Audit your devices

- **Identify country of origin:** Determine exactly where your current and future devices are manufactured. Under the new rule, even “American” brands may be affected if their physical production occurs in a foreign country.
- **Assess “foreign-produced” models:** If only minor assembly of a product happens abroad, you may be able to demonstrate that it should not be on the Covered List.
- **Identify “previously authorized” models:** Confirm which of your foreign-produced models already have an approved FCC ID. These can still be imported and sold. But consider whether permissive changes to hardware are or will be needed due to supply chain issues or end-of-life status.
- **Pipeline review:** Any new models currently in development abroad will likely be blocked from the US market unless you obtain Conditional Approval or pivot your manufacturing strategy.

2. Apply for ‘Conditional Approval’

The FCC has provided a pathway for exemptions from the Covered List through the Department of War and DHS. To succeed, applicants should be prepared to provide:

- Detailed background about company ownership and management.
- A detailed bill of materials and country of origin for all components of each device for which Conditional Approval is sought.
- A verifiable US manufacturing and onshoring plan that is time-bound, including expected capital expenditures and workforce deployment, and overseen by a dedicated officer.
- Quarterly updates on the progress of bringing production to US soil.

3. Secure your legacy devices

- Take advantage of the FCC Office of Engineering and Technology waiver for Class I and Class II permissive changes for previously authorized routers to receive software and firmware updates to mitigate security harms. This waiver is currently set to expire on January 1, 2029. Ensure you have a plan to push security updates to existing foreign-made routers before the waiver window potentially narrows or expires.
- Consider filing a Petition for Waiver to permit Class I and Class II permissive changes to certain hardware that are, or are expected to become, subject to supply chain issues or end-of-life status.

4. Update certifications

Going forward, all applicants for FCC equipment authorization who have a product on the Covered List will need to self-certify, in good faith, that their device is not “covered equipment.” False certifications could lead to significant legal exposure and the revocation of existing authorizations.

How we can help

If you have questions about whether your devices are within the scope of the Covered List or the Conditional Approval or waiver process, or need assistance preparing those submissions, please reach out to the Cooley lawyers listed below. We have valuable experience seeking Conditional Approval and waivers for other foreign-produced devices on the Covered List and can help prepare and prosecute such submissions.

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