OpenADR 3 in Europe

Grid operators, regulators and industry bodies across Europe are standardising the exchange of flexibility signals on OpenADR 3. Six areas are worth looking at in detail.

Netherlands | United Kingdom | Sweden | Austria | Germany

NL

Operational · scaling up

Dutch grid operators and charge point operators jointly selected OpenADR 3 to manage public EV charging during grid congestion, with ElaadNL publishing the specification. A grid operator sends one signal to a whole cluster of charge points, defined by grid topology rather than company boundaries, and each operator distributes the available capacity across its own stations. GAC 2.0, released late 2025, is already running with several grid operators and charge point operators. GAC 2.1 moves to OpenADR 3 version 1.0.0 and adds hierarchical clusters, with an implementation deadline of 1 October 2026. ElaadNL validates every implementation on behalf of the national Smart Charging for Everyone programme, ahead of dynamic grid-aware charging at public chargers this winter.

Grid-Aware Charging

NL

Pilots under way

NL Flex and further Dutch initiatives

Building on Grid-Aware Charging, the same OpenADR 3 foundation now carries further Dutch programmes. NL Flex brings grid operators and energy suppliers together to scale residential flexibility: grid operators request flexibility per grid area, while suppliers and aggregators steer home solar, batteries, heat pumps and EV chargers behind the meter, with pilots running through 2026. FlexMCS applies OpenADR import-curtailment signals to megawatt charging hubs for heavy-duty trucks, and the DITM project uses them for energy hubs in connected mobility. ElaadNL also publishes open-source tooling: an OpenADR 3 server built with Tweede Golf, a Python client, a server GUI and a programme compliance test tool.

UK

Standard published

ENA flexibility dispatch and DESNZ smart appliances

In May 2026 the Energy Networks Association launched a common standard for dispatching flexibility across Great Britain, aligned with OpenADR 3 and developed with Elexon, NESO and the OpenADR Alliance. It gives every distribution network operator one interface to flexibility service providers and is being taken forward by Elexon as flexibility market facilitator; ENA expects flexibility to deliver savings of more than £3 billion by 2028. On the consumer side, the government-sponsored BSI standards PAS 1878 and PAS 1879 specify OpenADR between demand-side response service providers and the energy manager in the home, and an OpenADR–Matter interworking specification connects grid signals to Matter devices.

Great Britain and the Netherlands each ran an independent, structured evaluation against written requirements. Both selected OpenADR.

Continued overleaf →

SE

Platform running

E.ON SWITCH and conditional grid connections

Swedenergy (Energiföretagen Sverige) recommends OpenADR as the industry standard for communication between grid operators and customers on conditional grid connections, with a supplement directing new implementations to OpenADR 3. E.ON's SWITCH flexibility platform, one of the first OpenADR 3-certified servers, puts this into practice: the AMPECO charging platform receives SWITCH events, acknowledges them and applies power limits across its charge points automatically. In a proof of concept between E.ON and Vattenfall, every activation request was received and acknowledged, and a 22 kW charger reduced its output to the 5 kW limit.

AT

Draft v0.2 published

DSS – Digital Customer Interface

Austria's new electricity law (ElWG §76) requires new generation plants of 3.68 kW and above to be controllable through a standardised interface from 1 June 2026, with grid operators bringing them under operational control by 2028–2029. The Digitale Schnittstelle (DSS) profile, published in draft on the Austrian energy industry's ebUtilities platform, defines that interface on OpenADR 3. Grid operators send default settings and time-varying grid tariffs, preventive import and export envelopes and curative limits, each ranked by priority, to systems at the customer's grid connection point. MQTT carries operational events and reports, and a site falls back to safe limits if communication is lost.

DE

Completed 2026

CACTUS grid-to-charger reference implementation

The CACTUS project built a complete OpenADR 3 chain linking a distribution grid operator, a district optimisation system and a charge point operator in three tiers. Led by Kraftwerk Software Systems (formerly msu solutions) with AVAT Automation, ZSW, VIVAVIS and several municipal utilities, the consortium passed dynamic grid price signals from the grid operator through district-level schedule optimisation down to individual EV charging points, completing a successful round-trip test in March 2026. The full report is published on the OpenADR Alliance website.

More OpenADR across Europe

Norway

Eviny manages conditional grid connections with an OpenADR 3 server.

European Flexibility Initiative

Held at ElaadNL in March 2026 to align national OpenADR 3 profiles so one device works across borders.

International standard

OpenADR 2.0b is published as IEC 62746-10-1; alignment of OpenADR 3 with IEC TC57 WG21 is progressing toward IEC recognition.

Partner organisations

Liaisons with the Connectivity Standards Alliance (Matter) and DLMS UA; cooperation with EEBUS and smartEn.

Open source

LF Energy's OpenLEADR and FlexMeasures carry daily congestion signals to charge point operators in a Dutch pilot.

Certified ecosystem

More than 330 OpenADR-certified products from over 220 member companies worldwide.

Building a flexibility programme?

Reuse a published profile, get implementation help and certify your products.

Scan for links and resources

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