

Specification Technical Update July 2026

XDS-TAN-01-005

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Revision History						
Revision	Date	Description	Originator	Reviewer	Checker	Approver
R0	16/07/26	First Issue	Neil Cowap	Hassan, Marty Niall McMahon	Louise O’Flanagan	Neil Cowap

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1 Introduction

The purpose of this document is to inform industry of technical updates that may impact projects.

It is intended to be used for information and not as an instruction to industry.

If there are questions arising from this document, then please contact your relevant EirGrid project representative.

If you have no EirGrid representative, then email info@eirgrid.com for the attention of the Technical Authority Team.

2 Directive (EU) 2024/573 for F-Gases

This is a standing item due to the potential for it to impact significant projects. Note the following:-

1. It is the responsibility of the designer to confirm compliance with Directive (EU) 2024/573.
2. Neither EirGrid, ESB or the EPA can grant a derogation to Directive (EU) 2024/573. It could potentially add considerable time effort and complexity for a customer to apply for a derogation to put a 110 kV SF6 switchgear into operation on and after the 1st January 2028

2.1 XDS-GFS-25-001-R5 - 110,220,400 kV GIS

2.1.1 Summary

- XDS-GFS-25-001-R5¹ was updated in April 2025
- XDS-GFS-25-001-R5 requires a derogation for the use of SF6 GIS switchgear for 110 kV
- XDS-GFS-25-001-R5 is currently being updated see **Putting into Operation** section below

2.1.2 Implications of applying GIS specification (XDS-GFS-25-001-R5) to legacy building sizes

Revision 5 of the GIS specification is not retrospective, but some projects are applying R5 which was released in April 2025.

In section 9.1 of the new specification we require *“Each gas compartment shall be capable of being fully evacuated within 60 mins by the provided gas equipment”* This can result in additional buffer zones and a larger GIS footprint, which may require a larger building.

We are updating the standard layouts to account for the larger building. Both the standards below in sections 2.3.1 and 2.3.2 have considered non SF6 switchgear.

The preference is to apply rev 5 and modify the building by installation of external stairs or similar.

If rev 5 is being applied contact EirGrid to discuss how this can be rectified on each project.

2.1.3 110 kV GIS Issues

For project in delivery phase where a GIS spec rev 4 was issued as part of the functional spec package, EirGrid suggest to procure, install and pre-commission a GIS switchgear adhering to the following requirements taken from XDS-GFS-25-001-R5:

- XDS-GFS-25-001-R5 Section 9.1.1.3 Digital Monitoring System needs to be adhered to. For the removal of doubt the requirement is for gas pressure trending. This is not a new requirement, but a clarification.

¹ <https://www.eirgrid.ie/grid/transmission-policies-and-standards>

- XDS-GFS-25-001-R5 Section 14.1.3 Special tests shall be complied with making particular reference to item 1 the 200 hundred operations and item 3 the test voltages which are further clarified in figure 9

It is not a requirement for projects using XDS-GFS-25-001-R4, but it would be preferred to apply it.

It is a requirement for projects using XDS-GFS-25-001-R5

2.2 XDS-GFS-36-001 110/220/400 kV AIS Circuit Breakers

2.2.1 Summary

- XDS-GFS-36-001-R0² is being updated, with a planned issue date of July 2026
- XDS-GFS-36-001-R1 will require a derogation, from EirGrid³ for the use of SF6 breaker for 110 kV
- See “putting into operation” section below

2.3 Putting Into Operation

Several projects are seeking clarification on EirGrid’s viewpoint in relation to “putting into operation”. This update aligns with ESB and the EU commission. GIS Specification (XDS-GFS-25-001) will be updated to align with this but it’s a language change and the understanding is the same.

There is agreement on the wording of the section below this section is a copy and paste from the next revision of the specifications XDS-GFS-36-001 and XDS-GFS-25-001.

2.3.1 Putting into Operation

With regards to GIS containing SF6 which is to be installed before the ban date as specified in the Regulation (EU) 2024/573, please note the following:

The term ‘Putting into Operation’ is central to a consideration of the relevant dates pursuant to Article 13.9 of the Regulation (EU) 2024/573.

EirGrid’s interpretation of ‘Putting into operation’ is taken from the EU Climate action department which states that *“Putting into operation is the moment of handover of the equipment to the operator for use/exploitation, after completion of any necessary tests of functionality, performance or other, and any required inspections. Energization or connection to the grid is not a requirement.”*⁴

Based on the above, for present purposes “Putting into Operation” of GIS switchgear and AIS breakers shall include the following:

- switchgear installed at its intended final location
- Visual inspection
- (On site) Electrical testing
- Operational testing

The Contractor shall furnish to EirGrid a handover document verifying the above within three weeks of “Putting into operation” and before the relevant ban date. (This sign off sheet is in the appendix of the specification)

² <https://www.eirgrid.ie/grid/transmission-policies-and-standards>

³ This derogation will be a formal acknowledgement that the customer is accepting all risk of project delay and potential non compliance. It is not a derogation from the legislation.

⁴ FAQ on switchgear as regulated by the F-gas Regulation (EU) 2024/573 Version 3 2024/573 [cfe52d31-9203-435d-b043-62f74900fd96_en](#).

2.3.2 Additional clarification

It is EirGrid's opinion that the "putting into operation" and subsequent issuing of the handover document happens after acceptance of stage gate 3, after the precommissioning as per the EirGrid functional specifications.

This is based on the understanding that the switchgear has been filled/pressurised to OEM acceptance levels and then operated during pre-commissioning stage, though not energised.

2.4 Department of Transport Interim Guidance to Road Authorities

The Department of Transport published the Interim Guidance Note on HV Cables in Roads Rev 2 in February 2026. EirGrid, ESBN and Department of Transport have been working to address the inconsistency between EirGrid's specifications and requirements of the Interim Guidance Note and to prepare standards that reflect this. In consultation with DOT, it was acknowledged that amendments to the current joint bay design would require a period of time to agree new standards and allow suppliers adopt it. Therefore DOT have agreed a grace period has been agreed to implement the joint bay requirements on a project specific basis relevant projects are working through this September.

2.4.1 Joint bay Design

A new HV cable joint bay design that adheres to the interim document has been prepared by ESB/EirGrid this design is being evaluated by the joint bay suppliers.

When confirmed it will be approved and published on the EirGrid website.

The main differences are a reinforced concrete lid.

2.4.2 Standard cable Trench layout

A new HV cable trench layout is being prepared by EirGrid/ESB to adhere to the interim Guidance document.

The depth to the CBGM will likely now be 750 mm

The depth to the power duct will likely be 1025 mm (an increase of 75 mm)

3 Other Non F-Gas Updates

3.1 New 400/220/110 layout

A new 400/220/110 kV substation layout and SLD has been prepared and published on the EirGrid website.

- Layout - https://cms.eirgrid.ie/sites/default/files/publications/XDN-LAY-STND-L-100-00_400_8-220_16-110_16.pdf
- SLD - <https://cms.eirgrid.ie/sites/default/files/publications/XDN-SLD-STND-L-101-00%20400-220-110.pdf>

It should be noted that we believe this standard represents the installation of the largest potential buildings, for F-Gas free switchgear.

This standard drawing advises that if the switchgear being installed has a reduced footprint, due to a different switchgear footprint, then optimisation of the building is encouraged during detailed design.

This drawing may be updated soon due to the following

- Ongoing System studies in relation to the Voltage withstands of the 400 kV switchgear
- Ongoing procurement in relation to the installation of 400 kV Shunt reactors on the cable circuits

3.2 New 110 kV AIS layout

This update to the 2/4/8 110 kV AIS substation has been prepared and published on the EirGrid website.

- Layout - <http://cms.eirgrid.ie/sites/default/files/publications/110-kV-AIS-2-Bay-Station-Extendable-4-and-8-Bay-Configurations-XDN-LAY-ELV-STND-H-013-R03.pdf>
- SLD - <https://cms.eirgrid.ie/sites/default/files/publications/110-kV-AIS-2-Bay-Station-Extendable-4-and-8-Bay-Configurations-XDN-SLD-STND-H-009-R03.pdf>

is primarily dealing with the connections across the fence to 3rd parties and giving examples of connecting to compounds, substations and confirming equipment naming. This update will align with the recent update to the labelling specification.

3.3 Precommissioning Update

Feedback was received from industry on the application of the new precommissioning specifications. The vast majority of these comments have been accepted and the document is undergoing final review with a target release date of August 2026

4 Future Items

4.1 XDS-GFS-38-001-R0 Labelling Spec Modification

In Q4 of 2026 it is intended to take all the lessons learnt from several projects and revise the specification again to remove ambiguity and to correct issues where they are highlighted.

We would welcome collated comments from the industry in relation to this specification, similar to the ones received for the precommissioning document.

4.2 Industry Workshop

In the Q4 of 2026 it is intended to have a face to face consultation/s with industry to address the items below

- Potentially a dedicated workshop on the pre-commissioning specification
- A wider industry workshop to discuss other standards and specification related items