

Modify

Listy ▾

## Reference Source



## IFA2 Dispatch System (IFA2DS) – System Implementation

Unicorn Systems has successfully implemented IFA2 Dispatch System (IFA2DS), an HVDC dispatch system for National Grid and its IFA2 interconnector connecting the Great Britain and France. The Dispatch System was successfully launched into commercial operation during January 2021.

IFA2DS is based on Unicorn Systems' Inca platform. The main purpose of the system is to generate power instructions based on the nominated values, capability of the interconnector, given configuration, identified and planned outages, as well as other constraints. These instructions are then automatically provided to the HVDC Control & Protection (C&P) System.

The IFA2 Dispatch System delivery includes not only the dispatch system application, but also the delivery of complete infrastructure and its installation. The automated system processes are further supported by continuous monitoring and system maintenance by the experienced Unicorn Systems Second Line Support team in 24/7/365 mode.

## Success story

During January 2021, Unicorn Systems has successfully implemented and launched IFA2 Dispatch System into commercial operation.

The IFA2DS is based on Unicorn Systems' highly specialised Inca solution used to build key systems in the domain of HVDC interconnectors operation. The particular solution for National Grid covers the below indicated aspects and functionalities.

The primary aims of the IFA2DS system are the following:

- Automated calculation of interconnector capability (based on planned and unplanned outages and other constraints) and its declaration to respective external parties
- Managed reception of commercial nominations and their regular conversion into Power Order instructions
- Integration with all external subjects and systems ensuring an automated and secure data exchange and interaction
- Intuitive and user-friendly alarms and event management providing real-time control and monitoring of the interconnector - thus, reducing the risk of human error and potentially related impacts

The business functionalities of the IFA2DS system are represented by the following components:

- **Nominations Module:** handling reception and processing of aggregated and netted commercial nominations

### Representative statement of IFA2:

*The Dispatch System represents one of the key IT elements needed to ensure full interconnector operability, whereas the Regional Nomination Platform supports capacity management and cross-border scheduling processes on IFA2.*

*Delivery of both systems successfully concludes another joint project between Unicorn Systems and National Grid.*

On behalf of National Grid,  
in London on 01 February 2021

- **Interconnector Capability Module:** covering interconnector capability agreement process and outage management
- **Calculation Module:** ensuring calculation of reference program and Power Orders based on nominations, interconnector capability and other inputs
- **Reference Program Module:** covers reference program agreement process and its exchange with respective TSOs, and processing of TSO amendments to the reference program
- **Interconnector Instructions Module:** ensures submission of instructions to the HVDC C&P and processing of received signals
- **Monitoring Module:** providing an overview of interconnector status information as well as notifications and alarms handling
- **Administration Tools Module:** a robust core of the platform including audit log, user account management, system configuration and file storage
- **Ancillary Services Module:** covers reaction to activation and deactivation of Ancillary services and its impact on Power Orders submission and Reference Program handling.
- **Simulator:** a standalone simulator application providing means for system testing, operator training and operational events rehearsal. The functionality includes simulation of the entire interconnector's signal list along with a ramping simulation.

Edd Monk  
Commercial Development Manager  
National Grid Interconnectors

The delivery includes not only the IFA2 Dispatch System application, but also the delivery of complete infrastructure and its installation. The automated processes, as well as system tools increasing the resilience and response to potential outages, further improve the overall reliability of interconnector operations in the 24/7/365 mode.



IFA2 is a recently constructed HVDC Interconnector, to be operated as a merchant interconnector between the UK and France. The interconnector further enhances National Grid's portfolio of existing HVDC interconnections between the Great Britain and continental Europe. Its primary business aim is to sell cross-border capacities available thanks to this new HVDC link. The capacities will be sold through a range of capacity allocation mechanisms, and further nominated by the Market Participants. The primary operational aim is to ensure safe operation of the IFA2 HVDC link and in the neighbouring areas. This is namely to ensure safe and continuous HVDC link operation, provide the relevant ancillary services, as well as to minimize imbalances on the link. IFA2 shall further improve the affordability, sustainability and security of energy supplies. For further information on IFA2, please, follow <http://ifa2interconnector.com/>