Question 2.11: What are the lessons learnt on the importance of testing of cyber security solutions by EPUs before deployment?

As with all other aspects of grid automation systems, elements that include cybersecurity features should be exhaustively tested before deployment and commissioning. We typically recommend doing both a FAT (Fatcory Acceptance Test) and a SAT (Site Acceptance Test) prior to deploying the operational solution. This is key as many OT devices interfaces vary vendor to vendor, whereas IT equipment typically support some common industry standards (LDAP, SNMP, etc).

The issues regarding field maintenance (e.g. replacing a failed field device with a replacement and restoring service) will need to be considered. Cybersecurity features will often require additional configuration for devices and may require configuration updates at both the field device and the other parts of the system that communicate with it. Training and procedures will require revision to incorporate cybersecurity functions. Disaster recovery procedures will need revision and should be exercised (e.g. by doing recovery drills) to verify that they are complete and correctly restore system operation. One viewpoint may be that good cybersecurity practice is a logical extension of good engineering practice in these regards.