Due to changes in asset operation, production optimisation and changing well compositions, many platforms have process systems and equipment that have been taken out of operational service, but left in situ. Much of this equipment has been redundant for a prolonged period and without formal change control. As a result the standard of isolations does not always conform to latest best practices or internal company procedures.

One of the main issues reported repeatedly offshore is the absence of information regarding the decommissioned state of equipment i.e. whether these items were either fully redundant or retained for future use (mothballed). Poorly managed isolations can lead to operational and safety issues such as; loss of containment, process interruption, spurious trips etc.

Operators are also reporting that hundreds of man-hours are being wasted annually in maintaining redundant equipment. This is either because the isolation methods do not allow the equipment to be permanently classed as redundant or the records and systems are not updated.

In order for operators to formally record the equipment as decommissioned, the equipment requires completion of a MoC.

To complete a MoC retrospectively for the decommissioned equipment, operators require that the equipment is decommissioned in accordance with the applicable procedures and all associated documentation marked-up accordingly.

What we offer
ABB provides support services in the management of redundant equipment. This is typically conducted in two phases:

Phase 1 - Confirming redundant equipment
- Destruct P&ID’s are produced to display the clear boundaries between live and redundant plant. The P&ID’s indicate how many new isolations are required
- Decommissioning register - The register captures the boundary isolations and redundant equipment for all engineering disciplines, and specifies the required actions to isolate the asset to the agreed standard. The register is developed to be a sustainable tool regularly updated to reflect the plants ongoing state
- Benefit analysis - The number of maintenance Work Orders (WOs) are analysed to determine the total number of direct and support man-hours that will be saved by canceling the maintenance of redundant equipment

Managing redundant equipment effectively to improve safety, reduce OPEX and maintenance man-hours whilst increasing production availability.
Phase 2 - Planning and specifying the execution
- Scope-of-work documents are produced to define the full extent of multi-discipline activities required to make safe permanent isolations, identify the document changes required and list the work orders to be modified / deleted
- ABB have developed ‘lean’ workpacks to detail the exact work scope for each discipline, ready to be passed on to the construction contractors for implementation. These workpacks have been developed by operators to increase engineering efficiency and ensure that the content is value-adding only

ABB are able to support operators through the entire MoRE lifecycle, acting as specialist Technical Authorities (TA) and assisting with producing the typical support documents and studies required as part of the overall MoRE process, these activities include:

- Developing and decommissioning strategy
- Maintaining production of the statement-of-requirements
- Pre-decommissioning surveys (asset inventory)
- Conducting / facilitating all safety reviews; PHRs, HAZOPs, HAZDECs etc.
- Project management, engineering and control
- Modification of maintenance work orders
- Production of preservation procedures
- ATEX register updates
- Compliance with IEC 61511
- Safety case updates
- Full Management of Change (MoC) scope detailing
- TAR work scope / workpack preparation

Benefits
ABB have robust and proven procedures and workflows to ensure safe, efficient project delivery, bringing the following benefits:

- Significant support with the reduction of maintenance backlogs
- Substantial reduction in rolling OPEX spend
- Projects with a strong ROI for sanctioning
- MoRE projects have short pay-back periods - typically <12 months
- Full understanding of live functional safety logic & as-built documentation
- Reduced risk of safety or lost production incidents arising from partly decommissioned systems
- Improved human factors - operations personnel understand the redundant / live system boundaries
- Release of hard-to-obtain spares from redundant equipment
- Efficient decommissioning through team work packs

Why ABB?
- Safe and cost effective management of the complete lifecycle with over twenty five years of decommissioning experience
- Completed over £1billion worth of decommissioning projects with over £750m in recovered assets / metals for clients
- ABB safety record - 18m man-hours without a reportable injury and RoSPA Gold awards for the last 8 years

We have a dedicated decommissioning team of specialists with in-depth knowledge of decommissioning with access to a wide-range of specialist consultants for further technical support.

We have engineers and consultants from operational background and use their experience to make pragmatic technical judgments. This approach allows us to provide cost effective solutions specific to each platform. Our team has in depth knowledge of the legal requirements for both onshore and offshore assets.