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How To Involve the Future Operator in Project Execution

For the Owner, involving the future operator during a project is an essential ingredient to ensure proper operability and thus production performance of the completed facility. At the same time, all the operators' expectations cannot be granted as they would drive Capital Expenditure costs and overall financial performance, and this relationship needs to be managed. In this White Paper we discuss how best to organise future operator involvement during project execution.

Experienced Operator

representatives' input is needed

during the Definition phase, and

full-time presence in the project

team is recommended from the

start of project execution

Introduction: applicability to both greenfield and brownfield projects

The issue of operator involvement is quite similar for all projects. In brownfield projects, an operating organisation is already in place and operators should be detached to work on the project. For greenfield projects, an operating organisation needs to be set up and future operators recruited progressively generally starting at supervisory

levels. If the Owner organisation already operates similar facilities elsewhere, supervisors from those other facilities can be detached into the project; they will often be expected to support the start-up and ramp-up phases.

Therefore, all projects, whether greenfield or brownfield, will have

representatives from the future operator available. In brownfield projects, the project will benefit from existing structure and processes, but operators may be less open to new ways of working. In greenfield projects, conversely, processes and organisation need to be built, which will require specific efforts, but makes it easier to introduce new ways of working or new IT systems.

Main processes requiring an active contribution by the future Operator

The main areas of contribution by operator representatives include participation to the following processes (which are led by the project):

- Design stage
 - Standardisation of requirements, codes and standards,
 - Maintainability studies
 - Operability studies
 - o Ergonomics studies
 - o 3D model reviews
- Procurement stage
 - Technical specifications (site standardisation requirements)
 - Tests and receipt of equipment
 - o Training by equipment suppliers
- Construction stage
 - Site HSE, logistics, warehousing, etc management,
 - Quality Control management,
 - Progressive mobilisation of future operator's team and training,

- Commissioning and start-up stage
 - o Planning of commissioning, participation at commissioning stage,
 - O Site HSE management
 - Receipt process from contractors,
- Ramp-up stage

O Full management and operation of the facility All these activities require the active involvement of the operator from the start of project definition. Full time

presence of operator representatives in the project team needs to be organised from the start of project execution after the Final Investment Decision.

These activities are in addition to those specifically performed by the Operator to prepare for future operations such as hiring and

training staff, developing maintenance manuals and operating procedures and setting up the information systems and procedures required to start up and operate.

How best to organise the operator involvement in the project

It is much more effective to detach one or two experienced supervisors full time within the project team rather than rely on the people available on the date of the reviews or on whoever is available when the project team has an issue to resolve. This recommended solution will ensure accountability of the operator representatives, continuity of their input, and proper availability to avoid any delays in document and drawing reviews.

Of course, these few representatives must be well chosen for their experience, their openness to possible new ways of working, and their capability to communicate with their colleagues in the operating organisation as part of the Change Management (for brownfield) or Newcomer Integration (for greenfield) processes. The choice of those representatives must thus be carefully performed.

We too often observe operator representatives chosen that are dispensable for the organisation and/or quite passively awaiting retirement. This creates substantial risk for the organisation — on the contrary, the role of operator representative within the project should be a high-profile position allowing career growth and given to high potential representatives. Due to the dual role of the Operator representatives on the project, they should ideally maintain a dual reporting line as well; to the Project Manager for all project related activities and to the Operator organisation for operator specific activities as

well as to raise concerns or channel requirements from the Operator organisation to the project.

Formalising the relationship between Project and Operator

Governance for changes requested by the Operator

Even if operator representatives are involved in the project definition stage, requests for changes can be expected during project execution as more and more future operators get involved, each with their own ideas

about how things should be done. Such change requests will multiply on smaller issues during construction.

The project needs to remain fully accountable for its timeline and budget, and it may well happen that the operator's representatives come up with requests which may impact

the project execution but provide future benefits for operation; or correspond to a wish to improve working conditions irrespective of the economics.

A process must be put in place akin to Management of Change to raise those issues to the project governance level for the organisation to consider. It is important that the project manager is not left in the front line for those requests.

The decisions to accept a change (and increase project budget and available time as needed) needs to be effectively considered at governance level. Therefore we often recommend that the operator representatives embedded operationally in the project team keep a link to the project sponsor or operator representative in the project governance body.

Management of project execution aspects managed by the operator

During project execution certain aspects may be managed directly by the operator on behalf of the project, such as for example, relationship with regulatory authorities and permitting aspects; on-site logistics, warehousing, preservation of project items; and even possibly some aspect of the works which are close to heavy maintenance operations.

For those activities performed on behalf of the project, a split of responsibilities needs to be established from the start of project execution; resources need to be identified and regularly assessed as to their suitability, and rules established as to the governance of those scopes. The

Project Manager needs to keep sufficient visibility on their progress and needs to be able to raise concerns about performance. The priority of project execution-related activities needs to be enforced.

Management of hand-over, warranty and spare parts

The definition of hand-over time and process, the issue of warranty given by the project to the operator regarding operation of equipment, overall performance and the amount of spare parts to be procured, are often difficult when managed between entities within the Owner, as

there is no clear contract providing a delineation of liabilities like with a third party. Some mature Owner organisations do define very clear rules akin to those that would be applied to third parties.

We recommend formalising those rules from the start of the project

and actually request them as part of the Final Investment Decision deliverables: they do substantially influence the budget and the timeframe of the project.

For example, if the project is to provide some performance guarantee with respect to the operator during a certain time, or if Capex spare parts are to be provided for a certain duration, the corresponding amount needs to be included in the project budget and the duration of the warranty period included in the mobilisation plan; and the actual implementation be planned in advance. Specifically, the hand-over criteria and process from the project to the operator, and the responsibilities for the management of punch list items, must be clearly defined from the start.

Summary

Project governance must keep a

strong control on the Operator

representatives' requirements

through a clear split of

responsibilities and formalised

work processes

Early involvement of the operator is an essential project success factor. The role of the operator representatives in the project needs to be considered seriously by the operating organisation. At the same time the governance of operator-suggested changes needs to be carefully set up, as well as rules for the interfaces between operator and project for all phases of the project, including ramp-up and the first years of operation. Those rules and split of responsibilities need to be established explicitly at the Final Investment Decision stage as they impact the Capex budget and schedule.



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