Different Perspectives = Different Needs

Ongoing commissioning is a daily process running 24/7 inside a building operation. Each management level is involved in this process. Ongoing commissioning monitors the mechanical systems control sequences, lighting schedules, occupancy flows, system design improvements and more. The process uses a large amount of input data to generate precise valuable information. But it brings up a great question. What set of information each organizational level needs to work with, and how should they use it? **Because different perspectives mean different needs**. This article will explain the singular perspective and the unique KPIs looked by a building owner, a property/facility manager, a design engineer, a commissioning agent and a field technician.

In order to provide a basic ongoing commissioning analysis, you need to collect data from multiple sources. The data set is used to fuel the analysis procedure allowing access to precise actionable information. Let's first list the standard sets of data that are inputted and the information outputted during the Ongoing commissioning process.

Input:

Available resources description (Time, Money, Manpower, sub-contractors …)
Energy bills (Gaz, Electricity, Steam, Oil, Coal …)
Mechanical systems drawings and control sequences (temperature resets, sizing, design specs …)
Building occupancy/ Scheduling (standard work schedule, people flow, exceptions …)
Targets and objectives (KPIs, certification, awards …)

Output:

Prioritized action list
Field team training plan
Building complete history
Reviewed mechanical control sequences and design
Reviewed operational procedures

The **building owner** is generally not involved in daily operations. At this level, useful information to look for is related to global building performance. A lot of Ongoing commissioning measures are long term payback with small daily savings. A cumulative sum (CUSUM) can help the building owner to see and understand the ROI of some projects. It helps get future budgets accepted by showing the tracking and improvement done on the savings. **Some useful KPI**: Tenant complaints/Month, Global operating expenses/Initial budget, Building asset value.

The **Property/facility manager** is involved in daily operations at a project level. The daily progress compared to the targeted objective is key information for the manager. A measure and verification plan (Option B) may be used to generate monitoring dashboards and reports. This information helps the manager make faster decisions with a better understanding of the building complexity. It also provides a quick feedback to fine tune the operation process. **Some useful KPI**: Tenant complaints/Week, ROI/Project, Expenses/Initial project budget VS project completion.

The **Design engineer** is usually a sub contractor working on a retrofit project identified during the [Ongoing commissioning](#) process. This technical person needs to access precise data in order to create an efficient design. Ongoing commissioning produces a huge amount of data gathering sensor and meter values, set points, control sequences and more. This information is reducing the error risks and costs for engineering services simply because it is a continuous flow of data compared to the usual snap shot given by a small data sample. The design engineer can also need some pre-calculated information resulting from standard equations. Some tools are available to provide these values that can accelerate the design process and again reduce cost. **Some useful KPI**: KW/System, KWh/Period, Degree –day, Building occupancy.

The **Commissioning agent** does the link between all the other resources. This person is looking to meet the owner's expectations within the facility manager's budget for the project using

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design engineers' services and the field technicians' hard work. A fault detection system is really useful in order to identify out of specs equipment and also non-efficient control sequences such as simultaneous heating and cooling. In order to prioritize the actions, the commissioning agent also needs to look at the targeted objectives and the actual maintenance processes and performance. An access to the maintenance log helps to pinpoint critical maintenance needs. **Some useful KPI**: Late maintenance work orders, TOP 5 Identified faults, KW/equipment, Building occupancy.

The **Field technician** executes the prioritized the project actions. To operate correctly, he needs to have a precise description of what needs to be done. A simple graphic to explain the problem with its root cause helps the technician to fix the problem. The technician can be trained to use the fault detection system to become independent to a point where he's able to identify, confirm and prioritize necessary actions. **Some useful KPI**: Late maintenance work orders, TOP 5 Identified faults, KW/equipment, Tenant complaint/Equipment.

Finally, each of the 5 actor's type in an Ongoing commissioning project is looking at the same building data with different needs. Each with his own set of responsibilities and decisions to make. It explains why they are not looking at the same KPI. So, if you are thinking about implementing an Ongoing commissioning process or even a simpler Measure and Verification (M&V) process inside a building operation, first identify the information you want to share with each management level. The next question you should ask yourself is: *How can I share the right **information** with the right person in the right **timing**?*

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