



Ongoing Commissioning OCx Best Practices

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5. SUSTAINING PHASE

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Learning Objectives

- Introduction on sustaining phase OCX
- Implement operating and maintenance procedures.
- Transition to Stable Operations
- Monitor and report results.

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The Sustaining Phase begins with a review of the facility Systems Manual and a Facility Handbook. The Facilities Guide sets performance objectives and a method for reviewing building mechanical, electrical, and lighting systems. Systems Manuals typically include Facility Guides. The CFR, OCx Plan, and Diagnostic Plan enhance the Facilities Guide. Field observation, calibration, operating instructions, and O&M personnel maintenance chores can be connected to the Guide.



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The Sustaining Phase includes the following initial and ongoing activities:

- Update CFR, OCx, and related OCx process documents
- Implement Operating and Maintenance Procedures
- Turn over commissioning activities to facility operations staff as defined by the OCx Plan
- Integrate with and improve regular preventive maintenance
- Coordinate diagnostic information with facility activities
- Coordinate activities of preventive maintenance personnel with the OCx team
- Document and correct performance anomalies
- Monitor and report results of documented corrective actions
- Initiate and continue training technical and operations staff as necessary





Sustaining Phase

- Successful OCx projects aim to maintain building performance for the life of the building. OCx, a complimentary process to NCCx and EBCx, assures building owners that their building system investments and optimisations are working optimally. So, the sustaining phase is crucial to transitioning from OCx deployment to business-as-usual building performance management.
- In the Maintaining Phase, systems and upgrades are maintained, and the Cx Team and operations staff scale down OCx processes to maintain optimal building functioning. Like any dynamic system, the diagnostic plan's data, analysis, and fault detection mechanisms must be maintained.
- After implementing implementation findings and reducing the number of new findings, an OCx project enters the sustainment phase. The CFR-compliant building is stable and performs well. The owner's workflow now includes the diagnostic plan and corrective measures, and the O&M team's OCx actions are routine. Technological infrastructure is completely established, with technology maintenance employees making system adjustments to preserve system integrity, sensor calibrations, and CFR and facility updates.



Implement Operating and Maintenance Procedures

- All OCx data sources have quality concerns. To verify building and system performance in the Maintaining Phase, establish and undertake regular PM processes and OCx-related metre and instrument calibrations.
- Include a PM plan to assess and ensure the health of any technological application (BAS, EMIS) that collects and manages data for the OCx project. PM evaluates IT infrastructure (server hardware and software, networking, security, database management, data backups), OCx-implemented technology (software updates, licence updates, configuration), and data source integration to the head-end platform.
- The diagnostic plan's analytics and problem detection notifications should be reviewed weekly or quarterly to verify the OCx approach is accurately monitoring building performance without false indicators or unnecessary notifications.



Transition to Stable Operations

The OCx team wants the O&M Team to manage performance in the Sustaining Phase. This unique shift of responsibility allows facilities to sustain the OCx methodology and best practises.

As OCx finds decrease, with evidence that recurrence of evaluated concerns is unlikely, the CxP establishes a monthly timetable to review the OCx process and assure continuing building performance management. The CxP works with the building Owner and team to schedule continuous support, usually quarterly or semi-annually, based on initial OCx findings, facility capital planning outlooks, and periodic checks.



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Monitor Results of Documented Corrective Actions



- Monitor and report OCx value to establish and validate the business case and support future Sustaining Phase investment.
- The Commissioning Team sets rigour and how OCx programme actions are tracked and savings projected from the start.
- High-level energy performance data are normalised for weather and occupancy by the CxP. Tracking operating log item cost savings estimates and log item identification and resolution statistics are further options. OCx project measurement and verification will depend on contracted performance objectives and client-specific business case needs.
- Monitor energy and operational savings.
- Operational savings include longer-lasting equipment, fewer maintenance time, enhanced safety, and other facility and maintenance benefits.
- Capture and document collateral qualitative gains to the organisation, such as O&M employee engagement, morale, buy-in, staff development, and employee turnover.
- To sustain OCx support, regularly develop and disseminate valuable reports to stakeholders.



Sustaining Phase Deliverables

- Ongoing identification of FIMs for sustained facility performance
- Periodic update of CFR
- Periodic update of the OCx Plan
- Periodic update of the Diagnostic Plan
- Periodic performance reports



OCx training, like other facility performance maintenance training, uses the systems' sequences of operation, the operations guide, and the O&M manuals. OCx's technical and technology application training familiarises workers and others with the technology product(s)' navigation and features and advanced data analytics duties. BCxA training plans, agendas, and instructions and Commissioning for Existing Federal Buildings aid hands-on EBCx training.



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