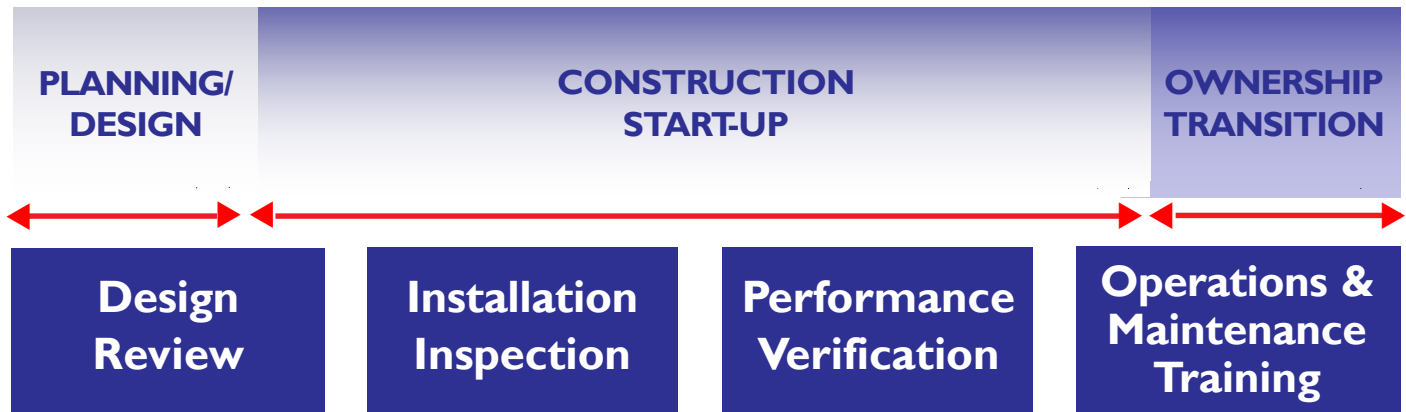




Building Commissioning Services: The Process



Building Commissioning: Value Adds for our Clients

- ✓ An Operations and Building Ownership Perspective Integrated into the Design, Construction, and Acceptance Process
- ✓ Avoided Construction Cost Over-runs from Design Reviews
- ✓ Independent System Performance Validation
- ✓ Smoother Transition from Construction to Operations
- ✓ Well Trained Staff in Operations and Maintenance
- ✓ Reduced Energy and Operational Costs
- ✓ Improved Occupant Health and Comfort
- ✓ Verification of Project Completion/Acceptance



Building Commissioning Services: Scope of Work



Design Review	Installation Inspection	Performance Verification	Operations & Maintenance Training
1) Establish Systems' Performance Criteria	1) Develop Commissioning Schedule	1) Oversee Air and Water Systems Balancing	1) Review O&M Documentation, Training and Warranty Submittals for Approval
2) Develop Acceptance Testing Protocols	2) Inspect Systems to Verify Quality of Work	2) Verify Mechanical, Electrical, and Fire Life Safety Functional Performance Tests	2) Oversee/Verify Training of Owner's Staff
3) Develop O&M Documentation, Training and Warranty Requirements	3) Oversee and Validate Corrective Actions	3) Verify Completion of Corrective Actions	3) Develop Planned Maintenance Strategy
4) Provide Peer Review of Systems Design		4) Validate Commencement of Warranty Periods	4) Verify Transaction of Systems' Operations and Maintenance
5) Identify Excessive Operating Costs		5) Provide Commissioning Results	
6) Advocate Operational Perspective During "Value Engineering Process"		6) Recommend Acceptance	