BEYOND
SMART CITIES



welcome to

BEYOND SMART CITIES

BEYOND SMART CITIES

COMMISSIONING SPECIALIST
BEYOND SMART CITIES

DESIGN-PHASE COMMISSIONING PROCESS

ONLINE PROFESSIONAL COURSES LED BY THE WORLD'S TOP SPECIALISTS

ONLINE TRAINING BY KRISHNAJI PAWAR

LEED AP(BD+C),GSAS CGP,GCP,ISO 14001

LEARN.BEYONDSMARTCITIES.IN

BEYOND SMART CITIES

MODULE 1

Introduction and Course Overview



KRISHNAJI PAWAR - CEO & FOUNDER

LEED AP(BD+C),GSAS CGP,GCP,ISO 14001

WWW.BEYONDSMARTCITIES.IN

BEYOND SMART CITIES

BRIEF ABOUT ME

Krishnaji PAWAR

CEO & FOUNDER



Krishnaji Pawar is founder and CEO of Beyond Smart Cities. Before being named CEO in January 2020, Krishnaji held leadership roles at Beyond Smart Cities in both Sustainability ,Energy & Environmental Consultancy.

Specialized in developing sustainable design strategies for Green Building Certification Systems (LEED, GSAS, etc.), Energy & Water Conservation, Commissioning, Environmental Impact Assessment & Environmental Management Systems.

Currently responsible for 3,787 million square feet Green Building /Energy modeling Consulting since January 2008 in UAE, India and Qatar.



WELCOME TO BEYOND SMART CITIES

Beyond Smart Cities is the world's 1st Green Technology Marketplace, connecting millions of Sustainability Specialists, Green Building Specialists, Energy Specialists, Commissioning Specialists, Environment Specialists, Health & Safety Specialists, Fire Safety Specialists, Climate Change Specialists & Green Products/Technology Manufacturers with independent talent around the globe.

Our mission is to build and support a global community of experts with the highest professional standards in sustainability, green building, energy, commissioning, environment, health & safety, fire safety, climate change, GHG accounting, carbon auditing, and GHG emissions management.



DESIGN-PHASE COMMISSIONING PROCESS OVERVIEW

The commissioning authority (CxA) is essential for ensuring the quality of construction documents and building commissioning. They aid the designer in achieving the optimal system design and ensuring that the design concepts meet the owner's performance goals. While avoiding design flaws, CxA prioritizes commissionability and functionality.

Learning Objectives

- Introduction & Design Phase Overview
- Design Phase Objectives
- Commissioning Team
- Design Phase Activities
- Systems Typically Commissioned
- Prepare a commissioning plan.
- Prepare specifications:
- Pre-Bid Conference
- Project Manual Review
- Commissioning Design Review
- Value Engineering
- Risk Management
- Design Commissioning Report

BEYOND SMART CITIES

INTRODUCTION

- After predesign, the schematic design phase occurs.
- Assuming the owner's commissioning authority participated in predesign in full, the CxA has complete knowledge of the owner's project requirements and can contribute to the success of the design phase.
- Before discussing design details, it is crucial to understand the relationship between the commissioning authority and the design professional.
- The CxA is responsible for assisting the design professional in achieving the optimal system design for the project and ensuring that the DP's preferred design concepts meet all performance objectives outlined in the owner's project specifications.
- During design, keep in mind the owner's building commissioning quality assurance process's two main principles: The commissioning body guarantees quality.



DEFINITION AND PURPOSES OF COMMISSIONING



Commissioning is a process - a systematic process of ensuring that a building performs in accordance with the design intent, contract documents, and the owner's operational needs.

Commissioning Review. The commissioning review is a collaborative review of the design professionals design documents for items pertaining to the following: owner's project requirements; basis of design; operability and maintainability (O&M) including documentation; functionality; training; energy efficiency, control systems' sequence of operations including building automation system features; commissioning specifications and the ability to functionally test the systems. This review is not a holistic "peer" review.

BEYOND SMART CITIES



Basis of Design (BOD):The documentation by the design team of the primary thought processes and assumptions behind design decisions that are made to meet the Owner's Project Requirements. The BOD describes the assumptions used for sizing and selection of systems (i.e. codes, standards, operating conditions, design conditions, weather data, interior environmental criteria, other pertinent design assumptions, etc.).

Owner’s Project Requirements (OPR). A written document that details the requirements of a project and the expectations of how it will function. These include project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.

Adjusting: The varying of system flows by partial- ly closing balancing devices, such as dampers and valves, and varying fan speeds to achieve optimum system operating conditions within design and in- stallation limitations.

Balancing: The methodical proportioning of air and hydronic flows through the system mains, branches, and terminal devices using acceptable procedures to achieve the specified airflow or hydronic flow within installation, testing and design limitations.

Testing: The use of specialized and calibrated instru- ments to measure parameters such as temperature, pressure, vapor flow, airflow, fluid flow, fluid quan- tities, rotational speed, electrical characteristics, velocity, sound and vibration level, air and hydronic quantities, and other data in order to determine per- formance, operation, or function.

BEYOND SMART CITIES

CONTACT US

+91 6363032722

info@beyondsmartcities.in

learn.beyondsmartcities.in

#55,HMR Layout ,Bengaluru ,India



BEYOND SMART CITIES

COMMISSIONING SPECIALIST
BEYOND SMART CITIES

THANK YOU

