



level 4	Level 3 + resource supply management	0	+++	+++	0	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
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CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-01-IAMS-04	IAMS-04 Maintenance of Physical Systems	CMM-01 Intelligent Asset Management Systems										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
level 1	Performance and efficiency monitoring	0	+	+	0	+	0	0	0	0	0	+	0	+	+	0
level 2	Preventive O&M	0	++	++	0	++	0	0	0	0	0	++	0	++	++	0
level 3	Life-Cycle asset optimization	0	+++	+++	0	+++	0	0	0	0	0	+++	0	+++	+++	0
level 4	//	0	0	0	0	0	0	0	0	0	0	+++	0	+++	+++	0
















CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-01-IAMS-05	IAMS-05 Maintenance of Virtual Systems	CMM-01 Intelligent Asset Management Systems										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
level 1	Sufficient technical features/functions	0	+	+	0	+	0	0	0	0	0	+	0	+	+	0
level 2	Level 1 + Integration and Interoperability control	0	++	++	0	++	0	0	0	0	0	++	0	++	++	0
level 3	Level 2 + performance tracking and optimization	0	+++	+++	0	+++	0	0	0	0	0	+++	0	+++	+++	0
level 4	//	0	0	0	0	0	0	0	0	0	0	+++	0	+++	+++	0
















Input Pillar: Controls, Monitoring, and Management

Domain: CMM-02 Intelligent Energy Management

CMM-02-IEM

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-01	IEM-01 Energy Demand Prediction	CMM-02 Intelligent Energy Management										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Historical data analysis	0	+	+	+	0	0	+	0	0	0	+	+	+	+	
level 2	Building energy simulation	0	++	++	++	0	0	++	0	0	0	++	++	++	++	
level 3	AI-based demand prediction	0	+++	+++	+++	0	0	+++	0	0	0	+++	+++	+++	+++	
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-02	IEM-02 Energy Efficiency Monitoring & Management	CMM-02 Intelligent Energy Management										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual energy auditing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Conventional energy management systems	0	+	+	+	+	0	+	0	0	0	+	+	+	+	
level 3	Integrated EMS	0	++	++	++	++	0	++	0	0	0	++	++	++	++	
level 4	DSO-based monitoring and management	0	+++	+++	+++	+++	0	+++	0	0	0	+++	+++	+++	+++	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-03	IEM-03 Energy Performance Optimization	CMM-02 Intelligent Energy Management										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Systems auditing and commissioning	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Level 1 + parametric performance optimization	0	+	+	+	+	0	+	0	0	0	+	+	+	+	
level 3	Level 2 + occupants training program	0	++	++	++	++	0	++	0	0	0	++	++	++	++	



CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-07	IEM-07 Grid Integration System	CMM-02 Intelligent Energy Management										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFF-01 Reduced Project Delivery Time and Cost 	EFF-02 Savings from Facility and Asset Management 	EFF-03 Savings from Higher Water and Energy Efficiency 	EFF-04 Increased Appraisal Value and ROI 	EFF-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Micro-grid off-line integration	0	+	+	+	+	0	+	+	0	0	+	+	+	+	0
level 2	Grid on-line integration	0	++	++	++	++	0	++	++	0	0	++	++	++	++	0
level 3	DSO-based grid integration	0	+++	+++	+++	+++	0	+++	+++	0	0	+++	+++	+++	+++	0
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-08	IEM-08 Energy Fault/Fraud Detection	CMM-02 Intelligent Energy Management										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFF-01 Reduced Project Delivery Time and Cost 	EFF-02 Savings from Facility and Asset Management 	EFF-03 Savings from Higher Water and Energy Efficiency 	EFF-04 Increased Appraisal Value and ROI 	EFF-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Conventional energy auditing	0	+	+	0	+	0	+	+	0	0	+	+	+	+	0
level 2	FDD-based fault/fraud detection	0	++	++	0	++	0	++	++	0	0	++	++	++	++	0
level 3	Level 2 + DSO-based fault/fraud detection	0	+++	+++	0	+++	0	+++	+++	0	0	+++	+++	+++	+++	0
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-09	IEM-09 Smart Appliances/Devices Control	CMM-02 Intelligent Energy Management										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFF-01 Reduced Project Delivery Time and Cost 	EFF-02 Savings from Facility and Asset Management 	EFF-03 Savings from Higher Water and Energy Efficiency 	EFF-04 Increased Appraisal Value and ROI 	EFF-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Device-specific control	0	+	+	+	0	0	+	+	0	+	+	0	0	0	
level 2	Device control by central hub	0	++	++	++	0	0	++	++	0	++	++	0	0	0	
level 3	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-02-IEM-10	IEM-10 Carbon Footprint Reduction Program	CMM-02 Intelligent Energy Management										Project Delivery				



Input Pillar: Controls, Monitoring, and Management

Domain: CMM-03 Building Occupants' Experience

CMM-03-BOE

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-03-BOE-01	BOE-01 Occupancy Data Analytics	CMM-03 Building Occupants' Experience										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Occupants' health and wellbeing	0	+	+	0	+	+	+	+	+	+	0	0	0	+	
level 2	Performance evaluation	0	++	++	0	++	++	++	++	++	++	0	0	0	++	
level 3	Demand Side Management	0	+++	+++	0	+++	+++	+++	+++	+++	+++	0	0	0	+++	
level 4	Building systems controls	0	++++	++++	0	++++	++++	++++	++++	++++	++++	0	0	0	++++	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-03-BOE-02	BOE-02 Building's Dashboards & Portals (Content)	CMM-03 Building Occupants' Experience										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Single-purpose portal/app	0	+	+	0	0	+	+	+	+	+	0	0	0	+	
level 2	Multi-purpose portal/app	0	++	++	0	0	++	++	++	++	++	0	0	0	++	
level 3	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-03-BOE-03	BOE-03 Building's Dashboards & Portals (Accessibility)	CMM-03 Building Occupants' Experience										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Interactive building dashboard	0	+	+	0	0	+	+	+	+	+	0	0	0	+	
level 2	Room-designated interactive dashboard	0	++	++	0	0	++	++	++	++	++	0	0	0	++	
level 3	Level 2 + web-based portal and mobile application	0	+++	+++	0	0	+++	+++	+++	+++	+++	0	0	0	+++	





Input Pillar: Controls, Monitoring, and Management

Domain: CMM-04 Safety and Security Controls

CMM-04-SSC

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-04-SSC-01	SSC-01 Emergency Communication and Alarm System	CMM-04 Safety and Security Controls										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Alarm and emergency lighting system	0	+	0	0	0	+	+	0	0	0	0	0	0	0	
level 2	Basic central alarming system	0	++	0	0	0	++	++	0	0	0	0	0	0	0	
level 3	Advanced central alarming system	0	+++	0	0	0	+++	+++	0	0	0	0	0	0	0	
level 4	Integrated alarming system	0	++++	0	0	0	++++	++++	0	0	0	0	0	0	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-04-SSC-02	SSC-02 Security Monitoring and Control	CMM-04 Safety and Security Controls										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Unauthorized access/occupancy detection	0	+	0	0	0	+	+	+	0	0	0	0	0	0	
level 2	Level 1 + real-time automated monitoring of security measures	0	++	0	0	0	++	++	++	0	0	0	0	0	0	
level 3	Level 2 + security incidents' response and recovery	0	+++	0	0	0	+++	+++	+++	0	0	0	0	0	0	
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-04-SSC-03	SSC-03 Physical Systems' Safety Monitoring and Control	CMM-04 Safety and Security Controls										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Building's systems failure detection and reporting	0	+	0	+	0	+	0	0	+	0	0	0	0	0	
level 2	Level 1 + real-time automated monitoring of safety measures	0	++	0	++	0	++	0	0	++	0	0	0	0	0	
level 3	Level 2 + safety incidents' response and recovery	0	+++	0	+++	0	+++	0	0	+++	0	0	0	0	0	



Input Pillar: Controls, Monitoring, and Management

Domain: CMM-05 Heating/Cooling Monitoring and Control

CMM-05-HCMC

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-05-HCMC-01	HCMC-01 Heating/Cooling Emission Control	CMM-05 Heating/Cooling Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Central control for all area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Zone-based control	0	+	+	+	0	0	0	+	0	+	+	+	0	+	
level 3	BMS-enabled zone-based control	0	++	++	++	0	0	0	++	0	++	++	++	0	++	
level 4	Level 3 + real-time monitoring	0	+++	+++	+++	0	0	0	+++	0	+++	+++	+++	0	+++	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-05-HCMC-02	HCMC-02 Chilled Water Distribution Control	CMM-05 Heating/Cooling Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual control (fixed setpoint)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Schedule-based control	0	+	+	+	0	0	0	+	0	+	0	0	+	+	
level 3	Demand-based control	0	++	++	++	0	0	0	++	0	++	0	0	++	++	
level 4	//	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-05-HCMC-03	HCMC-03 Distribution Pumps Control	CMM-05 Heating/Cooling Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Variable capacity control	0	+	+	+	0	0	0	+	0	+	0	0	+	+	
level 3	Load-based control	0	++	++	++	0	0	0	++	0	++	0	0	++	++	



Input Pillar: Controls, Monitoring, and Management

Domain: CMM-06 Ventilation Monitoring and Control

CMM-06-VMC

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-06-VMC-01	VMC-01 Supply Air Flow Monitoring/Control	CMM-06 Ventilation Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual control (fixed setpoint)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Time-based control	0	+	+	+	0	0	+	0	+	0	+	+	+	0	
level 3	Occupancy-based control	0	++	++	++	0	0	++	0	++	0	++	++	++	0	
level 4	Demand-based control	0	+++	+++	+++	0	0	+++	0	+++	0	+++	+++	+++	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-06-VMC-02	VMC-02 Exhaust Air Flow Monitoring/Control	CMM-06 Ventilation Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual control (fixed setpoint)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Time-based control	0	+	+	+	0	0	+	0	+	0	+	+	+	0	
level 3	Occupancy-based control	0	++	++	++	0	0	++	0	++	0	++	++	++	0	
level 4	Demand-based control	0	+++	+++	+++	0	0	+++	0	+++	0	+++	+++	+++	0	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-06-VMC-03	VMC-03 Indoor Air Temperature Monitoring/Control	CMM-06 Ventilation Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Variable-capacity control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Time-based control	0	+	+	+	0	0	+	0	+	0	+	+	+	0	
level 3	Demand-based control	0	++	++	++	0	0	++	0	++	0	++	++	++	0	


















































Input Pillar: Controls, Monitoring, and Management

Domain: CMM-07 Hydraulics Monitoring and Control
















CMM-07-HMC

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-07-HMC-01	HMC-01 Hot Water Storage Charging Control	CMM-07 Hydraulics Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual control (fixed setpoint)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Time-based control	0	+	+	+	0	0	0	+	+	0	+	0	+	+	
level 3	Occupancy-based control	0	++	++	++	0	0	0	++	++	0	++	0	++	++	
level 4	Demand-based control	0	+++	+++	+++	0	0	0	+++	+++	0	+++	0	+++	+++	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-07-HMC-02	HMC-02 Control of Hot Water Storage Temperature	CMM-07 Hydraulics Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Manual control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Time-based Control	0	+	+	+	0	0	0	+	+	0	+	0	+	+	
level 3	Demand-based Control	0	++	++	++	0	0	0	++	++	0	++	0	++	++	
level 4	//	0	+++	+++	+++	0	0	0	+++	+++	0	+++	0	+++	+++	

CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-07-HMC-03	HMC-03 Control of Hot Water Circulation Pump	CMM-07 Hydraulics Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 1	Time-based Control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
level 2	Demand-based Control	0	+	+	+	0	0	0	+	+	0	+	0	+	+	
level 3	//	0	++	++	++	0	0	0	++	++	0	++	0	++	++	

level 4	//	0	+++	+++	+++	0	0	0	+++	+++	0	+++	0	+++	+++	+++
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CODE	CAPABILITY	DOMAIN										INPUT PILLAR				
CMM-07-HMC-04	HMC-04 Water Efficiency Evaluation & Visualization	CMM-07 Hydraulics Monitoring and Control										Project Delivery				
LEVEL OF INTELLIGENCE INDICATORS		IMPACT/ OUTCOME PILLARS & DOMAINS														
		EFI-01 Reduced Project Delivery Time and Cost 	EFI-02 Savings from Facility and Asset Management 	EFI-03 Savings from Higher Water and Energy Efficiency 	EFI-04 Increased Appraisal Value and ROI 	EFI-05 Savings from Capital Expenditure 	SBI-01 Increased Safety, Security, and Emergency Response 	SBI-02 Increased Access to Information and Occupants Control 	SBI-03 Increased Comfort and Convenience 	SBI-04 Improved Equity, Diversity, and Inclusion 	SBI-05 Increased Productivity, Health and Wellbeing 	ENVI-01 Reduced Waste Generation 	ENVI-02 Increased Use of Renewables and Grid Stability 	ENVI-03 Efficient Use of Natural Resources 	ENVI-04 Improved Environmental Impacts 	ENVI-05 Increased Water Efficiency and Demand Control 
level 0	None	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
level 1	Basic Water Efficiency Visualization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
level 2	Advanced Water Efficiency Visualization	0	+	+	+	0	0	+	+	0	0	+	0	0	0	+
level 3	Level 2 + Analysis & Optimization	0	++	++	++	0	0	++	++	0	0	++	0	0	0	++
level 4	//	0	+++	+++	+++	0	0	+++	+++	0	0	+++	0	0	0	+++