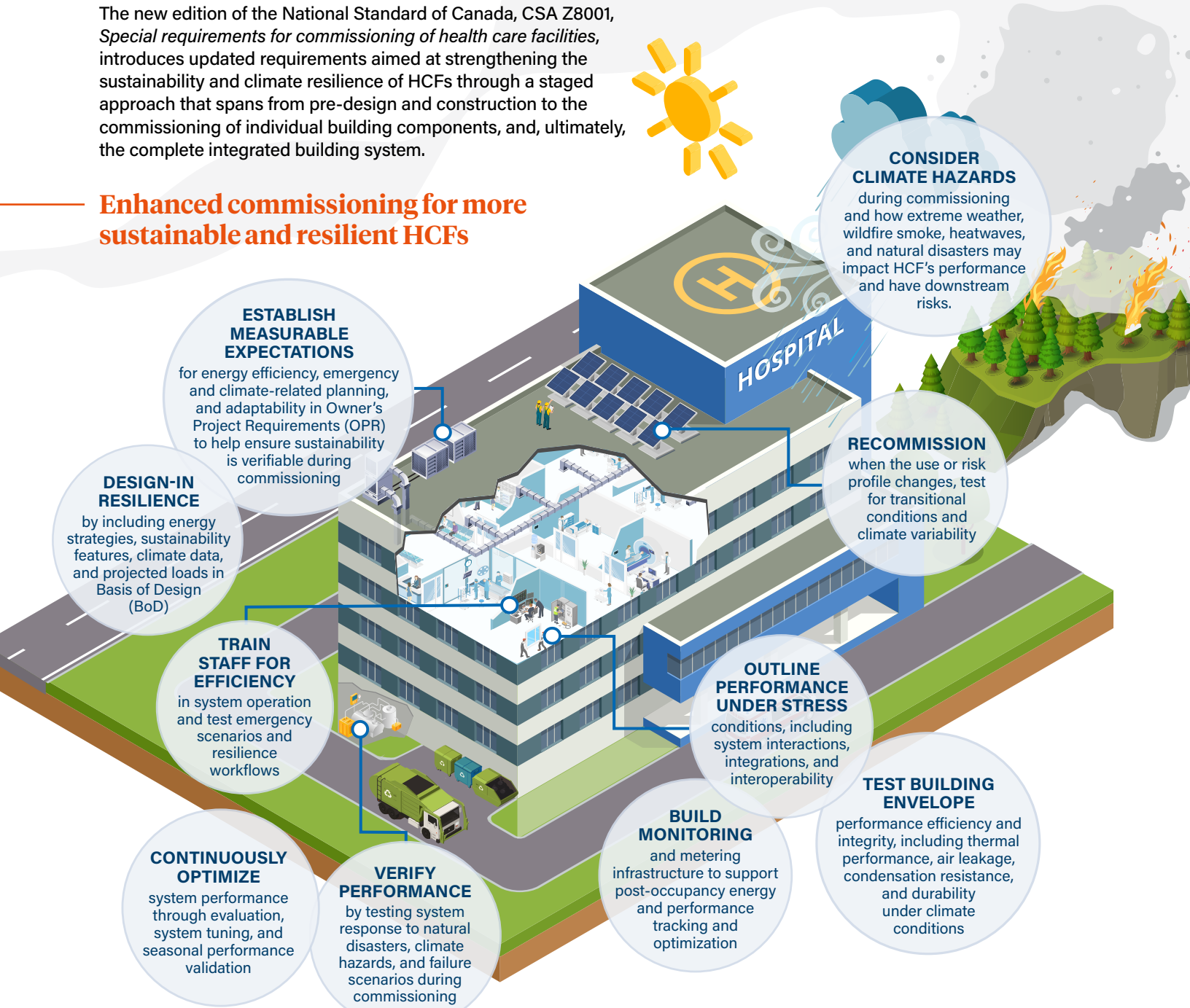
Improving resilience and sustainability of health care facilities through commissioning

CSA Z8001:26, *Special requirements for commissioning of health care facilities*

Health care facilities (HCFs) rely on complex, interrelated systems that support diagnosis, treatment, life support, infection prevention and control, and other essential functions. Because of the critical role of these systems, commissioning of HCFs is significantly more rigorous than in other types of buildings. It involves a systematic, continuous process of documenting, verifying, and analyzing data to assess whether the HCF operates in conformity with the building requirements and original building design and to take corrective action to optimize equipment or system performance. Commissioning of HCFs helps ensure that building systems consistently support safe and effective care delivery and contribute to reducing energy and resource consumption, lowering emissions, and improving the sustainability and climate resilience of HCFs.

The new edition of the National Standard of Canada, CSA Z8001, *Special requirements for commissioning of health care facilities*, introduces updated requirements aimed at strengthening the sustainability and climate resilience of HCFs through a staged approach that spans from pre-design and construction to the commissioning of individual building components, and, ultimately, the complete integrated building system.

Enhanced commissioning for more sustainable and resilient HCFs



CONSIDER CLIMATE HAZARDS
during commissioning and how extreme weather, wildfire smoke, heatwaves, and natural disasters may impact HCF's performance and have downstream risks.

ESTABLISH MEASURABLE EXPECTATIONS
for energy efficiency, emergency and climate-related planning, and adaptability in Owner's Project Requirements (OPR) to help ensure sustainability is verifiable during commissioning

DESIGN-IN RESILIENCE
by including energy strategies, sustainability features, climate data, and projected loads in Basis of Design (BoD)

RECOMMISSION
when the use or risk profile changes, test for transitional conditions and climate variability

TRAIN STAFF FOR EFFICIENCY
in system operation and test emergency scenarios and resilience workflows

OUTLINE PERFORMANCE UNDER STRESS
conditions, including system interactions, integrations, and interoperability

TEST BUILDING ENVELOPE
performance efficiency and integrity, including thermal performance, air leakage, condensation resistance, and durability under climate conditions

BUILD MONITORING
and metering infrastructure to support post-occupancy energy and performance tracking and optimization

CONTINUOUSLY OPTIMIZE
system performance through evaluation, system tuning, and seasonal performance validation

VERIFY PERFORMANCE
by testing system response to natural disasters, climate hazards, and failure scenarios during commissioning

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Who should use the standard?

- Architects
- Engineers
- Contractors
- Facility and maintenance managers
- Health care staff
- Federal, provincial, and territorial governments and regulators

Adopting the recommendations of the standard CSA Z8001:26 can help:

Enhance climate resilience
and system reliability to disruptions by testing system performance under climate hazards

Improve the energy performance and sustainability outcomes
of an HCF by embedding energy efficiency goals, targets, and performance tracking throughout the system lifecycle

Advance system coordination
through a structured, team-based commissioning process emphasizing integration and interoperability of complex systems supporting the health care facility

Reduce lifecycle costs
and the number of operational issues by defining requirements for sustainability and climate adaptation early on, and verifying against them on a regular basis

Strengthen operational readiness
by training staff to operate the facility effectively from day one and offering continuing training opportunities

Get CSA Z8001:26

csagroup.org/store
healthcareandwellbeing@csagroup.org

For more on CSA Group research and standards for more resilient and sustainable health care facilities, visit csagroup.org/ResilientHCF

This work was funded by the Standards to Support Resilience in Infrastructure Program at the Standards Council of Canada (SCC). For more on what SCC is doing to address climate-resilient infrastructure, visit the Climate and Sustainability web page.

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