

CHALLENGE STATEMENTS

The infographic displays four challenge statements in a vertical stack, each with a circular icon on the left and a logo on the right. The statements are:

- #1: Encouraging Building Tenants to Reduce Energy Use and Increase Sustainability** (Icon: Person at a computer with buildings; Logo: BCA)
- #2: Use Big Data to Improve Operations and Maintenance of Buildings** (Icon: Buildings with data points; Logo: jtc)
- #3: Managing Outdoor Spaces** (Icon: Outdoor area with trees and a person; Logo: jtc)
- #4: Creating a Zero-Carbon District** (Icon: City skyline with a green path; Logo: NCCS)

Challenge statements	Background	Criteria for proposed solution
1. Encouraging Building Tenants to Reduce Energy Use and Increase Sustainability	<ul style="list-style-type: none"> Participants are to design a technology-based solution or application to incite behavioral changes towards reducing energy consumption and cultivation of good sustainable habits. Some examples of effective solutions can be through gamification and easy access to energy usage data. 	<ul style="list-style-type: none"> Address how the solution/application motivates and encourages green behaviour Increase awareness on the impact of occupant behaviour on environmental sustainability Empower tenants with the ability to make greener decisions Must not compromise the building's overall efficiency and operations Must not compromise building information system's security
2. Transforming Operations and Maintenance of Green Buildings with Big Data	<ul style="list-style-type: none"> Participants are to design a system (or dashboard) to make it easy for building managers to identify the key areas in optimisation of building resource efficiency, while taking into account the day-to-day challenges of managing a building. 	<ul style="list-style-type: none"> Be easy and convenient for building managers to use in monitoring and maintaining the building Be energy efficient Facilitate resource optimization and management (i.e: energy, water, waste) within the building.
3. Managing Outdoor Spaces	<ul style="list-style-type: none"> Participants are to provide a technology-based solution to help enhance the experience 	<ul style="list-style-type: none"> Be easy and convenient for estate managers to use in estate management and for

	<p>of people using these site, making it more pleasant and comfortable, as well as to facilitate the maintenance, monitoring and overall management of these outdoor sites.</p>	<p>them to monitor and maintain the site</p> <ul style="list-style-type: none"> • Enhance the experience of people using the site • Be energy efficient • Solution has to be suitable for local tropical climate catering to the high temperature and humidity.
<p>4. Creating a Zero-Carbon District</p>	<ul style="list-style-type: none"> • Participants are to provide a technology-based solution to improve resource (e.g. electricity) efficiency at a district-level, to support the reduction of Singapore's carbon emissions and creation of zero-carbon districts. 	<ul style="list-style-type: none"> • Develop low carbon technologies and/or managing energy supply and demand across different building types within a cluster. • Optimise energy across different sectors (buildings, transport, industry, households, power) within a district.

More information on the Climate Innovation Challenge can be found here: <http://climateinnovation.sg/>