

## CapitaLand Green Fit-out Guide – Retail Tenants

[Green Lease version]

CapitaLand has always placed an emphasis on sustainable operations, in a bid to build people and communities for generations to come. With an extensive network of retail operations across countries, CapitaLand has committed to reducing energy use, water use, and waste disposal to lower its overall environmental footprint. All tenants can play their parts in helping to achieve lower carbon emissions by following these simple sustainable practices. In addition to cost savings, sustainable practices can also improve the overall well-being of both the building occupants and the customers.

This Guide focuses on **sustainable practices in five areas**. It aims to help our tenants enhance the performance of the retail space and reduce its environmental impacts.

- 1) **Energy Conservation**
- 2) **Water Conservation**
- 3) **Proper Waste Management**
- 4) **Green Purchasing**
- 5) **Better Indoor Environment Quality (IEQ)**

### Benefits of Going Green:



**Reduce Utilities Bills**



**Save Energy, Water and Material**



**Protect the Environment**



**Reduce Carbon Emissions**



**Improve Health and Well-being**



**Boost Companies Image on Sustainability Efforts**

### Energy Conservation

WHY is it important?	HOW can we improve it?						
<p>Increased energy usage leads to more greenhouse gas emissions, the leading cause of global warming and climate change.</p>	<p><b>Lighting</b></p> <ul style="list-style-type: none"> <li>• <b>Choose high efficiency lights and fittings, e.g. LED (light-emitting diode) lamps.</b> LED lamps can save up to 80% energy compared to halogen lamps and about 40% compared to fluorescent lamps.</li> <li>• Avoid ‘over-design’ of lighting level.</li> <li>• Achieve the following power lighting budget (LPB), or the LPB stated in local code of practice/green certification requirements or stipulated in tenancy agreement, whichever is more stringent</li> </ul> <table border="1" data-bbox="679 595 1394 801"> <thead> <tr> <th>Retail Type</th> <th>LPB</th> </tr> </thead> <tbody> <tr> <td>Retail including accent, display, decorative lighting</td> <td>≤ 22 W/m<sup>2</sup></td> </tr> <tr> <td>F&amp;B including dining area &amp; food preparation area, accent, display, decorative lighting</td> <td>≤ 15 W/m<sup>2</sup></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• Use dimmers so that light can be adjusted accordingly.</li> <li>• Implement lighting zoning so that you can switch off areas where lightings are not required</li> </ul> <p><b>Air-conditioning and Other Equipment</b></p> <ul style="list-style-type: none"> <li>• <b>Choose energy-efficient equipment, and air-conditioning system if supplementary cooling is required.</b> Where available, look for rating/labelling administered by a national government ministry/agency <i>Refer to Annex A for the list of local green product directories.</i></li> <li>• Set the temperature at 24 °C – 26 °C and heater thermostat at 18 °C – 20 °C.</li> <li>• Select the right capacity for appliances and equipment for daily operational needs. Oversized equipment may result in less efficient operation and energy wastage.</li> <li>• Add insulation or upgrade insulation for electrical units. (e.g. improved compartmental insulation on steamers and kettles to reduce heat loss to the kitchen and standby energy consumption).</li> <li>• Switch off all electrical appliances when not in use.</li> </ul> <p><b>Metering and Control</b></p> <ul style="list-style-type: none"> <li>• <b>Install sub-meter to monitor electricity usage by type</b> (e.g. electricity consumption of cold room, etc.).</li> <li>• Install motion sensors for non-retail area (e.g. store room, etc.).</li> </ul> <p><b>** Good maintenance practices optimise equipment efficiency and helps to extend the service life of your equipment, which translates into dollar saving.</b> Carry out preventative maintenance or cyclical maintenance as per manufacturer’s specifications to maintain optimal operational efficiency for mechanical and electrical equipment.</p>	Retail Type	LPB	Retail including accent, display, decorative lighting	≤ 22 W/m <sup>2</sup>	F&B including dining area & food preparation area, accent, display, decorative lighting	≤ 15 W/m <sup>2</sup>
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### Water Conservation

WHY is it important?	HOW can we improve it?
<p>Fresh and clean water is a limited resource. Water conservation enables us to use our existing supply of water more efficiently.</p>	<ul style="list-style-type: none"> <li> <b>Choose water-efficient fittings and appliances.</b> Water efficient fittings can help to reduce water flow and usage. Look for rating/labelling administered by a national government ministry/agency.                     </li> </ul> <div style="text-align: center;">  <p>← Singapore's PUB Water Efficiency Label</p> <p>(More ticks indicate higher water savings)</p> </div> <p><i>Refer to <b>Annex A</b> for the list of local green product directories.</i></p> <ul style="list-style-type: none"> <li> <b>Install water meter and leak detector</b> to monitor consumption and identify water leakages. Regular monitoring will provide first-hand information to come up with corrective action quickly.                     </li> </ul>

### Proper Waste Management

WHY is it important?	HOW can we improve it?
<p>Reducing waste helps to prevent land, water and air pollution, and reduces carbon footprint.</p>	<ul style="list-style-type: none"> <li> <b>Ensure proper waste disposal by supporting CapitaLand's waste recycling programme.</b> Ensure recyclables (e.g. paper, plastic, e-waste, etc.) are segregated and disposed of at the recycling bins provided.                     </li> <li>Engage licensed recycling waste collector, where available.</li> <li>Require fit-out contractor to recycle/re-use construction waste.</li> <li> <b>Refurbish pre-used visual merchandising props</b> in good condition to create new display and avoid materials wastage.                     </li> <li>Promote active reduction in packaging waste and the use of packing with recycled and recyclable content, where possible.</li> <li>Avoid usage of disposable packaging materials such as Styrofoam containers and single-use plastic. Encourage customers to bring their own bags.</li> <li>Store food properly and understand expiration dates to reduce food waste.</li> <li>Re-purpose leftover food scraps or donate them.</li> <li>Practice digital marketing and encourage printing double-sided to save paper.</li> </ul>

### Green Purchasing

WHY is it important?	HOW can we improve it?
<p>Green products have a lesser impact on the environment and human health.</p>	<ul style="list-style-type: none"> <li> <p><b>Choose materials and products from sustainable sources</b> e.g. wood-based materials that are Forest Stewardship Certification (FSC) certified, other sustainable materials such as composite wood, or rapidly renewable natural materials such as bamboo. Choose paper products with recycled content and non-chlorine bleaching.</p> <div data-bbox="730 501 1098 663" style="text-align: center;"> </div> <p>(Examples of FSC labels)</p> </li> <li> <p><b>Look for environmentally friendly materials with recognized green certification</b> (e.g. ceiling board, drywall / partition wall, adhesives, water proofing membrane, autoclaved concrete etc.). <i>Refer to Annex A for the list of local green product directories.</i></p> </li> <li> <p>Choose furniture which are modular systems and/or mobile units which facilitate subsequent removal and reuse.</p> </li> <li> <p><b>Avoid over-ordering products and/or materials</b> to reduce wastage. Use suppliers who can take back any unused, excess products or materials. Request supplier to consolidate packaging or reduce packaging material for purchased goods.</p> </li> <li> <p><b>Source for material and products that are extracted/manufactured locally or within the region</b>, thereby supporting the use of indigenous resources and reducing environmental impact resulting from transportation.</p> </li> <li> <p>Avoid materials with Ozone Depleting Substances (ODS) and high Global Warming Potential (GWP) (e.g. Chlorofluorocarbon (CFC) or Hydrofluorocarbons (HFC) as refrigerants, Halon in fire extinguishers, etc.)</p> </li> </ul>

### Better Indoor Environmental Quality

WHY is it important?	HOW can we improve it?
<p>Indoor environmental quality is important for both the building occupants and visitors' health and well-being.</p>	<ul style="list-style-type: none"> <li> <p><b>Choose green products</b> with lower levels of harmful emissions, e.g. low volatile organic compound (VOC) content for paint, carpet, adhesives glue, etc. <i>Refer to Annex A for the list of local green products directories.</i></p> </li> <li> <p><b>Use eco-friendly products, non-toxic, non-hazardous chemicals for cleaning.</b></p> </li> <li> <p>Provide extra exhaust capacity and make up air for areas where chemicals may be present or used (e.g. hair salons, etc.).</p> </li> </ul>

### Acknowledgement to this Guide

By signing below, we acknowledge that we have read and understood the  
CapitaLand Green Fit-out Guide – Retail Tenants (Green Lease Version)

Company Name: \_\_\_\_\_

Name of the Authorised Representative: \_\_\_\_\_

Designation of the Authorised Representative: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### Annex A

The list below comprises of green product certification directories/green building guides of various countries.

<b>Singapore</b>	<a href="#">National Environment Agency (NEA) Mandatory Energy Labelling Scheme</a> <a href="#">Singapore Green Building Product (SGBP) labelling scheme</a> <a href="#">Singapore Green Labelling Scheme (SGLS)</a> <a href="#">Water Efficiency Labelling Scheme (WELS) rated products</a>
<b>China</b>	<a href="#">中国环境标志获证企业：十环认证数据资源</a>
<b>Japan</b>	<a href="#">Eco Mark Certified Products</a>
<b>Malaysia</b>	<a href="#">Water Efficient Product Labeling Scheme (WEPLS)</a>
<b>Indonesia</b>	<a href="#">Green Product Council Indonesia (website in-progress)</a> <a href="#">Green Listing Indonesia</a>