Sustainability Mission
HKUST will become a global leader in sustainability education by transforming the Clear Water Bay campus into a carbon-neutral, zero waste, and net-positive environmental impact living laboratory for experiential learning, demonstrating cutting-edge research and sustainable operations within a vibrant and engaged community.

Summary of Plan
The Long term vision will be initially implemented through a five-year plan called the HKUST 2020 Sustainability Challenge. The Plan entails four Focus Areas:

- **Sustainability Education**, with leadership provided by the EVPP, where new sustainability curricula will be developed as well as a series of support structures that assist faculty in teaching sustainability across the curriculum.

- **Operations**, with leadership provided by VPAB, where the energy, greenhouse gases, and landfill waste are systemically reduced.

- **Demonstration** of sustainability-related research on campus, with leadership provided by VPRG and VPAB, to showcase new ideas and solutions to sustainability challenges.

- **The HKUST Community**, with leadership provided by the President, where a community-oriented Sustainability Network is established to communicate and share ideas on creating a sustainable campus environment.

The Plan also envisions the development of a Sustainability Center, complementing all four of the focus areas and creating a visible signature space that highlights HKUST research, progress towards our goals, cutting edge technologies, and a celebration of sustainability as a learning lab.

The Plan will be accompanied by elements of HKUST’s communications strategies, most immediately nesting the launch of the Plan within the 25th anniversary celebrations, so that the long-term vision and the short-term plan are clear and visible to members of the HKUST community.

The immediate next steps for each of these four areas of focus, along with the basic elements of how they may connect with the communications plan, follow.
Education Focus Area

Leadership provided by HKUST EVPP

– Overview

The commitment of the Education Focus is to align the activities of the next five years to begin building the shape of the Vision for sustainability, stressing that the University aspires to be:

A global leader in sustainability education through transforming the campus into a living laboratory for experiential learning.

The immediate objectives of the Education Focus Area within the five-year Plan are to (1) construct a sustainability curricular framework; (2) strengthen the administrative and academic connections between the operations and academic sectors of the university to help develop the physical capacity to utilize the campus and grounds as a “living laboratory” for experiential learning in sustainability; and (3) strengthen the support networks available to faculty members to assist with teaching sustainability across different disciplines and curricula (Appendix A).

Coordination Expectations

The Associate Provost will oversee the engagement of the HKUST faculty to develop a consensus on the shaping of the curriculum, as well as the needs of faculty in regards to support for teaching sustainability across the curriculum. The Associate Provost will also coordinate with the Sustainability Unit to expand access to operational areas of the campus to build on experiential learning opportunities and demonstration of faculty research.

Next Steps 2015/16

It is proposed that a Task Force is formed under the Associate Provost (T&L) with David Mole as secretary, represented by two or three interested faculty from each School and IPO.

The Task Force will be responsible for exploring this issue and developing concrete recommendations and guidance for moving forward.

1. Analysis:
   - Review existing courses relevant for sustainability education.
   - Review best practices and approaches at other universities.
   - Meet with faculty and students.

2. Recommendations:
   - Options for embedding sustainability principles into senior-level coursework, final year projects, major options and so on:
     - Role of modules that enable students to gain an understanding of key sustainability features.
     - Best ways of embedding topics such as life-cycle costing, the social cost of carbon emissions, accounting for “value” compared to “costs,” change
management, systems and design thinking for sustainability.

- Role of inter-disciplinary foundation courses and discipline-related extensions and alignment with common core.
- Coordinated specialist courses and options for “sustainability across the curriculum” to create further opportunities for a sustainability education.
- Extension of relevant experiential learning opportunities.
- Role of general public-education events, lectures and projects.

The Task Force will be asked report progress to the Deans’ Meeting by end-2015, with a final report expected by the end of the 2015-16 academic year.

It is understood that adoption of any broad degree requirements depends on the successful implementation of relevant courses and student learning experiences, followed by wide consultation and approval through the normal process.

Connection to Communications Plan

The Plan may highlight specific examples of student projects that use the campus as a learning lab.

Funding

The annual budget is sufficient to cover coordination meetings and expenses. In the following years, the expectation is that support for teaching across the curriculum remaining may entail on-campus workshops, or funding to send interested faculty to these workshops abroad.

Linkage to other Plan Focus Areas

These efforts will connect the Energy and Waste Working Group and the Sustainability Network.

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**Vision:**

_Become a global leader in sustainability education_
Operations Focus Area

Leadership provided by HKUST VPAB

– Overview

The five year reduction targets were developed through a series of stakeholder meetings with faculty, students, and operations staff. The reduction goals anticipate the growth of the campus by roughly 74,000m², and are based on a wide range of reduction opportunities. The consensus from the stakeholder meetings was that the goals are aggressive, but achievable.

Coordination Expectations

This effort will leverage a new structure: an Executive Committee (ExCo), which will advise the VPAB on opportunities and expectations in staying on track with reduction goals (Appendix B.3). This Executive Committee will have two additional roles connecting to the Sustainability Network: (1) reviewing policies and procedures for each AB Unit and revising them into a set of Sustainable Unit Level Guidelines (Appendix B.5) for use by the Sustainability Network SMOs; and (2) reviewing, evaluating, and approving campus greening project ideas as developed by the Network Green Team (Appendix C.2).

The Energy & Waste Steering group will ensure that Plan activities impacting operations will be harmonized with operations staff, and will track projects and ensure their timely implementation. The Steering group will also supply technical details for the Communications teams. Additionally, FMO will assign two staff members – one for energy and one for waste – with primary responsibility of advancing the reduction goals. The Sustainability Unit will coordinate efforts of all groups, as well as serving as the liaison between these groups and the Network. The SU will also be responsible for collecting and analyzing metrics and annual performance data, supervising students and groups working on campus projects, and developing annual progress reports.

Next Steps 2015/16

- UAC adoption of measurable 2020 reduction targets (as set out in Appendix B.1 and B.2).
- Set up the ExCo (Appendix B.3) with the first priority of reviewing and revising policies and processes to generate Sustainability Guidelines for SMOs (Appendix B.5).
- Reassign two staff members – one as waste reduction specialist and another as energy reduction specialist – to devote their attention to exploring and implementing new opportunities (Appendix B.4).
- Install measurement equipment – scales and electricity meters - in order to gain a clear understanding of waste and electricity trends, progress, and other insights.
- Identify, develop, and install the first highly visible on-campus energy demonstration project as the model for future projects that showcase creative sustainability thinking and educational capacity for using the campus as a learning lab.
- Allocate funding and administrative framework for the Campus Green Fund for the support of hands-on student, staff, and faculty projects that improve the HKUST campus and contribute to its transition to a more sustainable physical landscape (Appendix B.6).

Reduction Goals

By 2020, through a combination of reductions and streamlining efforts, energy and GHG emissions will be reduced by 10% and waste by 50% (using 2013-14 as the baseline).
Connection to Communications Plan

The 25th anniversary may present the opportunity to highlight several HKUST energy research projects, and will be coordinated with on-campus visible/educational demonstration efforts. The reduction goals and the vision for the transformation of the campus should be expressed within marketing materials as “teasers” of what the next 25 years may hold for the university.

Funding

The funding for energy / GHG reductions is in two categories: the first is the ongoing annual expenses attributed to transitioning into a more aggressive energy efficiency framework. The second is specific project-oriented expenses, and the costs will vary by project, and will be evaluated through traditional means. The waste reduction funding will cover added expenses associated with building the infrastructure and contract staffing. The Campus Green Fund will provide the incentive for members of the HKUST community to become more actively involved. Also, it is noted that savings generated through the energy reduction measures will be calculated to show how the savings are being “recirculated” back into conservation.

Linkage to Other Plan Focus Areas

The reduction efforts will be supported by actions of individual members of the Network through their attention to and application of the Guidelines. Faculty support will complement the reduction efforts through connecting students with hands-on learning within the campus grounds.

Vision:

by transforming the campus into a carbon-neutral, zero waste, and net-positive environmental impact living laboratory for experiential learning

Organization Flow for Energy and Waste Reduction Goals

- VPAB: Presides and sets overall direction
- Executive Committee: VPAB, ABD Directors; Create expectations for operations; Identify areas of priority; Evaluate proposed projects; Review existing policies and procedures; develops Unit Level Guidelines
- Coordination: Sustainability Unit; Organize meetings and research, analysis, curate data, report progress
- Energy & Waste Steering: FMO, CSO, SHIBO; Organize range of reduction opportunities; Present options to ExCo; Implement approved initiatives
- Sustainability Network: Assist in identifying projects that help with carbon and waste reduction goals
- Faculty Support: Coordinate on campus research and demonstration projects that contribute to reduction goals
Demonstration Focus Area

Leadership provided by HKUST VPRG

– Overview

The vision for the university is the physical transformation of the campus environment into a learning laboratory. Over the next five years this vision will begin to take shape through the development and installation of demonstration projects in prominent locations. These demonstrations will include purely educational projects – such as low-level renewables easily visible and accessible for students as learning tools – and research projects from HKUST scholars, who can also have their projects prominently displayed to explain the theories and applications of their work. Additionally, the University will develop a dedicated permanent space – a Sustainability Center – in a highly visible, high traffic area for showcasing ideas, principles, and technical approaches to creative problem solving from a sustainability point of view (Appendix D).

Coordination Expectations

As a research-driven institution, the Plan envisions the ability to leverage the University’s strength of research to advance the sustainability goals. Simultaneously, the University can also demonstrate cutting edge technologies and approaches from around the world that are already proven tactics for making progress on sustainability objectives. These two important areas of focus will benefit from the leadership from both VPRG (for highlighting HKUST-driven research) and VPAB (for highlighting creative operational approaches).

Additionally, this Demonstration focus area has a natural connection to the educational mission of the University. With a growing emphasis on hands-on experiential learning, operations staff are becoming more directly involved with Student projects and interests. Consequently, the evolution of the campus into a “Learning Lab” will require the coordination of educational, operational, and research objectives.

The activities of this research and demonstration focus area will be coordinated with other elements of the Plan through the Associate Provost (for educational aspects) and the Sustainability Unit (for the operational aspects). The HKUST Energy Institute will serve as advisor and contributor to demonstration projects.

Next Steps 2015/16

- Design and develop proposal for a highly visible, education-oriented Sustainability Center to “pull back the curtain” on how campus buildings operate and the kinds of innovative technologies that are driving positive change within the campus.
• Explore ways of better highlighting existing research through showcasing those efforts in visible displays. Identify initial areas of focus that can be highlighted within the Sustainability Center. Add displays to campus guided tours.

• Identify interested University researchers to explore research areas of opportunity on campus. Develop joint applications for grants (e.g., flow batteries, in collaboration with the Energy Institute).

Connection to Communications Plan
PAO is currently developing a cross-cutting, thematic publication of HKUST-driven research, spotlighting advances and innovations. This publication can be a key tool in the communications of the sustainability goals and how HKUST researchers are contributing to solving 21st century issues.

Funding
Funding will largely come from existing FRBs and grant budgets, but may also benefit from Campus Green Funds if they meet the criteria. Additionally, projects that reduce energy and GHG may be eligible to use the anticipated savings for funding. Additionally, occasional “calls for proposals” will be announced from time to time.

Linkage to other Plan Focus Areas
These efforts will connect directly with the Energy & Waste Steering and Faculty Support groups.

Vision: demonstrating cutting-edge research and sustainable operations

Organization Flow for Sustainability Research and Demonstration

- VPRG: Presides and sets overall direction
- Energy & Waste Steering: Assess feasibility and operational logistics of demonstration projects
- HKUST Institutes: Advise and assist on energy and GHG demonstration projects, as well as focused on-campus research that drives sustainability goals.
- Faculty Support: Coordinate with Green Team and E&W Steering to explore more ways of using campus as a learning platform

Coordination
- Sustainability Unit: Coordinate activities that relate to operations
- Associate Provost: Coordinate educational-related activities
Community Focus Area

Leadership provided by HKUST President

— Overview

The central feature of the Community focus area is the creation of the Sustainability Network. The Network will comprise two groups: (1) Sustainability Management Officers (SMOs), who are members assigned to serve in an official capacity as their office or department’s representative (Appendix C.1); and (2) volunteers who form the Network Green Team (Appendix C.2). The groups will meet together at regular intervals throughout the year, and may hold additional meetings separately if warranted.

A key function of the SMOs will be to execute the Sustainable Unit Level Guidelines (Appendix B.5) as developed by the AB directors under the leadership of VPAB. These guidelines are intended to help promote actions and activities that will help the university in achieving its sustainability goals. Particularly, the guidelines are intended to make a difference at the department / unit level, where individuals have more influence in reducing environmental impacts and promoting a sustainability culture. The function of the Network Green Team is to embrace volunteers within the campus community who want to do more and would benefit from an organized structure. Both groups make up the Network and will be responsible for mutually supporting the collective actions of the University community.

Coordination Expectations

The Network will be coordinated by the Sustainability Unit (SU), with guidance and expectations set by the President. The SU will set up quarterly meetings, develop the agendas, identify the SMOs and the volunteers for the Network Green Team, and assist in the facilitation of Network-identified campus greening projects. The SU will also facilitate an annual green awards ceremony to recognize and reward key members of the Network.

Next Steps: 2015/16

- Write up expectations of SMOs and Network Green Team members, and work with divisional leaders to identify representatives (as SMOs).
- Develop detailed description of Network Green Team and recruit members.
- Organize the launch activity for the inaugural Network meeting as a half-day symposium, with a focus on identifying achievements for the first year.
- Coordinate with AB Directors to review and update University administrative and office policies, procedures, and standards, and use the finding to develop Unit Level Guidelines for use by the SMOs in their Units and Departments.
- Develop parameters for campus greening projects, along with scope and boundaries, so that Network members who identify project opportunities will know the process and budget.
limitations for implementing the ideas.

- Hold first Sustainability Achievement ceremony, corresponding with Earth Week activities, at end of year to highlight accomplishments of individual Network members.

Connection to Communications Plan

The launch of the inaugural half-day symposium of the Network will correspond with HKUST 25th anniversary activities so that it can achieve wide attention. The Network will benefit from active social networks, so Facebook, Instagram, and LinkedIn groups will be established to facilitate communication.

Funding

The annual budget is sufficient to cover the expenses of four quarterly meetings, including the half-day annual symposium. Funding will also cover the expenses of recognition awards to encourage greater adoption of sustainability principles within the HKUST community.

Linkage to other Plan Focus Areas

The Sustainability Network will have direct connections to the Faculty Support group within the Education Focus Area, and the Energy and Waste Working Group within the Operations Focus Area.
Implementation

On 3 June 2015 this Plan was presented to President Chan and his leadership team (the “G5”) and received comments and feedback, which have now been incorporated. Specifically, the leadership team agreed to the following:

1. **Proceed with the Plan**
   - **Proceed with the Plan**, with amendments based on the discussion.
   - **Get started this summer in the planning**, and prepare for official roll-out in the Fall. Work with VPIA’s team to ensure that we are aligning this effort with the 25th Anniversary priorities.
   - **Focus on strengthening Education section** to reflect EVPP’s priorities.

2. **Proceed with developing plans and options for a visible “Sustainability Center”**
   - **Evaluate space at the end of the concourse** (by LTJ) to see how that could work as a “shop window” for the Center’s exhibit location, as well as other locations, as practical.
   - **Evaluate connections to the larger projects** – explore ways this space can highlight the broader efforts taking place across the campus.

In addition, the leadership group expressed an interest to continue to develop and monitor key performance indicators (KPIs) for evaluation of progress and performance. The two most significant KPIs are the waste and energy reduction goals – real targets for 2020 that will require action and diligence to achieve. Other KPIs will be evaluated and added as we move forward, including:

- Performance of the Network (e.g., staff achievements, green team members and total projects completed).
- Elements within the Unit Level Guidelines (e.g., # of staff engagement activities, including modules within New Staff Orientation).
- Educational metrics – courses that contain or focus on sustainability-related themes or topics; # of students engaged in these courses; sustainability-related extra-curricular activities.

The leadership group also noted that small scale demonstration projects are practical, but potential large projects can have big impacts (example, sustainable waste water treatment, “living machine” water treatment, tying the water feature in LG7 to a solar project). Further points of emphasis:

- New buildings are opportunities – sustainability elements can be built in from the start.
- Space is important and want high visibility. See space outside Science School as example of underutilized space that could serve a better purpose.
- Need to have solid financial criteria for adding green elements into the buildings. Some elements for educational, PR, and excitement factors make sense, but we should challenge ourselves to make sure that these elements are financially reasonable and justified.
Appendix A – Education
   1. Appendix A: Teaching across the Curriculum

Appendix B – Operations
   2. Appendix B.1: Energy/GHG reduction
   3. Appendix B.2: Waste reduction
   4. Appendix B.3: Energy and Waste Executive Committee (ExCo)
   5. Appendix B.4: New Staff Roles for Energy and Waste
   6. Appendix B.5: Development of Sustainability Guidelines
   7. Appendix B.6: Green Campus Fund

Appendix C – Community
   1. Appendix C.1: Sustainability Management Officer (SMO)
   2. Appendix C.2: Network Green Team

Appendix D – Demonstration
   1. Appendix D: Examples of Demonstration Projects
Appendix A: Teaching Sustainability across the Curriculum

To prepare our students fully for the resource constrained challenges in the changing world, sustainability principles can be embedded in our education and skills training to create a meaningful multi-disciplinary curricular platform.

Teaching Sustainability across Disciplines Resources

Teaching and Learning for a Sustainable Future

This is UNESCO programme for the United Nations Decade of Education for Sustainable Development. It provides professional development for student, teachers, curriculum developers, education policy makers, and authors of educational materials.

Resources for Understanding & Teaching Sustainability from the University of Wisconsin Oshkosh

This searchable database includes academic publications, news articles, reports, videos, and websites, developed by the University of Wisconsin.

Learning for a Sustainable Future (LSF)

LSF helps educators engage students in addressing the complex economic, social and environmental challenges of the 21st century. The site includes professional development tools, lesson plans and materials to implement transformative learning.

Sustainability Improves Student Learning (SISL)

SISL is a group of academic associations and disciplinary societies working to increase students’ learning in undergraduate courses and better prepare them for the 21st-century challenges relating to environmental challenges and climate change. The site provides teaching resources to incorporate sustainability across disciplines.

Disciplinary Associations Network for Sustainability

This site provides a range of resources including “resources by discipline” and “resources that cross disciplines.” The “resources by discipline” section provides lists of publications available online about incorporating sustainability into different disciplines.

The Journal of Sustainability Education

JSE serves as a forum for academics and practitioners to share, critique, and promote research, practices, and initiatives that foster the integration of economic, ecological, and socio-cultural dimensions of sustainability within formal and non-formal educational contexts.

Learning and Teaching Sustainability

This site represents a community of Australian tertiary educators that is supported by the Australian Government. They aim to provide information on sustainability courses in tertiary institutions in Australia and to share innovative sustainability teaching materials.

2018 Update – A Sustainability Education Advisory Group (SEAG) and Sustainable Education Community of Practice (SEC) were formed to review and enhance curriculum, support faculty, and explore new ways of providing cutting edge sustainability education.
Appendix B.1: Energy/GHG Reductions

Energy and GHG Reduction Goal

*Through a combination of reductions and efficiency efforts, reduce energy and GHG emissions on the HKUST Clear Water Bay Campus by 10% by 2020 (using 2013-14 as the baseline).*

Growth Projections

The most recent complete set of data for the entire campus (academic year 2013-14) shows that the campus consumed a total of 94,200,000 kWh of energy\(^1\) giving it an energy intensity factor of 199.5 kWh/m\(^2\).

In the next five years, the Clear Water Bay campus is expected to grow by roughly 73,800 square meters. If we were to continue at the same energy intensity rate, by 2020 the campus would be consuming an additional 14,724,000 kWh. In the projection graph, this is the “Business as Usual” (BAU) trajectory. To reach the goal of reducing 10% below current levels, the university will need to eliminate 24,124,000 kWh by 2020, which brings that year’s consumption to 84,800,000 kWh. This represents a reduction of roughly 22% from the (BAU) trajectory.

For GHG, the reductions would follow the same trajectory. The main difference is that the emissions factor could be influenced by the electric utility (CLP) and that the reduction of harmful refrigerants will benefit the GHG reduction efforts.

Areas of Opportunity

Based on conversations and on-site analysis, the following is a partial listing of opportunity areas for further exploration.

\(^1\) Electricity, Towngas, and fuels, converted to kWh as the common unit.
<table>
<thead>
<tr>
<th>Reduction category</th>
<th>Example of reduction focus</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central plant-level upgrades</td>
<td>Chiller replacements, VS-drives on motors</td>
<td>High (short-term)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td>Central loop upgrades</td>
<td>Insulation of pipes, capture of condensate water</td>
<td>Low</td>
</tr>
<tr>
<td>Lighting upgrades</td>
<td>LEDs, timers, sensors, natural lighting</td>
<td>High (short-term)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low (short-term)</td>
</tr>
<tr>
<td>Building level upgrades</td>
<td>Ventilation controls, replacing CAV with VAV</td>
<td>Medium</td>
</tr>
<tr>
<td>Transportation</td>
<td>More efficient vehicles, alternative fuels</td>
<td>Low (short-term)</td>
</tr>
<tr>
<td>Building envelope</td>
<td>Insulation of walls, reflective window glazing</td>
<td>Medium</td>
</tr>
<tr>
<td>Efficient plug loads</td>
<td>Enforcing better standards for efficiency in equipment, appliances, computing</td>
<td>Medium</td>
</tr>
<tr>
<td>Landscaping</td>
<td>Placement of trees and living walls” in strategic locations to absorb solar heat gain</td>
<td>Low</td>
</tr>
<tr>
<td>On-site renewables</td>
<td>Heating, cooling, or direct generation of electricity</td>
<td>Low (short-term)</td>
</tr>
<tr>
<td>Behavior change of occupants</td>
<td>Occupant engagement, dashboards, incentives</td>
<td>Medium</td>
</tr>
<tr>
<td>Refrigerants</td>
<td>Switching to more climate friendly refrigerants; tightening controls to reduce accidental releases</td>
<td>Low</td>
</tr>
<tr>
<td>Building commissioning</td>
<td>Correcting “drift” of systems and optimizing equipment and sequences</td>
<td>High</td>
</tr>
<tr>
<td>Lab optimization</td>
<td>Controls and heat recovery; efficient equipment</td>
<td>High</td>
</tr>
<tr>
<td>Water efficiency</td>
<td>Reduce pumping energy</td>
<td>Low</td>
</tr>
<tr>
<td>New buildings and renovations</td>
<td>Incorporating high efficiency upgrades in all projects</td>
<td>Medium</td>
</tr>
<tr>
<td>Research into on-site demonstration</td>
<td>Utilizing cutting edge research from Energy Institute within buildings</td>
<td>Medium</td>
</tr>
<tr>
<td>Purchasing and office policies</td>
<td>Enforce most efficient equipment and appliances for all new purchases campus-wide (including canteens)</td>
<td>Medium</td>
</tr>
</tbody>
</table>

**Goal Specifications**

The following represents recommended action items for meeting the goal of cutting energy and GHG emissions by 10% by 2020.

1. As a policy, conduct a **comprehensive third-party energy audit** every three years to review energy systems, performance of equipment, software, reductions strategies, and new opportunities for efficiency measures. Each audit should include a full re-commissioning of at least one campus academic building (if not possible to re-commission all buildings).
2. Working with faculty, **adopt a consistent set of energy and financial parameters** to use when evaluating the feasibility of new energy efficiency projects, including an emphasis on life cycle accounting (LCA), net present value (NPV), and a reasonable “social cost of carbon.”

3. **Develop a funding mechanism** to support investments in energy efficiency renewable energy, and energy demonstration projects on campus. The mechanism should have clear and transparent sets of guidelines and for submitting project proposals.

4. **Adopt green building standards** for all new construction and renovations above 1,000 m2. For renovations smaller than 1,000 m2, implement a green checklist to ensure that all spaces capture available energy efficiency potential.

5. If renewable resources are not viable within new construction projects, ensure that the projects **make allowances in anticipation for the eventual installation of on-site renewables** once the resources become more cost competitive.

6. **Hire an FTE energy reduction specialist (engineer),** with the responsibility of reviewing systems, researching and testing new technologies, collaborating with the HKUST Energy Institute and researchers, collaborating with FMO to develop and manage projects, perform capital project design review, write funding proposals, and oversee the ongoing collection and analysis of data to ensure performance metrics are being met.

**2018 Update** – Specific action items are now underway and tracked through a “Project Scorecard,” which identifies the lead Office, the status of the projects, and the expected benefits once completed. The projects are developed at the beginning of each year and included in the year’s Action Plan.
Appendix B.2: Waste reductions

Waste Reduction Goal

Through a combination of reductions and recycling efforts, reduce waste on the HKUST Clear Water Bay Campus by 50% by 2020 (using 2013-14 as the baseline).

Areas of Opportunity

HKUST Current Performance 2014

<table>
<thead>
<tr>
<th>Waste produced on campus</th>
<th>tons/day</th>
<th>tons/year</th>
<th>Diversion</th>
<th>tons/year</th>
<th>Reductions</th>
<th>tons/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wai Hong Collected</td>
<td>5</td>
<td>1,825</td>
<td>Recycled paper</td>
<td>55</td>
<td>Yard sales / barter / give-take</td>
<td>25</td>
</tr>
<tr>
<td>Govn't collected dry waste</td>
<td>1</td>
<td>365</td>
<td>Recycled plastic</td>
<td>5</td>
<td>Procurement policies</td>
<td>0</td>
</tr>
<tr>
<td>LG1 &amp; GF restaurant chamber</td>
<td>0.5</td>
<td>183</td>
<td>Recycled metal</td>
<td>2</td>
<td>Green events strategies</td>
<td>0</td>
</tr>
<tr>
<td>Special waste (big event &amp; landscaping)</td>
<td>0.5</td>
<td>183</td>
<td>Recycled glass</td>
<td>0</td>
<td>Food waste / behaviors</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Donations to charity</td>
<td>5</td>
<td>Landscaping</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food compost</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>E-wastes</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wood</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>2,555</td>
<td></td>
<td>97</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

Diversion Rate (diverted / waste+diverted) 4.6%

HKUST Performance Goal for 2020 - Reduce Overall Wastes by 50%

<table>
<thead>
<tr>
<th>Waste produced on campus</th>
<th>tons/day</th>
<th>tons/year</th>
<th>Diversion</th>
<th>tons/year</th>
<th>Reductions</th>
<th>tons/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wai Hong Collected</td>
<td>2.5</td>
<td>913</td>
<td>Recycled paper</td>
<td>110</td>
<td>Yard sales / barter / give-take</td>
<td>25</td>
</tr>
<tr>
<td>Govn't collected dry waste</td>
<td>0.5</td>
<td>183</td>
<td>Recycled plastic</td>
<td>25</td>
<td>Procurement policies</td>
<td>75</td>
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<tr>
<td>LG1 &amp; GF restaurant chamber</td>
<td>0.3</td>
<td>91</td>
<td>Recycled metal</td>
<td>20</td>
<td>Green events strategies</td>
<td>50</td>
</tr>
<tr>
<td>Special waste (big event &amp; landscaping)</td>
<td>0.3</td>
<td>91</td>
<td>Recycled glass</td>
<td>30</td>
<td>Food waste / behaviors</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Donations to charity</td>
<td>25</td>
<td>Landscaping</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food compost</td>
<td>750</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>E-wastes</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wood</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.5</td>
<td>1,278</td>
<td></td>
<td>1055</td>
<td></td>
<td>225</td>
</tr>
</tbody>
</table>

Diversion Rate (diverted / waste+diverted) 50.0%

Goal Specifications

Based on discussions from campus stakeholders and feedback from VPAB and SVPP, the following represents recommended action items for meeting the goal of cutting waste in half by 2020.

- Invest in the **purchase and installation of waste weighing equipment** in order to gain a
clear understanding of waste, trends, progress, and other insights.

- Under guidance of CSO, **accelerate food waste management efforts**, including maximizing the use of on-site composting and macerating equipment to reduce overall volume, and contract food waste company to collect remaining food wastes.

- **Designate an FMO member of housekeeping supervisory staff as Waste Reduction Specialist** with responsibility of engaging on-campus stakeholders, coordinating among operational departments, streamlining waste reduction processes, developing engagement programs to encourage positive behavior change, and overseeing the ongoing collection and analysis of data to ensure performance metrics are being met.

- Through Sustainability Network, **develop new policies and guidelines for large events** that result in the reduction of non-reusable, non-recyclable, and non-compostable waste practices during large events.

- At the earliest time practicable, **revise the contracts for the waste haulers, cleaning companies, food service providers, and recyclers** to ensure that all paid contractors have a specified role in collecting, separating, and managing wastes to ensure that recyclables and compostables are being removed from the waste stream and disposed of properly.

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**2018 Update** – Based on further investigations and new data, the waste to landfill baseline was revised upwards to 3,325 tons/year. **Keeping the goal of 50% reductions, the new target is now to reduce waste to the landfill to a maximum of 1,663 tons by the end of 2020.** The cleaning contracts were revised and the contractor has more accountability and responsibility to work with our FMO teams to identify opportunities for reductions. **Since 2015, food waste, Styrofoam, wood, construction metals, and electronics have been added to the recycling stream.**
Appendix B.3: Executive Committee (ExCo)

The 2020 reduction goals associated with the Plan (reductions of 10% for energy and GHG, and 50% for waste) are aggressive targets that will benefit from creative thinking and new approaches. They will also require input and contribution from across the AB branch offices. The Executive Committee (ExCo) is expected to fill these roles. The ExCo will be made up of AB office directors or their designates from each of the AB offices, as well as selected members from other strategic areas.

Mission of the ExCo
Advise VPAB on opportunities and expectations regarding energy and waste reduction goals.

Role of the ExCo (ongoing, annually)

1. Provide perspective on energy reduction project proposals and waste reduction strategies developed by FMO, CSO, and other offices through the E&W Steering group.
2. Review, evaluate, and approve campus greening project ideas as developed by the Network Green Team.
3. Coordinate with Sustainability Unit to develop progress reports and to connect with other Plan-related groups (i.e., Network).
4. Review the annual performance of the university against the timelines and goals developed through the Action Plan, and recommend actions to be taken to ensure that the goals and timelines are met.

Specific Tasks

- In year 1, review policies and procedures for each AB Unit, revising them into a set of Sustainable Unit Level Guidelines (Appendix B.5) for use by the Sustainability Network SMOs. These Guidelines should be updated on an annual basis.
- In Year 4, convene a working group to conduct a comprehensive review of the Action Plan to begin work on a new set of goals and targets for the next five year Plan.

The ExCo will meet on a regular basis at the direction of VPAB.

Representatives on the Energy and Waste Executive Committee

<table>
<thead>
<tr>
<th>Offices Represented</th>
<th>Administrative Branch</th>
<th>Name (TBD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Purchasing</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Facilities Management</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Health, Safety &amp; Environment</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Human Resources</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Information Systems</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Campus Services</td>
<td>OVP-AB</td>
<td></td>
</tr>
<tr>
<td>Public Affairs</td>
<td>OVP-IA</td>
<td></td>
</tr>
<tr>
<td>Student Affairs</td>
<td>ODS</td>
<td></td>
</tr>
<tr>
<td>ITSC</td>
<td>OAQUS</td>
<td></td>
</tr>
<tr>
<td>Selected faculty</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>
**2018 Update** – The ExCo was formed in 2016 and has met regularly to review performance, develop work plans (including the Score Card and Action Plans described above), and monitor conditions to ensure the university is making progress towards the reduction goals. Membership has grown to include faculty, student, Library, and Student Housing representatives.
Appendix B.4: New Staff Roles for Energy and Waste

The Facilities Management Office has numerous staff who work diligently every day to make the campus a more beautiful, healthy, and sustainable place. However, to achieve the ambitious energy and waste reduction goals by 2020, it is essential to have staff dedicated to this mission.

The Plan calls for FMO to identify two staff members – one for energy and one for waste – who can dedicate their full-time focus to developing new ideas and approaches to meeting the reduction targets.

**Job Description: Energy and GHG Reduction Specialist**

The Energy and GHG Reduction Specialist is the key point of contact for developing solutions to meet university-wide goals for reducing greenhouse gas emissions and energy consumption. The Specialist focuses on implementing innovative projects that incorporate best practices in sustainability and conservation in the use of energy, water, raw materials, and other resources through retro-commissioning, energy audits and technical analyses.

The Specialist:

- Evaluates zero-carbon emitting options, including the use of renewable resources. Works with local contractors to understand their offerings and capabilities.
- Evaluates on-site distributed energy resources, such as co- or tri-generation resources, heat recovery systems, micro-grids, geothermal, and energy storage.
- Is involved in new construction projects as early as the conceptual design phase as part of an integrated design process, and provides design review for the design teams, project managers, and campus architect.
- Is consulted in renovations and minor works to ensure that spaces are upgraded with reasonable energy efficiency options when appropriate.
- Works with HKUST researchers, specifically those in the Energy Institute and the Environment Institute, to help develop demonstration projects that showcase cutting edge research and approaches to carbon reductions that can be installed on campus.
- Identifies, vets, and implements projects to improve O&M, enhance building automation and energy management systems through field improvements and software programming, ensuring accurate metering and billing, and advocating for sustainability.

The Specialist is located in the FMO, but has jurisdiction to evaluate energy and GHG reduction projects in all buildings and land on the three HKUST campuses. The Specialist works with the Sustainability Unit to compile data and prepare annual reports on energy and GHG reduction progress.
Job Description: Waste Reduction Specialist

The Waste Reduction Specialist is the key point of contact for overseeing the waste reduction strategies for the campus and is responsible for supporting the actions necessary to meet the goal of cutting waste to the landfill in half by 2020. Housed within FMO, the Specialist will work with other units – particularly CSO, SHRLO, SAO, and FMO Housing – to ensure that strategies are implemented smoothly and seamlessly across building jurisdictions.

The Specialist:

- Continually reviews all processes and procedures regarding the flow of waste through the campus and identifies the most efficient ways of diverting recyclable, compostable, or reusable materials from the landfill waste.
- Coordinates with FMO housekeeping staff and housekeeping contractors to ensure separated recyclables are being treated accordingly.
- Identifies areas where new infrastructure or equipment is needed and develops the proposals for consideration from the ExCo for new resources.
- Coordinates with CSO and canteen contractors to reduce the amount of food waste at the source by implanting new ideas and programs to “right-size” meals and expand successful programs like the “Less Rice” plan.
- Coordinates with CSO and canteen contractors to maximize the diversion of post-restaurant food waste into composting or other useful reuse strategies.
- Work with students, student groups, and HKUST researchers who are interested in testing new ideas for raising awareness of waste issues or researching new approaches to changing behaviors.
- Coordinates with Sustainability Unit to collect and analyze data, and to develop marketing campaigns and outreach activities to energize the HKUST community towards positive action as active recyclers.

The Specialist is located in the FMO, but will be responsible for supporting the recycling and waste diversion efforts across the campus. The specialist will be asked to provide input and guidance to the staff at the two Guangdong campuses as well.

2018 Update – The waste reduction specialist position was determined not to be needed after the cleaning contract was revised to include more responsibilities for the contractor. The energy specialist position is under review.
Appendix B.5: Development of Sustainability Guidelines

These Unit Level Guidelines will be developed by the Energy and Waste Executive Committee and will be used by the Sustainability Management Officers (SMOs). The role of the SMO is to help roll out these guidelines with their unit, and to assist other members of the unit in adopting the guidelines. The SMO will also be the representative of the unit, attending quarterly Sustainability Network meetings to learn and share ideas of their experiences.

Since individual elements of the guidelines will be developed by the appropriate AB departments, these guidelines will represent a positive and constructive dialogue between those AB departments and offices in general, since they will need to collaborate to ensure that guidelines are effective.

The guidelines are intended to bring sustainability goals into the everyday actions of office employees. There are six elements in the guidelines:

1. **Sustainability-Driven Human Capital**
   *With leadership from HRO,* supplement new employee hiring documents to include specific language on sustainable practices so that applicants recognize the role of sustainability principles within the unit. Also in conjunction with HRO, develop specific criteria for employee performance evaluations so that employees recognize that reducing environmental impacts and conserving natural resources is an element of the job function.

2. **Sustainable Use of Materials**
   *With leadership from PURO,* develop, or adopt, purchasing guidelines for the unit that prioritizes the minimization of wastes through specification in contracts, through reuse of materials before purchasing new ones, or other means. The guidelines should also favor environmentally friendly products, or should clarify when it is acceptable not to.

3. **Sustainable Internal Communications**
   *With leadership from ISO and ITSC,* develop an internal policy for sustainable communications, printing and publishing so that non-print options are utilized when feasible, and print options that minimize environmental impacts are utilized when printing is necessary. Also examine what kinds of IT solutions are available to help minimize environmental impacts and resource consumption.

4. **Sustainable Work Spaces**
   *With leadership from FMO,* develop a set of guidelines that show how to identify the most energy efficient equipment when it is needed, how to determine if used or refurbished equipment is suitable, and how to dispose of the equipment in the most environmentally
friendly way. Also include provisions for updating or renovating spaces in ways that prioritize comfort, productivity, and healthy work spaces.

5. **Sustainable Meetings**

*With leadership from CSO,* develop a plan that ensures that waste is either minimized or eliminated during meetings, receptions, or catered events. Utilize a CSO green catering guide in preparing for the events to ensure that that food is sourced responsibly, collection materials are available for composting or recycling, and utensils and serving materials are reusable, compostable, or recyclable.

6. **Healthy Workplace**

*With leadership from HSEO,* develop a plan that periodically monitors the air quality and health conditions in the office space for all occupants, and sets forth a plan of action for improving conditions when quality falls below expected levels. In addition to monitoring, survey space occupants and develop a plant maintenance plan so that occupants have access to the fresh air and beauty that comes from the presence of natural plants.

7. **Sustainable Student Support**

*Working with SAO and SHRLO,* evaluate current practices to identify ways to allow student participation into the process of developing new policies and practices so that students have more practical hands-on opportunities to understand how sustainable institutions work and solve problems. Where feasible, determine what kinds of data and performance metrics are available and make them accessible to students for use in class projects or other study enterprises.

**2018 Update** – The Sustainability guidelines were completed and are posted on the sustainability website at [http://green.ust.hk/files/ustsusguideline17.pdf](http://green.ust.hk/files/ustsusguideline17.pdf)
<table>
<thead>
<tr>
<th>Guideline</th>
<th>Supporting Unit</th>
<th>Objective</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sustainability Management Officer</strong></td>
<td>HSEO</td>
<td>To train one person per office who can facilitate the guidelines.</td>
<td>Attend monthly meetings; distribute information.</td>
</tr>
<tr>
<td><strong>Sustainability-driven human capital</strong></td>
<td>HRO</td>
<td>For each employee to understand their role in contributing to a culture of sustainability in the university.</td>
<td>Language included in job descriptions; inclusion of expectations in job performance documents.</td>
</tr>
<tr>
<td><strong>Sustainable use of materials</strong></td>
<td>Puro</td>
<td>To utilize the purchasing power of the university to further sustainability and resource reduction goals.</td>
<td>Review of purchasing procedures; develop expectations for vendors; build performance into future contracts.</td>
</tr>
<tr>
<td><strong>Sustainable communications</strong></td>
<td>ISO, ITSC</td>
<td>To utilize alternatives, where appropriate, to reduce the need for printing, traveling, and unsustainable use of resources.</td>
<td>Reductions in use of paper, printing; exploration of new ways of communicating ideas and promotions.</td>
</tr>
<tr>
<td><strong>Sustainable work spaces</strong></td>
<td>FMO</td>
<td>To maximize the use of energy and water efficient devices in office spaces.</td>
<td>Energy certification; approved equipment; reductions in bottled water in place of clean alternatives.</td>
</tr>
<tr>
<td><strong>Sustainable meetings</strong></td>
<td>CSO</td>
<td>To ensure that events are planned with the least amount of waste and impact.</td>
<td>Process for setting up and organizing green and zero-waste meetings; development of green caterer lists.</td>
</tr>
<tr>
<td><strong>Healthy workplace</strong></td>
<td>HSEO</td>
<td>To ensure that everyone in a workspace has clean air and a healthy work environment</td>
<td>Timeline for air monitoring and plans for improvement; green cleaning supplies; inclusion of plants and natural filters.</td>
</tr>
<tr>
<td><strong>Sustainable student support</strong></td>
<td>SAO, SHRLO</td>
<td>To ensure that students are surrounded by positive examples of sustainable actions, and have the ability to participate.</td>
<td>Inclusion of students in committees and development of policies; ability of students to access data and metrics.</td>
</tr>
</tbody>
</table>

**Timeline**
During year one of the SMP, the supporting offices (mainly HSEO, FMO, CSO, Puro, ISO, ITSC, HRO, SAO, and SHRLO) will focus on developing a set of sample checklist items that offices and departments can use to as they implement their guidelines. From the second year onward, the supporting offices will check in regularly to assist where needed and help maintain progress towards meeting the goals of the policies. The Sustainability Unit will facilitate the monthly or quarterly meetings of the SMOs and support their efforts.
Appendix B.6: Green Campus Fund

The budget for the Green Campus Fund is $250,000 for the support of hands-on student, staff, and faculty projects that improve the HKUST campus and contribute to its transition to a more sustainable physical landscape.

Our experience is that students, faculty, and staff often have excellent ideas for campus greening, but there is no established process for developing the project idea, seeking approval, and applying for funds to implement the project ideas. The Green Campus Fund provides a modest amount of funding on an annual basis to support these projects, which will be evaluated and approved by the ExCo.

Specific conditions

- The individual or group must work with the Sustainability Unit to ensure the development of a strong and robust project plan that meets campus greening criteria. Criteria includes:
  1. Project teams must review the archives of past projects to see if a similar project has already been undertaken. If so, the team must demonstrate how this project will be different or address the challenges identified the first time.
  2. Projects must demonstrate a positive effect on campus greening efforts. Priority will be given to projects that can show long-lasting benefits to the campus.
  3. Projects should benefit the HKUST community in terms of making this campus a better place to work, study, and live.
  4. Projects should have a defined budget and clear explanations of how the funding will be allocated.
  5. Where practicable, projects should show how the implementation contribute to the Sustainability Plan goals of energy, GHG, waste reductions.

- Once projects have been vetted by the Sustainability Unit, they will be forwarded to the ExCo for evaluation and a decision on funding. ExCo will determine the timing and frequency of these evaluation meetings.

- The projects will then be assigned to an appropriate staff facilitator serving as the University’s point of contact. This facilitator will be chosen based on their subject expertise (i.e., a campus gardening project may be assigned to a member of FMO within the Horticulture department).

- The project team will be responsible for evaluating progress and writing a final report on the project that will be uploaded onto a project archives page on the Sustainability website.

2018 Update – The Green Campus Fund has been discussed in the Sustainable Operations ExCo and received positive feedback. The recommendation was to make the funds available to faculty for on campus research that involved students, and to ensure that the funds did not overlap with traditional funding cycles (i.e., annual GRF process). The details of the GCF are being developed.
Appendix C.1: Sustainability Management Officers (SMOs)

One of the core features of the HKUST 2020 Sustainability Challenge is the creation of the Sustainability Network, which includes the coordination of Sustainability Management Officers (SMOs). The SMO structure is based on the successful framework of the Campus Safety Officer program, where one member of each office or unit is assigned this role. Similarly, SMOs will be assigned by the director or head of their units to participate as the official representative.

SMOs will be responsible for helping to implement **Sustainability Unit Level Guidelines** within their offices. These guidelines are appropriate for all units that are managed at the director / department chair level or higher (as such, the term “Unit” refers to university-managed Offices, Departments or other administrative units). These guidelines are intended to help promote actions and activities that will help the university in achieving its sustainability goals. Particularly, the guidelines are intended to reduce environmental impacts, conserve natural resources, and promote a culture where students and members of the UST community actively take part in demonstrating our quest to lead by example.

The Guidelines will be developed and updated regularly by the ExCo (see Appendix B.3). The guidelines are intended to be meaningful, yet flexible enough to adapt to changing conditions and constructive feedback.

The responsibilities of the SMO are:

1. To become familiar with the details of the Guidelines in order to answer questions or inform Unit colleagues of the information and expectations within.
2. To inform the Unit heads of any changes or new information regarding the guidelines.
3. To inform new staff, including students, of the guidelines and how they are implemented within the Unit.
4. To take the lead in coordinating the Unit colleagues in developing the list of Unit Level Guidelines, and submitting them to the HSEO.
5. To take responsibility for overseeing the writing of an update of sustainability-related activities, including progress on internal goals and description of achievements, and submitting them annually to the HSEO.
6. To represent the Unit at quarterly Sustainability Network meetings.

**2018 Update** – The Sustainability Network – comprising representatives from over 30 departments and offices – was formally launched in 2017 by President Chan. The Network now meets quarterly to discuss relevant issues and advise the Sustainability Unit on matters of importance.
Appendix C.2: Network Green Team

The Network Green Team is the collection of members of the HKUST community who have an interest in creating a more sustainable campus environment. The goal for the Green Team is to create a structure by which interested members of the community can participate productively in the transition of the campus into one that operates in a more efficient, environmentally-friendly, and healthy way.

**Structure:**

- **Members are volunteers** – Members can be students, faculty, staff, or other residents of the campus community (spouses, helpers, and children). Members conduct business on their own time and their work is separate from their official University duties.

- **Leadership** – The Green Team will be bolstered by the leadership of the President, who will preside over the inaugural launch of the Network and will receive updates on ongoing activities.

- **Related work** – Ideas for campus greening projects will be initiated by Green Team members, and Members will either implement the work themselves (if appropriate), or forward the ideas to FMO, CSO, or other offices that could benefit from the suggestions.

- **Examples of Green Team work** – Based on experiences from peer universities, Green Teams are popular with members who have specific ideas and interests associated with sustainability. Gardening, volunteer work, and engaging campus children are common themes for green teams, and it is anticipated that this will be the case at HKUST.

- **Coordination** – While Members of the Green team will chart their course of action through their own volition, their efforts will be supported and coordinated by the Sustainability Unit.

- **Diversification** – Over time it is possible that Members may wish to split into several focused Green Teams (i.e., one for LSK campus, one for greening laboratories).

**Benefits:**

Even though Green Team Members will not be paid or have this work count as part of their official duties, the benefits of joining a Green Team are enormous. Members will meet like-minded individuals on campus and will have a chance to make a real difference. The meetings are fun and friendly (and include free lunch!) and give Members a chance to explore options for changing the campus with others who have similar viewpoints.

Active Members will be recognized for their contributions in an annual Green Recognition Ceremony (presided over by the President). Most importantly, Members will enjoy the thrill of making real and lasting changes.

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**2018 Update** – The HKUST Green Team was launched in 2016 and meets regularly to design and implement campus projects that reduce our sustainability burden. Recent accomplishments include the “Lunchbox Go Green” campaign. In addition to the Green team, other volunteer groups have formed, including the Green Labs Initiative, the Gardening Club, and Green Trekker.
Appendix D: Sustainability Center

The Plan envisions the development of a Sustainability Center, complementing all four of the focus areas and creating a visible signature space that highlights HKUST research, progress towards our goals, cutting edge technologies, and a celebration of sustainability as a learning lab.

Serve as a **visible demonstration area**, open and accessible to the campus community, to showcase new ideas, approaches, technologies, and other information regarding the school’s commitment to creating a sustainable campus.

Provide **updates and information** on campus expansion and elements of the campus green buildings.

Provide **space for gatherings and networking** for students and staff to celebrate achievements and accomplishments.

Create **graphic displays** of campus performance, including real-time displays (“dashboards”) of energy and GHG emissions.

Showcase model representations of sustainability-related technologies being **developed at HKUST** by our UST experts.

Showcase sustainability-related technologies that are making a difference worldwide.
2018 Update – A proposal to create a new Sustainability Center was successful in receiving one of the competitive “HKUST 25 Projects” awards. However, the awards were contingent upon fundraising goals, which did not meet their targets. The objective of making sustainability more visible and accessible on campus remains a priority, but the focus may change from developing a stand-alone “center” to a more distributed approach of adding sustainability markers and educational displays around the campus.