



**Guiding Principles for University Climate Action Planning: San Diego State University,
California (USA) Student Assessment Report**

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Introduction to Guiding Principles for University Climate Action Planning

In 2014, members of UN-Habitat's Climate Change Planning unit met with partners at the World Urban Forum in Medellin and Lima Climate Change Conference to discuss the state of climate change planning in cities across the globe. It was widely recognized that cities were still at the forefront of global efforts to reduce greenhouse gas emissions and adapt to changing climates. Yet, there was still a lack of city climate action plans and a need for more normative guidance in order to create a "community of practice." As a result the *Guiding Principles for City Climate Action Planning* was developed over the course of a year (2015) as an international benchmark for city-level climate action planning. The *Guiding Principles for City Climate Action Planning* is a document that reviews typical steps of a city climate action planning process in light of a proposed set of eight globally relevant guiding principles. These principles state that climate action planning should be *ambitious, inclusive, fair, comprehensive and integrated, actionable, evidence-based, relevant, and transparent and verifiable*. Together these eight principles are intended to be applied to important components of city climate action planning, from getting ready to make a plan (or plans), to ultimately taking action. Overall, the *Guiding Principles for City Climate Action Planning* publication provides a framework that cities can use together with more detailed "how-to" manuals in order to more effectively play their role in reducing greenhouse gas emissions and building climate resilience.

Since the launch of the *Guiding Principles for City Climate Action Planning Toolkit* at the Paris Climate Change Conference in December 2015, San Diego State University faculty and undergraduate students have collaborated with UN-Habitat on amending this document to produce version 1.0 of the *Guiding Principles for City Climate Action Planning: Toolkit for Campus-Level Review*. The goal of this new *Toolkit* is to guide global universities in decreasing their carbon

footprint by evaluating campus-level climate action plans on the basis of the same eight globally relevant principles. This increases the adaptability of the *Toolkit* to bring its global impact of evaluating climate action plans to the university campus-level. Campus-level exercises should serve a broader aim of facilitating knowledge between shared partners, thus creating more consistent climate action planning in universities across the globe.

The following report details the results of a student assessment conducted for San Diego State University (SDSU) in California, United States of America (USA). This report is comprised of the following sections:

1. Background – background on San Diego State University and its current climate action planning processes
2. Guiding Principles Indicator Summary – summary of the indicator-based assessment of San Diego State University’s climate action planning and its alignment with the 9 principles
3. Application of Guiding Principles – narrative discussion of the indicator assessment
4. Recommendations – recommendations for future improvements to university climate action planning in accordance with the *Guiding Principles Toolkit*

1. Background

1.1 Mission Timeline

From August 2017 to August 2018, Version 1.0 of the *Guiding Principles for City Climate Action Planning: Toolkit for Campus-Level Review* was developed as a collaborative effort by an ad hoc working group consisting of the following members: Tom Abram, Jessica Barlow, Zohir Chowdhury, Victoria Lawless, and Christiana Yip (San Diego State University); J. Alexander Maxwell (Gonzaga University); Aida Guardiola Sánchez and Robert Kehew (UN-Habitat); and Ruby Woodside (Second Nature). The adaptation of the toolkit started as a project under the Sage Project program at San Diego State University (The Sage Project, 2019) and was further developed using multi-stakeholder peer reviews by experts and representatives from academic research institutions, non-governmental agencies, and UN-Habitat. Following this amendment, Version 1.0 of the campus was then applied in the evaluation and assessment of SDSU's climate action plan in August 2018. This mission was comprised of several meetings and communication via email with SDSU staff and committee members, UN-Habitat representatives, as well as numerous presidents from outside universities and educational institutions.

1.2 Background on San Diego State University and Climate Action Planning at the University-Campus, City, State, and Country Levels

Climate change is currently impacting ecosystems, environments, and populations on every country and continent worldwide. With the global temperature rising to near irreversible levels, now more than ever, it is crucial that we prevent a worsening climate by leading sustainable lifestyles. In efforts of responding to the United Nations' 2030 Global Sustainable Development Goal #13, in taking urgent action to combat climate change and its impacts, the United Nations

Human Settlements Programme developed a *Guiding Principles for City Climate Action Planning Toolkit* for global city-level reviews in May 2016 (United Nations, n.d.). The *Guiding Principles Toolkit* provides cities with guidelines for creating effective climate action plans in the form of eight principles: *ambitious, inclusive, fair, comprehensive & integrated, relevant, actionionable, evidenced-based, and transparent & verifiable*. There are currently two cities in the world that have evaluated their climate action plans on the basis of this *Toolkit*: Glasgow, Scotland in the United Kingdom, and Vilankulo, Mozambique in Africa. In correspondence with UN-Habitat Representative, Faderr Johm, and through the collaboration with the city government of Lemon Grove in San Diego, California, students and faculty from San Diego State University have also utilized this *Toolkit* in providing the City of Lemon Grove with recommendations for developing their first Climate Action Plan. The City of Lemon Grove, CA, USA is the first city in the North America to utilize the UN-Habitat *Guiding Principles Toolkit* in reference to their climate action planning and processes.

In continuing this application of the original *Guiding Principles Toolkit for City-Level Reviews*, in collaboration with the United Nations Human Settlements Programme, San Diego State University students and staff amended the original *Toolkit* so that it can be applied to global university-campuses, because like cities, campuses are rising to utilize resilience and climate action planning as a method of combating climate change. Version 1.0 of the *Guiding Principles for University Climate Action Planning Toolkit for Campus-Level Review* has been utilized throughout this student assessment in its application to San Diego State University's first climate action plan. Being the first of its kind, the application of a newly modified *Toolkit* to San Diego State University's plan is unique and serves as a model for other university and educational institution applications of this *Toolkit*.

San Diego State University is one of 23 universities within the California State University (CSU) System. Located in southern California, SDSU has an annual population of about 34,000 undergraduate and graduate students. Among the academic programs offered at SDSU are: over 160 undergraduate major and minors, nearly 100 graduate degrees and credentials, as well as learning classes, seminars, and certificate classes offered by the College of Extended Studies. SDSU's staff and student researchers secure contracts worth over \$134 million. SDSU's first climate action plan was finalized and approved in May 2017. This addition strives to meet the ambitious Sustainability Policy enacted by the CSU System in 2014. Since the addition of this policy, sustainability has been a key feature of university campus policies and implementation efforts, with SDSU being no exception.

2. Guiding Principles Indicator Summary

The following table has been modified from the United Nations Human Settlements Programme's *Guiding Principles for Climate Action Planning Toolkit for City-Level Reviews* (UN-Habitat, 2016). The newly amended *Guiding Principles for City Climate Action Planning: Toolkit for Campus-Level Reviews* utilizes this table to inform global universities and educational institutions in their climate action planning processes and planning. The table below summarizes the indicator-based student assessment of San Diego State University's current climate action plan, and climate action planning processes.

Color Rating Key

<i>Preliminary evidence</i>	<i>Conclusive evidence</i>	<i>Preliminary evidence</i>	<i>Conclusive evidence</i>	<i>Preliminary evidence</i>	<i>Conclusive evidence</i>	<i>Not applicable / Not determined / Pending / Cannot determine¹</i>
NO OR WEAK COMPLIANCE		PARTIAL COMPLIANCE		FULL COMPLIANCE		

GUIDING PRINCIPLES ²	INDICATOR ³		ASSESSMENT
AMBITIOUS – Setting goals and implementing actions that evolve iteratively towards an ambitious vision. <i>PLAN</i>	1A	Mitigation. For a given long-term target year (of 20 years or more), the college/university has set a long-term emission reduction target of 80% or greater reduction from base year (or equivalent) AND/OR the college's/university's long term target meets or exceeds those found in the Nationally Determined Contributions (NDCs) of the corresponding country.	
	1B	Adaptation. The plan not only seeks to make marginalized populations, key systems and critical infrastructure more resilient to climate-related risks, but to do so in a way that is transformative ⁴ .	
	1C	Mitigation and Adaptation. The college/university plan sets a date to review, update and strengthen the targets and actions in the current plan.	

¹ Show assessment in grey if virtually no data are available as basis for assessment or city plan not applicable to this indicator.

² Column also shows (in italics) whether the Principle primarily concerns: (i.) the climate action **planning process**, and/or (ii.) the **plan** itself – the main output of the planning process. Corresponding indicator(s) follow suit.

³ Several indicators refer to a single 'plan', however in the case of mainstreaming this can refer to multiple plan documents.

⁴ A definition and discussion of transformative resilience is found in Pelling, M. (2010), "Adaptation to climate change: from resilience to transformation". Routledge. Pelling considers "adaptation and resilience actions" to be potentially "transformative" if they seek to "tackle the underlining social causes of vulnerability such as poverty".



INCLUSIVE – Involving multiple college/university departments ⁵ , stakeholders, and communities (with particular attention to marginalized groups ⁶) in all phases of planning and implementation. <i>PROCESS</i>	2A	Documented process of consulting with college/university community during climate action planning shows specific outreach or communication efforts with ONE OR MORE OF THE FOLLOWING marginalized groups: (i.) Persons of color, (ii.) Persons with disabilities, (iii.) Persons identifying as veterans or inactive military, (iv.) First generation college students, (v.) International students, (vi.) Commuter students who live off-campus, (vii.) Staff in janitorial, dining, and facility services, (viii.) Low-income students and/or students relying solely on financial aid, (ix.) Part-time students, AND/OR (x.) Any other groups explicitly recognized as marginalized. Specify:	
	2B	Evidence of ongoing engagement with other (non-marginalized) stakeholders, e.g. local businesses and community members from the surrounding community that are potential implementation partners.	
FAIR – Seeking solutions that equitably address the risks of climate change, and share the costs and benefits of action across the college/university. <i>PLAN</i>	3A	Mitigation. Policy goals in the plan explicitly reflect ONE OF THE FOLLOWING: (i.) An aim not to unfairly or excessively burden vulnerable populations with the costs and any negative impacts associated with climate action (ii.) The principle of ‘common but differentiated responsibility’ AND/OR (iii.) The ‘emitter (or polluter) pays’ principle.	
	3B	Adaptation. At least some climate actions in the plan are clearly targeted at helping ONE OR MORE OF THE FOLLOWING marginalized groups: (i.) Persons of color, (ii.) Persons with disabilities, (iii.) Persons identifying as veterans or inactive military, (iv.) First generation college students, (v.) International students, (vi.) Commuter students who live off-campus, (vii.) Staff in janitorial, dining, and facility services, (viii.) Low-income students and/or students relying solely on financial aid, (ix.) Part-time students, AND/OR (x.) Any other groups explicitly recognized as marginalized. Specify:	
COMPREHENSIVE – Coherently	4.1A	Process. Existence within the college/university of a standing cross-departmental working group that has met at least once in the past year,	

⁵ For indicator reflecting cross-departmental engagement within the university/college, see indicator 4.1A.

⁶ Marginalized group is defined as the following: Different groups of people within a given culture, context and history at risk of being subjected to multiple discrimination due to the interplay of different personal characteristics or grounds, such as sex, gender, age, ethnicity, religion or belief, health status, disability, sexual orientation, gender identity, education or income, or living in various geographic localities. Belonging to such groups or even being perceived to belong to them heightens the risk of inequalities in terms of access to rights and use of services and goods in a variety of domains, such as access to education, employment, health, social and housing assistance, protection against domestic or institutional violence, and justice. Source: information provided by European Union Agency for Fundamental Rights and the Office of the United Nations High Commissioner for Human Rights.



undertake adaptation and mitigation actions across a range of sectors within the college/university. <i>PROCESS AND PLAN</i>		whose terms of reference or written mandate includes promotion of coordinated climate actions.	
	4.1B	Plan. The climate action plan addresses BOTH adaptation AND mitigation, AND Adaptation actions address two or more sectors ⁷ , AND Mitigation actions address two or more sectors	
	4.1C	Process. The climate action plan incorporates adaptation and mitigation actions throughout curriculum, research, internship opportunities, co-curricular activities across multiple disciplines of study at the college/university campus, and campus operations (i.e. hazard mitigation, disaster response, and campus-wide strategic planning).	
INTEGRATED [horizontally and vertically] – as well as supporting broader regional initiatives and realization of priorities of higher levels of government when possible and appropriate. <i>PROCESS</i>	4.2A	Inter-institutional (includes other colleges, universities or institutions of higher education). Existence of a plan or formal agreement between the college/university and one or more colleges/universities within a local area/region that explicitly references coordination or collaboration in climate action or resilience planning.	
	4.2B	Municipal level: Existence of a plan or formal agreement between the college/university and municipal-level government that explicitly references coordination or collaboration in climate action or resilience planning.	
	4.2C	Intermediate level. Existence of a plan or formal agreement between the college/university and an intermediate level of government (e.g. province or state) that explicitly references coordination or collaboration in climate action or resilience planning.	
	4.2D	National level. EITHER Nationally Determined Contribution OR National Climate Action Plan in the corresponding country includes provisions for empowering or coordinating climate action by colleges/universities, AND/OR A proposal developed by the national government and either (i) registered as a Nationally Appropriate Mitigation Action or (ii) submitted to a multilateral climate fund (GEF, AF, GCF) includes an explicit role for colleges/universities (including the one in question) in implementing or executing the action.	
RELEVANT – Delivering local benefits and supporting local development priorities.	5A	Plan includes a statement (or equivalent) that the criteria for decision-making included the delivery of climate benefits, and supports local development priorities, AND Plan clearly identifies that both delivery of climate benefits and support to local development priorities informed planned actions.	

⁷Greenhouse Gas emissions attributed to city activities can be classified into six major sectors: Stationary Energy, Transportation, Waste, Industrial Processes and Product Use (IPPU), Agriculture, Forestry and Other Land Use (AFOLU), and Other Scope 3 Emissions (any other emissions outside the geographic boundary as a result of city activities). These six sectors are in addition applicable towards campus activities. Source: information provided by the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC).



<i>PROCESS AND PLAN</i>			
ACTIONABLE – Proposing cost-effective actions that can realistically be implemented by the actors involved, given college/university mandates, finances and capacities. <i>PLAN</i>	6A	<p>THREE OR MORE of the following conditions are met:</p> <ul style="list-style-type: none"> (i.) Responsibilities for implementing actions are assigned to specific entities/agents at the college/university, (ii.) At least half of the actions presented in the plan include an estimate of implementation costs and financial returns (ideally presented as both net present value and internal rate of return), (iii.) At least twenty percent of the actions designate a planned funding source, (iv.) Some actions are shown as ‘quick wins’, (v.) Some pilot actions are included, (vi.) The plan includes actions to cut emissions from and/or improve resilience of the college/university estate and operations, (vii.) The plan sequences actions over time, (viii.) The plan includes a process for engaging suppliers and procuring key assets and facilities, (ix.) The plan includes a strategy for advocacy, communication, dissemination and/or implementation. 	
EVIDENCE-BASED – Reflecting scientific knowledge, local understanding, and using assessments of vulnerability and emissions and other empirical inputs to inform decision-making. <i>PROCESS AND PLAN</i>	7A	<p>Mitigation. Plan includes a summary of a baseline greenhouse gas emission inventory (and potentially an energy costs inventory), disaggregated by sector⁶ and produced according to international GHG accounting guidelines, AND A statement that this inventory was used to inform and support decision-making and to help prioritize mitigation actions.</p>	
	7B	<p>Adaptation. Plan includes a summary of a vulnerability assessment, with a spatial dimension, that reflects local and scientific knowledge (ideally based upon credible data from climate projections, local infrastructure inventories, socioeconomic data and so on), AND A statement that this assessment was used to inform and support decision-making, and to help prioritize adaptation actions.</p>	
TRANSPARENT – Following an open decision-making process and providing for public reporting on progress towards achieving goals. <i>PROCESS</i>	8.1A	<p>ALL of the following conditions are met; The plan summarizes:</p> <ul style="list-style-type: none"> (i.) Opportunities for engagement that the college/university community had during the planning process, (ii.) The criteria and process for prioritizing climate actions, AND (iii.) Commitments for reporting (including in public meetings that involve students, staff, faculty, and the surrounding community) on progress towards implementing the plan, <p>AND More detailed evidence to support this summary information or confirm implementation of these plans is available from the college/university upon request,</p>	

⁶ Greenhouse Gas emissions attributed to city activities can be classified into six major sectors: Stationary Energy, Transportation, Waste, Industrial Processes and Product Use (IPPU), Agriculture, Forestry and Other Land Use (AFOLU), and Other Scope 3 Emissions (any other emissions outside the geographic boundary as a result of city activities). These six sectors are in addition applicable towards campus activities. Source: information provided by the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC).

		<p>AND</p> <p>Plan is available online, in a language that is understood by the public as well as those with technical understanding.</p>	
<p>VERIFIABLE – ...Setting goals that can be measured, reported, independently verified, and evaluated.</p> <p><i>PLAN</i></p>	8.2A	<p>The plan features a monitoring and evaluation framework that BOTH:</p> <p>(i.) Includes indicators that correspond to key climate targets and/or actions,</p> <p>AND</p> <p>(ii.) Provides for the periodic measurement of progress towards meeting those targets or actions</p>	

3. Application of Guiding Principles

Principle 1: Ambitious

Indicator 1A

With former university president, Elliot Hirshman, signing Second Nature's American College and University Presidents Climate Commitment in 2014, now referred to as the Carbon Commitment, he pledged San Diego State University (SDSU) to accomplish carbon neutrality through the completion of a greenhouse gas inventory and the creation and implementation of a climate action plan. SDSU is currently heavily researching the Resilience Commitment also offered through Second Nature which commits the university towards developing adaptation measures ensuring climate resiliency. Second Nature is a national public reporting platform for university-campus climate action planning. Each university who pledges to commit the Carbon Commitment, the Resilience Commitment, or both, also agrees to annually report back to Second Nature regarding the status and updates of their climate plans. In addition to these commitments, SDSU is in the process of formalizing their own campus-wide sustainability policy.

San Diego State University's emissions reduction target is to reach 1990 level carbon emissions, campuswide, by 2020. To aid in reaching this effort, the university has set subgoals regarding specific sectors to be reached by 2020. The university plans to scale down their water usage by 25% from 2013, cut non-C&D waste in half (50%) and divert total waste by 60% (CAP p. 17). Goals that the university has set to reach by 2025 are: 30% below 2013 levels of water usage, 80% total waste diversion and reach 1990 operational emissions levels (CAP p. 17). The university is on track to reach operational carbon neutrality by 2040 and campus wide carbon neutrality in all scopes by 2050 (CAP p. 16). SDSU's outline for Carbon Neutrality can be seen in Figure 1.

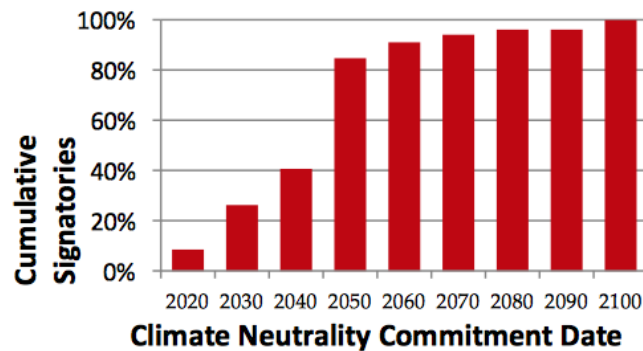


Figure 1. SDSU Climate Neutrality Commitment Date.

Indicator 1B

The current version of the plan does not succeed in addressing any adaptation strategies or measures the university plans to take. In the planning process, the opportunity to identify and collaborate with marginalized groups was not utilized. These combined characteristics give this indicator a rating of no compliance. The plan addresses that once funding is available from the university's revolving loan fund, infrastructure that is deemed critical will be addressed.

Indicator 1C

With the signing of Second Nature's Carbon Commitment, the university is committed to publicly submit their GHG emissions inventory annually to the Second Nature website. While there is no current time-framed basis for monitoring and evaluating goals and actions, other than on a "regular basis," the plan does state that the CAP will be reviewed and revised at the minimum, every five years. Though not included in the climate plan, SDSU's sustainability website has indicated that May 1 will be the day they provide their annual progress reporting as shown on the timeline in Figure 2.

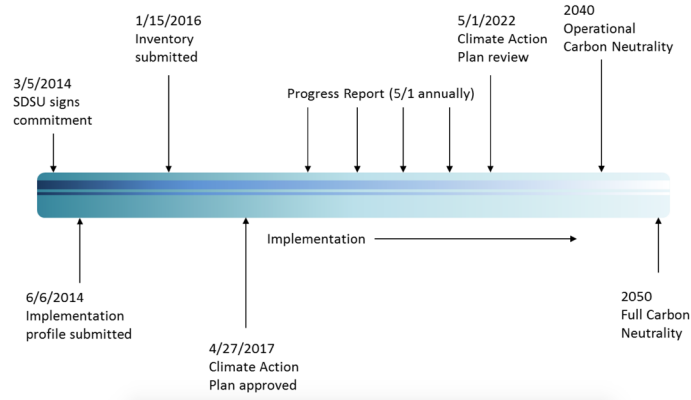


Figure 2. Annual evaluation timeline for SDSU's climate action planning processes

Principle 2: Inclusive

Indicator 2A

Throughout the development of SDSU's Climate Action Plan, numerous on-campus stakeholders were actively engaged. Aside from the administrators, faculty, students, and university alumni engrossed with the Climate Action Planning Council, the Senate Sustainability Committee and Transportation Working group. These committees collected a student and faculty transportation survey that was emailed to each student, faculty, and staff member. Similarly, the Climate Action Planning Committee sent out a sustainability literacy survey to all students, staff, and faculty seeking these individuals values and beliefs regarding responses to climate change and leading sustainable lifestyles. In drafting this plan, SDSU did engage with experts from other university campuses, such as the University of San Diego. Many departments within SDSU's campus reviewed sections of the plan for acceptability in their area of expertise. Examples of these departments include: public affairs, engineering, and facilities services.

In writing the climate actions conveyed in the plan, SDSU did not specifically identify or make efforts to engage marginalized groups. Although they did address the opinions of commuter students, staff, and faculty through a transportation survey (results can be found on page 40 of the CAP), these individuals were not aware they were contributing to the universities' climate action plan that was already well into the drafting process. Many identified marginalized groups were not consulted, such as: international students, students living off-campus, staff in janitorial, dining, and facility services, students relying solely on

financial aid, part time students first generation college students, persons identifying as veterans or inactive military, and persons with disabilities.

Indicator 2B

SDSU has previously, and is currently consulting with the Metropolitan Transit System (MTS) of San Diego in efforts of subsidizing a discounted bus and trolley pass for students attending the university. Although this exhibits that SDSU is engaging with non-marginalized and economic stakeholders, this is the only known example of such SDSU's relationship with the surrounding community, as the City of San Diego was neither notified, nor collaborated with, in the process of writing this plan.

Principle 3: Fair

Indicator 3A

As previously addressed, SDSU did not succeed in identifying or collaborating with marginalized groups during the composition of their first climate action plan. There is no current policy in place regarding such marginalized groups and unfair and/or excessive burden with the expenses and negative impacts correlated with climate action for populations as such. In a meeting with students, faculty, and climate action plan author, Tom Abram, a discussion about marginalized groups was initiated by the students. Tom Abram acknowledged the marginalized groups that were identified by the students and faculty and further responded with, "We did not actively identify or address any marginalized populations as such. We did discuss commuters at length in regards to reducing single-occupancy vehicles and providing more choices to come to campus in a sustainable and cost-effective way."

Indicator 3B

Although adaptation is not addressed within the first version of SDSU's climate plan, they have mentioned that considering marginalized groups within the evaluation of the plan would be beneficial to the evaluation and implementation process.

Principle 4.1: Comprehensive

Indicator 4.1A

The two main departments that collaborated with the author in drafting San Diego State University's Climate Action Plan were the Climate Action Planning Council and the Transportation Working Group and its researchers. These groups provided perspectives on sustainability, budget, operations, and aided in collecting survey data. These groups also provided the author assistance in reviewing written sections of the plan. A third committee, the Senate Sustainability Committee, contributed to this process in reviewing various sections of the plan. The Climate Action Planning Council met, on average, quarterly, sometimes monthly, throughout the drafting process. It is anticipated that they will meet biannually to discuss the implementation of actions within the plan, however this is not confirmed in writing within the plan.

Indicator 4.1B

Climate action planning at SDSU addresses mitigation strategies, yet it fails to address adaptation strategies completely. The greenhouse gas inventory, updated annually by the university, addresses over 10 sectors with the most influential five being: energy, transportation, water, zero waste infrastructure, and green building certification. The plan addresses mitigation strategies in all sectors within the GHG inventory and organizes them within the document from most influential to least influential GHG emission amounts. The plan also sequences these climate actions over time, identifies quick wins, and climate actions that are currently underway. SDSU's climate plan fails to address adaptation completely, which is why indicator 4.1B only reaches partial compliance.

Indicator 4.1C

San Diego State University is exhibiting growth in developing sustainability within offered academic majors. Other than with the sustainability major and minor that SDSU offers, it has been noted that academic majors such as civil, construction, electrical, environmental and mechanical engineering, geography, city planning, marketing and public health all incorporate aspects of sustainability. Faculty in all of these departments are conducting research that incorporate sustainability into their respective area of discipline. Students have the opportunity to receive applied, real work experience by working with

professors on their research projects. The university promotes student organizations and clubs throughout all aspects of campus. The climate plan notes that there are several student clubs and organizations that focus on sustainability. Some of the highlighted clubs are: Green Love, GreenFest, the Enviro-Business Society, Engineers without Borders, the San Diego Chapter of the Association of Environmental Professionals and the Sage Club.

San Diego State University does engage students all across campus to explore sustainable lifestyles and practices, however, there are currently no requirements for students, faculty, or staff to receive mandatory module courses or information regarding these practices. Each spring SDSU hosts a GreenFest where clubs and organizations all across campus teaching and radiating sustainability come together in efforts to engage other members of the student body. There are also continuous events held throughout the year that promote these events, and also remind students to recycle, bike, turn off the faucet etc. While SDSU is embarking on this journey to expand sustainability and climate planning to disciplines throughout the entire campus, many other university campuses, both across the country and across the CSU system, have novel ideas which we will discuss more deeply in the Recommendations section of this report.

Principle 4.2: Integrated

Indicator 4.2A

As a university-campus within the California State University (CSU) System, San Diego State University is one of 23 campuses that collaborate on the basis of climate measures. The CSU system sets climate action standards under their first ever Sustainability Policy, issued in 2014. The first assessment of the 2014 Sustainability Policy was published in 2018. This collaboration as a system in addressing climate mitigation goals is undoubtedly inter-institutional integration. In addition, SDSU's climate plan has been vertically accepted by the President of SDSU in 2014, Elliot Hirshman. This would thus involve the interdisciplinary collaboration among various university departments to accomplish all climate mitigation goals. Lastly, throughout the drafting process, SDSU Climate Action Plan writers and researchers consulted

with University of San Diego staff as they utilized some of their climate data regarding Greenhouse gas emissions calculations and transportation.

Indicator 4.2B

There is no current presence of any plan or formal agreement between San Diego State University and (1) the California State University System and (2) municipal-level of government, such as the San Diego County or any of its 18 city districts. Although SDSU CAP author, Tom Abram, has expressed that it would be “beneficial to enter into some conversations with the City, especially around transportation and composting,” until the university presents a formal agreement with any local municipal-level of government this indicator receives a rating of no compliance.

Indicator 4.2C

There is likewise no plan, formal agreement, or evidence of collaboration of San Diego State University climate action planning with an intermediate level of government, such as the state of California. Until the university presents a formal agreement with the intermediate-level of government, this indicator receives a rating of no compliance.

Indicator 4.2D

While the Nationally Determined Contributions (NDC) for climate mitigation and adaptation remain enacted in the United States until early 2020, there are no explicit provisions coordinating and empowering action by colleges and university-campuses. There is likewise no collaboration or formal agreement between SDSU and the national government that includes reference to reference to the national-level of government supporting their climate action pursuits, this indicator receives a rating of no compliance.

Principle 5: Relevant

Indicator 5A

The actions in this plan are evidently prioritized to respond to the delivery of climate benefits and support university development priorities. The first set of actions, that are of high priority, are actions that will be identified as “quick wins,” ones that have a low cost yet yield significant GHG emissions reductions. The plan states, “the council will develop an implementation matrix to determine prioritization, based on criteria such as cost/benefit analyses, ease of implementation, visibility and available champion” (CAP, pg.74). Actions that are not listed as “quick wins” are sequenced over time based off of the GHG Emissions Inventory.

Principle 6: Actionable

Indicator 6A

Each proposed climate action is clearly, and sequentially identified throughout this plan. Following each sector description, a summary table containing all proposed actions is provided with an estimated time of completion, either: Short (2017-2018), Medium (2019-2020), or Long (2021+). This is exemplified in *Figure 3* below. The plan further identifies and prioritizes the 2017-2018 projects as “quick wins” as they are already in progress, or will be entering the preparation stages very soon. Included within the plan are various pilot actions already in-progress. Although the plan is extremely clear regarding sequence of climate actions, funding sources as well as working groups responsible for implementing and monitoring these improvements are not clearly provided within the plan. Although three of the eight conditions listed within this indicator are met, thus earning the plan a rating of full compliance, there is still room for improvement and revaluation.

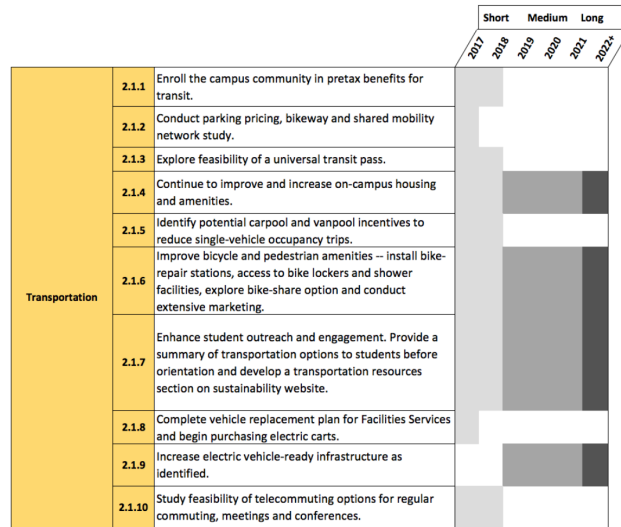


Figure 3. Transportation sector actions sequenced over time into Short, Medium, and Long term goals.

Principle 7: Evidence-Based

Indicator 7A

As a university that has committed to the University Presidents' Climate Commitment provided by Second Nature, SDSU annually generates and publicizes their GHG emissions inventory. This inventory is divided into over ten sectors and the baseline results are displayed in *Figure 4*.

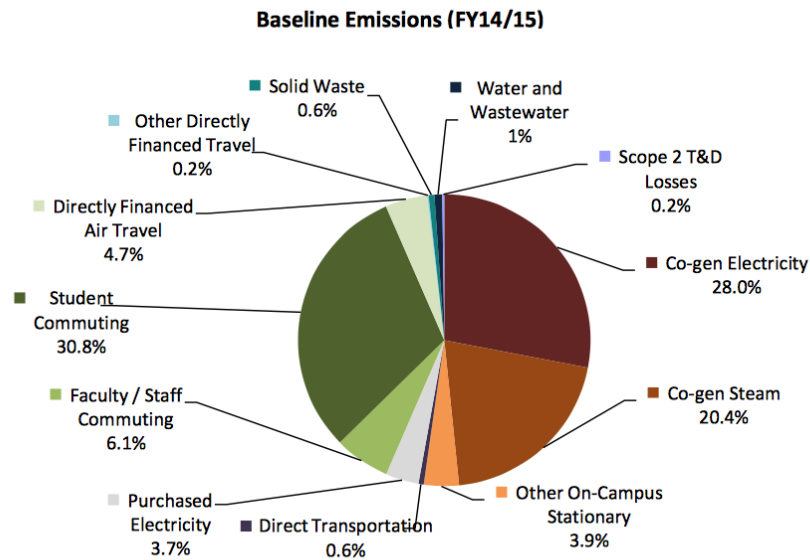


Figure 4. San Diego State University Greenhouse Gas Emissions Inventory for the fiscal year of 2014-2015.

Indicator 7B

As previously stated, SDSU's plan does not address adaptation as a strategy for campus climate action and sustainability. However, in later meetings it was stated by SDSU that a climate vulnerability assessment can be beneficial and will be considered during revaluation of the plan. Thus, this indicator receives a rating of no compliance.

Principle 8.1: Transparent

Indicator 8.1A

The plan is available online, in English, on the University's Sustainability Website as well as on Second Nature's Website (Second Nature, 2019 & SDSU, 2019). The plan is thus available to all members of the campus, university community, and public. Although there were minimal efforts to include community stakeholders and the student body, there was collaboration between few undergraduate and graduate students, as well as university alumni in the process of drafting this plan. The criteria and process

for prioritizing climate actions within the plan is written in a language that can be understood with basic comprehension, and minimal knowledge regarding climate change. Figure 5 displays the online accessibility of the reporting platform offered via second nature. Lastly, SDSU has created a spreadsheet of all recommended climate actions organized by sector including timeline, prioritization, and status of completion. This information is accessible to anyone via SDSU's website as a method to increase the transparency of their progress.

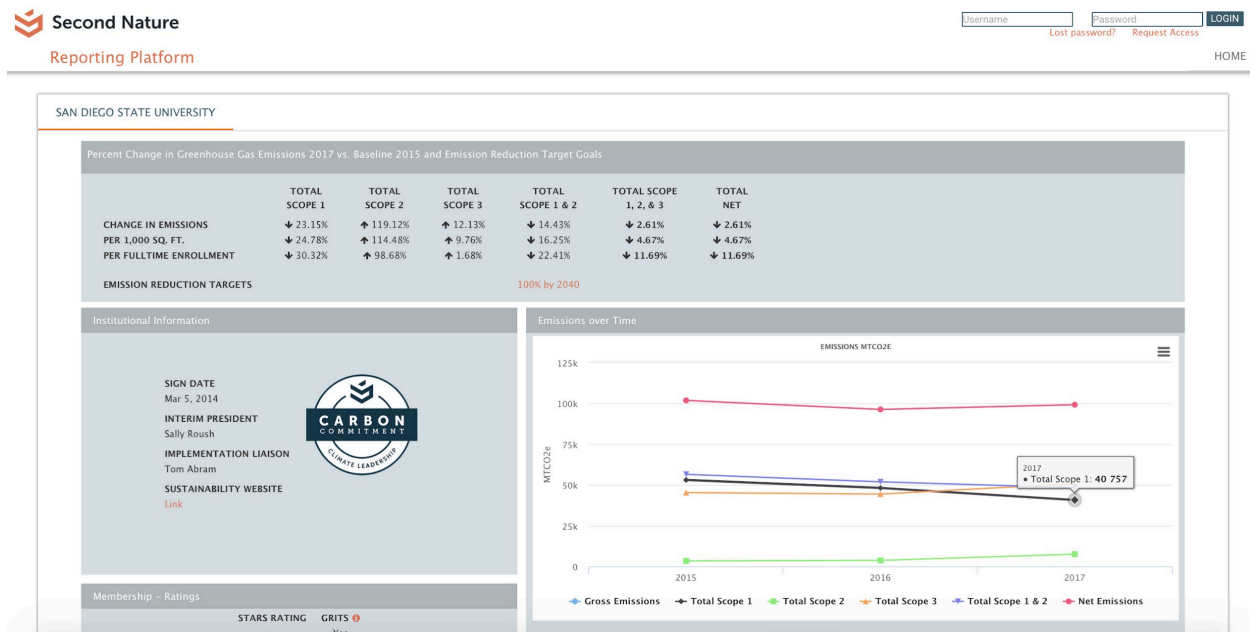


Figure 5. Second Nature reporting platform

As previously stated, the plan mentions a “regular basis” for reviewing and evaluating the current plan, however there is no clear, time definition of “regular”. In order to reach full compliance with this indicator, this will need to be clearly stated upon the plan’s revaluation.

Principle 8.2: Verifiable

Indicator 8.2A

San Diego State University’s plan does not currently address a specific or detailed periodic measurement for monitoring and evaluating emission reduction. The goals and actions will be monitored on a “regular basis” however; the specific time frame is not explicitly stated. Actions that are assigned to certain individuals or departments will be evaluated for revisions with “regular follow ups” (CAP pg. 74).

With the ongoing and future renovations of building automation, heating, ventilation, and air conditioning (HVAC) systems, and monitoring-based and continuous commissioning (MBCx), for each building, the university will have clear insight and control, as well as early fault detection, over each building's energy usage across multiple sectors to ensure energy consumption reduction. These upgrades are aimed to be implemented for all major buildings by 2025 with a minimum of three MBCx projects being complete each year. With evidence that a successful MBCx project was completed on the Arts & Letters building, pictured to the right in *Figure 4*, if SDSU continues to retrofit its buildings, they will be able to tightly control the energy going in and out of each building, resulting in reduced emissions.

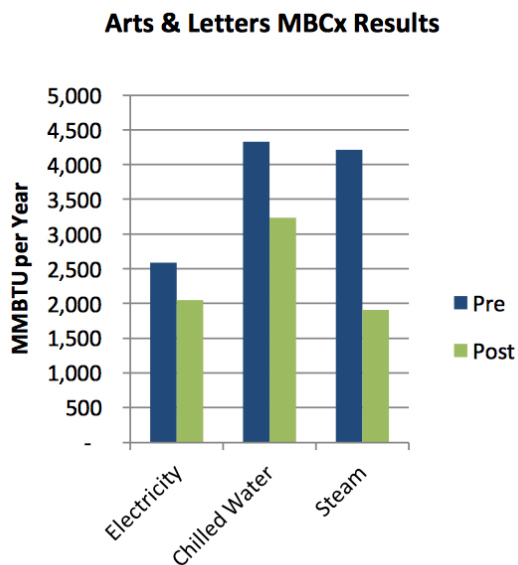


Figure 4. Minimum of three MCBx projects to be completed each year layout for the Arts and Letters building.

Recommendations

For University-Level Climate Action Process

San Diego State University's current climate action planning is moderately in compliance with the Guiding Principles Toolkit for University-Level Reviews, which is based off the United Nations Human Settlements Programme's Guiding Principles Toolkit for global City-Level Reviews. Based on the indicator-based assessment, the following recommendations would help SDSU reach full compliance with the *Guiding Principles*.

San Diego State University should:

1. Sign the Resilience Commitment for Universities offered through Second Nature.
2. Consider conducting a climate vulnerability assessment upon signing Second Nature's Resilience Commitment.
3. Place more responsibility toward maintaining sustainability at an administrative level.
4. Incorporate sustainability into more departments at the student, staff, and faculty level.
5. Consider evaluating the Sustainability staff on campus compared to model universities.
 - a. SDSU should hire a Sustainability Coordinator or Zero Waste Coordinator responsible for campus sustainability outreach, event planning, and directing intern students.
6. Determine how to more transparently report on the progress of the "actions" in all stages of the climate action plan- completed, in-progress, up next, and forthcoming. We recommend a web-based platform, similar to the SDSU Aztec Student Union's web-based platform for online live tracking of carbon dioxide emissions.
7. Upon reviewal of San Diego State University's Climate Action Plan delete the word "draft" in "Draft Energy and Sustainability Policy."

In guiding the completion of these recommendations, there are a plethora of model universities that SDSU can look up to. To begin, there are numerous California State Universities within our own system that are making monumental steps towards achieving carbon neutrality and operating sustainability.

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