Rebecca Collins

From:	dvunit
Sent:	Wednesday, December 13, 2023 11:28 AM
То:	Rebecca Collins
Cc:	Caroline Burkholder
Subject:	Verified STARS Submission
Attachments:	#2107 Tracker - Sustainability - STARS Princeton Review Ranking 2023.xlsx

Hi Sustainability Team,

Thank you for an excellent job providing the necessary info and sources for the STARS survey. All of my questions / concerns have been addressed and I have completed my review. This is now DVU approved.

I have attached a copy of the review tracker to this email for your convenience. Please let me know if you need anything else.

Thanks again and take care, Jon

Jon Shanfelder (he/him) Data Verification Analyst Temple University | Ethics and Compliance Carnell Hall Suite 801 | 1803 N. Broad Street | Philadelphia, PA 19122 215-204-4080 (office) Jon.Shanfelder@temple.edu



Rebecca Collins

From:	Carbon Calc <carbon.calc@unh.edu></carbon.calc@unh.edu>
Sent:	Thursday, January 11, 2024 3:10 PM
То:	Rebecca Collins
Subject:	Re: [External] Data Review Report

Hello Rebecca,

Great! I have reviewed your account and marked the 2020-2023 data reviews as complete.

Thank you again for completing a data review with the SIMAP team!

Best, Ciara

Ciara Tennis (<u>she/her</u>) SIMAP Program Assistant

University of New Hampshire The Sustainability Institute ciara.tennis@unh.edu

From: Rebecca Collins <rebecca.collins@temple.edu> Sent: Wednesday, January 3, 2024 2:00 PM To: Carbon Calc <carbon.calc@unh.edu> Subject: RE: [External] Data Review Report

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Thanks Ciara. I made all the changes you mentioned below.

Rebecca

Rebecca Collins, LEED AP Director of Sustainability rebecca.collins@temple.edu

Temple University 215.204.1715 (o) sustainability.temple.edu

Employers, post internship/job opportunities via Handshake.

From: Carbon Calc <carbon.calc@unh.edu> Sent: Thursday, December 21, 2023 9:38 AM To: Rebecca Collins <rebecca.collins@temple.edu> Subject: Re: [External] Data Review Report

Hello Rebecca,

Thank you for the update!

We reviewed the updates to Scopes 1 and 2 with the Edberg Olsen solar array, and we noticed a few further changes that we think are necessary to accurately reflect the Edberg Olsen solar array.

Scope 1: Checking the box for RECs for 2021, 2022, and 2023

- We noticed that the Scope 1 Solar entries for 2021-2023 do not have the box checked for *My campus* owns the RECs associated with this power generation.
- Action: Please check this box for Edberg Olsen solar array scope 1 entries for years 2021, 2022, and 2023 to indicate that the RECs are retained and sold.

Scope 1: Missing data for 2014 and 2015

- We also noticed that the Edberg Olsen solar data was entered under Scope 2 > Sold: Solar for 2014-2023, but the entries in Scope 1 only include data for 2016-2023.
- Action: If the RECs were retained and sold in 2014 and 2015, please add this data to Scope 1 > Stationary fuels as above. Be sure to check the box indicating the RECs are retained and sold.

Please let us know if you have any questions.

Best, Ciara

Ciara Tennis (<u>she/her</u>) SIMAP Program Assistant

University of New Hampshire The Sustainability Institute <u>ciara.tennis@unh.edu</u>

From: Rebecca Collins <<u>rebecca.collins@temple.edu</u>> Sent: Friday, December 8, 2023 10:51 AM To: Carbon Calc <<u>carbon.calc@unh.edu</u>> Subject: RE: [External] Data Review Report

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Thanks so much for your assistance. I made the critical update and will address the recommendations over the next few weeks.

I look forward to your final approval of Temple University's data.

Rebecca

Rebecca Collins, LEED AP Director of Sustainability rebecca.collins@temple.edu

Temple University 215.204.1715 (o) sustainability.temple.edu

Employers, post internship/job opportunities via Handshake.

From: Carbon Calc <<u>carbon.calc@unh.edu</u>>
Sent: Monday, December 4, 2023 7:41 PM
To: Rebecca Collins <<u>rebecca.collins@temple.edu</u>>
Subject: [External] Data Review Report

Hello Rebecca,

Thanks for completing a data review with the SIMAP team!

Your inventories for 2021-2023 look great! In the attached data review report, please find one critical update (Edberg Olsen Solar Array) to address and the recommendations we discussed, which mostly involve clarifying and documenting data methods and verifying data points.

Once you have addressed the critical update and any recommendations you'd like to incorporate, please let us know and we will mark your data review as complete in SIMAP.

After any updates for years you have already published on the Public Reporting Module, be sure to publish your updated inventory results! You can find instructions for public reporting on the <u>Public Reporting</u> <u>Guidance</u> page.

Thanks again, and please let us know if you have any questions.

Best, Ciara

Ciara Tennis (<u>she/her</u>) SIMAP Program Assistant

University of New Hampshire The Sustainability Institute ciara.tennis@unh.edu



SIMAP DATA REVIEW REPORT

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INSTITUTION NAME	DATE OF DATA REVIEW CALL	SIMAP TEAM MEMBER(S) ON THE CALL	TYPE OF DATA REVIEW
Temple University	November 30, 2023	Dr. Allison Leach, Ciara Tennis	Second data review, 2021-2023 inventories

Thank you for completing a Data Review with the SIMAP team! Below, please find our recommendations for next steps to finalize your carbon and nitrogen footprint calculations. Once you have addressed these items, please confirm by email to simap@unh.edu. Once we agree that your inventory is finalized, we will check the box on the status page in SIMAP indicating the review is complete for the applicable years. In the Appendix, you can see the full list of items we assessed as part of your Data Review.

Summary:

Your inventories for 2021-2023 look great! Below, please find one critical update (Edberg Olsen Solar Array) to address and the recommendations we discussed, which mostly involve clarifying and documenting data methods and verifying data points.

CATEGORY	CRITICAL UPDATE
Scope 1/2: Edberg Olsen Solar Array	 This array is currently entered in scope 2 purchased electricity. However, because it is an on-site array, the best practice is to enter it under Scope 1 > Stationary Sources AND to enter it under Scope 2 > Renewable Energy when the associated RECs are sold. Please make the following updates to your account: Add 2021, 2022, and 2023 data for Scope 1 solar generation and be sure to check the box "My campus owns the RECs associated with this power generation." Delete the Edberg Olsen solar electric generation from Scope 2 > Utility Consumption. Add the Edberg Olsen solar electric generation to Scope 2 > Renewable Energy for any RECs that are sold.
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CATEGORY	RECOMMENDATION
Scope 1: Transport Fuels	The jump in data from 2009 onward is a result of the addition of Athletics department travel data, since that data was not being tracked prior to 2009. We recommend backfilling 2006-2009 with an average and noting the backfilled data in each data point notes and the Notebook. We also recommend looking into the spike that occurred in 2018.
Scope 1: Fertilizer	Fertilizer numbers fluctuated greatly as a result of new tracking practices put in place around 2009 that reduced fertilizer application. We recommend adding a note explaining this.
Scope 1: Refrigerants and Chemicals	We discussed how Temple University is using the recommended methodology of entering refrigerant data that replaces leaks (and excludes charging from a brand-new system). We also discussed entering the refrigerants R-410a and R-141a. R-410a is an option in SIMAP. R-141a is not a common refrigerant, and you could assume it is equal to R-141b, which has GWP of 782 on a 100-year basis in the <u>AR5</u> <u>report</u> .
Scope 2: Purchased Electricity	We discussed how the PJM Generation Fuel mix lists wood/wood waste and Captured Methane Gas in the fuel mix, and that this information would be reflected in the supplier-specific emission factor and should not be entered in a Custom Fuel Mix (outdated method). It was noted that PJM releases energy reports each calendar year, and we recommend carrying forward your 2022 supplier-specific emissions factor into 2023 as a placeholder until the 2023 factor is available.
Scope 2: Purchased Electricity and Steam	Purchased electricity decreased after 2015 while steam increased after 2015, and we recommend checking with facilities management to determine a reason for this shift.
Scope 3: Commuting	We discussed the data entry that comes directly from a survey and confirmed that the process makes sense, and we recommend entering a note in all commuting data entries to explain how the number of commuters per week and one-way trips per week are combined into a single entry (total one-way trips for all commuters per week).
	We also discussed how the spikes in 2016, 2019, and 2022 were likely the result of the transportation survey being disseminate in those years. The decrease in 2023 is the result of a significant drop in enrollment and a hiring freeze, reducing the number of student, faculty, and staff commuters. We recommend noting this in the Notebook.



Scope 3: Ground Travel	We recommend looking into the fluctuation in ground travel, which spiked in 2018 and 2022.
Scope 3: Wastewater	We discussed how Temple University uses anaerobic digestion for a portion of their food waste since there is no commercial composting in the region. The outputs from the digester are sent down the drain and treated as wastewater. We recommend reporting this data under wastewater treatment and enter the volume of liquid that is going to wastewater as separate data point from other wastewater, and backfilling for all relevant years. We also recommend adding a note in the Notebook that methane is released and not tracked but may be in the future.
Scope 3: Solid Waste	Mass Burn was entered in pounds for 2021 and 2022, while all other data was entered in short tons. We recommend changing these data points to short tons for consistency.
	We also discussed how waste numbers are significantly lower in 2018-2023 due to changes in the waste contract that sent waste to a waste-to-energy facility rather than to a landfill.
Compost	We discussed how no compost data was entered after 2017 because the commercial composting facility closed after 2017, and Temple University made the switch to the anaerobic digester for some of its compostable waste. We recommend noting this change in the Notebook.
DISCUSSION	SIMAP FEEDBACK

REC Purchasing Methodology We discussed how Temple University is purchasing bulk RECs generated at some point in a 6- or 12-month period based on projections for the year, then allocating those RECs to a following reporting year. In cases where only some of the prepurchased RECs fall within the guidelines of generation versus reporting year, Temple University is assuming that the generation happens evenly across the time period and allocating appropriately. This method seems reasonable, and documentation in the data entry notes and/or the Notebook is recommended.

Please contact us at simap@unh.edu with any questions



APPENDIX: SUMMARY OF ITEMS ASSESSED

SIMAP TAB: ACCOUNT

PAGE	CATEGORY	REVIEWED	NOTES
Institution	Basic account information	Yes	
	Zip code	Yes	
Notebook	Notebook entries	NA	We recommend the use of the Notebook to document changes in methodology and other notes on data collection.
Normalizations	Budgets	Yes	Budget data entered for 2018 only.
	Physical Spaces	Yes	Physical spaces data entered for 2013-2022 only.
	Populations	Yes	Population data entered for 2021 only.

SIMAP TAB: DATA ENTRY

SCOPE	CATEGORY	REVIEWED	NOTES
Scope 1	Stationary Fuels	Yes	See Critical Update above.
	Transport Fuels	Yes	See Recommendation above.
	Fertilizer	Yes	See Recommendation above.
	Animals	NA	
	Refrigerants & Chemicals	Yes	See Recommendations above.
Scope 2	Utility Consumption	Yes	See Critical Update and
			Recommendations above.
	Renewable Energy	Yes	
Scope 3	Commuting	Yes	See Recommendation above.
	Business Travel & Study Abroad	Yes	See Recommendation above.
	Student Travel to/from Home	NA	
	Food	NA	
	Paper	NA	
	Waste & Wastewater	Yes	See Recommendations above.
Sinks	Compost	Yes	See Recommendation above.
	Non-Additional Sequestration	NA	
	Offsets	Yes	



SIMAP TAB: DATA MGMT

PAGE	CATEGORY	REVIEWED	NOTES
Calculation	Emission factors version	Yes	
Sources and Methods	Global warming potential version	Yes	
	Scope 2 method	Yes	
	eGrid region	Yes	
Status	Status of years	Yes	All years except for 2023 are marked as complete.
Import Log	Files imported	NA	

SIMAP graphs downloaded 11/30/2023:



Carbon

Net Footprint Graph (2006-2023)



Scopes Graph (2006-2023)





Carbon

Categories (Higher Ed) Graph (2006-2023)