Tulane University

2022 Greenhouse Gas Inventory Report

Introduction

Tulane University's Greenhouse Gas (GHG) Inventory measures the university's annual emissions in Metric Tons Carbon Dioxide Equivalent (MTCO2e). This inventory is conducted as a part of Tulane's participation in the Presidents' Climate Leadership Commitments, a national conglomerate of universities working to address climate change. The 2014 Tulane Climate Action Plan, adopted in 2015, sets three goals for emissions reductions: reduce GHG emissions by 15% from a 2007 emissions baseline by 2020; 30% reduction by 2025; and achieve carbon neutrality by 2050. The emissions inventory provides Tulane community members with information on the university's progress towards its emissions reduction and, eventually, carbon neutrality goals.

The 2022 inventory marked the first year of Project RISE and increasing relaxation of pandemic protocols. Project RISE[1], a 30-year Energy-as-a-Service agreement with Bernhard, LLC, accelerates the university's progress toward Tulane's climate action goals and reinforces our operational resilience. Appendix D provides an overview of Project RISE projects launched in 2022 running through 2025. On our campuses, 2022 welcomed increasingly relaxed operations since the beginning of the Covid-19 pandemic with an unfettered return to large in-person events.

In 2022, Tulane University emitted 73,391 Metric Tons Carbon Dioxide Equivalent (MTCO2e), an increase of 4% from the previous year. A contributor to bump in 2022 emissions is a similar 4% emissions factor increase for the university's purchased electricity, the most substantial portion of our greenhouse gas emissions at 62%[2], discussed further in (Appendix C). The greenhouse gas emissions inventory also reflects a spike in fugitive emissions at 1% of our total annual emissions. This spike is attributed to substantial energy efficiency improvements to cooling equipment implemented in this first year of Project RISE which are projected to reduce operational emissions for decades.

The year 2020 marked the university's first benchmark year for GHG emission reduction, reduce emissions to levels below 71,522 MTCO2e. In 2021, GHG emissions were reduced by 15.84% from emission levels in 2007, achieving its 2020 emission reduction goal. In 2022, emissions reductions have regressed from the 2021 performance, falling slightly behind the 2020 goal.

Tulane University has made significant emissions reductions while expanding the number of students served and size of the institution in building area. Since 2007, MTCO2e per FTE student (Full

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[1] Simon, Kate. January 27, 2022. Retrieved online May 31, 2022: https://news.tulane.edu/pr/tulane-and-bernhard-announce-partnership-optimize-energy-infrastructure-and-improve-resiliency

[2] Chart 2: Overview of Scope 1 & Scope 2 Greenhouse Gas Emissions by Type

Time Equivalent) has decreased by 37% while MTCO2e per 1,000 sq. ft. of building space has decreased by 23%.

Through Tulane's commitment to reducing its GHG emissions the university has regularly implemented strategies to facilitate improvement in its environmental impact. Among the significant projects underway through Project RISE on the uptown and downtown campuses, planning undertaken in 2022 made way for on-site solar photovoltaic systems to be installed on the uptown campus in 2024. On the Northshore, Tulane National Primate Research Center neared the completion of a multi-year renovation and expansion that should begin returning reduced emissions in the 2023-2024 academic year.

Boundaries

Tulane's GHG Inventory measures emissions from university operated facilities, transportation services, and rental properties between January 1 and December 31 of the reporting year. Areas and facilities covered in this report include the uptown campus, downtown health science campus, and the Tulane National Primate Research Center (TNPRC). For the 2022 reporting year, the Tulane Lakeside Hospital and Tulane Medical Center, owned and operated by the Hospital Corporation of America, are not included in this inventory.

Greenhouse Gas Emissions Scopes

Scope 1 emissions are produced directly by the university through the combustion of fossil fuels in equipment and vehicles and through fugitive emissions (for example, the escape of hydrofluorocarbon [HFC] refrigerants or other chemicals into the atmosphere).

Scope 2 emissions are generated indirectly by the university through the purchase of utilities including electricity, steam, and chilled water. See Appendix C for discussion of the emissions factor for the university's purchased electricity in 2022 and previous years.

Scope 3 emissions are all indirect emissions that result from the university's activities that are not captured in Scopes 1 and 2. Scope 3 includes but is not limited to: purchased goods and services, capital goods including construction, fuel, and energy related emissions (FERA), transportation for goods and services, waste, business travel, employee commuting, emissions generated by leased assets, and investments.

Tulane University's Office of Sustainability does not currently include Scope 3 emissions in the annual inventory. However, the implications of emissions beyond Scopes 1 and 2 are significant to addressing climate change and to mitigating the university's climate impact. The development of reliable and repeatable best practice reporting methods for Scope 3 emissions areas are in development.

2022 Greenhouse Gas Emissions

In 2022 Tulane University's greenhouse gas emissions were reduced from the 2020 levels but reflect a bump up from 2021. Tulane's Scope 1 and Scope 2 emissions total 73,391 Metric Tons Carbon Dioxide Equivalent (MTCO2e) in 2022, an increase of 4% from the previous year. Some of this increase can be attributed to a 4% bump in the emissions factor for the university's purchased electricity, which comprises the most substantial portion of our greenhouse gas emissions at 62% in 2022, see Chart 2. Electricity emissions factors are discussed further in Appendix C. The greenhouse gas emissions inventory also reflects a spike in fugitive emissions at 1% of our total annual emissions. This spike is attributed to substantial energy efficiency improvements to cooling equipment implemented in this first year of Project RISE which are projected to reduce operational emissions moving forward.

Chart 1: Tulane University Annual Greenhouse Gas Emissions

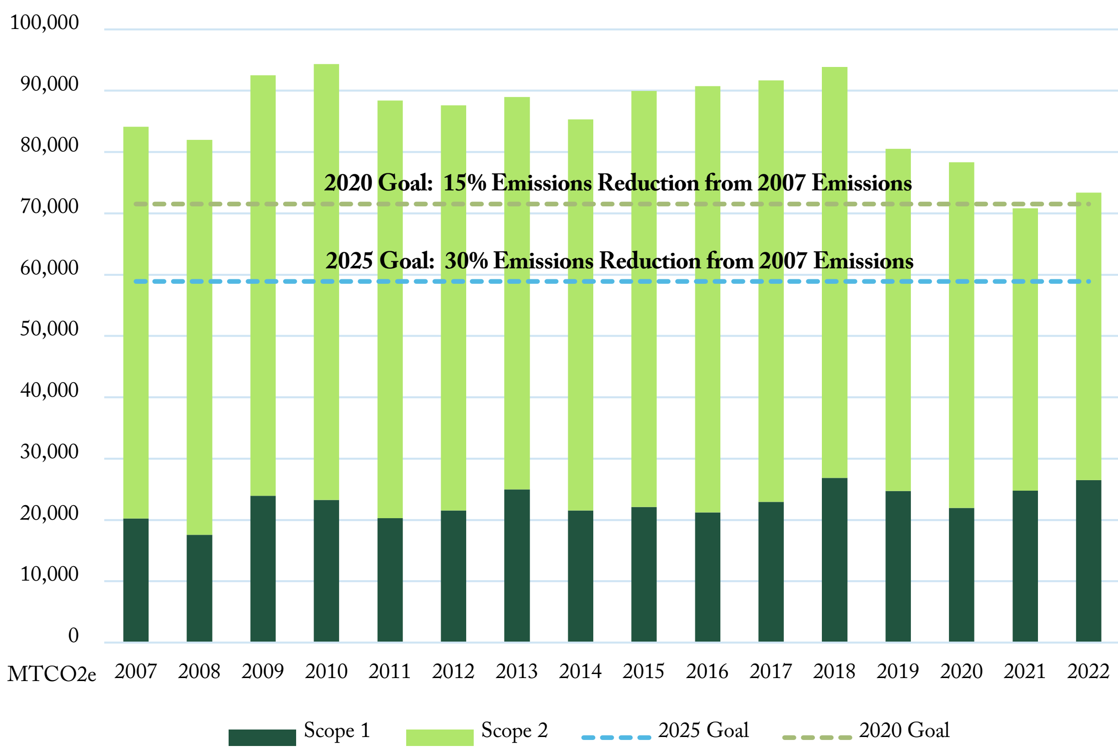

Table 1: Tulane University Annual Greenhouse Gas Emissions

GHG Emissions (MTCO2e)					
	Scope 1	Scope 2	Total Scope 1&2	Amount over 2020 Goal (71,522)	Amount over 2025 Goal (58,900)
2007	20,244	63,900	84,144	12,622	25,244
2008	17,566	64,427	81,993	10,471	23,093
2009	23,953	68,571	92,524	21,002	33,624
2010	23,275	71,088	94,363	22,841	35,463
2011	20,303	68,097	88,399	16,877	29,499
2012	21,546	66,095	87,641	16,119	28,741
2013	24,971	64,004	88,975	17,453	30,075
2014	21,559	63,776	85,335	13,813	26,435
2015	22,089	67,900	89,989	18,467	31,089
2016	21,248	69,526	90,774	19,252	31,874
2017	22,938	68,765	91,703	20,181	32,803
2018	26850	67,046	93,895	22,373	34,995
2019	24,737	55,807	80,544	9,022	21,644
2020	21,949	56,388	78,337	6,815	19,437
2021	24,748	46,064	70,812	-710	11,912
2022	26,486	46,905	73,391	1,869	14,491

Table 2: Greenhouse Gas Emissions Reduction Progress

2022 Greenhouse Gas Emissions Reduction Progress	
Change 2021 to 2022	4% increase in emissions 2021 to 2022
Change from 2007 emissions	-13% below 2007 emissions

Emissions Intensity

Table 3 below, catalogs the university's annual emissions together with institutional indicators of size and corresponding emissions intensity figures since 2007, the Climate Action Plan's baseline year.

The two indicators of the university's size used are the Full Time Equivalent (FTE)[3] student population and total building area.[4]

Since 2007 the student population and Tulane building area have each grown. The 2022 FTE student population is 38% larger than it was in 2007 and 8% larger than it was in 2015 when the Climate Action Plan was adopted. Despite the expansion of the student population, Tulane's emissions per FTE student steadily trend toward reduced intensity per student. Emissions per student decreased from 8.73 MTCO2e/FTE in 2007 to 7.32 MTCO2e/FTE in 2015, landing in 2022 at 5.50 MTCO2e/FTE.

The emissions intensity for building area has also decreased, sliding from 12.33 MTCO2e per 1,000 square feet of building area in 2015 to 9.52 in 2022, a 23% reduction since the adoption of the Climate Action Plan in 2015. Emissions intensity in 2007 was not noticeably higher than 2015, at 12.47 MTCO2e per 1,000 square feet. However, the university expanded its building area by 14% between 2007 and 2022, indicating significant reductions in emissions associated with building operations, particularly since 2015. See Appendix A for a visualization of the emissions intensity data presented in Table 3.

Table 3: Emissions Intensity

	MTCO2e (Scopes 1&2)	Student Population, Full Time Equivalent (FTE)	MTCO2e/ FTE Student	Building Area (1,000 sq. ft.)	MTCO2e/ 1,000 sq. ft.
2007	84,144	9,641	**8.73**	6,747	**12.47**
2008	81,993	10,091	**8.13**	7,038	**11.65**
2009	92,524	10,695	**8.65**	7,156	**12.93**
2010	94,363	10,945	**8.62**	7,168	**13.16**
2011	88,399	12,034	**7.35**	7,193	**12.29**
2012	87,641	11,699	**7.49**	7,210	**12.16**
2013	88,975	12,248	**7.26**	7,210	**12.34**
2014	85,335	12,341	**6.91**	7,475	**11.42**
2015	89,989	12,293	**7.32**	7,297	**12.33**
2016	90,774	12,397	**7.32**	7,303	**12.43**
2017	91,703	12,101	**7.58**	7,292	**12.58**
2018	93,895	12,413	**7.56**	7,441	**12.62**

[3] Full Time Equivalent student population is calculated using the total number of full-time students plus half the number of part time students.

[4] Temporary structures, including temporary pavilions housing the Tulane School of Architecture, are not included in the university's total building square footage. The energy used by those structures is included in the calculation of annual greenhouse emissions.

2019	80,544	12,784	**6.30**	7,498	**10.74**
2020	78,337	13,071	**5.99**	7,651	**10.24**
2021	70,812	13,447	**5.27**	7,730	**9.16**
2022	73,391	13,336	**5.50**	7,709	**9.52**

GHG Emissions and Energy Use

The greenhouse gas inventory reviews Scope 1 and Scope 2 emissions generated by the university annually. Looking at Chart 2, one can see that the university's emissions are dominated by two energy sources: natural gas in scope 1 and purchased electricity in scope 2. Remaining contributors, transportation fuel, fugitive emissions, and purchased steam and chilled water combined comprise 4% of the university's 2022 emissions. Table 4 details these greenhouse gas emissions sources by year.

The energy used by Tulane is principally purchased as electricity or natural gas from Entergy New Orleans, the local utility for the uptown and downtown campuses. The TNPRC draws utilities from Cleco, the utility serving the Northshore. Electricity is used to power artificial lighting, electronics, pumps, fans, refrigerators, and other equipment within buildings and on our campus grounds.

Natural gas is used to produce heat through steam systems which is used to create heat and hot water for buildings. The natural gas is also burned to create steam which is used to drive a turbine and generate electricity via the Combined Heat and Power Unit (CHP). Tulane purchases a small amount of steam and chilled water from district utilities downtown, often as a backup source of heating and cooling buildings.

Gasoline and diesel are primarily used by vehicles such as shuttles and transportation, athletics, and police departments. Facilities Services powers some equipment, including landscaping tools, using gasoline. During events and emergency situations, diesel fuel is the most common fuel used to power mobile generators.

Fugitive emissions differ from other emissions contributors in the inventory. This category accounts for emissions generated through the direct release of chemicals into the atmosphere that become greenhouse gases. Refrigerants purchased for cooling equipment dominate this category of emissions. Because these chemicals are so damaging to the environment, extreme measures are taken to ensure that they are not released into the atmosphere during handling. Over time, they leak from cooling equipment and must be replaced.

In accordance with greenhouse gas emissions accounting practices, fugitive emissions are included in emissions tracking the year of their purchase. Fugitive emissions spiked in 2022 due to significant investment in new, energy efficient, cooling equipment installed in 2022.

Chart 2: Overview of Scope 1 & Scope 2 Greenhouse Gas Emissions by Type

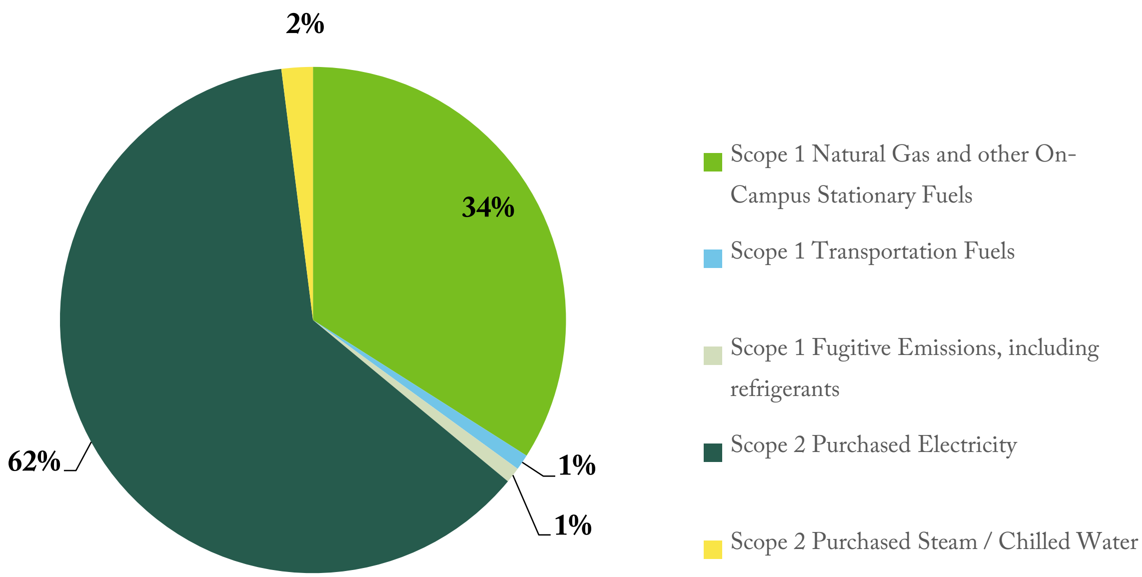

Table 4: Annual Scope 1 & Scope 2 Greenhouse Gas Emissions Sources

	Scope, Source, & Units	2018	2019	2022	2021	2022
1	Natural Gas, MMBTU	478,366	443,341	392,797	445,871	465,630
1	Propane, Gallons	0	121	477	612	350
1	Gasoline, Gallons	88,681	83,913	70,670	61,094	59,252
1	Diesel, Gallons	39,960	34,419	24,111	34,565	17,277
1	Refrigerant HCFC-22, lbs	n/a	n/a	125	132	0
1	Refrigerant HFC-134a, lbs	290	125	n/a	4	25
1	Refrigerant HFC-410a, lbs	n/a	n/a	144	105	725
1	Refrigerant, R-427A, lbs	n/a	n/a	n/a	n/a	300
1	Refrigerant HFC-407C, lbs	n/a	n/a	n/a	n/a	50
2	Purchased Electricity, kWh	142,884,447	142,375,463	143,998,808	135,591,816	135,894,790
2	Purchased Steam, MMBTU	1,098	933	999	4,989	10,796
2	Purchased Chilled Water, MMBTU	5,281	4,235	33	5,073	4,937

Projects Affecting Emissions & Outlook

The university implemented several significant projects in 2022 to reduce the university's emissions across all campuses. Tulane embarked on a 30-year Energy-as-a-Service partnership with Bernhard, LLC, in 2022 which includes the goal of reducing annual greenhouse gas emissions toward reaching carbon neutrality in 2050. Using the moniker "Project RISE," Bernhard began implementing energy optimization projects on the uptown and downtown campuses early in 2022.

Over $80 million in capital improvements will upgrade and strengthen the Universities Plant operations, HVAC, and energy infrastructure. The partnership includes a 1-megawatt solar generation facility on the uptown campus to generate up to 10% of the university's total electricity needs. Improving reliability and resilience of campus infrastructures is also a program goal. Bernhard takes on responsibility for risk of energy operations and maintenance. Appendix D provides two tables of projected reductions for the uptown and downtown campuses, respectively, targeted for completion in 2025.

Much of the work undertaken in 2022 makes way for stronger reductions ahead. Bernhard began updating roofing and electrical systems to prepare for solar photovoltaic systems installation on the uptown campus in 2024. To bring building automation systems (BAS) into widespread use uptown and downtown, Bernhard began installing building-level meters to provide energy managers with detailed building performance information by which to track and reduce energy and water consumption.

On the Northshore, the Tulane National Primate Research Center neared the completion of a significant renovation and expansion. The renovation included upgrades to building operation systems to reduce energy use and introduce building management tools to monitor and maintain the performance goals. These emissions reductions should be observed in the 2023-2024 academic year.

Tulane University's 2022 Greenhouse Gas Inventory Report was prepared by the Office of Sustainability with data from colleagues across the university. Data collection was conducted by student intern Barrett Dollar, '23.

Appendix A

Emissions Intensity

Chart 4: Tulane University Annual Greenhouse Gas Emissions Intensity

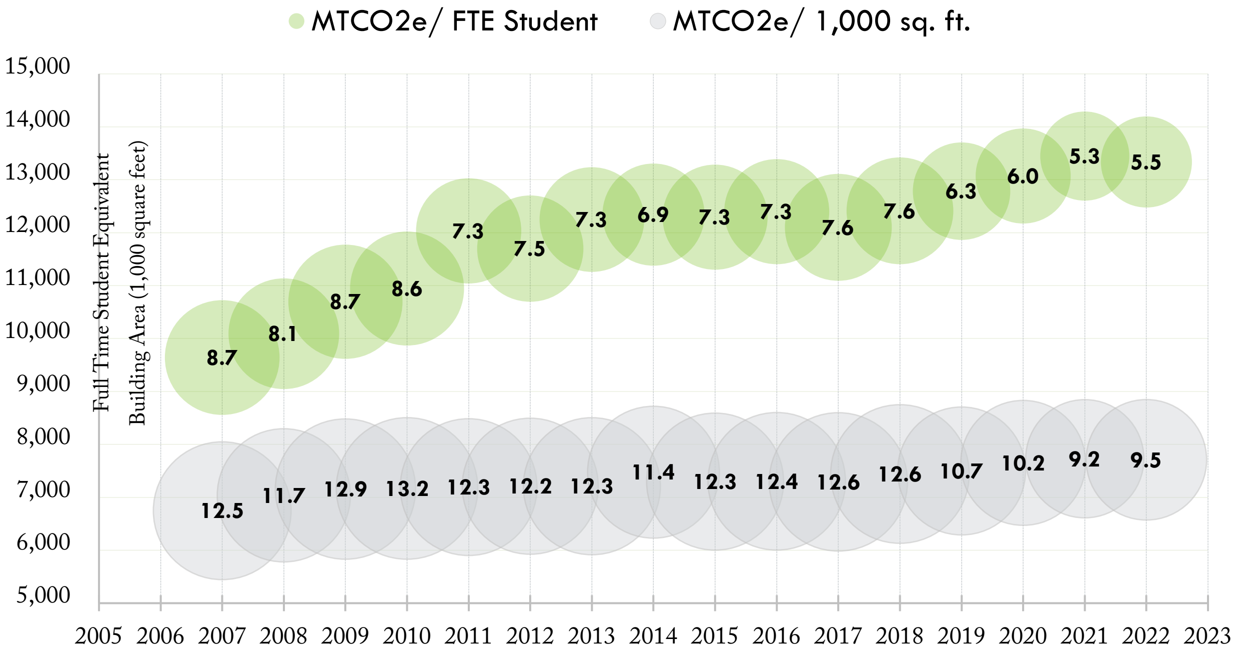

Chart 4 draws on emissions intensity data shared in Table 3 to visualize changes emissions intensity and institution size since 2007. The intensity of climate emissions per full time student equivalent for each year, MTCO2e/FTE, is indicated by the area of the **green circles,** with the corresponding numerical value presented inside each circle. Similarly, the magnitude of climate emissions per 1,000 square feet of building area is indicated by the area of the **grey circles**. The position of the circles on the x-axis indicates the corresponding performance year. The position of each circle on the y-axis indicates the corresponding full time student equivalent population or building area for that year. The data show decreasing emissions intensities through smaller circle sizes for both student population and building area with an upward institutional growth trend since 2007.

Appendix B

Climate & Weather

Energy use to heat and cool buildings is partially influenced by the weather over the course of a calendar year. Heating Degree Days (HDD) and Cooling Degree Days (CDD) are one method of tracking the climactic demand for energy to condition buildings. These data points provide a rough indication of how much and how often the external air temperature would require heating or cooling to sustain a temperature of 65 degrees inside buildings.

The table below shows the annual Heating Degree Days and Cooling Degree Days based in actual weather patterns at New Orleans International Airport weather station (KMSY). Based on this data, 2022 saw more Heating Degree Days (a colder winter) and fewer Cooling Degree Days (a cooler summer) than the two preceding years. In 2022, weather conditions would have encouraged more energy to warm buildings and less energy to cool buildings when compared to 2021 and 2020.

Table 5: Climate & Weather

KMSY New Orleans International Airport Weather Station	2007		2017	2018	2019	2020	2021	2022
Heating Degree Days (HDD)[1]	1,116		1,247	1,247	1,182	835	1,101	1,354
Cooling Degree Days (CDD)[2]	3,433		3,538	3,538	3,455	3,672	3,374	3,347

[1] Fahrenheit-based heating degree days with a base temperature of 65 F.

[2] Fahrenheit-based cooling degree days with a base temperature of 65 F.

Data Source: BizEE Weather Data for Energy Saving, www.degreedays.net.

Appendix C

Emissions Factors for Purchased Electricity

Emissions factors, or emissions coefficients, are used to calculate the amount of greenhouse gas emissions released per one unit of energy. The emissions factor for purchased electricity is dependent on the types and amounts of each fuel utilized to generate the electricity. For the purposes of calculating annual greenhouse gas emissions, emissions factors are calculated annually for each major regional electric grid by the Environmental Protection Agency.

The regional electric grid serving southeast Louisiana and Tulane's campuses is the SERC Mississippi Valley electric grid. This grid is incorporated into the basis of emissions calculations and projections for Tulane's current Climate Action Plan, including the 2007 baseline year emissions, emissions reduction goals, and steps to achieve those goals.

Between 2020 and 2021, the SERC Mississippi Valley emissions factor decreased by 13%. However, between 2021 and 2022, the emissions factor increased by 4%. Barring significant changes to plants and providers, the variation in emissions factor from year to year often stems from the relative cost and operational needs of generating electricity from the sources available to utilities within the regional grid (natural gas, coal, nuclear…). As electricity generation becomes cleaner, the emissions factor is reduced.

The SERC Mississippi Valley electric grid includes Entergy New Orleans, Tulane's electricity, and natural gas provider south of Lake Pontchartrain. Cleco, the utility serving the Northshore, serves the TNPRC. In May of 2021, the City of New Orleans adopted the Renewable and Clean Portfolio Standard (RCPS)[5] which requires Entergy New Orleans to provide customers with electricity from zero carbon sources by 2050. Intermediate performance goals are to provide electricity from 80% clean sources by 2030 and 100% clean (net-zero carbon emissions) by 2040. These improvements and others in the regional grid will help the university reach its carbon reduction goals for 2030 and 2050.

Table 6 below provides a chronology of emissions factors for the university's purchased electricity. Scope 2 emissions receive special attention in this report because of their relative share of annual emissions. Both the buyer and the seller of electricity are responsible for the emissions released. The purchaser, in this case Tulane University, determines how much electricity they will consume through

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[5] The Renewable and Clean Portfolio Standard, retrieved May 31, 2022, online: https://cityofno.granicus.com/MetaViewer.php?view_id=&clip_id=3852&meta_id=538696

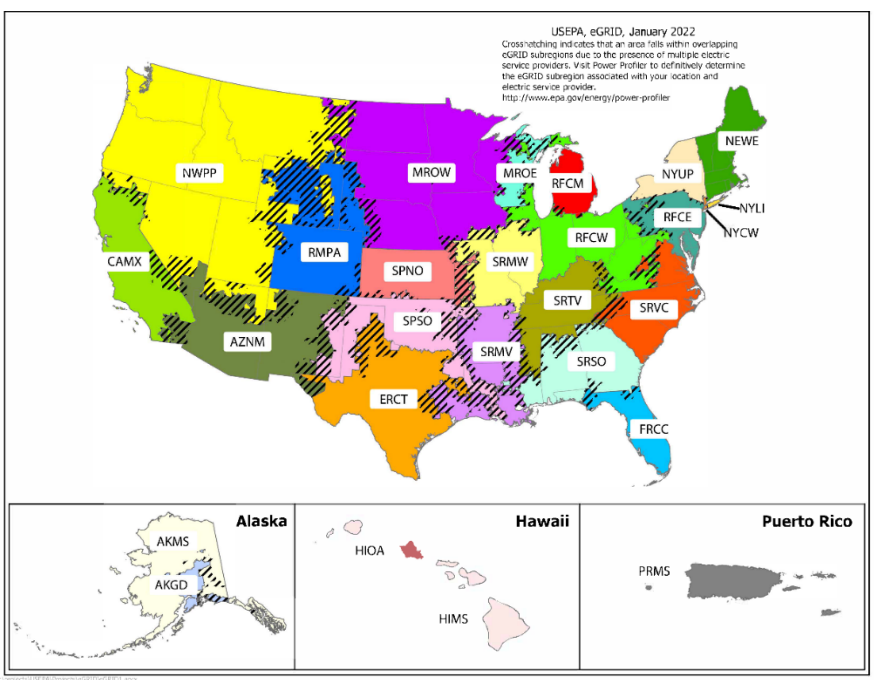
selection, maintenance, and repair of its equipment and facilities. The electric utility determines how electricity will be generated, and thereby, the associated emissions.

Table 6: Scope 2 Electric Grid Emissions Factors

Scope 2 Electric Grid Emissions Factors						
	2017	2018	2019	2020	2021	2022
eGrid Region	SRMV: SERC Mississippi Valley since 2007					
Emission Factors Version	AR4	AR4	AR5	AR5	AR5	AR6
Emission Factors Database	eGrid2014	eGrid2016	eGrid2018	eGrid2018 Unchanged in 2020 update	eGrid2020	eGrid2021
CO2e	1027.1 lb/MWh	842.2 lb/MWh	858.4 lb/MWh	858.4 lb/MWh	740.36 lb/MWh	775.4 lb/MWH

For more information on electricity emissions factors and the eGrid regions at the U.S, visit the EPA's Power Profiler website, accessed May 25, 2023. https://www.epa.gov/egrid/summary-data

Image 1: US EPA eGRID Map, January 2022



US EPA eGRID Map, January 2022, accessed June 2, 2022: https://www.epa.gov/egrid/maps

Appendix D

2022-2025 Projected Reductions, Uptown and Downtown Campuses

Table 7 and Table 8 present action areas for completion in 2025 as part of the university's Energy-as-a-Service agreement with Bernhard launched in 2022.

Table 7: Projected Reductions, Uptown Campus

Reductions: Electricity kWh	2022	2023	2024	2025
Upgrade Chilled Water System	0	0	2,982,735	3,976,980
Upgrade Cooling Tower Water System	0	0	205,842	274,455
Upgrade Steam and Heating Water System	0	0	270,420	360,560
Install Combined Heating and Power	13,146,264	16,432,830	39,438,793	39,438,793
Upgrade and Retro-Commission BAS	31,585	1,073,903	2,432,074	2,653,172
Upgrade Air Handling Units	0	362,938	1,207,595	1,346,171
Upgrade Interior and Exterior Lighting	2,363,491	7,090,474	7,090,474	7,090,474
Install Solar	0	0	1,102,346	1,445,700
Implement Water Conservation Program	0	0	0	0
Projected Annual Reductions, kWh	**15,541,341**	**24,960,145**	**54,730,278**	**56,586,304**
Percentage of progress through 2025	**27%**	**44%**	**97%**	**100%**
Reductions: Natural Gas MMBTU	**2022**	**2023**	**2024**	**2025**
Upgrade Chilled Water System	0	0	0	0
Upgrade Cooling Tower Water System	0	0	0	0
Upgrade Steam and Heating Water System	0	0	0	0
Install Combined Heating and Power	(118,718)	(148,398)	(356,155)	(356,155)
Upgrade and Retro-Commission BAS	141	4,796	10,861	11,849
Upgrade Air Handling Units	0	0	0	0
Upgrade Interior and Exterior Lighting	0	0	0	0
Implement Water Conservation Program	920	2,761	2,761	2,761
Projected Annual Reductions, Natural Gas MMBTU	**(117,657)**	**(140,841)**	**(342,532)**	**(341,545)**
Percentage of progress through 2025	**34%**	**41%**	**100%**	**100%**
Reductions: Water KGals	**2022**	**2023**	**2024**	**2025**
Upgrade Chilled Water System	0	0	0	0
Upgrade Cooling Tower Water System	0	0	0	24,498
Upgrade Steam and Heating Water System	0	0	0	0
Install Combined Heating and Power	(4,753)	(6,223)	(15,611)	(16,246)
Upgrade and Retro-Commission BAS	47	96	161	4,166
Upgrade Air Handling Units	0	0	0	0

Upgrade Interior and Exterior Lighting	0	0	0	0
Implement Water Conservation Program	4,449	5,586	6,723	13,941
Projected Annual Reductions, Water KGals	**(256)**	**(541)**	**(8,728)**	**26,359**
Percentage of progress through 2025	**-1%**	**-2%**	**-33%**	**100%**

Table 8: Projected Reductions, Downtown Campus Selected Projects

Reductions: Electricity kWh	**2022**	**2023**	**2024**	**2025**
Upgrade Chilled Water System	0	0	1,920,325	2,094,900
Upgrade Cooling Tower Water System	0	147,449	737,246	758,310
Upgrade Steam and Heating Water System	0	100,501	545,578	574,293
Install Heat Pump Chiller Heater	0	(572,080)	(1,197,716)	(1,197,716)
Upgrade and Retro-Commission BAS	21,451	622,073	772,229	772,229
Upgrade Air Handling Units	0	111,634	253,323	257,617
Upgrade Interior and Exterior Lighting	990,188	3,394,932	3,394,932	3,394,932
Implement Water Conservation Program	0	0	0	0
Projected Annual Reductions, kWh	**1,011,639**	**3,804,509**	**6,425,917**	**6,654,564**
Percentage of progress through 2025	**15%**	**57%**	**97%**	**100%**
Reductions: Natural Gas MMBTU	**2022**	**2023**	**2024**	**2025**
Upgrade Chilled Water System	0	0	0	0
Upgrade Cooling Tower Water System	0	0	0	0
Upgrade Steam and Heating Water System	0	918	4,984	5,246
Install Heat Pump Chiller Heater	0	11,066	23,167	23,167
Upgrade and Retro-Commission BAS	57	1,647	2,044	2,044
Upgrade Air Handling Units	0	0	0	0
Upgrade Interior and Exterior Lighting	0	0	0	0
Implement Water Conservation Program	245	842	842	842
Projected Annual Reductions, Natural Gas MMBTU	**302**	**14,472**	**31,037**	**31,299**
Percentage of progress through 2025	**1%**	**46%**	**99%**	**100%**
Reductions: Water KGals	**2022**	**2023**	**2024**	**2025**
Upgrade Chilled Water System	0	0	0	0
Upgrade Cooling Tower Water System	0	(162)	(810)	(833)
Upgrade Steam and Heating Water System	0	311	1,689	1,778
Install Heat Pump Chiller Heater	0	1,757	3,679	3,679
Upgrade and Retro-Commission BAS	1	34	42	42
Upgrade Air Handling Units	0	0	0	0
Upgrade Interior and Exterior Lighting	0	0	0	0
Implement Water Conservation Program	1,157	3,968	3,968	3,968
Projected Annual Reductions, Water KGals	**1,159**	**5,909**	**8,569**	**8,635**
Percentage of progress through 2025	**13%**	**68%**	**99%**	**100%**