

University of Texas – Rio Grande Valley

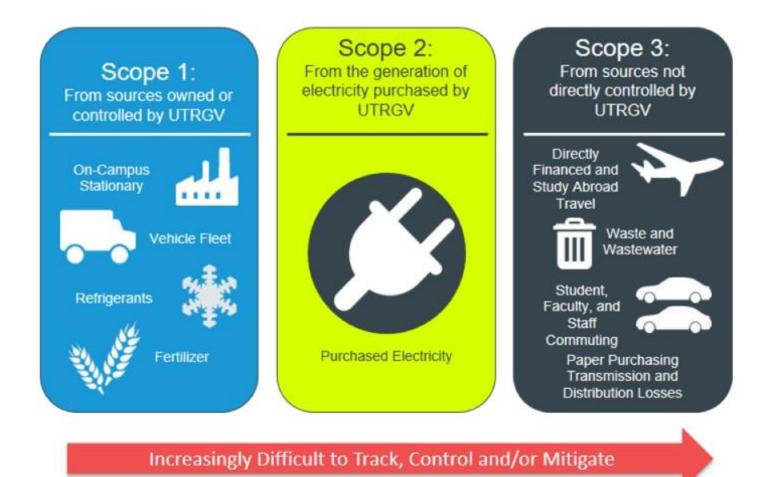
Sustainability Qualification

May 2020

University of Toledo University of Vermont University of Washington University of West Florida University of Wisconsin - Madison Vanderbilt University Virginia Commonwealth University Wake Forest University Washburn University Washington State University Washington State University - Tri-Cities Campus Washington State University - Vancouver Washington University in St. Louis Wayne State University Wellesley College Wesleyan University West Chester University West Virginia Health Science Center West Virginia University Western Oregon University Westfield State University Widener University Williams College Worcester Polytechnic Institute Worcester State University



UTRGV Qualification Agenda



Agenda:

- Review all data collected for FY19
- Confirm all outstanding questions throughout Scopes 1, 2, and 3.
- Review how the information is inputted in SiMAP, and ensure everyone has the ability to download data accordingly from the website.
- Discuss Final Presentation Dates and Objectives
- Review peer group for comparison





Scope 1



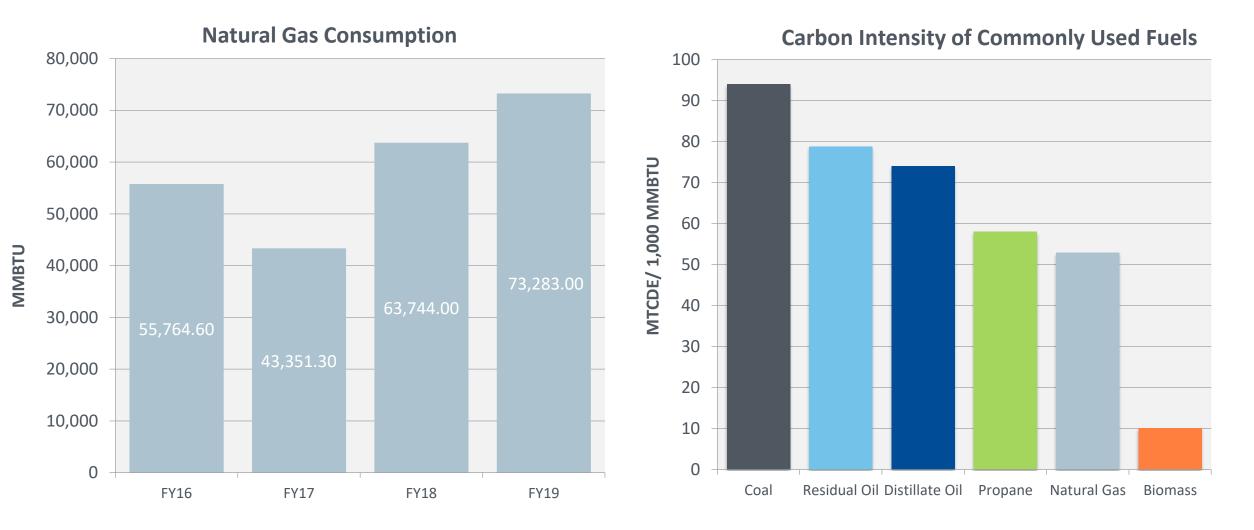
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Scope 1 Utility Base Data

U.T. R.G.V.	Energy & Water Data							
1990-2019E								
(See comments below for the history of UTRGV energy data prior to 2016 being the compilation of UTB and UTPA. The Harlingen c								
				F	Purchased Ene	rgy		
	Electricity	Natural Gas	Electricity	Natural Gas	Total	Total	Other	Other
Fiscal	Usage	Usage	Cost	Cost	Electricity	Natural Gas	Energy	Energy
Year	<u>(Kwh)</u>	(Mcf)	<u>(\$/Kwh)</u>	<u>(\$/Mcf)</u>	Cost	Cost	(MMBtu)	Cost
2007	94,091,878	83,080	\$0.0755	\$8.6582	\$ 7,105,280	\$ 719,324	0	\$ -
2008	97,283,541	82,717	\$0.0870	\$10.1721	\$ 8,460,553	\$ 841,405	0	\$ -
2009	98,337,336	78,096	\$0.0858	\$8.2911	\$ 8,435,716	\$ 647,502	0	\$ -
2010	103,133,710	91,238	\$0.0824	\$6.0274	\$ 8,497,575	\$ 549,929	0	\$ -
2011	102,856,561	79,460	\$0.0831	\$5.5513	\$ 8,552,118	\$ 441,104	0	\$ -
2012	101,962,756	74,111	\$0.0701	\$4.7237	\$ 7,149,813	\$ 350,078	0	\$-
2013	101,224,621	70,898	\$0.0658	\$5.7570	\$ 6,660,428	\$ 408,160	0	\$-
2014	79,789,905	69,342	\$0.0705	\$6.3298	\$ 5,622,826	\$ 438,921	0	\$-
2015	87,094,797	60,913	\$0.0737	\$5.8865	\$ 6,417,658	\$ 358,567	0	\$-
2016	85,023,773	55,765	\$0.0752	\$3.8945	\$ 6,397,665	\$ 217,178	0	\$-
2017	87,360,175	43,351	\$0.0692	\$5.4996	\$ 6,044,977	\$ 238,416	0	\$-
2018E	90,596,169	63,744	\$0.0662	\$5.3280	\$ 5,997,915	\$ 339,628	0	\$-
2019E	97,205,440	73,283	\$0.0644	\$5.7766	\$ 6,258,996	\$ 423,324	0	\$ -

Scope 1 Fuel Consumption



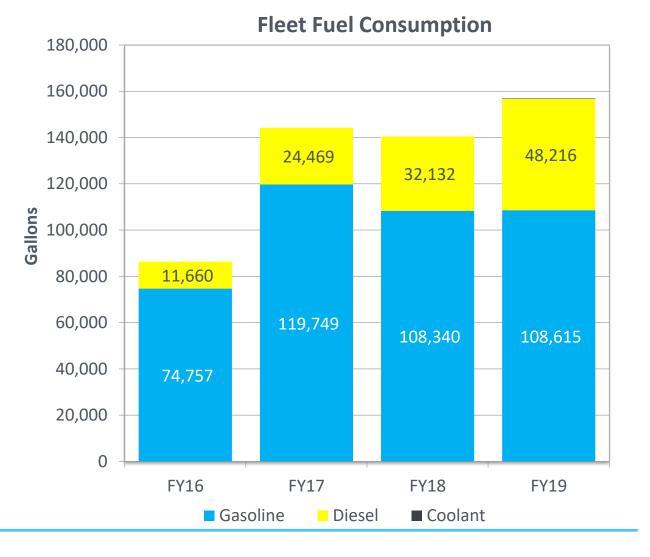
sightlines MMBTU entered directly into SiMAP

Other Scope 1 – University Fleet Fuel



Base Data:

Fuel Consumption (Gallons)	Fiscal Year		
Fuel Type / Incidentals	2019		
Diesel	48,216		
Unleaded	108,615		
Coolant	41		
Grand Total (gallons)	156,872		



Other Scope 1 – Refrigerants and Chemicals

The University of Texas Rio Grande Valley

Refrigerant and Chemicals 3,000 Base Data: "Note: fiscal year 2018 had a spike Work Date Туре SKU Code/Description Qty Account # Technician Transacti due to a chiller repair that involved Order on # 09/06/2018 5 : Issue Part (WO) ED19-ED19-03167/7-EDWH ' - 'Freon R22, 32000025 4 Francisco recovery and replacement of HFC-2,500 66144 66144 Gonzalez usage per pound. 134a" 09/06/2018 5 : Issue Part (WO) ED19-ED19-32000025 03167/7-EDWH ' - 'Freon R22, Rogelio Arreola 5 66225 66225 usage per pound. BR19-BR19-09/14/2018 5 : Issue Part (WO) 03167/7-BRWH'- 'Freon R22, 21000083 Robert 2 29497 29497 usage per pound. Degasperi 2,000 BR19-09/21/2018 5 : Issue Part (WO) BR19-03167/7-BRWH ' - 'Freon R22, 21000083 Robert 2 29632 29632 usage per pound. Degasperi 09/21/2018 5 : Issue Part (WO) 03167/7-EDWH ' - 'Freon R22, ED19-ED19-32000025 Rogelio Arreola 4 Pounds 66144 66144 usage per pound. 2 BR19-09/26/2018 5 : Issue Part (WO) BR19-03167/7-BRWH ' - 'Freon R22, 21000083 Robert 1,500 29938 29938 usage per pound. Degasperi 09/27/2018 5 : Issue Part (WO) BR19-BR19-03167/7-BRWH ' - 'Freon R22, 21000083 David Silva 1 29870 29870 usage per pound. BR19-3 BR19-10/02/2018 5 : Issue Part (WO) 03167/7-BRWH ' - 'Freon R22, 21000083 Robert 29882 29882 usage per pound. Degasperi 1,000 500 Row Labels 💌 Sum of Lb Usage 134A 0.8125 410A 65 0 R22 344 FY16 FY17 **FY18 FY19** R404A Grand Total 410.8125 HFC-134a R-404A HCFC-22 HCFE-235 R410A ■ HG-10

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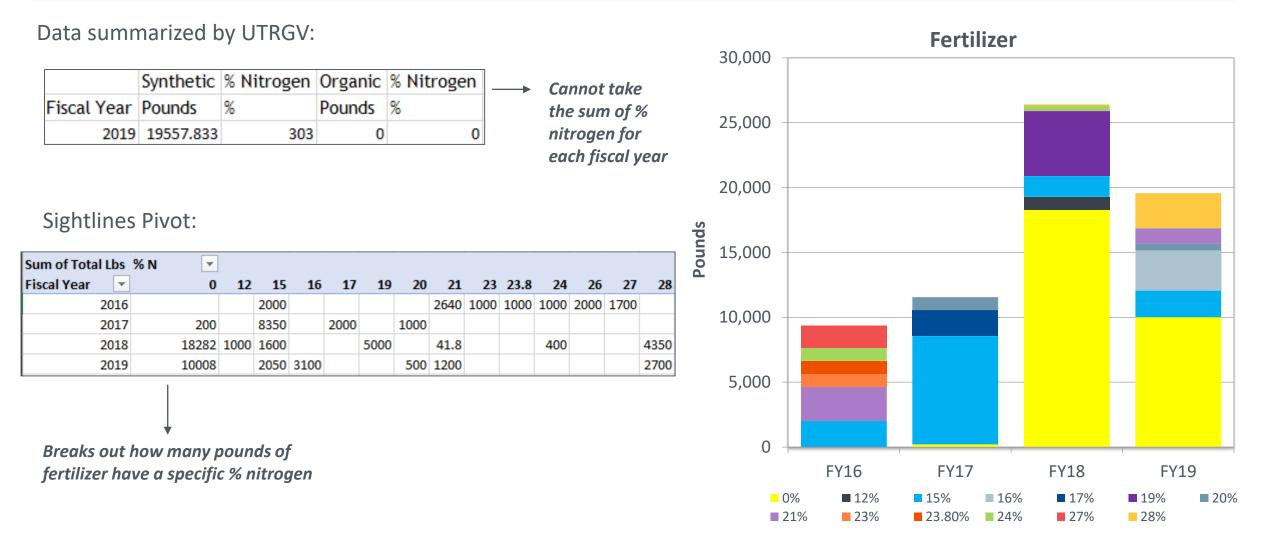
Refrigerant pounds entered directly into SiMAP

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Other Scope 1 – Fertilizer Data

								Speed		
Accounting Date	PO #	PR ID	Quantity	Unit Price	Extended	Amount/UOM & UOM	Product Description	Chart	%Nitrogen	Weight (lbs)
6/18/2019	V000036051	119584555	1	170.66	170.66	1/EA	2.5GL PENDULUM AQUACAP	41000024	0	20.8635
1/22/2019	V000017269	113297655	2	215.02	430.03	1/EA	2.5 GL PRODIAMINE 4L PRE-EM	41000024	0	41.727
4/15/2019	V000028259	116930232	2	25.18	50.36	1/EA	16-8-8 fertilizer 50lbs	21000051	16	100
4/9/2019	V000027541	116661143	8	21.3	170.38	1/EA	SOCCER MAY BCF 28-3-10 50% UFLEXX 5FE	41000024	28	400
9/10/2018	V000001961	108114918	10	21.09	210.9	1/EA	BCF 0-0-22 K MAG	41000024	0	500
9/10/2018	V000001961	108114918	10	22.5	224.96	1/EA	BCF 16-0-16 40% UFLEX3FE.29PROD	41000024	16	500
9/11/2018	V00002430	108141535	10	21.09	210.9	1/EA	BCF 0-0-22 K MAG	41000024	0	500
9/14/2018	V00002778	108207396	10	21.09	210.9	1/EA	BCF 0-0-22 K MAG	41000024	0	500
3/11/2019	V000023691	115251663	10	20.37	203.7	1/EA	Fertilizer 50 lb bag.	21000048	20	500
4/8/2019	V000027289	116609161	10	21.09	210.9	1/EA	0-0-22 K MAG SOCCER	41000024	0	500
4/9/2019	V000027541	116661143	10	21.3	212.98	1/EA	BASEBALL MAY BCF28-3-10 50% UFLEXX 5FE	41000024	28	500
9/11/2018	V000002430	108141535	12	22.5	269.95	1/EA	BCF 16-0-16 40%UFLEX3FE .29PROD	41000024	16	500

Other Scope 1 – Fertilizer







Scope 2



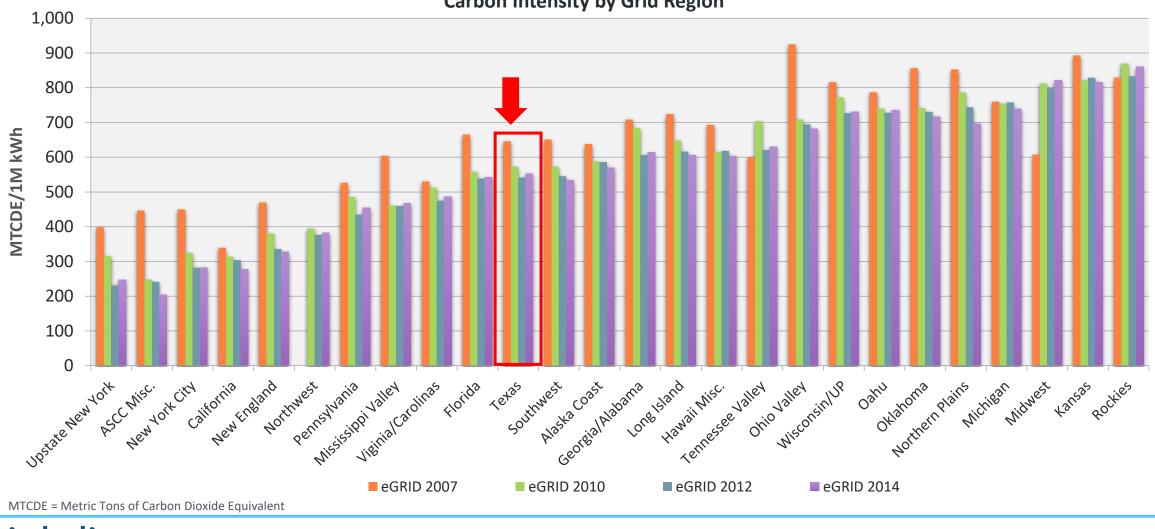
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1990-2019E	ergy & Water Data									
		TR OV		00401		(1)70				
See comments	See comments below for the history of UTRGV energy data prior to 2016 being the compilation of UTB and UTPA. The									
				F	Purchased Ene	rgy				
	Electricity	Natural Gas	Electricity	Natural Gas	Total	Total	Other			
Fiscal	Usage	Usage	Cost	Cost	Electricity	Natural Gas	Energy			
Year	(Kwh)	(Mcf)	(\$/Kwh)	(\$/Mcf)	Cost	Cost	(MMBtu)			
2007	94,091,878	83,080	\$0.0755	\$8,6582	\$ 7,105,280	\$ 719,324	(
2008	97,283,541	82,717			\$ 8,460,553	\$ 841,405	(
2009	98,337,336		_			\$ 647,502				
2010	103,133,710	91,238				\$ 549,929	(
2011	102,856,561	79,460				\$ 441,104				
2012	101,962,756				\$ 7,149,813	\$ 350,078	(
2013	101,224,621	70,898				\$ 408,160				
2013	79,789,905	69,342				\$ 438,921				
2014	87,094,797					\$ 358,567	(
2015	85,023,773	55,765			\$ 6,397,665	\$ 217,178				
2017	87,360,175			_	\$ 6,044,977	\$ 238,416				
2018E	90,596,169			-	\$ 5,997,915	\$ 339,628	(
2019E	97,205,440	73,283	\$0.0644	\$5.7766	\$ 6,258,996	\$ 423,324	(

Does the electricity consumption include solar data?



Texas Grid Getting Greener Since 2007



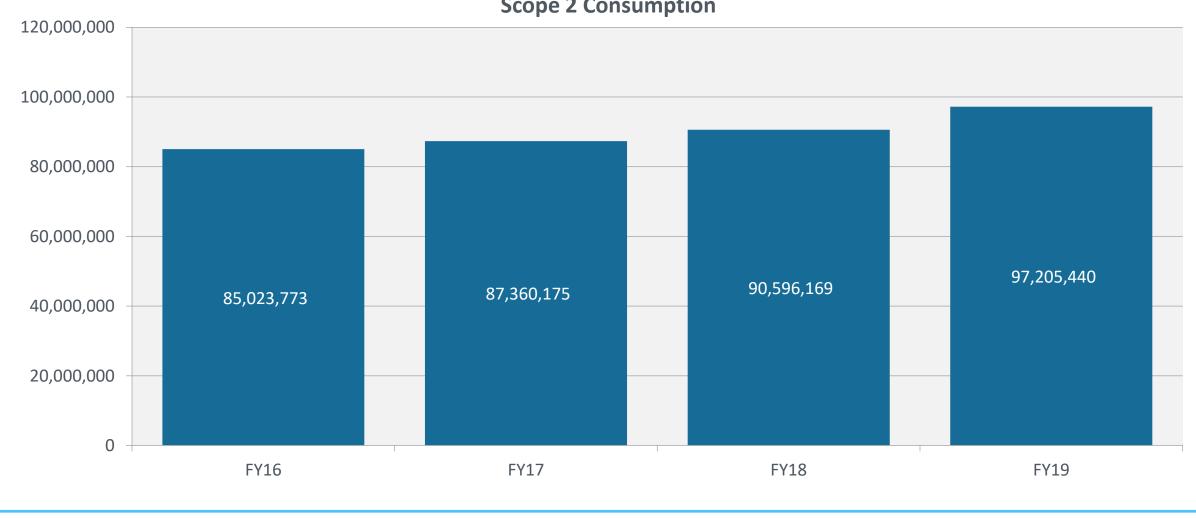
Carbon Intensity by Grid Region

sightlines a **GRDIAN**[°] company

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Scope 2 Summary

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Scope 2 Consumption

kWh

sightlines

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kWh entered directly into SiMAP



Scope 3



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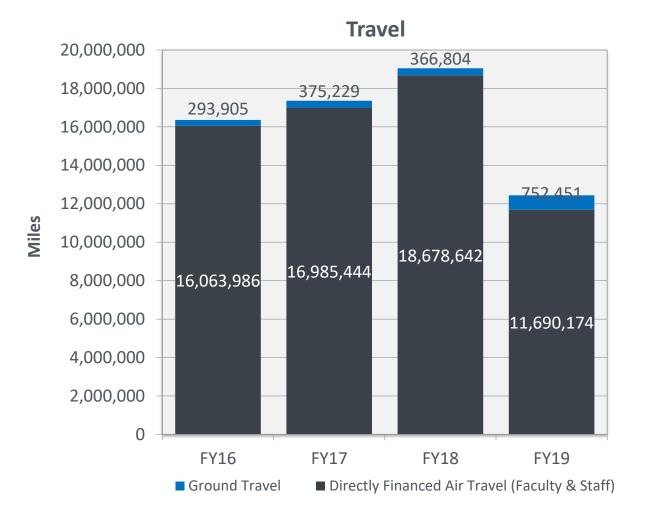
Base Data from FY16-FY18:

	Air Travel	Other					
	Air Travel - Faculty and Students	Train	Taxi / Ferry / Rental Car	Bus	Alternative Fuel Bus	Personal Mileage Reimbur sement	
Fiscal Year	Miles	Miles	Miles	Miles	Miles	Miles	
2016	16063986	0	293905	0	0	0	
2017	16985444	0	375228.9	0	0	0	
2018	18678642	0	366804.1	0	0	0	

In this base data there is no split between individual and group air travel.



Scope 3 – Travel



Base Data:

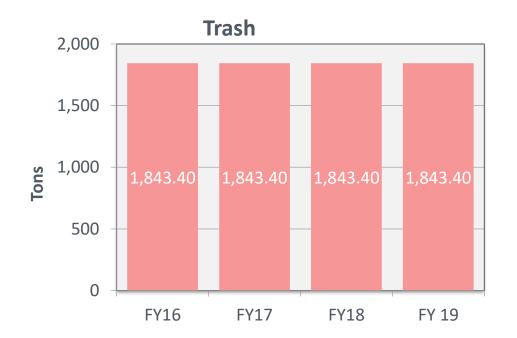
	UTRGV AIR MILES FY 19
Air individual	8,644,781
Air Group	3,045,393
Total Air	11,690,174
	UTRGV CAR MILES FY 19
Enterprise	631936
National	23565
Avis	46859
Budget	7267
Hertz	42824
Total Car	752451

Does the group air travel take into account the miles for every person each trip or is it the overall trip miles?

Scope 3 – Trash

Base Data:

Container #	Building Code	Location	# times Service/week	# times Service/ye ar	Size (cubic yards)
10-253-04	Grounds Shop	Grounds Shop	3	156	4
00-004-08	Grounds Shop	Grounds Shop	3	156	8
08-087-08	Grounds Shop	Grounds Shop	3	156	8
14-314-04	EUREC	UREC	3	156	4
09-044-10	EBSBL	Baseball E32	3	156	10
00-09-03	EROTC	ROTC E26	3	156	3
06-067-04	EVLGA	Village Apt. E36	3	156	4
S/N 113591	ECOBE	ECOBE E15	3	156	4
14-317-04	ESSBL	ESSBL E4	3	156	4
00-93-04	ESSBL	ESSBL E4	3	156	4
03-161-04	ELABS	ELABS	3	156	4
19-058-04	ELABS	ELABS	3	156	4
07-107-03	ELABS	ELABS	3	156	3
No #s	ELABS	ELABS	3	156	2
	BASFC	Facilities	As needed	31	30
	BASFC	Facilities	As needed	31	30



Is the estimate of 31 pickups a year still accurate for these two lines?

Calculation:

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Sig

- For each row, multiple # times service/year by size (cubic yards) (i.e. 156*4 in the first row)
- Take the sum of your calculations to get 40,964 total cubic yards
- Multiple 40,964 cubic yards by 90 to get 3,686,760 pounds (1 cubic yard = 90 pounds)
- Divide 3,519,360 pounds by 2000 to get 1,843.4 tons (1 ton = 2000 pounds)

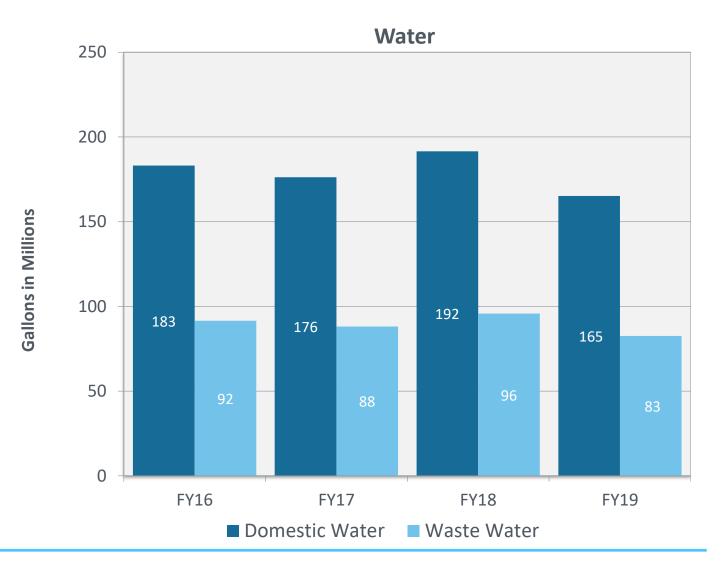
Scope 3 – Water

Base Data:

- Wa					
Water					
Total					
Water		Total			
Consumption		Water			
(MGal.)		Cost			
246,347	\$	674,463			
243,202	\$	657,085			
150,644	\$	427,778			
127,938	\$	380,614			
183,088	\$	529,953			
176,231	\$	546,813			
191,559	\$	676,205			
165,152	\$	512,560			
	Water Consumption (MGal.) 246,347 243,202 150,644 127,938 183,088 176,231 191,559	Water Consumption (MGal.) 246,347 \$ 243,202 \$ 150,644 \$ 127,938 \$ 183,088 \$ 176,231 \$ 191,559 \$			

Assumes waste water is equal to ½ domestic water

Assumes MGal is "milligal" 1Mgal= 1000 gallons



Scope 3 – Paper

Base data:

Product Description	r Manufa ∗	Mfr Cat 🔻	Amount -	Quantit 💌	Unit Pri 💌	Unit Pri 🝷	Extended Price 💌	Departr 💌
1/2*11 White Boise USA Copy paper			1/EA	10	7.85		78.5	Campus A
1/23VMutrgv/XER 86601_ COPY Paper 8 1/2x11			1/CS	3	35.76		107.28	Student Ad
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Assorted Colors, 250/Pack (21004)	NEENAH P	21004/22	С РК	1	15.59		15.59	Student U
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Assorted Colors, 250/Pack (21004)	NEENAH F	21004/22	С РК	1	15.59		15.59	Engaged S
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Blast-Off Blue, 250/Pack (21911)	NEENAH P	WAU2191	L: PK	1	22.35		22.35	Military &
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Fireball Fuchsia, 250/Pack (22881)	NEENAH F	WAU2288	3: PK	1	23.81		23.81	College Ac
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Gamma Green, 250/Pack (22741)	NEENAH P	22741	PK	1	19.02		19.02	College Ac
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Plasma Pink, 250/Pack (22129)	NEENAH P	WAU2212	2 PK	3	14.19		42.57	Communio
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Solar Yellow, 250/Pack (22731)	NEENAH F	22731	PK	1	16.91		16.91	College Ac
Astrobrights Cardstock Paper, 65 lbs, 8.5" x 11", Terrestrial Teal, 250/Pack (21855/22109)	NEENAH P	21855 / 2	2 PK	1	13.63		13.63	College Ac
Astrobrights Inkjet, Laser Print Colored Paper - Letter - 8 1/2 x 11 - 24 lb Basis Weight - Smooth - 500 / Ream - Plasma Pink	NEENAH P	WAU2211	L RM	1	14.89		14.89	Mathemat
Astrobrights Vintage Multipurpose Paper, 24 lbs, 8.5" x 11", Assorted Colors, 500/Pack (21224)	NEENAH P	21224/22	2 RM	5	13		65	Sociology
Astroparche Cardstock Paper, 65 lbs, 8.5" x 11" (US letter), Natural, 250/Pack (26428/27428)	NEENAH P	26428/27	4 PK	2	16.46		32.92	
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	5	31.1		155.5	
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	20	31.1		622	Chemistry
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	12	31.1		373.2	Mathemat
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	4	31.1		124.4	Physics an
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	1	31.1		31.1	Family Me
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	2	31.1		62.2	Health Ser
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	3	31.1		93.3	Clinical Af
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	2	31.1		62.2	College Ac
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	5	32.97		164.85	Financial S
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	20	32.97		659.4	Mathemat
Boise X-9 Multipurpose Copy Paper, LETTER-Size, 92/104+ US/Euro Brightness, 20 Lb., 8 1/2"H x 11"W, 5,000 Sheets/Ct	Boise Pap	e OX9001-C	CS CS	5	32.97		164.85	Mathemat
	D 1 D	OVODO4 C		40	22.07		220.7	DI I

Scope 3 – Paper

The University of Texas RioGrande Valley

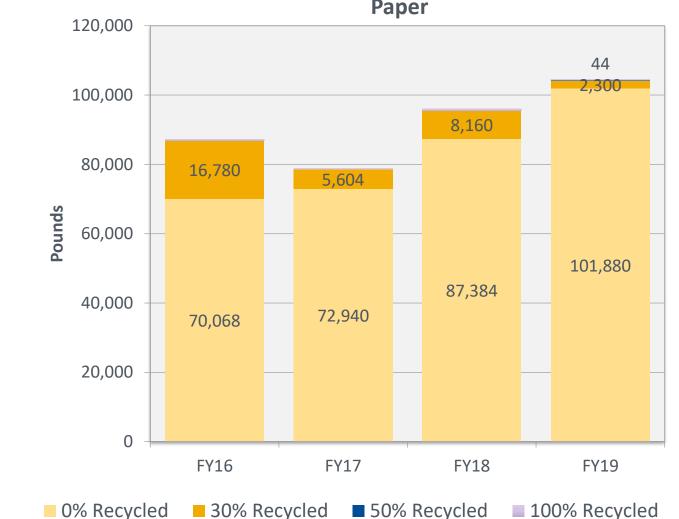
Sightlines base data manipulation

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SIC

Product Description	% Recycled 💌	Pounds 💌	Pounds * Quantity 💌	Quantity 🔽
1/2*11 White Boise USA Copy	0	20	200	10
1/23VMutrgv/XER 86601_COP	0	20	60	3
Astrobrights Cardstock Paper,	0	65	65	1
Astrobrights Cardstock Paper,	0	65	65	1
Astrobrights Cardstock Paper,	0	65	65	1
Astrobrights Cardstock Paper,	0	65	65	1
Astrobrights Cardstock Paper,	0	65	65	1

Sum of Pounds * Q	uantity Colur	nn Labels 💌				
Row Labels	-	0	30	50	100 G	irand Total
FY16		70,068	16,780		468	87,316
FY17		72,940	5,604		128	78,672
FY18		87,384	8,160		480	96,024
FY19		101,880	2,300	44	408	104,632
Grand Total		332,272	32,844	44	1,484	366,644



Paper

Assumes lines with no pounds are 20 pounds Assumes recycled paper with no % are 0%

ines Pounds entered directly into SiMAP a **G C DIAN**[®] company

Base Data:

	# of zip	mileage per	Total mileage	
Zip Code 🗐	codes 💌	permit 🔹	per zip code 🛛 💌	
				zip codes in green are a further
				distance than a round trip between
				two campuses with is over 100 miles
78545	2	158.6	317.2	so considered impractical
78582	196	105.6	20697.6	
78584	89	147.4	13118.6	
78501	591	15.2	8983.2	
78502	15	15.2	228	
78503	220	26.8	5896	
78504	807	9.8	7908.6	
78505	4	19.8	79.2	
78516	234	37	8658	
78520	590	20	11800	
78521	739	24	17736	
78522	2	25.8	51.6	
78523	10	27.4	274	
78526	592	21.2	12550.4	
78535	4	59.4	237.6	

Total # of commuters = Students + Employees =21,500

8 trips per week

15 weeks per semester

Base Data:

Yearly permits sold approximately	y
Students	18,000
Employees	3,500
Visitors	7,000
Total	28,500



Base Data:

Campus Connector	M-Th	F	Weslaco Connecto	M-Th	F	Campus Circulator	Edinburg	Brownsville	EVABL	M-Th	RGC Connector	M-F	MTS	M-Th
Trip Mileage	67	67	Trip Mileage	23	23	Trip Mileage	1.76	2.89	Trip Mileage	3	Trip Mileage	10.1	Trip Mileage	13
Total Trips	11	9	Total Trips	5	4	Total Trips	44	30	Total Trips	7	Total Trips	2	Total Trips	6
Total Trip Mileage	737	603	Total Trip Mileage	115	92	Total Trip Mileage	77.44	86.7	Total Trip Mileag	21	Total Trip Mileage	20.2	Total Trip Mileag	78

Service Days	Total Svc Days	M-Th	Friday
Fall 2018	86	73	13
Spring 2019	77	65	12
Summer 2019	53	42	11

Is this bus data from between the two campuses or a bus for commuters?



Commuting Survey is Available

Sample of commuting survey we distribute:

Welcome,

-Ö

sightlines

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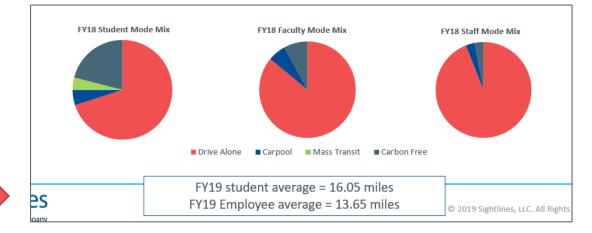
Sustainability has become a focal point within institutions of higher education. We are currently conducting a campus-wide assessment of Part of this evaluation is a quantification of our greenhouse gas emissions – our "carbon footprint". While we are also assessing the impact With this in mind, we are asking you to help us by completing this short, anonymous and confidential commuting survey. Your answers will complete.

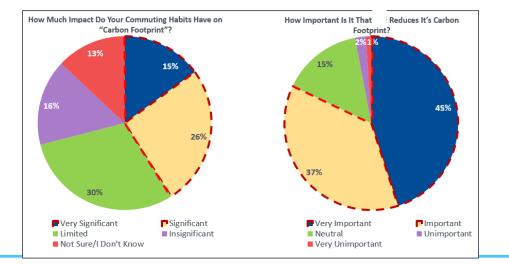
Simply click on the "continue" button below to begin the survey. Please feel free to contact me with any questions you may have. Thank you for participating in this effort.

Q8 Please indicate which modes of transportation you used to commute to campus during the week of

	Click to write Column 1									
	Don't Commute This Day		Carpool (2-6)	Vanpool (7+)		Subway /T/ Light Rail	Regional / Commuter Rail	Bike / Walk	Telecommute	
Monday	0	0	0	0	0	0	0	0	0	
Tuesday	0	0	0	0	0	0	0	0	0	
Wednesday	0	0	0	0	0	0	0	0	0	
Thursday	0	0	0	0	0	0	0	0	0	
Friday	0	0	0	0	0	0	0	0	0	
Saturday	0	0	0	0	0	0	0	0	0	
Sunday	0	0	0	0	0	0	0	0	0	

Sample of results:





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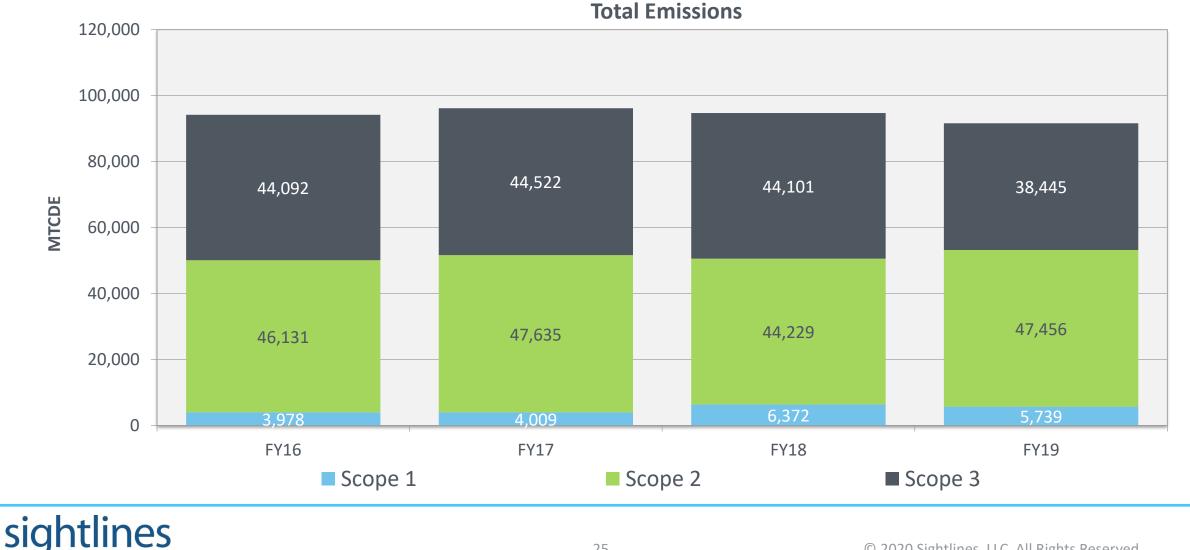
Preliminary Look at Emissions



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Scope 2 and 3 Make Up Majority of Emissions

Results based off unqualified data

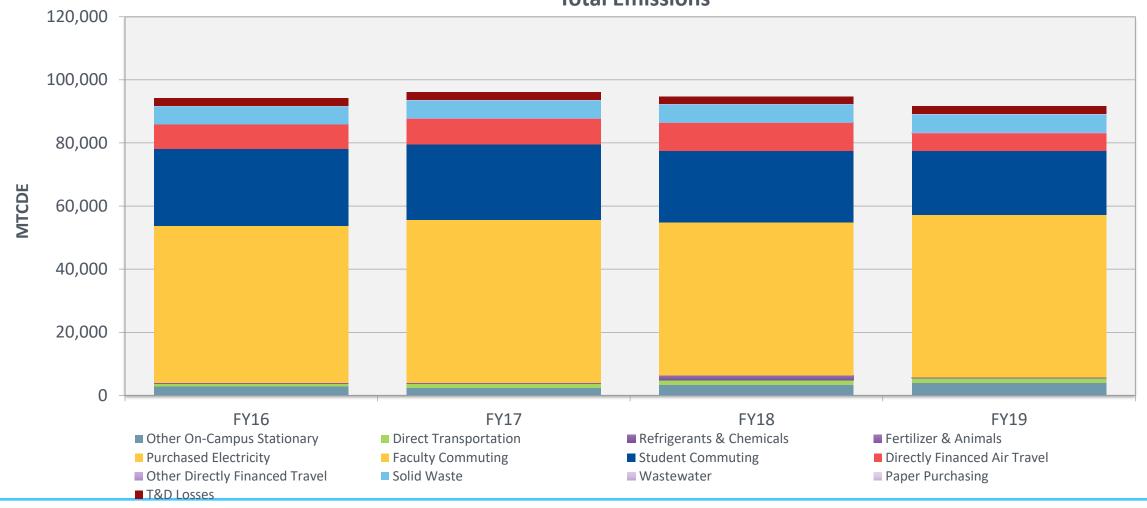


a **GRDIAN**[°] company

The University of Texas RioGrande Valley

Scope 2 and 3 Make Up Majority of Emissions

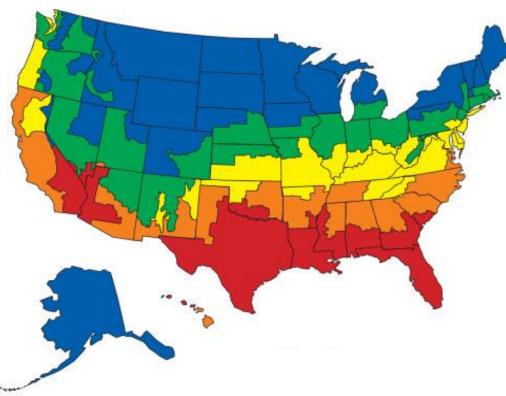
Results based off unqualified data



Total Emissions

The University of Texas RioGrande Valley

Peer Institutions Used for Benchmarking



Sustainability Solutions Measurement and Analysis Members

- Sightlines has approximately 50 Sustainability Solutions Members
- Approximately two-thirds are private

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a **G RDIAN**[°] company

- Approximately two-thirds have signed the ACUPCC
- Approximately forty percent are Charter Signatories

