

2016 Sustainability Summary

2016 was a good year with a range of positive sustainability results, including an impressive 15% reduction in Unitec's carbon-footprint along with a corresponding reduction in Air Travel, which is Unitec's largest emission source and electricity the second largest contributor. Natural gas use has also been reducing over time.

The star performer is paper use which has reduced 72% since 2011.

Key areas for future focus have been identified in air conditioning refrigerant the fourth highest emission impact and in reducing landfill waste levels and increasing campus recycle rates.

(NB: This reports covers all available historical sustainability data, some going back to 2009, others only to 2016)



One Planet Targets

The One Planet Living Strategy was launched in 2016 and includes a range of targets across 10 key principles identified to make Unitec a sustainable academic organisation.

Key progress has been made in some of the One Planet Principles such as Carbon Zero by achieving carbon neutral status through the CarbonZero programme and a successful reduction in Unitec's Carbon-footprint.

Importantly also achieved in the Culture and Community Principle is the creation of the mauri-o-meter. By respecting all life as kaitiaki and reviving local wisdom and culture, encouraging and involving our staff, students, iwi, tangata whenua, pasifika and international students and, drawing on the richness of our history.

Due to limited resourcing some principles were not started or not achieved. In 2017 there will be an emphasis to embed the Principles started in 2016, a strong focus on the Sustainable Transport Principle and a review of Principles not yet started



One Planet Targets

One Planet Principle	Target	Indicator	2016 Target	2016 Result	Status 2016
Carbon Zero	Reduce Carbon Emissions by 30% (by 2.7% per year) by 2025 & 50% by 2030	Tonnes CO ₂ e	3402	3,403	Within a margin of error of less than 0.001%
Zero Carbon	Achieve Carbon Neutral status through the CEMARs programme	Yes / No	CarbonZero status Certification	Yes	Achieved
Zero Carbon	Generate ≥ 1% of Unitec's energy renewably onsite by 2015	MWh			On Target
Zero Carbon	Increase space utilisation to 56%*	U% => (Room Frequency (RF) x Occupancy (O))	32	13	Failed Target
Zero Waste	Reduce waste to landfill by 5% per annum	Tonnes pa	289	366	Failed Target
Sustainable Transport	≥ 80%[7] of students choosing sustainable transport[8] to travel to campus	% by travel mode	71%	52%	Failed Target
Sustainable Transport	Reduce air travel carbon emissions by 30% (by 6.1% per year) by 2020	Tonnes CO ₂ e	1114	1,108	Achieved
Sustainable Transport	Reduce air travel carbon emissions by 10% by 2016	Tonnes CO ₂ e	1114	1,108	Achieved
Sustainable Transport	Fossil fuel free fleet by 2020	Tonnes CO ₂ e			Not Started
Sustainable Transport	All new fleet vehicles must exceed 5* fuel efficiency rating[12]	* rating	5 * Rating on all new vehicles	Purchase of 3.5 * Toyota Dyna.	Failed Target



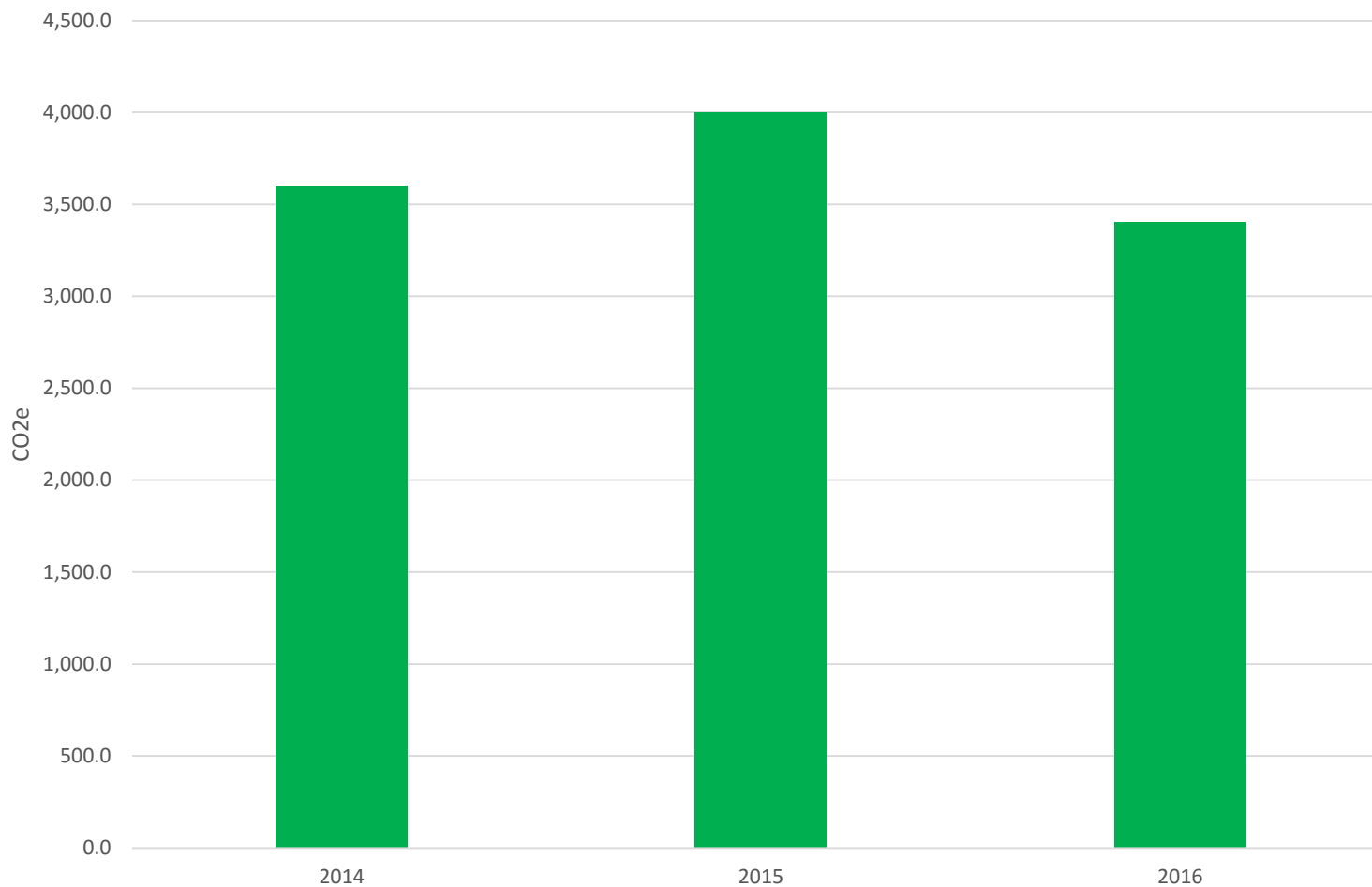
One Planet Targets

Sustainable Materials	90% of goods purchased in accordance with Unitec's Sustainable Procurement policy by 2020	Certification			Not Started
Sustainable Materials	Reduce paper consumption by a further 50% (by 11% per year)	Tonnes	46.5	39.2	Achieved
Sustainable Food	Establish and increase the proportion of domestically produced food being sold on campus to ≥ 70%	\$ spent / year on local produce			Not Started
Sustainable Water	Reduce water consumption to 5.9 m ³ / EFTS / year by 2020	m ³ / EFTS	7.714	8.32	Failed Target
Sustainable Water	Reduce total water use to 59,000 m ³ per annum or by ≥30% by 2020	m ³	69,964	75,663	Failed Target
Sustainable Water	Improve water quality of our receiving environments, Wairaka Puna and Oakley Creek, work with Friends of Oakley Creek and Nga Kaitiakitanga to establish agreed measure				Not Started
Land Use and Wildlife	Increase the Wairaka Stream Macro Invertebrate Community Index (MCI) to 90 by 2020	MIC	79.9	71.7	Failed Target
Culture and Community	Establish mauri-o-meter biodiversity performance indicators	Yes / No	Establish mauri-o-meter	Yes	Achieved
Equity and Local Economy	90% of goods purchased in accordance with Unitec's Sustainable Procurement policy	Certification			Not Started
Health and Happiness	Student Net Promoter Score ≥ 20 by 2020	Net promoter score	16	13	Failed Target
Health and Happiness	Staff Net Promoter Score ≥ 10 by 2020	Net promoter score	-10	-58	Failed Target





2016 Summary



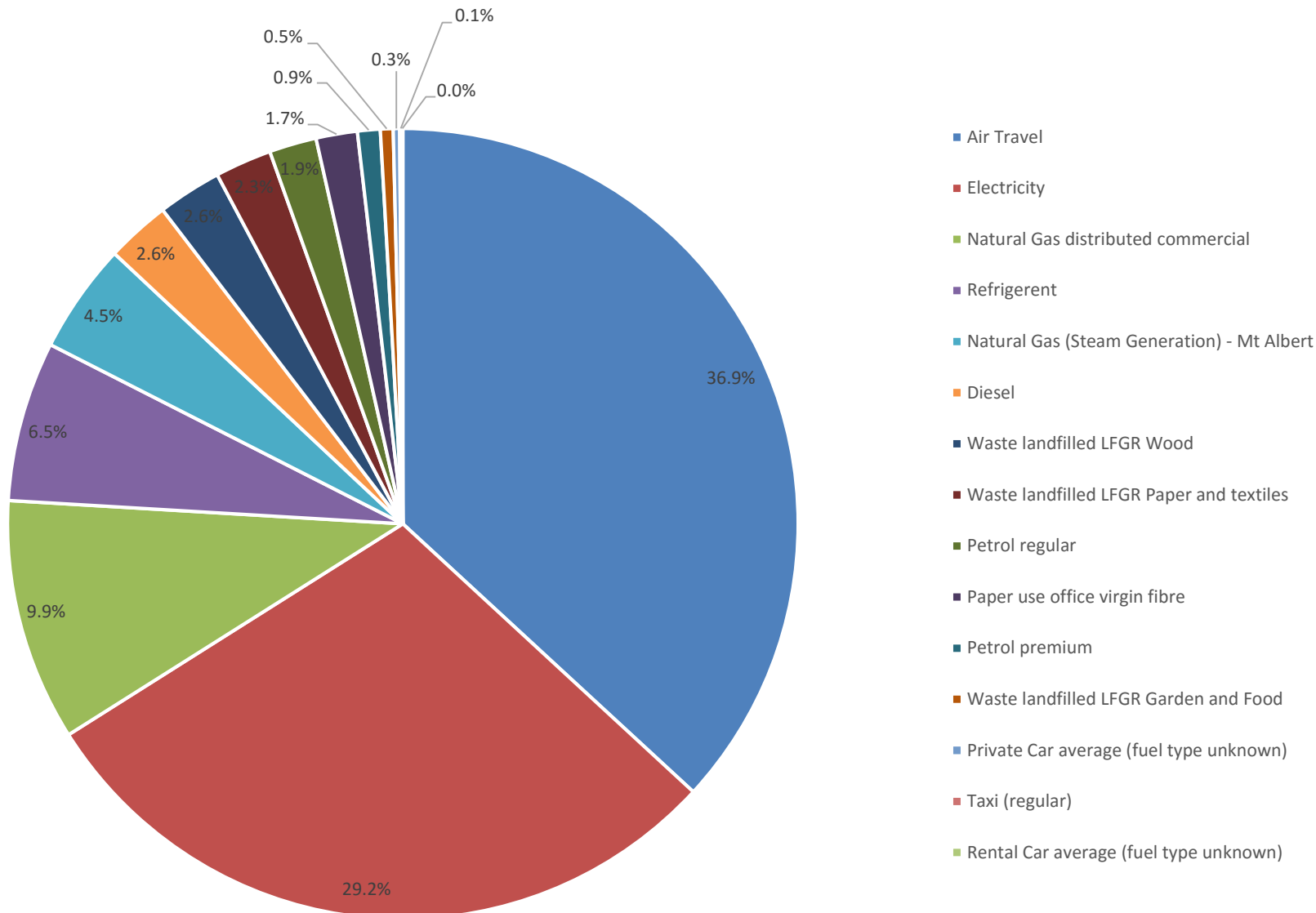
An impressive 15% reduction in Unitec's carbon footprint in 2016 which reverses the rise seen in 2015.





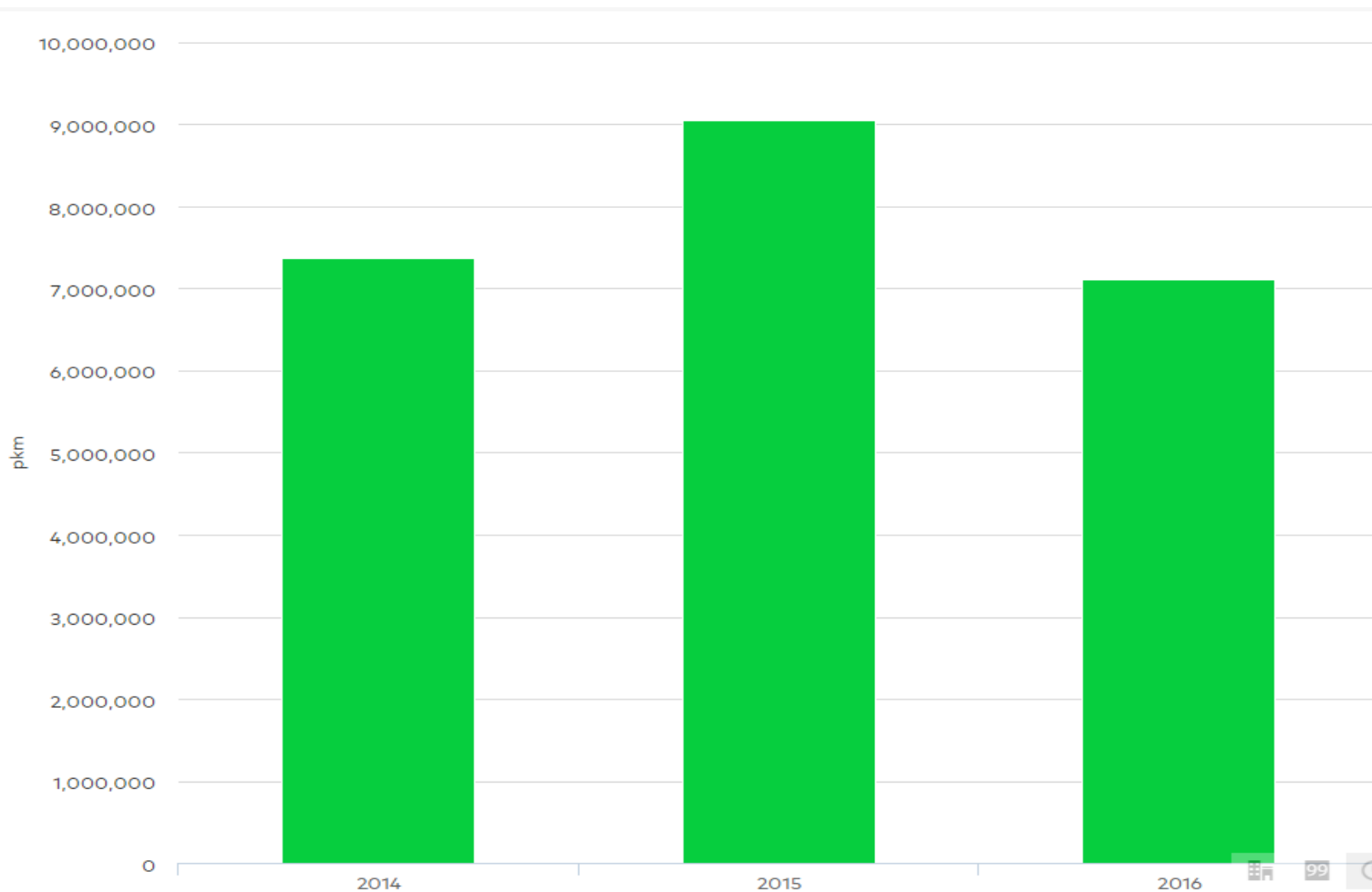
Unitec Carbon Emissions 2016

3,403 tonnes CO₂e (not yet audited)





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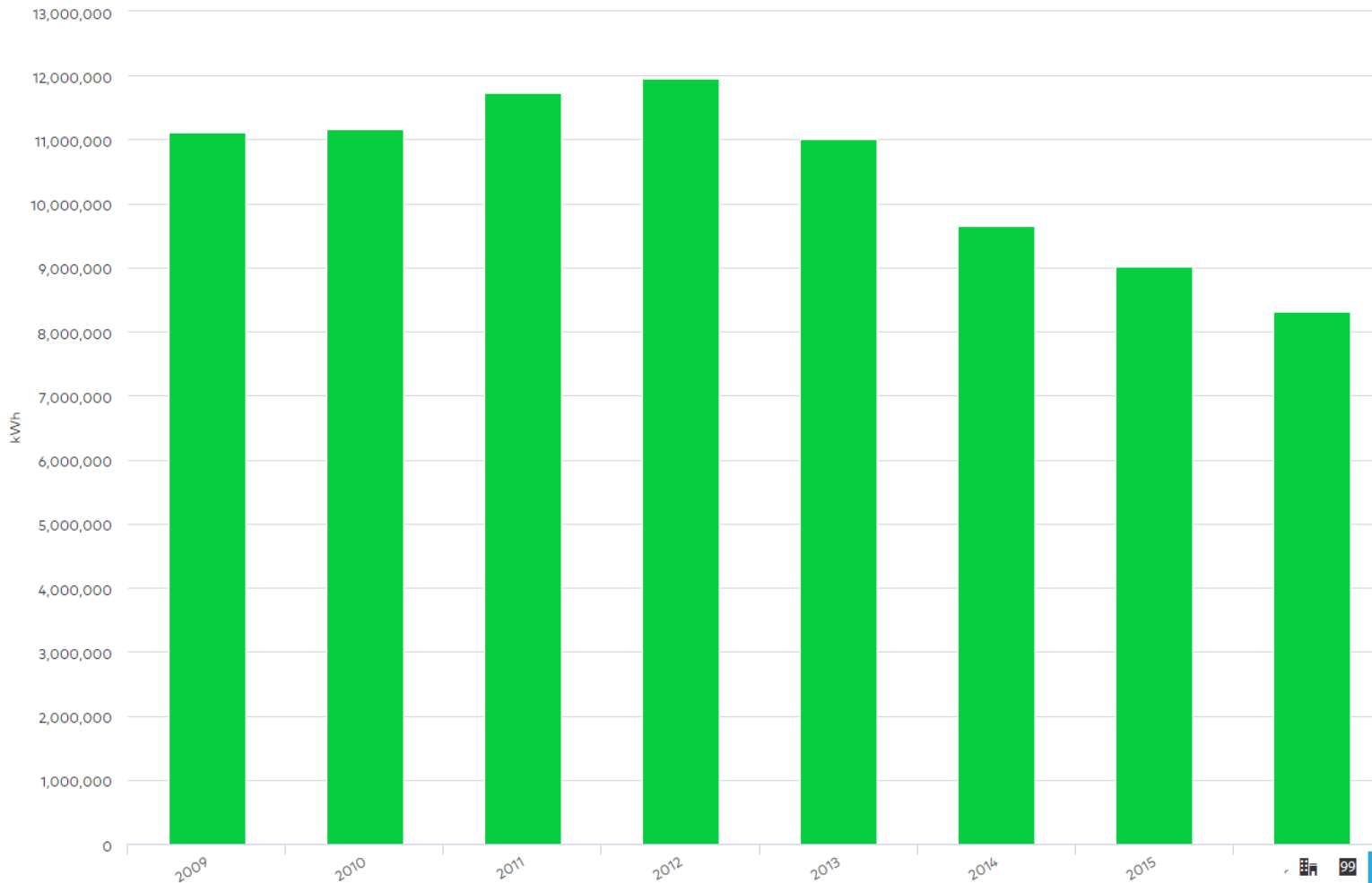


Air Travel is the highest source in Unitec's Carbon footprint and is a key area in reducing overall carbon emissions so it's good to see a reduction of 21% hitting the target in Air Travel in 2016 after an increase in 2015.





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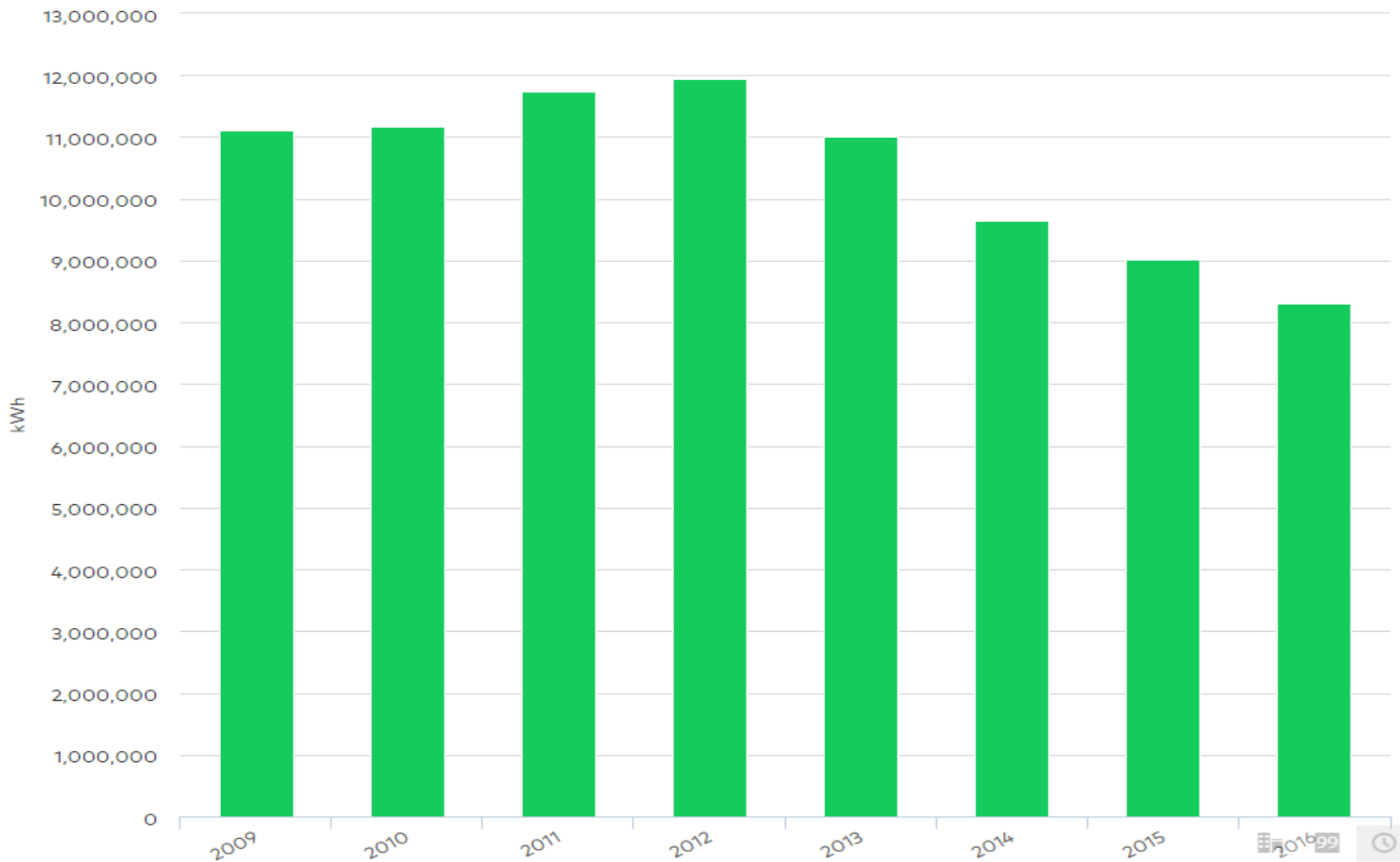


A steady downward trend of electricity use over the years, with 7% less electricity used in 2016 compared to 2015.



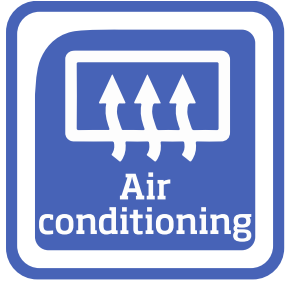


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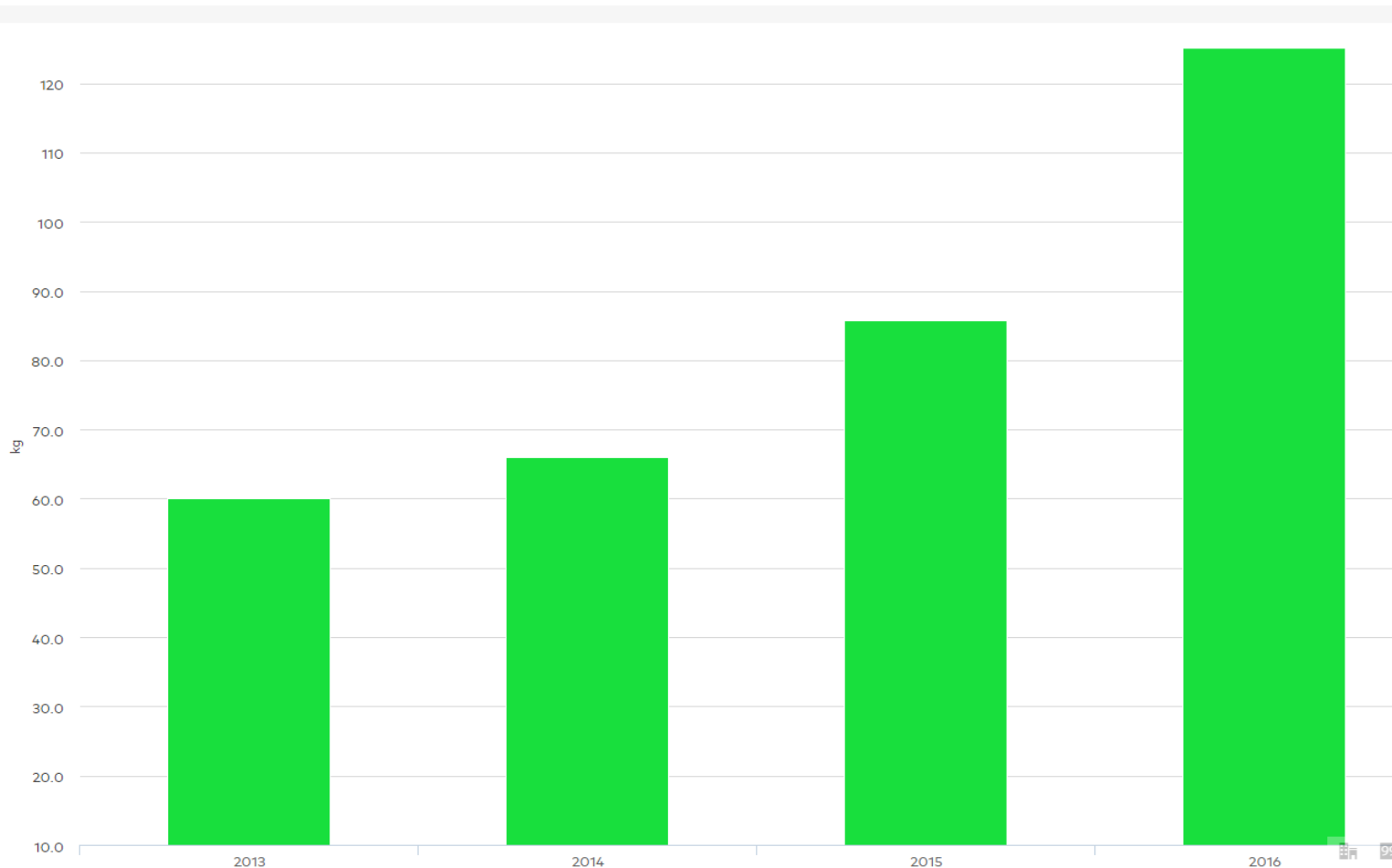


Gas use has been consistently reducing over the years.





2016 Summary



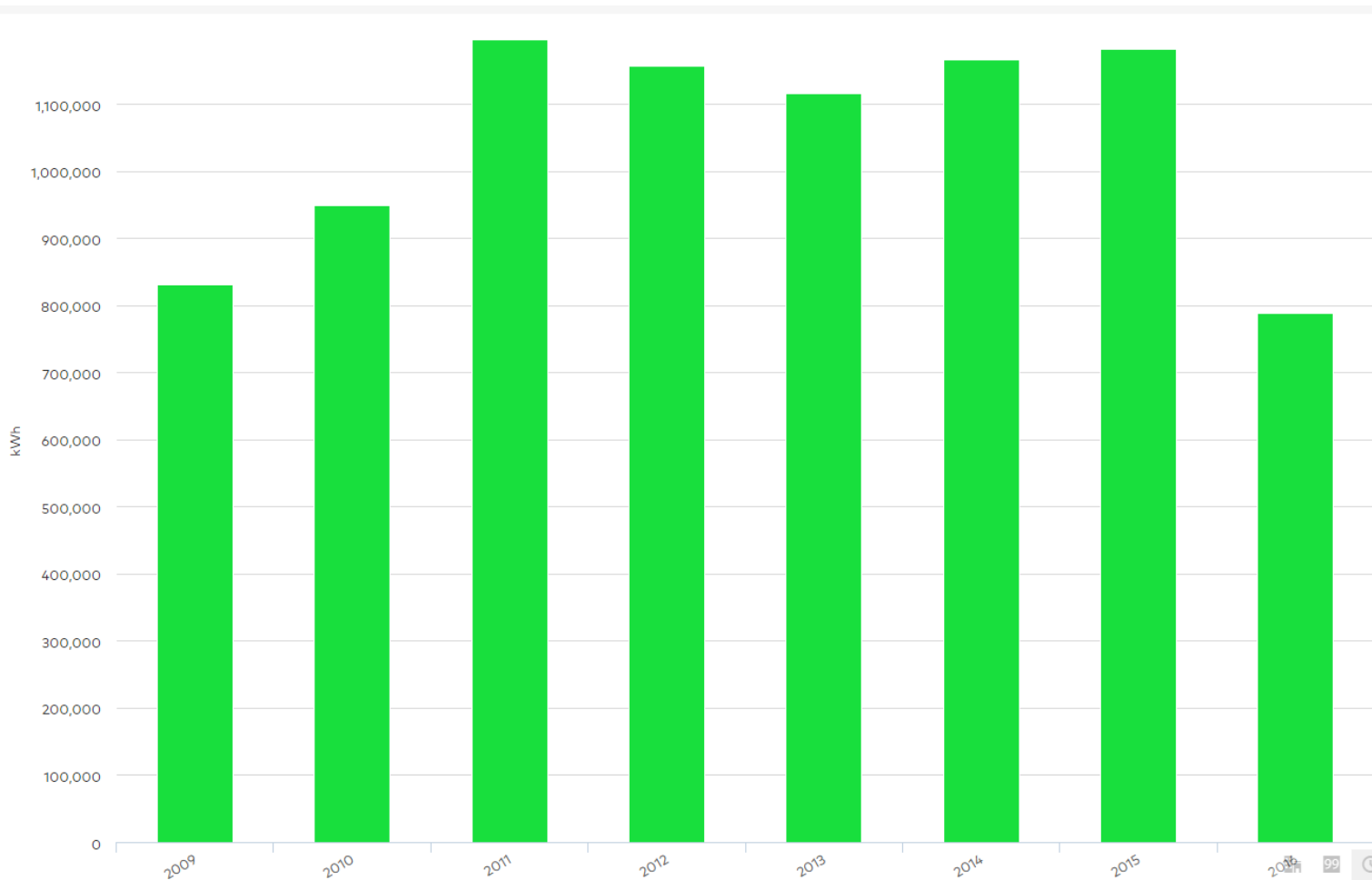
Air Conditioning refrigerant is the fourth highest carbon emission source for Unitec and use has been raising year on year.

This is a key area of reduction that needs to be looked at and the new Trades & Hub buildings and future refurbishments will play a key role in reducing refrigerant emissions.





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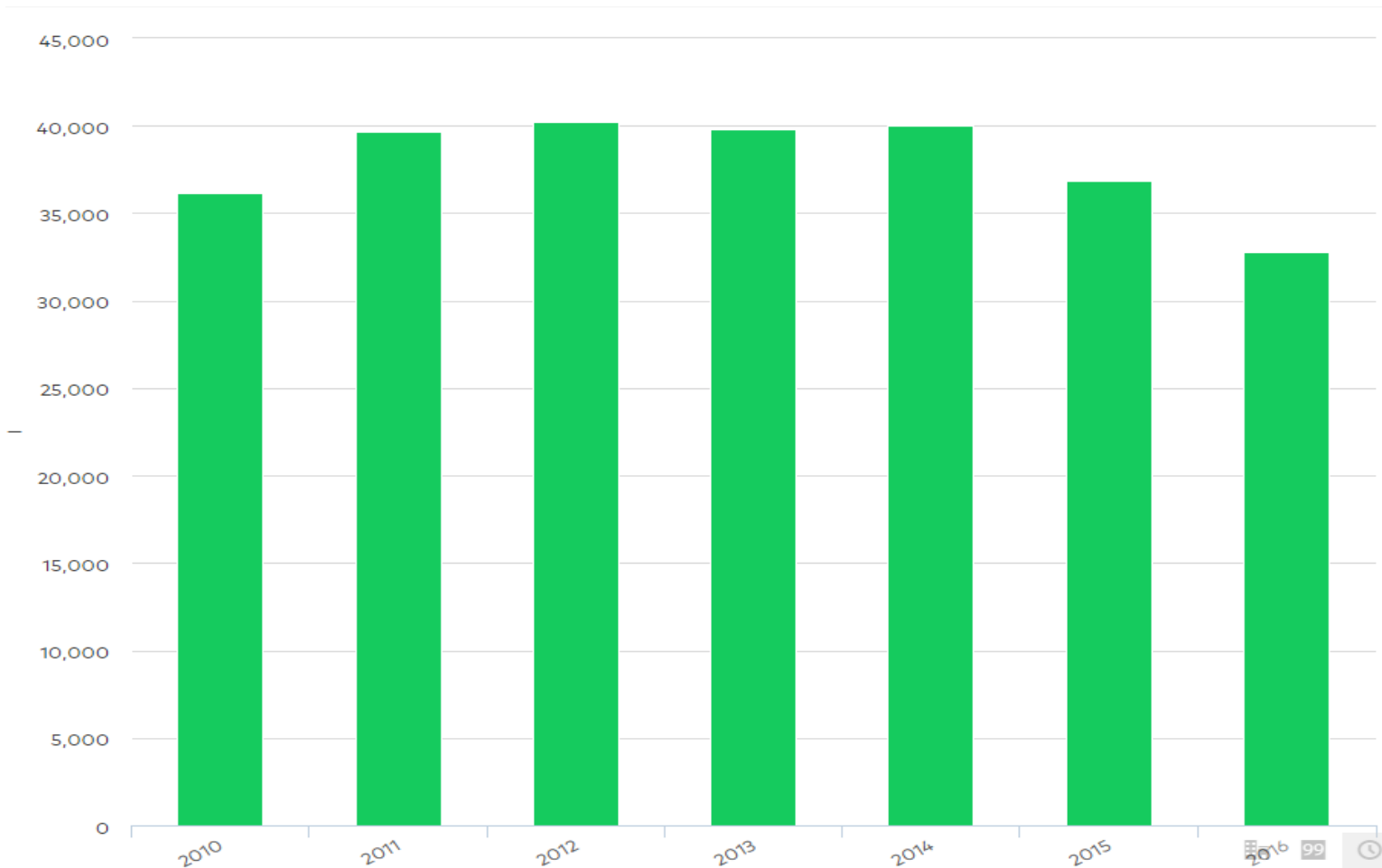


Unitec uses steam generated by Taylor's Drycleaner to heat some buildings. Large reduction in steam use in 2016.





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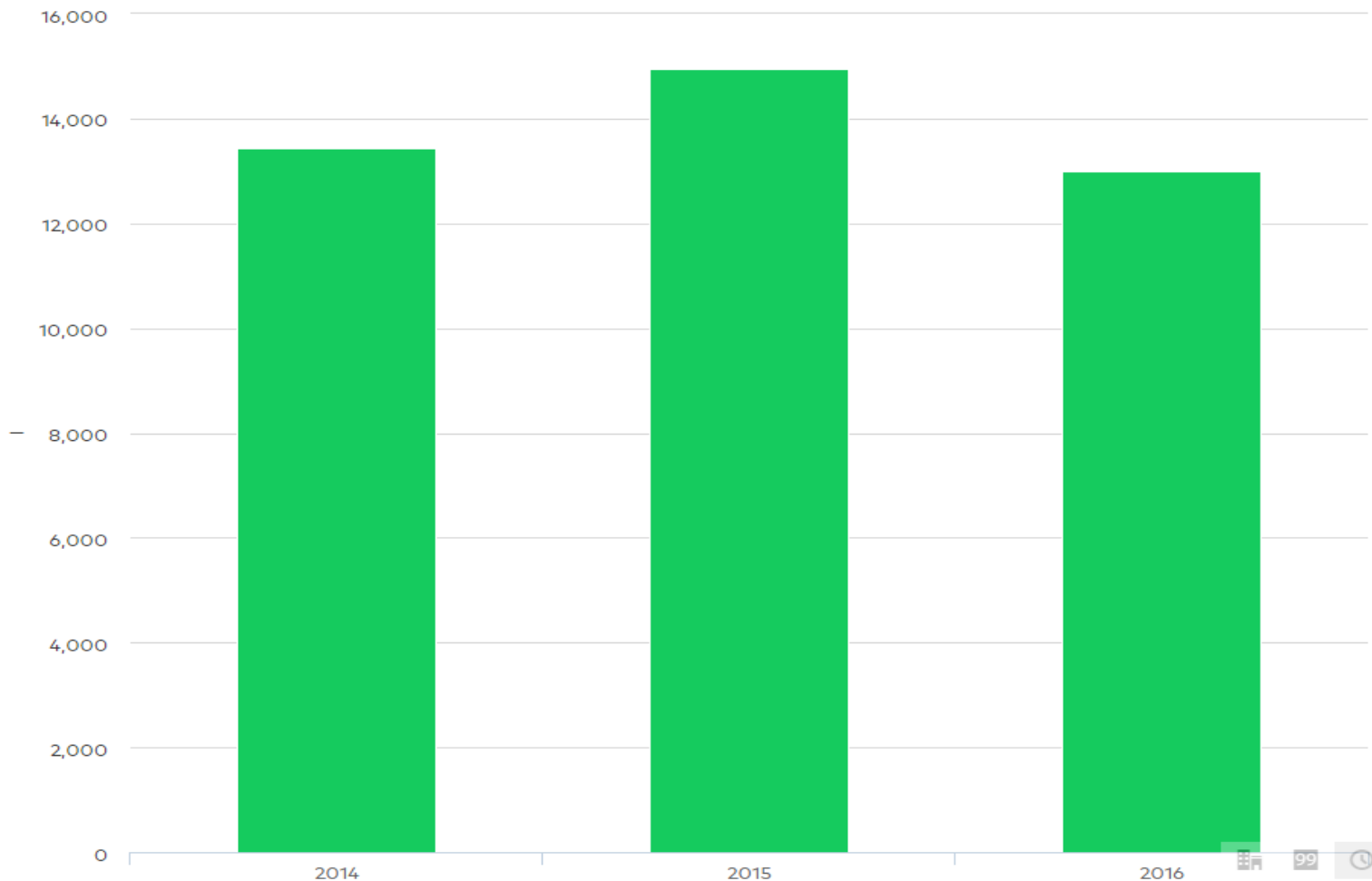


Diesel use has been steady decreasing over the last 3 years with an 8% reduction every year for the last 3 years.





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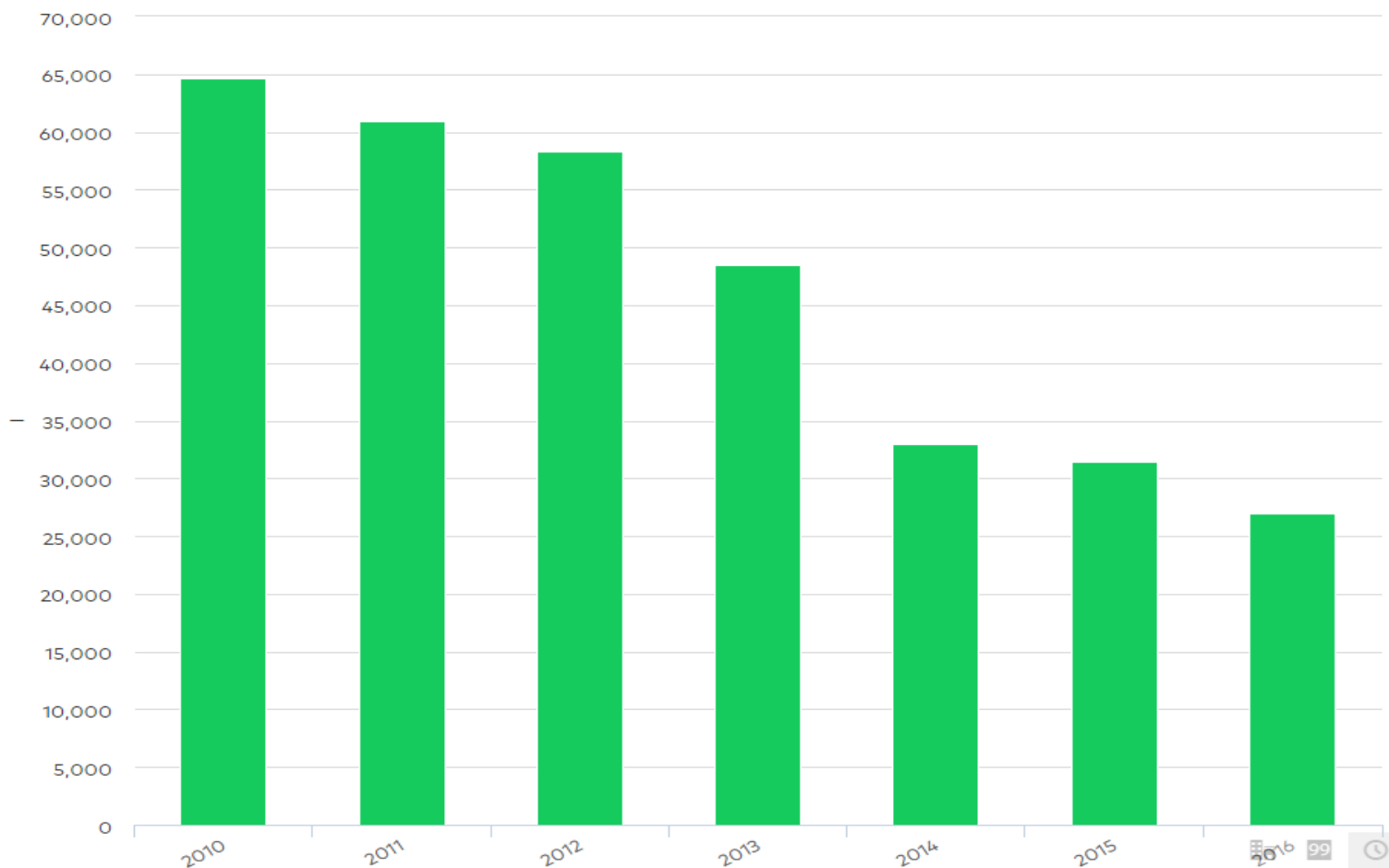


Premium petrol use has been at similar constant levels over the last 3 years.





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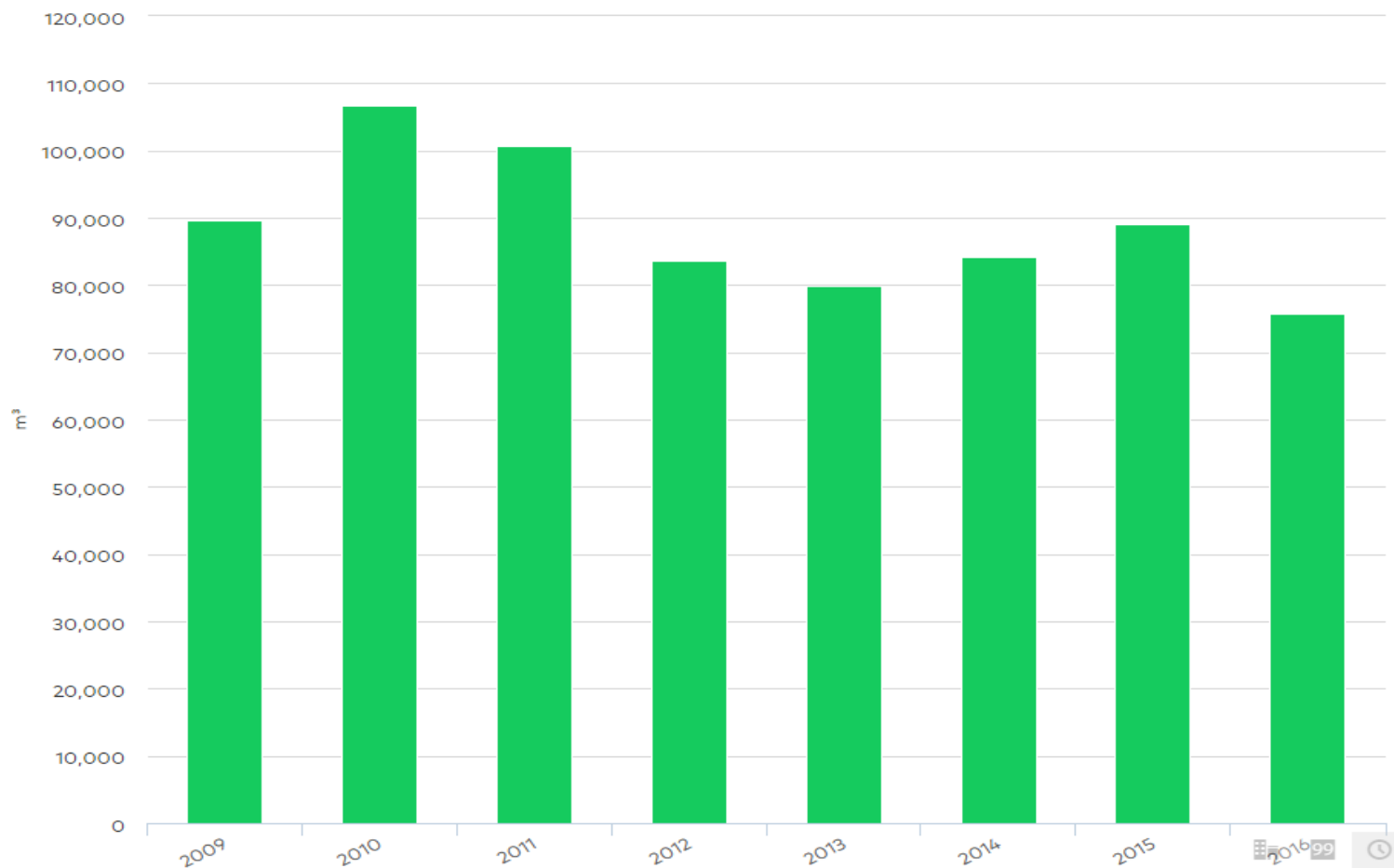
Petrol use has been steady decreasing over the last 3 years with a 14% reduction compared with 2015.

(NB 2010 to 2013 includes premium & regular petrol combined)





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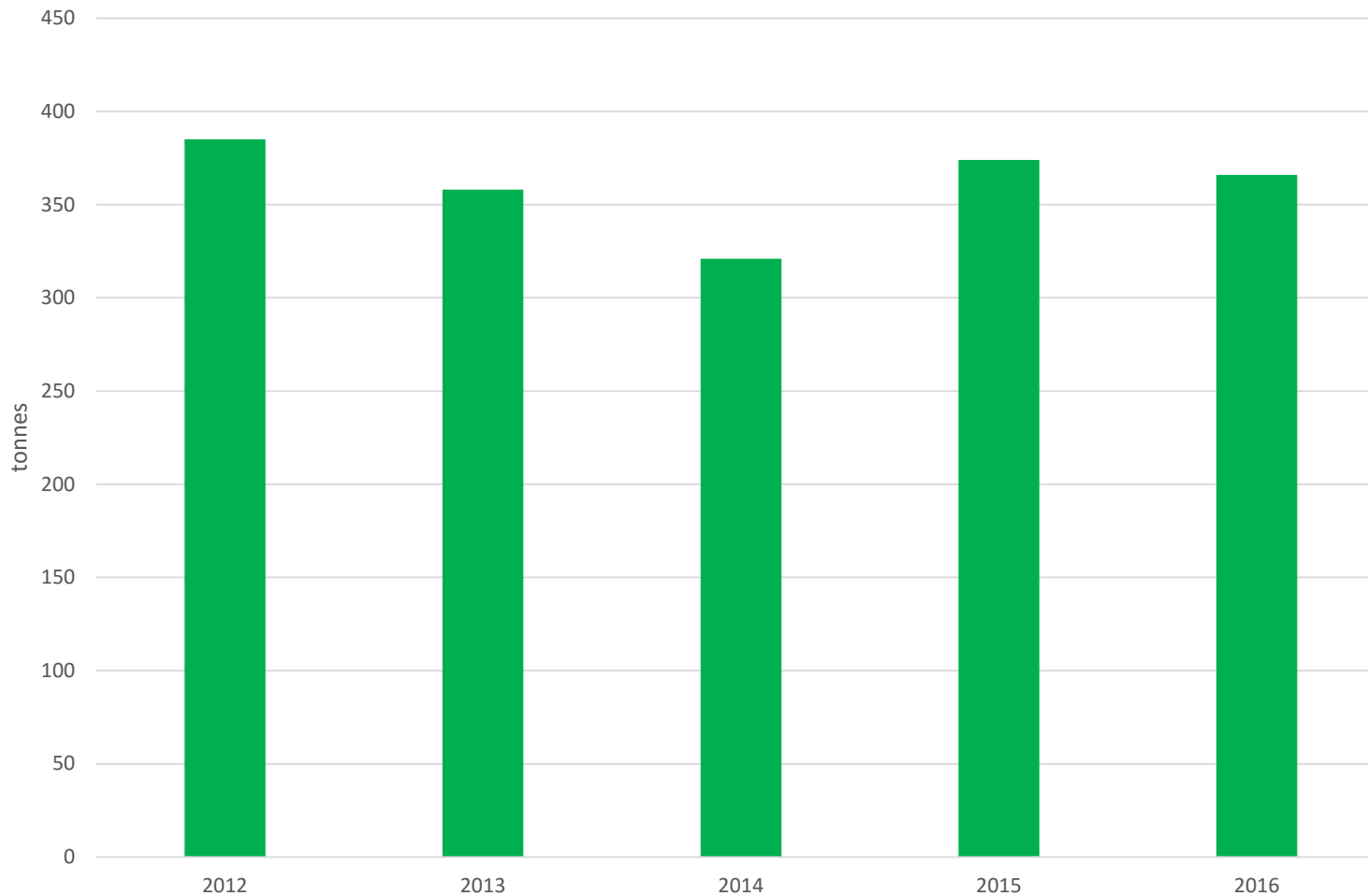


Good water reduction in 2016, with a 15% reduction from 2015.





2016 Summary



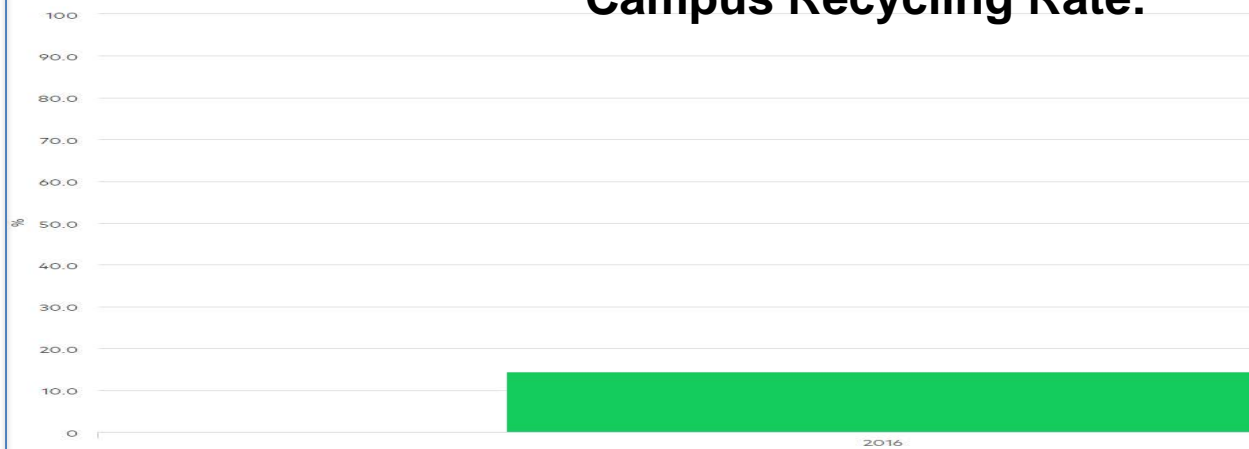
A range of waste initiatives in 2013 had a good reduction in landfill waste generated, but progress has stalled recently and new initiatives are planned in 2017 to kick-start landfill waste reduction.





2016 Summary

Campus Recycling Rate:



Trades Recycling Rate:

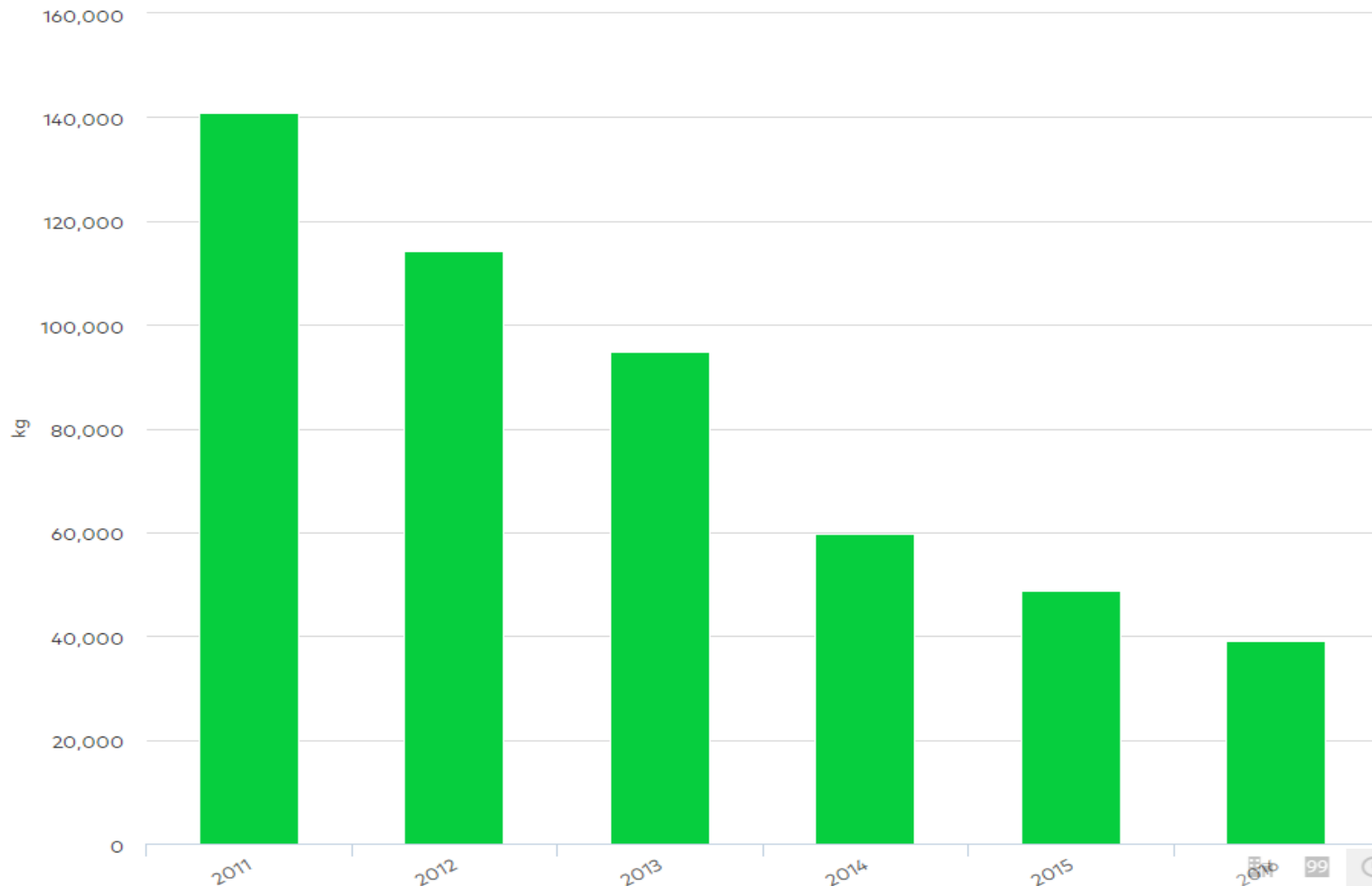


The trades recycle rate is an impressive 80%, whereas the general campus recycle rate is only at 14.5% and will be a key area of focus in 2017.





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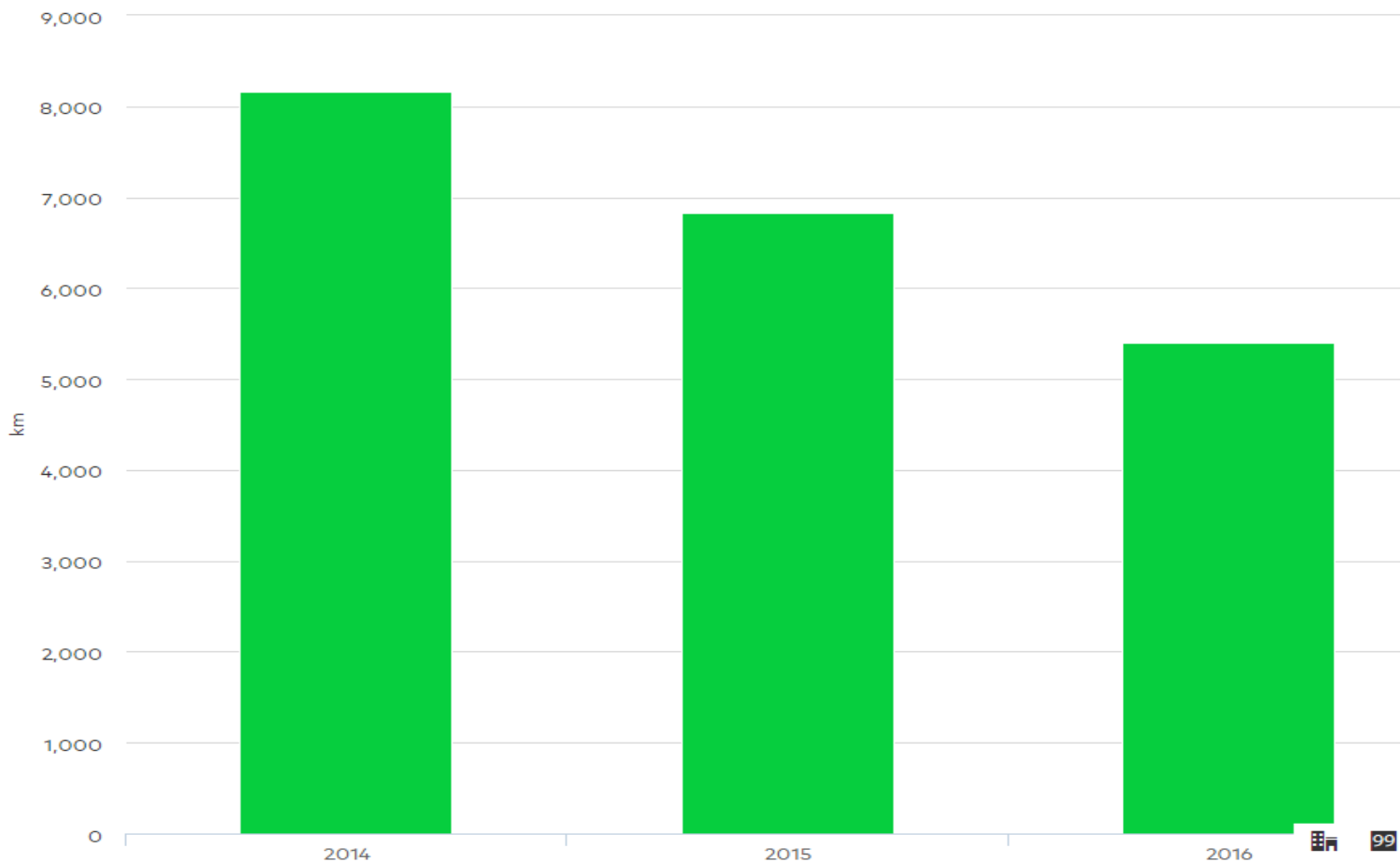


Excellent paper result for 2016 at 39,000kg – well below the target of 46,500 kg & continues year on year reductions.





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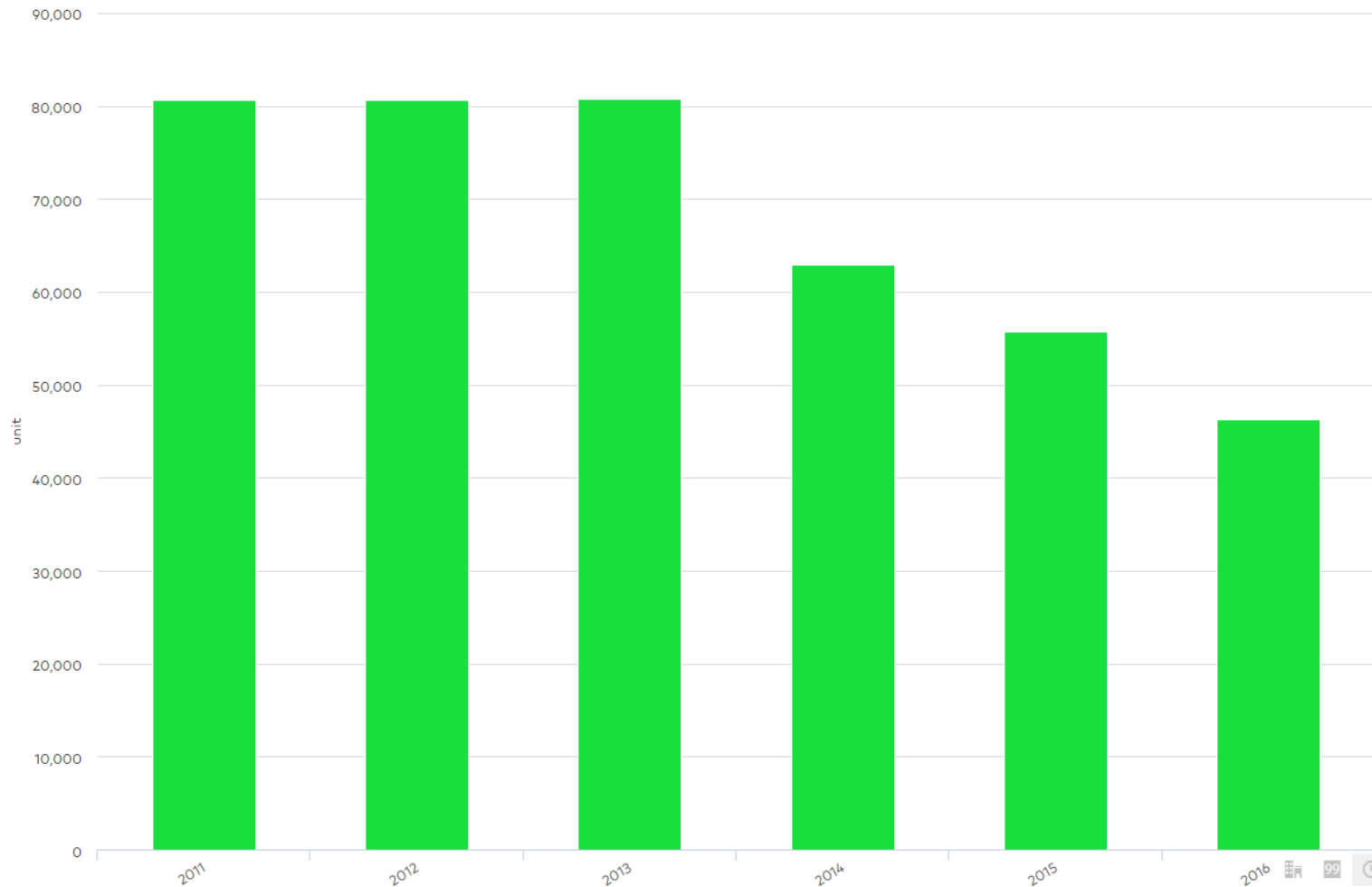


A good reduction in Car Rental use over the last 3 years with an 18 – 21% reduction per year.





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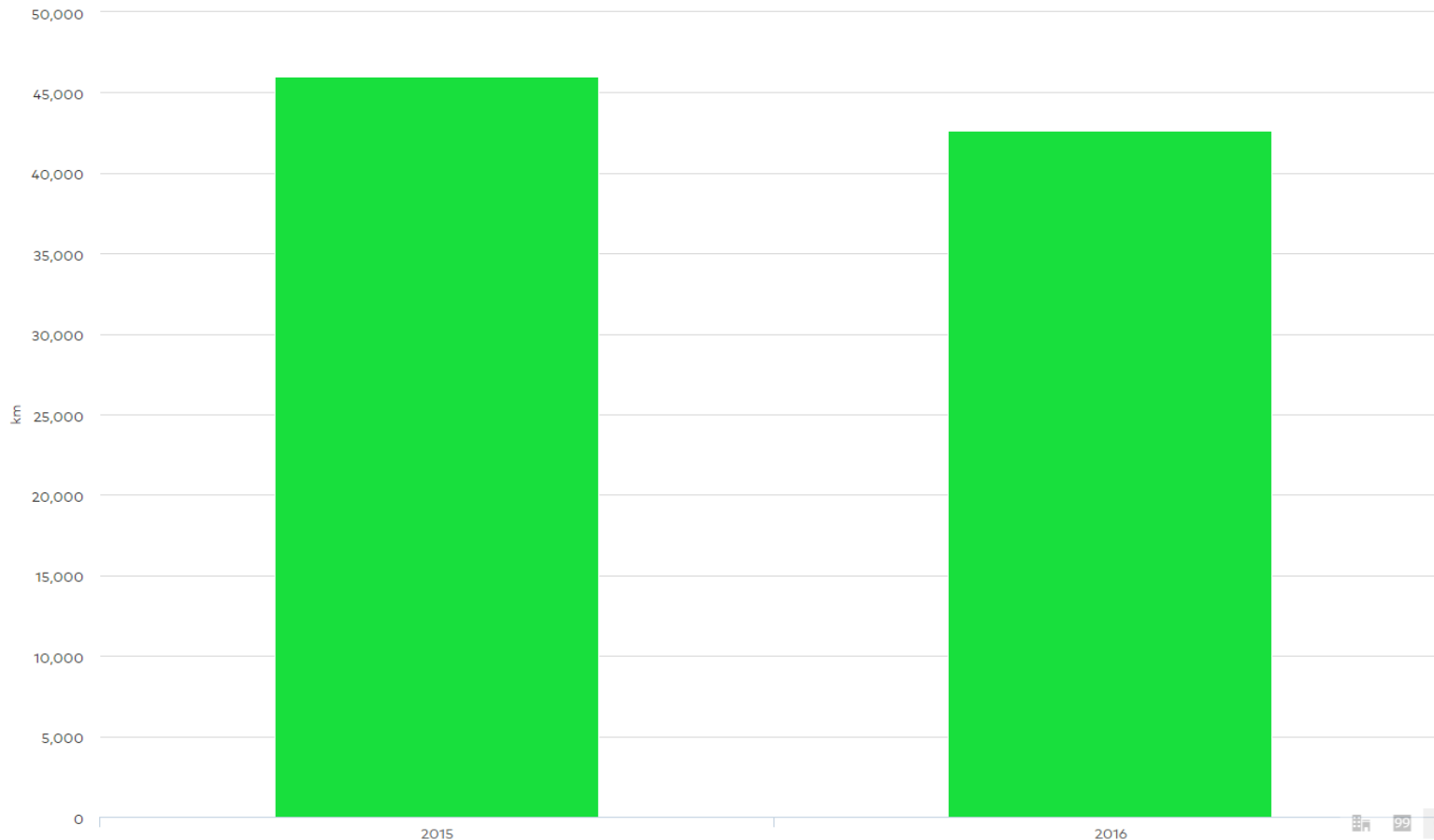


The numbers of staff & students using the intercampus shuttle have been reducing over the last 4 years.





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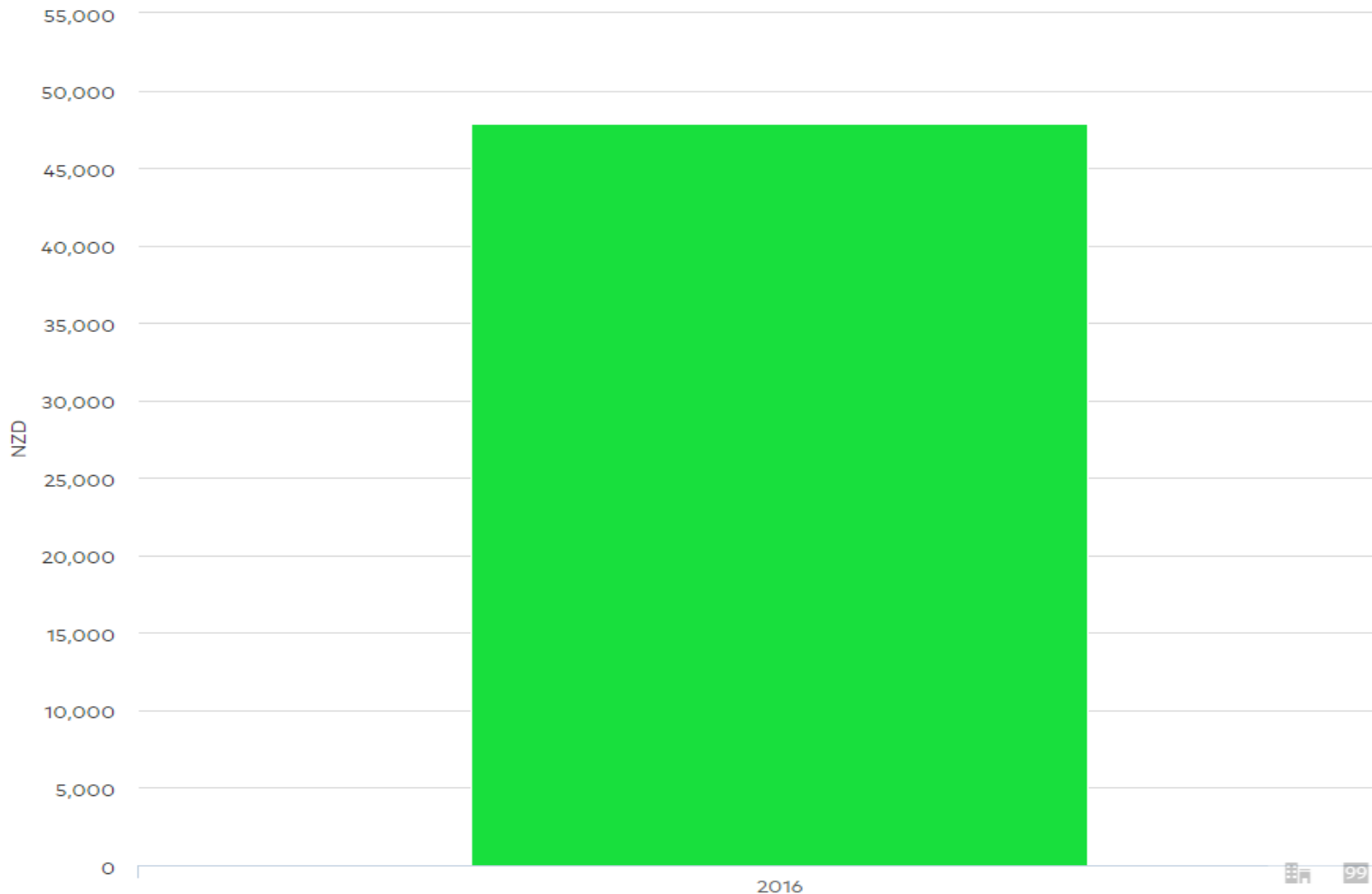


The number of kilometers travelled by staff in private vehicles for Unitec business has reduced between 2015 & 2016.





2016 Summary



Taxi use in 2016 was \$47,832.

