



Vibrant and Sustainable City Scrutiny Panel Meeting

Thursday, 21 October 2021

Dear Councillor

VIBRANT AND SUSTAINABLE CITY SCRUTINY PANEL - THURSDAY, 21ST OCTOBER, 2021

I am now able to enclose, for consideration at Thursday, 21st October, 2021 meeting of the Vibrant and Sustainable City Scrutiny Panel, the following report that was unavailable when the agenda was printed.

Agenda No Item

4 **Climate Change Action Plan Review (Pages 3 - 16)**

If you have any queries about this meeting, please contact the Scrutiny Team:

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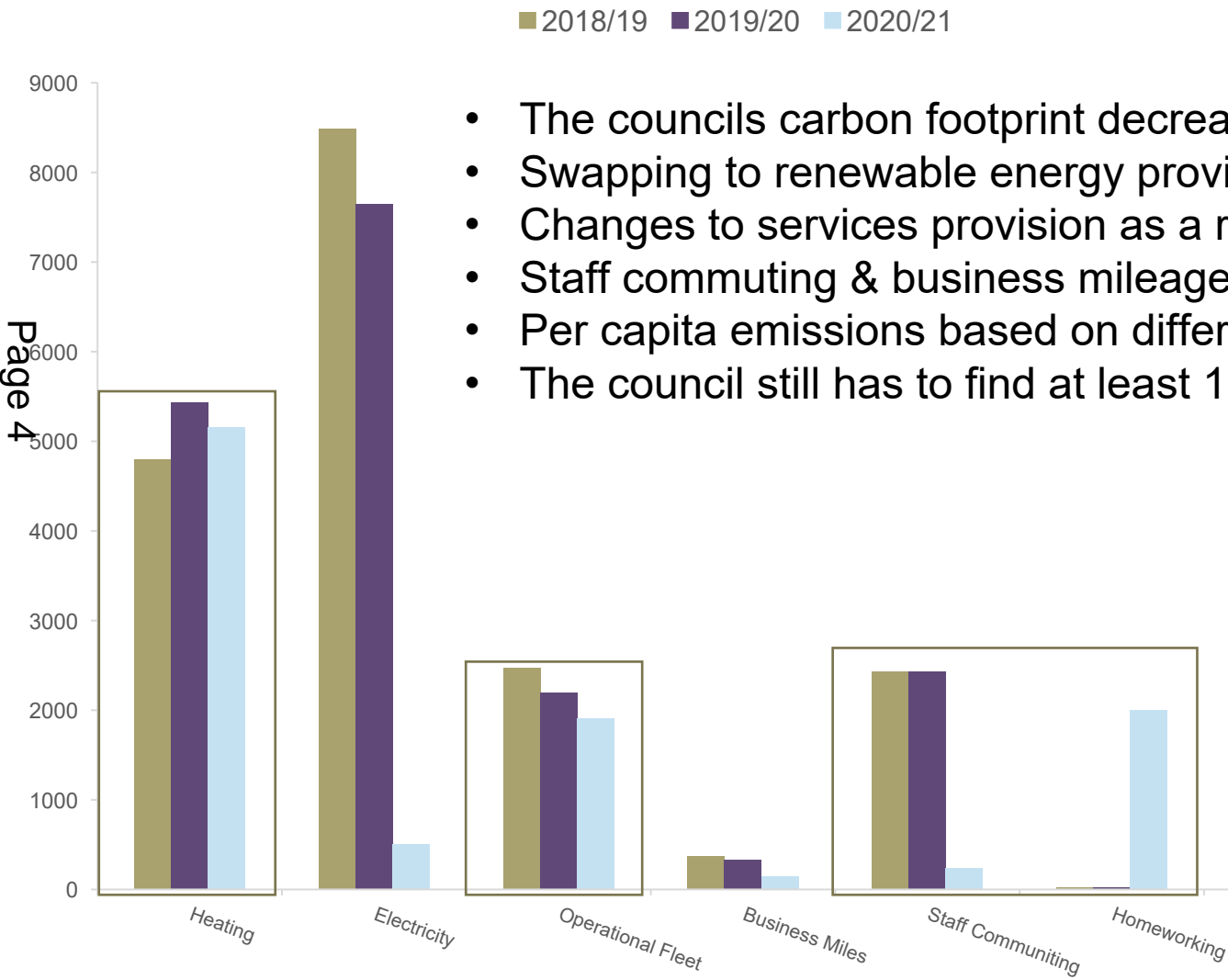
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Scrutiny Panel Vibrant and Sustainable City 21st October 2021

Update on the Council’s Decarbonisation

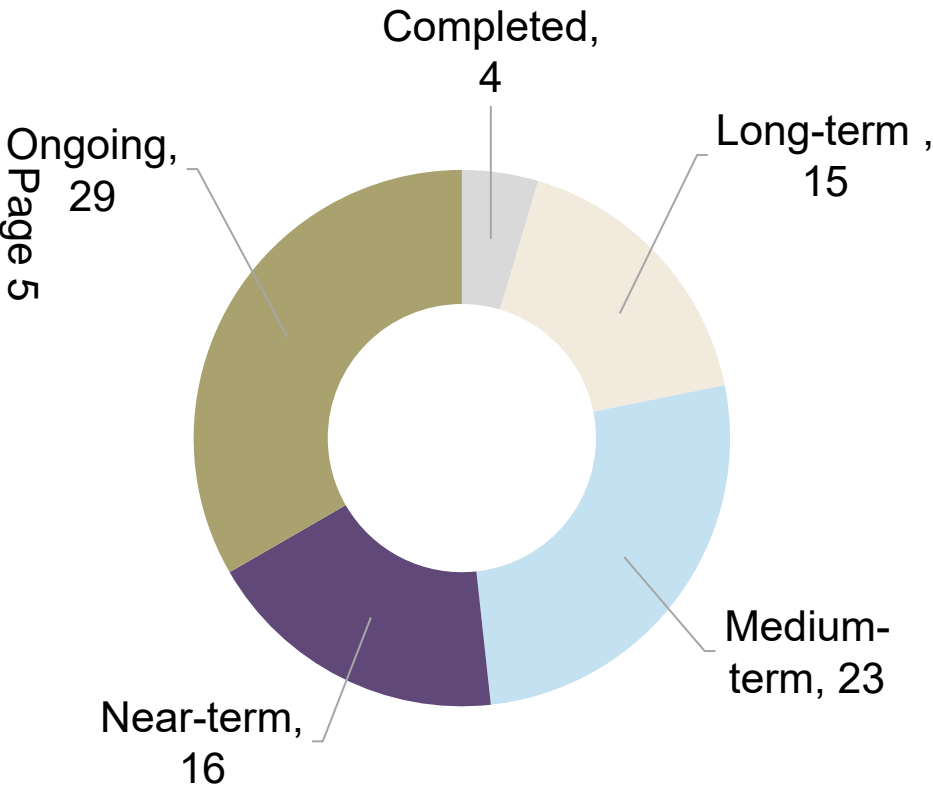


- The councils carbon footprint decreased by 8200 tonnes since 2019/20
- Swapping to renewable energy provider saved 7150 tonnes
- Changes to services provision as a result of Covid saved a further 1050 tonnes
- Staff commuting & business mileage emissions gave way to agile working emissions
- Per capita emissions based on different working arrangements have been calculated
- The council still has to find at least 10,000 tonnes of annual carbon savings by 2028

Rank	Working Scenario	Carbon impact tCO2e per employee
1	Home working with others at home	0.3
2	Solo home working	0.8
3	Office based + Commute	1.3 (0.7 + 0.6)

Tangible Outputs

Action Plan Time Scales



Most actions in in development and on going, some tangible outputs have already been realised:

- Council Procured renewable energy provider
- LED street Light programme 50% complete
- Staff climate Tool Kit has recently been Completed
- Council carbon footprint and Covid Impact assessment completed
- Council 2028 action plan approved

Anticipated completion of all ongoing actions expected within the next year.

Action	Anticipated Delivery Date		
	2021/22	2022/23	2023/24
Low carbon Staff Travel Policy			
First 48 EV's & chargers			
Internal governance established			
Carbon Coding in reports			
Grey fleet and mileage claim system			
Asset Energy Surveys			
Fleet Telematics System			

LED Street Light Programme

Programme Objectives



30,000 Street
lights



Expected energy
reduction of
approx. 40%



Estimated total
carbon reduction
of 1781 tonnes



Expected
Completion Date
September 2022

Programme Progress



12,500
installations to
date



Approx. 20%
reduction in
energy
consumption



£350K of energy
savings so far



LED Street Light Programme

No Ecological survey has been conducted, but recent research suggests:

Page 7

48% more Flies and Moths attracted to LEDs than HPS [1]

Possible impacts on sleep cycles of small mammals and birds at high brightness

Conflicting theories on bats, but suggested it may alter roosting habits (as do normal streetlights)

Depending on species

- Increased bat presence due to increase in certain insects
- Avoidance by other due to reduction in other insect species

LED's do not produce UV light, and so has a lesser impact on other animals compared to HPS/Mercury/Flourescent

LEDs don't contain toxic components such as mercury

[1] [LED lighting increases the ecological impact of light pollution irrespective of color temperature - Pawson - 2014 - Ecological Applications - Wiley Online Library](#)



Buildings and Energy

GAS



~5000 tonnes of CO2 per year from heating



£800K in energy bills every Year



84 Corporate buildings to decarbonise



Fabric First approach required

ELECTRICITY



3000 tons of co2 equivalent electricity used every year in buildings



Renewable electricity provider procured 2019



£1.8M in electricity bills every year



0.5 MW of Solar already installed on buildings



Buildings and Energy

Page 9

	2021/ 22	2022/ 23	2023/ 24	2024/ 25	2025/ 26	2026/ 27	2027/ 28
energy Audits	Ongoing						
Decarbonisation roadmap	Ongoing						
Insulation Retrofits							
Heating Decarbonisation							
Energy Efficiency							
Roof Mounted Solar PV							

The council will take a fabric first approach ensuring maximum energy efficiency to maximise the carbon and financial savings

Fully Costed Programme to be established through the energy audits and creation of asset decarbonisation roadmap



Fleet Electrification

The Current Diesel Fleet Produces:



~2500 tonnes of CO2 per year from fuel



5 Tonnes of Nitrous oxides



61 Kg of particulate matter



Approximately £1M in annual fuel costs alone

An All Electric Fleet Would Lead To:



87- 100% reduction in CO2e



100% reduction in NOX



£817K of fuel cost savings every year



Significant reduction in maintenance costs



Fleet Electrification

	2021/ 22	2022/ 23	2023/ 24	2024/ 25	2025/ 26	2026/ 27	2027/ 28
Update FMS	Ongoing						
Install Telematics	Ongoing		117 tCO2 savings				
1 st phase of Chargers	Planning stage						
Cars & Vans <3.1 tonnes	Underway			239 tCO2 when complete rising to 339			
RCVs						650 tCO2 by 2028	
2 nd Phase chargers				In parallel with depot relocation			
Vans & Buses >3.1 tonnes							236 tCO2 up to 335
HCVs				384 tCO2 rising to 544 tCO2			

Page 11



Consumption, Waste & Plastics

Plastics Removed from Committee Rooms 2019 but more work needed to remove from other areas.

Café trialled Reusable salad containers 2019

Plastic use has decreased significantly since covid with people being at home

Steps are being taken to ensure that future contracts include recyclable packaging



Procurement are identifying ways in which waste and climate change can be incorporated into future tenders following government advice



City 2041 Action Plan Updates

Objectives taken from Scatter Cities and WMCA 2041 5 year plan

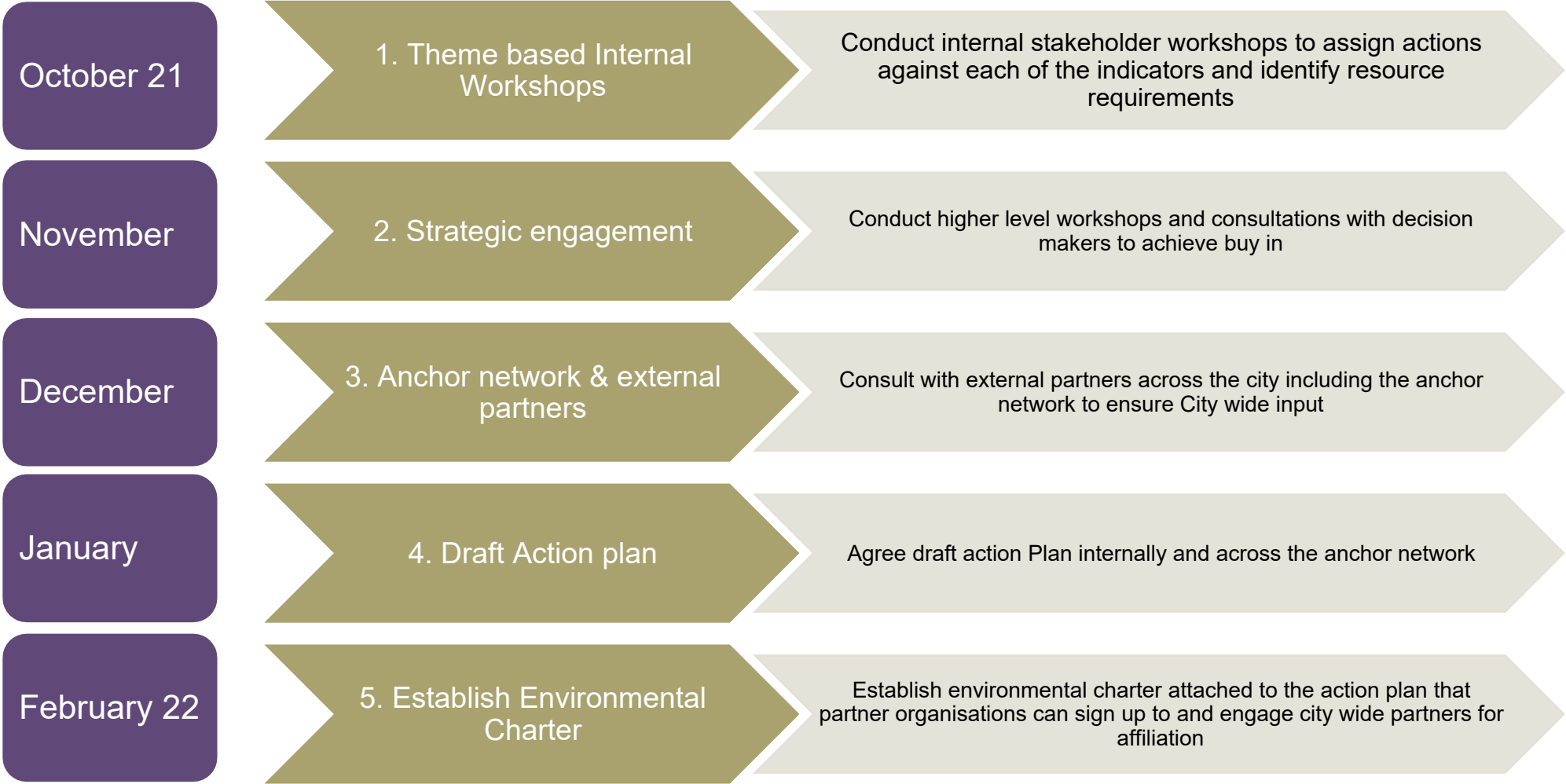
Accelerated Scenario

			2021	2026	2031	2036	2041
	Transport	Avoid	25% less personal and retail trips by 2030			35% of people tele-commuting 50% of time	
		Shift	Bike up 10% of trips			mode share of cars vans and motorbikes down from 78% to 38%, public transport up to 27% by 2041	
		Improve	Cars, buses, vans 100% electric by 2036				100% HGVs electric
	Domestic buildings	Energy efficiency	100% new builds passive house, 80% of stock deep retrofit, 100% cooking electric, energy demand 27% of current levels				
		Heating	low carbon heating retrofit in 100% of households by 2041, and all new build properties built to passive hours of net zero standard				
		Renewable Energy	Increase rooftop Solar capacity to 2400 kWh per household by 2030			5200 kWh per household by 2041	
	Commercial Buildings	Energy efficiency	Energy efficiency measures in 100% of buildings, new builds built to highest energy efficiency ratings			100% of commercial cooking electrified, and commercial energy demand down by 25%	
		Heating	Low carbon heating retrofit in 100% of buildings				
		Renewable Energy	Increase rooftop Solar capacity to 2400 kWh per household by 2030			5200 kWh per household by 2041	
	Industrial processes	Energy efficiency	10% energy efficiency, electricity consumption is 50% of total energy consumption by 2031			Electricity consumption is 65% of total by 2041,	
		Heating	17% deployment of hydrogen gas and 40% Carbon Capture and Storage for high temp processes				
		Renewable Energy	Increase rooftop Solar capacity to 2400 kWh/year per household by 2030			5200 kWh per household by 2041	
	Waste and Consumption	Reduction	Total Volume of Waste is 61% of 2017 levels				
		Recycling	65% recycling, 10% landfill, 25% incineration by 2030			Recycling increasing to 85% by 2050	
	Natural Capital & Land use	Tree coverage	Tree planting to increase coverage by 30% by 2026		And by a further 20% over the next 15 years		
		Large scale Renewables	200kWh solar and 2.8 MWh of small scale wind per hectare		Up to 400kWh of solar and 3.3 mWh of small Scale wind by 2041		

According to the WMCA 5 year Plan, 0.5 Bn investment required in Wolverhampton by 2026

City 2041 Action Plan Updates

Page 14



Comms & Citizens Assembly



Citizens assembly participants couldn't be contacted as none selected follow-up engagement



Future Citizens assemblies will be conducted as part of future consultation process



Citizens assemblies should be a regular occurrence



A public Newsletter is being created that will be distributed across all available channels



The Newsletter will provide regular updates on council progress against it's 2028 and it's 2041 action plans



The newsletter will offer a two was channel of engagement and inform people of tools and services the can access to decarbonise



Thank you All for Listening

Any Questions