

## Appendix 1

### Overview of proposed monitoring indicators for Climate, Energy and Environment Committee

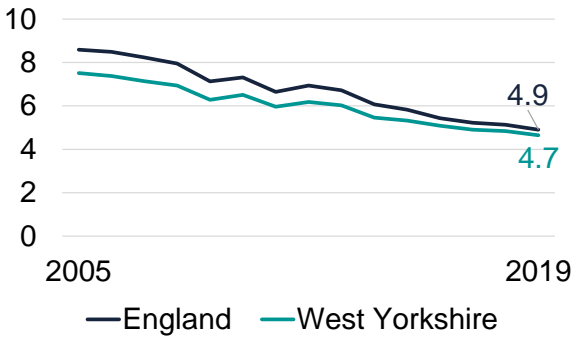
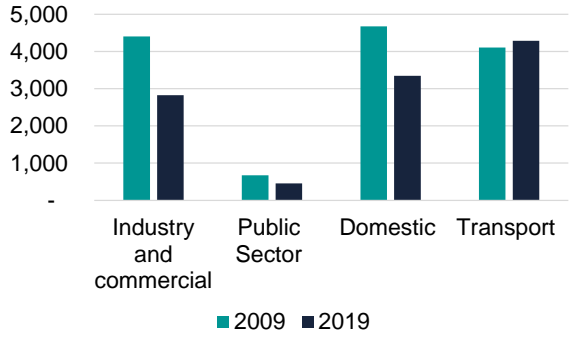
Indicator title	Description	Rationale	Source	Latest available at time of writing	Frequency	Geography for which data is available
<b>CO2 emissions (ktCO2)</b>	Carbon dioxide emissions estimates at local authority level	Enables us to assess progress in reducing local carbon emissions towards net zero target.	UK local authority and regional carbon dioxide emissions national statistics (BEIS)	2019	Annual Next data expected June 2022	Local authority
<b>CO2 emissions (ktCO2) by sector</b>	Contribution of different sectors of local economy to total carbon emissions	Enables us to provide targeted focus to emissions reduction measures.	UK local authority and regional carbon dioxide emissions national statistics (BEIS)	2019	Annual Next data expected June 2022	Local authority
<b>Emissions intensity ratio</b>	Ratio of carbon emissions to gross value added	Shows progress in decarbonising the economy and fostering clean growth	UK local authority and regional carbon dioxide emissions national statistics (BEIS); and Regional gross value added (balanced) per head	2019	Annual Next data expected June 2022	Local authority

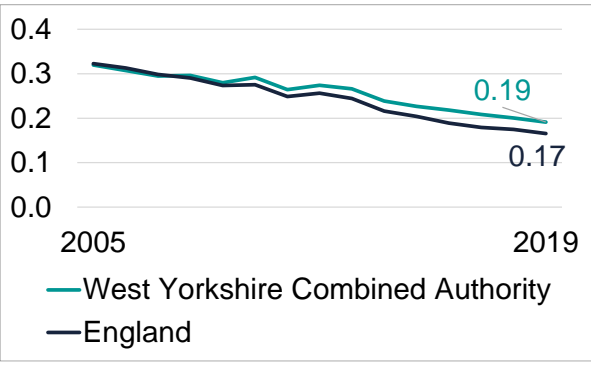
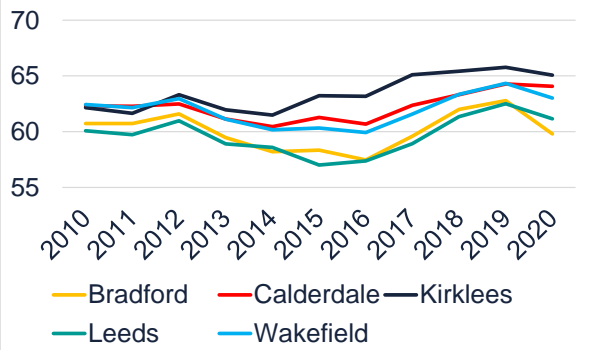
<b>Indicator title</b>	<b>Description</b>	<b>Rationale</b>	<b>Source</b>	<b>Latest available at time of writing</b>	<b>Frequency</b>	<b>Geography for which data is available</b>
<b>Access to greenspace</b>	Proportion of the population who have access to local greenspace; that is, they live within 300m (As the crow flies) of an area of accessible natural greenspace of at least 2 hectares in size	Providing everybody with easy access to these assets is central to vision of Green and Blue Infrastructure strategy, in order to promote a strong economy, a sustainable environment and outstanding quality of life.	Natural England	2021	Annual	Local authority
<b>Building energy efficiency</b>	Average Energy Performance Certificate rating of domestic properties	Shows energy efficiency performance of domestic sector	Live tables on Energy Performance of Buildings Certificates	2020	Quarterly  Next data expected May 2022	Local authority
<b>Premises at risk of flooding</b>	Number of homes and commercial units by likelihood of flooding	The risk of flooding is a significant issue facing many business and resident properties across the area	Environment Agency	2021	Continuous	Local authority

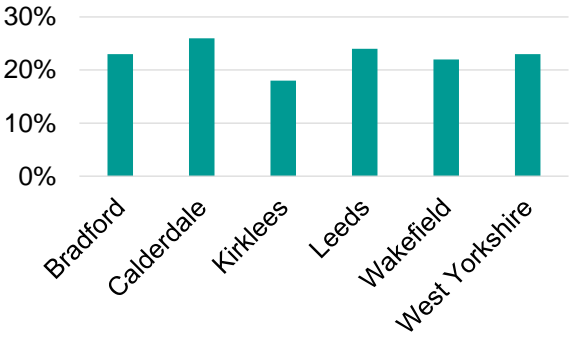
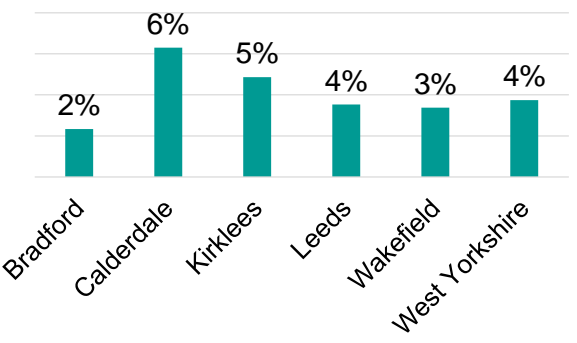

Indicator title	Description	Rationale	Source	Latest available at time of writing	Frequency	Geography for which data is available
<b>Households in fuel poverty</b>	Proportion of households in fuel poverty, based on Low Income Low Energy Efficiency (LILEE) indicator,.	Fuel poverty is a key challenge from point of view of inclusion and energy efficiency	Fuel poverty sub-regional statistics (BEIS)	2019	Annual Next data expected April 2022	District

## Summary of performance against the indicators

[Link](#) to State of the Region interactive dashboard containing further detail on these indicators

Indicator	Headline chart	Comment															
<p><b>Carbon dioxide emissions</b></p> <p><i>Per capita carbon dioxide emissions (t CO<sub>2</sub> per head)</i></p> <p>Source: UK local authority carbon dioxide emissions estimates 2019, Department for Business, Energy and Industrial Strategy, 2021</p>	 <table border="1"> <caption>Per capita carbon dioxide emissions (t CO<sub>2</sub> per head)</caption> <thead> <tr> <th>Year</th> <th>England</th> <th>West Yorkshire</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>~8.5</td> <td>~7.5</td> </tr> <tr> <td>2019</td> <td>4.9</td> <td>4.7</td> </tr> </tbody> </table>	Year	England	West Yorkshire	2005	~8.5	~7.5	2019	4.9	4.7	<p>Per capita emissions in West Yorkshire are below the national average and are on a downward trend. The rate of reduction needs to be accelerated to achieve net zero by 2038.</p>						
Year	England	West Yorkshire															
2005	~8.5	~7.5															
2019	4.9	4.7															
<p><b>Carbon dioxide emissions by sector</b></p> <p><i>CO<sub>2</sub> emissions (ktCO<sub>2</sub>) by sector for West Yorkshire</i></p> <p>Source: UK local authority carbon dioxide emissions estimates 2019, Department for Business, Energy and Industrial Strategy, 2021</p>	 <table border="1"> <caption>CO<sub>2</sub> emissions (ktCO<sub>2</sub>) by sector for West Yorkshire</caption> <thead> <tr> <th>Sector</th> <th>2009</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Industry and commercial</td> <td>~4,500</td> <td>~2,800</td> </tr> <tr> <td>Public Sector</td> <td>~800</td> <td>~500</td> </tr> <tr> <td>Domestic</td> <td>~4,800</td> <td>~3,500</td> </tr> <tr> <td>Transport</td> <td>~4,200</td> <td>~4,500</td> </tr> </tbody> </table>	Sector	2009	2019	Industry and commercial	~4,500	~2,800	Public Sector	~800	~500	Domestic	~4,800	~3,500	Transport	~4,200	~4,500	<p>All sectors have seen significant reductions in emissions over time except transport, which is now the largest source of emissions.</p>
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<p><b>Emissions intensity</b></p> <p><i>Emissions intensity ratio - the level of CO<sub>2</sub> emissions per unit of gross value added (GVA)</i></p> <p>Source: UK local authority carbon dioxide emissions estimates 2019, Department for Business, Energy and Industrial Strategy, 2021; Regional gross value added (balanced) by industry: all ITL regions, ONS, 2021</p>	 <table border="1"> <caption>Emissions intensity ratio (2005-2019)</caption> <thead> <tr> <th>Year</th> <th>West Yorkshire Combined Authority</th> <th>England</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>0.32</td> <td>0.31</td> </tr> <tr> <td>2019</td> <td>0.19</td> <td>0.17</td> </tr> </tbody> </table>	Year	West Yorkshire Combined Authority	England	2005	0.32	0.31	2019	0.19	0.17	<p>Emissions intensity (ratio of emissions to economic output) is in steady decline in West Yorkshire but is higher than the national average and the gap is widening.</p>																																																															
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<p><b>Building energy efficiency</b></p> <p><i>Trend in average Energy Performance Certification rating by local authority</i></p> <p>Source: Live tables on Energy Performance of Buildings Certificates, MHCLG, 2021</p>	 <table border="1"> <caption>Average EPC Rating by Local Authority (2010-2020)</caption> <thead> <tr> <th>Year</th> <th>Bradford</th> <th>Calderdale</th> <th>Kirklees</th> <th>Leeds</th> <th>Wakefield</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>60</td> <td>61</td> <td>62</td> <td>60</td> <td>61</td> </tr> <tr> <td>2011</td> <td>60</td> <td>61</td> <td>62</td> <td>60</td> <td>61</td> </tr> <tr> <td>2012</td> <td>61</td> <td>62</td> <td>63</td> <td>61</td> <td>62</td> </tr> <tr> <td>2013</td> <td>60</td> <td>61</td> <td>62</td> <td>60</td> <td>61</td> </tr> <tr> <td>2014</td> <td>59</td> <td>60</td> <td>61</td> <td>59</td> <td>60</td> </tr> <tr> <td>2015</td> <td>58</td> <td>59</td> <td>60</td> <td>58</td> <td>59</td> </tr> <tr> <td>2016</td> <td>58</td> <td>59</td> <td>60</td> <td>58</td> <td>59</td> </tr> <tr> <td>2017</td> <td>59</td> <td>60</td> <td>61</td> <td>59</td> <td>60</td> </tr> <tr> <td>2018</td> <td>61</td> <td>62</td> <td>63</td> <td>61</td> <td>62</td> </tr> <tr> <td>2019</td> <td>62</td> <td>63</td> <td>64</td> <td>62</td> <td>63</td> </tr> <tr> <td>2020</td> <td>60</td> <td>61</td> <td>62</td> <td>60</td> <td>61</td> </tr> </tbody> </table>	Year	Bradford	Calderdale	Kirklees	Leeds	Wakefield	2010	60	61	62	60	61	2011	60	61	62	60	61	2012	61	62	63	61	62	2013	60	61	62	60	61	2014	59	60	61	59	60	2015	58	59	60	58	59	2016	58	59	60	58	59	2017	59	60	61	59	60	2018	61	62	63	61	62	2019	62	63	64	62	63	2020	60	61	62	60	61	<p>The average EPC rating has improved over time in West Yorkshire, although it dipped in 2020, probably as a result of factors linked to the pandemic. West Yorkshire's average rating is similar to the national average.</p>
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<p><b>Access to green space</b></p> <p><i>Proportion of population with easy access to local natural greenspace</i></p> <p>Source: Natural England 2021, ONS Mid-Year Population Estimates</p>	 <table border="1"> <caption>Access to green space</caption> <thead> <tr> <th>Local Authority</th> <th>Proportion (%)</th> </tr> </thead> <tbody> <tr> <td>Bradford</td> <td>~22%</td> </tr> <tr> <td>Calderdale</td> <td>~25%</td> </tr> <tr> <td>Kirklees</td> <td>~18%</td> </tr> <tr> <td>Leeds</td> <td>~23%</td> </tr> <tr> <td>Wakefield</td> <td>~21%</td> </tr> <tr> <td>West Yorkshire</td> <td>~22%</td> </tr> </tbody> </table>	Local Authority	Proportion (%)	Bradford	~22%	Calderdale	~25%	Kirklees	~18%	Leeds	~23%	Wakefield	~21%	West Yorkshire	~22%	<p>Just over a fifth of West Yorkshire's population have easy access to local natural greenspace.</p>		
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<p><b>Premises at risk of flooding</b></p> <p><i>Proportion of residential properties in flood zones</i></p> <p>Source: Environment Agency 2021, ONS Mid-Year Population Estimates</p>	 <table border="1"> <caption>Premises at risk of flooding</caption> <thead> <tr> <th>Local Authority</th> <th>Proportion (%)</th> </tr> </thead> <tbody> <tr> <td>Bradford</td> <td>2%</td> </tr> <tr> <td>Calderdale</td> <td>6%</td> </tr> <tr> <td>Kirklees</td> <td>5%</td> </tr> <tr> <td>Leeds</td> <td>4%</td> </tr> <tr> <td>Wakefield</td> <td>3%</td> </tr> <tr> <td>West Yorkshire</td> <td>4%</td> </tr> </tbody> </table>	Local Authority	Proportion (%)	Bradford	2%	Calderdale	6%	Kirklees	5%	Leeds	4%	Wakefield	3%	West Yorkshire	4%	<p>Around 4% of residential properties in West Yorkshire fall within a flood zone, rising to more than 6% in Calderdale. Flooding is likely to become a more frequent occurrence as a result of climate change.</p>		
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<p><b>Fuel poverty</b></p> <p><i>Proportion of households in fuel poverty, 2019</i></p> <p>Source: Fuel poverty detailed tables, Department for Business, Energy and Industrial Strategy, 2021</p>	 <table border="1"> <caption>Fuel poverty</caption> <thead> <tr> <th>Local Authority / Region</th> <th>Proportion (%)</th> </tr> </thead> <tbody> <tr> <td>Bradford</td> <td>~18%</td> </tr> <tr> <td>Calderdale</td> <td>~16%</td> </tr> <tr> <td>Kirklees</td> <td>~16%</td> </tr> <tr> <td>Leeds</td> <td>~16%</td> </tr> <tr> <td>Wakefield</td> <td>~16%</td> </tr> <tr> <td>West Yorkshire</td> <td>~17%</td> </tr> <tr> <td>England</td> <td>13%</td> </tr> </tbody> </table>	Local Authority / Region	Proportion (%)	Bradford	~18%	Calderdale	~16%	Kirklees	~16%	Leeds	~16%	Wakefield	~16%	West Yorkshire	~17%	England	13%	<p>Around 169,000 households in West Yorkshire (17% of all households) are in fuel poverty, a prevalence that is above the national average (13%).</p>
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