

WWF CASE STUDY

ABERAVON

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SUMMARY

Aberavon stands to gain enormously from the government's target of net zero carbon emissions by 2050. Its current major carbon emitter, the Tata Port Talbot steelworks, is also the constituency's key employer. The steelworks is also in a prime position to receive investment to decarbonise, with spill over benefits for the whole constituency.

Extensive economic analysis has shown the benefits the green transition will bring to the constituency, including local job creation and investment in local infrastructure.

A green transition in Aberavon will:



**CREATE
890 - 1090 LOCAL JOBS**



**SECURE £2,200 MILLION
IN LOCAL INVESTMENT**



**SEE £870 - 1,140 MILLION
TOTAL GROSS VALUE ADDED TO
THE LOCAL ECONOMY**

WWF-UK's [Net Zero Delivery Tracker](#) applied to government spending and taxation, will help ensure that Aberavon secures the considerable benefits of the green transition.

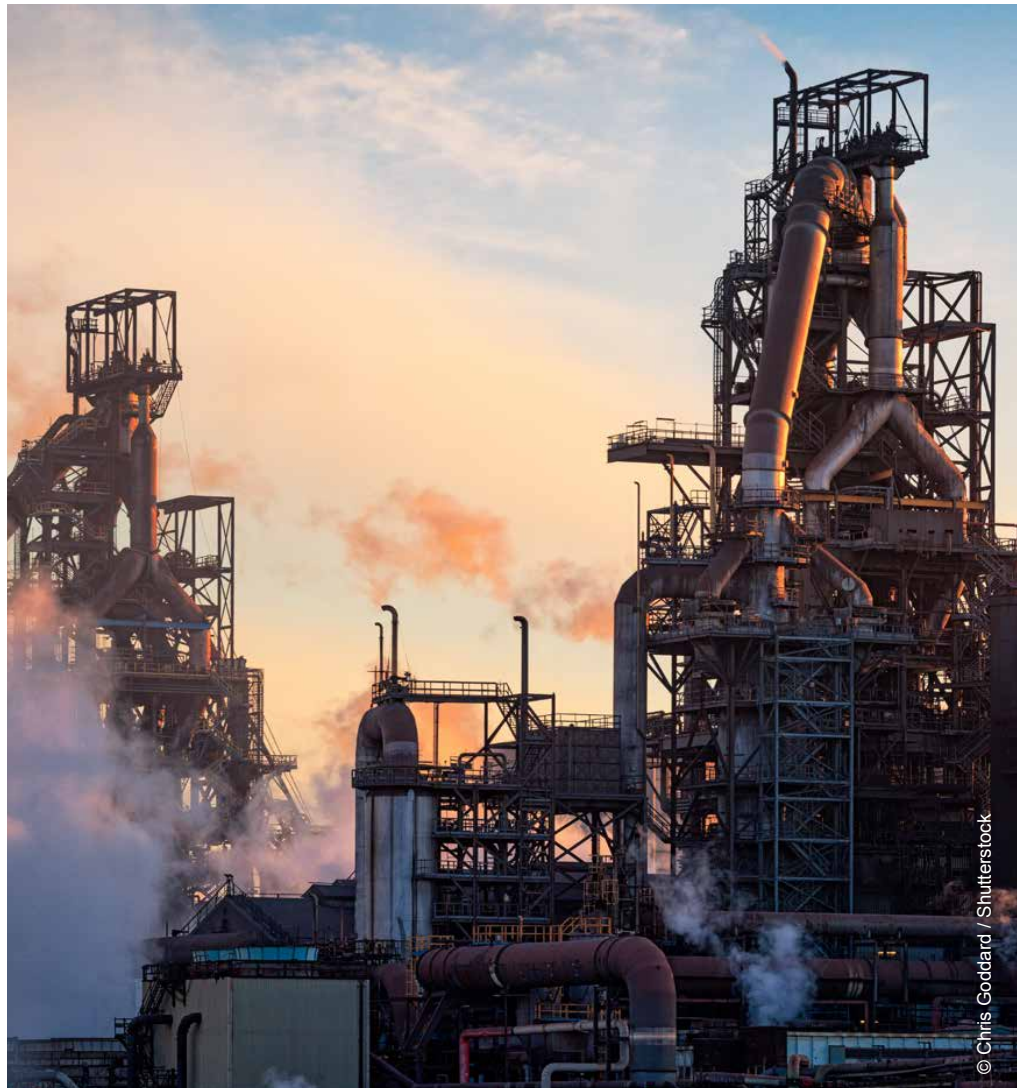
BACKGROUND

Aberavon is one of Labour's safest seats. It has returned a Labour MP at every election since 1922 and Labour has won more than 50% of the vote at all but one election since the end of the Second World War. The Labour majority in 2019 was more than 33 percentage points over the Conservatives.

The constituency includes the Tata Port Talbot steelworks, one of the largest steel plants in Europe. Port Talbot steelworks are a major employer in this area of Wales. In its heyday in the 1960s it employed around 20,000 people, but today that has fallen to around 4,000.

The steelworks is also a major source of greenhouse gas emissions, the site is one of the UK's top two emitters of industrial emissions. It is estimated to produce 15% of Wales' carbon emissions and is a significant contributor to Neath Port Talbot council area producing around four times as much CO₂ as any other Welsh local authority.

The Welsh Government has pledged support to the net zero carbon emissions target by 2050, enshrining this into law alongside other nations; to meet this ambitious target the country must cut CO₂ emissions by 63% by 2030.



Aberavon is a seat that tells the story of an industry that the UK wishes to preserve, but which will need investment to decarbonise. Current methods of primary steel production in the UK are highly carbon intensive. While some steelmaking can be decarbonised through electrification, not all grades of steel can currently be produced from electric arc furnaces. Hydrogen-based steel production is therefore the likely long-term low carbon successor to using coking coal¹.

Green Hydrogen is produced from water by electrolysis powered by renewable electricity. It will be a key energy vector in the transition to net zero, replacing fossil fuels in applications from industry to transport. **As a key source of demand for hydrogen, Aberavon exemplifies a flourishing green hydrogen market.**

NET ZERO OPPORTUNITIES

Potential economic benefits from Net Zero investment	
Total investment to 2050	£2,200 million
Direct GVA	£520 million - £660 million
Total GVA	£870 million - £1,140 million
Job creation	890 - 1,090 jobs

Breakdown of jobs created in Aberavon	
Decarbonising Steel Manufacturing	570 - 640
Decarbonising Surface Transport	130 - 210
Decarbonising Residential Buildings	130 - 180
Decarbonising Non-Residential Buildings	60 - 70

IT IS VITAL FOR THE CONSTITUENCY THAT PORT TALBOT STEELWORKS CONTINUES TO OPERATE. BUT AT THE SAME TIME THE SITE MUST DECARBONISE AT THE SPEED REQUIRED FOR WALES TO HIT ITS NET ZERO TARGET. HYDROGEN STEELMAKING IS THE MOST LIKELY OPTION FOR ACHIEVING THESE AIMS

THE STEEL INDUSTRY

It is vital for the constituency that Port Talbot steelworks continues to operate. But at the same time the site must decarbonise at the speed required for Wales to hit its net zero target. Hydrogen steelmaking is the most likely option for achieving these aims. The blueprint is there for Port Talbot to follow: owners ArcelorMittal have already announced plans to create new steel plants using green hydrogen on two European sites. The sites have a capacity of up to 3.5 million tonnes of steel and the technology conversion is expected to require investment in the range of €1,000-1,500 million. If we assume that Port Talbot continues to produce its current output of 5 million tonnes per annum and given how successive government's have sought to protect domestic steel production and would doubtless look to support investment in decarbonisation, we could expect **an investment requirement of around £1,500 million.**

¹ Energy & Climate Intelligence Unit, Stuck on the starting line, May 2021

INVESTING IN BUILDINGS IN LINE WITH THE NET ZERO TARGET WOULD NOT ONLY MAKE HOMES WARMER AND LOWER BILLS, IT WOULD ALSO CREATE LOCAL EMPLOYMENT AND GROW THE LOCAL ECONOMY

LOCAL BENEFITS OF DECARBONISING TRANSPORT

Transport is the biggest sectoral source of CO₂ emissions in the UK, accounting for around one-third of total emissions². Between now and 2050, around £50bn will need to be invested in new transport infrastructure to deliver the net zero target, but this cost will be more than offset by savings made as electric vehicles (EVs) are much more efficient to run.

The Autumn 2021 Budget and Spending Review provided £620 million to support the uptake of EVs and £817 million for the electrification of UK vehicles and their supply chains³. These welcome investments were partially offset by high-carbon policies such as reducing air passenger duty for domestic flights which drive up emissions. Implementing WWF-UK's Net Zero Delivery Tracker (explained in detail below) would help government avoid policies that increase emissions or balance them out by delivering more ambitious emissions reductions elsewhere in the Budget.

Aberavon has fewer cars and vans than an average UK constituency; but will nonetheless benefit from **£310 million of investment in low carbon transport by 2050**. Around three-quarters of this will relate to personal forms of transport such as cars, vans and motorcycles. Total surface transport investment will include both public investment (including on deployment of public charging infrastructure) and private expenditure (such as for purchase of vehicles⁴). Helping to significantly improve connectivity and mobility in the constituency. This investment will create an estimated 130 to 210 local jobs.

LOCAL BENEFITS OF DECARBONISING HOUSING

Changes to the housing and non-domestic building stock will be a big part of the adjustments that the public sees as we target net zero. This will include retrofitting existing homes to improve their energy efficiency and install low carbon heating options such as heat pumps. New-build homes will need to be future proofed and zero-carbon ready.

The Autumn 2021 Budget and Spending Review provided £3,900 million to decarbonise buildings and make homes warmer and more environmentally friendly. This was welcome investment, but came in a package of announcements that WWF-UK's Net Zero Delivery Tracker (explained in detail below) found did not do enough to put the UK on track for net zero.

Investing in buildings in line with the net zero target would not only make homes warmer and lower bills, it would also create local employment and grow the local economy. In Aberavon, improvements to housing in line with climate targets will require investment of £260 million in residential housing and £110 million to non-domestic buildings. This investment will create an estimated 190 to 250 local jobs.

² BEIS, 2021 UK greenhouse gas emissions, provisional figures, 31 March 2022

³ HM Treasury, Autumn Budget and Spending Review 2021, October 2021

⁴ CCC, The Sixth Carbon Budget, December 2020

⁵ HM Treasury, Autumn Budget and Spending Review 2021, October 2021

CONCLUSION

The world needs to decarbonise to tackle climate change - but making these changes will deliver real local benefits too. This briefing outlines why supporting the net zero transition will have significant and tangible economic benefits in Aberavon, particularly as it decarbonises its traditional heavy industry infrastructure.

Reaching net zero will require significant investment from the public and the private sector. In many cases, as has been seen for example in the offshore wind sector, early public sector investment will help leverage in private sector capital.

This will require government policy to incentivise the big changes needed across the economy in industry, power, buildings, transport etc. These policies will typically be announced by government at set piece events such as Budgets and Spending Reviews. Government should be transparent at each of these occasions as to whether the policies they announce are commensurate with the trajectory for emissions reductions proposed by the Climate Change Committee and legislated for by Parliament in the five-yearly Carbon Budgets.

WWF is calling for the government to apply a [Net Zero Delivery Tracker](#) to all spending and taxation decisions in Budgets and Spending Reviews. This will ensure that areas such as Aberavon receive the significant local benefits of the green transition identified in this note, including job creation, improved local infrastructure and faster economic growth.