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Mark Isherwood MS
Chair of the Public Accounts and Public Administration Committee

18 May 2023

Dear Mark

Procurement of Rolling Stock by Transport for Wales

Thank you for your letter, regarding Transport for Wales (TfW)'s procurement of its Class 230 trains to serve the Wrexham-Bidston line. I welcome this opportunity to share further details about the procurement process and the situation as it stands following Vivarail entering administration. I do hope that this letter will provide some assurance that TfW has exercised due diligence and is working hard to introduce these new trains.

Please find the further detail requested below:

1. Confirmation of the number/specification of the trains ordered and whether these have been supplied in full (if not what remains outstanding).

In 2018 as part of the original contract award, five 3-car Class 230 units were ordered from Vivarail under the commitment to improve services on the Wrexham-Bidston route. The trains were identified by KeolisAmey¹ through the Wales & Borders rail franchise bidding process whereby they were then contractualised through the award of the subsequent grant agreement.

The Class 230 is a three-carriage train. Vivarail converted these trains from a London Underground District Line train into a mainline bi-mode/hybrid train which use batteries and a diesel engine. All five 3-car Class 230 units have been supplied. Details are supplied in the answer to question 3.

¹ Keolis Amey Operations trading as Transport for Wales Rail Services (TfW Rail Services) was a Welsh train operating company owned by Keolis (60%) and Amey (40%) that operated the Wales & Borders rail franchise between October 2018 and February 2021.



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2. Whether the trains have been bought outright or are being leased, the supporting rationale in either case, and when the contractual arrangements were entered into.

The Welsh Government purchased the trains outright and are owned by TfW (TfW is wholly owned by the Welsh Government). The outright purchase by the Welsh Government was agreed at the time of ordering, as this would have been cheaper over time than Keolis Amey negotiating third party funding and a subsequent lease back, noting that Vivarail were not able to offer a lease arrangement, only outright sale of the units. There have not been any subsequent changes to this arrangement, and as you would expect from a project of this nature periodic reviews have been undertaken. Payments were made on a unit-by-unit basis through 2020 and 2021 once each unit had passed TfW's quality inspection and testing regime.

3. When Transport for Wales originally expected the trains would come into operation and on what routes, along with any updated position in either respect (in the context of post-pandemic patterns of demand).

The original contract specified that the Class 230 trains would enter service in 2019. Of the fleet of five, three trains have been cleared for test and driver training, and are now available for service, and are subsequently being used in passenger operation. The fourth train will be available for passenger service in early summer 2023, with the fifth and final train expected to enter service later in the summer / early autumn of 2023.

We expect to operate an hourly service in both directions between Wrexham and Bidston using Class 230s this summer. Successful implementation of a reliable one train per hour service using the Class 230s must be achieved before we move to increase this frequency to two trains per hour.

The units were procured specifically for the Wrexham-Bidston route as a self-contained fleet with the option of operating on a couple of other routes as a stopgap whilst new fleet was being delivered. This option never materialised, and as a result, infrastructure works to allow Class 230 operation have only been carried out on the Wrexham-Bidston route.

4. Reasons why the trains have not already entered operation and original plans for how they would be serviced/maintained.

The reasons for the delayed entry of the Class 230 trains into service are as follows:

- Vivarail's committed programme timescales proved to be unrealistic. Vivarail accepted majority fault for the delays, and a substantial liquidated damages payment of £1.5 million was agreed and paid;
- delays in production at Vivarail due to the onset of the coronavirus pandemic (namely delays in obtaining materials) - these were accepted as permitted delays;



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- coronavirus restrictions and social distancing requirements also served to delay driver training in light of the need to form traincrew ‘bubbles’;
- poor initial reliability delayed ‘fault free running’ and acceptance of the units by TfW. This also led to occasional cancelled driver training;
- quality issues requiring resolution before the units could be accepted by TfW such as two separate thermal incidents between July 2021 and April 2022 led to fleet stand down while the issues were understood and mitigations were put in place. This was followed up by a substantial piece of work to re-map the engine control software, battery and rectifying wiring;
- the two fleet stand-downs delayed driver training, but also led to some drivers losing competency and needing additional refresher training;
- Vivarail entering into administration at the end of 2022 caused further delays while TfW established an in-house maintenance team.

Original plans upon purchase of the trains were for Vivarail to carry out the maintenance of the fleet, although a maintenance agreement was never signed. During production and initial testing it became evident that the trains required more maintenance than originally envisaged and Vivarail could not proceed with their proposed prices. TfW was negotiating with Vivarail a revised maintenance agreement at the time Vivarail entered administration. During this time, TfW agreed the use of Birkenhead North depot as a maintenance base for the Class 230 fleet and had contracted Vivarail technicians to support driver training on an ad-hoc basis. This was supplemented by a TfW-contracted team assisting the Vivarail technicians at Birkenhead North.

When Vivarail went into administration, TfW’s maintenance team (joined by additional recruits including some ex-Vivarail technicians) were approved as the fleet maintainers, allowing driver training to recommence ahead of passenger service in April 2023. We intend to continue with this team over the next few months while a decision is taken on the best long-term maintenance option for the Class 230 fleet.

5. Total costs to the public purse to date, how these costs are broken down, and any outstanding debts in either direction.

The total expenditure to date is £30.7m, this includes £16.6m for the purchase of the units; £8.5m capital costs to bring the trains into service; and £5.7m for operational costs. The breakdown of these costs is shown below.



The capital costs associated with purchasing the Class 230 units and getting them into service are as follows:

Capex costs	Spend to date £k
Cost of units	16,575
Capital Spares	2,482
Variations	1,978
Depot Upgrade	950
Other Costs	3,001
Total	24,985

The operational costs ahead of passenger service:

Opex costs	Spend to date £ k
Liquidated Damages paid to TfW	(1,473)
Vivarail maintenance	2,496
Training	186
TfW contracted maintenance	2,595
Materials and Heavy Maint	29
Depot Access (Birkenhead)	1,365
Security / cleaning / tooling	103
Other	426
Total	5,728

There are no outstanding debts in either direction. The payment agreed with Vivarail's administrator, which included access to a significant volume of spares, factored in payment of the outstanding invoices due to Vivarail for maintenance technicians, as well as the remaining liquidated damages due from Vivarail for the delays to the programme.

6. TFW's assessment of the impact of VivaRail's administration or other factors on plans for the introduction of these trains into service and ongoing maintenance arrangements.

At the time Vivarail went into administration, the Class 230s were two to three months away from entering passenger service, subject to the agreement of a satisfactory maintenance agreement with Vivarail. However, due to the protracted agreement of the maintenance regime with Vivarail, TfW had already taken several steps to ensure the resilience of the Class 230 operation. These were:



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- a. generation of TfW's own maintenance instructions, as Vivarail instructions were not considered adequate;
- b. resolution of the two thermal incidents, including extensive testing and full technical audits of all Class 230 trains carried out by TfW;
- c. sourcing of major capital spares to support future maintenance, regardless of who this will be carried out by;s
- d. establishment of good working relationships with Vivarail technical personnel at a working level, which facilitated TfW quickly securing ex-Vivarail staff when the business went into administration;
- e. appointment of TfW team at Birkenhead North depot to support the Vivarail team, and set-up of off-site parts stores and a component maintenance location nearby;
- f. Investing in the depot facilities at Birkenhead North depot, including fuelling facilities and toilet tank emptying. Using this depot also means that the Class 230 trains no longer need to travel to Chester for maintenance and/or servicing which ultimately saves on costs and resource.

When Vivarail ceased trading, these steps enabled us to move quickly to appoint a complete 'in-house' maintenance team, secure spares and recommence driver training to achieve passenger entry into service on 3 April 2023, around only four months after Vivarail ceased trading.

In addition, the Class 230 trains have generally been operating reliably and the major technical issues seem to have been resolved. As a result, TfW is now in a position to continue operation of the Class 230s for the foreseeable future, providing the Wrexham-Bidston route with a better standard of service than has previously been possible. A positive relationship has been established with First Group, who purchased the remaining Vivarail assets, allowing us to further strengthen our spares-holding position.

I trust the committee will find the content of this response detailed and informative, and I welcome any further questions you may have. If I can be of any further assistance, please do not hesitate to get in touch.

Yours sincerely,

James Price
Prif Weithredwr / Chief Executive