### **ASSIGNED TO : Richard Portas**

Responding officer is satisfied reply is complete: Yes

### Further detail over to the extent to which Cardiff's 21st Century Schools Band B Programme

#### has incorporated carbon neutral solutions;

As part of the 21<sup>st</sup> Century Band B Programme, working in partnership with Atkins, a Net Zero Carbon standard has been developed for all new schools.

Many Local Authorities are exploring Net Zero Carbon on smaller scheme and on an operational carbon basis, but Cardiff in its latest Band B tender for Fairwater Campus, has also included stretching embodied carbon targets (up to the point of construction, not beyond). In doing so, the programme secured additional capital funding from Welsh Government of circa £13m on top of the construction project of circa £75m.

The Cardiff targets are commercially sensitive until the tender is concluded, but extracts from the standards include:

# 2.4. Targets

The targets outlined below are based on a number of best practice targets and recommendations developed to achieve net zero carbon operational energy. These targets are identified to provide guidance to all developers regarding the design standards they should be aiming to achieve.

It is recommended that the main operational energy targets that new school buildings should aim to achieve:

| Criteria                            | Target                            |
|-------------------------------------|-----------------------------------|
| School Operational Energy Use (EUI) | 65 kWh/m²/annum (GIA)             |
| Space Heating Demand                | 15 kWh/m²/annum                   |
| Renewable Energy (RE) Supply        | Maximise % of on-site renewables. |

#### Table 2-2 - School Operational Energy Targets

As a stretch target, onsite energy generation should exceed the Operational Energy Use (EUI) by 10%.

# 3.4. Targets

The whole life carbon LCA assessment results must be reported using the following units:  $kgCO_2$  equivalent ( $kgCO_2e$ ), or any clearly stated metric multiples e.g.  $tCO_2e$ .

The total carbon results also need to be normalised as follows for the different project types:

- Buildings; planning use classes A1–A5, B1: kgCO2e/m2 NIA
- Buildings; planning use classes B2–B7: kgCO2e/m3 of internal building volume

New school buildings should aim for the targets outlined below. These are based on the RIBA 2030 climate challenge benchmarks (see Figure 3-4) and LETI best practice guidance.

**Embodied carbon target**: for building Life Cycle Stages A1-A5, including Substructure, Superstructure, MEP, Facade & Internal Finishes – less than 600 kgCO<sub>2</sub>e/m<sup>2</sup>.

Embodied carbon target: as above, also including sequestration – less than 400 kgCO<sub>2</sub>e/m<sup>2</sup>.

#### Reuse of materials target:

- Current target of total building construction materials & elements that are reused: 30%
- 2030 target of total building construction materials & elements that are reused: 50%

The Fairwater Campus project brings Cantonian High School, Woodlands High School and Riverbank Primary School onto one site. Following this pilot, the standard will then be applied to all new school developments following lessons learnt and this commitment has been confirmed by Welsh Government.

It should be noted that the Net Zero Carbon targets also include biodiversity and a targeted BREEAM requirement. The project is also piloting mechanisms such as a hydroponics farm (with produce to be used for the community café), edible playgrounds and digesters.

### ASSIGNED TO : Chris Barnett

Responding officer (Chris) is satisfied reply is complete: Yes

### Clarification regarding whether the new Cardiff Arena development and will achieve

#### carbon neutrality;

Atlantic Wharf is a key part of the One Planet Cardiff Strategy. It provides an opportunity to show what can be achieved through sustainable regeneration.

Our aim is for an exemplar holistic development addressing people, place and planet. A "whole system" approach to the masterplan area is adopted achieving a masterplan wide trajectory to climate neutral by 2030.

To Arena cannot achieve a net-neutral position as a standalone facility this can only be achieved via a holistic solution considering energy production and use across the Atlantic Wharf to decrease current requirements due to inefficient buildings such as the existing County Hall, Red Dragon Centre.

The site offers numerous opportunities to create new energy sources such as ground and air source as well as solar and heat panels etc. This will be further supported with the connection into

new Heat Network offering opportunity to deal with peak requirements for Arena, new RDC and the associated development.

### ASSIGNED TO : RUTH LLOYD

### Responding officer is satisfied reply is complete: Yes/No

### To receive an estimated total cost of the projects under Phase 1 of the Strategy.

| PROJECT TITLE  | PROJECT DETAILS   | Allocated Budget  |
|--|---|---|
| Transport white<br>paper                               | Continue to implement the approved Transport White Paper projects with<br>a target to reduce GHG emissions from road travel by 50% across the City.   | The White Paper<br>does not have<br>phases, the<br>programme is one 10<br>year vision due to the<br>quantity, complexity<br>and interdependency<br>of the projects<br>involved. Our current<br>high level estimate of<br>the total cost of the<br>white paper is<br>£2.5bn. The majority<br>of this cost is rail<br>based and attached<br>to the South East<br>Wales Metro Project,<br>this project has a<br>phase 1 element that<br>is estimated to be<br>£100m. |
| Energy Efficiency<br>Retrofit in<br>the Council Estate | A new Corporate Property Strategy 2021-26 to be published in November 2021 which will outlining how the Council will reduce the carbon output of its operational and schools estate, and off-set with new renewable energy sources, targeting a 60% reduction by 2030 | To be confirmed via a report to Cabinet in Nov 21   |
| Heat Network Phase<br>1 Delivery                       | Begin construction of Phase 1 of the Cardiff Heat Network by winter 2021  | £15m  |
| Council Fleet<br>Transition Low<br>Emission Transport  | Develop and Implement Council Vehicle Replacement Strategy in line with<br>the Low Emission Strategy to deliver a Low Carbon Fleet ensuring that as a<br>minimum of 90 Council vehicles are replaced by EVs by 2022.  | £120,000 annual<br>revenue allocation to<br>bridge the gap on<br>fleet vehicle lease<br>rentals.<br>£500,000 (mainly WG<br>Grant) for associated<br>charging<br>infrastructure<br>£2.4mWG Grant<br>funding for 12 EV<br>waste vehicles  |
| Coed Caerdydd<br>Cardiff's Urban Forest                | Development of a holistic programme approach to tree planting and land<br>management city wide to increase biodiversity and expand the city's tree<br>canopy by 25%   | £1m with potential for other partner led contributions  |

| Low Carbon New<br>Build for<br>Council Housing<br>Estate<br>Energy Efficiency<br>Retrofit for Council | <ul> <li>~2,700 new council homes over the next 6-7 years. Over 2,000 council home new builds (planned over 10 year programme) will meet higher standards. Around 500 already built out or in construction will exceed the previous building regs standard (SAP B+).</li> <li>Energy Retrofit Scheme for low rise public housing blocks. The programme will be phased to tackle the worst performing blocks first over a 10-year</li> </ul> | £450m<br>£20m  |
|---|---|--|
| Housing Estate  | period which eventually should see over 700+ low rise blocks improved   |  |
| LED Street Lighting   | Continued implementation of LED replacement and dimming measures  | £6.53m   |
| Cardiff Food Strategy   | Promote healthy, local and low-carbon food by delivering the Cardiff Food<br>Strategy by 2024. This includes the development of a strategy for a carbon<br>responsive, holistic approach to food in schools across Cardiff, measures<br>to address food deserts in the city and initiatives to increase sustainable<br>local growing  | Food officer post has<br>been funded for 3<br>years, with small,<br>project specific<br>funding opportunities<br>being developed.        |
| Schools engagement<br>and action plan   | Establish a curriculum integrated climate emergency education programme to stimulate the creation and implementation of school specific action plans  | Revenue costs from existing resources  |
| City wide behaviour<br>change programme   | Roll out an ongoing programme of engagement with citizens, businesses<br>and workers, targeting high impact areas of behaviour change, and set in<br>place a systematic methodology for measuring and monitoring impacts  | Approx. £50k over<br>the first two years, to<br>include development<br>of a longer-term<br>strategy incl. future<br>funding requirements |

# ASSIGNED TO : GARETH HARCOMBE

### Responding officer is satisfied reply is complete: Yes

## Clarification as to what additional posts have been funded to take forward the OPC Strategy

### and whether they have now been filled.

- Programme Lead programme managing OPC and supporting with project delivery of key renewables schemes:
  - Permanent
  - out to advert currently
- Food Strategy Officer implementing the approved food Strategy and managing stakeholder engagement & project implementation
   temp (3 years)
  - out to advert currently
- Housing Retrofit Officer developing a strategy and framework for domestic energy retrofit (targeting 2000 schemes p.a. by 2024)
  - going to consultants due to limited time constraints
  - Funding temp (1yr)
- EV Delivery Officer delivering the EV Strategy and associated projects, looking for funding opportunities (grant) and implementing

   temp as above
- Senior Carbon & Climate Officer carbon modelling, carbon impact assessments and annual carbon reporting to WG. Will be required on an annual basis (subject to funding bids)
   temp as above

### **ASSIGNED TO : GARETH HARCOMBE**

#### Responding officer is satisfied reply is complete: Yes/No

Recommendations to be monitored following this scrutiny

To summarise, the Scrutiny Committees made two formal recommendations which are set out below. As part of the response to this letter we would be grateful if you could, for each recommendation, state whether the recommendation is accepted, partially accepted or not accepted and summarise the Cabinet's response. If the recommendation is accepted or partially accepted, I would also be grateful if you could identify the responsible officer and provide an action date. This will ensure that progress can be monitored as part of the approach agreed by Cabinet in December 2020.

# Please complete the table

| Recomm                                 | nendation   | Accepted,<br>Partially Accepted<br>or Not Accepted | Cabinet<br>Response  | Responsible<br>Officer | Implementation<br>Date   |
|--|---|--|--|------------------------|--|
| as tii<br>the C<br>able                | It targets, key indicators as well<br>imescales be incorporated into<br>OPC Action Plan in order to be<br>to undertake effective annual<br>nitoring of the strategy.  | Accepted   | Given the complexity of the<br>projects, and the highly<br>varied timelines for delivery<br>and impact, a simplistic<br>annual target is unlikely to be<br>useful. However we will<br>discuss and develop a more<br>robust and periodic target<br>analysis for incorporation into<br>the annual report | Gareth<br>Harcombe     | To be contained<br>within OPC Annual<br>report submission<br>– date to be<br>determined but<br>likely Oct 2022 |
| finar<br>mon<br>the f<br>what<br>exist | It the action plan incorporate<br>ncial detail in order that annual<br>nitoring can effectively assess<br>financial situation including<br>at can be achieved within<br>sting resource and what further<br>ource may be required. | Partially<br>accepted                              | Confirmed details for the<br>short term actions are given<br>above. Medium and longer<br>term actions, as recognised<br>in the cabinet report, will<br>need to be subject to the<br>Council's full budget setting<br>process and subject to more<br>detailed business case<br>analysis.                |                        |  |