

**Report To:** Greater Cambridge Partnership Joint Assembly 10<sup>th</sup> September 2020

**Lead Officer:** Niamh Matthews – Head of Strategy and Programme

### **QUARTERLY PROGRESS REPORT**

## **1 Purpose**

- 1.1 To update the Joint Assembly on progress across the Greater Cambridge Partnership (GCP) programme.
- 1.2 The Joint Assembly is invited to consider proposals to be presented to the Executive Board and in particular:
- (a) Comment on progress across the GCP programme;
  - (b) Endorse a proposal to approve expenditure of £75k, to enable the provision of two new careers advisors for a 12 month period through the Greater Cambridge Apprenticeship Service (section 7);
  - (c) Endorse a proposal to approve expenditure of up to £100k to progress to the scoping stage of the ongoing project to increase the capacity of the energy grid in the Greater Cambridge area (section 15);
  - (d) To support the development of a Greater Cambridge Recovery Strategy, endorse a proposal to allocate up to £36k to fund the Centre for Business Research at the University of Cambridge, to provide three sets of quarterly analysis of the strength of the Greater Cambridge economy in light of the current economic crisis (section 16).

## **2 2020/21 Programme Finance Overview**

- 2.1 The table below gives an overview of the 2020/21 budget and spend as of 31 July 2020:

Funding Type	**2020/21 Budget (£000)	Expenditure to Jul 20 (£000)	Forecast Outturn (£000)	Forecast Variance (£000)	Status*		
					Previous	Current	Change
Infrastructure Programme	38,476	8,577	44,226	+5,750			↓
Operations Budget							

\* Please note: RAG explanations are at the end of this report.

\*\* 2020/21 Budget includes unspent budget allocations from the 2019/20 financial year, in addition to the allocations agreed at the February 2020 Executive Board.

### 3 Impact of Covid-19 on the GCP Programme

- 3.1 As discussed by the Joint Assembly and Executive Board in June 2020, it is difficult to predict the full impact that Covid-19 will have on delivery of the GCP programme, as significant uncertainties remain e.g. around the impact that any further social distancing measures may have on scheme delivery.
- 3.2 However, the table below identifies emerging impacts (e.g. delays, e.g. anticipated changes) on the programme and provides references to further discussion throughout this paper, where applicable.

Workstream	Project	Impacts	Paragraph Reference
Housing	n/a	n/a	n/a
Skills	Greater Cambridge Apprenticeship Service	Risks around job market stability, student disengagement in career planning activities, collecting destination information for 2020 school leavers.	6.6
		Proposed extension to service delivery to improve candidates' ability to navigate unstable labour market.	7
	New work package being developed to directly address impacts	-	8
Smart	T-CABS (C-CAV3 Autonomous Vehicle Project)	3 month delay to project end date; decrease in number of vehicles being manufactured; relocation of vehicle trials.	10.1
	Covid-19 Data Dashboard	Ongoing development of data dashboard; additional sensor deployment to monitor impacts of ETROs.	10.8
Transport	Waterbeach to Cambridge	Pre-consultation engagement conducted virtually.	12.5
	Eastern Access	Pre-consultation engagement conducted virtually.	12.6
	City Access	Budget revision to account for experimental measures.	12.10
	Chisholm Trail	Work continues but completion delays likely.	12.13

	Histon Road	Work continues. Potential delays if measures tightened.	12.9
Economy & Environment	Covid-19 Economic Monitoring	Ongoing development of monitoring approach including proposals for in-depth sectoral insights.	16.2-16.5

# Housing and Strategic Planning

## “Accelerating housing delivery and homes for all”

Indicator	Target	Timing	Progress/ Forecast	Status		
				Previous	Current	Change
Housing Development Agency (HDA) – new homes completed	250	2016 - 2018	301	Scheme Complete		
Delivering 1,000 additional affordable homes**	1,000	2011- 2031	840 (approx.)			↑

*\*\* Based on housing commitments as included in the Greater Cambridge Housing Trajectory (April 2020) and new sites permitted or with a resolution to grant planning permission at 31 July 2020 on rural exception sites, on sites not allocated for development in the Local Plans and outside of a defined settlement boundary.*

### 4 Housing Development Agency (HDA) Completions

- 4.1 The indicator for “Housing Development Agency (HDA) – new homes completed” has now been marked as complete. This reflects that the new homes directly funded by the Greater Cambridge Partnership have all been completed. 301 homes were completed across 14 schemes throughout Greater Cambridge.
- 4.2 Both Cambridge City Council and South Cambridgeshire District Council are continuing to deliver more new homes in Greater Cambridge over the next five years. This delivery is funded by various sources, including £70m funding via the Cambridgeshire & Peterborough Devolution Deal for the City Council programme. The GCP will continue to work with partners to explore additional opportunities to unlock further affordable housing.

### 5 Delivering 1,000 Additional Affordable Homes

- 5.1 The methodology, agreed by the Executive Board for monitoring the 1,000 additional homes, means that only once housing delivery exceeds the level needed to meet the Cambridge and South Cambridgeshire Local Plan requirements (33,500 homes between 2011 and 2031) can any affordable homes on eligible sites be counted towards the 1,000 additional new homes.
- 5.2 The Greater Cambridge housing trajectory published in April 2020 shows that it is anticipated that there will be a surplus, in terms of delivery over and above that required to meet the housing requirements in the Local Plans, in 2021-2022. Until 2021-2022, affordable homes that are being completed on eligible sites are contributing towards delivering the Greater Cambridge housing requirement of 33,500 dwellings.
- 5.3 Eligible homes are “all affordable homes constructed on rural exception sites, and on sites not allocated for development in the Local Plans and outside of a defined settlement boundary”.
- 5.4 The table above shows that on the basis of known sites of 10 or more dwellings with planning permission or planning applications with a resolution to grant planning permission by South Cambridgeshire District Council’s Planning Committee, approximately

840 eligible affordable homes are anticipated to be delivered between 2021 and 2031 towards the target of 1,000 by 2031. In practice this means that we already expect to be able to deliver 84% of the target on the basis of currently known sites.

- 5.5 Anticipated delivery from the known sites has been calculated based on the affordable dwellings being delivered proportionally throughout the build out of each site, with the anticipated build out for each site being taken from the Greater Cambridge Housing Trajectory (April 2020) or from the Councils' typical assumptions for build out of sites (if not a site included in the housing trajectory). When actual delivery on these known sites is recorded more or less affordable dwellings could be delivered depending on the actual build out timetable of the affordable dwellings within the overall build out for the site, and also depending on the actual delivery of the known sites compared to when a surplus against the housing requirements in the Local Plans is achieved.
- 5.6 Although anticipated delivery is below the target of 1,000 affordable dwellings by 2031, the latest housing trajectory shows that 37,970 dwellings are anticipated in Greater Cambridge between 2011 and 2031, which is 4,470 dwellings more than the housing requirement of 33,500 dwellings. There are still a further 11 years until 2031 during which affordable homes on other eligible sites will continue to come forward as part of the additional supply, providing additional affordable homes that will count towards this target. Historically there is good evidence of rural exception sites being delivered (around 40 dwellings per year), and therefore we can be confident that the target will be achieved.

## Skills

“Inspiring and developing our future workforce, so that businesses can grow”

Indicator	Target (to March 2021)	Progress (31/07/20)	Status		
			Previous	Current	Change
Number of people starting an apprenticeship as a result of an Apprenticeship Service intervention.	420	310			↔
Number of new employers agreeing to support an apprenticeship scheme.	320	327	Met		↔
Number of schools supporting new, enhanced apprenticeship activity.	18	25	Met		↔
Number of students connected with employers.	7,500	9,355	Met		↔

Progress data from the start of the contract in March 2019, up to 31<sup>st</sup> July 2020.

### 6 Update on the GCP Apprenticeship Service

- 6.1 The GCP Apprenticeship Service, delivered over two years, has now been operating for six quarters.
- 6.2 Monitoring data for the four service KPIs is outlined in the table above, accurate as of 31 July 2020. It shows that:
  - Three targets for the whole contract have been met within the first 16 months of delivery.
  - The service has delivered 74% of its target for people starting an apprenticeship as a result of its interventions.
- 6.3 Despite the ongoing disruption to education caused by Covid-19, Form the Future (FtF) were able to adapt services, with the support of school careers leads, to meet the needs of apprenticeship candidates, running 41 online one-to-one sessions with candidates. Whilst concerns remain about the capacity for career events in the new school year, FtF have built a new programme of events and resources to enhance in-lesson and individual careers learning, as well as continuing to develop their online offer, including on social media platforms.
- 6.4 Throughout May, June and July, the Service held 129 remote meetings with potential apprentice employers. Despite an initial reduction in interest in apprenticeships, FtF are now reporting an increase in interest in apprenticeships as Covid-related restrictions have started to be lifted. Looking forward, the Service will deliver a range of engagement activities from August to October, including an employer webinar discussing apprenticeships and staff training more broadly.
- 6.5 The Service is currently working with 25 schools who have agreed to support enhanced apprenticeship activity. Between May and July, it met with 18 partner schools to discuss careers provision and start to plan for next year where possible. All potential school

partners have received a brochure of events outlining the Service offer, receiving positive feedback.

- 6.6 Officers understand many employers have pulled vacancies or are offering delayed start dates. Furthermore, risks remain around the stability of the job market (particularly with the full impact of the pandemic on employment levels yet to be felt), re-engaging students at risk of disengaging in career planning activities due to the impact on their education and collecting destination information for 2020 school leavers. Therefore, officers have been working intensively with Form the Future and Cambridge Regional College, the business community and members of the Skills Working Group, to develop a response to these impacts and risks.

## **7 Proposed Extension to GCP Apprenticeship Service Offer**

- 7.1 To immediately address some of these issues, the GCP Skills Working Group asked officers to explore what immediate and urgent support could be put in place to respond to the impact that the pandemic is likely to have on the local skills base.
- 7.2 Working with private sector partners, providers and local experts it became clear that there is an immediate need to quickly increase careers advice provision. This is further backed up by a July 2020 RAND Europe report, part funded by the GCP<sup>1</sup>, which identified a significant shortage of careers advisors in the local area. This shortage is likely to exacerbate the risks identified in paragraph 6.6, particularly given the increasing challenge to identify opportunities for school leavers in the face of job market uncertainty.
- 7.3 To address this immediate need, working through the GCP's current skills provider (Form the Future), officers suggest extending the scope of the current GCP Apprenticeship Service to provide two new careers guidance professionals, in addition to the existing provision. The purpose of this new resource will be to offer intensive one-to-one support to young people leaving education, who need guidance and support to keep going during the downturn. Support will include careers interviews, help with searching and applying for vacancies, action plans (including steps to upskill or gain experience) and motivation to keep going during a difficult time.
- 7.4 Officers suggest that the additional support is put in place for a period of one year and regularly kept under review, with the impact of the additional intervention tracked closely. This level of additional support is likely to be able to target over 2,000 individuals to find employment, or acquire additional training.
- 7.5 In order to provide the additional support described above, officers suggest recommending that the Executive Board approves a one-off increase in the Skills Budget of £75k, which would enable Form the Future to provide two new careers guidance professionals for a period of one year.
- 7.6 In addition to recruiting two extra advisors, through the GCP Apprenticeship Service contract, Form the Future and Cambridge Regional College are also intensifying the way they work with employers to ensure they can be fully supported to navigate national initiatives to support the labour market.

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<sup>1</sup> [https://www.rand.org/pubs/research\\_reports/RR4491.html](https://www.rand.org/pubs/research_reports/RR4491.html)

- 7.7 Working with employers is likely to become increasingly important and may require further support to more fully respond to the impact of the pandemic on the labour market. Officers are in active discussions with Form the Future and Cambridge Regional College about whether an immediate support package could be developed to intensify this element of their work. Officers will come back to the Skills Working Group, Joint Assembly and Executive Board as soon as a proposal has been developed.

## **8 Proposed New Skills Work Package**

- 8.1 The immediate actions being suggested in section 7 will only skim the surface of the impact that Covid-19 is likely to have on the labour market. A longer term and more intensive package of interventions is required, to address the likely impacts on young people, those requiring retraining and the labour market more widely. In effect, a doubling of efforts is likely to be needed.
- 8.2 To significantly increase the GCP's work on skills and address these issues for the longer term, officers have carried out extensive engagement with private sector partners and providers to draw up a scope of targeted activities that could be delivered locally.
- 8.3 An outline scope of activities, timescale and cost is proposed in a separate report under item 10, for consideration by the Joint Assembly and Executive Board.



## Smart Places

“Harnessing and developing smart technology, to support transport, housing and skills”

### 9 Smart Programme and Finances for 2020-21

9.1 A programme of work for the Smart workstream for 2020-21 is underway, and has now been finalised following uncertainty caused by the outcomes of the Future Mobility Zone bid and the Gateway Review, and the impact of the Covid-19 pandemic. The work and projects outlined in the programme have been selected to meet the following objectives:

- **Support:** Support the GCP and other partners to respond to, and recover from, Covid-19;
- **Continuity:** Ensure continuity for the projects, projects and insight established to date;
- **Planning:** Build a comprehensive programme of deliverables for the next phase (starting in 2021) based on our extensive learning and experience from phase one (April 2017 to March 2020).

9.2 Costs for 2020-21 will be covered using funds carried forward of £413,000, which remain from the first phase of funding. No additional funding is being sought in this year. A programme of work (and associated budget request) to support a second phase of GCP deliverables (beginning in 2021) is being developed and will be put forward through the Future Investment Strategy (FIS) review process, which was agreed by the Executive Board in June 2020.

### 10 Smart Programme Overview

Project	Target Completion Date	Forecast Completion Date	Status		
			Previous	Current	Change
T-CABS (CCAV3 Autonomous Vehicle Project)	Dec 2020	Mar 2021			↔
Digital WayFinding – Phase 3 (Development)	Complete				
Digital Wayfinding – Procurement & Installation	Jun 2021	Jun 2021			-
ICP Development – Building on the Benefits	Mar 2021	Mar 2021			↔
Mill Road Bridge Closure: Ongoing Data Analysis	Oct 2020	Oct 2020			↔
Data Visualisation – Phase 2	Mar 2021	Mar 2021			-
Digital Twins Phase One	Mar 2020	Aug 2020			↔
New Communities Phase One ( <i>Extended</i> )	Jun 2020	Mar 2021			↔
Covid-19 Data Dashboard	Complete				

Progress reported up to 31<sup>st</sup> July 2020

### **10.1 T-CABS (C-CAV3 Autonomous Vehicle Project)**

The quarterly project review was held with InnovateUK at the start of July. This confirmed proposed changes to both the project scope and timeline, as a result of the impact of the Covid-19 pandemic, particularly on the vehicle manufacturer. As suggested in the last report, the end date has been moved from December 2020 to March 2021 and funding will continue until the revised date.

Two significant changes to scope have been agreed. The first is that three vehicles will be produced (rather than six). The second is that the trials will no longer take place on the Guided Busway, but will be focused on the West Cambridge site. While this will not be as extensive a trial as we had previously hoped, officers remain positive that we are still able to deliver a smaller trial that will offer valuable insight into the deployment of AVs as part of the local transport offering.

Also within the quarter, site visits were completed for the GCP model safety case work. As a result, the final draft of this document is now being updated and reviewed for sign-off in September. The vehicle manufacturer will provide their own vehicle and domain safety cases to be reviewed against the model safety case as soon as they are available (expected to be at the start of September), before any trials will be permitted to take place. This process will continue to involve consultation with the Risk Management Group established earlier this year, as well as the Safety Committee responsible for West Cambridge. The current expected start date for vehicle trials is 1<sup>st</sup> October this year.

### **10.2 Digital Wayfinding – Phase 3 (Development)**

As reported last quarter, a soft market testing exercise has been successfully completed and we are now preparing procurement specifications and identifying ‘quick win’ solutions. Procurement is anticipated in the autumn and, once completed, a clearer timeline for delivery will be available. A meeting was held in mid-August to finalise this approach. In order to utilise s106 funding, final solutions at Cambridge Station must be in place prior to July 2021.

Engagement with Cambridge Biomedical Campus regarding wayfinding remains a topic of work as the delivery of their services begins to stabilise. Work will be re-established as and when it is appropriate via the Travel & Transport group, which is next scheduled to meet in September.

### **10.3 ICP Development – Building on the Benefits**

The team continue to review and undertake a range of activities to build on the benefits of the ICP Development, including:

- Exploring the possibility of Smart Panels being available via the desktop.
- Extension of APIs to accommodate future datasets.
- Investigation of the energy panel.
- Improving quality of bus data and journey time predictions.
- Continuing the support and maintenance of Smart Panels and the Pocket Panel.

#### **10.4 Mill Road Bridge Closure – Traffic Flow and Air Quality Monitoring**

Traffic data analysis has been carried out as part of our collaboration with GeoSpock. Visualisation of air quality data has been initiated and the first review by the team was completed at the end of June 2020. The visualisations appear to support the expectation that the road closure would have a positive impact on air quality (in this case, NO<sub>2</sub> levels). The effect of this is clearest during commuter periods on Tenison Road and Mill Road. However, it should be noted that the closure took place in the summer, when traffic volumes would already be less during commuter periods, and also that there are a large number of factors which affect air quality. Feedback has been provided and updated versions of the visualisations will be included in the final report, expected in October 2020.

In the meantime, data from the traffic sensors continues to be made available on Cambridgeshire Insights for interested parties and work is also in progress to install additional sensors to monitor the impacts of the Emergency Traffic Regulation Orders (ETROs) implemented as part of the Covid-19 response and recovery.

#### **10.5 Data Visualisation – Phase 2**

As mentioned above in section 10.4, GeoSpock have worked on air quality visualisations in relation to the Mill Road Bridge Closure. Further work has also been discussed to identify and understand the ‘biting point’ at which an increase in traffic volumes begins to negatively impact the timely running of bus services in the city. A work package based around this is being developed and the evidence gathered will be used to guide future interventions.

The GeoSpock platform has been upgraded, with a number of interfaces being more readily available. In order to achieve the best value from this, training in PowerBI is being arranged for officers (including colleagues in the Cambridgeshire County Council Business Intelligence team) to ensure they are able to analyse, visualise and share insights from our data more effectively.

#### **10.6 Digital Twins Phase One**

As reported last quarter, the report summarising the findings from our study and secondment with the Centre for Smart Infrastructure and Construction (CSIC) has been delayed a result of limited access to stakeholders during the lockdown. However, the latest draft of the document has been reviewed and remains on track to be delivered by the end of August 2020.

In addition to the report, the project has produced an early digital tool, which has been used to better understand the ANPR data collected in the vicinity of the CBC. Analysis of the data has allowed us to gain greater insight into how the site is accessed, and may in future support the tailoring of specific interventions to support a reduction in congestion and an increase in sustainable travel choices.

#### **10.7 New Communities Phase One (Extended)**

The goal of the New Communities Phase One has been to develop the topic papers to feed into local planning documentation. This has been achieved as reported last quarter, but has also led to a higher level of engagement with major developers and planning teams in

the area. Rather than begin a new phase of work, the current phase will be extended until March 2021, at which point the next steps will be agreed and put forward within the Smart Programme Strategy for the next period. As the original scope has been completed, the status of the work remains green for the extension period.

We have built on our earlier engagement with Urban & Civic, agreeing to work with them to develop their sustainable travel options for new developments. This is anticipated to cover a number of mobility options for future residents as well as the monitoring of transport movements throughout the development phases. This work will carry on until the end of the financial year, but is closely linked to progress of the development at Waterbeach.

## **10.8 Covid-19 Data Dashboard**

Smart officers will continue to contribute to the development of a PowerBI version of this dashboard (led by the Cambridgeshire County Council Business Intelligence team) which will allow officers to access the data more easily and efficiently. Throughout work on data collection, analysis and use, officers have identified a number of use cases across GCP and Cambridgeshire County Council teams, where access to this data will be beneficial to support decisions and impact assessments. Furthermore, Smart officers are supporting the rollout of additional sensors to monitor the impact of the Emergency Traffic Regulation Orders (ETROs) being deployed across Cambridge as part of the Covid-19 response and recovery, as mentioned in section 10.4.

## Transport

“Creating better and greener transport networks, connecting people to homes, jobs, study and opportunity”

### 11 Transport Delivery Overview

11.1 The table below gives an overview of progress for ongoing projects. For an overview of completed projects, including their relation to ongoing projects, please refer to Appendix 1.

Project		Current Delivery Stage	Target Completion Date	Forecast Completion Date	Status		
					Previous	Current	Change
Cambridge Southeast Transport Study (formerly A1307)		Construction / Design	2024	2024			↔
Cambourne to Cambridge / A428 Corridor		Paused	2024	2024			↓
Waterbeach to Cambridge		Early Design	2027	2027			-
Eastern Access		Early Design	2027	2027			-
Milton Road		Design (Reprofiled)	2023	2023			↑
City Centre Access Project		Design	2020	2021 (Design only)			↔
Chisholm Trail Cycle Links	Phase 1	Construction	2020	2021			↔
	Phase 2	Construction	2022	2022			↔
Cross-City Cycle Improvements	Fulbourn / Cherry Hinton Eastern Access	Construction / Complete	2019	2020			↔
	Links to East Cambridge & NCN11/ Fen Ditton	Construction / Complete	2019	2020			↔
Histon Road Bus Priority		Construction	2022	2021			↔
West of Cambridge Package		Design	2021	2022			↓
Residents Parking Implementation		Implementation / Paused	2021	2021			↓
Waterbeach Greenway		Project Initiation	2024	2024			-
Fulbourn Greenway		Project Initiation	2024	2024			-
Comberton Greenway		Project Initiation	2025	2025			-
Melbourn Greenway		Project Initiation	2025	2025			-
St Ives Greenway		Project Initiation	2023	2023			-
Madingley Road (Cycling)		Design	2022	2022			-

11.2 Whilst the forecast completion dates captured above include the likely impacts of Covid-19 to the extent which they are currently known, it should be noted that considerable uncertainty

remains e.g. over the length and extent of social distancing measures over the rest of 2020 and the impact of those on construction works.

## 12 2020/21 Transport Finance Overview

12.1 The table below contains a summary of the expenditure to July 2020 against the budget for the year.

Project	Total Budget (£000)	2020-21 Budget (£000)	2020-21 Forecast Outturn July 20 (£000)	2020-21 Forecast Variance July 20 (£000)	2020-21 Budget Status		
					Previous	Final	Change
Cambridge Southeast Transport (formerly A1307)	147,935	12,945	15,640	+2,695			↔
Cambourne to Cambridge / A428 corridor	157,000	4,500	4,500	0			↔
Waterbeach to Cambridge	52,600	236	236	0			↔
Eastern Access	50,500	532	532	0			↔
West of Cambridge Package	42,000	1,817	4,817	+3,000			↓
Milton Road	23,040	116	116	0			↔
Histon Road	10,000	7,209	7,209	0			↔
City Centre Access Project	9,888	2,290	2,290	0			↔
Travel Hubs	700	100	50	-50			↔
Residents Parking Implementation	1,191	350	150	-200			↔
Chisholm Trail	14,269	3,710	3,710	0			↔
Greenways Quick Wins	3,079	0	0	0			↔
Developing 12 Cycling Greenways*	14,611	743	743	0			↔
Cross-City Cycle Improvements	11,266	306	306	0			↔
Madingley Road (Cycling)	170	170	475	+305			↔
Cambridge South Station	1,750	749	749	0			↔
Programme Management and Scheme Development	3,350	343	343	0			↔
<b>Total</b>	<b>543,349</b>	<b>36,116</b>	<b>41,866</b>	<b>+5,750</b>			↔

*\*Figures currently include budget and spend for Waterbeach and Fulbourn Greenways. These figures will include further Greenways projects in future reports.*

12.2 The explanation for any variances is set out in the following paragraphs.

### **12.3 Cambridge South East Transport Study (A1307)**

The current overall planned spend for 2020/21 for Cambridge South East is £15.64m, exceeding the in-year budget of £12.945m. Expenditure for Phase 2 is expected to increase further, as detailed below.

#### Phase 1

Forecast 2020/21 spend for Phase 1 is £13.49m, compared with an in-year budget of £10.52m. The increase in spend is due to a combination of additional and associated costs for, that include the enhancement of the scheme as a result of stakeholder feedback and engagement, plus:

- Road Safety Audit (RSA) and Covid-19;
- Babraham Park & Ride extension and Wandlebury foot crossing design and build;
- Average speed camera installation.

#### Phase 2

In June 2020, the GCP Executive Board agreed to increase the overall budget for Phase 2 by £7.2m, to a total of £132.2m.

The in-year budget for Phase 2 is £2.43m, with a forecast spend £2.15m. However, overall budget and forecast outturn for 2020/21 will be revised to reflect forecasts from consultants for significant work expected this year.

### **12.4 Cambourne to Cambridge (A428)**

The project is currently on hold. A report on it was withdrawn from the GCP Executive Board meeting for 25<sup>th</sup> June 2020, to give more consideration to an alternative route alignment as suggested by the Cambridgeshire and Peterborough Combined Authority. It is highly likely that this delay will affect year-end spend, although a detailed forecast is not yet available.

### **12.5 Waterbeach to Cambridge**

The Strategic Outline Business Case for Waterbeach to Cambridge will be considered by the GCP Executive Board in June 2021. Current work involves identifying and evaluating options. Pre-consultation engagement has now commenced and it is planned to formally consult in Autumn 2020. The spend profile is currently on target.

### **12.6 Eastern Access**

The Strategic Outline Business Case for Eastern Access is currently due to be completed by the end of March 2021, with a view to consideration by the GCP Executive Board in June 2021. Current work involves identifying and evaluating options. Pre-consultation engagement has now commenced. Further planning work is ongoing and once this has been completed, the spend profile will be updated.

### **12.7 West of Cambridge Package**

The forecast variance in project spend is due to a delayed administration process associated with land exchange costs for the Cambridge South West Travel Hub (CSWTH).

The scheme submitted a planning application in June. A decision is expected by the end of 2020. Workload associated with the project will increase as it progresses towards procurement of detailed design and construction.

#### **12.8 Milton Road**

To manage network capacity, construction of Milton Road has been delayed to coincide with the completion of Histon Road works. The scheme remains in Detailed Design stage. The project is currently on track against this year's budget.

#### **12.9 Histon Road**

The scheme on Histon Road is under construction and is due to be completed in Summer 2021. The project remains on schedule to meet this timeline and therefore on target to spend against the budget profile for this year.

#### **12.10 City Centre Access Project**

This year's City Centre Access budget is being revised to take account of the experimental traffic management measures that are to be delivered by GCP in response to the Covid-19 pandemic. These will be funded from within this year's budget allocation.

#### **12.11 Travel Hubs**

Initial work on designing better bus access to Whittlesford Station has been paused until the initial findings from the strategic review of the A505 (Royston to Granta Park) study are available later in the year. Consequently, expenditure this year is expected to be concentrated in the second half of the financial year.

#### **12.12 Residents' Parking Implementation**

As the implementation of further Residents' Parking Schemes has currently been suspended, the focus this year is on the implementation of schemes approved prior to this suspension and reviewing previously installed schemes.

As a result of the suspension, an underspend of £200k is forecast this year.

#### **12.13 Chisholm Trail**

GCP officers are working with County Council officers to finalise apportionment costs associated with both Phase One of the project and the Abbey Chesterton Bridge.

#### **12.14 Greenways Quick Wins**

The programme of works for Greenways Quick Wins is substantially complete, with some minor works (at Rampton and Stourbridge Common/Riverside) due for completion as soon as possible within current government guidelines.



### 12.15 Developing 12 Cycling Greenways

The development work for the 12 Cycling Greenways is substantially complete. All consultations have been completed and no further spend is expected in the development phase. As noted, financial information as detailed in the overview table includes spend on the substantive Waterbeach and Fulbourn Greenways as agreed by the Executive Board in February 2020.

The status of the 12 Cycling Greenways that have been developed through this work is as follows:

Status	Greenway	Agreed Budget (Overall)
Agreed February 2020	Waterbeach	£8m
	Fulbourn	£6m
Agreed June 2020	Comberton	£9m
	Melbourn	£6.5m
	St Ives	£7.5m
In Forward Plan – October 2020	Sawston; Barton; Swaffhams; Bottisham; Horningsea	
In Forward Plan – December 2020	Haslingfield	

### 12.16 Cross-City Cycle Improvements

The 2020/21 budget for this project is £306k, for completion of works in Fen Ditton and on Fulbourn Road. The expenditure is anticipated to be on target.

### 12.17 Madingley Road

The Executive Board agreed to progress this project in June 2020. Officers suggest recommending to the Executive Board that the overall budget for the project is increased to £475k to account for expecting spend within this financial year, with the budget to be revised to account for further work in the 2021/22 budget setting process.

In June 2020, the Executive Board approved Option 2 through design. A brief is currently being agreed for this stage and estimated costs are based upon an assumption of the required work, as agreed with Skanska in March 2020, which will help inform the future cost profile.

### 12.18 Cambridge South Station

The 2020/21 budget for Cambridge South Station is £749k. The Department for Transport will draw down this contribution to the development phase within their project timescales.

### 12.19 Programme Management and Scheme Development

The 2020/21 budget for this project is £343k and the expenditure is anticipated to be on target.

**13 Cambridge Biomedical Campus (CBC) Transport Needs Review – Update**

Despite the significant impact of the Covid-19 outbreak on the campus, progress continues on the implementation of the measures identified in the Cambridge Biomedical Campus (CBC) Transport Needs Review, as outlined in February 2020. Progress is reported in Appendix 3.

**14 Professional Services Framework Contract**

The award of the new Professional Services Framework is expected to be approved at the Cambridgeshire County Council Highways Committee on the 15<sup>th</sup> September 2020. The GCP Executive Board will be kept informed of progress.

## Economy and Environment

### 15 Local Grid Constraints

- 15.1 In order to progress the ongoing work on local power network capacity constraints in Greater Cambridge, an indicative business case (included in full in Appendix 4) has been prepared which considers options and outlines the role the GCP could take to remove a significant barrier to growth and enable both renewables projects and the electrification of transport. This indicative business case includes next steps to progress this piece of work, as outlined in paragraphs 15.11-15.13.
- 15.2 As has been previously reported, the GCP Economy and Environment Working Group commissioned Asset Utilities to undertake a local electricity network analysis. A key finding of the report produced in February 2019 was that “it is clear that the electricity network as designed, is unable to meet the future electrical demand requirements or the changing face of technology (EV connections) in Greater Cambridge.” The implications of this are that without action there is a risk that growth will be inhibited and partners’ net zero commitments will be jeopardised.
- 15.3 UKPN, the Distribution Network Operator for the Greater Cambridge area, were commissioned to conduct an engineering feasibility study, which considered different demand growth scenarios and potential interventions to address capacity issues. The feasibility study which reported in October 2019 identified three linked interventions, which are currently unfunded and which are needed in any of the growth scenarios:
- East Cambridge Grid substation
  - Trumpington Primary and new East Cambridge interconnector
  - West Cambridge Grid substation
- 15.4 Officers propose that the GCP should allocate investment to proactively increase the capacity of the electricity grid in the Greater Cambridge area in order to achieve the following objectives:
- To ensure that growth in Greater Cambridge is not delayed due to limitations in the electricity grid, and that costs for new connections are not prohibitive;
  - To contribute to a net zero economy by ensuring that there is adequate headroom in the electricity grid to enable take-up of renewable technologies and electric vehicles, as well as enabling reductions in dependence on gas for domestic power supply.
- 15.5 Land acquisition and planning permission are key considerations for this project, which are discussed in detail in the indicative business case. UKPN have identified sites that would be optimal from an engineering standpoint, but these lie in the Green Belt. Sites further away from the areas that UKPN have identified could also be considered, but will bring increased costs and potentially increased risks. Whilst challenging, the project is now considerably better placed to commission further works on identifying viable sites.
- 15.6 The case for public funding is based upon how the electricity supply market operates. Utility providers have a statutory duty to deliver required upgrades and reinforcements within their networks to support the delivery of growth. However, they are regulated by OFGEM and constrained to operate reactively to demand. They are only able to commit

to designing upgrades on their networks when outline planning consent is available and they have been approached by developers and are certain that development will come. This can create significant delays in housing and commercial developments and it can take several years to deliver power infrastructure, thereby delaying growth, renewables projects and the electrification of transport. Furthermore, any single developer who applies for power at the point where capacity is not available would be quoted for the full cost of reinforcement, which can impact development viability.

- 15.7 The GCP Executive Board has already agreed the principle of investing in grid reinforcement, and the Future Investment Strategy agreed in March 2019 provisionally allocated funding for the project. Should the GCP proceed with this project, contributions can be recouped from developers using the energy capacity provided, for the first 10 years from activation of each substation. There is also a possibility of obtaining a contribution from UKPN as part of their 2023-2028 business investment planning, but this is by no means certain.
- 15.8 Cambridgeshire County Council's finance department have prepared an indicative investment appraisal, containing: 1) a scenario which assumes rapid take up of substation capacity, and; 2) a second scenario in which take-up is slower. The indicative investment appraisal assumes no UKPN contribution and a loan over 25 years. Both scenarios show positive NPVs.
- 15.9 The indicative business cases considers a number of key risks, including failure to gain planning permission, lower demand than anticipated and failure to recover costs. All risks will be significantly mitigated by continued close working with other local authorities who are further advanced with their plans, in particular Ebbsfleet and Central Bedfordshire.
- 15.10 In addition to the considerations outlined in the preceding paragraphs, it should be emphasised (as stated in paragraph 15.2) that if the GCP does not proceed with this project, there is a risk that growth will be inhibited and partners' net zero commitments will be jeopardised. There is now a degree of urgency in proceeding to the next stage of work, given the complexities associated with land acquisition and planning.
- 15.11 Given the above considerations, subject to Executive Board approval, it is proposed that a scoping stage is conducted to:
- Develop a commercial approach
  - Develop a set of options for land and engage specialist skills to assess acquisition costs and consider what is required to submit compelling planning applications
  - Form an initial view of demand impact as a result of Covid-19 and other changes since the Asset Utilities analysis in early 2019
  - Procure appropriate technical consultants to undertake the above and to produce the business case in the next stage
  - Finalise the approach and provide firm cost and time estimate for the business case stage.
- 15.12 The cost estimate for the scoping stage is £100k, with the aim to complete this in time for the March 2021 Executive Board cycle. A subsequent business case stage would build on the scoping stage to deliver an outline business case for approval. It is anticipated that this would be ready for the September/October 2021 Executive Board Cycle. A final business case would follow once all consents were in place. The timetable will be confirmed during the scoping stage.

- 15.13 In sum, officers suggest recommending that the Executive Board, noting the indicative business case included in Appendix 4, approve expenditure of up to £100k to deliver the scoping stage of this project, as outlined in paragraph 15.11.

## **16 Recovery Strategy and Understanding the Local Economic Impacts of Covid-19 – Centre for Business Research**

- 16.1 Since the onset of the Covid-19 pandemic, the GCP has been working closely with partners to understand and address the economic impact of Covid-19. This includes significant work in partnership with the Cambridgeshire and Peterborough Combined Authority (CPCA). The GCP is currently working with the CPCA and other partners to develop a Covid-19 recovery strategy, which the CPCA aim to approve in September. Once approved, officers will work with partners to identify Greater Cambridge elements of the strategy and implement actions to address emerging challenges.
- 16.2 In addition to supporting the regional recovery strategy as discussed above, the GCP has undertaken a number of further activities to understand and respond to the economic crisis caused by the pandemic:
- Commissioning, with the CPCA, economic development consultancy Hatch Regeneris to undertake work to understand the impact of Covid-19 on the local economy. The report, produced in June 2020, gives an early indication of the economic impact of the pandemic, including high level projections (based on national-level Office for Budget Responsibility estimates) of the impact on GVA this year on various sectors;
  - Developing, with colleagues in the Cambridgeshire County Council Business Intelligence team, an approach to monthly data collection, to provide up to date evidence on the state of the Greater Cambridge economy.
- 16.3 Recognising the unique strengths, weaknesses and mix of sectors present in Greater Cambridge, and the challenge this poses for any analysis of sectoral impact and resilience based on national estimates, officers have engaged with the Centre for Business Research (CBR) at the University of Cambridge (which played a guiding role in the approaches used by the CPIER) and Cambridge Ahead to scope an approach to produce localised analysis on the sectoral impact of Covid-19.
- 16.4 The approach proposed by the CBR would involve the team producing analysis on a quarterly basis, using employment and turnover data to give a detailed insight into the strength of Greater Cambridge's unique local sectors. To make the approach viable, the CBR would require a commitment to fund three quarters of analysis (to October 2020, April 2021 and July 2021, with data to January 2021 picked up within the CBR's annual work capture in the Cambridge Cluster Insights project<sup>2</sup>). As part of its reporting, the CBR will present findings (virtually) to the GCP Executive Board and other key stakeholders each quarter, in addition to its quarterly reports.
- 16.5 The approach proposed above is required to ensure the GCP is able to effectively understand, represent and address the challenges posed to specific sectors within the local economy on an ongoing basis, at a depth that far exceeds national-level projections. Crucially, it will deliver insight that would otherwise not exist into the impacts of Covid-19 on key sectors that are of both local and national importance, such as Technology and Life

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<sup>2</sup> <https://www.cambridgeahead.co.uk/cambridge-cluster-insights/>

Sciences. This data will therefore strengthen recovery strategy activities with local and national stakeholders. Therefore, officers suggest recommending that the Executive Board approves spend up to £36,000 to fund analysis of the Greater Cambridge economy to July 2021, as scoped above. Officers are in active and positive dialogue with private sector partners to understand if a portion of the overall costs can be shared.

## **Note to reader – RAG Explanations**

### **Finance Tables**

- **Green:** Projected to come in on or under budget
- **Amber:** Projected to come in over budget, but with measures proposed/in place to bring it in under budget
- **Red:** Projected to come in over budget, without clear measures currently proposed/in place

### **Indicator Tables**

- **Green:** Forecasting or realising achieving/exceeding target
- **Amber:** Forecasting or realising a slight underachievement of target
- **Red:** Forecasting or realising a significant underachievement of target

### **Project Delivery Tables**

- **Green:** Delivery projected on or before target date
- **Amber:** Delivery projected after target date, but with measures in place to meet the target date (this may include redefining the target date to respond to emerging issues/information)
- **Red:** Delivery projected after target date, without clear measures proposed/in place to meet the target date

### **APPENDIX 1: GCP COMPLETED TRANSPORT PROJECTS**

Project		Completed	Output	Related Ongoing Projects	Outcomes, Monitoring & Evaluation
Ely to Cambridge Transport Study		2018	Report, discussed and endorsed by GCP Executive Board in February 2018.	Waterbeach to Cambridge	
A10 Cycle Route (Shepreth to Melbourn)		2017	New cycle path, providing a complete Cambridge to Melbourn cycle route.	Melbourn Greenway	
Cross-City Cycle Improvements	Hills Road / Addenbrookes Corridor	2017	Range of improvements to cycle environment including new cycle lanes.	Cross-City Cycling	
	Arbury Road Corridor	2019	Range of improvements to cycle environment including new cycleway.	Cross-City Cycling	Impact evaluated by SQW in 2019 as part of GCP Gateway Review.
	Links to Cambridge North Station & Science Park	2019	Range of improvements to cycle environment including new cycle lanes.	Cross-City Cycling	Impact evaluated by SQW in 2019 as part of GCP Gateway Review.
Greenways Quick Wins		2020	Range of cycle improvements across Greater Cambridge e.g. resurfacing work, e.g. path widening etc.		
Greenways Development		2020	Development work for 12 individual Greenway cycle routes across South Cambridgeshire.	All Greenways routes	
Cambridge South Station Baseline Study (Cambridgeshire Rail Corridor Study)		2019	Report forecasting growth across local rail network and identifying required improvements to support growth.	Cambridge South Station	
Travel Audit – South Station and Biomedical Campus		2019	Two reports: Part 1 focused on evidencing transport supply and demand; Part 2	Cambourne to Cambridge; CSETS; Chisholm Trail; City Access;	



		considering interventions to address challenges.	Greenways (Linton, Sawston, Melbourn)	
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## **APPENDIX 2: EXECUTIVE BOARD FORWARD PLAN OF KEY DECISIONS**

Notice is hereby given of:

- Decisions that that will be taken by the GCP Executive Board, including key decisions as identified in the table below.
- Confidential or exempt executive decisions that will be taken in a meeting from which the public will be excluded (for whole or part).

A 'key decision' is one that is likely to:

- a) Result in the incurring of expenditure which is, or the making of savings which are, significant having regard to the budget for the service or function to which the decision relates; and/or
- b) Be significant in terms of its effects on communities living or working in the Greater Cambridge area.

<b>Executive Board: 1<sup>st</sup> October 2020</b>	<b>Reports for each item to be published 21<sup>st</sup> September 2020</b>	<b>Report Author</b>	<b>Key Decision</b>	<b>Alignment with Combined Authority</b>
Greenways Schemes: Swaffhams, Bottisham, Horningsea, Sawston and Barton	To consider plans for the next phase of Greenway Schemes.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Better Public Transport: Waterbeach to North East Cambridge Project	To receive an update on the project and agree the next steps, including an options appraisal and proposals for formal public consultation.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Better Public Transport: Eastern Access Project	To receive an update on the project and agree the next steps, including an options appraisal and proposals for formal public consultation.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Skills	To consider a proposal to develop a new skills work package in response to the impact of Covid-19 on the labour market.	Niamh Matthews	No	N/A
GCP Quarterly Progress Report	To monitor progress across the GCP work streams, including financial monitoring information and proposed additional skills intervention(s).	Niamh Matthews	No	N/A

Executive Board: 10 <sup>th</sup> December 2020	Reports for each item to be published 30 <sup>th</sup> November 2020	Report Author	Key Decision	Alignment with Combined Authority
GCP Quarterly Progress Report	To monitor progress across the GCP work streams, including financial monitoring information.	Niamh Matthews	No	N/A
Public Transport Improvements and City Access Strategy	To provide an update on the city access project, and to consider options for long-term packages of measures in the post-covid context.	Isobel Wade	Yes	CA LTP Passenger Transport / Interchange Strategy
Citizens' Assembly	To consider a report on the GCP's response, one-year-on from receiving the Citizens' Assembly report.	Isobel Wade	No	CA LTP Passenger Transport / Interchange Strategy
Greenways Schemes: Haslingfield	To consider plans for the next phase of Greenway Schemes.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Whittlesford Station Transport Infrastructure Strategy	To receive an update on further stakeholder engagement, early outcomes from the A505 multi-modal study and discussions on future bus services, and consider initial design work and costings for improved bus access infrastructure.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Future Investment Strategy	To consider a revised Future Investment Strategy.	Isobel Wade	Yes	CA LTP Passenger Transport / Interchange Strategy

<b>Executive Board: 19<sup>th</sup> March 2021</b>	<b>Reports for each item to be published 8<sup>th</sup> March 2021</b>	<b>Report Author</b>	<b>Key Decision</b>	<b>Alignment with Combined Authority</b>
GCP Quarterly Progress Report	To monitor progress across the GCP work streams, including financial monitoring information.	Niamh Matthews	No	N/A
Cambridge South West Travel Hub	To consider the full business case and request permission to progress to the construction phase.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Better Public Transport: Waterbeach to North East Cambridge Project	To note consultation feedback, consider and approve a Strategic Outline Business Case and agree to commence the Outline Business Case process.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
Better Public Transport: Eastern Access Project	To note consultation feedback, consider and approve a Strategic Outline Business Case and agree to commence the Outline Business Case process.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
<b>Executive Board: 1<sup>st</sup> July 2021</b>	<b>Reports for each item to be published 21<sup>st</sup> June 2021</b>	<b>Report Author</b>	<b>Key Decision</b>	<b>Alignment with Combined Authority</b>
GCP Quarterly Progress Report	To monitor progress across the GCP work streams, including financial monitoring information.	Niamh Matthews	No	N/A
Cambridge South East Transport Scheme	To endorse the Environmental Impact Assessment and proposed planning and consents process for the scheme and agree to submit the relevant applications.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy

**Corresponding Meeting Dates**

<b>Executive Board meeting</b>	<b>Reports for each item published</b>	<b>Joint Assembly meeting</b>	<b>Reports for each item published</b>
1 <sup>st</sup> October 2020	21 <sup>st</sup> September 2020	10 <sup>th</sup> September 2020	28 <sup>th</sup> August 2020
10 <sup>th</sup> December 2020	30 <sup>th</sup> November 2020	19 <sup>th</sup> November 2020	9 <sup>th</sup> November 2020
19 <sup>th</sup> March 2021	8 <sup>th</sup> March 2021	24 <sup>th</sup> February 2021	12 <sup>th</sup> February 2021
1 <sup>st</sup> July 2021	21 <sup>st</sup> June 2021	3 <sup>rd</sup> June 2021	21 <sup>st</sup> May 2021

### **APPENDIX 3: CAMBRIDGE BIOMEDICAL CAMPUS (CBC) TRANSPORT NEEDS REVIEW – AUGUST 2020 UPDATE**

Despite the significant impact of the Covid-19 outbreak on the campus, progress continues on the implementation of the measures identified in the Cambridge Biomedical Campus (CBC) Transport Needs Review. Progress is reported as of 14<sup>th</sup> August 2020.

#### **Delivery Capacity**

The Campus Delivery Group (CDG) has approved the appointment of a full time manager-level resource, and it has been agreed that 60% of their time will be dedicated to supporting the campus Travel and Transport Group with the remainder dedicated to the CDG itself. This is a significant milestone and it is anticipated that the post holder will support the implementation of the campus Travel Strategy and (where funding permits) the delivery of interventions identified within the Transport Needs Review that are within the gift of the campus. The project manager will report to the chair of the Travel and Transport Group and will support the chair as required to work with the GCP and its partner organisations to help to achieve transport infrastructure improvements. The job description is being finalised and it is hoped that the successful candidate will be in post within three months.

In addition to the Travel and Transport Group meeting, a monthly CBC Strategic Transport Projects Group has been established, which brings together project managers from all the main transport projects affecting the campus, including GCP cycling and public transport schemes, rail schemes and the CAM. This is proving extremely effective in fostering collaboration and ensuring that the campus has a more unified view of changes in the short, medium and long term.

#### **Cycling and Walking**

Progress includes:

- Early work to improve provision for cyclists in the Car Park 6 area and the Adrian Way exit. Work to conduct topographical surveys and produce general arrangement drawings is underway. These will enable stakeholder sign-offs before proceeding to the next stage, which will include the generation of target costs.
- Traffic management measures are being implemented using emergency orders in the vicinity of CBC, including at Nightingale Avenue and Luard Road, aiming to create more space for walking and cycling. Measures are expected to come into effect in mid-August, before a period of engagement and consultation which will help to determine whether they should be made permanent.
- Improved walking and cycling facilities from Babraham Road Park & Ride to the campus are being progressed as part of Cambridge South East Transport (CSETS) Phase 1.
- Those Greenways already approved by Executive Board are moving to detailed design stage, with further Greenways being considered in October. These include Sawston Greenway, which is of particular interest to the campus.
- Cambridge University Hospitals are working on a plan for new and replacement cycle parking, and the University is reassessing cycle parking needs in light of Covid-19. It plans to implement a number of facilities (including a cycle repair stand) within the new few months.
- Although not identified in the Review, the opening of the Dutch-style roundabout at Fendon Road by Cambridgeshire County Council offers significantly improved provision for both pedestrians and cyclists travelling to the campus.

#### **Public Transport**

Progress includes:

- Increased Park & Ride capacity at Trumpington (additional 279 spaces) and the start of preliminary works at Babraham Road, anticipated to provide approx. 160 additional spaces (subject to detailed design). Further, the planning application for the Cambridge South West Travel Hub has been submitted with a decision expected by the end of 2020.
- The Universal bus service funded and managed by the University has extended its weekend route, to continue to the campus at weekends (having previously stopped at the rail station). It has been possible for the University to achieve this without increasing costs, because reduced congestion has meant the service can operate with a smaller fleet. If congestion returns, this change will need to be reviewed.
- The Universal bus services review was completed recently; the University are currently procuring a new contract for the services for the period beyond 2021, which includes options for electric bus services.
- The CPCA, supported in this financial year by campus partners, are planning to fund an hourly X3 service from 31<sup>st</sup> August, going via Papworth to the campus.
- The provision of other bus services is being monitored and adjusted on an ongoing basis in response to Covid-19.
- The Campus Travel and Transport team are actively involved with the detailed design of Cambridge South Station.

Early work to procure a CBC Bus Strategy had started prior to Covid-19, but has paused. The Travel and Transport sub-group (including GCP and Cambridgeshire County Council officers) will discuss appropriate timing and approach, given the drop in public transport patronage and the upcoming CPCA Bus Review. It is proposed that this work will now be integrated into the campus Masterplan refresh (Transport Section) which is being undertaken as part of the development of the campus and its interfaces to improved regional transport links.

### **Travel Planning**

Campus partners continue to deliver a range of travel planning initiatives to support staff. Where possible, staff continue to work from home, although it is anticipated that a number of these staff will return to the workplace during the 3<sup>rd</sup> quarter of the year. Employers are ensuring that their travel plan offer is supportive and includes e.g. cycle to work loans, corporate ticketing options for public transport, reduced fares for single and daily ticketing, agile working where appropriate.

### **Next Steps**

The campus has been reconfigured in light of Covid-19, including closure of the Main Drive to buses and general traffic. Such measures impact a range of cycling, walking and public transport interventions, so an understanding of the anticipated longevity of such measures will be important to define next steps. It is planned that the Main Drive will re-open in the next few weeks (but may close again, depending upon requirements of the Trust in relation to management of Covid-19 patients in any second wave).

The Travel and Transport Group is scheduled to meet again in mid-September. This will provide an opportunity to reflect further on Covid-19's impact on the actions identified in the Review. This is a precursor to agreeing the next priorities for delivery, which the group will continue to progress ahead of the appointment of a permanent resource who will provide additional momentum for delivery.

## **APPENDIX 4: ENERGY GRID REINFORCEMENT - INDICATIVE BUSINESS CASE**

### **1. Introduction**

This report considers options for addressing power network capacity constraints in the Greater Cambridge area including the role the Greater Cambridge Partnership could take to remove a significant barrier to growth and enable both renewables projects and the electrification of transport. Although not detailed, this report summarises progress to date and addresses the core elements that will ultimately form the business case.

The information contained in this report is based upon work to date with the regional Distribution Network Operator (UKPN), Asset Utilities Ltd and other local authorities who are developing similar projects in response to similar challenges, in particular Ebbsfleet and Central Bedfordshire.

### **2. Strategic case**

#### **The objectives**

The proposal is that GCP should support investment to pro-actively increase the capacity of the electricity grid in the Greater Cambridge area in order to achieve the following objectives:

- To ensure that growth in Greater Cambridge is not delayed due to limitations in the electricity grid and that costs for new connections are not prohibitive
- To contribute to a net zero economy by ensuring that there is adequate headroom in the electricity grid to enable the following:
  - take-up of renewable technologies
  - take-up of electric vehicles
  - reductions in dependence on gas for domestic power supply

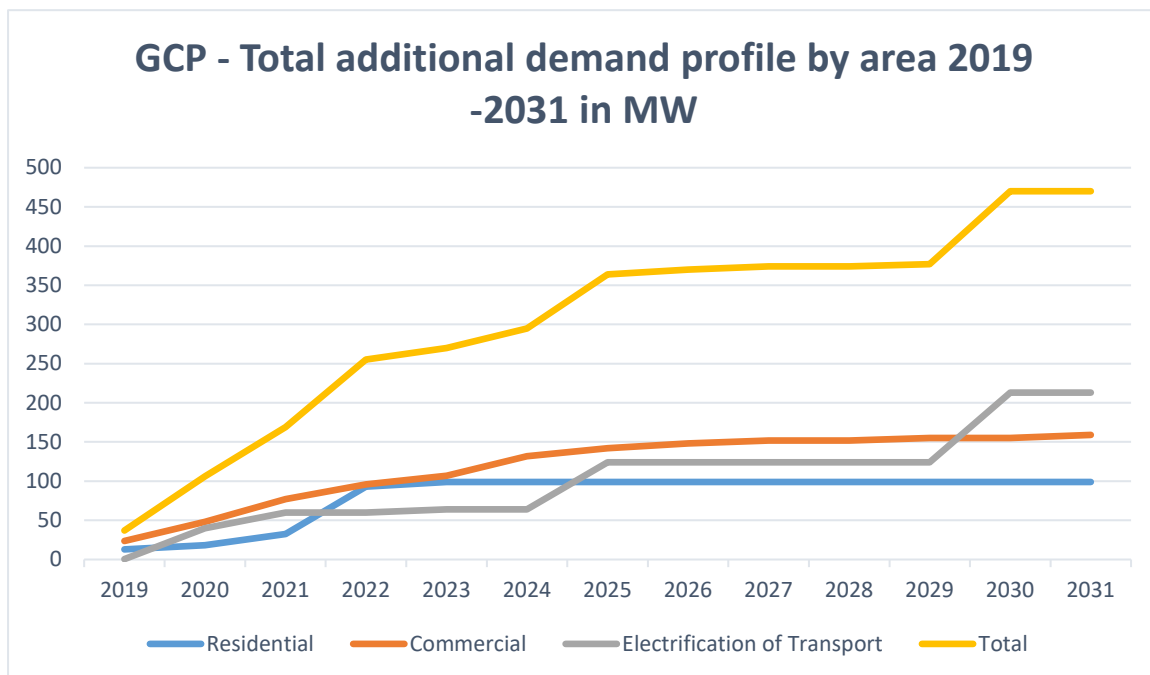
#### **The case for intervention**

The Greater Cambridge Partnership's (GCP's) Economy and Environment Working Group commissioned Asset Utilities to undertake a local electricity network analysis. The key areas of work covered include:

- The types and levels of constraints on the local distribution network in the Greater Cambridge area and how this impacts a) the delivery of housing and jobs and b) opportunities for clean energy projects and the electrification of transport to improve air quality and reduce carbon emissions; and
- The quantification of these impacts on the growth targets and timescales agreed by Government with the GCP as part of the Cambridge City Deal; and
- Identification and recommendation of the most effective interventions that the GCP and partners could facilitate and/or invest in.

The report, produced in Feb 2019, noted that UKPN has advised that present demand capacity for Greater Cambridge is 240 MW and the additional demand, notably driven by the electrification of transport, could almost triple the existing total demand requirement for the Greater Cambridge area from 240MW to 710 MW by 2031 as illustrated in Figure 1.





*Figure 1: The cumulative additional demand profile by area together with the total cumulative demand profile from 2019-2031.*

Despite planned reinforcement works by UKPN there is limited capacity within the existing 132-kV primary sub-station network. The problems are particularly acute at Histon, Arbury and Fulbourn. Power supply from these existing substations is limited by the circuits feeding them and the size of the transformers. This means that there are a number of planned private and public sector projects that would be ‘at risk’ of not taking place. Capacity is also constrained for power upload which means opportunities to exploit alternative energy sources, such as solar power, cannot be fully realised until capacity is reinforced.

The key finding of the report was that “It is clear that the electricity network as designed, is unable to meet the future electrical demand requirements or the changing face of technology (EV connections) in Greater Cambridge.”

### **Policy Alignment**

#### *Greater Cambridge City Deal*

The proposed investment is consistent with the deal agreed between Government and Greater Cambridge which allows Greater Cambridge to maintain and grow its status as a prosperous economic area. Our deal is intended, amongst other things to accelerate delivery of 33,480 planned homes.

#### *CPCA Independent Economic Review*

The findings of the report are consistent with those of the CPCA Independent Economic Review (CPIER 2018) which recognises that the current electricity network is a barrier to growth in two key respects:

- without significant grid reinforcement works to the existing network by UKPN, capacity problems would result across the GCP area; and

- constraints on the grid also severely impact localised generation of clean energy and our ability to install Electric Vehicle (EV) charging.

### *The Cambridgeshire & Peterborough Local Transport Plan*

Creation of grid capacity to serve an increased electric vehicle fleet is also consistent with Objective 10 of The Cambridgeshire & Peterborough Local Transport Plan which states “Reduce emissions to ‘net zero’ by 2050 to minimise the impact of transport and travel on climate change”

The specific policy under Policy Theme 10.1 “Reducing the carbon emissions from travel” is “Reducing emissions by encouraging the uptake of new emissions free technologies and encouraging sustainable alternatives to the private car”

### *Local Plans*

The Adopted 2018 Cambridge Local Plan Policy 29: Renewable and low carbon energy generation states that:

“Proposals for development involving the provision of renewable and/or low carbon energy generation, including community energy projects, will be supported, subject to the acceptability of their wider impacts. As part of such proposals, the following should be demonstrated:

- a. that any adverse impacts on the environment, including local amenity and impacts on the historic environment and the setting of heritage assets, have been minimised as far as possible. These considerations will include air quality concerns, particularly where proposals fall within or close to the air quality management area(s) or areas where air pollution levels are approaching the EU limit values, as well as noise issues associated with certain renewable and low carbon technologies; and
- b. that where any localised adverse environmental effects remain, these are outweighed by the wider environmental, economic or social benefits of the scheme.”

In the South Cambridgeshire Local Plan, Policy CC/2: Renewable and Low Carbon Energy Generation states “Planning permission for proposals to generate energy from renewable and low carbon sources, with the exception of proposals for wind turbines, will be permitted provided that:

- a. The development, and any associated infrastructure, either individually or cumulatively with other developments, does not have unacceptable adverse impacts on heritage assets (including their settings), natural assets, high quality agricultural land, the landscape, or the amenity of nearby residents (visual impact, noise, shadow flicker, odour, fumes, traffic);
- b. The development can be connected efficiently to existing national energy infrastructure, or by direct connection to an associated development or community project, or the energy generated would be used for on-site needs only;
- c. Provision is made for decommissioning once the operation has ceased, including the removal of the facilities and the restoration of the site; and
- d. Developers have engaged effectively with the local community and local authority”

### **The case for public funding**

Utility providers have a statutory duty to deliver required upgrades and reinforcements within their networks to support the delivery of growth. However, they are regulated by OFGEM and

constrained to operate reactively to demand. They are only able to commit to designing upgrades on their networks when outline planning consent is available and they have been approached by developers and are certain that development will come forward to avoid the risk of 'stranded' assets. This can create significant delays in housing and commercial developments and it can take several years to deliver power infrastructure thereby delaying growth, renewables projects and the electrification of transport. This challenge is not unique to Greater Cambridge.

If GCP does not support intervention then grid capacity will proceed at a slower pace in line with UKPN's negotiations with OFGEM for investment in their business investment plan which replaces the current 2015-2023 Plan. Without investment, any single developer who applies for power at the point where capacity is not available would be quoted for the full cost of reinforcement, which can impact development viability.

A coordinated approach to transform the local energy network is required across a range of public and private organisations to help protect the delivery of future residential and commercial developments (and associated job creation) and providing the flexibility to enable the delivery of the electrification of transport and renewable generation projects. Without intervention the network might become a constraint for projects which will contribute to achieving net zero carbon goals.

The Asset Utilities report noted that in the short (2019-2021) to medium (2022-2025) term, funding the upgrade of the 132KV network is needed to unlock commercial developments. This could unlock the Southern Fringe and potentially other areas across the network. Some further investment into grid reinforcements could also speed up delivery of housing growth.

In the medium (2022-2025) to long (2026-2031) term, the focus must be on delivering smart and micro grids. For this to happen, the building blocks must start to be put place in the next 1 to 2 years to support delivery in the medium term.

### **The case for GCP funding**

Grid reinforcement aligns well with GCP objectives as it is an enabler of growth in the area and supports the electrification of transport. The GCP Executive Board has already agreed the principle of investing in grid reinforcement, and this was confirmed by the Future Investment Strategy process in March 2019. Subsequent sections of this report outline potential commercial and funding options that might allow a shared approach to funding whilst achieving a degree of risk transference.

## **3. Economic case**

Following on from the Local Network Analysis outlined in the previous section, an engineering feasibility study was commissioned from UKPN as the local Distribution Network Operator (DNO) with the resulting report produced in October 2019.

The feasibility study report stated that development to the West and South of Cambridge is currently limited by the absence of 132kV and 33kV network infrastructure. The strategic view to support growth in these areas is centred in the extension of the 132kV and 33kV networks between East and West Cambridge, as illustrated in Figure 2. These extensions would provide significant flexibility to offer grid access more widely across the city as and where it might be required in the future.



Figure 2 - Existing 132kV network in the Greater Cambridge area and proposed extension corridors

The Eastern extension will allow further growth to the East and South of Cambridge by bringing capacity closer to emerging developments. The Western extension will provide capacity to West Cambridge (including future developments in Bourn/Cambourne) and relieve existing grid substations so further growth can be accommodated in North and Central areas of Cambridge. The Western and Eastern extensions will interconnect to the south of the city, to form a loop, thereby establishing the necessary resilience to sustain the expected demand growth in keeping with national standards for Security of Supply.

Due to the uncertainty of the rate of electrification of heat and transport and consequent impact on network infrastructure requirements, three demand growth scenarios were considered in the feasibility study report namely 'Moderate', 'High' and 'Gone Green'. These scenarios are indicative for the purposes of the report.

The report identified 12 major interventions required to deliver this strategic solution of which:

- Six are being undertaken by UKPN already or are being planned by them
- Three are required in any growth scenario, but will not be progressed by UKPN until they are certain that development will come forward. These three interventions are described in the table below.
- Three further interventions that would only be required in the highest demand growth model and are not considered further in this document.

## Options available to GCP

### Option A: Do nothing

As described above, this is effectively leaving the matter in the hands of the network operators. This has the potential to create significant delays in housing and commercial development as power infrastructure is not forward funded prior to need. Any single developer who applies for power at the point where capacity is not available would be quoted for the full cost of reinforcement, which can impact viability of the development. This approach could also adversely affect the electrification of transport and renewables projects.

Option B: Provide the means to undertake the three interventions required in any growth scenario. These are described in the table below:

Intervention name	East Cambridge Grid	Trumpington Primary and new East Cambridge interconnector	West Cambridge Grid
<b>Requirements</b>	New Grid substation within the Babraham Road area which would provide a 90MVA transformer.	New Grid substation in the Trumpington area which would provide a 64MVA.	New Grid substation south-west of the A428/A14/M11 junction which would provide two 90MVA transformers.
<b>Outcomes</b>	This option would support growth of up to 22,400 jobs within various existing science parks such as Babraham Research Campus, Granta Park, Wellcome Genome Campus as well as up to 2550 homes.	This option would support growth of up to 14,000 jobs within existing science parks such as Cambridge Biomedical Campus, and the new hospital proposed at Addenbrookes, number of homes unlocked to be confirmed.	This option would support growth of up to 14,000 jobs in the West of Cambridge; support a greener public transport offer at Madingley Road Park and Ride and support up to 3,500 homes (Bourn) as well as new homes in Cambourne
	All three interventions would support the additional grid capacity needed to upgrade to Smart Grids which are able to deal with the fluctuations in power associated with increased local use of renewables, and electrification of transport and increased domestic demand resulting from degasification		
<b>Estimated upfront cost</b>	£12.5m Excluding land acquisition costs.	£11.5m Excluding land acquisition costs.	£20.1m Excluding land acquisition costs.

#### Notes:

- MW refers to the power required by the devices plugged into the network. MVA is the output power – the amount electrical transformer equipment will supply out. 10MVA will feed circa 8MW power requirement but is not an exact science.
- The costs have been provided by UKPN. They are based on standardised costings and are estimates only.
- UKPN advise that these estimates assume connectivity into the existing grid via underground cables.

## Project phasing

UKPN's preference would be to deliver the interventions in the order laid out above (i.e. East Cambridge Grid, then the Trumpington Primary and new East Cambridge interconnector and finally the West Cambridge Grid) due to estimated demand versus capacity available and for operational reasons. Whilst UKPN have indicated that there could be some flexibility in this order, they have continued to stress the East Cambridge Grid as a priority.

It would also be possible to undertake one or two of these interventions although the full benefits of growth enablement will only be realised on delivery of all three.

## Land

The East Cambridge and West Cambridge Grids each require a piece of land approximately 65m x 45m (~0.75 acres) with vehicular access for construction and ongoing maintenance. The Trumpington Primary and new East Cambridge interconnector would require a smaller piece of land approximately 40m x 30m (~0.3 acres). UKPN advises that different land shapes can be accommodated although this could affect construction costs.

The CCC Strategic Assets team have worked with UKPN to identify 'optimal areas' in which to locate each of the substations (it should be noted that these might be considered 'optimal' from UKPN's standpoint and that other stakeholders may view them differently). The greater the distance that substations are located from these UKPN optimal areas, the greater the cost, complexity and risk, in particular because of the need to connect into the existing power network. Consequently there is a benefit in sticking as closely as possible to the UKPN optimal areas although they advise that adjacent/nearby areas could also be considered.

Given that the city of Cambridge is surrounded by Green Belt land, it is unsurprising that the optimal sites lie in the Green Belt. Moving further away from Cambridge than the UKPN optimal areas to avoid the Green Belt is impractical because it extends for a considerable distance. Moving in the other direction towards the city itself means considering development sites.

### a) Potential Green Belt sites

The substations would be classed by the National Planning Policy Framework (NPPF) as being 'inappropriate development' which are by definition harmful to the Green Belt and would not be approved except in very special circumstances. The definition of 'very special' circumstances is subject to assessment on a case by case basis, not least because there might be multiple circumstances that taken together would be very special. However, these very special circumstances will not exist unless the potential harm to the Green Belt is clearly outweighed by other considerations. Specifically the NPPF suggests that very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.

The scale of the proposed substations could potentially give rise to harm to Green Belt by way of their visual and physical impact upon their locality and the openness of the area. A strong case could be made that the energy supply challenge faced by Greater Cambridge and the constraints upon local generation constitute 'very special circumstances'. Such a case would need to be developed by employing a specialist planning consultant to look at this matter prior to seeking pre-app advice from the planning authority. Each UKPN optimal area is different in character and



potential sites would therefore require individual consideration. A generic case could not be created for all three.

The case for using a Green Belt location would need to be compelling and is likely to include:

- A full and clear explanation of why the Green Belt location is the only suitable location for this new infrastructure
- A detailed description of how the schemes brought forward have been configured to minimise that harm to ensure that the balance of harm and benefit is most beneficial
- A quantification of the consequences, having regard to public good rather than the cost of a non-Green Belt location
- An identification of the benefit from the provision of this new infrastructure – not only its support for economic growth and recovery but probably more importantly the contribution that the infrastructure will make to the electrification of transport and supporting UK goals towards net zero carbon.

In terms of costs, farmland typically sells for £10-£14k per acre. However land with any potential development has “hope value”. GCP would ideally need a willing seller to enable the purchase of land and this is always at a premium. The cost per acre is generally higher for smaller sites given that the various transactional costs become a significant proportion of the total.

#### b) Potential development sites

The cost implications of locating a substation on a development site are significant with typical costs of £750k/acre meaning a potential land cost for the larger substations in excess of £500k. Moreover, there is likely to be a reluctance from housing developers to build next to a substation and this might result in the need to acquire more land at additional cost to provide a ‘buffer’.

#### c) Progress on finding sites

To date, the project has conducted limited investigations into land options (based on the sizes provided by UKPN) in their optimal areas because approaching landowners would only risk creating additional cost pressure. Working in conjunction with the County Assets team and other officers, a number of possible opportunities have been identified for each optimal location although some appear more promising than others.

Work undertaken suggests a larger land take now needs to be considered to provide for landscape and environmental mitigation. GCP is also in search of land which can be used to achieve net biodiversity gain. As such it is possible that a site could be found which could accommodate the substations as well as new biodiversity schemes.

Public bodies such as Highways England and Network Rail occasionally hold small pieces of land that they are prepared to divest, and it is possible that it may be possible to find appropriate land by this means. In general, sites which are on or close to other utilities/infrastructure, will be easier to justify from a planning perspective as they have less impact on the openness of the Green Belt. It is proposed that this is explored further in the next stage of the project.

Work to date to identify sites has considered the current Local Plan. The new Local Plan may provide different opportunities for substation locations although the timing is likely to be problematic especially for the East Cambridge Grid.

Whilst challenging, the project is now considerably better placed to commission further works on identifying viable sites.

### **Planning authority**

It is our expectation that the network operator would submit any required planning application and therefore the planning authority would be the Greater Cambridge Joint Planning Service. An alternative option would be for GCP/County Council to submit the planning application on the network operator's behalf. In this case it would be determined by the County Council's own Planning Committee under Regulation 3 of The Town and Country Planning General Regulations 1992.

### **Indicative investment appraisal**

CCC Finance have prepared a spreadsheet (Appendix 1) showing an example of how costs (excluding land purchase) incurred on a single new Grid substation funded by a loan could potentially be recovered from developers who wish to make use of the new electrical capacity provided. Rather than the current situation where the first developer to require new infrastructure pays a disproportionate amount of the cost, each developer in this example pays a pro-rata share of the cost (adjusted for inflation) based on the amount of the new capacity they want to make use of. Cost recovery is discussed further in the Financial Case below.

The Local Network Analysis report presented to GCP in February 2019 suggested that there was already more demand for electricity than existing capacity in some areas and that this disparity was likely to grow over time - particularly as a result of new housing & commercial ventures and the growth in electric vehicles. Informal discussions with local consultants have supported this view. That would suggest that new capacity provided would be taken up quickly and that is reflected in option 1 in the spreadsheet. However, the report did not consider how sensitive developers might be to the cost of recharges nor could it take into account the economic shock associated with Covid-19. The spreadsheet therefore includes a second option, showing the financial impact if the take-up of new capacity was significantly slower. The development of an outline business case would include testing the market in order to predict the likely take-up of new capacity in practice.

The spreadsheet assumes a loan over 25 years. Both option 1 and option 2 show positive NPVs.



## 4. Commercial case

Engagement to date has been with UKPN, the DNO for this area and much of the information in this report derives from that engagement. However, the use of an Independent Distribution Network Operator (IDNO) could be considered for some elements of the work to achieve the most cost effective delivery mechanism. An informal discussion with the market has suggested that some IDNOs are capital rich and are looking for investment opportunities, and they may consider Greater Cambridge an attractive prospect given the growth of the area. The competitive market that OFGEM has created by introducing IDNOs does offer possibilities to select a development partner for this work that meets GCP's objectives.

Some other authorities seem to have considered the use of IDNOs but ultimately decided to proceed with their local DNO for all aspects of the work. There are pros and cons of either route which would need to be explored in detail should the project proceed to the next stage using the learnings from other local authorities where appropriate. One consideration is that getting the best commercial deal often takes time and needs to be balanced against required delivery dates.

Other similar local authority led projects have had to consider the issue of State Aid, and we are likely to be able to learn from their experience should comparable State Aid requirements remain in place from 2021 onwards.

UKPN or the IDNO would operate the substations once commissioned and there would be no legacy OPEX liabilities on GCP or its partners. We understand from other local authorities working with UKPN that they (i.e. the local authorities) will retain control over which developer connection requests to accept to maximise the growth potential of the investment. Whether this would be appropriate in this scheme requires further analysis.

## 5. Financial case

### Principal cost drivers

Our work to date has indicated that the key costs associated with delivering the project would be:

- Build and implementation of the grid substations (estimated costs provided by UKPN above)
- Land: a range of costs is described above and it will not be possible to estimate land costs with any degree of accuracy until the project is progressed further.
- Works associated with connecting the substations to the existing power grid. If land can be identified in the optimal areas, UKPN advise that these costs (for underground cables) are included in the estimates above. Otherwise, these costs will be highly dependent on the precise location of the land in relation to the existing power grid.
- Works required to achieve planning permission including surveys. The costs of this are hard to estimate at this stage without detailed knowledge of the sites in question, and are likely to be higher for land in the Green Belt. We have been advised that it is likely that this aspect could be delivered for all three sites for £750k.
- Professional and technical services will be required to deliver this infrastructure successfully. As well as needing support from those with detailed knowledge of the electricity market, specialist legal skills will be required to ensure a robust and compliant approach is adopted.

Based on discussions with other local authorities, we believe that a budget of £300k should be allowed for this although this will need to be confirmed during the next stage of work.

Cost element	Current best estimate or range
Substation build	East Cambridge Grid: ~£12.5m Trumpington Primary and new East Cambridge interconnector: ~£11.5m West Cambridge Grid: ~£20.1m Total for all three grid substations: ~£44.1m
Land	Very difficult to estimate at this stage but if all sites used development land, this could exceed £1.5m
Connection of grid to existing network	Cost dependent to location of land in relation to existing power network
Professional services – planning	~£750k
Other professional and technical services	~£300k

### Cost recovery

For the first 10 years from activation of each substation, contributions can be recouped from developers when they use the capacity provided. Other local authorities have agreed or are in the process of agreeing a cost recovery arrangement with their DNOs that will enable them to recover public sector forward funded investment from developers who subsequently connect to the Council funded grid substations.

Care is required about exactly what can be recharged and legal advice will be required. We have been advised that recharges over and above what is deemed fair could be subject to legal challenge. In addition, if a substation was particularly expensive to build, this would potentially result in higher connection costs for organisations and developers which may prove to be a disincentive. Mitigation of this risk will be discussed with UKPN/IDNO.

### Funding

It is assumed that GCP would fund the development of this project at least in part via a loan to enable grant funding to be invested in other capital schemes. Consideration is also required of follow on arrangements given the fact that such a loan would be likely to extend beyond the period in which the GCP is intended to exist, and the County Council's willingness to underwrite loan funding for a non-commercial venture that potentially limits their ability to take out loans for other projects.

UKPN are currently preparing their business investment plan for the period 2023 to 2028. We are working with them to understand how we can collaborate on the grid constraints highlighted in this report with the aim of securing a contribution towards this project. UKPN have advised that they will conduct formal consultation on their business plan in early 2021, and our response to this will be of the utmost importance. Whilst UKPN recognises that Greater Cambridge is a priority for investment, they point out that they have a number of other priorities in the eastern region and that it is OFGEM who ultimately decide which aspects of UKPN's business plan progress to the next stage.

As a result, it is uncertain whether a contribution would be forthcoming. A decision on UKPN's business investment plan is expected in mid to late 2021.

The Future Investment Strategy process in March 2019 provisionally identified some funding for this project. This would enable the GCP to initiate work on the first grid substation, and whilst this sum would be insufficient to fund all three interventions, the cost recovery mechanism and potential co-funding mechanisms offer possible ways to complete the full project.

## 6. Management case

### Project Governance

If GCP were to fund this project, it is anticipated that GCP Executive Board processes would apply.

Since the project would involve land acquisition and potentially loan funding with an extended payback period, it is anticipated that key aspects of the project would be governed by the County Council Commercial and Investment Committee.

### Project Delivery

Whilst the approach to delivery remains to be finalised, UKPN is likely to be a key partner whether or not an IDNO is involved. Independent connection providers can also carry out works on behalf of the DNO or IDNO but appropriate oversight would ensure that the end product is fit for purpose and compliant with all necessary specifications.

### Key risks and mitigations

At this early stage, the following key risks and mitigations have been identified:

- Failure to gain planning permission: a specialist planning consultant would be required to build a case prior to seeking pre-app advice from the planning authority, particularly for sites in the Green Belt. As there are three potential sites, it is not necessarily the case that all three would fail. The risk could be mitigated by strengthening the case in terms of benefits relating to renewables.
- Cost and/or time overruns with UKPN or IDNO: it is recommended that appropriate technical skills are retained during the next stage of the project to mitigate this risk. In particular, the risk sharing approach between GCP and UKPN/IDNO would require special attention.
- Demand turns out to be significantly lower than anticipated: although the Asset Utilities and UKPN reports highlight strong demand, these analyses would need to be reviewed in the light of the impact of Covid-19 and addressed further in the Outline and Full Business Cases.
- Inability to fully recover costs: further legal advice is required to mitigate this risk.

All risks will be significantly mitigated by continued close working with other local authorities who are further advanced with their plans, in particular Ebbsfleet and Central Bedfordshire.

## 7. Next Steps

The following steps are anticipated:

### Scoping stage

The principle aims of the stage are to:

- Develop a commercial approach
- Develop a set of options for land and engage specialist skills to assess acquisition costs and consider what is required to submit compelling planning applications
- Form an initial view of demand impact as a result of Covid-19 and other changes since the Asset Utilities analysis in early 2019
- Procure appropriate technical consultants to undertake the above and to produce the business case in the next stage
- Finalise the approach and provide firm cost and time estimate for the business case stage.

The cost estimate for the scoping stage is £100k, with the aim to complete this in time for the March 2021 Executive Board cycle.

### Business case stage

This stage would build on the scoping stage to deliver an outline business case for approval. It is anticipated that this would be ready for the September/October 2021 Executive Board Cycle. A final business case would follow once all consents were in place. The timetable will be confirmed during the scoping stage.

## 8. Recommendations

GCP Executive Board is requested to:

- Note progress to date on this project
- Approve expenditure of up to £100k to deliver the scoping stage of this project.

Annex 1 Illustrative investment appraisal

Illustrative example of recovering costs of a Grid Sub-station

Option used in calculation

1

Capital costs		
Contract Year	Year	Total capital costs
0	2020	
1	2021	£700,000
2	2022	£1,400,000
3	2023	£9,800,000
4	2024	£2,100,000
5	2025	
6	2026	
7	2027	
8	2028	
9	2029	
10	2030	
11	2031	
12	2032	
13	2033	
14	2034	
15	2035	
16	2036	
17	2037	
18	2038	
19	2039	
20	2040	
21	2041	
22	2042	
23	2043	
24	2044	
25	2045	
Totals	25yr	£14,000,000
agrees to detail?		True

Commercial Recovery				
Remaining MVA capacity	Illustrative MVA capacity used		Inflation uplift	Cost recovery
	Option 1	Option 2		£
90			2.00%	
90.0				
80.0	10.0	10.0	100%	£1,555,556
50.0	30.0	10.0	102%	£4,760,000
30.0	20.0		104%	£3,236,800
10.0	20.0	10.0	106%	£3,301,536
0.0	10.0	10.0	108%	£1,683,783
0.0			110%	£0
0.0		10.0	113%	£0
0.0		10.0	115%	£0
0.0			117%	£0
0.0		10.0	120%	£0
0.0		10.0	122%	£0
0.0			124%	£0
0.0		10.0	127%	£0
0.0			129%	£0
0.0			132%	£0
0.0			135%	£0
0.0			137%	£0
0.0			140%	£0
0.0			143%	£0
0.0			146%	£0
0.0			149%	£0
0.0			152%	£0
	90.0	90.0		£14,537,675
True		True		

Loan				
Loan requirement	Loan balance	Principal repayment	Interest repayment	Total repayment
£		£	£	£
			2.37%	
£700,000	£700,000		£16,590	£16,590
£1,400,000	£2,078,011	£21,989	£49,249	£71,238
£9,800,000	£11,809,020	£68,991	£279,874	£348,865
£2,100,000	£13,493,882	£415,138	£319,805	£734,943
£0	£12,990,577	£503,305	£307,877	£811,181
£0	£12,475,344	£515,233	£295,666	£810,899
£0	£11,947,900	£527,444	£283,165	£810,609
£0	£11,407,956	£539,944	£270,369	£810,313
£0	£10,855,215	£552,741	£257,269	£810,010
£0	£10,289,374	£565,841	£243,858	£809,699
£0	£9,710,122	£579,251	£230,130	£809,381
£0	£9,117,143	£592,980	£216,076	£809,056
£0	£8,510,110	£607,033	£201,690	£808,723
£0	£7,888,690	£621,420	£186,962	£808,382
£0	£7,252,542	£636,148	£171,885	£808,033
£0	£6,601,318	£651,224	£156,451	£807,676
£0	£5,934,659	£666,658	£140,651	£807,310
£0	£5,252,201	£682,458	£124,477	£806,935
£0	£4,553,569	£698,632	£107,920	£806,552
£0	£3,838,379	£715,190	£90,970	£806,160
£0	£3,106,239	£732,140	£73,618	£805,758
£0	£2,356,747	£749,492	£55,855	£805,347
£0	£1,589,492	£767,255	£37,671	£804,926
£0	£804,054	£785,439	£19,056	£804,495
£0	£0	£804,054	£0	£804,054
		£14,000,000	£4,137,132	£18,137,132

Summary Analysis - option 1	
Annual cash flow	Cumulative cash flow
£	£
-£16,590	-£16,590
-£71,238	-£87,828
-£348,865	-£436,692
£820,612	£383,920
£3,948,819	£4,332,738
£2,425,901	£6,758,640
£2,490,927	£9,249,567
£873,470	£10,123,037
-£810,010	£9,313,027
-£809,699	£8,503,328
-£809,381	£7,693,947
-£809,056	£6,884,891
-£808,723	£6,076,168
-£808,382	£5,267,786
-£808,033	£4,459,753
-£807,676	£3,652,078
-£807,310	£2,844,768
-£806,935	£2,037,833
-£806,552	£1,231,281
-£806,160	£425,121
-£805,758	-£380,637
-£805,347	-£1,185,983
-£804,926	-£1,990,909
-£804,495	-£2,795,404
-£804,054	-£3,599,457
-£3,599,457	

Summary Analysis - option 2	
Annual cash flow	Cumulative cash flow
£	£
-£16,590	-£16,590
-£71,238	-£87,828
-£348,865	-£436,692
£820,612	£383,920
£775,485	£1,159,405
-£810,899	£348,506
£840,159	£1,188,665
£873,470	£2,062,136
-£810,010	£1,252,126
£942,109	£2,194,235
£977,463	£3,171,698
-£809,056	£2,362,642
£1,050,310	£3,412,952
£1,087,832	£4,500,784
-£808,033	£3,692,751
£1,165,145	£4,857,896
-£807,310	£4,050,586
-£806,935	£3,243,651
-£806,552	£2,437,099
-£806,160	£1,630,939
-£805,758	£825,181
-£805,347	£19,835
-£804,926	-£785,091
-£804,495	-£1,589,586
-£804,054	-£2,393,639
-£2,393,639	

NPV

Discount rate

£1,131,253

4.42%

NPV

Discount rate

£145,636

4.42%