

Electric Bikes options paper

Ebikes Options Assessment

1.1 Assessment criteria - Based on the objectives of the cycling strategy, electric bike share options can be assessed against the following criteria:

- **Target market benefits** - the number of trip types that the option caters for
- **Potential impact (workplaces or household participation)** - the number of participants that can access the scheme
- **Cost to the user**
- **Administrative burden (for the Council)** - amount of Council staff time required
- **Cost or value for money (for the Council)** - cost implication for the Council.

1.2 The table below outlines the scoring matrix to assess each of the electric bike scheme options.

Criteria	3 points	2 points	1 point
Target market benefits	All 5 target trip purposes	3-5 target trip purposes	3 or less target trip purposes
Potential impact (workplaces or household participation)	100+ participants	50-100 participants	50 participants or less
Cost to the user	Free	Up to £100 p.a.	£100 or more p.a.
Administrative burden (for the Council)	0.2FTE or less	0.2-0.5FTE	0.5FTE or more
Cost or value for money (for the Council)	£10k or less	£10-50k	£50k or more

2 Options assessment

2.1 Encouraging electric bike share - Option 1

Docked electric bike share scheme Score 11/15	
<p>This option looks to procure a docked electric bike share scheme in the borough. This would be similar to the Santander Cycles scheme in Central London, with the exception that the bikes would be electric. This model can have benefits over the dockless bike model with less chance of vandalism and of e-bikes being left in obstructive locations and potentially greater reliability of supply in key places such as outside travel hubs, which is much-valued by commuters in particular, but less flexibility of destination, which is valued by casual users.</p> <p>An example system in operation, is the KU bikes system in operation at Kingston University. Nextbike who operate at Kingston University suggest a rough cost of £4,000 per bike, or £200,000 capital spend for 50 bikes suggested. They have confirmed these costs would need to be met by the authority with Nextbike taking on the running costs. Another example is Serco, operating a mix of docked and dockless e-bikes in Edinburgh.</p>	
Target market benefits	Business trips Shopping trips Personal business trips
Potential impact (workplaces or household participation)	100+ participants Note: Suggested 50 bikes across the borough
Cost to the user	Up to £100 p.a. Note: Dependent on cost structure and use
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£50k or more Note: About £200k capital spend for 50 bikes. Sponsorship of the bikes, similar to TfL's Santander scheme, could help reduce this somewhat.
Strengths	Docked solution has a visual presence across the borough Large number of bikes that could be used by the public Low administrative burden to the Council
Weaknesses	Does not encourage people to use electric cargo bikes High capital spend required

2.2 Encouraging electric bike share - Option 2

Deliver electric bikes / cargo bikes through the car club contract Score 13/15	
<p>This option looks to deliver regular electric bikes and cargo bikes through the car club contract. The existing contract has expired. The Council is in the process of renegotiating the contract with potential suppliers.</p> <p>There is the opportunity as part of the car club contract for operators to also provide electric bikes and electric cargo bikes for hire to users in the borough.</p>	
Target market benefits	Deliveries to clients (in particular last-mile trips) Business trips Shopping trips Personal business trips School and nursery trips (dropping and collecting children)
Potential impact (workplaces or household participation)	50-100 participants Note: Assuming less than five bikes across the borough
Cost to the user	Up to £100 p.a.
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£10k or less
Strengths	Provides for all five target trip types Low administrative and cost burden to the Council
Weaknesses	Requires travelling to nearest available bike Relatively low number of participants Requires membership to car club Subject to agreement with car club operators

2.3 Encouraging electric bike share - Option 3

Deliver electric bikes through Brompton Dock Score 12/15	
<p>The Council has recently installed a Brompton Dock in the Sutton Town Centre (through air quality funding). Brompton have also released an electric bike version of their cycle. There may be an opportunity to discuss with Brompton the potential to incorporate a number of electric bikes within the bike hire scheme.</p> <p>The consideration of this option is subject to discussions with Brompton and their agreement to provide electric bikes as part of the Brompton Dock offering.</p>	
Target market benefits	Business trips Shopping trips Personal business trips
Potential impact (workplaces or household participation)	50-100 participants Note: Assuming four electric bikes out of eight in the dock
Cost to the user	Up to £100 p.a.
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£10k or less
Strengths	Low administrative and cost burden to the Council
Weaknesses	Does not encourage people to use electric cargo bikes Requires travel to Brompton Dock in Sutton Town Centre Relatively low number of participants Requires membership to Brompton Dock Subject to agreement with Brompton

2.4 Encouraging electric bike share - Option 4

Deliver electric bikes through dockless bike operators**Score 13/15**

Dockless bike companies have introduced bikes for hire in several UK cities and several London boroughs. We are now seeing dockless operators offering e-bikes:

[Lime](#) have begun operations in LB Ealing and LB Brent in December 2018.

[Jump](#) who are owned by Uber are planning to operate in Berlin. They cost \$2 (£1.50) to hire for the first half-hour, and a further seven cents (five pence) per minute after that. They currently only exist in Washington, D.C. and San Francisco, but there are plans to move into the European market.

[Mobike](#) have also recently unveiled an electric dockless bike.

The consideration of this option is subject to discussions with dockless bike operators and their agreement to provide electric bikes as part of the offering. The scheme would involve geofencing meaning users would face penalties if they did not leave the e-bikes in agreed locations (eg outside stations in areas with adequate footway width).

Target market benefits	Business trips Shopping trips Personal business trips
Potential impact (workplaces or household participation)	100+ participants Note: Assuming 100+ bikes available in the borough
Cost to the user	Up to £100 p.a
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£10k or less
Strengths	Potential for large number of participants Low administrative and cost burden to the Council
Weaknesses	Does not encourage people to use electric cargo bikes Subject to agreement with dockless bike operators

2.5 Encouraging electric bike share - Option 5

Electric bike loan scheme for businesses and/or households Score 11/15	
<p>This option makes Council electric bikes available to businesses and/or households for an extended period (for example two week loan). Users would then be able to trial the bikes for a period to see if it meets their needs.</p> <p>The two existing electric cargo trikes could be used for this initiative. Additional electric bikes could be purchased for users to try out as well.</p>	
Target market benefits	Deliveries to clients (in particular last-mile trips) Business trips Shopping trips Personal business trips School and nursery trips (dropping and collecting children)
Potential impact (workplaces or household participation)	50-100 participants Note: Assuming at least 5 bikes available to users
Cost to the user	Free
Administrative burden (for the Council)	0.5FTE or more
Cost or value for money (for the Council)	£10-50k
Strengths	Provides for all five target trip types Potential to be free for users
Weaknesses	Relatively high administrative and cost burden to the Council Relatively low number of participants

2.6 Encouraging electric bike ownership - Option 6

Provide an electric bike grant to local shops to allow users to rent and buy**Score 14/15**

This option looks to the Council providing a grant to local bike shops to allow users to rent (for a week or two weeks) and purchase e-bikes. This could be done directly with local bike shops or through an intermediate organisation. The aim of this option is to encourage would-be users to try e-bikes and trikes before making a purchase. This builds on work by TfL to promote free half-hour taster sessions provided at local stores including Halfords in Sutton and Wallington Cycles.

The Council has been in discussions with the Green Commute Initiative who have provided the following indicative costings:

- 5 electric cargo bikes would cost about £3k per month, or £36k a year in total
- 10 electric bikes would cost about £2.5k per month, or £30k a year in total

These bikes could then be distributed to participating local shops, who would then manage the bike loans on the Council's behalf. They would then report the number of hires to the Council.

Target market benefits	Deliveries to clients (in particular last-mile trips) Business trips Shopping trips Personal business trips School and nursery trips (dropping and collecting children)
Potential impact (workplaces or household participation)	100+ participants Note: Assuming 10+ bikes available to users
Cost to the user	Free
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£30k-£66k depending on whether we promote just e-bikes or e-cargo bikes as well
Strengths	Provides for all five target trip types Potential for large number of participants Potential to be free for users Low administrative burden to the Council
Weaknesses	Medium cost burden to the Council (to lease bikes). Would require a growth bid. Subject to agreement with local bike shops

2.7 - Encouraging electric bike ownership - Option 7

Encouraging ownership through Cycle to Work Score 14/15	
<p>This option uses the existing Cycle to Work initiative to encourage would-be users to lease electric bikes at their workplace. There is currently a £1,000 limit on the value of the bike - with most electric bikes exceeding this threshold.</p> <p>The Green Commute Initiative have overcome this barrier by allowing employers to purchase a voucher up to the value of the electric bike, which can then be used by employees for electric bikes.</p> <p>This option would require the Council to market the scheme to employers, and wouldn't necessarily require any additional administration.</p>	
Target market benefits	Deliveries to clients (in particular last-mile trips) Business trips Shopping trips Personal business trips School and nursery trips (dropping and collecting children)
Potential impact (workplaces or household participation)	100+ participants
Cost to the user	£100 or more p.a.
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£10k or less
Strengths	Provides for all five target trip types Potential for large number of participants Low administrative and cost burden to the Council
Weaknesses	Potential high cost to users through salary sacrifice Subject to agreement with local employers

2.10 - Encouraging electric bike ownership - Option 8

Act as advisor to residents and organisations, helping with grant applications where necessary

Score 15/15

This option aims to promote ownership by helping to signpost residents and organisations to relevant information on benefits, suppliers, makes, models, range and approximate cost of ebikes. Once details of grants are made available it will be important for officers to know how to advise potential applicants. In some cases help can be given completing the applications if required.

Target market benefits	Deliveries to clients (in particular last-mile trips) Business trips Shopping trips Personal business trips School and nursery trips (dropping and collecting children)
Potential impact (workplaces or household participation)	100+ participants Note: Assuming 10+ bikes available to users
Cost to the user	Free
Administrative burden (for the Council)	0.1FTE or less
Cost or value for money (for the Council)	No cost above staff time paid for out of LIP
Strengths	Potential for large number of participants Low administrative burden to the Council
Weaknesses	Success depends on successful promotion of the service

2.8 - Developing and/or supporting an electric bike courier service - Option 9

Develop an electric bike courier Score 8/15	
<p>This option looks to developing an in-house bike courier company. The Council has a pool of casual staff who could operate the scheme, as well as two electric cargo bikes which could be used as well.</p> <p>The courier service could be offered to workplaces and households in the borough as a free or paid service to deliver packages.</p> <p>The scheme would be administered by an existing Sustainable Transport Officer, with the casual staff paid at their existing hourly rates.</p> <p>This scheme could then be expanded as it became more successful.</p>	
Target market benefits	Deliveries to clients (in particular last-mile trips) Shopping trips
Potential impact (workplaces or household participation)	100+ participants Note: Assuming at least two electric cargo bikes available
Cost to the user	£100 or more p.a.
Administrative burden (for the Council)	0.5FTE or more Note: Would require substantial officer time to manage the scheme
Cost or value for money (for the Council)	£10-50k
Strengths	Potential for large number of participants
Weaknesses	Does not encourage people to use electric bikes Relatively high administrative and cost burden to the Council

2.9 - Developing and/or supporting an electric bike courier service - Option 10

Provide a grant to an electric bike courier company Score 10/15	
<p>This option aims to contract out a bike courier service and an external service provider. A number of operators such as Outspoken and Pedal Me App already do this with other authorities in the UK.</p> <p>The courier service could be offered to workplaces and households in the borough as a free or paid service to deliver packages.</p> <p>The scheme would be contracted out with specific KPIs and targets set to ensure value for money for the Council.</p>	
Target market benefits	Deliveries to clients (in particular last-mile trips) Shopping trips
Potential impact (workplaces or household participation)	100+ participants
Cost to the user	£100 or more p.a.
Administrative burden (for the Council)	0.2FTE or less
Cost or value for money (for the Council)	£10-50k
Strengths	Potential for large number of participants Low administrative burden to the Council
Weaknesses	Does not encourage people to use electric bikes Medium cost burden to the Council

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