

Environment and Transportation Department,
Block 2, Floor 6,
Civic Offices,
Dublin 8.

15th July 2022

To Each Member of the
Climate Action, Energy and Environment Strategic Policy Committee

“Dublin City Council and Electric Vehicle Charging Strategy”.

A facilitated approach.





1. Background

The programme for Government set out a target of 1m EVs on Irish roads by 2030. There was an expectation from Government that LAs would be responsible for, and provide chargers to meet, the demand for charging. A scheme of grant aid was established for LAs (€5k per charger), with the expectation that LAs would buy, install, operate and maintain a network of on street chargers as the solution to this issue.

The 4DLAs met in response to this question, conducting a market soundings exercise initially, before agreeing that a more fundamental and strategic approach was required. International consultants were hired to provide an evidence based and contextualised strategic approach to EV charging, with due respect to the wider mobility strategies and policies. A ‘pillars of cooperation’ document was also developed by the DLA steering group to define areas of common objective and to allow sufficient freedom to each LA to apply individual EVCP solutions within the wider strategic framework as may best suit local needs. This all within a customer centric approach to enable ease of charging across the DMA.







The consultants modelled data sets to derive answers to questions such as:

- The uptake of EVs out to 2030
- The modelled demand for charging (and demand for charging for those reliant on public charging in particular)
- What infrastructure should be deployed and where
- The number of EVCPs required out to 2030
- The level of investment (public and private) required to 2030
- And crucially, the role(s) the Councils should play in infrastructure roll out

		<i>Icon to come</i>	<i>Icon to come</i>			
Type	Home charging	Neighbourhood charging	Residential charging hub	En-route charging	Destination charging	Workplace charging
Use case	Charging at home (driveway, garage, shared car park) typically overnight	Charging at a EVCP near to the driver's house, typically overnight	Charging at public EVCPs in the driver's local area. In rapid case, similar to petrol refuelling	Charging along major routes or main roads in urban areas. Quick turnaround	Charging in car parks at the end journey. "Top up" charging	Charging while parked at workplace. Not strictly public charging
Key user groups	Residents with off-street parking	Residents without off-street parking	Residents without off-street parking, taxis, car clubs	All residents	All residents	Employees (particularly those without off-street parking)
Typical site	Driveway, garage, apartment block car park	Along residential street pavement	Along urban roads public car park, forecourts etc.	Service station, forecourt, sites near main roads	Supermarkets, shopping centres etc.	Employee car park
Charging speed	Slow (3-7kW)	Slow to fast (3-22kW)	Varies but more likely rapid to ultra rapid (50-150kW)	Rapid to ultra rapid (50-350kW)	Slow to rapid (3-50kW), occasionally higher	Slow, 7kW
Led by	Resident	Council	Council or private sector	Council or private sector	Council or private sector	Private sector (unless Council site)
Not a focus of the strategy		Council led & key focus of strategy		Council may play a role hence a focus of strategy		

Key Strategic Recommendations in Report

- The consultants project 138k EVs in DMA by 2030
- Of these, 34k will be reliant on public charging (i.e. will only have access to public charging). This is the cohort that LAs seek to facilitate
- The consultants clearly state that: “It is not envisaged that the LAs would be responsible for any significant installation, operation or maintenance of EVCPs”
- Furthermore, the consultants state: “It is expected that ‘Council’ costs would be covered by public funding”
- The consultants also state that rapid (hub) charging is the preferred model and should always be the first choice solution
- The report refers to the Department of Transport’s EV Charging Infrastructure Strategy 2022-2025, with a reliance on neighbourhood (read on-street) charging and clearly states that the Dublin Strategy has a different priority, namely, rapid (hub) charging. This to encourage a shift away from private car use in the city centre (i.e. the charging infrastructure should align with the wider mobility strategies and schemes in the DMA).

		2025 EVCP requirement			2030 EVCP requirement		
							
		Residential	En-route	Destination	Residential	En-route	Destination
Rapid hubs	Dublin City	65	19	280	247	55	1,065
	South Dublin	23	13	149	85	38	560
	Fingal	23	14	157	86	41	589
	DLR	23	11	135	85	33	509
	Total in Medium scenario	133	57	722	504	166	2,723
Mixed technology	Dublin City	329 + 47	19	243	1,280 + 176	55	918
	South Dublin	176 + 12	13	129	685 + 47	38	481
	Fingal	169 + 13	14	110	658 + 49	41	514
	DLR	219 + 10	11	110	850 + 38	33	411
	Total in Medium scenario	893 + 82	57	592	3,474 + 310	166	2,324
<i>Total in CAP Ambition scenario for comparison</i>		<i>1,402 + 127</i>	<i>92</i>	<i>1,001</i>	<i>5,545 + 494</i>	<i>265</i>	<i>3,724</i>

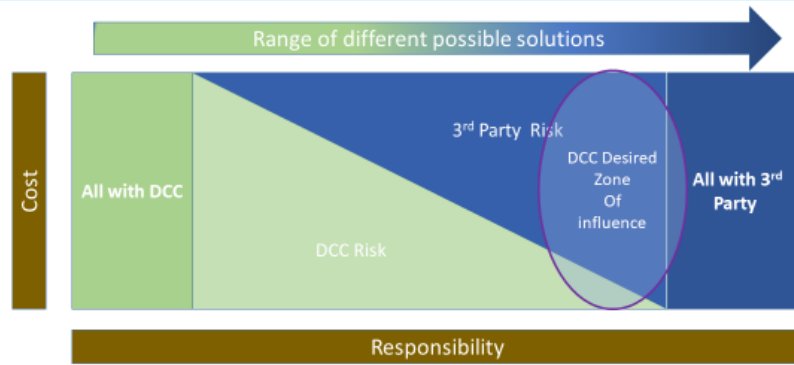
2. The Enabler/facilitator Approach

In consideration of the strategy recommendations, the role of the LA (DCC) is that of enabler and facilitator, **not** direct service provider. There are some instances where the other 3 DLAs may wish to provide a charging service directly. This is covered under the ‘Pillars of Cooperation’ agreement which offers that flexibility, but is not an approach that is envisaged for DCC (see Finglas pilot hub below).

To give effect to this role, DCC will enable and facilitate the deployment of EVCP infrastructure in line with recommendations through:

- Planning: New statutory framework for EVCPs will be included in the new City Development Plan and applications for planning permission will be treated accordingly
- Regulation: various Statutory Instruments set out regulatory requirements that DCC can incorporate into any refurbishments of MUDs for example, or regulated through building control.
- A procurement approach, whereby DCC (in association with the DLAs) would consider the installation of required electrical infrastructure as a public good (Off-street modular rapid mobility hubs) to provide a connection point for a Charge Point Operator (CPO) to “bolt on and plug in” and provide all charging services to the end user. See graphic below:

The Adaptive Question



- The electrical infrastructure to remain in public ownership, mitigating service and technological risk to the CPO
- The concession/licence model below shows how this might work (option C).
- Based on experience in other cities, the consultants also point out that other private sector entities will enter the market (provision of charging facilities in destinations such as supermarket car parks etc.)
- DCC only has to do as much as is required to enable and facilitate the market (through the provision of suitable off-street sites such as at parks, area offices, leisure centres etc.) under a licence/concession model.

Example rapid charging business models	CAPEX			OPEX			Council revenue approach	Contract length
	Hardware	Install	Ground & Grid	Back office	Electricity	Maintenance		
Private sector match funding	Typically split Council (or Gov) 75% and supplier 25%			Supplier	Supplier	Supplier	Varies	Varies
Concession A	Council	Supplier	Supplier	Supplier	Supplier	Supplier	Share to Council	5-10 years
Concession B	Supplier	Council	Council	Supplier	Supplier	Supplier	Share to Council + min. payment	
Concession C	Supplier	Supplier	Council	Supplier	Supplier	Supplier	Share to Council	
Lease model	Supplier	Supplier	Supplier	Supplier	Supplier	Supplier	Share to Council	15-25 years

DCC will have its first pilot off-street mobility hub at Finglas area office in next few weeks. This new pilot will operate under a licence arrangement with a CPO who will provide the chargers and all customer facing services. DCC has installed the electrical enabling infrastructure (fully funded by Department of Transport).

The DMA EVCP steering group are currently working on a detailed short run implementation plan, to include capital costs, human resources required (as recommended by consultants and as evidenced internationally in London, Amsterdam and Oslo).

Cormac Healy
Energy Lead