Project ID	DIP023		
Long Title	e4Future		
Short Title			
Keywords	Small-scale; Multi-sector/Grid; Electricity; Transport; Virtual Power Plant; Vehicle-to-Grid; Electric & Hybrid Vehicles; Smart Transport Networks; Transport System Enablers; Energy Strategy Development;		
Location (Town, Region, Country)	Rickmansworth	Herts.	England
Latitude and Longitude	51.63N	0.51W	
OSGB code	TQ 034 929		
Status	Ongoing		
Start Date	2018		
End Date	2020		
Description	This proposal is for a large-scale V2G demonstrator, deployed in groups and controlled by an innovative aggregator platform stacking multiple services that supports a more efficient electricity system and decreases ownership costs to vehicle users. The project Consortium is composed by participants from typically disconnected sectors including car companies, infrastructure providers, energy services, and the public sector. The demonstrator includes private communal, commercial/delivery and public service vehicles, using V2G-ready models. The project will evaluate the response of distinct consumer groups (which together are highly representative of the target market) to commercial V2G offers. Data collected will be used to test and refine different business cases and reward mechanisms for providing V2G services, generating insights on receptiveness and acceptance of V2G operation. The demonstrator will determine the technical and commercial potential of V2G to support the GB electricity system. The innovative V2G platform will stack multiple services to the System Operator and Distribution Network Operators participating in the project. Distribution, transmission and whole-electricity system models will be used to assess system-wide impacts, benefits and potential revenues from V2G. The project will identify key barriers in the policy and regulatory framework, market barriers and cybersecurity issues, and propose solutions so that V2G can contribute to needed system flexibility. Learning outcomes will be exportable to electricity systems worldwide. Widespread sharing of project findings, through industry events and publications, will build confidence in and help grow the V2G sector. Learning outcomes will be used by the consortium and the wider UK industry to rapidly deploy V2G business models and		

	encourage significant take-up of ULEVs over the next 5-10 years, optimizing their potential as a resource and improving flexibility and efficiency of the electricity network.
Sectors	Transport
Funding Sources	InnovateUK
Budget £	£9.86 million
Partners	Nissan Motor (GB), Imperial College, National Grid, Newcastle University, Northern Powergrid, NUVVE, UK Power Networks
Energy vectors	Electricity, Transport
Scale (lab/site /small/community/region/national)	Small
Technologies demonstrated	EV charging, vehicle-to-grid
Economic models demonstrated	Virtual power plant/market aggregation, grid services, new commercial models
Other concepts demonstrated	Consumer impact analysis
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	
Datasets (incl. links)	
Website/social media	https://newsroom.nissan-europe.com/uk/en-gb/media/pressreleases/426218103/media-advisory-governments-announcement-on-nissan-led-vehicle-to-grid-iuk-winning-project1 http://www.v2g.co.uk/
Information sources	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/681321/Innovation_in_Vehicle-To-Grid__V2G__Systems_-_Real-World_Demonstrators_-_Competition_Results.pdf