

BEIS INNOVATION PROJECT - DEMONSTRATION OF SMART METER LOAD CONTROL

Up-to ~£3M funding available to design, build, test and trial a load control device which uses smart meter communications infrastructure – expected to be in the EV context.

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Contents

- Policy context
- Overview of smart meter capability and communications infrastructure
- Project scope and stages
- Contract and service provider structure
- Innovation Project Timetable

Policy context and project objectives

Government objectives

- Roll out EVs in way which facilitates their efficient integration into a smart, low cost, low carbon energy system
- Maximise value for money from smart meter infrastructure

Current activity in the charge point Market

- Existing solutions for EV smart charging are using communications infrastructure outside smart meters
- Currently solutions are not interoperable, and security arrangements may not be appropriate for deployment at scale
- OLEV's secondary legislation on EV smart charging is likely to include provisions on security and interoperability

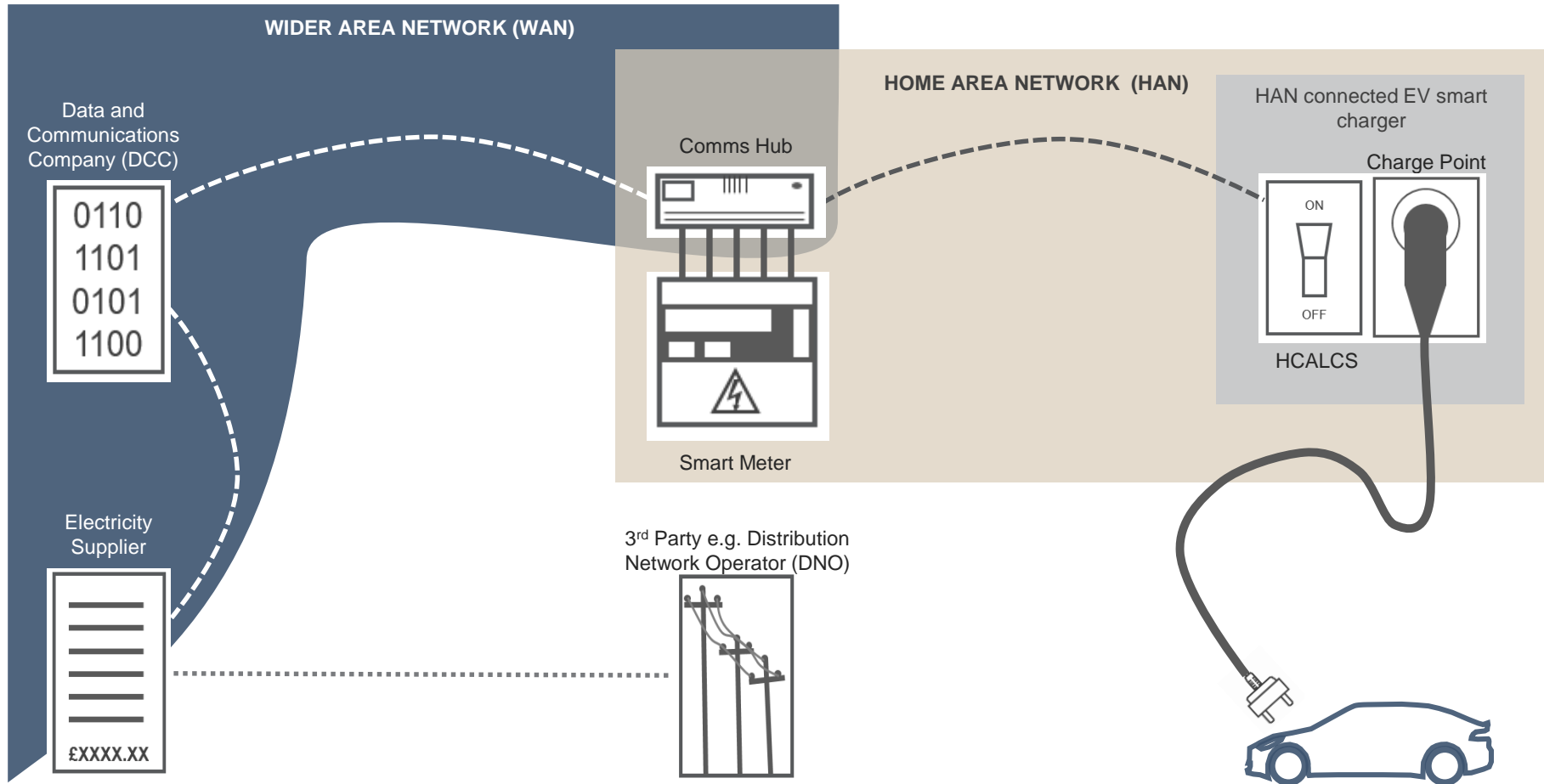
Current Smart Meter Capability

- Data and Communications Company systems provide a for home area network connected auxiliary load switch, but this has not yet been demonstrated.
- There are two levels of control currently possible, which can potentially be layered to enable different functions

Innovation Project Objectives

- Demonstrate Smart Meter Communications Infrastructure capability in terms of load control in a secure and interoperable way
- Reduce barriers to entry for this sector/device

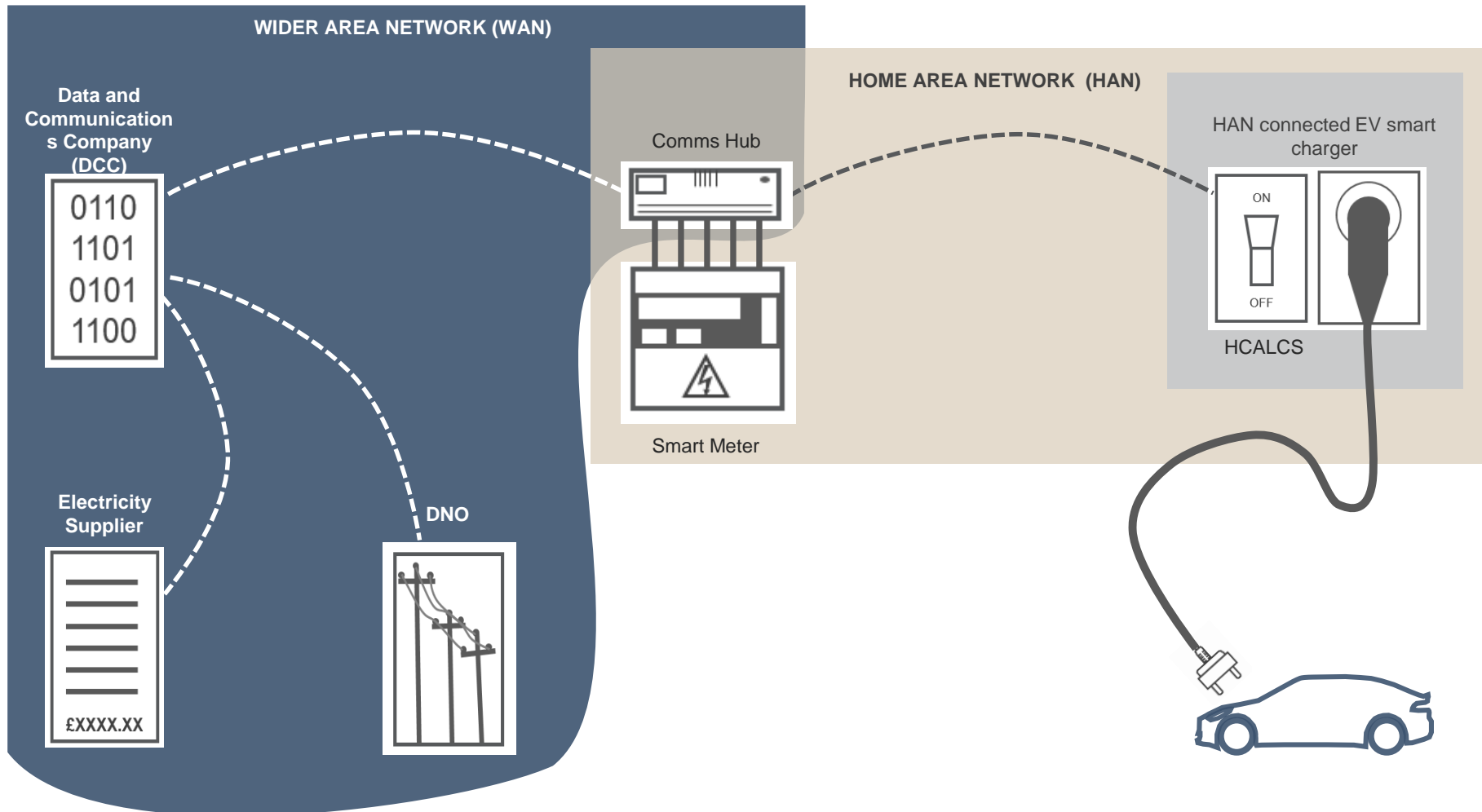
EV Smart Charging Using Smart Meter Communications Infrastructure



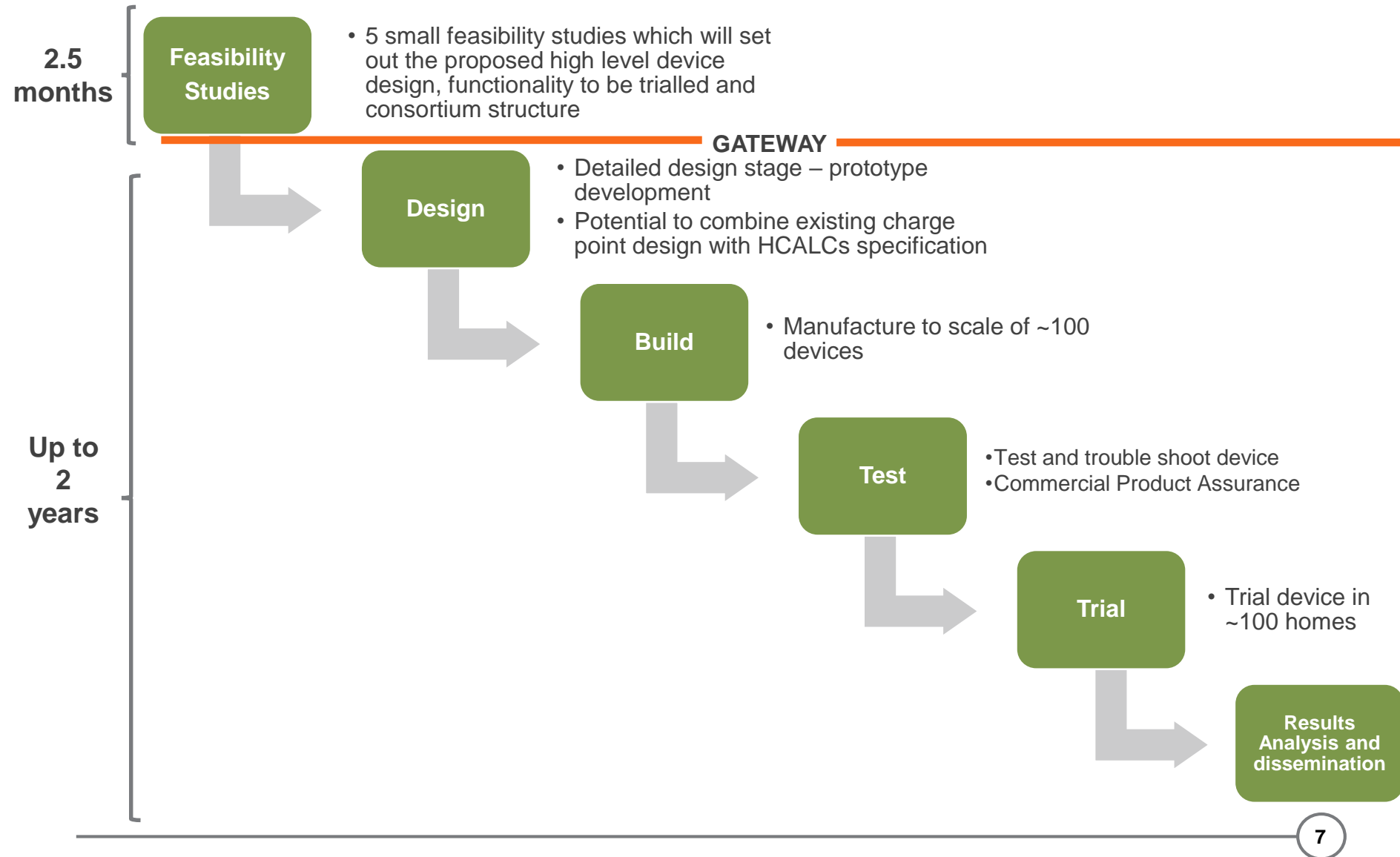
Device Functionality to be demonstrated at trial

Must have functionality	Potential functionality that could be included in the trial
The ability for an energy supplier to securely control load using a charger connected to the smart metering system	<p>The ability to remotely enable and disable frequency response or other modes of operation</p> <p>For example, enabling and disabling fast frequency response mode built into the charger</p>
The ability to remotely configure two levels of charging expressed as a percentage of the maximum charging capacity of the supply to the charger	To demonstrate the interoperability of the devices e.g. by switching the charge point operator across the two trials.
For example, 100% of full charging capacity and 75% of full charging capacity	Demonstrate 'concept' of a third party influencing or controlling load e.g. DNO
The ability to work with existing vehicle charging or other load specific protocols depending on the nature of the bid	
The ability to log and communicate the dates and times of: load control events; and enablement/ disablement of frequency response	
The ability to monitor and record energy consumption (either using smart meter data or another out of band method)	

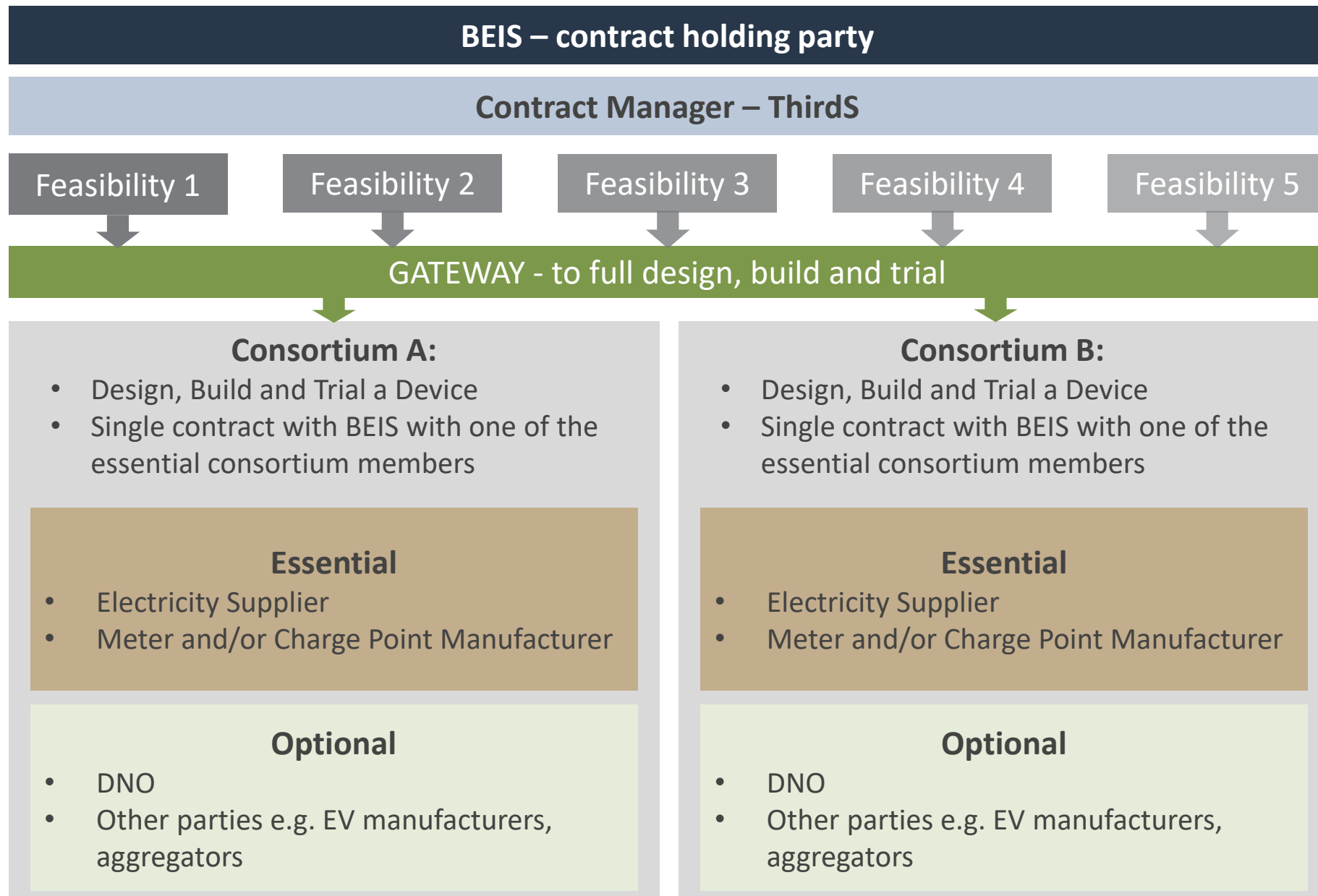
Model which the Smart Energy Code Modification 46 could result in



Innovation Project Scope and Stages



PROCUREMENT STRUCTURE



Timetable

Stage	Date
Contract Notice Published on contracts finder	Wednesday 10 October
Workshop on approach and content of innovation project	Morning Of Friday 2 November, BEIS
Invitation to Tender Published	Early November
Contracts for feasibility studies awarded	Early January 2019
Feasibility Projects Completed and assessed	March 2019
Two contracts for full project delivery awarded	April 2019
Project Completion	March 2021

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