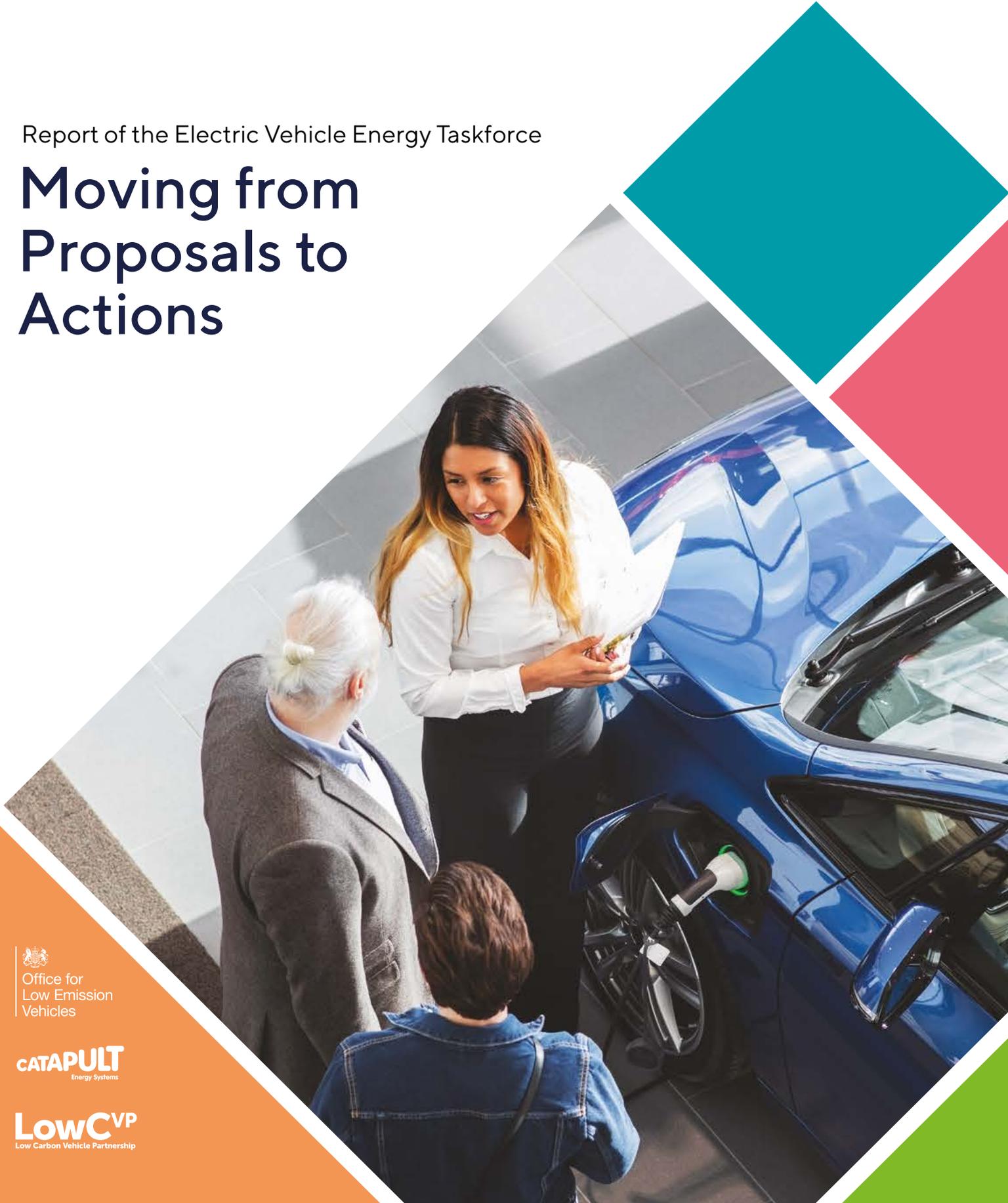




energy  
taskforce

Report of the Electric Vehicle Energy Taskforce

# Moving from Proposals to Actions



  
Office for  
Low Emission  
Vehicles

**CATAPULT**  
Energy Systems

**LowC<sup>VP</sup>**  
Low Carbon Vehicle Partnership



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# Introduction

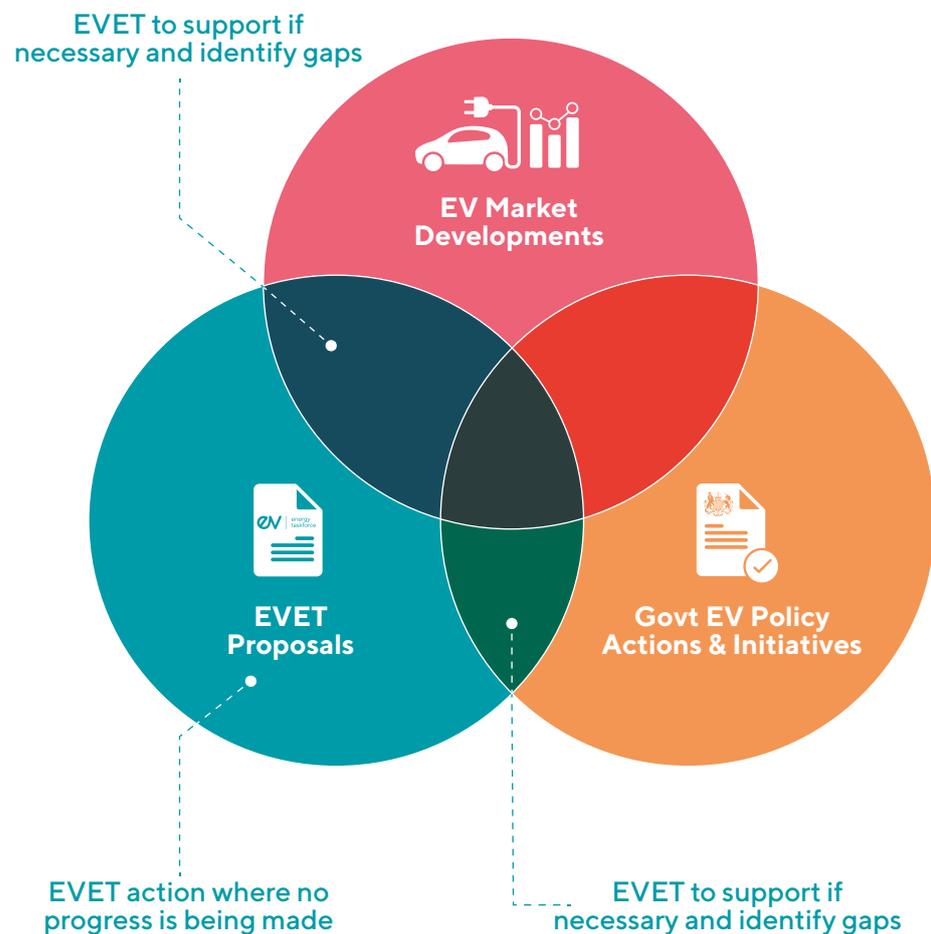
The **Electric Vehicle Energy Taskforce** was established in 2018 to bring together the auto and energy sectors to make proposals to Government and industry that ensure the GB energy system is able to accelerate the mass take-up of electric vehicles, while also delivering benefits to the electricity system.

The Electric Vehicle Energy Taskforce report 'Energising our electric vehicle transition' was published in January 2020. This made twenty-one far reaching proposals to remove actual or potential barriers and reinforce actual or potential enablers. It focused on key issues and identified when important questions must be resolved.

The Electric Vehicle Energy Taskforce, at the invitation of Government, moved into a second phase of activity during 2020 to ensure these proposals are put into action, and now provides a collaborative strategic review body to develop, action and monitor each proposal and communicate progress on their implementation.

The Electric Vehicle Energy Taskforce proposals were made in the knowledge that there are a significant number of projects, programmes and initiatives being undertaken or planned that will also contribute to realising GB's needed capability in the required timescales. It is also recognised that the electric vehicle charging landscape is a dynamic space, and so while the focus should be on delivery against the original twenty-one proposals, there is also a requirement to ensure they remain current and continue to respond to the critical issues covered within the broader scope of the Electric Vehicle Energy Taskforce. It is also critical that the Electric Vehicle Energy Taskforce avoids duplication in a fast-evolving environment, provides additionality to existing activity and identifies where to focus resources.

## Priority Actions



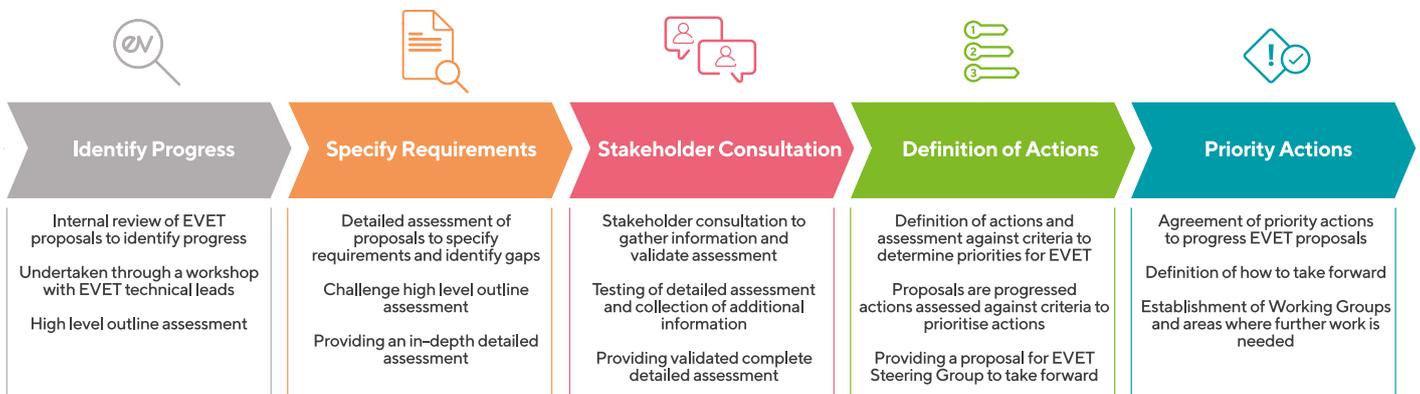
# Methodology overview

The findings of this report are the summary of the requirements capture and gap analysis work undertaken by Energy Systems Catapult to support the Electric Vehicle Energy Taskforce activities. The objective of the work was to identify the actions the Electric Vehicle Energy Taskforce would need to take to support the progression of the proposals made by the group earlier this year.

The steps followed were:

- Review of proposal status: Electric Vehicle Energy Taskforce undertook an assessment of all 21 proposals to understand their current status and any specific points of focus for the detailed assessment.
- Requirements capture: All 21 proposals were analysed to understand the desired outcomes and benefits; and how these can be delivered. Furthermore, the links to other proposals were identified.
- Stakeholder consultation: The captured requirements were validated with the Electric Vehicle Energy Taskforce stakeholder community, who also contributed information on ongoing work.
- Gap analysis: The requirements captured, along with a horizon scanning activity and the detailed Work Package reports, were used to identify current activities and assess the remaining gaps.
- Action identification and prioritisation: Actions have been identified based on the gap analysis and reflect what the Electric Vehicle Energy Taskforce should do to support the progression of the proposals. Actions were then prioritised based on Electric Vehicle Energy Taskforce’s objectives and urgency.

## Progressing from Proposals to Actions



# Summary of Actions

This report identifies 32 actions, which have been prioritised by urgency and importance in achieving the Electric Vehicle Energy Taskforce's objectives. These are summarised below:

Proposed Action	Relevant Proposal	Theme	Priority
Action 2a - EVET to identify the scope and body that will be responsible for the implementation of cyber security practices that go beyond the charge point and deliver the required digital infrastructure and appropriate certification schemes (and subsequently monitor)	Proposal 02 - Delivering a resilient charging infrastructure	Theme 1 - Delivering consumer benefits through interoperability	High
Action 5a - EVET to ensure all charging management methods, charging control architectures, all charge points suitable for "duration" charging events and communication are included in minimum technical requirements for smart charge points	Proposal 05 - Establishing minimum technical requirements for smart charge points	Theme 1 - Delivering consumer benefits through interoperability	High
Action 9b - EVET to support Government and Ofgem in defining scope of evidence gathering needed to inform policy decisions related to system flexibility	Proposal 09 - Making the electricity market work for EV drivers	Theme 2 - Rewarding consumers for charging smartly	High
Action 11a - EVET to ensure relevant activities (Modernising Energy Data Access, Energy Data Best Practice guide, Open Charge Point Protocol and industry activities) are coordinated and incorporate appropriate provisions around data handling and consumer protection (and subsequently monitor)	Proposal 11 - Achieving system optimisation through shared intelligence	Theme 3 - Utilising and protecting data for better consumer outcomes	High
Action 13a - EVET to support Ofgem and Government in defining the scope and approach of a Data Access and Privacy Framework (and subsequently monitor)	Proposal 13 - Giving consumers real control of their data	Theme 3 - Utilising and protecting data for better consumer outcomes	High
Action 18a - EVET to first develop scope of and then identify body that will be responsible for coordinating industry's consumer-facing information, such as establishing a common language, about smart charging products (including across existing activities such as Go Ultra Low, Citizens Advice on Smart EV Charging, the EVA scheme, Energy Saving Trust, BEAMA, the Road Transport Emissions Advice Group, Gemserv, RECC, Electrical Safety First)	Proposal 18 - Informing consumers about EVs and smart charging products and services	Theme 4 - Winning consumers' trust and confidence	High
Action 19a - EVET to first define the scope, structure and role of and then identify the body to provide coordination between transport and energy planning (as per requirements) (and subsequently monitor)	Proposal 19 - Forward planning and coordination of rollout of EV charging	Theme 5 - Developing and maintaining the charging infrastructure consumers need	High
Action 20b - EVET to ensure relevant emerging evidence relevant to efficient electricity network investment is fed into Ofgem and DNOs	Proposal 20 - Facilitating effective electricity network investment	Theme 5 - Developing and maintaining the charging infrastructure consumers need	High

Proposed Action	Relevant Proposal	Theme	Priority
Action 21a - EVET to support Government in specifying UK-wide strategy or Best Practice for public charge point and associated infrastructure planning (and subsequently monitor, specifically that it is updated regularly)	Proposal 21 - Delivering a high-quality public charging service for EV drivers	Theme 5 - Developing and maintaining the charging infrastructure consumers need	High
Action M2 - EVET to ensure activities taken forward are relying on evidence of consumer requirements founded on engagement with consumers and/or consumer groups	Proposals - 4, 6, 7, 10, 14, 16, 17		High
Action 1a - EVET to ensure relevant standards cover away from home charge points and all forms of interoperability	Proposal 01 - Leading the way on international standards	Theme 1 - Delivering consumer benefits through interoperability	Medium
Action 3a - EVET to develop scope of and identify body that will be responsible for industry roaming technology implementation and coordination (and subsequently monitor)	Proposal 03 - Making public charge points easy to use (Roaming -	Theme 1 - Delivering consumer benefits through interoperability	Medium
Action 4a - EVET to support Government and Ofgem in ensuring consumer requirements related to installation, usability and protocol development and changes in the market are covered in code governance (and subsequently monitor)	Proposal 04 - Delivering effective smart charging	Theme 1 - Delivering consumer benefits through interoperability	Medium
Action 5b - OLEV to report on consultation outcomes and next steps	Proposal 05 - Establishing minimum technical requirements for smart charge points	Theme 1 - Delivering consumer benefits through interoperability	Medium
Action 8a - EVET to define scope of activity and identify body to evaluate best practice ways of making smart charging the norm	Proposal 08 - Making smart charging the norm	Theme 2 - Rewarding consumers for charging smartly	Medium
Action 9a - Government and Ofgem to report to EVET on developments relevant to system flexibility (RIIO2, Electricity Market Reform, Flexible and responsive energy retail markets, Smart systems and flexibility plan)	Proposal 09 - Making the electricity market work for EV drivers	Theme 2 - Rewarding consumers for charging smartly	Medium
Action 12a - EVET to support Government in defining scope of charge point asset register and charge point strategy including ensuring this incorporates appropriate provisions around data that will be stored and types of charge points covered	Proposal 12 - Making public charge points easily accessible for EV drivers	Theme 3 - Utilising and protecting data for better consumer outcomes	Medium
Action 15a - EVET to support Government in defining the scope and approach of the independent advice and information service (and subsequently monitor)	Proposal 15 - Providing a trusted source of impartial help and information	Theme 4 - Winning consumers' trust and confidence	Medium
Action 16a - EVET to develop scope of and identify body that will be responsible for developing complaint handling standards (and subsequently monitor)	Proposal 16 - Ensuring market boundaries do not constrain effective complaint handling	Theme 4 - Winning consumers' trust and confidence	Medium
Action 17a - Government and/or Ofgem to report on development of review of consumer protections for EV drivers including planned updates to relevant legislation and EVET will provide support on defining consumer interactions with industry	Proposal 17 - Ensuring that consumer protections are fit for purpose	Theme 4 - Winning consumers' trust and confidence	Medium

Proposed Action	Relevant Proposal	Theme	Priority
Action 17b - Citizens Advice to report to EVET on status of relevant consumer protection schemes	Proposal 17 - Ensuring that consumer protections are fit for purpose	Theme 4 - Winning consumers' trust and confidence	Medium
Action 19b - Ofgem to report on RIIO-2 price control and EV strategy	Proposal 19 - Forward planning and coordination of rollout of EV charging	Theme 5 - Developing and maintaining the charging infrastructure consumers need	Medium
Action 20a - Ofgem to report on RIIO-2 price control and integration of Local Area Energy Plans and next steps	Proposal 20 - Facilitating effective electricity network investment	Theme 5 - Developing and maintaining the charging infrastructure consumers need	Medium
Action M3 - EVET to define the scope and identify the body to develop the common language framework to be used by all involved parties	Proposals - 14, 15, 18	Theme 4 - Winning consumers' trust and confidence	Medium
Action M1 - BSI to report on development of standards to EVET	Proposals - 1, 2, 4	Theme 1 - Delivering consumer benefits through interoperability	Medium
Action 4b - Government and Ofgem to report to EVET on market code governance frameworks	Proposal 04 - Delivering effective smart charging	Theme 1 - Delivering consumer benefits through interoperability	Low
Action 6a - EVET to define scope of analysis required to assess suitability and impact of measures related to emergency charge limitation	Proposal 06 - Ensuring the safety and security of the electricity system	Theme 1 - Delivering consumer benefits through interoperability	Low
Action 7a - EVET to develop scope of and identify body that will be responsible for developing common labelling standards (and subsequently monitor)	Proposal 07 - Introducing consumer-friendly product compatibility labelling	Theme 1 - Delivering consumer benefits through interoperability	Low
Action 10a - For smart meters and smart chargers, EVET to support Government and Ofgem with: defining implementation pathways, approaches to consumer engagement, and industry coordination (and subsequently monitor alongside action 10b)	Proposal 10 - Getting value from smart meters	Theme 2 - Rewarding consumers for charging smartly	Low
Action 10b - Government to report on Smart Meter Enabled Tariffs Comparison project, the Electric Vehicle Smart Charging consultation and the Electric vehicle smart charging: smart meter demonstration project	Proposal 10 - Getting value from smart meters	Theme 2 - Rewarding consumers for charging smartly	Low
Action 12b - OLEV to report to EVET on Open Public Chargepoint Data - Policy Alpha initiative	Proposal 12 - Making public charge points easily accessible for EV drivers	Theme 3 - Utilising and protecting data for better consumer outcomes	Low
Action 14a - EVET to develop brief for and identify body that will be responsible for the development of a campaign to promote smart charging and support the identified body in defining the scope of the campaign (including coordination with Smart Energy GB and Go Ultra Low) (and subsequently monitor)	Proposal 14 - Promoting the benefits of smart charging	Theme 4 - Winning consumers' trust and confidence	Low

# Proposal 1:

## Leading the way on international standards

---

By no later than 2025 industry must have reached convergence on a preferred set of standards that meet interoperability requirements across the EV charging infrastructure. Government must intervene if this is not achieved. Government and industry should, as a matter of urgency, review, define and propose international standards for communications, data and security protocols in order to meet this goal.

To support this work Government should establish a body with industry to coordinate the involvement of industry stakeholders.

# Proposal 1:

## Leading the way on international standards

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure accountability and engagement from stakeholders.
- Ensure the interests of consumers are considered.
- Ensure a robust and common language for discussing interoperability will underpin what is expected of stakeholders in future in clear concise way.
- Set a clear timeframe and definition of the target that will help focus industry around converging
- Avoid delays to improving the consumer experience should convergence be difficult to achieve without intervention.
- Offer consumer confidence in the products that are available.

### Requirements

To support the objectives of the Proposal the following requirements have been identified:

- Establish the structure of a representative working group that includes relevant industry and government stakeholders, who would carry out the periodic review of whether industry is converging on standards and coordinate the involvement of all industry stakeholders.
- Identify and define the gaps in current work.
- Use a systems engineering approach to identify all types of interoperability that are in scope and criteria for complete and appropriate 'standards'.
- Define milestones of review and a framework for understanding if progress is being made.
- Prepare staged options for Government in the event of reviews determining insufficient progress is being made, culminating in a standard selection process and legislative programme that could allow the mandating of a set of standards by 2025.
- Ensure that smart charge points adhere to standardisation of data language, to ensure cohesion across sector and interoperability.

### Background and gap analysis

Based on the work carried out it was identified that parts of the requirements are already covered by current work (e.g. the work led by BSI<sup>1</sup> as part of The Energy Smart Appliances programme). Further work will ensure that all aspects of interoperability and types of charge points (e.g. public charge points) are covered by the standards being developed and that industry stakeholders are actively involved in the development work.

### Links to other proposals

The proposal is linked to proposals 2, 4, 11 and 13.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to ensure relevant standards cover away from home charge points and all forms of interoperability.

<sup>1</sup> For all Proposals an indicative example of relevant work is given here, for a full list of relevant sources please refer to the "Requirements Capture - Proposals 1-21.xlsx" file.

# Proposal 2:

## Delivering a resilient charging infrastructure

---

Government and industry must ensure system resilience by design. This includes ensuring that CPOs are aware of their responsibilities for ensuring the security of their systems. Government with industry should agree a common standards base for cyber security but not mandate a single solution, however, Government should provide support for the preferred set of standards, including device certification.

# Proposal 2:

## Delivering a resilient charging infrastructure

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure accountability and engagement from stakeholders.
- Set clearly defined roles and responsibilities at an early stage.
- Ensure enhanced device security.
- Ensure effective data handling and information systems.
- Result in the specification of the digital infrastructure required for maintaining communications and resilience of data to account for any dropouts in data transmission.

### Requirements

To support the objectives of the Proposal, the following requirements have been identified:

- Define the responsibilities CPOs have while ensuring these do not preclude innovation in the way they are fulfilled.
- Propose the structure of a representative working group that includes relevant industry and government stakeholders, who would review and agree the standards and coordinate the involvement of all industry stakeholders.
- Define the legal and regulatory basis for CPO obligations regarding cyber security and proposing a workable compliance/enforcement scheme.
- Determine the need for and scope of a certification scheme for asserting that charge point designs and operators (including back office functions) are compliant with a preferred security standard.
- Define the digital infrastructure which supports the communication between the technologies.

### Background and gap analysis

Based on current work (e.g. Government's Electric Vehicle Smart Charging Consultation) some of the proposal requirements are being addressed. Identified gaps remain around certification schemes, implementation of cyber security practices and defining the digital infrastructure that will be needed. Finally fulfil proposal requirements any activities in this space should be coordinated and agreed between industry stakeholders.

### Links to other proposals

The proposal is linked to proposals 9, 11, 12 and 19.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to identify body that will be responsible for the implementation of cyber security practices that go beyond the charge point and deliver the required digital infrastructure and appropriate certification schemes (and subsequently monitor).

# Proposal 3:

## Making public charge points easy to use

---

Industry should enable roaming services to deliver a seamless EV charging experience between public chargepoints by end of 2021.

# Proposal 3:

## Making public charge points easy to use

### Benefits

To deliver the desired benefits, the requirements must:

- Put the onus on industry to deliver a seamless roaming experience. Relevant industry parties are convened and involved in agreeing what that service looks like and that it will be delivered in the proposed timeframe.
- Requirements for new charge points and provisions on how to migrate legacy CPs are tested against use cases to understand their value.
- Remove roadblocks to achieving a seamless charging experience.
- Seamless experience for EV drivers.
- Good spread of contactless payment through the UK charging infrastructure.
- The roaming solution can be used successfully, efficiently, with high satisfaction and high ease of learning by EV users.

### Requirements

To support the objectives of the Proposal, the following steps have been identified:

- Capture the consumer user groups as well as industry stakeholders who will need to "buy in" to the system.
- Identification of a body to coordinate the effort to align industry.
- Clear definition of the goals and minimum requirements of seamless roaming charge points.
- Industry stakeholders should raise any concerns or roadblocks to achieving the agreed goals.
- Charge point suppliers should agree to include contactless card payment functionality.
- Agreement from bodies responsible for public charging sites to only install charge points which meet the roaming criteria.
- Provide evidence that the proposed solution can be used successfully and efficiently by EV users.

### Background and gap analysis

Even though initiatives by industry (e.g. Digital Charging Solutions, ZapPay, Octopus Energy, emergence of roaming hubs like Hubeject and Gireve) are already underway to meet the objectives of the Proposal, further work is required for all charge points to be covered by roaming agreements. Some gaps remain in the areas of technology implementation and coordination, such as data and communication and development and testing of solutions, and the mechanisms for reaching industry agreement and coordination and taking the initiatives forward.

### Links to other proposals

The proposal is also linked to Proposals 11, 12, 19 and 21.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to develop scope of and identify body that will be responsible for industry roaming technology implementation and coordination (and subsequently monitor).

# Proposal 4:

## Delivering effective smart charging

---

Government and Ofgem, through the electricity industry technical and market code governance frameworks, should ensure overall operational coordination of industry parties seeking to exploit EV flexibility through smart charging technologies and electricity market products by 2021.

Clear visibility as to which market products are in play must be evident to both industry and users at any time, as well as which transactions have occurred over a settlement period. It must also ensure that the operation of smart charging does not present a risk to the stability of the electricity system.

# Proposal 4:

## Delivering effective smart charging

### Benefits

To deliver the desired benefits, the requirements must:

- Give a common and comprehensive view of markets for EV participation.
- Ensure final outcomes are accepted by stakeholders and validated by consumers.
- Establish under what circumstances such events may take place and ensure they are properly considered and encompassed in the final governance arrangements.
- Identify where interventions and new methods would need to be developed.
- Ensure that hardware or software required to facilitate efficient and effective smart charging is in place where necessary.
- Ensure that the ways in which the proposed governance arrangements that affect users in practice operate effectively, efficiently, and with high user satisfaction.
- Ensures that the governance arrangements are known and followed and meet the requirements of the defined use cases so that impacted parties may act in accordance with them.

### Requirements

To support the objectives of the Proposal the following requirements have been identified:

- Mapping of existing and future markets where EV flexibility can and could participate.
- Mapping of all potential stakeholders in the governance frameworks, to include customers of smart charging services and potential players that will wish to exploit flexibility offered by smart charging.
- Engagement with consumer and organisational EV users.
- Development of use cases to capture the circumstances under which entities will want control over EV charging.
- Governance gap analysis.
- Protocol development, specifically developing the process that will be used to manage control requests.
- Installation of hardware and software solutions
- Make governance recommendations.

### Background and gap analysis

Existing initiatives by BSI and Government are working towards meeting the objectives of the Proposal. Further work could be done on engaging with consumer groups and understanding consumer requirements, including:

- Installation and usability testing of hardware and software solutions.
- Protocol development, specifically developing the process that will be used to manage control requests.

### Links to other proposals

The proposal is linked to proposals 5, 8, 9 and 11 and 17.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- EVET to support Government and Ofgem in ensuring consumer requirements related to installation, usability and protocol development and changes in the market are covered in code governance (and subsequently monitor).
- Government and Ofgem to report to EVET on market code governance frameworks.

# Proposal 5:

## Establishing minimum technical requirements for smart charge points

---

Industry should agree to extending the minimum technical requirements for smart chargers set out by OLEV to facilitate the management of electricity network capacity and energy availability (based on the details set out in the Work Package Three report). These requirements should be introduced in line with the powers set out in the Automated and Electric Vehicles Act by 2021.

# Proposal 5:

## Establishing minimum technical requirements for smart charge points

### Benefits

To deliver the desired benefits, the requirements must:

- Define the boundaries and produce a clear understanding of when the final requirements will be applicable.
- Ensure correct inputs have been collected and the outputs are relevant and useful to all involved parties.
- Ensure assumptions about the functionality that EV users require are valid.
- Define a comprehensive set of requirements.
- Facilitate the ability of smart charging to respond to network and generation constraints.

### Requirements

To meet the objectives of the Proposal the following requirements have been identified:

- Define the scope by assessing the level of requirements for different locations, commonalities between the different charge point locations, differences and where bespoke solutions should be implemented under a wide range of charging control architectures.
- Stakeholder mapping and engagement.
- Engagement with EV users and organisations that use EVs.
- Provide evidence-based recommendations for updating and enhancing legislation on charge points/smart charging.
- Develop, test and validate charge point technical requirements when installed.
- Produce a list of requirements covering the functionalities remaining when support is withdrawn.
- Propose the methods and best practices followed during installation, servicing and maintenance.
- Outline communications and operational structure requirements to facilitate network and generation capacity related signalling.

### Background and gap analysis

The outputs of the Electric Vehicle Smart Charging Consultation and the BSI led work will form the basis for meeting the proposal requirements. Further work is required, and it should focus on:

- The definition of use cases and development of requirements for a wider range of charging control architectures and non-private charge points
- Agreement across industry
- User testing and validation of solutions at installation and when support is withdrawn
- Outline communications and operational structure requirements to facilitate network and generation capacity related signalling
- Propose the methods and best practices based on the outputs of the previous steps

### Links to other proposals

The proposal is linked to proposals 1, 2, 4, 11.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- EVET to ensure all charging management methods, charging control architectures, all charge points suitable for "duration" charging events and communication are included in minimum technical requirements for smart charge points.
- OLEV to report on consultation outcomes and next steps.

# Proposal 6:

## Ensuring the safety and security of the electricity system

---

If permitted, network and system operators must work with Ofgem, industry and consumer representatives to develop governance arrangements for the use of emergency charge limitation by a network company. Emergency charge limitation should only be used as a last resort to maintain the safety and security of the electricity system.

# Proposal 6:

## Ensuring the safety and security of the electricity system

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure the outcomes will maximise value and minimise negative impacts to the network.
- Define the basis for emergency charge limitation, ensuring, if required, it is only used as a last resort and competitive markets are the primary mechanism for managing charging.
- Ensure proposed governance arrangements consider consumer and organisational EV user perspectives and that vulnerable EV users are protected.
- Support Ofgem to develop the process when deciding such events are permissible.
- Ensure transparency and effective communication to consumers.
- Fully map the consumer rights and potential actions they may take.
- Ensure buy in and agreement from industry.

### Requirements

The proposed Requirements for this Proposal are outlined below:

- Understand the potential value, alternative approaches and implications, and effect on current operations. A modelling approach is proposed to be followed.
- Define emergency conditions where it is acceptable.
- Define consequences of curtailment for the ESO/DSO and any compensation for consumers.
- Engage with consumer and organisational EV users. Perspectives should be sought on issues such as compensation for charge limitation events, ability to override charge limitation instructions to the charge point, and protection of vulnerable users from harm.
- Technical requirements: how emergency charge is enacted, actions to be taken post event, charge point requirements and how they can be identified by the network.
- Determine, in consultation with network companies, government, regulators and consumer groups, if consumers should be able to override an emergency signal.

### Background and gap analysis

Existing literature and project outputs (Citizens Advice work on consumer views around smart charging) can be used as the basis when defining use cases and consumer views but they don't fully meet the proposal requirements. Other initiatives such as the Smart Grids Task Force and the work by the Distribution Connection and Use of System Agreement (DCUSA) can be used as the starting point for developing the approaches that will be taken forward. Further work on modelling of use cases and understanding the value would still be needed as well as consumer engagement.

### Links to other proposals

The proposal is linked to proposals 9, 11 and 19.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to define scope of analysis required to assess suitability and impact of measures related to emergency charge limitation.

# Proposal 7:

## Introducing consumer-friendly product compatibility labelling

---

By 2021 industry must develop common labelling standards for EVSE, enforced by Government if necessary, so that consumers are aware of the forms of interoperability available from clear, comprehensible EVSE package labelling and other product material. There are a number of types of interoperability and it is proposed that generally, offering these is left as an option for EVSE providers.

# Proposal 7:

## Introducing consumer-friendly product compatibility labelling

### Benefits

To deliver the desired benefits, the requirements must:

- Define what products the standards will apply to.
- Ensure that the interests of stakeholders are accounted for, and they also contribute to development of the standards.
- Ensure labelling standards meet consumer needs.

### Requirements

The requirements captured for Proposal 7 are:

- Clarify the scope of the standards, and what additional material will be considered in scope.
- Stakeholder engagement to provide inputs, co-develop and agree on service requirements.
- Co-development with EV users.
- Evaluate prototypes and finalise labelling standards.
- Publish standards.

### Background and gap analysis

The Alternative Fuels Infrastructure Directive and the Alternative Fuels Infrastructure Regulations will form the basis for meeting the requirements of this proposal along work led by LowCVP on EV labelling. Further work might focus on:

- Consider additional material that should be included
- Co-development with stakeholders
- Co-development with consumers.
- Testing and delivery of common labelling standards

### Links to other proposals

The proposal is linked to proposals 4, 5, 9 and 18.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to develop scope of and identify body that will be responsible for developing common labelling standards (and subsequently monitor).

# Proposal 8:

## Making smart charging the norm

---

Ensure industry is deploying consumer focussed measures (including nudge measures such as default options), to make smart charging the norm for private (and relevant other) charging by 2021.

# Proposal 8:

## Making smart charging the norm

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure that stakeholder interests are considered in deciding on the best approaches to making smart charging the norm for private chargers.
- Ensure that user perspectives are considered.
- Identify the most promising approaches to influencing user behaviour towards adopting smart charging.
- Demonstrate that selected options are effective at causing adoption of smart charging.
- Establish how best to ensure that smart charging remains the norm when a charge point is isolated from external communications.
- Ensure that learnings from assessments of the effectiveness of the approaches are implemented.
- Begin the process of making smart charging the norm ahead of implementation of the approaches developed.

### Requirements

The requirements captured to meet proposal objectives are:

- Stakeholder mapping and engagement.
- Consumer engagement.
- Identify effective behavioural means to ensure that smart charging becomes the norm for private EV charging.
- Understand the potential value of promising options in terms of how far they can contribute to making smart charging the norm for private EV charging.
- If it is decided for charge points to charge off-peak by default, the work should aim to understand how the problem of creating a new demand peak or a rapid change of demand at a time when multiple charge points begin charging together could be prevented.
- Consider how best to ensure that smart charging remains the norm when a charge point is cut off from receiving or transmitting external communications.
- Implement and validate the approach.
- Establish a potential change process.
- Consider introducing a temporary approach which will be used while the work above is being completed.

### Background and gap analysis

Outputs of previous projects (such as the Consumers, Vehicles and Energy Integration (CVEI) project and the Electric Nation project) provide the background on consumer behaviour and choices around smart charging. Further, learnings from other sectors like the pension automatic enrolment scheme and literature on consumer behaviour and how it affects policy changes can be used when working towards the proposal requirements.

Further steps would include:

- Understanding the potential value of promising options in terms of how far they can contribute to making smart charging the norm for private EV charging.
- The implementation of options that will encourage smart charging to be the norm and that will have net-positive impacts.
- Procedures and protocols covering implementation, change processes and the adoption of temporary approaches.

### Links to other proposals

The proposal is linked to proposals 4, 9, 14, 18 and 19.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to define scope of activity and identify body to evaluate best practice ways of making smart charging the norm.

# Proposal 9:

## Making the electricity market work for EV drivers

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The Government and Ofgem must ensure that existing markets for flexibility are made accessible for EV drivers. They must also support the development of new co-ordinated and accessible markets for flexibility to compete with traditional networks and wider whole electricity system solutions by 2023 at the latest.

Markets and price signals should maximise the opportunities for consumers to utilise their flexible resources, including EVs, and sufficiently reward them for offering demand flexibility services that support optimised network operations and investment, emission reductions and whole electricity system efficiency.

# Proposal 9:

## Making the electricity market work for EV drivers

### Benefits

To deliver the desired benefits, the requirements must:

- Look at this issue through the lens of EV users, automotive companies and independent aggregators as new entrants can enable innovation.
- Identify how more flexibility value could be revealed, the priorities for EVs and consideration for the timelines of these different reforms. It also can add value by including the perspective of new entrants (e.g. the automotive industry).
- Fair and transparent provisions are in place that give consumers flexibility to opt out of providing flexibility. Trust is established between EV users/owners and flexibility providers regarding fair tariffs/contracts/incentives along with appropriate use/care of battery when providing grid services.

### Requirements

The requirements to meet the objectives of the Proposal are summarised below:

- Map stakeholders of greatest relevance to the proposals – independent aggregators and new entrants, particularly automotive companies entering the energy market
- Engage with EV user groups to seek their perspective on engaging with flexibility markets
- Provide evidence-based recommendations for updating markets and designing new markets to ensure they collectively produce price signals that reflect the value of flexibility
- Provide evidence-based recommendations for ensuring EVs can access/capture the value they can provide and reforms to the retail markets
- Understand and propose the methods of how the flexibility market and its ongoing development will integrate with investment mechanisms
- Align the recommendations and changes to the market with outputs from proposals 11, 19 and 20

### Background and gap analysis

As well as initiatives from Government, and Ofgem (RIIO2, Electricity Market Reform, Flexible and responsive energy retail markets, Smart systems and flexibility plan) a range of projects and reports (CVEI, Electric Nation, V2G projects, Delivering on the Role of Flexibility report by Energy UK et. al.) will further support decision making and provide the evidence on how the business case for flexibility can be improved and how to facilitate new entrants to the market and ensure those markets remain competitive. If further gaps around EVs are identified, additional work could look at providing the evidence for policy decisions. Furthermore, a body could be identified to gather and consolidate the generated data. Finally, activities between proposals could be monitored to ensure coordination.

### Links to other proposals

Linked to proposals 8, 11, 13, 14, 19 and 20.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- Government and Ofgem to report to EVET on developments relevant to system flexibility (RIIO2, Electricity Market Reform, Flexible and responsive energy retail markets, Smart systems and flexibility plan).
- EVET to support Government and Ofgem in defining scope of evidence gathering needed to inform policy decisions related to system flexibility

# Proposal 10:

## Getting value from smart meters

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The Government and Ofgem should ensure on an ongoing basis from 2020, possibly through a process triggered by a charge point installation, that the number of consumers who have a smart meter installed before or alongside the installation of a charge point is maximised, and that consumers have been properly informed of the potential benefits.

# Proposal 10:

## Getting value from smart meters

### Benefits

To deliver the desired benefits, the requirements must:

- Help understand what the technical requirements are to allow consumers to benefit from both a smart meter and a charge point. Provide the evidence and information on how else consumers can access the same benefits.
- Ensure that a range of options is considered beyond provision of information.
- Ensure that EV user perspectives are considered.
- Develop a process that will ensure consumers who install charge points also install smart meters. The processes can be updated as technology changes and new products are developed.
- Ensure that the strategy takes into account cases where installation of a smart meter would confer no advantage (or disadvantage) to users.
- Ensure the effectiveness of the proposed approach.

### Requirements

The requirements identified for Proposal 10 are:

- Engage with industry and energy suppliers to establish and agree on the technical requirements and communication between charge point and smart meter.
- Identify effective ways to encourage consumer EV users' uptake of smart meters before or alongside charge point installation.
- Consumer acceptance, engagement and communication: Consumer engagement should take place to identify the benefits of smart meter installation that are most compelling for consumer EV users and the most compelling ways of expressing these in communications with consumers.
- Identify pathways to implementation.
- Consumer protection: what are the cases where this wouldn't apply. Set a body that would investigate consumer complaints.
- Consumer testing: The efficacy of proposed approaches in terms of the increase in uptake of smart meters that it leads to should be demonstrated through a consumer trial.

### Background and gap analysis

Activities such as the Smart Meter Enabled Tariffs Comparison project, the Electric Vehicle Smart Charging consultation and the Electric vehicle smart charging: smart meter demonstration project will partly cover proposal requirements. The process and the implementation pathways have not yet been defined. Further work is needed on consumer engagement and acceptance, and the proposed approaches would need to be validated with industry stakeholders.

### Links to other proposals

The proposal is linked to proposals 8, 9 and 15.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- For smart meters and smart chargers, EVET to support Government and Ofgem with: defining implementation pathways, approaches to consumer engagement, and industry coordination (and subsequently monitor alongside below).
- Government to report on Smart Meter Enabled Tariffs Comparison project, the Electric Vehicle Smart Charging consultation and the Electric vehicle smart charging: smart meter demonstration project.

# Proposal 11:

## Achieving system optimisation through shared intelligence

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Industry players should cooperate to develop comprehensive data sharing arrangements (including standardisation where appropriate) and open and interoperable exchange principles and mechanisms, in conjunction and alignment with implementation of the Energy Data Taskforce recommendations.

They should also advise Government and relevant regulators if industry licences or codes need changing or if legislation is required to allow such sharing of data by 2021. Government and regulators to review progress and to act if necessary.

# Proposal 11:

## Achieving system optimisation through shared intelligence

### Benefits

To deliver the desired benefits, the requirements must:

- Deliver data standardisation that will allow a wide variety of stakeholders to interpret, benefit from and utilise data findings. This will increase innovation, competition and make it easier for others to come into the sector.
- Acknowledge the distinctive ways data will need to be treated.
- Ensure consumer privacy and security
- Deliver a digital system map to increase the visibility of energy system infrastructure and assets, and enable the optimisation of investment.
- Enable new datasets (e.g. vehicle data) become available to deliver effective smart charging and appropriate infrastructure investment.

### Requirements

The requirements to meet the objectives of the Proposal are summarised below:

- Identify stakeholders who will be responsible, using, processing and holding the data.
- Design and develop ways in which access to the data is provided.
- Define the process that will be followed to classify datasets and treated for different use cases.
- Utilisation of energy data best practice. The data custodians should have a strategy in place for making their data discoverable by a wide range of stakeholders.
- Identify mechanisms in which the data can be managed effectively to ensure consumer privacy and security.
- Develop an interoperable digital system map of energy data for network and asset data to be made available in a machine-readable format.
- Define the process for handling new forms of data that become available.
- Define the process to ensure cyber-security.
- Understand and align with international standards.

### Background and gap analysis

Several relevant activities (Modernising Energy Data Access, Energy Data Best Practice guide, Open Charge Point Protocol) have been identified that will form the framework for ensuring proposal outcomes are aligned with wider activities (e.g. Energy Data Taskforce). Some gaps still exist around consumer protection, and in developing new processes for handling data within the remit of this proposal.

### Links to other proposals

Proposal 11 will form the basis for several proposals (1, 2, 4, 5, 6, 9, 13, 19 and 20).

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to ensure relevant activities (Modernising Energy Data Access, Energy Data Best Practice guide, Open Charge Point Protocol and industry activities) are coordinated and incorporate appropriate provisions around data handling and consumer protection (and subsequently monitor).

# Proposal 12:

## Making public charge points easily accessible for EV drivers

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To facilitate the availability of open and accurate charge point data, public charge point operators, owners and market actors must make data on public charge point location, type, status, capacity, price and availability consistent and openly available for EV drivers by 2021.

A single asset register, aligned with the Energy Data Taskforce Asset Registration Strategy, must include all fixed charge points (i.e. private, public, workplace, etc) and should include all relevant data to ensure optimum planning and operation of the electricity networks.

# Proposal 12:

## Making public charge points easily accessible for EV drivers

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure that the correct data are obtained and make sure that the output of the work is relevant to the required individuals.
- Ensure that consistent, easily accessible, accurate and openly available data on public charge points and their location, availability, type, status, capacity and price are delivered to c
- Make it easier to create a large-scale, visible network that uses a range of differing charging stations, due to the requirement for only one operating system.
- Ensure that there is clarity around how data is collected.
- Ensure consistency across charge point data sets.
- Ensure consistency across charge point operators data collection and makes the data collected and relevant and useful as possible.
- Add efficiencies in the evaluation of placing new charge points.
- Create new opportunities in innovation, operational excellence and transparency.
- Ensure data is shared across all parties involved.

### Requirements

The requirements captured to meet the objectives set by Proposal 12 are:

- Stakeholder engagement and mapping to identify who would be accessing the datasets.
- Utilise the national charge point registry for asset registration. Charge point operators should be incentivised to register their details to make a more seamless experience for customers (for both new and existing charge points).
- Use the open charge point protocol in new and pre-existing charge points.
- The list of data to be captured and made open in the registry must be created to ensure that charge points registered can capture and provide the data deemed required.
- Establish a data refresh frequency protocol.
- Development of a network of visible, public charging points.
- Relevant datasets should be Presumed Open and subject to the Triage Process in keeping with the principles espoused by the Energy Data Taskforce.
- Sharing information and benefit through interoperability.

### Background and gap analysis

Current activities, such as Government's Open Public Chargepoint Data – Policy Alpha and UKPN's Smart Charging Architecture Roadmap, are moving towards meeting the objectives of the Proposal. Based on the findings of this work, points that would also need to be addressed are the data that will be stored, the types of charge points that are included in regulations and the framework that will host the data. This would include:

- Ensuring it is not compulsory to join a specific scheme to use a public charge point
- Only appropriate data is captured and all charge points are covered

### Links to other proposals

The proposal is linked to proposals 3, 19 and 21.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- EVET to support Government in defining scope of charge point asset register and charge point strategy including ensuring this incorporates appropriate provisions around data that will be stored, and types of charge points covered.
- OLEV to report to EVET on Open Public Chargepoint Data – Policy Alpha initiative.

# Proposal 13:

## Giving consumers real control of their data

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Industry players should cooperate to develop comprehensive data sharing arrangements (including standardisation where appropriate) and open and interoperable exchange principles and mechanisms, in conjunction and alignment with implementation of the Energy Data Taskforce recommendations.

They should also advise Government and relevant regulators if industry licences or codes need changing or if legislation is required to allow such sharing of data by 2021. Government and regulators to review progress and to act if necessary.

# Proposal 13:

## Giving consumers real control of their data

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure the correct inputs are gathered.
- Ensure that use cases are considered and will inform decisions made around consumer rights.
- Map of responsible parties and comply with legislation.
- Ensure that consumer rights and actions are defined.
- Improve access to data.
- Set clear boundaries around where consumer protections apply.
- Provide assurance to consumers and transparency around data storage.
- Ensure alignment with relevant jurisdictions and other initiatives.

### Requirements

To support the objectives of the proposal the following requirements have been identified:

- Stakeholder mapping and engagement.
- Develop and document data use cases to be used when building the Data Access and Privacy Framework for the EV sector.
- Ensure GDPR is followed.
- Define rights and controls consumers have over their data.
- Modernising energy data access by employing state of the art data science and design and develop ways in which a user can search for and have access to relevant data.
- Explicitly identify different data ownerships.
- Framework to outline who can access data and for what reasons clearly so that EV owners have reassurance and clarity.
- Establish a process for removal of historic data.
- Develop a global view strategy.
- Ensure learnings from relevant sources have been incorporated into the creation of the framework.

### Background and gap analysis

Current work (Modernising Energy Data Access, GDPR, Electric Vehicle Smart Charging Consultation, Elexon White Paper on consumer settlement solutions, the European Data Protection Board's recommendations on data sharing) provide the background that can be used when developing the framework. All of the proposal requirements will still need to be addressed by future work.

### Links to other proposals

The proposal is linked to proposals 17 and 18.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to support Ofgem and Government in defining the scope and approach of a Data Access and Privacy Framework (and subsequently monitor).

# Proposal 14:

## Promoting the benefits of smart charging

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The Taskforce proposes that an ongoing and proactive campaign be undertaken to promote the benefits of smart charging to the public. An existing independent organisation could be given this task, or a new consumer-facing body established during 2022.

# Proposal 14:

## Promoting the benefits of smart charging

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure that campaign reflects the benefits to users that stakeholders consider important and relevant.
- Prevent the campaign's effectiveness being undermined by inconsistency of messaging between the campaign and stakeholders' own marketing and other public messaging.
- Ensure that the campaign has maximum chance of success in influencing its target audience, having taken their perspectives into account.
- Ensure value for money, creativity of approach, and competency of delivery, drawing on existing expertise in the marketing sector.
- Ensure the most cost-effective design of the campaign.
- Ensure that campaign is effective and that it is tested in advance before the costs of full implementation are incurred.
- Ensure ongoing cost-effectiveness.

### Requirements

The following requirements were captured for Proposal 14:

- Identify the body that will be responsible for the task and agree on aspects of smart charging that will be included in the campaign.
- Stakeholder mapping and engagement.
- Map consumer and organisational users of EVs and seek their present perspectives on EVs and on smart charging.
- Identify and appoint a specialist marketing agency to run the campaign.
- Conduct a market segmentation analysis.
- Design the campaign and test with target audience.
- Deliver the initial campaign and measure its effectiveness.
- Adapt subsequent campaign activities based on learnings from initial campaign.
- Deliver subsequent campaign elements and incorporate learnings.
- Periodically review and update the campaign.

### Background and gap analysis

Even though there is activity in this space from Smart Energy GB and Go Ultra Low, a delivery body has not been identified yet. The scope and design of the campaign along with agreement from stakeholders have not yet been addressed. Some relevant literature sources could provide the background and initial understanding of consumer requirements.

Some work is ongoing though this is not covering all aspects and is not coordinated:

- Conduct a market segmentation analysis.
- Design the campaign and test with target audience.
- Deliver the initial campaign and measure its effectiveness.
- Adapt subsequent campaign activities based on learnings from initial campaign.
- Deliver subsequent campaign elements and incorporate learnings.

### Links to other proposals

The proposal is linked to proposals 8,9, 15 and 18.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to identify body that will be responsible for the development of a campaign to promote smart charging and support the identified body in defining the scope of the campaign (including coordination with Smart Energy GB and Go Ultra Low) (and subsequently monitor).

# Proposal 15:

## Providing a trusted source of impartial help and information

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The Taskforce proposes that Government fund the provision of an independent, tailored advice and information service on smart charging and EVs, to be established by the end of 2022.

# Proposal 15:

## Providing a trusted source of impartial help and information

### Benefits

The described requirements will ensure that:

- The areas of expertise that will need to be covered by the service are highlighted.
- Relevant advice and information is delivered to EV users.
- Information is provided by relevant and appropriate parties.
- Previous learnings are considered, prior work is used as the basis for an industry wide service and consistency with other campaigns is ensured.
- The service is easy to use with clearly identified responsible bodies for maintaining and servicing the platform.
- Sources of information are consistent.
- The service remains relevant, continues to deliver high levels of user satisfaction, and reaches all groups of EV users.
- Service remains relevant and effective and meets EV user requirements.

### Requirements

To support the proposal's objectives the following requirements have been identified:

- Map the consumer interactions with the industry and define the areas of EV and smart charging space that will be covered by the final service.
- Map consumer and organisational users of EVs and seek their perspectives on what information they need on EVs and on smart charging, how this information should be accessed, and how it should be expressed.
- Map stakeholders from the industry who are 'knowledge holders' to provide accurate information and support.
- Explore existing services for both similar and different areas of industry.
- Propose how this service will be established, what communication channels will be used and funded.
- Assess how this service may interact with other information campaigns taking place for EVs.
- A review process should be set up to test the effectiveness of the service.
- Design and test the information content to be tailored to the characteristics of the delivery channel.
- Standardised and consistent language.
- Ensure that the information provided is regularly updated so that it remains relevant to user needs.

### Background and gap analysis

Examples of recent work, such as outputs of the CVEI project, work by Citizen's Advice on consumer requirements and work on how behavioural science can be used in developing new policies (e.g. the "Behaviour Change and Energy Use" report by the Behavioural Insights Team) can be used as the basis for this work. Further work to develop the scope of the service and enhance the information included in current channels will be necessary to meet the proposal requirements outlined above. It is also vital that a common language is established and agreed between industry stakeholders.

Specific areas not covered by ongoing work include:

- Propose how this service will be established, what communication channels will be used and funded.
- Assess how this service may interact with other information campaigns taking place for EVs.
- A review process should be set up to test the effectiveness of the service.
- Design and test the information content to be tailored to the characteristics of the delivery channel.
- Standardised and consistent language.

### Links to other proposals

The proposal is linked to proposals 8, 14 and 18

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to support Government in defining the scope and approach of the independent advice and information service (and subsequently monitor).

# Proposal 16:

## Ensuring that market boundaries do not constrain effective complaint handling

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Industry must develop and adopt common, principle-based complaint handling standards by the end of 2021 to ensure that consumers are transferred seamlessly (between market boundaries if necessary) to resolve their problem(s), regardless of who they have initial contact with.

# Proposal 16:

## Ensuring that market boundaries do not constrain effective complaint handling

### Benefits

The requirements captured will ensure that:

- Relevant market participants are engaged and leading the design of the process.
- Provide a clear set of recommendations based on evidence on how legislation should be updated.
- The process and standards developed are relevant to EV user requirements.
- The Process is effective and efficient.
- The Process is updated and evolves as consumer requirements change and new participants enter the market.

### Requirements

To support the objectives of the Proposal the following requirements have been identified:

- Identify all the service providers involved and who are expected to implement the complaint handling standards.
- Engage with relevant stakeholders that will actively participate in developing the process.
- Map consumer and organisational users of EVs and seek their perspectives and needs with regards to complaints.
- Design and test appropriate use cases that invoke all key aspects of the functioning of a complaint handling process.
- The leading body along with stakeholders should develop the complaints handling process and standards based on generated evidence.
- Update and enhance legislation on complaint handling standards.
- Responsibilities are agreed between market participants.

### Background and gap analysis

Findings from the literature, CVEI project outputs, Citizens Advice work on consumer requirements and established services such as the Motor Ombudsman can be used when scoping the work. The key aspect of this work moving forward would be to link in new market players, reach an agreement between stakeholders and develop a comprehensive process that would include all interactions EV users have today and will have in the future with the industry. Very few of the requirements are currently being addressed by ongoing activities.

### Links to other proposals

The proposal is linked to proposals 3, 14, 15 and 17.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to develop scope of and identify body that will be responsible for developing complaint handling standards (and subsequently monitor).

# Proposal 17:

## Ensuring that consumer protections are fit for purpose

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The Taskforce proposes that Government and/or Ofgem undertake a full review of protections for EV drivers by the end of 2021. This should build on and be coordinated with ongoing work (such as BEIS and Ofgem's Future Energy Retail Market Review).

# Proposal 17:

## Ensuring that consumer protections are fit for purpose

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure that consumer and organisational user perspectives are taken into account in developing appropriate protections.
- Ensure consumer protection is comprehensive.
- Form the basis for the review by gathering the resources from existing legislation and protections to be reviewed. This also helps to explicitly point to existing protections that can be applied to EV drivers.
- Allow Government/Ofgem to see where additional work or protections are needed. Consultation with consumer groups ensures that gaps identified are informed by a consumer perspective.
- Create the roadmap for implementation.

### Requirements

To support the objectives of the Proposal the following requirements have been identified:

- Identify and engage with bodies that will be involved in consumer protection.
- Engage with consumers and organisational EV users.
- Create use cases tracking each stage of the consumer journey and the interaction with potentially different companies. Ensure scenarios such as changing suppliers, chargepoint contracts or EV brand are considered. These should also consider possible future changes to regulatory arrangements such as the break-up of the supplier hub model.
- Identify existing consumer protection legislation that would apply to EV drivers.
- Identify any existing work which may impact legislation or offer insights in this space (including international work).
- Identify the gaps in existing legislation where additional protections would be needed specifically for EV drivers.
- Propose the additional protections that would be required and consider the timelines for when they would be necessary.
- Identify the body to create the legislation.
- Introduce the legislation using the normal process of consultations with industry and amendment to ensure the proposals are sound. This protection could be brought in in stages to ensure innovation is not hindered.

### Background and gap analysis

The existing activities by Citizens Advice have identified existing consumer protection schemes. Further work is needed to address the requirements, not least updating existing legislation with measures that cover all interactions of EV users with the industry, specifically including:

- Engage with consumer groups and industry
- Create use cases tracking each stage of the consumer journey and the interaction with potentially different companies. Ensure scenarios such as changing suppliers, chargepoint contracts or EV brand are considered. These should also consider possible future changes to regulatory arrangements such as the break-up of the supplier hub model.
- Identify any existing work which may impact legislation or offer insights in this space (including international work).
- Identify the gaps in existing legislation where additional protections would be needed specifically for EV drivers.
- Propose the additional protections that would be required and consider the timelines for when they would be necessary.

### Links to other proposals

The proposal is linked to proposals 5, 13 and 16.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- Government and/or Ofgem to report on development of review of consumer protections for EV drivers including planned updates to relevant legislation and EVET will provide support on defining consumer interactions with industry.
- Citizens Advice to report to EVET on status of relevant consumer protection schemes.

# Proposal 18:

## Informing consumers about EVs and smart charging products and services

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Industry to develop and implement best practice standards, backed up by an independent accreditation scheme, for information provision relating to smart charging and electric vehicle services at the point of sale by the end of 2021.

# Proposal 18:

## Informing consumers about EVs and smart charging products and services

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure the stakeholders, that will be impacted by and need to contribute to the proposal, are engaged in the project to ensure best practice standards are relevant and applicable.
- Deliver a standardised approach on language used, agreed across industry, and that clear and consistent information is provided to consumers.
- Ensure the scheme covers a wide range of use cases.
- Ensure that potential approaches are assessed to meet EV user and industry requirements and deliver expected outcomes.
- Ensure that the accreditation scheme and standards are designed based on evidence and can be updated.

### Requirements

To support the objectives of the Proposal, the following requirements have been identified:

- Map and engage with stakeholders who are engaged in the EVA scheme, stakeholders from other relevant sectors, stakeholders who have experience in establishing similar activities and consumer representative groups.
- Agree on language and terminology used.
- Assess the success of the EVA scheme and identify gaps.
- Work up approaches for ensuring consumers receive consistent quality information. Link with other proposals/activities that are working on providing information to consumers.
- Explore the different ways different standards can be implemented.
- Access value compared to cost of different options.
- Consult with industry on the different options and choose the ones which will be taken forwards. Consider whether a phased approach may be most appropriate and detail how this development could work.
- Develop an accreditation scheme to ensure standards are been applied.

### Background and gap analysis

Current activities and published advice from Citizens Advice on Smart EV Charging, the EVA scheme, Energy Saving Trust, BEAMA, the Road Transport Emissions Advice Group, Gemserv, RECC, Electrical Safety First, are already supporting the proposal requirements, but further work is required to identify all relevant stakeholders and develop a framework that will bring all relevant information together. As with other proposals it will be essential for industry to agree on a common language.

Even though some information is available from various organisations, coordinated actions are needed, including, across:

- Work up approaches for ensuring consumers receive consistent quality information. Link with other proposals/activities that are working on providing information to consumers.
- Explore the different ways different standards can be implemented.
- Access value compared to cost of different options.
- Consult with industry on the different options and choose the ones which will be taken forwards.
- Consider whether a phased approach may be most appropriate and detail how this development could work.
- Develop an accreditation scheme to ensure standards are applied.

### Links to other proposals

The proposal is linked to proposals 8, 9, 13 and 14.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to first develop scope of and then identify body that will be responsible for coordinating industry's consumer-facing information, such as establishing a common language, about smart charging products (including across existing activities such as Go Ultra Low, Citizens Advice on Smart EV Charging, the EVA scheme, Energy Saving Trust, BEAMA, the Road Transport Emissions Advice Group, Gemserv, RECC, Electrical Safety First).

# Proposal 19:

## Making the EV charging infrastructure a valuable part of the wider energy system

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The Government and Ofgem, as a matter of urgency, need to facilitate effective forward planning and coordination of the rollout of EV and electricity network infrastructure at a national and local level to meet consumer needs. This needs to be aligned nationally and to wider local area energy, transport and emission reduction plans and be implemented and used through RIIO-2 price control.

# Proposal 19:

## Making the EV charging infrastructure a valuable part of the wider energy system

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure the intermediate steps proposed would produce a wealth of useful information for the next regulatory window, as well as supporting the foundation of an organisation that could be of high value to delivering infrastructure nationwide.
- Capture stakeholder requirements to develop a comprehensive process.
- Use lessons learnt and current activities as the basis for the proposed process.
- Improved efficiency in the evaluation of placing new charge points, increased operational efficiency that can lead to reductions in cost and increase in the uptake of EVs.
- Identify the scale at which coordination efforts are being attempted and the methods currently used.
- Provide the evidence to develop an efficient and suitable EV charging infrastructure.
- Communication occurs in a structured and consistent way within a wider context of planning for net zero energy systems.
- Evidence based decisions to support a whole-system approach with minimal cost to the consumer.

### Requirements

To support the objectives of the proposal the following requirements have been identified:

- Built on the steps described in EVET WP1 report and propose the structure, aims and scope for the body that will provide ongoing support to all involved parties.
- Engage with stakeholders to capture bodies that will want access to the support and the bodies that will be needed to provide expertise and data.
- Development of charging network and visibility of open data.
- Assessment of existing coordination and planning procedures used across the UK.
- Develop an EV uptake and travel forecasting service.
- Ofgem should encourage network operators to engage with local authorities, across transport, planning and energy bodies within those authorities.
- Ofgem to consider how planning outputs could be most effectively used to inform anticipatory investment by network operators.
- Develop a “Digital Twin” of the energy system infrastructure.

### Background and gap analysis

As well as Government activities in this area (as the vision for the rapid charge point network in England), several projects and reports (e.g. CVEI, Electric Nation, London Electric Vehicle Infrastructure Taskforce Delivery Plan, Vivid Economics and Imperial College London, SSE’s Smart transport project, SPEN’s project Charge, e4Future V2G projects, UKPN TransPower V2G projects Prospering from the Energy Revolution projects and ESC’s Local Energy Planning work) are working towards providing the evidence and developing processes for coordinated planning. Further work is needed to define the structure and role of the body that will support actions going forward, ensure coordination between current activities and consolidate findings and recommendations taken forward, including:

- Development of charging network and visibility of open data.
- Assessment of existing coordination and planning procedures used across the UK.
- Develop an EV uptake and travel forecasting service.
- Ofgem should encourage network operators to engage with local authorities, across transport, planning and energy bodies within those authorities.
- Ofgem to consider how planning outputs could be most effectively used to inform anticipatory investment by network operators.
- Develop a “Digital Twin” of the energy system infrastructure.

### Links to other proposals

Links to proposals 2, 6, 9, 11, 12, 20 and 21.

#### Proposed Actions

Two actions have been identified in relation to this Proposal:

- EVET to first define the scope, structure and role of and then identify the body to provide coordination between transport and energy planning (as per requirements) (and subsequently monitor).
- Ofgem to report on RIIO-2 price control and EV strategy.

# Proposal 20:

## Facilitating efficient electricity network investment

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Ofgem should ensure RII0-2 price control supports well-justified anticipatory network investment, including LV monitoring, that benefits consumers and enables efficient and co-ordinated deployment of the network infrastructure necessary for EV charging (with due consideration paid to other future additional loads including from the electrification of heat).

# Proposal 20:

## Facilitating efficient electricity network investment

### Benefits

To deliver the desired benefits, the requirements must:

- Have a direct impact on far reaching regulatory frameworks with short-term significant impact.
- Enable the energy transition, not just associated with EVs, in a timely but cost effective manner.

### Requirements

The following requirements were listed for Proposal 20:

- Assess RII02 plans against this proposal, highlight where there is a risk some of the described disbenefits will arise from risk-averse investment, and make recommendations for amendment in terms of uncertainty mechanism design.
- Enhance the evidence base around the position of this proposal to ensure Ofgem is fully appraised of the case for a particular balance between the risk of anticipatory investment and the risk of delay to the EV transition.

### Background and gap analysis

Current activities (RIIO2 and more specifically Local Area Energy Plans as part of RIIO2) form a detailed evidence base to help define the correct balance between anticipatory investment and avoidance of stranding assets/missing opportunities for energy services to meet needs.

Further work is needed to fully address both identified requirements.

### Links to other proposals

The proposal is linked to proposals 9, 11, 12, 19 and 21.

### Proposed Actions

Two actions have been identified in relation to this Proposal:

- Ofgem to report on RIIO-2 price control and integration of Local Area Energy Plans and next steps.
- EVET to ensure relevant emerging evidence is fed into Ofgem.

# Proposal 21:

## Delivering a high-quality public charging service for EV drivers

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The Government should provide support to all public bodies and private organisations concerned with developing and procuring the delivery, operation and maintenance of public EV charging infrastructure.

This should include the sharing of best practice and providing specific guidance on procurement of public charging solutions and requirements for effective delivery, ongoing operation and maintenance of public charging by the end of 2021.

# Proposal 21:

## Delivering a high-quality public charging service for EV drivers

### Benefits

To deliver the desired benefits, the requirements must:

- Ensure that the service developed is tailored to the needs of the bodies who it is targeted at.
- Ensure that work is not being repeated and there is an understanding of what current accepted practices are.
- Develop the resources needed to cover the areas of advice targeted.
- Ensure resources are made available and are developed surrounding best practice.
- Ensure relevance and effectiveness of the resources.

### Requirements

The following requirements were listed for Proposal 21:

- Identify the part of Government that will be the point of contact for public bodies and private organisations to provide advice surrounding introducing EV infrastructure.
- Stakeholder mapping and engagement (stakeholders impacted by the service as well as those who will be required to provide inputs to the service).
- Collate all existing EV technology best practice resources and identify gaps broken down by technology type.
- Gain inputs from identified stakeholders to address best practice gaps.
- Create an accessible resource library.
- Resources are reviewed and updated with a regular cadence.

### Background and gap analysis

Even though there are current activities (such as work from the Energy Saving Trust on procurement of EV infrastructure, work from the Local Government Association on EV charging infrastructure and UKEVSE's report on procurement of EV charge points) working to meet proposal requirements, an agreed UK wide strategy or "Best Practice" for infrastructure planning has not yet been agreed. Furthermore, breakdowns of the technologies (covering EVs, charge points, etc.) are needed to inform Best Practice and this has not yet been completed.

### Links to other proposals

The proposal is linked to proposals 3, 9, 11,12, 19 and 20.

### Proposed Actions

One action has been identified in relation to this Proposal:

- EVET to support Government in specifying UK-wide strategy or Best Practice for public charge point and associated infrastructure planning (and subsequently monitor, specifically that it is updated regularly).

# Common actions across multiple proposals

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## Common actions across multiple proposals

### Proposed Actions

An additional three actions have been identified that apply to multiple Proposals:

- BSI to report on development of standards to EVET. This action applies to proposals 1, 2 and 4.
- EVET to ensure activities taken forward are relying on evidence of consumer requirements founded on engagement with consumers and/or consumer groups. This action applies to proposals 4, 6, 7, 10, 14, 16 and 17.
- EVET to define the scope and identify the body to develop the common language framework to be used by all involved parties. This action applies to proposals 14, 15 and 18.



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