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23 September 2024

**Subject: DCC response to Ofgem Flexibility Market Asset Registration Consultation**

Dear Euan,

I am pleased to include DCC's response to the above consultation. Delivering a decarbonised power sector by 2030 at lowest cost to the consumer will require system flexibility. DCC welcomes Ofgem's two-fold approach to address this need, through creation of a Flexibility Market Asset Register (FMAR) and alignment of underlying flexibility market enablers.

**About DCC**

The DCC operates and maintains Great Britain's (GB) smart metering and switching services, securely transferring billions of messages from homes and businesses to energy suppliers, DNOs and trusted third parties. Secure connectivity is already available to >99.3% of GB and will ultimately support over 100m devices in 33m premises.

As a central delivery body, operating under licence, DCC's capabilities can be leveraged to enable efficient delivery, value for money and confidence in operational performance for new services, from 24/7 technical and service operations to security architecture, test management and assurance.

In our effort to improve use of smart meter data to support policymaking and innovation, we are involved in several Government-funded projects, including as a lead partner in the Automatic Asset Registration and Central Asset Registration (AAR/CAR) programme. We are also supporting the Smart Energy Data Repository programme and Smart Meter Based Internet of Things competition, and have fed our expertise into the Digital Spine programme and Flexibility Markets Unlocked.

As an already established national asset, the DCC and the smart metering network provide a platform for policy implementation at pace. The potential to realise this more fully is a key strand of activity being explored through the DCC Licence renewal process, which will set the scope of the next licence period from 2026 to beyond 2040.

**Key themes of our response:**

Our response is grounded in our experience as a lead partner in the AAR/CAR programme, in designing, building and operating the technical and security architecture of the smart metering system and in facilitating enduring programmes like the Centralised Switching Service (CSS).

Key themes include:

**Employing sequential learning from committed investment in flexibility innovation projects**

Enabling the level of flexibility required to deliver Net Zero at lowest cost to the consumer requires a holistic approach. Our participation in the AAR/CAR programme has highlighted both the value in, and feasibility of, focussing on asset visibility to unlock a broader set of use cases. Key users of the AAR/CAR solution have highlighted the importance of access to a single source of truth for all consumer energy resource registrations to multiple energy sector actors.

Therefore, we urge Ofgem to focus on asset visibility within the FMAR's policymaking itself. This will more efficiently ensure participation of assets in flexibility markets, while cost-effectively unlocking a wider set of use cases, directly, and quickly, contributing to the Government's 2030 target.

**Leveraging existing experience and infrastructure for cost effective and timely implementation**

Our experience in building and managing the smart metering network's digital infrastructure suggests that technical solutions which are built from the outset with flexibility and scalability in mind are predominantly more cost effective and can encourage the greatest uptake. To facilitate seamless evolution of the register over time, we stress the need for common standards in its design, including across market, asset and data fields.

The chosen delivery body for the FMAR will be required to embed the technical solution within its existing operations and deliver secure and stable performance while ensuring value for money. DCC has a strong track record in successfully delivering critical digital infrastructure, with Ofgem having amended the DCC Licence to deliver the CSS. Building on this experience, our response outlines the significant similarities in the nature of the service delivered by smart metering, switching and a FMAR. We believe such synergies will be crucial to timely delivery, at lowest possible cost to consumers.

**Strategic use of existing regulatory and governance frameworks**

The FMAR is a crucial workstream within the significant volume of policy activity seeking to carefully advance the Government's ambitious decarbonisation and growth agenda. Strategic decisions which maximise value from existing capabilities and governance structures will set the framework under which the private sector can invest.

Ofgem's current review of the DCC Licence includes assessing opportunities for additional mandatory business and re-use of DCC's infrastructure in support of Government policy. As a licenced entity with clear governance frameworks in place, a flexible transition into a new licence period (which will include a shift to ex-ante price control and not-for-profit operation), offers Ofgem the ability to swiftly align DCC's role with delivery of the FMAR. We can we remain impartial and neutral, while being held to account for successful delivery of this service.

**In summary**

We would like to thank the Decentralised Energy Systems Team for continued engagement on this workstream. We welcome further discussion on details of how our work in the AAR/CAR programme, alongside the capabilities of the smart metering system, can provide support in delivery of the FMAR. We have offered Ofgem the opportunity to tailor our approach to engaging key users of the AAR/CAR programme so that we may capture evidence of most value to the policymaking process.

DCC will continue to work collaboratively with Ofgem, Government, the Market Facilitator and industry irrespective of the chosen delivery body for a FMAR. We recognise the crucial need for greater flexibility in the energy system and remain committed to successfully participating in the AAR/CAR programme in our effort to make Britain more connected, so that we can all lead smarter and greener lives.

Yours sincerely,



**James Ringrow**

Director of Strategy

## DCC Response to Consultation on Flexibility Market Asset Registration

### Q1. Do you agree that policy intervention is needed to deliver common Flexibility Market Asset Registration?

DCC strongly values Ofgem's engagement on this consultation and agrees that a level of policy intervention may be required to deliver common flexibility market asset registration. Our experience in facilitating migration of legacy SMETS1 meters has showcased the critical need for common standards in market coordination, and the impact on service and consumer outcomes that can materialise when it is not assured.

However, we urge any intervention on a flexibility market asset register (FMAR) to focus only to where it is necessary, in efforts to tackle known challenges that will hamper the register's effectiveness and Ofgem's mandate to minimise consumer costs.

Delivering a decarbonised power sector by 2030 that successfully configures the system for Net Zero at lowest cost to the consumer will require a holistic approach. A significant contribution of flexibility from distributed energy resources (DER) is needed to reduce spending on generation and on network reinforcement. By 2030, flexibility from consumer energy resources (CER) alone could avoid 3GW of peak demand on the network and save roughly £1billion in network reinforcement costs<sup>1</sup>. Likewise, prudent whole energy system planning is required to ensure increased uptake in these assets does not adversely impact local networks and infrastructure. Finally, only a level playing field for consumers to participate in flexibility markets is likely to enable delivery of the greatest value from these assets at the pace and equity that is required for a just transition.

Disparate flexibility market platforms and initiatives do currently exist. As Ofgem propose, a common end vision with an underlying digital infrastructure may better ensure the level of visibility and coordination of these markets required to enable their full value to the energy system.

However, the scale of the challenge in delivering this end vision and an 'effective' common FMAR is significant. To meet the holistic demands of delivery at lowest cost to the consumer, visibility of CERs to procurers of flexibility and energy system planners is critical. Furthermore, as identified, several key enablers and other policy interventions are required to support this vision. Therefore, we consider it essential that any policy intervention on a FMAR is appropriately focussed on addressing these known challenges.

#### Asset visibility

The ability of a FMAR to enable the level of flexibility required to deliver Net Zero is contingent upon dynamic participation of a critical volume of assets in the market arrangements that it facilitates.

Despite efforts to improve friction in the CER connections process, more than 60% of new low carbon assets are currently unregistered and therefore remain 'invisible' to flexibility markets<sup>2</sup>. Likewise, the majority of consumers with CERs do not currently participate in flexibility markets or any demand-shifting, with only 25% of EV owners being on time-of-use tariffs despite the opportunity for significant savings<sup>3</sup> (although this may increase as the market matures). Better registration of these new assets is therefore necessary for an effective FMAR.

We acknowledge Ofgem's assumption that participation in flexibility markets could incentivise increased registration of assets, alongside other improvements in the registration process from initiatives such as the ENA's Connect Direct platform.

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<sup>1</sup> [The power of flex: Rewarding smarter energy usage - Cornwall Insight \(cornwall-insight.com\)](https://www.cornwall-insight.com/the-power-of-flex-rewarding-smarter-energy-usage/)

<sup>2</sup> [Automatic Asset Registration - Energy Systems Catapult](#)

<sup>3</sup> [EV charging: - Only a quarter of UK EV drivers on time of use electricity tariffs \(pveurope.eu\)](https://www.pveurope.eu/ev-charging-only-a-quarter-of-uk-ev-drivers-on-time-of-use-electricity-tariffs/)

However, uptake in CERs is due to increase rapidly with policies like the Zero Emissions Vehicle Mandate set to reach significance within Ofgem's timeline for deployment of a FMAR, particularly with Government due to reinstate the 2030 ban on sale of new ICE cars and vans. If more than 60% of new assets continue to remain unregistered, the distortion between consumers who can take advantage of flexibility offerings and those who cannot, could increase.

Similarly, we note the importance of access to a single source of truth for all CER registrations to network operators, market participants and local authorities. CER visibility is considered essential for networks to minimise costly reinforcement as well as the socio-economic impact of network constraints in particular geographies, both pertinent to the cost effective realisation of the Government's 2030 ambition. Equally, our engagement with bodies such as the Greater London Authority has confirmed the value of increased asset visibility in targeting investment of retrofit schemes.

Therefore, more systematic registration of new assets will ensure the level of flexibility that an effective FMAR should facilitate and will also help mitigate local planning issues. Likewise, systematic registration will help level the playing field and better consider *all* consumers, who could otherwise be overlooked from participation in flexibility markets having 'slipped through the net' of the current CER registration processes.

With this in mind, DCC strongly believes that automatic registration of new assets at the point of installation is a more consumer centric and efficient means to register the number of assets required for an effective FMAR. We expand on the cost effectiveness on this approach in our response to Q12 and urge Ofgem to focus any policy intervention on a FMAR to consider automatic registration of assets as a necessary facet of the register.

#### **Efficient use of resource**

As Ofgem acknowledge, several flexibility market enablers and other policy interventions will be required to support an effective FMAR. Regarding enablers, these include the standardisation and alignment of market products, contracts, stacking and primacy rules, while other necessary interventions include the creation of the data sharing infrastructure and a consumer consent solution.

DCC welcomes the assignment of Elexon as the Market Facilitator in delivering enablers related to ESO and DSO alignment, and the initial design work for the FMAR. Ultimately, if the preliminary work to standardise and consistently implement such enablers is not delivered successfully and at the pace required, any digital infrastructure built on top will not be as effective.

Therefore, while we agree that a level of policy intervention is warranted to deliver a FMAR, we urge Ofgem to direct any further intervention only to where it is essential. To ensure that focus is not deterred from the necessary enablers work, and that market innovation is not unduly stifled, Ofgem should make best use of committed Government and industry investment on evolving solutions to the listed FDI outcomes, including on asset visibility.

DCC is a consortium partner in the DESNZ-funded Automatic Asset Registration (AAR) and Central Asset Registration (CAR) Innovation Project. AAR aims to deliver an asset registration solution that ensures small-scale low-carbon assets (<1MW) are automatically registered with the relevant authorities upon installation. CAR aims to deliver a central asset register, capable of collecting and managing consumer consent and securely communicating energy asset data from registered assets through machine-readable interfaces. We consider these aims to largely reflect the initial aims and scope of a FMAR and expand on how in our answers to questions 4-8.

The AAR/CAR project has successfully completed Phase 2, solution development, and has now entered Phase 3, pilot testing. Therefore, given the significant synergies of a FMAR with the aims, scope and timeline of the AAR/CAR project, as well as the saliency of directing effort on underlying market enablers, we encourage Ofgem to explore how policy intervention on the digital infrastructure of a FMAR can leverage existing government funded activity rather than commissioning new activity.

Phase 3 of AAR/CAR will see DCC lead three critical workstreams to develop the project into a user-oriented, efficient, end-to-end solution, ready to scale with DCC as a potential delivery body of the service. Our activity will include engagement with users of the service to capture their requirements, including DNO/DSOs, flexibility service providers and energy suppliers. As noted in our cover letter, we have offered Ofgem the opportunity to develop and tailor this engagement on user requirements and scaling to assist and inform policymaking.

**Q2. Do you agree that for other FDI outcomes policy intervention is not needed at this stage? Are there any risks to consider with this approach to FDI delivery?**

We agree that policy intervention on other FDI outcomes is not needed at this stage.

**Q3. Are there any other policy alignments or industry developments, in the UK or internationally, which should be considered as part of ongoing FDI policy development?**

We welcome Ofgem's proposals to align policymaking on a FMAR with related workstreams on the Data Sharing Infrastructure (DSI) and Consumer Consent Solution.

Having fed into the Government's Energy Digital Spine Programme, we have assisted the ESO in their thinking on potential interim governance of the DSI - providing experience and expertise in existing energy data governance structures and lessons learned from our efforts to unlock smart meter data.

Similarly, DCC is listed as a potential delivery body for the Consumer Consent Solution and our technical assumptions for this mechanism have directly shaped Ofgem's technical proposals<sup>4</sup>. Irrespective of the chosen delivery body, as smart meter consumption data is the first use case for data that consumers can consent to share, the DCC will be closely involved in the consent solution's digital infrastructure.

Finally, we acknowledge the proposal to align the FMAR with longer term policymaking on asset visibility. However, as noted in our response to Q1, we strongly urge Ofgem to consider the importance and viability of automatic asset registration at the point of installation into current thinking. Alongside the system planning use cases for CER visibility, systematic asset registration could also support wider Net Zero initiatives.

For example, increased visibility of CERs could contribute substantially to the ongoing reform of EPCs to include more data-led measurements of buildings performance, including the potential of a building to flex its demand. Likewise, in helping to improve rather than exacerbate the situation for vulnerable households through increased visibility of flexibility potential and participation – enabling intervention for under-represented consumer segments.

**Q4. Do you agree with the scope proposed for markets, assets, and data? Should anything else be considered?**

We understand that the Market Facilitator is likely to convene a working group which will carry out a cost benefit analysis on the eventual scope for markets, assets and data considered in the register. Irrespective of the chosen delivery body for the register, DCC is eager to contribute to this group and can offer our expertise in both leading elements of the AAR/CAR project, and in managing the technical and security architecture of the smart metering system and central switching service.

Our experience in building and managing digital infrastructure suggests that technical solutions which are built from the outset with scalability in mind are predominantly more cost effective. Furthermore, we stress the need for common standards across each market, asset and data field, so as to facilitate seamless technical integration of further categories within these fields over time.

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<sup>4</sup> [Consumer Consent Solution Consultation \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/consumer-consent-solution-consultation)



We note the proposal that the digital infrastructure of a FMAR should not support market operation or verification stages, due to this data being highly specific and bilateral. The DCC has recently submitted to Ofgem a summary of factors for consideration in an FDI<sup>5</sup>, including on enabling effective data access and use. Informed by our experience in navigating the complexities of existing data governance structures and efforts to further unlock smart data, these factors include the practicalities of data licencing, aligning routes for access to the same data points and streamlining processes for validation. We consider these factors pertinent to the operation and verification stages of the FMAR and are eager to share expertise in further working groups and policymaking.

Regarding the initial proposed scope of assets, we welcome Ofgem's identification of alignment with the Government's Smart and Secure Electricity System workstream as part of ongoing FDI policy development. However, we note that within this workstream, the scope of electrical heating appliances which may fall under the Smart Heat Mandate is still to be decided. Therefore, the Market Facilitator and Ofgem should ensure that assets in scope of the FMAR align with those in scope for the evolving Smart Heat Mandate. Likewise, the register should remain flexible to enable timely introduction of new technologies that may offer flexibility to the system.

Regarding data in scope, we welcome Ofgem's acknowledgement on the importance of data quality. Phase 2 of the AAR/CAR project included a trial with 131 participants in the Energy System Catapult's Living Lab to test validation and accuracy of address and MPAN data inputted by CER asset installers and consumers. It was found that 33% of data collated on addresses, postcodes and MPANs had errors in accuracy.

Therefore, in Phase 3 of the project, DCC will lead exploration of the best route to incorporate the Retail Energy Location address, the 'gold standard' of address accuracy, into the service to mitigate these data errors. We will also explore design of triage processes for any remaining inaccuracies, explore regulatory enablers, interaction with the consumer consent solution, define business processes and engage stakeholders.

Finally, we acknowledge that Ofgem does not consider dynamic data as necessary in the minimum viable product of a FMAR, with the intention for the service to evolve over time and facilitate further data points. However, we note that the AAR/CAR pilot will present the viability to capture and communicate dynamic data in a register, so long as remote connectivity with assets can be guaranteed. Integration with the smart metering system can further support this functionality as data on assets could continue to be transferred over the smart meter network where assets have lost other network connectivity.

Likewise, as outlined in the project's feasibility study<sup>6</sup>, the AAR/CAR will satisfy all initial assets and data proposed for a FMAR, as well as the capability to support key market processes such as change of tenancy and will consequently remain persistently accurate. The project that has been designed from the outset to scale in line with CER adoption rates and evolving data requirements.

#### **Q5. Do you agree with the functional outcomes? Should anything else be considered?**

The functional outcomes listed by Ofgem are standard to technical outcomes of effective data processing and sharing infrastructure. Outcome 9 in particular, on integration with wider systems, has been crucial to our existing role. In migration of millions of SMETS1 meters, the DCC integrated 3 new SMETS1 Service Providers that each brought different proprietary underlying technologies with them. Furthermore, transitional arrangements required integration with the legacy platforms and with numerous energy suppliers.

An effective FMAR must equally integrate with several systems to satisfy the need for sufficient data quality. In phase 3 of the AAR/CAR programme, DCC will explore options for address validation in the

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<sup>5</sup> Provided to Ofgem under separate cover

<sup>6</sup> [Automatic Asset Registration - Energy Systems Catapult](#)

solution against industry systems. Likewise, irrespective of the chosen delivery body for the consumer consent solution, as smart meter consumption data is the first use case for data that consumers can consent to share, the DCC network will be aligned and integrated with the solution's digital infrastructure.

**Q6. Do you agree with the design principles? Should anything else be considered?**

DCC agrees with all design principles listed by Ofgem and recognise the opportunity to further refine these via industry working groups. We note our track record in successfully delivering similar enduring services like the smart metering implementation programme and CSS to comparable principles.

**Q7. Do you agree with the enablers and design activities needed and for the Market Facilitator to coordinate Working Groups for them? If not, what other activities and governance arrangements should be considered?**

DCC agrees with the enablers and design activities listed and for the Market Facilitator to coordinate working groups accordingly. We reiterate the saliency of these enablers and that any digital infrastructure built on top will only be as effective the work done to standardise and consistently implement them.

As identified, the FMAR must critically align and integrate with the DSI and the consumer consent solution, which is also due to be assigned a separate delivery body. Therefore, we encourage Ofgem to outline a governance structure which will ensure communication of critical dependencies between these programmes and bodies, the Market facilitator and the delivery body selected for the FMAR. Similarly, it would also be useful for Ofgem and Government to clarify interdepartmental governance of these workstreams.

**Q8. What are the advantages and disadvantages of the proposed delivery body options for the Flexibility Market Asset Registration digital infrastructure? Are there any additional options that should be considered? Do you agree with the justification for discounting approaches?**

We believe the DCC is best suited as delivery body for the digital infrastructure of a FMAR for 4 key reasons:

1. Our experience and expertise developed as part of the Government-funded AAR/CAR innovation project will help reduce the FMAR delivery timelines.
2. As identified by Ofgem, DCC has successfully delivered similar IT services before and is therefore equipped to deliver a FMAR with even greater efficiency.
3. There are significant synergies between DCC's core capabilities and those needed for delivery of a FMAR and Ofgem's design principles. These capabilities can be leveraged to enable faster deployment, confidence in operational performance and ultimately value for money.
4. Ofgem are currently considering the design of the future DCC Licence, with explicit consideration for future additions in support of Government policy. DCC can remain independent, including our move to a not-for-profit model, while being held to account by Ofgem to successfully deliver this service.

We expand on these reasons below and counter disadvantages listed to Option 5, within which DCC is listed, before commenting on advantages and disadvantages of the other delivery bodies proposed.

**1. DCC experience and investment in AAR/CAR:**

As outlined in our response to Q1, DCC is a lead consortium partner in the AAR/CAR Government-funded innovation project, which largely reflects the aims and scope of the FMAR. The project is due to conclude in February 2025, by which point DCC will have provided 3 years of policy, regulatory and technical expertise to its workings.

In Phase 3 of the project, the DCC will lead three critical workstreams which aim to develop the innovation project into a user-oriented, efficient and end-to-end solution that is ready to scale. These include:

- **Exploration of key outcomes for a commercial register.** This will include engagement with users of the register, for example DNO/DSOs and flexibility service providers, on principal benefits as well as potential operating, regulatory and commercial pathways for DCC to host the service.
- **Exploration of address and MPAN validation and integration.** This will include progressing the best route to incorporate the Retail Energy Location address, the 'gold standard' of address accuracy, into AAR. We will also explore design of triage processes for any remaining inaccuracies, explore regulatory enablers, interaction with the consumer consent solution, engage relevant stakeholders and define business processes.
- **Exploration of identification of legacy assets using smart meter system data.** This will include a proposal for a small-scale proof of concept in collaboration with MCS to test the validity of this route, and engagement with key stakeholders such as energy suppliers and local authorities on business processes to then register these assets. We consider that building these targeted relationships with key organisations like MCS and Ordnance Survey will help reduce timelines for pre-delivery elements of a FMAR such as contract negotiations.

## 2. Successful delivery of similar services:

Beyond the saliency of the DCC's leading role in key activities for the AAR/CAR project, the chosen delivery body for the FMAR will be required to embed the technical solution within its existing operations and regulation, and deliver secure and stable performance while also ensuring value for money for consumers.

DCC has a strong track record in delivering critical digital infrastructure. In 2016 the DCC Licence was amended to deliver the Switching Programme and Central Switching Service (CSS). Through the programme, DCC led the integration of 28 existing and new industry systems and around 200 licenced parties with the CSS. The contractual approach taken for the CSS has parallels to how a contractual model could work for a FMAR through working with a technical service provider. In the CSS:

- Contracted service provider (Landmark) provides the CSS technical capability
- DCC provides the overall 'service wrapper' through an ITIL<sup>7</sup> service management approach
- DCC has the regulatory accountabilities in its licence and REC, with regulatory requirements and SLAs 'flowed down' to Landmark contracts
- DCC lead in reporting to industry governance and Ofgem
- DCC has supported regulatory change across multiple industry codes, and has had a key role in cross-code coordination and mitigating conflict across the REC and SEC. The FMAR is similarly likely to be delivered across multiple codes.

The CSS service has had strong operational performance to date, with a 100% year-to-date switching success rate, delivering improved consumer outcomes. The service has a multitude of users, including energy suppliers, gas shippers, metering equipment manufacturers, supplier agents and meter asset providers. There have been 20 million switches since go-live and the DCC has maintained the network at 99.99% service availability, showcasing our ability to effectively manage digital infrastructure which accommodates a vast range of user traffic.

## 3. Synergies between DCC core capabilities and FMAR design principles:

There are significant similarities in the nature of the service delivered by smart metering, switching and a FMAR. Developing these capabilities from new, as may be required by other potential delivery

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<sup>7</sup> Information Technology Infrastructure Library



bodies listed, would likely result in longer timescales, greater complexity and misaligned industry processes. Ultimately, this would reflect in duplicate costs for consumers.

DCC's core capabilities align with Ofgem's design principles as follows.

Ofgem Design Principle	DCC core capability and synergy with the FMAR
Quality performance and usability	<p>Technical and service operations - DCC currently supports energy suppliers in their installation and commission of c.15,000 smart meters a day across GB, facilitating quality at scale. We work closely with suppliers to provide support with the install and commission and provide detailed reporting to support performance monitoring and improvement. There are significant similarities to the potential process of supporting installers through the in-home registration of CERs.</p> <p>A dynamic FMAR will be critical to the functioning of the future energy system. Any issues in its digital and operational performance will impact consumer participation in flexibility and ultimately increases costs. To protect the system's integrity, DCC's proven operations capability, 24/7 service desk and Technical Operations Centre can be leveraged to monitor and resolve issues, helping to ensure strong operational performance and deliver value for money.</p> <p>DCC system performance is a key metric for measuring success, and we have achieved 100% of the Operational Performance Regime (OPR) target for the last two years. This target is weighted at 70% of the overall OPR, reflecting the critical importance of system performance in maintaining a reliable, available, and timely service for consumers.</p> <p>We work closely with our customer base to continually improve service access, usability and increase agility in adoption of change. Our Future Service Management process is designed to improve the customer user interface and could be adopted to incorporate the additional requirements of a FMAR.</p>
Timely and pragmatic delivery	<p>Design, programme delivery, test management and assurance - DCC has built one of the most complex pieces of digital infrastructure in the world.</p> <p>The SMETS1 Programme integrated over 8000 device model and firmware combinations onto the DCC network. We continue to manage multiple complex and large-scale projects, on time and to budget, such as the facilitation of 4G connectivity across Britain's smart metering infrastructure.</p> <p>As experts in programme delivery, we have the necessary control and assurance processes established to balance delivery at pace with quality, while also conducting continuous feedback on this delivery. Our Enterprise Portfolio Management Office (EPMO) ensures that we can manage our portfolio effectively, allocating resources appropriately.</p> <p>Our pipeline of major infrastructure renewal will begin to ease from 2025. Therefore, we are confident we can lead and assure the FMAR's programme delivery.</p>
Cost effective	Finance operations and efficiency - As identified, many of the capabilities to deliver a FMAR are already in existence within DCC,

	<p>creating immediate efficiencies through reduced set up cost and significant potential for shared service. For example, costs can be reduced through shared service management, technical and security operations and customer management, service desk expansion and general business operations (legal, regulatory, commercial).</p> <p>In addition, DCC manages complex cost recovery across multiple industry programmes and customers (including energy retailers and DNOs). These processes and systems could be applied to manage cost recovery for a FMAR, through either a commercial or regulated model.</p> <p>We note that DCC has identified valuable learnings from the recent Request for Information (RFI)<sup>8</sup> on SEC charging, which could inform how costs are allocated fairly and efficiently across the ecosystem, ensuring that no single group is disproportionately impacted.</p> <p>Finally, DCC is transitioning to an ex-ante price control regime. This will require upfront cost allocation, subject to customer engagement and Ofgem's ability to disallow cost not deemed cost effective.</p>
Security, resilience and privacy	<p>Security architecture and operations – As deemed critical national infrastructure, the smart meter network has been designed to National Cyber Security Centre Standards. It is monitored through DCC Service Providers' and DCC's own fully CREST accredited and ISO 20000 certified 24/7 Security Operations Centre.</p> <p>We and our Service Providers are regularly subject to independent expert assurance and observe stringent security requirements of the Smart Energy Code. The DCC Security Architecture Framework is aligned to all major security best practice references authored by the National Cyber Security Centre, the National Institute of Standards and Technology and the Cloud Security Alliance.</p> <p>As a highly secure data custodian, data privacy is at the core of our data transaction model. DCC data transactions cover roughly 130 types of messages that are encrypted to the highest standard, including on consumption profiles, household identifiers and voltage.</p> <p>Given that the FMAR is likely to be deemed Critical National Infrastructure, it is essential that the operator has commensurate cybersecurity and data privacy capabilities to provide confidence in the integrity and ongoing resilience of the solution.</p>
Competitive and innovative	<p>Procurement and contract management - Management of an asset registration process and a central repository, with outsourced technology service providers, provides a complementary fit to the current services enabled by DCC. The DCC currently manages a complex supply chain made up of 15 major service providers and many further supporting suppliers in delivery of smart metering and switching services.</p> <p>We work hard to enable innovation across the sector. We regularly engage with and support Other Users who are innovating using smart meter capabilities and data. Our participation in AAR and a portfolio of innovation projects re-enforces this.</p>

<sup>8</sup> [20240430-dp218-review-of-the-sec-charging-methodology-rfi.pdf \(smartdcc.co.uk\)](https://smartdcc.co.uk/20240430-dp218-review-of-the-sec-charging-methodology-rfi.pdf)

	<p>We continue to push for increased data access to support policymaking across multiple priority areas including acceleration of energy efficiency, green finance investment, local area energy planning and cross-sector smart data initiatives. Many of these innovative use cases would be enhanced significantly through the inclusion of asset data.</p>
Legally deliverable	<p>DCC Licence - DCC is a licenced entity and therefore accountable to Ofgem to demonstrate compliance with this. The current licence places several conditions upon us and is adaptable to incorporate new delivery obligations today. The transition to a new licence period presents opportunities to legally and efficiently embed a new service such as the FMAR, either explicitly or through sufficient flexibility to enable future adoption.</p> <p>We expand further on the strategic opportunity to utilise the future DCC Licence in delivering the FMAR below.</p>
Effective accountability	<p>Regulatory and Governance Framework - DCC operates under both the Smart Energy Code (SEC), Retail Energy Code (REC) and according to the DCC Licence, with processes to manage several services within multiple governance frameworks, as likely to be required by a FMAR.</p> <p>From this position of accountability, these frameworks oblige us to undertake performance and assurance regimes, as well as substantial activities to convene stakeholder views and operate transparent processes. We undertake extensive engagement on a regular basis, with customers, Ofgem, Government and wider industry.</p> <p>We have seen a 70% increase in our performance against the Customer Engagement OPR between 2020/21 and 2022/23, with a further increase expected for 2023/24. We are also forecast to receive over 90% for our engagement performance through the Switching Incentive Regime, the 4G Comms Hub and Network BMPPA scheme.</p> <p>In the last 12 months alone, DCC has conducted over 500 formal points of engagement, working through industry governance (SEC and SMIP) as well as leading our own initiatives, including webinars, working groups, and consultations.</p> <p>Finally, we note DCC's role in creating Ofgem's Memorandum of Understanding for CSS, which was particularly useful in setting out clear principles for coordination between multiple regulated and non-regulated market actors in helping to bring the service to fruition.</p>

#### 4. Timeliness of the future DCC Licence:

Regarding the timely opportunity to incorporate delivery of a FMAR into DCC's regulatory obligations, we note that Ofgem's current review on the future of DCC is exploring additional mandatory business and re-use of DCC's infrastructure.

The new licence, and possible revision of terms during an extension period, provides opportunities and flexibility in how DCC could operate the FMAR to deliver the service – in a commercial set-up, as a regulated model, or as a phased approach that transitions from a commercial to a regulated model.

We note that Ofgem having “less clear mechanisms to assign responsibility and hold (them) to account” is listed as a disadvantage of delivery bodies under Option 5. However, in their consultation on a consumer consent solution, Ofgem state the advantage of DCC's regulatory framework in “providing

(it) with the tools to ensure there is a clear remit, governance, rules, and transparency”<sup>9</sup>. Therefore, we do not consider this listed disadvantage as characteristic of the DCC and hope this will be reflected in Ofgem’s decision making and subsequent response on the FMAR.

Similarly, organisations under Option 5 are noted as “having less experience of ESO and DSO flexibility markets” as the FMAR is “not necessarily aligned with (their) current roles”.

We note that DNO/DSOs are core users of the smart metering network. Therefore, the DCC has well-established relationships with these networks and we operate forums for continuous engagement. Likewise, as smart meters are crucial to the rollout of the demand flexibility service, the DCC has continuously collaborated with the ESO on the design of this flexibility service.

We reiterate the experience and expertise the DCC has gained through involvement in the AAR/CAR innovation project. In addition, our upcoming role in leading key workstreams in Phase 3 of the programme, including on engagement with DNO/DSOs to capture their requirements for the service. Beyond this, we welcome further detail from Ofgem on the experience of ESO/DSO markets that is needed to build, operate and manage the digital infrastructure of a FMAR. We consider it favourable for the flexibility actors who use the register to utilise their experience in informing its creation, while noting the benefit of having a neutral entity such as the DCC then build the service.

As a licenced entity, ultimately it is Ofgem's responsibility to align the FMAR with the DCC's current role if needed. With our experience in the AAR/CAR programme and related workstreams in mind, as well as the opportunity to leverage our core capabilities, we consider that re-use of existing infrastructure, expertise and capabilities for a FMAR will further validate and heighten the business case for smart metering.

[illegible]

<sup>9</sup> Consumer Consent Solution Consultation ([ofgem.gov.uk](https://www.ofgem.gov.uk))

<sup>10</sup> Open letter to the ENA Open Networks project from Ofgem and BEIS | Ofgem



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### Q9. Do you agree with the timelines proposed? Should anything else be considered?

The consultation response identifies several key milestones that are relevant to the development of a FMAR: the launch of the Market Facilitator, alignment with the DSI and the move to Market-Wide Half-Hourly Settlement.

Whilst the current proposed timeline for deployment of the FMAR (2025- 2028) overlaps with this wider activity, further clarity would be helpful on specific milestones to achieve this objective (e.g. decision on delivery body, MVP launch, pilot scheme, scaled operations) and any critical dependencies on these and other initiatives like the Government's Smart & Secure Electricity System Programme.

We note reference to the conclusion of the AAR/CAR and Flexibility Markets Unlocked innovation projects and would encourage Ofgem to develop a timeline for a FMAR that maximises learning and investment in these initiatives, as well as opportunities to transition from funded trials to large-scale delivery.

As a general point in this context, urgently prioritising the development of a scaled solution for asset registration and visibility will reduce the volume of un-registered assets and enable multiple use cases soonest, including registration into flexibility markets.

### Q10. What existing or new policy levers could be used to improve asset visibility?

The ongoing AAR project has been exploring different mechanisms and regulatory levers through which asset visibility can be improved. There is a strong preference from the market to see any ultimate solution to be tied into some sort of policy or regulatory mechanism.

The Phase 1 feasibility study explored the interplay between related policy initiatives and potential different routes for cost recovery which, in turn, is likely to have an impact on the policy levers available. In summary, policy levers included:

- Proposals under the Smart & Secure Electricity System programme for licencing of demand side response service providers and load controllers
- Mandated registration as a requirement of Government subsidy schemes, e.g. the boiler upgrade scheme
- Interlocks between OEMs and installers with existing industry practices including point of sale registration, warranty registrations and network connections
- Integration with the reform of the Energy Performance Certification scheme

A key strand of the remaining Phase 3 of the innovation programme will involve detailed engagement with prospective users of AAR/CAR on enabling further refinement of these opportunities.

A further consideration is the potential for alignment between energy supplier obligations relating to smart meter install and maintenance. Over the forthcoming decade, engineer visits to premises will be

required for first time install, device upgrade and maintenance. This presents an excellent opportunity to add unregistered assets and confirm accuracy of existing asset data.

### **Q11. What use cases for asset visibility should be considered as priorities and why?**

The AAR programme has identified five core uses for asset visibility, which are detailed within the Phase 1 feasibility study: visibility, planning, standardisation, new business models and change of service/retailer. These use cases will be further assessed in Phase 3 of the programme.

From DCC's own further engagement and re-active responses to enquiries, we have seen particular demand in the following areas:

**Integration of asset data into Local Area Energy Planning – in alignment with DNO's own network planning.** We see this as a key priority for asset visibility as it can help to:

- Maximise alignment between DNOs and Local Authorities, ensuring a single source of the truth to avoid over or under sizing of infrastructure.
- Minimise the socio-economic impact of network constraints in particular geographies. A recent example in West London demonstrated how insufficient network planning (capacity constraints at the transmission level impacting localised capacity) has the potential to significantly compromise local growth objectives, requiring active intervention from local and regional authorities<sup>11</sup>.
- The Greater London Authority has indicated that a centralised asset visibility tool (accessible to local authorities) would provide the potential to bolster DNO efforts to identify and call on local flexibility solutions. As local bodies have a direct link with consumers and communities, there is wider evidence on the importance of their role in supporting identification and deployment of local flexibility opportunities<sup>12</sup>.

### **Enabling targeted and cost-effective CER investment and flexibility participation in areas of need**

Engagement with local authorities has identified the importance of accurately and cost-effectively targeting investment schemes, e.g. the Social Housing Decarbonisation Fund and Home Upgrade Grant. Asset visibility and the availability of a central asset registry is highly valuable to this.

Firstly, in understanding where assets are already installed, which in turn helps establish underserved areas; secondly, asset visibility can help to determine 'borough readiness' for participation in flexibility services and help ensure benefit can be derived as equitably as possible across residents.

### **Q12. What costs, benefits or factors should be considered in a Cost-Benefit Analysis for asset registration solutions? Consideration should be given to:**

The full benefit case for a FMAR can only be realised through dynamic participation of a critical volume of users in its mechanisms. Ultimately, better consumer engagement in flexibility markets will lead to better value emerging from the FMAR. Therefore, we reiterate the importance of alignment with wider policy initiatives such as the Smart & Secure Electricity Systems programme to ensure that the FMAR is launched in line with its proposals on mandating smart functionality in low carbon heating appliances.

- a) **the time (in minutes) and resources required to complete current EREC G98, EREC G99 and MCS asset registrations (accounting for any recent process improvements, including ENA's Connect Direct)**

DCC is not well placed to comment on this question.

- b) **the current rate of duplicative registration processes for assets (e.g. networks and MCS)**

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<sup>11</sup> [West London Electricity Capacity Constraints](#)

<sup>12</sup> [FlexLondon | London City Hall](#)

DCC is not well placed to comment on this question.

**c) whether any additional asset data (beyond that of the current registration processes) needs to be registered to enable the benefit cases to be realised**

As outlined in our response, we urge Ofgem to focus on asset visibility as this can cost-effectively unlock a wider set of use (benefit) cases alongside that on registration of assets into flexibility markets.

From our experience in delivering smart metering infrastructure, there are likely to be economies of scale with the volume of assets supported by the register. The cost to serve smart meters from the point of go-live of the network was substantially more than the current cost per meter, with the network having reached significant scale nationally. Similar cost efficiencies could be delivered from establishing a register which facilitates several use cases.

The interaction between asset data and consumption and export data in particular is expected to be a key enabler for planning and infrastructure deployment use cases. Opportunities for cost-efficiencies in access to both data sets in tandem could be explored through combined access regimes across smart meter and asset data.

Regarding the benefit case for flexibility market asset registration specifically, though Ofgem do not consider dynamic data as necessary for the verification stage of the FMAR's digital infrastructure, we suggest that its collection could be useful for market operation once the underlying market enablers have been aligned. It may be more cost effective to build a digital infrastructure that is capable of collecting this dynamic data from the outset, even if this function is not utilised at go-live.

**d) the costs to establish and maintain a register of assets**

The costs to establish and maintain a register of assets with the proposed scope will vary depending on the delivery option selected. At a high level, costs are likely to be derived from a combination of:

- Set up costs, including technical, operational, legal and regulatory requirements
- Technology infrastructure
- Technical and security operations
- Service management and service desk provision
- Access and onboarding regime
- General operations, including business, corporate and regulatory affairs

Finally, areas of cost efficiency can be derived through shared service provision with existing smart meter capabilities (as has been the case with CSS). Shared provision could include:

- Service desk expansion rather than a standalone set up
- Alignment in governance and reporting on KPIs and other performance capture
- Dual operation of technical and security capabilities
- Shared service resource across non-core functions, e.g. regulatory, commercial and legal operations.

**e) the process required to assess suitability in accessing asset data**

As Ofgem acknowledge, the FMAR's digital infrastructure will likely include different access requirements for different users of the specific data points, e.g. DNOs may require a different level of aggregated data than other procurers of flexibility. Following the data minimisation principle, in general, costs in accessing and processing data can be reduced through ensuring only the requisite level and type of data is communicated for that particular user's needs.

**f) What the essential asset registration requirements are to enable the benefit cases to be realised?**

We direct Ofgem to the Phase 2 report of the AAR/CAR programme for greater detail on essential asset registration requirements. In general, we note that a high degree of automation reduces cost and risk, for example, in comparison to manual triage processes.