Ofgem – Call for evidence: Review of the regulatory arrangements for the Data Communications Company

Stark Response

26 March 2021

Stark

Pure Data.
Powerful Insight.

About Stark

- Stark is a leading provider of energy data and services to non-domestic consumers in the UK.
- Stark provides data collection and aggregation, analytics, metering, asset finance and energy advisory services to thousands of industrial, commercial and public sector organisations in the UK. Many of our customers are large energy consultants or suppliers who in turn provide our services on to a still larger set of end users.
- In the electricity market, Stark is an accredited Data Collector and Data Aggregator (DC/DA) for both Half Hourly and Non-Half Hourly metering systems. For non-domestic Half Hourly metering systems, we are the industry number two, behind the legacy monopoly provider. We've consistently grown our portfolio though our relentless focus on data quality, customer service, and market leading analytical tools.
- Stark plays an important role in the smooth functioning of the UK electricity market and settlements: Stark processes data for settlement for around 20%[1] of the UK's electricity consumption every day.
- In the Gas market, Stark is an Ofgem registered meter reader under ESTA's ASPCoP guidelines, an AMR Service Provider (ASP), and a Meter Asset Manager (MAM). Stark subsidiary, Squire Energy, is a GIRS accredited utility services provider and Independent Gas Transporter (IGT).
- Stark's energy analytics platform – Stark ID - is one of the most popular services of its kind for energy, carbon and sustainability professionals in the UK.
- Stark works with suppliers to deploy smart metering systems (SMETS1, SMETS2 and AMR), agent services, elective Half-Hourly settlement and analytics.

[1] Stark Analysis, 01 September 2020

Introduction

Stark welcomes the opportunity to respond to this call for evidence on the Review of the regulatory arrangements for the Data Communications Company ("DCC") ("the Review"). The Review is timely following on from the Prime Minister's Ten Point Plan for a Green Industrial Revolution and the Energy White Paper, which set the Government's agenda to transition to net zero by 2050. Central to the Prime Minister's plan and the Energy White Paper are proposals that, through investment and reform, will enable an efficient path to decarbonisation and "unleash a wave of competition".[2]

Stark considers the Review to be an important opportunity to take stock of the DCC's performance to date and its role going forward, bearing in mind the need for the energy metering and data sector to work efficiently in the long-term, for existing and future consumers, and promoting effective competition. It is also an opportunity to revisit DCC's cost control mechanisms to ensure that consumers receive value-for-money from the Smart Meter Implementation Programme ("the Programme"). The Review should also ensure that the DCC delivers on its core objectives in the Programme by maintaining a focussed scope, thereby allowing it to focus on resolving issues in the current infrastructure for domestic smart metering.

Stark make the following recommendations to increase value for money, enhance performance and improve equitable access to the infrastructure over the next licence term:

1. The DCC's Mandatory Business should remain unchanged, without further extension of scope
2. Limit innovation to improving the service and efficiency of their Mandatory Business
3. Implement an ex-ante cost control approach for the next licence term
4. Ensure that independent agents have equivalent access to consumption data as suppliers
5. Introduce SLAs and transparent performance reporting focussed on successful consumption data retrieval and delivery to industry participants

Any extension to the DCC's activities should not compromise its ability to deliver on its existing obligations, particularly given its history of underperformance. More importantly, any extension to the scope of its activities – whether on a licensed basis or by leveraging its core activities into competitive sectors – must be properly justified. The scope of any extension must be clearly laid out and supported by a robust and balanced impact assessment that considers potential impacts to competition. We have previously raised concerns about the level of detail and accuracy of the smart meter framework impact assessment.[3] The flaws in that analysis related to underlying cost assumptions and the imbalanced weighing up of evidence. Even with those flaws, the impact assessment showed that the framework would only deliver low value for money. This highlights the importance of clear cost control, and the avoidance of speculative, commercial investments which might further undermine the value for money assessment.

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[2] Government press release, 14 December 2020, 'Government sets out plans for clean energy system and green jobs boom to build back greener'. Available at: https://www.gov.uk/government/news/government-sets-out-plans-for-clean-energy-system-and-green-jobs-boom-to-build-back-greener.

[3] See Oxera report, 9 January 2020, "Smart meter framework CBA: Assessment of BEIS's 2019 smart meter roll-out CBA". Available at: https://www.stark.co.uk/wp-content/uploads/2020/01/20200801-Response-to-the-2020-consultation.pdf.

The need to maintain high levels of innovation and competition in the energy metering and data sector is very important to the functioning of the market. Its importance cannot be overstated at this critical juncture as the industry seeks to support the Government's Net Zero strategy, whilst also contributing to the economy as part of the 'green recovery'. The regulatory arrangements for the DCC moving forward will impact on the efficiency of the market and the development of innovative solutions to deal with future challenges. It is therefore essential that any extension of the scope of the DCC's position as a regulated monopoly is avoided and that, in accordance with Ofgem's duties, effective competition is promoted in emerging segments of the energy metering and data sector.

Call for Evidence Response

The future role of a DCC, the scope of its objectives and of its authorised business post-2025 to support smart metering across GB

Stark considers that the future role of the DCC should be limited to supporting Smart metering. A significant amount of roll-out activity will spill over into the next licence term and there is still a lot of work to do to utilise the full capabilities of Smart meters. Innovation will be an important aspect of achieving this, however; we view the DCC's role in this as a facilitator, rather than instigator, contributor or participant.

The scope of DCC's authorised business was already unnecessarily extended to microbusinesses in 2016. This was driven by consumer protection concerns, however; it remains unclear what advantages SMETS2 has over alternatives such as Advanced Metering (AMR) in delivering such protections for microbusinesses, for example:

- **Support for Faster Switching**: AMR supports faster switching through remote collection of Change of Supplier readings.
- **Interoperability:** AMR devices are interoperable; meter technical details are freely exchanged between parties and AMR manufacturers are obliged to release meter protocols to enable data collectors to communicate with their meters.
- **Access to consumption data:** SMETS2 consumption data comes via the supplier, via the DCC. This introduces multiple additional hand-offs that jeopardises energy management activity comparative to AMR. AMR facilitates the delivery of data directly to the energy consumer.
- **Total Cost of Ownership:** The total cost of ownership for SMETS2 is greater than AMR when DCC charges to suppliers and the costs associated with becoming a DCC User (which are ultimately passed on to consumers) are taken into account.

A more detailed comparison is provided as an Appendix.

We believe that this previous extension of the DCC's scope has been detrimental to effective competition and to the very consumers the policy aims to protect. Ideally, the DCC's monopoly in the microbusiness sector should be relaxed for the next licence term, to make room for alternative solutions that could be of greater or equivalent benefit to microbusiness. It should at least set a precedent for why further extensions to scope in the non-domestic sector should not be considered during the next licence term.

Ofgem should also consider reducing the DCC's scope in non-domestic gas. Total install volumes of gas SMETS meters in non-domestic premises are low (20,844) and a high percentage are being operated in Traditional mode - 30% (6,250) in Q4 2020[4]. This suggests the solution is simply not working. Industry also has legitimate Health and Safety (H&S) concerns over the continued deployment of gas SMETS meters to non-domestic premises. SMETS2 metering was specified at Zone 2 to keep costs down as this was sufficient for a domestic setting. However, non-domestic installations are subject to greater abuse, higher levels of humidity, possible exposure to water and other corrosive agents – making hazardous situations with the electronics in Zone 2 equipment more likely. Given the risk of gas explosions in such

[4] BEIS Smart Meter Statistics Q4 2020 excel data tables: https://www.gov.uk/government/statistics/smart-meters-in-great-britain-quarterly-update-december-2020, accessed 24/03/21, Stark analysis

environments, a long-held industry principle has been to install Zone 0 equipment, like AMR. The SMETS2 solution has therefore been a retrograde step from a H&S perspective in non-domestic gas.

The extent to which the regulatory framework should enable DCC to offer additional services to the broader energy sector, and to non-energy sector users, and the potential nature of such services

In considering any extension to the DCC's activities, it is essential that Ofgem considers the DCC's performance to date and accordingly adjusts its expectations in terms of timescales, output, costs and benefits realisation. DCC's track record against key milestones does not inspire confidence:

Milestone	**Target**	**Actual**
DCC Go Live	March 2014	November 2016
Roll-Out Completion by 2021	100%	42%[5]
SMETS1 migrated by 2021	100%	25%[6]

Significant issues also persist across the infrastructure: the success rate of pre-payment vends is low, CSP N region is continually below its minimum service level, HAN stability issues cause SMETS2 meters to go dumb and successfully enrolled SMETS1 meters continue to be operated in Traditional mode. This demonstrates that the DCC are not yet able to offer their core service satisfactorily or efficiently. There is plenty for the DCC to focus on during the remainder of the roll-out and beyond, without getting distracted by additional services.

Despite this, in August 2020 the DCC published a bold plan for expansion.[7] This envisaged the DCC leveraging its current statutory monopoly into becoming a ubiquitous infrastructure that would offer services in new sectors, such as electric vehicle (EV) metering and smart charging and Telehealth. It also proposed coupling these activities with revenue generation activities in ancillary areas.

Stark is particularly concerned about the proposal surrounding EV metering and smart charging.[8] This would be an unnecessary and unjustified step as a competitive market has already developed and delivered a solution in the form of Charge-Point Operators (CPO). CPOs can send load control signals directly to any chargepoint on their platform and the Open Charge-Point Protocol (OCCP) ensures interoperability with all manufacturers. The CPO can partner with a Virtual Lead Party (VLP) to offer the aggregated flexibility on their platform to both National Grid ESO through the Balancing Mechanism and on a smaller scale to Distribution Network Operators (DNO) through markets such as Piclo Flex. EV.Energy and Flexitricity recently were the first to achieve this and similar models are being pursued in Europe and the US, none of whom rely on a monopoly operator of metering or EV infrastructure[9]. This is a perfect demonstration of the benefits of competition relative to monopoly – the market has been able to move quickly to address customers' needs, at lower cost and with a customer-centric proposition.

[5] BEIS Smart meter Statistics Q4 2020
[6] 3.8m SMETS1 migrated, total SMETS1 = 16m
[7] DCC, 10 August 2020, "DCC Business and Development Plan 2020". Available at: https://www.nao.org.uk/wpcontent/uploads/2018/11/Rolling-out-smart-meters-Summary.pdf.
[8] HM Government, July 2019, "Electric Vehicle Smart Charging", available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/817107/electric-vehicle-smart-charging.pdf.
[9] https://www.theade.co.uk/news/market-news/ev.energy-and-flexitricity-partner-to-enter-ev-charging-into-balancing-mech

The potential impact on competition of a mandated DCC solution is significant. Firstly, the competitive CPO market for smart charging in GB would be foreclosed. Secondly, by giving DNOs the ability to directly control EV load via the DCC, a significant portion of the potential competitive market for local flexibility (relating to EV chargepoints) would also be foreclosed. The EV metering and smart charging market is growing rapidly outside of the DCC infrastructure and there will soon be a well-established and effective competitive market that drives innovation at every level; metering, chargepoint operation and data. A decision to extend the DCC infrastructure to EV metering and smart charging would, in turn, result in unnecessary development costs that would ultimately be passed onto consumers.

In summary, our view is that the DCC should "stick to its knitting" and focus on delivering its core tasks. It should resolve issues in its current infrastructure for domestic smart metering to ensure that it works satisfactorily. At a minimum, this needs to be a high successful data retrieval rate measured by consumer outcomes, for instance; the proportion of actual data being passed to participants with 24 hours of consumption (commonly referred to as "day+1"). Without robust data via DCC, major industry programmes such as Market Wide Half Hourly Settlement (MHHS) are at risk. This all needs to be delivered while GB itself migrates away from 2.5G cellular communications, which the DCC is currently wholly reliant on. Distractions from its primary mission by exploring outside opportunities, whether that be further expansion into non-domestic services or other related services such as EV metering and smart charging, must be avoided. We do not see benefit in the regulatory framework allowing the DCC to offer additional services that are not relevant to their Mandatory Business.

We do however recognise the need for the DCC to innovate within their Mandatory Business. There are many opportunities to do so, in particular around Dynamic Time of Use. There is also scope for the DCC to support innovation of other data providers through its central infrastructure by making the necessary improvements and allow faster access to its infrastructure without undue hindrances. We would be happy to share with Ofgem our own experiences in gaining access to DCC services via the Other User role – suffice to say, there is much room for improvement.

The extent to which DCC should deliver its services through contracted service providers or directly itself

Stark does not disagree with the delivery of the DCC's existing services in respect of the domestic smart meter roll-out through contracted service providers. Indeed, a properly run procurement process could partly reintroduce competition into the delivery of these services, thereby delivering better value for consumers. However, consumers must be protected by ensuring that the DCC is ultimately responsible for the provision of its services and must be able to rectify any shortcomings made by contractors without placing the financial burden of that rectification on consumers or other stakeholders. Similar to issues concerning the DCC's performance, we consider it essential that there is a high degree of transparency and accountability around the performance of contracted service providers, with appropriate performance targets set, to ensure that they are delivering an efficient and cost-effective service. Performance Targets for the DCC and their service providers must properly target completeness and timeliness of consumption data delivery to support energy management activities.

The effectiveness of the current regulatory framework and enduring governance structures in ensuring DCC meets its objectives and provides value for money, as well as alternative approaches which could drive performance in the future

Stark believes that the current regulatory framework and governance structure has failed to ensure that the DCC meets its objectives and provides value for money. We note that total DCC costs over the DCC's licence term have doubled from the original forecast in their licence application business plan (LABP) – ~£4bn vs ~£2bn. The DCC's rising costs have been largely due to ineffective price control, unjustified expansion of scope and lack of incentive to drive efficiency. The original forecast assumed 50m meters would be connected to the DCC by December 2020. As of March 2021, just 10.8m are connected. This equates to an annual cost per connected meter that is 11 times greater than that put forward by Capita in their competitive DCC bid. This represents a material failing and extremely poor value for money, which consumers are funding whilst receiving reduced benefits.

DCC has sought to justify these failures on the grounds of increased complexity and scope of the SMETS1 enrolment & adoption programme, alongside a reduced timeframe. However, this situation is a direct consequence of DCC underperformance against its original project plan. Repeated failure to meet release milestones meant the DCC went "Live" in November 2016, two years later than planned. It was another two years before the system was stable enough to support the mass roll-out to domestic credit customers. As a result, the final SMETS1 end date was extended to March 2019 and the total population of SMETS1 meters is three times higher than it was ever envisaged.

A significant proportion of costs are attributed to "New Scope" activities, which the DCC is disproportionately resourced for – the forecast headcount for this business area in RY19/20 was 92 FTE, which is 72% of the Operational headcount. The DCC's 2020 "Business and Development Plan" outlines proposals to expand beyond domestic smart metering – EV metering and smart charging and even Telehealth. Investment in accompanying marketing and lobbying activities to advertise the suitability of the DCC's network in these areas is also ramping up. All of this detracts from the cost-effective delivery of its core service, which is yet to be achieved, and is unnecessarily driving up the cost of the Programme. It is not transparent to energy consumers that they are funding DCC's expansion – many believe they are just paying for a smart meter, not supporting the commercial growth of a monopoly protected by regulation, which raises significant consumer protection issues.

In order to control costs and drive performance in the future, Stark recommends that Ofgem limits DCC's role to focusing on achieving its core deliverables in the domestic smart meter roll-out rather than expanding any further. This approach would prevent wasteful and unnecessary expenditure on marketing and lobbying activities regarding the DCC's expansion into emerging markets, which are ultimately being passed on to energy consumers.

Stark also considers that there needs to be more robust governance around the assessment process for extending the DCC's scope. It is important that the accompanying rationale for extending its scope is transparent to improve confidence in the assessment overall. We ask that any proposals to increase the scope of the DCC are subject to proper impact assessments, including cost-benefit analyses, to understand how this might impact levels of innovation and competition in the market, without an excessive focus on perceived cost savings from adding onto a centralised monopoly.

The key aspects of DCC's business that stakeholders consider crucial to their own activities in the present and future energy market over the timeframe to 2040

Stark are planning to qualify for the new "Smart Data Service" (SDS) role under the Balancing & Settlement Code (BSC) for Market-Wide Half-Hourly Settlement (MHHS). A component of the SDS is a Meter Data Retrieval (MDR) function, which will require a new DCC User Role to facilitate this as a service independent of the Supplier. For Stark to fairly compete with suppliers, who will already be able to perform this function, it is vital that there is a level playing field. We therefore expect the equitable treatment of service requests to retrieve consumption data regardless of whether it is a supplier operating in the MDR role or an independent agent. Equally we expect the DCC infrastructure to reliably provide this data when requested and without constraint. Appropriate SLAs and performance reporting, for the DCC and their service providers, focussed on consumption data retrieval are essential to this.

Suppliers have been treated as the priority customer group over the initial licence term. The requirements of independent metering and data providers have not been well understood and to an extent de-prioritised. Given the role these organisations will play in achieving Net Zero, it is important for the DCC to support them equally to Suppliers during the next licence term.

DCC's role in enabling the transition to net-zero by 2050

Stark recognises the importance of energy metering and data in enabling the transition to net-zero by 2050, helping to create a more flexible and efficient energy system. Energy meters and data encourage better management of energy usage, improve energy efficiency, and ultimately help reduce energy consumption and carbon emissions. It is therefore essential that the smart meter roll out is completed promptly so that all domestic households can benefit from having a smart meter installed, and ensuring that the DCC discharges its obligations to a satisfactory standard.

As the UK transitions towards a low carbon economy, a greater amount of electricity will be used to power transport, in particular EV as people shift away from petrol and diesel vehicles, and heat, as heating systems move away from natural gas. In order to achieve net-zero by 2050, energy metering and data will be a vital part of the transition to ensure that this increased electricity usage is efficient and properly managed.

We consider innovation in the energy metering and data market to be crucial to identifying the necessary solutions to meet the growing metering needs of the energy and transport sectors. Our view is that the best way to achieve high levels of innovation is through competition between service providers. The DCC's further expansion into and monopolisation of growing segments of the energy metering and data market would have the effect of stifling innovation. A centralised monopoly would hinder the development of energy metering and data solutions in the market and create inefficiencies and increase costs. There would be the risk that the DCC's past failures in the SMETS roll out are repeated in other parts of the energy metering and data market, and ultimately damage the transition to net-zero. For instance, tying the fate of a vital infrastructure project like EV metering and smart charging to a centralised monopoly with a track record of failure would be disastrous for the transition to net-zero.

The DCC's role should be to facilitate others to innovate around the use of Smart metering to ultimately achieve the consumer benefits outlined in BEIS' cost-benefit analysis for the Smart meter roll-out, which in turn will contribute towards net-zero.

Optimal arrangements for DCC's compliance, cost control, and incentive regimes, among others

There is an urgent need to reform the arrangements for the DCC's compliance, cost control and incentive regimes. The current DCC regulation, the Operational Performance Regime (OPR) and Baseline Margin Project Performance Adjustment Scheme have not been effective in ensuring adequate oversight of the DCC's activities and controlling its costs. We therefore argue that Ofgem's powers under the price control process should be strengthened to manage the DCC's budget more effectively and with greater transparency and accountability. We also encourage greater scrutiny from Ofgem in the event of DCC cost increases and limits on recoverable costs where such increases cannot be justified. We also consider that the DCC's incentives should be adjusted so that they are better aligned to delivering an optimal service level for SMETS meters, rather than being distracted by commercial opportunities to expand into other areas. At a minimum, this must include SLAs and performance targets related to consumption data retrieval.

The full extent of public funding for the Programme should also be made more transparent to ensure that the DCC provides value for money to consumers and so that its activities can be properly scrutinised. We consider the DCC's ineffective cost control to have caused a direct financial impact on consumers, which may threaten the long-term viability of the Programme. This is a significant consumer protection issue that must be addressed in order to ensure fairness and maintain confidence in the Programme.

Given that the Price Cap is requiring suppliers across the market to make efficiency savings, it is essential that greater scrutiny is placed on the DCC's cost accrual so that it is forced to operate more efficiently. If customers continue to bear the costs of DCC's poor performance and commercial venturing, this will undermine the broader policy aims of the Price Cap of ensuring that consumers pay a fairer price for their energy and are prevented from being overcharged.

Stark argues that the Baseline Margin adjustment mechanism, which aims to recognise the uncertainty of the nature and risks of the DCC's Mandatory Business over the Licence term, should be tightened to incentivise the DCC to manage its budget more effectively. At the very least, cost recovery for the DCC should move from an ex-post system to an ex-ante one. The DCC should control its costs by estimating in advance the cost for delivery of the objectives in its business plans. Funding of these business plans should only be approved if (i) they are shown to be efficient and relate to the DCC's statutory purpose, and (ii) the DCC achieves the aims set out in its proposals. This approach would ensure that costs are controlled more tightly and the DCC is properly incentivised to deliver its committed projects on time and on budget. Over time, the cost control mechanism could be improved further by involving consumer groups to test the scope of the DCC's activities and ensure that consumers' interests are represented, and by encouraging cost efficiency through sharing mechanisms that result in efficiency gains being split between the DCC and consumers.

The amount of the DCC's Baseline Margin could also be increased so that more of the Margin is put at risk depending on its performance. Our view is that the lower the Baseline Margin is set, the lower the risk to DCC, which has resulted in the DCC placing a lack of emphasis on cost control and the need to greatly improve its performance. Poor performance should not be rewarded and should instead result in negative margin being applied to the DCC's recoverable costs.

Appendix

Table 1: Stark's Assessment of SMETS functionality vs. AMR

BEIS Assertion	Supported by AMR	Stark Assessment
Smart meters as specified under the SMETS standard have more functionality [than AMR]	✓✓✓	AMR offers functionality not offered by SMETS including but not limited to supporting a much larger range of WANs; single and polyphase variants, more extensive engineering displays and diagnostics including remote live display of current and volts.
They provide for two-way flows of information to and from the premises	✓✓✓	AMR supports communication to the supplier (via agents) including consumption and register data, meter flags and alerts.
Establish a home area network to transmit information to other permitted devices in the premises	✓✓✓	AMR also supports home area network communications through multiple protocols including UDP/IP via fixed line or common wireless protocols including Zigbee
Allowing the consumer ready access to their consumption data without relying on their energy supplier	✓✓✓	As IHDs are not required to be provided to non-domestic consumers in the rollout, we assume this statement refers to CAD-enabled access, or direct access via the DCC. Both these routes are more onerous in SMETS2 than AMR. In AMR, consumers are provided data directly, at no extra charge, by their service provider (Data Collector), independently of their supplier. In SMETS2, consumers must either be a DCC Other User, pay for a managed service, or deploy CADs – all of which carry extra costs.
Are designed to be interoperable, meaning that a SMETS2 meter can be operated by all energy suppliers rather than only the energy supplier that installed it	✓✓✓	Electricity AMR is technically, operationally and commercially interoperable. AMR can be used by any Supplier and any Agent. AMR facilitates rather than obstructs switching. AMR at present supports 60% of UK's electricity consumption.[10]
Smart meters also enable time-of-use tariffs	✓✓✓	AMR support time of use tariffs (see Annex A for an example).
load control which allows for the control of the flow of electricity to particular circuits and devices	✓✓✓	AMR supports load control.
--- Not supported by AMR ✓ Partially supported by AMR ✓✓ Mostly supported by AMR ✓✓✓ Entirely supported by AMR		

[10] Supplier Market Share Data for Q3 2017, Elexon; Stark analysis