

Smart Meters Programme

Schedule 2.1

(DCC Requirements) (Billing System Version)

Schedule 2.1 (DCC Requirements)

This Schedule 2.1 (DCC Requirements) is formed of the following parts:

Part A Introduction3

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Part A Introduction

- 1 This schedule sets out certain DCC Requirements for the Services to be provided by the Contractor.
- 2 The Contractor Solution shall deliver the requirements set out in this Schedule 2.1.
- 3 The provisions of this Schedule shall be interpreted as obligations on the Contractor (as if preceded by the words "the Contractor shall ensure") unless expressly stated otherwise. The Contractor shall ensure all the requirements listed in this Schedule are met at all times in accordance with their terms.
- 4 The Contractor shall ensure the Services are provided at all times in accordance with each of the Contractor Solution Schedule 4.1 and each document forming a part of the Service.

Part B Requirements

4.1 Functional Requirements

4.1.1	The Billing System will support the reconciliation of receivables through integration with an Accounts Receivable Ledger. This will at minimum be a flat data file in a format required by SAP.
4.1.2	The Billing System will provide a summary invoice and supporting detail to ensure that DCC Service Users are clear on how invoices are calculated. This is limited to the detail submitted to the DCC by the Fundamental Service Providers used to create invoices
4.1.3	The Billing System will support income accounting through integration with a General Ledger. This will at minimum be a flat data file in a format suitable for SAP with coding for revenue streams and financial accounting
4.1.4	The Billing System must enable DCC to invoice accurately and on a timely basis DCC Service Users for the services they consume according to the Smart Energy Code Charging methodology
4.1.5	The Billing System shall allow the DCC to redistribute flat rate charges from the Fundamental Service Providers along with DCC operating costs. These rates will be per meter point and will be changeable on an annual (in line with published Charging Statements) or ad hoc basis whilst retaining audit trail for previous periods
4.1.6	The Billing System shall enable the DCC to meets its obligation to produce an invoice at the end of each month where a Service User has incurred a charge

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4.1.7	Invoices and supporting information will be available in an electronic format (PDF) and available to be printed by users to a local facility
4.1.8	The Billing System will be capable of producing invoices for DCC Service Users to permit a range of delivery options, ideally paperless (PDF via email) and printed for postal delivery
4.1.9	In the event that DCC agrees with a DCC Service User that an invoice contains a fundamental error the System will be able to credit the invoice and then raise a new invoice based upon corrected information
4.1.10	<p>The Billing System will produce invoices compliant with the relevant financial and tax regulations in a clear and common format including but not limited to:</p> <ul style="list-style-type: none"> - Identification of the DCC Service User - Breakdown of the charges incurred (including an identification of the services consumed with associated breakdowns of charging data between service types in appropriate service units) - Identification of the time period covered by the invoice - A unique reference number for the invoice - The terms of payment including banking details and invoice due date - Any adjustment of charges - Taxes and tax references as appropriate including VAT Registration number - DCC Contact details
4.1.11	The Billing System should allow multiple invoice formats where format is to be configured based upon invoice type. Historic formats should be maintained by the Billing System
4.1.12	The Billing System should segment invoices by charge type into fixed, transactional and manual charges on a monthly consolidated invoice
4.1.13	The Billing System will include the payment due date on the invoice. This being the later of: (a) 5 working days following receipt of such invoice; and (b) 8 working days following the end of the month to which such invoice relates
4.1.14	Invoices shall clearly state fixed charges as a single amount (combining the Licence, FSPs, the Authority and SECCo costs) as a cost per meter point
4.1.15	Invoices shall clearly state one off charges (including but not limited to, costs for obtaining credit assessment scores, interest charges and charges for elective service development). These are to be manual

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	entries into the Billing System (not interfaced) and are to be included in the consolidated monthly invoice
4.1.16	Charges on invoices shall be stated exclusive of VAT, which shall be added, if appropriate, at the rate prevailing at the relevant tax point.
4.1.17	The Billing System rules engine shall be capable of changing the method of calculating charges whilst retaining the history of those changes (e.g. quantities, volumes, price and dates of change) in order to preserve the audit trail
4.1.18	The Billing System will allow charges to be applied and identified as estimated charges without required calculations. Any changes to charges when improved information is received will be manually invoiced
4.1.19	The Billing System shall be capable of applying weighting factors and charges to different categories of users via rates updated annually or on an ad hoc basis
4.1.20	The Billing System rules engine will be capable of applying different charging algorithms to different periods (e.g. before and after go live of the DCC services) and retaining the history of those changes in order to preserve the audit trail
4.1.21	The Billing System shall be capable of calculating monthly charges by applying different structures of fixed, explicit and elective charges, rebates and ad hoc charges in line with the Smart Energy Code
4.1.22	The Billing System shall be capable of applying a separate charging methodology for Communications Hubs and keep the charges separated within the Billing System and invoices in line with the Smart Energy Code
4.1.23	The Billing System will import all data required from the Fundamental Service Providers for invoicing DCC Service Users on a monthly basis.
4.1.24	The Billing System will be able to accommodate the manual creation of new DCC Service Users to enable them to be invoiced effectively and link these accounts to the relevant DCC Service Users IDs
4.1.25	Comprehensive functionality for analysing billing data must be provided. This can be either within the Billing System itself or by exporting reports in a suitable (Excel compatible) format for analysis outside the system
4.1.26	The Billing System can be updated to hold the contact details of each DCC Service User Organisation and Individual DCC Service Users
4.1.27	The Billing System must have the capability for bulk export and import of data with the ability for reconciliations to validate the accuracy and

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	completeness of the data
4.1.28	A copy of all invoices in a PDF format must be stored within a searchable repository in the system
4.1.29	The Billing System shall process imported usage data and manual entries to create invoice lines and charges
4.1.30	The Billing System shall identify any duplicate import data files received and de-duplicate
4.1.31	The Billing System shall maintain its own data integrity and reject import files if there are error(s) in the file
4.1.32	The Billing System will export data to enable DCC journal entries in the SAP General Ledger
4.1.33	The Billing System shall present information in a concise and simple format to assist DCC staff responding to User queries and in generally undertaking Billing processes
4.1.34	The Billing System shall manage access to the functionality of the Billing System from system users based on individual permissions and role based permissions as defined and amended from time to time by the DCC.
4.1.35	The Billing System shall provide access to data according to individual and role-based permissions
4.1.36	The Billing System shall store all invoice records and billing data for at least seven years
4.1.37	The Billing System must be part of business continuity planning for DCC and the Billing System provider, through agreed levels for system availability
4.1.38	The Billing System must be able to recover from disaster through agreed recovery plans and agreements on levels of systems failover
4.1.39	The provider must ensure that in the event of revocation or expiry of the DCC license that the Billing System can be transferred in an orderly manner to a successor licensee
4.1.40	The Billing System shall provide bulk load capability for the DCC service catalogue items to be received via csv or Excel. These items will be invoiced at fixed rates to DCC Service Users.
4.1.41	The Billing System must incorporate the potential for additional field information and the ability to import additional data files to create

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	additional charges on DCC Service User invoices to enable foundation meters to be transitioned into the DCC service and billed correctly
4.1.42	The Billing System must enable an Unrecovered Bad Debt Payment to be recovered from all other DCC Service Users as a manual adjustment by bulk update, in the event of a DCC Service User Event of Default
4.1.43	Production application resolver team is aligned to the DCC Incident Management Policy
4.1.44	The Billing System must accommodate Registered Supplier Agents - Supplier relationship and, specifically, be able to distinguish and report on which party ordered the goods or services and which party is liable for the charges for those goods and services where the two are not one and the same. This will be shown as two fields on any relevant data feeds splitting out the chargeable DCC Service User and the DCC Service User that raised the any request
4.1.45	The Billing System must be capable of being extended in the future to support Value Added Services - services provided by the DCC not directly related to Energy Supply
4.1.46	All systems need to accommodate additional Organisation Types (SEC party types) through configuration rather than development
4.1.47	The Billing System must have a user interface conforming to the requirements laid out in the latest Disability Discrimination Act under UK law
4.1.48	The Billing System must allow Elective Service charges to be configured to include: <ul style="list-style-type: none"> (a) an explicit charge based on usage of the service (b) a standing charge that is not based on usage but based on the DCC Service User electing to include the service within their subscription
4.1.49	The Billing System must be capable of configuring events or triggers to create automatic alerts. Automatic alerts to be driven by configurable rules engine. This will be able to integrate with the DCC email network.
4.1.50	The System must be capable of creating template and bespoke documents. Triggers for the output to be manual or automated based on a rules engine. Format to be variable including at the minimum PDF and email. Fulfilment to be electronic by email and/or local printing. This will support the DCC Service User invoice, detailed transparent

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	invoice detail and the Direct Funding Agreement (CHuRP) invoice.
4.1.51	<p>The Billing System must have a configurable workflow to enable tasks to be associated with a pre-defined workflow.</p> <p>Tasks can be sent to a specific user or role-based user group for approval e.g. the bulk approval of invoices based upon a detailed report</p>
4.1.52	The Billing System must allow for date dependant tariffs and where backdating and future dating charges ensure that the "Charge Effective Date" is used to determine the correct tariff to be applied.
4.1.53	<p>The application will receive data files containing volume data relating to chargeable events.</p> <p>The data files will be generated once per calendar month and must be processed by the Billing System</p>
4.1.54	The Billing System must support the DCC applying charges across multiple organisations or DCC Service Users or other segments.
4.1.55	<p>The Billing System must be able to automate processes based on rules and validation. The user interface must be appropriate for DCC users of the Billing System with desktop skills only.</p> <p>The Billing System will automate the data interfaces, the charging methodology calculations, the creation of invoices and the distribution of invoices with minimal user intervention</p>
4.1.56	The Billing System must allow Users to perform searches on the Invoices and outputs to return historic data. For example, by invoice number, date, Organisation, DCC Service User ID
4.1.57	The Billing System must be capable of rolling back to a timestamp / event on critical failure in accordance with the agreed Service Levels.
4.1.58	The Billing System Infrastructure installation must adhere to DSP Enterprise Gateway Interface Code of Connection (COCO)
4.1.59	The Billing System must be capable of performing mapping, aggregation and processing on data files received from the Data Service Provider before charges are calculated and applied to the DCC Service Users
4.1.60	The Billing System must be able to read and import all interface files received from the Data Service Provider to calculate charges due to DCC Service Users
4.1.61	The Billing System must allow DCC to ensure that the monthly email sent to DCC Service Users with their monthly invoice and supporting detail are

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	compliant and worded accurately for the elements that change from month to month. The monthly email must be reviewed and approved by DCC before despatch
4.1.62	<p>The Billing System must have controls in place to ensure that all changes to Master data are approved by the relevant Master data owner</p> <p>This includes,</p> <ul style="list-style-type: none"> -Pricing data tables -Data mapping tables (i.e. DCC Service User ID to SAP Customer Accounts)
4.1.63	<p>The Billing System must be able to exclude any meters that are not chargeable from the fixed cost data feed for registration data (for calculation and invoicing).</p> <p>This includes</p> <ul style="list-style-type: none"> - domestic meters that are linked to participant codes that are owned by commercial companies, these meters should be filtered out by the Data Service Provider - domestic meters that are linked to non-SEC Parties
4.1.64	<p>The Billing System must be able to accommodate manual adjustments (Debits and Credits) to the charging and invoicing process. This requires the ability to enter the relevant information for any DCC Charge to populate the designated invoice detail section for that particular charge element</p> <p>Fields available for manual entry to support any calculation must include number of units, cost per unit, description, general ledger code and VAT status</p>
4.1.65	<p>The Billing System must provide the draft invoice summaries and invoice details for each SEC Party in one PDF document per SAP Customer Account which includes both the invoice summary and invoice details.</p> <p>The PDF documents must include the word DRAFT</p> <p>DCC must approve the draft invoices in the System (which should remove the word DRAFT) before production of the final invoices</p>
4.1.66	<p>The Billing System must provide the final invoice summaries and invoice details for each SEC Party in one PDF document per SAP Customer Account which includes both the invoice summary and invoice details</p> <p>The PDF should be attached and sent to the contact email address held in</p>

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	the SAP Customer Account with updated wording for the current month
4.1.67	The Billing System must calculate the Fixed Costs, Service Requests, Communications Hubs, Communications Hubs HAN Variant, Communications Hubs Faults, Service Catalogue charges in accordance with the Smart Energy Code
4.1.68	The Billing System must generate a Data Load Structure Errors report. This checks that structure of interfaced files are in the correct format for processing by the system. This report outputs any errors.
4.1.69	The Billing System must generate a Data Load Completeness Errors report. This checks that interface data has been imported correctly into the billing system. This report outputs any inconsistencies.
4.1.70	The Billing System must generate an Invoice Summary listing the current month's Invoice schedules broken down to invoice detail. This will need to be available to be run for either those in a draft status or those in a final status
4.1.71	The Billing System must send emails from the finance shared outlook inbox. Emails need to be sent from finance@smartdcc.co.uk so that any error messages from DCC Service User email servers will be returned to this inbox
4.1.72	The Billing System must generate monthly Fixed Costs, Service Requests, Communications Hubs, Communications Hubs HAN Variant, Communications Hubs Faults, Service Catalogue volume trends reports. Control report to ensure that the current monthly data is accurate by reviewing current month data with prior months so that any unusual variations are identified and adequately accounted for and explained.
4.1.73	The Billing System will ensure that no invoices under the value of £20 plus VAT, De Minimis, are issued to Service Users; these will be held as orders. If any point in the regulatory year (01/04 to 31/3) the total of invoices not sent out goes over £20 plus VAT then they must be rolled up and issued on that invoicing cycle. In the final month of the regulatory year all outstanding orders must be invoiced to DCC Service Users.
4.1.74	The Billing System must generate a Monthly De Minimis report. A listing of de minimis invoices which have NOT yet been billed to customers
4.1.75	The Billing System must generate an on demand Master Data changes

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	<p>report. This includes;</p> <ul style="list-style-type: none"> - customer data - mapping tables (i.e. DCC Service User ID to SAP Customer Account) - pricing tables
4.1.76	<p>The Billing System must be able to include more than one month's billing per invoice e.g. the ability to include both October's and November's fixed costs charges in the November invoice [may occur with the reversal of an estimated charge]</p>
4.1.77	<p>The Billing System must be able to separately identify and Invoice the Direct Funding Agreement (CHuRP) element of the Monthly Comms Hubs Fixed Cost charge.</p> <p>This will be calculated as a percentage of the total Communications Hubs charge and deducted from the main monthly invoice and invoiced separately.</p> <p>This separate Invoice will be payable to a different (escrow) Bank Account than the main Invoice which will be payable to DCC</p>
4.1.78	<p>The Billing System must be able to support a mapping from the interface data fields of DCC Service User ID and Chargeable Service User ID (roles assigned to SEC Parties) to SAP Customer Accounts (SEC Parties) to enable charges to be allocated and invoiced correctly.</p> <p>This table will be manually updated from time to time by DCC</p>
4.1.79	<p>The Billing System must be able to support a mapping from the interface data fields of Service Request Variants to chargeable Service Request Bands to enable charges to be allocated and invoiced correctly.</p> <p>This table will be manually updated from time to time by DCC</p>
4.1.80	<p>The Billing System will enable DCC to roll back an interface that after review of the trend variance reports is deemed incorrect. This will be before invoices are moved from draft to final.</p> <p>A replacement data file will be provided in these circumstances.</p>
4.2.1	<p>By 31st May 2015, or a later date as defined solely by the DCC, appropriate certification must be held that is accredited by the United Kingdom Accreditation Service in relation to the following standards of the international organisation for standards ("ISO") with respect to the resilience, reliability, and security of information assets, processes, and systems:</p> <p>(a) ISO/IEC 27001:2005 (under the title of Information Technology –</p>

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	<p>Security Techniques – Information Security Management Systems); and</p> <p>(b) Any equivalent standard of the ISO that updates or replaces that standard</p>
4.2.2	The Contractor shall comply with the general security provisions listed in Section G of the Smart Energy Code and the security policies of the DCC
4.2.3	The system (and its accompanying services from the supplier) shall comply with the security provisions applying to supplier parties detailed in the Smart Energy Code.
4.2.4	The Contractor shall comply with Condition 8 “Security Controls” and Condition 10 “Protection of Confidential Information” of the Smart Meter Communication Licence.
4.2.8	The System shall be sited in a physically secured and monitored location.
4.2.9	The System shall be located in Great Britain.
4.2.10	<p>All Data processed by the Contractor shall be stored and/or processed within the European Economic Area (EEA).</p> <p>For clarity: The Contractor shall be allowed to develop and maintain non-Security Related Functionality off-shore. The opportunity for configuration changes that may indirectly affect security functionality should be considered. User access privileges and controls that would allow system configuration to be amended offshore or data exported offshore are not permitted. In addition, the Provider shall ensure that the Provider Solution complies with applicable local and international legislation (whilst at a minimum ensuring alignment to the HMG standard GPG6 – Outsourcing and Off-shoring: Managing the Security Risks)</p>
4.2.11	The Contractor shall develop and maintain, and hold all Data in accordance with the DCC Data Retention Policy which is available on request from the DCC
4.2.12	The System must demonstrate compliance with the HMG Good Practice Guide GPG13 “Protective Monitoring” (a minimum of Recording Profile B (DETER) is required). The Contractor shall include appropriate monitoring, alerting and reporting (as per PMC 11 which is set out in HMG Good Practice Guide GPG13). This should be agreed with DCC.
4.2.13	<p>The Contractor shall incorporate procedures on the management of business continuity that comply with:</p> <p>(a) the following standards of the International Organisation for Standards in respect of business continuity:</p> <p>(i) ISO/IEC 22301:2012 (Societal Security – Business Continuity</p>

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	<p>Management Systems – Requirements); and</p> <p>(ii) ISO/IEC 27031:2011 (Information Technology – Security Techniques – Guidelines for Information and Communications Technology Readiness for Business Continuity); and</p> <p>(b) the Business Continuity Institute Good Practice Guidelines 2013; or</p> <p>(c) in each case, any equivalents to those standards or guidelines which update or replace them from time to time</p>
4.2.14	The Contractor shall provide regular security awareness training to all staff which is specifically tailored to their role.
4.2.15	<p>The Contractor shall ensure that personnel who are authorised to have access to DCC Data are subject to security screening in a manner that is compliant with:</p> <p>(i) British Standard BS 7858:2012 (Security Screening of Individuals Employed in a Security Environment – Code of Practice); or</p> <p>(ii) any equivalent to that British Standard which updates or replaces it from time to time</p>
4.2.16	<p>The Contractor shall ensure that each member of their personnel who is a privileged user (e.g. system administrator) has passed a HMG Security Check (SC) before being given access to the DCC system.</p> <p>(Privileged users will have greater access than Normal Users and so will require a higher level of security screening.)</p>
4.2.17	The Contractor shall be certified to ISO27001, from GoLive, for all Information Assets, and Processes or Information Systems in respect of all Services provided to the End-To-End Smart Metering System.
4.2.18	<p>The Contractor’s Information Security Management System (ISMS), produced as a requirement of the Information Security Standard ISO27001, shall incorporate procedures on the management of information security incidents which comply with:</p> <p>(a) the standard of the International Organisation for Standards in respect of security incident management known as ISO/IEC 27035:2011 (Information Technology – Security Techniques – Information Security Incident Management); or</p> <p>(b) any equivalent to that standard of the International Organisation for Standards which updates or replaces it from time to time.</p>
4.2.19	The Contractor shall operate secure facilities, services and processes to manage cryptographic keys and certificates used in the End-To-End Smart Metering System.

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	level 3.
4.2.20	<p>Operational DCC data shall remain separated from other data such that it is:</p> <ul style="list-style-type: none"> Only presented to users authorised by the DCC Not used for purposes other than that for the DCC business Not used for development, testing or training purposes <p>For clarity, under the DCC licence, the data contained within the billing system is considered 'Confidential Information'. The disclosure of confidential information is only permitted for the purposes of Smart DCC Ltd business in accordance with Condition 10 of the Licence and shall not be used for any other interest including that from any other organisation or person .</p> <p>Within any shared environment, the Contractor shall have demonstrable controls to ensure that the above is met.</p>
4.2.21	<p>The Contractor shall ensure that where, in accordance with the DCC Data Retention Policy, any Data no longer required for the purposes of the Authorised Business, is securely deleted in compliance with:</p> <ul style="list-style-type: none"> (a) HMG Information Assurance Standard No. 5:2011 (Secure Sanitisation); or (b) any equivalent to that HMG Information Assurance Standard which updates or replaces it from time to time.
4.2.22	<p>The Contractor shall ensure that an organisation which is a CESG CHECK service provider carries out assessments that are designed to identify any vulnerability of the System to Compromise and any failure of the System to comply with Section G2 of the Smart Energy Code:</p> <ul style="list-style-type: none"> (a) on at least an annual basis; (b) in respect of each new or materially changed component or functionality of the System, prior to that component or functionality becoming operational; and (c) on the occurrence of any Major Security Incident in relation to the System.
4.2.23	<p>The Contractor shall ensure that it carries out assessments that are designed to identify any vulnerability of the System to compromise and any failure of the System to comply with Section G2 of the Smart Energy Code:</p> <ul style="list-style-type: none"> (a) in respect of each DCC System, on at least an annual basis; (b) in respect of each new or materially changed component or functionality of the DCC Systems, prior to that component or functionality becoming operational; and (c) on the occurrence of any Major Security Incident in relation to the System.
4.2.24	<p>Where, following any assessment of the DCC Systems in accordance with</p>

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	<p>4.2.22 or 4.2.23 or as a result of an Audit or any other rights under this Agreement, any such vulnerability or failure has been detected, the Contractor shall:</p> <p>(a) use its reasonable endeavours to ensure that:</p> <p>(i) the cause of the vulnerability is rectified, or the potential impact of the vulnerability is mitigated, as soon as is reasonably practicable;</p> <p>(ii) the cause of the failure is rectified as soon as is reasonably practicable; and</p> <p>(b) in the case of a material vulnerability or failure, promptly notify the DCC of the steps being taken to rectify its cause or mitigate its potential impact (as the case may be) and the time within which they are intended to be completed.</p>
4.3.1	
4.3.2	
4.3.3	
4.3.4	The Contractor will complete system and unit system testing and provide support for all required DCC testing
4.3.4	The Contractor will: <ul style="list-style-type: none">- Provide 3rd line support- Provide and maintain administrative and end user training material- Provide and maintain Documentation to support the technical build of the system including Installation and Maintenance guides
4.3.5	-
4.3.8	