



# Statement of Work

*for*  
*SmartWorks Compass*

*Presented to*

*Virgin Islands Water and Power Authority*

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## 1. Introduction

This Statement of Work (SOW) is entered into and governed by the agreement between N. Harris Computer Corporation, acting through its SmartWorks Business Unit, and the Virgin Islands Water and Power Authority ("Customer"), dated effective February 28, 2014. This SOW defines the Professional Services to be provided by SmartWorks for Customer. SmartWorks and Customer shall perform their respective obligations in accordance with this SOW. This SOW includes a high-level timeline and other Terms and Conditions specific to the services requested by Customer. This SOW is pursuant to the terms and conditions of the Contract between the USVI and N. Harris Computer Corporation dated 2/28/2014 and the Support and Maintenance Agreement dated 2/28/2014 (collectively, the "Agreement"): to the Terms and Conditions of USVI appended hereto as Exhibit "A", as amended; and to the HUD addendum attached as Exhibit "B." In the event of any conflict, the following order of precedence shall apply: The Agreement; then the T&Cs in Exhibit "A"; then the terms of the HUD addendum.

The customer is undertaking the deployment of a new Advanced Metering Infrastructure (AMI) and has requested the implementation of a new Meter Data Management (MDMS) system as part of this initiative. This project is focused exclusively on electric meters and does not include water meters, which will be addressed separately in a future SOW.

This document serves as the complete understanding between Customer and SmartWorks as to what the current Statement of Work entails. SmartWorks will use this document as a reference for the configuration and implementation of **SmartWorks Compass** (herein referred to as the "SmartWorks Software"). This document will also be used by Customer to determine if the SmartWorks Software provides the functionality requested and agreed to, per this document. If there are any issues during the project lifecycle, this document will be used to determine whether the issue is a configuration/development issue or whether the issue was not included as part of the current Statement of Work.

Changes to this document shall be made through a Change Management Process as described Section 4.3.

The implementation project will accomplish the following high-level objectives:

- 1) Install, configure and implement the SmartWorks Software as defined in Section 2.
  - a) The **SmartWorks Compass** solution will be installed at the Customer's location on premise.
- 2) Initiate within SmartWorks Software the collection and management of register and interval read data from AMI Meters.
- 3) Integrate with:
  - a) Itron AMI to import register and interval reads, import meter events/alarms, and initiate remote actions;
  - b) CentralSquare CIS to import meter and location data, provide billing determinants, receive service orders for remote actions to Itron AMI, and initiate service order requests from MDMS to CIS; and
  - c) ESRI GIS for integration with base maps URL, lat/long, transformers, etc.
- 4) Deliver system training designed to develop Customer competency with the use and configuration of the SmartWorks Software.



5) Provide support during User Acceptance Testing.

## 1.1. Glossary of Terms

Acceptance Testing Period	A defined period of time to perform User Acceptance Testing on the Solution including testing in a live pre-production environment.
Actual Solution Acceptance Date	Date that written acceptance by Customer is received by SmartWorks that Solution substantially meets the Functional and Integration Requirements Document and substantially satisfies the testing criteria set forth in the Solution Acceptance Criteria.
Billing Determinant	The measure of consumption used to calculate a customer's bill. A billing determinant is either: <ul style="list-style-type: none"> <li>• A register read; or</li> <li>• A value calculated by the MDMS for billing purposes based on interval and/or register read data. If rates are blocked, seasonally differentiated, time-differentiated, or separated by demand and energy measures, then the billing determinants are organized in the same fashion.</li> </ul>
Change Management Process	The process outlined in section 4.3 of the SOW, which SmartWorks and Customer will follow for any proposed changes to the SOW.
Deliverable	An item created during the project that requires formal review and approval by Customer.
Deliverable Acceptance Criteria	Criteria by which Customer determines that the Deliverable provided by SmartWorks is in accordance with this Statement of Work.
Deliverable Acceptance Criteria Document	A central listing of all Deliverables and Work Products developed by and maintained throughout the project.
Expected Solution Acceptance Date	The date, identified in the Detailed Project Plan, by which Customer and SmartWorks expect Solution Acceptance to be achieved.
Functional Testing	Testing of the core Solution components (configuration, interfaces, reports, and modifications) against agreed upon requirements, prior to User Acceptance Testing.
Go-Live Plan Document	A Deliverable identifying and describing the activities to be performed during the Deployment phase of the project.
Integration Testing	Testing of the end-to-end process based on business processes and scenarios against the agreed upon integration requirements.



Interval Read Data	<p>A meter read (actual or virtual) showing the consumption over a defined period of time, demand, or interval, normally 60 minutes, 30 minutes, 15 minutes or 5 minutes.</p> <p>Typical units of measure include kilowatt-hours (kWh) for electric meters, Gallons/cubic foot or cubic meter for water meters.</p>
Meter Channel (physical)	<p>Unique stream of meter read data, with corresponding UOM (Unit of Measure), measured by meters and stored under a unique Channel ID within SmartWorks Compass.</p> <p>Each channel can consist of consumption data (referred to as consumption channel) or a demand data (referred to as demand channel).</p>
Meter Channel (virtual)	<p>Unique stream of meter data, with corresponding UOM (Unit of Measure), generally calculated by and stored under a unique Channel ID within SmartWorks Compass. Each channel can consist of consumption data (referred to as consumption channel) or a demand data (referred to as demand channel).</p>
Meter Event	<p>An anomalous network situation or notification reported by an AMI meter; for example, issues related to quality of supply, security failures, fraud, or issues with network communications. Meter events are collected and reported by Customer's AMI system as part of the routine meter interrogation cycle.</p>
Post Implementation Grace Period	<p>Time period after Actual Solution Acceptance Date during which SmartWorks Software is operating as Customer's primary operating system with respect to functionality contained herein.</p>
Register Read Data	<p>A value provided by the meter that is shown on the meter's faceplate, and hence can be validated by the customer by visual inspection of the meter. This can include:</p> <ul style="list-style-type: none"> <li>• Cumulative Consumption Register Read – total measured consumption since the meter was manufactured or refurbished (typical units of measure include kilowatt-hours (kWh) for electric meters and Gallons/ cubic foot or cubic meter for water meters.)</li> <li>• Time of Use Consumption Register (total consumption during a specific time of use window)</li> <li>• Daily Demand Register (peak demand in kilowatts (kW) for electric meter during a 24 hour period)</li> </ul>
Solution	<p>The set of related software programs and services to be implemented according to this Statement of Work.</p>
Solution Acceptance	<p>Customer determination by written acknowledgement that the Solution provided by SmartWorks performs in accordance with the Functional and Integration Requirements documents developed for this Statement of Work.</p>





Standard Project Plan	A baseline plan created by SmartWorks in collaboration with Customer during the Initiation and Build phase of the project. The plan establishes the implementation timeline (including certain milestones) for the project and will be incorporated into the Customer Integrated Project Plan (IPP) for the AMI Program.
Third-Party Vendor	Any vendor or organization that is not part of SmartWorks or Customer
Unit Testing	Ad hoc testing of individual Solution components to validate that each component meets the specifications set forth during the project.
User Acceptance Testing	Testing to validate that Solution behaves per agreed upon requirements as defined in the Functional and Integration Requirements Document based on the test cases and selected scenarios.
Work Product	An item created during the engagement that is reviewed by Customer but does not require formal approval.

## 1.2. Roles and Responsibilities

The activities to be carried out are detailed in each section of this SOW. The table below defines the associated roles and responsibilities between SmartWorks and Customer/System Integrator (SI). References to the corresponding sections of the SOW are included when a more detailed description is required.

Task	Responsible Party
Define scope of work with CIS Vendor under a separate agreement. <b>Note:</b> This includes development of the integrations listed in this SOW as well as integration with the AMI head end system for meter provisioning	Project Manager (Customer/SI )
Establish detailed Project Plan	Project Managers (SmartWorks/Customer/SI)
Ensure resources are available to carry out tasks defined in section 5.6 Customer Resource Involvement	Project Manager (Customer/SI)
Engage in tasks defined in section 5.6 Customer Resource Involvement	Project Core Team (Customer/SI)
Ensure resources are available to perform work as defined in SOW	Project Manager (SmartWorks)
Ensure assistance and cooperation by Third-Party Vendors (including AMI, CIS and GIS)	Project Manager (Customer/SI)
Participate in weekly project calls	Entire Project Team (SmartWorks/Customer/SI)
Configure Virtual Private Network (VPN) between environment hosted by customer and any third-party vendor	IT (Customer)
Perform initial install on <b>Customer's server</b>	Infrastructure specialist (SmartWorks)
Install Software Modules as per Section 2 SmartWorks Compass Implementation Scope	Consultants (SmartWorks)



Task	Responsible Party
Provide deliverables as defined in Section 2.7 Project Deliverables and Work Products	Consultants (SmartWorks)
Provide AMI infrastructure and meter data	Metering (SI/Customer via AMI vendor)
Provide input data for integration points as defined in section 0 Software Integrations	Project Team (SI/Customer)
Install and configure integration points as defined in section 0 Software Integrations	Consultants (SmartWorks)
Perform data validation for each DataSync iterations and confirm validity of AMI data	Project Team (SI/Customer)
Identify User Roles and User Groups. Confirm User Authentication method and assist with configuration: <ul style="list-style-type: none"> <li>Option 1: Framework-Manager</li> <li>Option 2: LDAP or SAML Authentication Only</li> <li>Option 3: LDAP or SAML Authentication and Role Membership</li> </ul>	Project Team (SI/Customer)
Perform Unit Testing	Consultants (SmartWorks)
Perform Functional and Integration Testing	Consultants (SmartWorks)
Provide user training	Consultants (SmartWorks)
Perform User Acceptance Testing	Project Team (SI/Customer)
Provide support during User Acceptance Testing	Consultants (SmartWorks)

*Note: Please see Appendix A for the detailed Roles and Responsibilities provided by the System Integrator covering the larger implementation project.*

### 1.3. Related Documents

Related documents to the SOW are:

- 1) Software License Agreement between the Virgin Islands Water and power Authority and N. Harris Computer Corp. signed on February 28, 2014
- 2) Support and Maintenance Agreement between Virgin Islands Water and Power Authority and N.Harris Computer Corp. Signed on February 28, 2014.



## 2. SmartWorks Compass Implementation Scope

The scope of this Statement of Work is to implement the SmartWorks Software Solution for the Customer and to train key Customer personnel on the operation of the SmartWorks Software. The Customer will procure and install their respective advanced meters and supporting network infrastructure.

### 2.1. Environments

SmartWorks will deploy one (1) instance of the SmartWorks Software in the Customer environment in the United States: a Production instance.

The Production environment specifications are provided in the Server Specification Assumptions table below. Use of a Test instance as a copy of production with a full set of data and corresponding full dataset processing is not included in the scope of work. Server specifications and associated costs, if applicable, are based on these assumptions. Changes to the environments may be brought into scope using the Change Management process described in section 4.3.

The expectation for the test system is that it will accommodate up to one (1) year's worth of data and it will remain dormant, with VEE and MDL not enabled.

#### Server Specification Assumptions

	Live Storage	Meter Population	Integrations	VEE
<b>Production instance</b>	36 months	Meter Deployment following table in Section 2.3	All integrations defined in Section 3.	Enabled
<b>Test instance</b>	12 months	Meter Deployment following table in Section 2.3	Integrations defined in Section 3, not real time.  Real-time integrations only enabled/active as required e.g. DataSync, real-time events, remote actions.	The test environment is designed to be used for functional testing with meter data refreshed by database import on an annual basis, as needed. Regular VEE processing will not be performed.

### 2.2. Storage

The SmartWorks Software will be capable of importing, processing, and storing thirty-six (36) months of data for the meters identified in the table below. Customer will size each instance appropriately to manage this volume of data. Any changes to the table below that impact the project will require a Change Order.

An archive and purge process will be used for data older than thirty-six (36) months. Archived data will be recoverable for a period of sixty (60) months from the date of archive, after which it will be purged. As Existing historical data will not be imported in the new Production environment as part of this project.

To restore a location's data that has been previously purged and archived, users must enter the Location Number or meter ID. Upon completion of the restore process, all data for the selected meter ID, or for all meters associated with the selected location, will be re-introduced into the system. Restored data can be viewed in graphs, tables, or other reports, will remain in the system indefinitely, and will be excluded from



further data purge processes. Users will also be able to configure a “Data Purge Exclusion Meter List” to prevent the data associated with specific meters from being purged.

Torage and data processing requirement are based on [Insert the assumptions here]. Changes to storage and data processing requirements, including storage duration, meter counts, configuration of intervals length or number of channels, impact the storage requirements submitted with our proposal. These changes may be managed using the Change Management process described in section 4.3. If customer requires data retention beyond three (3) years, a separate project is suggested to implement our Data Warehouse.

Customer will define a set of test meters within the Production environment for testing functionality (e.g. disconnect features).

## 2.3. Meter Configuration

The SmartWorks Software will be capable of importing, processing and storing meter usage data based on the interval length and channels submitted with our proposal and defined below. Changes to meter counts, configuration of intervals or number of channels may be brought into scope using the Change Management process described in section 4.3.

Service	Number of Meters	Billing Determinant	Interval Length	UOM
Electric Residential	45,827	Daily Midnight Register	24 Hours	kWh_DEL
		Daily Midnight Register	24 Hours	kW
		Daily Midnight Register	24 Hours	kWh_RCVD
		Daily Midnight Register	24 Hours	kVARh_DEL
		Interval Read/Channel	15 Minute	kWh_DEL
		Interval Read/Channel	15 Minute	kWh-RCVD
		Interval Read/Channel	15 Minute	kVARh-DEL
		Interval Read/Channel	15 Minute	Voltage Ph A
		Interval Read/Channel	15 Minute	Voltage Ph C
Electric Commercial	10,081	Daily Midnight Register	24 Hours	kWh_DEL
		Daily Midnight Register	24 Hours	kW
		Daily Midnight Register	24 Hours	kWh_RCVD
		Daily Midnight Register	24 Hours	kVARh_DEL
		Daily Midnight Register	24 Hours	kVARh_RCVD
		Interval Read/Channel	5 Minute	kWh_DEL
		Interval Read/Channel	5 Minute	kWh_RCVD



Service	Number of Meters	Billing Determinant	Interval Length	UOM
		Interval Read/Channel	5 Minute	kVARh_DEL
		Interval Read/Channel	5 Minute	kVARh_RCVD
		Interval Read/Channel	5 Minute	Volts Ph A
		Interval Read/Channel	5 Minute	Volts Ph B
		Interval Read/Channel	5 Minute	Volts Ph C

## 2.4. SmartWorks Compass Meter Data Types

For each meter provided in the DataSync process, there are five (5) different record types supported in Compass MDMS:

- INT (Interval reads): reads processed through VEE,
- REG (Register reads): reads processed through VEE,
- VOL (Voltages),
- EVN (Meter events)
- OMD (Other Meter Data values).

The SmartWorks Compass record layout for each of these five record types is detailed in the tables below.

### Raw Interval Reads

Field Name	Field Type	Description
<b>Record Indicator</b>	String (3 chars)	Must have value 'INT' for interval reads.
<b>Meter_id</b>	String (Not exceeding 30 characters)	Unique meter identifier. Must exactly match the unique meter identifier stored in AMI and CIS systems.
<b>Channel_id</b>	Integer	Channel identifier. A meter must have only one channel identifier with a given unit of measure. Data with different units of measure must each have their own channel identifier.
<b>Read_dtm</b>	Date/Time	Date and time of the end of the interval, in the meter's local standard time (not including daylight savings) or UTC. Preferred format is: "yyyy/mm/dd hh24:mi:ss".



<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Read_value</b>	Decimal (any precision)	Numeric value representing the meter reading (either consumption or max demand, depending on the channel's Unit of Measure) for the interval.
<b>UOM</b>	String (not exceeding 30 characters)	Unit of measure for the reading. For example, KWH, KW, KVAR, KVA, GAL, M3, FT3
<b>Source_collector_id</b>	String (not exceeding 30 characters)	Unique identifier of the data collection device that obtained this meter reading (optional).

#### Raw Register Reads

<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Record Indicator</b>	String (3 chars)	Must have value 'REG' for register reads.
<b>Meter_id</b>	String (Not exceeding 30 characters)	Unique meter identifier. Must exactly match the unique meter identifier stored in AMI and CIS systems.
<b>Channel_id</b>	Integer	Channel identifier. A meter must have only one channel identifier with a given unit of measure. Data with different units of measure must each have their own channel identifier.
<b>Read_dtm</b>	Date/Time	Date and time the meter's register was read, in the meter's local standard time (not including daylight savings). Preferred format is: "yyyy/mm/dd hh24:mi:ss".
<b>Read_value</b>	Decimal (any precision)	Numeric value representing the meter register reading, which should match the meter's faceplate value at that time.
<b>UOM</b>	String (not exceeding 30 characters)	Unit of measure for the reading. For example, KWH, KW, KVAR, KVA, GAL, M3, FT3
<b>Source_collector_id</b>	String (not exceeding 30 characters)	Unique identifier of the data collection device that obtained this meter reading (optional).

#### Voltages

<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Record Indicator</b>	String (3 chars)	Must have value 'VOL' for voltage reads.
<b>Meter_id</b>	String (not exceeding 30 chars)	Unique meter identifier. Must exactly match the unique meter identifier stored in AMI and CIS systems.



<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Read_dtm</b>	Date/Time	Date and time associated with the voltage, in the meter's local standard time (not including daylight savings). Preferred format is: "yyyy/mm/dd hh24:mi:ss".
<b>Phase</b>	String (not exceeding 3 chars)	Indicator of the phase of the voltage reading (for example, A, B or C). If unknown and the meter is a single-phase meter, specify 'X'.
<b>V_current</b>	Decimal (any precision)	Instantaneous voltage value as of the read_dtm. Can be null, if min/max/avg values are defined.
<b>V_min</b>	Decimal (any precision)	Minimum voltage for the time period ending at read_dtm and starting as of the previously supplied record. Can be null if v_current is supplied, and min/max/avg is not available.
<b>V_max</b>	Decimal (any precision)	Maximum voltage for the time period ending at read_dtm and starting as of the previously supplied record. Can be null if v_current is supplied, and min/max/avg is not available.
<b>V_avg</b>	Decimal (any precision)	Average voltage for the time period ending at read_dtm and starting as of the previously supplied record. Can be null if v_current is supplied, and min/max/avg is not available.
<b>Source_collector_id</b>	String (not exceeding 30 chars)	Unique identifier of the collector device that

#### Meter Events

<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Record Indicator</b>	String (3 chars)	Must have value 'EVN' for meter events.
<b>Meter_id</b>	String (not exceeding 30 chars)	Unique meter identifier. Must exactly match the unique meter identifier stored in AMI and CIS systems.
<b>Channel_id</b>	Int	Where applicable, indicate the channel ID associated with this event. In most cases, the event is associated at the meter-level, and not with a particular channel. In such cases, just put "1".
<b>event_dtm</b>	Date/Time	Date and time associated with the event, in Atlantic Standard Time. Preferred format is: "yyyy/mm/dd hh24:mi:ss".
<b>Event_tp</b>	String (not exceeding 30 chars)	Text indicating the type of event (example, 'Tamper', 'Outage', 'Leak', etc.)



<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Event_Comments</b>	String (not exceeding 256 chars)	Text description of the event. If none is available, just duplicate the value in the Event Type field.

#### Other Meter Data

<i>Field Name</i>	<i>Field Type</i>	<i>Description</i>
<b>Record Indicator</b>	String (3 chars)	Must have value 'OMD' for other meter data.
<b>Meter_id</b>	String (not exceeding 30 chars)	Unique meter identifier. Must exactly match the unique meter identifier stored in AMI and CIS systems.
<b>Value_Type</b>	String (not exceeding 30 chars)	Identifier of the type of other meter data – for example: "blink count, current, pressure, temperature".
<b>value_dtm</b>	Date/Time	Date and time associated with the data value, in Atlantic Standard Time. Preferred format is: "yyyy/mm/dd hh24:mi:ss".
<b>Value_qty</b>	Decimal	Numeric value indicating the quantity of the data value.
<b>UOM</b>	String (not exceeding 8 chars)	Unit of measure for the data value.
<b>Source_collector_id</b>	String (not exceeding 30 chars)	Unique identifier of the collector device that obtained this meter data value (optional).

## 2.5. SmartWorks Compass Modules

The following SmartWorks Compass Software modules will be installed and configured as part of the scope of this engagement.

**SmartWorks Compass**, including the following modules:

- **MeterSense MDMS**
- **KPI Dashboard**
- **Transformer Loading Analysis Module**
- **Outage Performance Module**
- **Connect/Disconnect Module**
- **Move-In/Move Out Module**

This section includes a description of each module as well as their corresponding Pre-requisites and Assumptions.

### 2.5.1.MeterSense MDMS





SmartWorks will install and configure **MeterSense MDMS** module.

Module Functionality includes:

- Support meter deployment
- Reports to help ensure that meters are provisioned correctly and communicating in the field
  1. Historical Usage Profiles: Based on configurable rules, including average usage over time
  2. Alarm and Event Reports: Triggered by meter alarms, with workflows for leak detection, tamper alerts, and more
  3. Validation, Estimation, and Editing (VEE) Reports: Includes gap-filling, extrapolation, and estimation routines with configurable thresholds
  4. Register Read Reports: Includes high/low demand routines, monthly average checks, and zero-read filters
- Monitor AMI Performance
- Report on number of reads delivered compared to AMI Service Level Agreement
- Enable Meter-to-Cash
- Enable Connect and Disconnect
- Validation of reads, billing determinants and customer service support
- Alert via Meter Events
- Store and report on Tamperers, Leaks, error and other meter flags

#### 2.5.1.1. Pre-Requisites & Assumptions

- Meter reads are imported from the AMI as defined in section 3 AMI Head End Systems.
- Meter events are imported from the AMI as defined in section 3 AMI Head End System.
- Meters installation/removal are synchronized with the system of record as defined in sections 3.2.1 CIS Synchronization Integration.
- After installation of **MeterSense** MDMS by SmartWorks, meter reads validation routines (VEE – Validate, edit, estimate) as defined in SmartWorks User-Guide VEE will be available for configuration by Consultants.
- Data will be presented in the **MeterSense** MDMS reports based on the modules identified in this Statement of Work and the availability of the data described in section 0 Software Integrations.

#### 2.5.2. Current Rules

SmartWorks will create the below rules to match the current environment. If additional rules are requested beyond scope of SOW, a change order will apply. Please see below for list of rules:

- Archive and Purge Old Meter Read Data
- HealthWatch – Data Collection part 1
- HealthWatch – Data Collection part 2
- HealthWatch – Data Extract
- HealthWatch – Data file upload



- Meter Actions – Close action request
- Meter Actions – Extraction
- Meter Actions – Find requests from source
- Meter Actions – Manage multiple requests
- Meter Actions – Validations
- Meter Actions Processing – Connect
- Meter Actions Processing – Disconnect
- Meter Actions Processing – On Demand Read
- Restore Archived Data
- Run MVRs Billing – Part1
- Run MVRs Billing – Part2
- Run MVRs Billing – Part3
- SyncWeatherDataToCustomerConnect
- TEST Meter Read Data Import – Pt1
- TEST Meter Read Data Import – Pt2
- TEST Meter Read Data Import – Pt3
- Test send email
- Test SFTP

### 2.5.3.KPI Dashboard

SmartWorks will install and configure the **KPI Dashboard** module. The KPI Dashboard enables the user to configure dashboards to display information on Key Performance Indicators (KPIs). A KPI is a metric that is represented by a One-Dimension or Two-Dimension Visualization component:

- One-Dimension KPI Visualization includes: Numeric, Thermometer, or Speedometer
- Two-Dimension KPI Visualization includes: Area, Bar, Column, Scatter, Pie, or Table

Consultant will configure the below Dashboards:

- MDMS Health Dashboard
- AMI Health Dashboard
- Meter Data KPI Dashboard

For each KPI, a panel of information is available. This includes:

- Value of the KPI displayed as a numeric value, speedometer graphic or thermometer graphic.
- If a drilldown link was defined when the KPI was registered, clicking anywhere on the value will launch a window with the drilldown page.
- Color coded value (red/yellow/green), depending on settings.
- Max/min statistics and trend area.
- Secondary KPI value, where configured. If the secondary KPI value has been defined with a drilldown link, clicking on the value will launch a window with the drilldown page.

Information on a KPI can be shared via email on a scheduled basis or threshold-driven exception basis.

A set of 52 standard KPIs are made available with the application. These are arranged into a set of standard dashboards. It may be that not all dashboards or KPIs are applicable to a utility depending on



available information, modules deployed, and integrations performed. Users may configure their own dashboards from the available KPIs.

#### 2.5.3.1. Pre-Requisites & Assumptions

- Consultant to deploy the **Compass Framework**, if not already in place.
- Population of any data required for calculation of KPIs as per section 3 of this SOW.

#### 2.5.4. Transformer Loading Analysis Module

The SmartWorks Transformer Loading Analysis module continually analyzes loads on distribution transformers and identifies:

- a) those at risk of failure due to overloading, which can help the utility improve system reliability, and
- b) those being under-utilized, enabling the utility to improve asset utilization.

SmartWorks Transformer Loading Analysis uses hourly usage data, power factor (measured or assumed) and distribution network relationships to analyze transformer loads, measured in kWH, and compare those loads to the transformer nameplate ratings, measured in KVA.

Analytical calculations are run in the background so that detailed dashboards can be viewed on demand. Users can interrogate the system to identify reliability risks and plan their mitigation strategy.

#### Configurations

The Consultant will perform configuration to set up the following functions:

- **Key Performance Indicator (KPI) Dashboard** of Overloaded and Underloaded transformers, based on combination of
  - Peak demand compared to nameplate rating
  - % Time above **Optimal Operating Band (OOB)**
  - Report drill downs from KPIs.
  - KPIs for
    - Qty of Transformers peaking above 200% rating in last 30 days
    - Qty of Transformers >10% over OOB in last 30 days
    - Qty of Transformers >90% below OOB in last 30 days
    - Transformer investigation/replacement list based on Markers entered by utility users
    - Map of Transformers >10% over OOB in last 30 days
    - Modified thresholds can be configured at time of implementation, at the advanced request of Customer.



- **Transformer Loading Analysis Dashboard**, comprising
  - Report setup & filter parameters, e.g. to view only transformer that meet specific loading criteria
  - Tabular view of filtered transformers
  - For the transformer selected in the above table.
    - Loading details & statistics
    - Comparison loading statistics (a) if there were specified load growth and/or (b) if the transformer were replaced with a different KVA rating.
    - Map showing actual location of connected meters and logical association with the selected transformer
    - Daily Min/Max/Avg KVA values for the selected time period
    - Hourly KVA load for selected time period
    - Load duration curve for selected time period
    - Histogram of load relative to OOB for selected time period
- **Other Reports:**
  - Map of Transformers by Load – color coded in groups according to loading band
  - Map of Transformer-Meter relationships for one transformer
  - Transformer Contributors graph for one transformer
  - Tabular view of Transformer to Location cross-references
  - Tabular view of Location to meter cross-references
  - Tabular view of Transformers - filtered
- **Markers Search & Filters View** (for markers populated by Customer users), to show, for example:
  - Watch-list of transformers identified with Markers
  - Prioritized Replacement list implemented

## Integrations

The following data integrations are required for the Transformer Loading Analytics module:

Transformer Data	<p>This integration will be established using a flat file transfer. The following data is required:</p> <ul style="list-style-type: none"> <li>a) Distribution Transformer Identifier</li> <li>b) Nameplate KVA rating</li> <li>c) Lat/Long Coordinates of approximate location of transformer (for map display purposes)</li> <li>d) Other information is optional, e.g. manufacturer, model.</li> </ul>
Transformer to Location relationships / cross-	Date-driven relationships between distribution transformers and locations. This information is assumed to be available in the Customer's



references	GIS system for SmartWorks to access and synchronize.
Location to Meter relationships / cross-references	Date-driven relationship between locations and endpoint meters. These relationships are assumed already to be synchronized and recorded accurately within SmartWorks Compass. This synchronization is assumed to require no additional work for this module.
Metered usage Data	It is assumed that the existing Compass Framework implementation includes validated usage data for endpoints fed by distribution transformers.

## Training

Consultant will provide the following training for Customer:

- Module administration and troubleshooting: 2 hours online.
- Module functionality for end users: 2 hours online.

### 2.5.4.1. Pre-Requisites & Assumptions

- Deployment of Compass Framework by SmartWorks is required, including ongoing synchronization of meters and their locations, if not already in place.
- Population of any data required for Transformer Loading calculations, including interval reads for meters, and including the data identified in the integrations sections.

### 2.5.5. Outage Performance Module

Automatically track outage signals from AMI & customer calls, provide visibility into extent and status of current outages, and analysis of outage performance through event reporting and outage statistics.

User Functions delivered:

- Map Views for Current Outages
- Event Summary by Event Type, grouped by Meter
- Event Listing for Outage Events
- Outage Statistics
- Outage KPI Dashboard
- Customer Service interface for CSRs to enter outages or restorations called in by customers (optional)

#### Map Views for Current Outages

Interactive map view showing current outages where no restoration has been received.

#### Outage Event Reports

- Event Summary by Event Type
- Event Listing for Outage Events

#### Outage Statistics

Summary of Outage Statistics, SAIDI, SAIFI, CAIDI & CAIFI over a configurable time period.



### Outage KPI Dashboard

User configurable KPI Dashboard with the following KPIs available for selection and display:

- SAIDI Yesterday
- SAIFI Yesterday
- CAIDI Yesterday
- CAIFI Yesterday
- SAIDI last 7 days
- SAIFI last 7 days
- CAIDI last 7 days
- CAIFI last 7 days
- SAIDI last 30 days
- SAIFI last 30 days
- CAIDI last 30 days
- CAIFI last 30 days
- SAIDI last 365 days
- SAIFI last 365 days
- CAIDI last 365 days
- CAIFI last 365 days
- OUTAGES Yesterday
- OUTAGES last 7 days
- OUTAGES last 30 days
- OUTAGES last 365 days

### Customer Service Interface (Optional)

- Outage call-in Entry for Customer Service Rep to search for Location, select meter ID and submit Call-In notification with a current (or edited) timestamp. For use when one of the utility's customers calls in to report an outage.
- Restoration call-in Entry for Customer Service Rep to search for Location, select meter ID and submit Call-In notification with a current (or edited) timestamp. For use when one of the utility's customers calls in to report the restoration of power.

### Coordination with an existing Outage Management System (OMS)

Depending on the presence and capabilities of existing systems, the Outage Performance module can be deployed in one of two configurations:

- (a) Outage Event notifications are sent from AMI to the Outage Performance module. Outage Performance forwards the notifications to the OMS.
- (b) Outage Event notifications are sent from AMI to the OMS. OMS forwards the notifications to the Outage Performance module.

SmartWorks Compass uses MultiSpeak methods to send meter outage notifications to OMS. Compass will monitor meter alarm data and de-duplicate notifications that are sent to OMS, so that only one alarm is passed on to OMS per actual notification.

#### 2.5.5.1. Pre-Requisites

The customer will provide the following to Compass during implementation:

- Outage and Restoration Mappings (i.e. a map of which meter events are outage related, what's considered an outage? Last Gasp, etc.)
- If De-duplicating outage notifications for an OMS: Outage Event Time Tolerance (to avoid duplicates)
  - How long has the outage occurred
- The Latitude/Longitude coordinates must be present in each meter or location in SmartWorks Compass (via datasync) and must be accurate, for outage events to be displayed on a map.



### 2.5.5.2. Assumptions:

- The AMI will send meter notifications for Outage and Restoration in the periodic meter data load and preferably also through MultiSpeak 3.0 or greater to Compass near real-time. (Non-MultiSpeak integrations may be subject to additional charges.)
- Deployment of the Compass Framework by SmartWorks is complete, with datasync for all required meter and location information.
- ESRI based GIS for use is required for base maps, accessible via URL from SmartWorks Compass.
- The optional restoration confirmation process requires On-Demand Reads to be accepted by the AMI system via MultiSpeak.
- Consultant will support customer testing.

### 2.5.6. Automated Connect/Disconnect Module

The SmartWorks Automated Disconnect/Reconnect Module is for the operation of a service switch independent of the Move-In/Move-out (MIMO) process. It is most commonly used for situations with credit issues, with disconnect actions triggered by failure to pay and reconnect actions triggered by payments made.

The solution for the automation of service disconnection and reconnection includes the following functions:

- Automated execution of Service Disconnect operation (open the service switch at the meter) for “Failure to Pay” Service Orders that have been set up in the Customer Information System.
  - Check if account is flagged as special/protected for non-disconnect, e.g. due to life support or other medical situations.
  - Logic to accommodate seasonality (e.g. no disconnect during Christmas holidays) or weather (e.g. no disconnect when the temperature is above or below a specified comfort/safety threshold).
  - Scheduled timing of connection operations, e.g. disconnect process to begin at 8:00am.
  - Throttling of Disconnect operations, e.g. to spread out a large number of disconnects in batches over period of several hours, to avoid a flood of calls to Customer Service at the same time.
  - Auto re-try for failed switch operations, e.g. up to 3 attempts.
  - Audit trail recording confirmation of successful operation at time of execution.
- Automated execution of Service Connect operation (close the service switch at the meter) for “Payment Made” Service Orders that have been set up by in the Customer Information System.
  - Frequent checking of CIS for Service Orders indicating payments have been made.
  - Immediate execution of connection operations as soon as Service Order is identified.
  - Auto re-try for failed switch operations, e.g. up to 3 attempts.
  - Audit trail recording confirmation of successful operation at time of execution.
  - Manual execution of Service Reconnection, when desired.
- KPI Dashboards of processes, including
  - Actions performed.



- Number of Successes, number of failures.
- Time saved or money saved by automating this process.

#### 2.5.6.1. Pre-Requisites & Module Specific Assumptions

- Services Switches are integral with the meters. If installed separately as disconnect collars, a change order will be issued for the configuration services.
- AMI has enabled remote actions leveraging files to operate the Service Switches.
- Service Orders are created when payments are made by credit challenged customers that have been disconnected.
- It is assumed that each CIS service order is tied to only one (1) remote action type (e.g. On-Demand read, Remote Connect, Remote Disconnect)
- It is assumed that Customer will provide the list of service orders and corresponding service order types to be processed according to the method chosen
- An ODR will be done before any disconnect and after a reconnect. For this, Compass needs to be configured to insert those reads automatically in Compass.
- It is assumed customer information on whether to perform a disconnect in cases of non-pay are synced into SmartWorks or the CIS generates a different Service Order Type, in cases disconnect should not occur.

#### 2.5.7. Automated Move-In/Move-Out Module

SmartWorks Automated Move-In/Move-Out (MIMO) module automates the process of populating and resolving MIMO service orders with start reads and final reads to save the CSRs the time to do it manually.

Virtual Disconnect is enabled by monitoring for usage on inactive accounts and proactively notifying the utility if usage is discovered. Physical disconnection and reconnection of service can be included where required and where the meters are equipped with an integral service switch.

KPI Dashboards provide tracking of the MIMO processes in general and the effort saved by automating them.

- KPI Dashboards of processes including:
  - Actions performed
  - Number of successes, number of failures
  - Effort saved due to automation of these processes
- Rule for determining start reads and final reads for transition customers, including:
  - Identifying open MIMO Service Orders
  - Determining the appropriate final read for Move-Out Service orders
  - Determining the appropriate start read for Move-In Service Orders
  - Populating the MIMO Service Orders with the appropriate reads and updating the status of the Service Orders.
  - Disconnecting or reconnecting service where appropriate
    - Success/failure of connection command recorded at time of execution





- Auto re-try for failed switch operations, e.g. up to 3 attempts
- User Interface in Compass for single customer On-Demand Reads in the context of a Move
- Virtual Disconnect through identifying Usage on Inactive Accounts
  - User Interface to interrogate the system and generate report of usage on Inactive Accounts
  - Exception-based reporting through scheduling of the report.

#### 2.5.7.1. Pre-Requisites & Assumptions

- The CIS datasync is in place and working. If this is not in place, another statement of work will need to be issued.
  - For Virtual Disconnect reporting, it is assumed that meters status are set to “OFF” as part of the datasync process.
- Where Meter Actions such as On Demand Read or Remote Connect/Disconnect are required, the AMI remote actions are in place and working. If this is not in place, another statement of work will need to be issued.
- Move-In and Move-Out transitions will be recorded in the CIS as Service Orders (SO). Customer will provide a detailed list of these actionable Service Orders (SO) for automated Move-In / Move-Out processes. CIS is the system of record for whether a SO is actionable, considering items such as:
  1. Validating that SO is supported by meter type
  2. Life support/special needs customers
  3. Landlord/Tenant agreements
  4. Holidays
  5. Weather
- It is assumed that each CIS service order is tied to only one (1) remote action type (e.g. On-Demand read, Remote Connect, Remote Disconnect)
- It is assumed that the CIS provider allows and technically enables service order integration via Flat Files.
- It is assumed that Customer will provide the view that will provide the list of service orders and corresponding service order types to be processed.
- We assume that remote actions (between Compass/AMI) has been configured, working and tested prior working on this CO.
- An ODR will be done before any disconnect and after a reconnect. For this, Compass needs to be configured to insert those reads automatically in Compass.
- It is assumed customer information on whether to perform a disconnect in cases of non-pay are synced into SmartWorks or the CIS generates a different Service Order Type, in cases disconnect should not occur.



## 2.6. Reporting

All standard reports available within the SmartWorks Software will be made available for all licensed modules.

200 hours will be assigned to the design, development and testing of custom reports, based on Customer reporting requirements gathered during the Discovery Session and throughout the course of the project. Requirements for custom reports must be defined prior to the Testing phase. Customer can decide to re-assign all or parts of these hours to other project activities, such as additional remote training.

Should a custom report(s) be requested the following assumptions will apply.

This custom report(s) will be exported as a CSV extract from Compass. This CSV file will be uploaded to SFTP site determined by the customer.

Reports provided will present existing data in a tabular form, available from integration points as defined in this SOW and stored within Compass. Any requirements to calculate each element or present data in a different format, for example links for drill downs and graphs, will require additional scope and may be added using the Change Management Process.

**\*\*\*The following sections reflects SmartWorks' baseline on project delivery. SmartWorks will follow SI's lead and may adjust deliverables and update corresponding effort to align with corresponding scope using change orders.\*\*\***

## 2.7. Project Deliverables and Work Products

The following deliverables, milestones and work products are included in this project. **Deliverables** are items created during the project that require formal review and approval by the customer. **Work products** are items created during the project that are reviewed by the customer but do not require formal approval by the customer.

### 2.7.1.Deliverables

The following list identifies the key deliverables from SmartWorks associated with this project:

- Functional and Integration Requirements Document
- SmartWorks Software installation
- SmartWorks Software configuration
- SmartWorks Software integration as defined in section 0
- SmartWorks Software End-User Training

### 2.7.2.Work Products

The following list identifies the key work product documentation associated with this project:

- Project Schedule
- Acceptance Criteria Document
- Test Case Scenario Checklist
- Testing Plan



- Training Plan
- Training Material
- SmartWorks Software User Guides
- UAT Acceptance Criteria
- Go-Live Approach Document

## 2.8. SmartWorks Compass Training and Discovery Sessions

To enable users to effectively use the software both during acceptance testing and in a production capacity, SmartWorks will provide end-user training as part of this project. Remote training sessions will be provided the Customer as outlined in the table below.

Activity	Location	Attendees	Length
Kick Off Meeting	Remote	Core project team, Executive Sponsors	1-2hrs
SmartWorks Compass demo	Remote	Core project team, Billing, Meter Op, CSR, IT	1hr
Discovery Sessions	Remote	Core project team, Billing, Meter Op, CSR, IT 3 <sup>rd</sup> Parties (CIS, AMI)	1.5 day
<b>Workshop 1: Compass Overview and Introduction to VEE</b>	Remote	Core project team	0.5 day
Navigation Training Sessions	Remote	Core project team, Billing, Meter Op, CSR, IT	2 days
<b>Workshop 2: Data Validation</b>	Remote	Core project team	0.5 day
<b>Workshop 3: Roles and Groups configuration</b>	Remote	Core project team	1hr
Processes and System review Session	Remote	Core project team, Billing, Meter Op, CSR, IT 3 <sup>rd</sup> Parties (CIS, AMI, etc.)	3 days
<b>Workshop 4: Addressing VEE Exceptions and fine-tuning</b>	Remote	Core, Billing, Meter Op, CSR	2 x 0.5 days
SmartWorks Compass Functional and Process Training	Remote	Core, Billing, Meter Op, CSR	3 x 0.5days
Test scripts review	Remote	Core, Billing, Meter Op, CSR	1hr
UAT Acceptance Testing Support	Remote	Core, Billing, Meter Op, CSR, IT	30 days
Advanced Process Automation Module Training	Remote	System Admin, IT	2 days

**Note:** Remote sessions can be replaced with onsite sessions upon written agreement between SmartWorks and Customer. Travel cost will be invoiced separately. Onsite\* sessions can take place when safe and appropriate.

### 2.8.1.Kick Off Meeting



The purpose of this remote meeting is to introduce project team members and review the MDMS project at a high level. Topics include scheduling, methodology, milestones, communication plan and short-term focus.

### **2.8.2.SmartWorks Compass Demo**

High level review of SmartWorks Compass features and functionalities. The purpose of this demo is to prepare Customer to engage in discussions during the Discovery Sessions.

### **2.8.3.Discovery Sessions**

Preliminary requirements for the CIS Data mapping (DataSync) and billing (Meter to Cash), as well as for the AMI integration (Implementation Questionnaire) are reviewed during these sessions. The Solution Architecture Diagram and infrastructure components such as VPN connection are also scheduled as part of the initial discovery sessions. The VPN discussions should have started remotely, prior to Discovery.

These sessions are technical and participation from Customer's subject matter experts as well as third party vendors are expected to ensure optimal efficiency during the initial phases of the project. Meeting the dependencies identified during the initial discovery sessions is critical for the scheduling of subsequent project activities.

### **2.8.4.Workshop 1: Compass Overview and Introduction to VEE**

The purpose of this session is to introduce the core team to SmartWorks Compass functionality and to the existing Validation Routines available within SmartWorks Compass.

The Overview Training Session is held with the core user group when initial configuration is complete. This session occurs during the Pilot phase and is held remotely, in preparation for the Onsite Discovery Session, enabling users to navigate the SmartWorks Software prior to the decision-making process that will take place during the Discovery Session.

The Overview Training Session provides users an overview of current system functionality. Upon conclusion of this session, users are able to navigate **SmartWorks Compass** platform and understand existing configuration.

### **2.8.5.Workshop 2: Data Validation**

This workshop is held once initial configuration of DataSync and AMI read import is completed. The purpose of this Workshop is to review data within SmartWorks compass, including the review of validation reports. Following this workshop, it is expected that users will proceed with validation of the data from the CIS DataSync and AMI integrations, by comparing to their existing CIS and AMI systems.

### **2.8.6.Navigation Training Sessions**

The Functional and Navigation Training Session is held once initial configuration of DataSync and AMI read import is complete. The purpose of this training session is to introduce the Core project team to the SmartWorks Compass application, enabling users to navigate the SmartWorks Software prior to the decision-making process that will take place during the following remote workshops and onsite sessions.



The Navigation Training Session provides users an overview of current system functionality. Upon conclusion of this session, users are able to navigate **SmartWorks Compass** platform and understand existing configuration.

Topics typically covered in this training include:

- SmartWorks Compass Navigation training
- Data Setup
- Meter Reads & Validating, Estimating, Editing – VEE
- Using Maps and Reports
- Advanced Reporting and KPI Dashboards
- System Administration

### **2.8.7. Workshop 3: Roles and Groups configuration**

The purpose of this Workshop is to determine who will be the user groups of the SmartWorks Compass solution, their access level and which permissions will be assigned to each group.

### **2.8.8. Processes and System review Session**

The purpose of the Process and System review Session is to demonstrate existing functionality of the SmartWorks Software using Customer data and elicit feedback for updates to that functionality. Emphasis is placed on understanding Customer's existing business process. The impact to the process due to **SmartWorks Software** is documented in the Functional and Integration Requirement Document.

Purchased Modules (see section 2.5) are discussed during this session.

### **2.8.9. Workshop 4: Addressing VEE Exceptions and fine-tuning**

The purpose of this workshop is to provide users with the steps required to review validation reports and assist them in the investigation of VEE Exception reports. A fine-tuning of the VEE Parameter configuration may also be required during this session. It is expected that all necessary VEE routines are enabled from this point through transition to support.

### **2.8.10. Functional and Process Training**

During the Functional and Process Training, up to 12 users will be provided training on the SmartWorks Software. This training includes a refresher of System Navigation as well as a review of the main business functions and use cases applicable to Customer. This training will also cover customization and features related to Modules purchased by the customer.

Topics typically covered in this training include:

- SmartWorks Compass Refresher training
- Billing & Customer Service Functions



- Sessions specific to each **SmartWorks Compass** module defined in section 2.5
- Process Automation Overview

#### 2.8.11. Test scripts review

This session will be used to review SmartWorks test scripts with Customer and how to monitor testing progress using test scripts dashboard. It is Customer responsibility to create, update and adapt the test scripts for the purpose of their User Acceptance Testing phase.

#### 2.8.12. UAT Acceptance Testing support

Customer is expected to focus and engage in User Acceptance Testing for a period of 30 days, with the remote support from the SmartWorks project team. It is important to note that this testing period excludes any time allocated for issues resolution. The allocation of these 30 testing days may be distributed over a timeframe ranging from 2 to 4 weeks, with the specific scheduling to be determined during the UAT planning phase, involving collaboration among both the Project Managers, the Customer and SmartWorks.

It is imperative that the UAT period does not surpass a duration of 1 month from the commencement of UAT. During this UAT period, the Customer team is responsible for conducting their testing, and any retesting necessitated by issue resolution will be facilitated and supported by SmartWorks. Any extension to UAT may be brought into scope using the Change Management process described in section 4.3.

The Validation/Testing Approach is described in section 5.4 of this SOW.

#### 2.8.13. Advanced Process Automation Rules Training

The Advanced Process Automation Rules Training course is a two-day technical course on rules development designed to enable participants to become competent at developing rules for **SmartWorks Compass** modules.

The topics include:

1. Overview of Rules Engine as a tool, Lifecycle of a Rule, Rule Components
2. **SmartWorks Compass** Data Schema/Data Flow/ Rules Performance Management
  - a. Applications of Rules
  - b. AMI System Performance
  - c. Responding to VEE exceptions
  - d. Meter Events and Alarms
3. Data Analysis
4. Data Safety Practices

The course will be delivered following rules design themes so that participants understand the construction of rules and can apply those design themes to any functional application and will include hands on exercises and an exam.



The Advanced Process Automation Module Rules Training course will be delivered to up to 3 participants. The intent is to train individuals within an organization to create a “rules engine technician”, who can take business requirements from business lines develop a rule that meets the business needs. Customer should only need 1 to 3 technicians.

Competency with SQL and a basic understanding of databases are pre-requisites for participants in the Advanced Process Automation Module Rules Training course.

Customer should also have several “rules champions”, who represent a business unit. The rules champions will be trained on the capabilities of the Rules Engine during the Functional and Process training course. These business unit rules ‘champions’ would be responsible for finding ways to improve their business and then passing the requirements to the rules engine technician (i.e. the 1 or 2 people trained by this course). The technician creates the rule. The champion tests and signs off on the rule.



### 3. Software Integrations

During software integration:

- Customer will act as or provide an integration coordinator who will be responsible for overseeing integration communications for this project.

The integration coordinator role consists in securing, as required and in a timely fashion, the assistance and cooperation of third-party vendors. A change order will be required if a third-party vendor is unavailable or non-cooperative and causes an impact to the project schedule or effort.

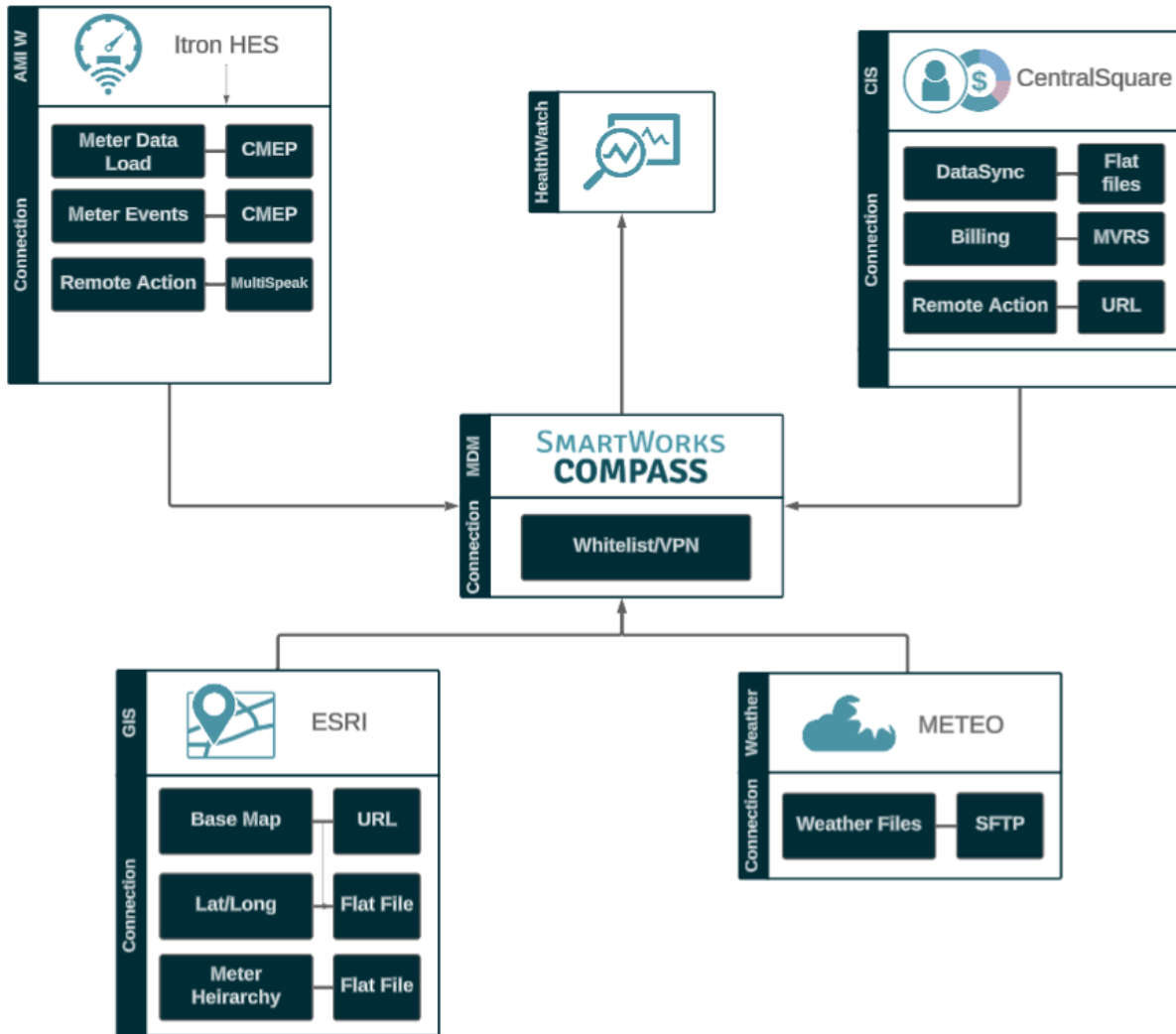
- SmartWorks will provide advice and recommendations regarding its experience and leading practice.

SmartWorks will make a reasonable attempt to provide sufficient lead time when making requests for assistance from third-party vendors. When deemed appropriate by Customer, SmartWorks will also work directly with third-party vendors if direct communication will result in efficient execution of the project.

Any version changes to integrating systems that occur during the project will be reviewed by SmartWorks and will require a change order if integration updates or re-testing activities are required.

The following diagram illustrates the Interconnectivity model between SmartWorks Compass and each integration point. The final integration diagram is subject to the final discovery session that will be held between the technical teams implementing the solution.





The following Integrations are included in the project scope for the project:

### 3.1. AMI Head End System (Itron HES)

SmartWorks Software will integrate with the AMI Head End System to:

- **Meter reads:** Import the current day's readings as well as older reads that were previously missed. Interval and register read data will be received from AMI Head End system.
- **Meter events:** Import meter event data from AMI Head End. Examples include alerts such as tamper, leak, etc. Specific alarms will be defined between Itron and Customer.
- **Remote action:** Where the functionality is supported by the meters or compatible others, SmartWorks Software will integrate with the AMI Head End to perform On Demand reads and Remote Connects & Disconnects.
- **Voltage:** Min/Max/Average or Instantaneous. Nominal Voltage threshold (for high and low).



- Core Reports in Compass do not look at the data in the Voltage table. Voltage analysis module would need to be included in the scope of work or custom reports would need to be created using specific data in the Voltage table. Voltage Module and custom reports are not in scope but can be brought into scope using the Change Management Process.
- **Other Meter Data:** Other meter data can include any interval data that is not consumption data.
  - It is assumed that Other Meter Data types be kept to a minimum as to not cause performance concerns for the Compass system. Core Reports in Compass do not look at the data in the OMD table. Custom reports would need to be created using specific data in the OMD table. These custom reports are not in scope but can be brought into scope using the Change Management Process.

Integration	Initiator	Type(s)	Protocol	Frequency
<b>Meter Reads</b>	AMI	CMEP Read File	sFTP	Every 15 minutes
<b>Meter Events</b>	AMI	CMEP Event File	sFTP	Every 15 minutes
<b>Meter Events</b>	AMI	Near Real Time events (to be defined)	MultiSpeak® methods	Near Real Time
<b>Remote Actions</b>	AMI	OnDemand read	MultiSpeak® methods	Near Real Time
<b>Remote Actions</b>	AMI	Remote Connect	MultiSpeak® methods	Near Real Time
<b>Remote Actions</b>	AMI	Remote Disconnect	MultiSpeak® methods	Near Real Time

#### Assumptions:

- If CMEP files are used for providing meter data, the read files are expected to be delivered by 5:00am (local time) or an agreed upon time suitable to Consultant and Customer in order for the SmartWorks Software to perform the VEE process. The AMI Head End will deliver read files every 15 minutes during the day in order to collect the maximum amount of meter data.
- It is assumed that the applicable AMI Head End version will be installed in time for Consultant to perform its development and testing activities.
- It is assumed that interval reads provided by the AMI will scale to the register reads provided by the AMI (i.e. sum of interval reads will add up with the difference between register reads, after multiplier will pass at 95%). Failing to meet these may result in poor data quality in the MDMS
- It is assumed that there will not be more than 5% missing intervals reads per day. Failing to meet these will result in performance issues when MDMS tries to fill in gaps. SmartWorks acknowledges that during electric outages, the missing intervals may exceed this 5% assumption.
- It is assumed that the project will integrate only to 1 version of the AMI software

#### 3.1.1. Removal of Zero Reads

A process will be created to clean up meter data by removing irrelevant interval reads, particularly those with zero values which would require additional database storage



### Data Cleanup Actions: KWH Received Reads and KVARH Delivered Reads

- Meters will be configured to provide KWH\_RCVD and KVARh reads to the MDMS.
- A process will be put in place to load all raw KWH Received and KVARh reads into Compass (register and interval reads)
  - These reads will be imported and stored into the raw tables but will not be validated/processed.
- The process will then delete all KWH Received interval reads (raw and processed) assigned to a specific set of Meter Types that are not billed on KWH Received.
  - Customer will provide the specific Meter Types

## 3.2. Customer Information System (CIS) (CentralSquare)

In collaboration with Customer or Customer's agent(s), Consultant will provide the following integrations with Customer's CIS. The integrations will require ongoing support from the CIS vendor through the SmartWorks integration project.

### Summary of integrations

Integration	Initiator	Type	Protocol	Frequency
<b>DataSync</b>	CIS	Creates and Deliver Flat Files	SFTP	
<b>DataSync</b>	MDMS	Import and process Flat Files	SFTP	1-3 times/day
<b>Billing</b>	CIS	Billing Request	SFTP	TBD during discovery
<b>Billing</b>	MDMS	Billing Response	SFTP	TBD during discovery
<b>Remote Action</b>	CIS	OnDemand read request	Flat File	Near Real Time
<b>Remote Action</b>	MDMS	OnDemand read response	Flat File	Near Real Time
<b>Remote Action</b>	CIS	Remote Disconnect request	Flat File	Near Real Time
<b>Remote Action</b>	MDMS	Remote Disconnect response	Flat File	Near Real Time
<b>Remote Action</b>	CIS	Remote Connect request	Flat File	Near Real Time
<b>Remote Action</b>	MDMS	Remote Connect response	Flat File	Near Real Time
<b>Service Order Creation</b>	MDMS	2 rules to be defined	MultiSpeak® 4.1	TBD during discovery



### 3.2.1.CIS Synchronization Integration

Import of customer and meter data into the SmartWorks Software for validation of AMI data. A daily full periodic synchronization activity will occur.

The minimum information to be provided from the CIS will include the following:

	SmartWorks Compass	SmartWorks Connect
<b>METERS:</b> List of meters with identifiers, meter types, etc.	X	
<b>METER COORDINATES:</b> Meter latitude and longitude information	X	
<b>LOCATION:</b> List of location(account) numbers, service addresses	X	
<b>METER LOCATION:</b> A date-driven cross reference between meter and location number (i.e. when a meter is installed and removed from a location)	X	
<b>METER CONNECTION STATUS:</b> State of the meter (ON/OFF)	X	
<b>METER ALIAS:</b> Descriptive information related to the meter, combining meter/location attributes	X	
<b>BILLING SCHEDULE:</b> Cycle/Route schedule indicating billing period and reading period	X	
<b>ACCOUNTS:</b> Customer Account information (such as account name, account ID, occupant code)		X
<b>ACCOUNT SERVICES:</b> A date-driven cross reference between account and location (i.e. customer move in/out information)		X
<b>CUSTOMERS:</b> List of customers with identifiers and names, email address		X
<b>CUSTOMER/ACCOUNTS CROSS REFERENCE:</b> A date-driven cross reference between account and customers		X
<b>METER RATE CODES:</b> Rate codes associated to each meter		X

#### Assumptions:

- It is expected that when a radio is installed or removed from a meter, a cross reference between meter ID and associated radio ID will be maintained in the CIS and provided during DataSync.
- This integration will be established using a flat file transfer. The flat files will be developed by the CIS vendor or another agent of Customer. The initial file specifications will be provided to Customer. The files must be available prior to commencement of integration work. Any delays with the availability of the files will impact the project timeline. In the case of significant delays, Customer has the option to pause the project until the files are available or follow Change Management process described in section 4.3 to keep the SmartWorks Project team engaged until the files are available.
- It is assumed there will be multiple iterations of the DataSync (typically 3-4) where the fields will be finalized after discovery and prior to UAT. Customer is responsible for validating the data as a result of each DataSync iteration.
- Depending on Customer requirements, the synchronization will occur between 1 to 3 times per day and will be scheduled to occur after the CIS Customer database has been updated.



- Integration with the AMI head end system for the purpose of facilitating synchronization of the meter status (meter provisioning) between the AMI head end system and CIS is not included in the scope of this project. This integration enables the identification of meters that should be transmitting data to the MDMS. It is therefore assumed that a direct integration will be made between the AMI head end system and the CIS. It is expected that Customer and AMI provider will work collaboratively to develop this integration.

### 3.2.2.Billing Interface (MV-RS)

Customer will initially bill using register reads, not time-based determinants for most meters. Customer CIS will apply the correct rate to each register.

Customer will use **SmartWorks Compass** billing interface, which makes use of an MV-RS file format. The MV-RS file will be created in the CIS and uploaded to an ftp/sftp site using CIS processes. **SmartWorks Compass** will be configured to automatically update the file with reads and place it on an ftp/sftp site for download back to the CIS.

#### Assumptions:

It is assumed that all reads required for the purpose of billing will be provided by the AMI system. Should **SmartWorks Compass** be required to perform calculation (e.g. Power Factor, Peak Demand, TOU, Net Billing), the services can be brought into scope using the Change Management process described in section 4.3.

- Where TOU blocks/buckets are used for billing the blocks/buckets will be passed to **SmartWorks Compass** from the AMI. **SmartWorks Compass** will pass the blocks/buckets as generated at the meter level and passed to **SmartWorks Compass** through the AMI out to the Client's CIS.
- The SmartWorks Software will also support Customer's Net Billing. Net billed clients have meters with multiple registers. For these clients, the MVRs file will contain records for both registers and The SmartWorks Software will provide the information for each register as received from the AMI headend. The SmartWorks Software will not perform the activity to calculate a net usage.

For electric meters, a new rule will be created to identify the monthly peak demand for billing purposes.

- It is assumed that the demand will be **reset daily** at the meter level and that a daily peak demand value will be provided by the AMI. If the AMI is not providing daily peak demand values and these need to be calculated by Compass, this would be considered additional effort.
- It is assumed that periodically, a daily demand value will not be provided by the AMI and Compass will not estimate such missing daily demand values. As long as one daily demand value is available for the billing period, Compass will be able to calculate the peak demand.
- It is assumed that the CIS will provide an attribute to identify meters that will require the monthly peak demand calculation.
- It is assumed that the CIS will provide the last bill read date/time value in DataSync to notify the MDMS in the determination of the reading period for billing.
- The rule will be scheduled to calculate once per day



### **Register Read Estimation:**

Estimation of daily register reads in the absence of valid data from AMI (whether the meter has stopped communicating or if the read is not valid)

### **Key Assumptions & Requirements:**

- When a register read is missing, the recommended approach is to utilize the MVRs Billing Interface Register Date Tolerances.
  - In the Billing Interface, when readings are not available for the requested date, this parameter defines the tolerances (in days) that will be used to get the closest available reading to the requested day.
- In the case when a valid register reads (register read that passed VEE) is not available within the tolerance period, SmartWorks Compass will estimate register reads under the following conditions:
  - Estimation will not occur if data gaps or validation failures exceed a threshold.
  - Number of dials must be provided for all meter types - without this data estimation cannot occur
- Customer acknowledges that estimated registers may reduce the effectiveness of validations like Sum Check and Register Increasing.
  - Larger thresholds may be required, or custom logic added in to not perform that validation if the preceding read was estimated
- Customers must accept potential discrepancies in billing and reporting due to estimated data.
  - These estimated reads can produce inaccuracies/desynchronizations between what they see in Compass, and their end users see on any end portals.

### **3.2.3. Service Order Creation from MDMS**

The SmartWorks Software will have a file based integration with the CIS that allows the Process Automation rules to create service orders.

- The SmartWorks Software will query the CIS to confirm if a Service Order already exists for the location/account,
- If a Service Order does not already exist, a Services Order will be created. Customer is responsible for providing Service Order type for each use case.

As part of the scope of this integration, SmartWorks will deliver up to two (2) mutually agreed upon business rules that will each enable the automation of one (1) Service Order type and one (1) resulting action. An additional bucket of 100 hours will be added to this project to cover additional rules as needed. Any unused hours can be reassigned to training, meetings or other requests within the scope of this project.

### **Example of Use Cases:**

- Non-Communicating meter
- Leak Detected
- Meter tamper



These business rules shall be identified prior to Functional and Process Training. If identification of these business rules are not identified prior to Functional and Process Training and cause project delays, this may require going through the Change Management process.

### 3.3. Geographic Information System (GIS) Integration - ESRI

#### 3.3.1. Base Map

The SmartWorks Software will be configured so that meter data will be overlaid on top of one or more ESRI “Base Maps” via URL live link. With this capability, the Customer will be able to view meter data together with their other data layers within SmartWorks Software.

Customer will create URL and provide a custom base map to SmartWorks for configuration of **MeterSense**. This scope of integration assumes Customer is hosting ESRI on a web server and can provide a URL.

#### 3.3.2. Lat/long Information

Compass will import Lat/Long from ESRI GIS via flat file (csv).

#### 3.3.3. Transformer

Customer GIS will be the system of record for the transformer-to-location relationships. SmartWorks will implement a flat file transfer integration to import the GIS transformer asset data required to support transformer loading analysis, as listed in the table below.

	Compass
Transformer assets, including kVA rating	X
Relationship between transformer and location	X
Meters to feeder relationships and corresponding multipliers	X

SmartWorks Compass will receive from the ESRI GIS the connectivity model to include relationships between meters and transformers and corresponding CT/PT multipliers, if applicable. This data will be made available using flat files on at least a daily basis. If active/inactive dates for the relationships in the connectivity model are not available, historical relationships will be inferred by SmartWorks Compass based on the datasync date; this may impact the accuracy of the transformer report if the relationship change didn't occur on the same date as the datasync date.



### 3.4. The Weather Network

The SmartWorks Software will integrate weather data services with daily feed of observed weather data received from the Weather Network weather station determined to be closest to Customer's location.

The following weather data, if provided by the weather station, will be imported into SmartWorks Software:

- Temperature (Hourly)
- Humidity (Hourly)
- Wind Speed (Hourly)
- Wind Direction (Hourly)
- Weather Conditions (Hourly)
- Precipitation (Daily)

This data is automatically downloaded from SmartWorks' data provider for a weather station or stations in the Customer's service area and is automatically inserted into the SmartWorks Software database.

### 3.5. Customer Portal (SmartWorks HomeConnect)

The SmartWorks Software will maintain the existing interface between SmartWorks Compass and HomeConnect. SmartWorks Compass will provide usage data for all meter channels for residential meters.





## 4. Project Management Approach

### 4.1. Communication/Relationship Management Approach

Communication Management is the cornerstone of any project and a well-structured communication plan is a must from the beginning. Regular, or ongoing, communications include those opportunities to communicate with project team members, sponsors, steering committee members, and other key stakeholders on a regular basis. These types of communication include regular status reports, scheduled project team meetings, and monthly updates with the steering committee or with executive project sponsors on a project.

During the Project Kick Off meeting, a Communication Plan will be presented and reviewed with Customer staff based on the following Communication Strategy:

#### Goals of Communication Strategy

- Keep people informed on project status
- Focus on communication to effectively prepare Customer for their software rollout
- Focus on communication to build support for project
- Monitor effectiveness of communication

#### Guiding Principles

- Clear messages using simple language
- Openness, honesty, credibility, and trust in all communications
- Two-way communication, with feedback valued and asked for
- Project Team and Management ownership of the communication program
- Ongoing commitment to the communications process

#### Effective Communication Guidelines

- There are multiple audiences for project communications
- Communication needs to be:
  - Tailored to specific groups
  - Regular and informative
  - Real-time and relevant
- Communication content needs to be of interest to the target audience

Following is the proposed communication plan for the project:

What	Who / Target	Purpose	When / Frequency	Type/Method(s)
Project Kick Off	All stakeholders	Communicate plans and stakeholder roles/responsibilities.	At or near Project Start Date	Remote Meeting
Status Reports	All stakeholders and Project Office	Update stakeholders on progress of the project.	Weekly	Distribute electronically using agreed Status Report template
Team Meetings	Entire Project Team	To review detailed plans (tasks, assignments, and action items) and risks.	As Needed	Meeting Review Project Plan, Status Reports, and Risk Log



What	Who / Target	Purpose	When / Frequency	Type/Method(s)
Project Management Status Meetings	Sponsor(s) and Project Manager (SmartWorks, Customer, AMI Vendor, CIS Vendor)	Update Sponsor(s) on status and discuss critical issues. Seek approval for changes to Project Plan.	As Needed	Meeting
Executive Sponsor Meetings	Executive Sponsor(s) and Project Manager(s)	Update Sponsor(s) on status and discuss critical issues. Seek approval for changes to Project Plan.	Monthly	Meeting

## 4.2. Work Management Approach

Work will be managed through the use of the Project Schedule. The SmartWorks Project Manager will have the responsibility to create and maintain the Project Schedule for the modules and integrations listed in this Statement of Work. It is expected that Customer Project Manager will work in conjunction with the SmartWorks Project Manager to ensure that key Customer activities that impact the project are also contained in the Project Plan.

During and after the User Acceptance Testing phase, the SmartWorks Salesforce solution will be used to track project issues such as bugs or other lower level action items. The entire project team (SmartWorks / Customer) will have access to Salesforce.

## 4.3. Change Management Approach

This document serves as the complete understanding, between Customer and SmartWorks, as to what the current Statement of Work entails. Customer and/or SmartWorks may propose changes to the scope of work defined in this document (“Change”). The Change Order Form (Appendix A) must be used for all change requests. SmartWorks shall have no obligation to commence work in connection with any change until the fee and schedule impact of the change is agreed upon in a written Change Order Form signed by the designated representatives from both parties.

Upon a request for a change, SmartWorks shall submit the standard Change Order Form describing the change, including the impact on the schedule, budget, scope and expenses. The Change Management Process that will be employed is defined below:

- Identify and document proposed change
- Assess impact of proposed change
- Estimate required effort / cost of proposed change
- Submit Change Order for Approval / Disapproval
- Communicate Change Order Decision
- If Change Order is Approved:
  - Assign responsibility
  - SmartWorks to update Project Plan as needed
  - If there are project delays due to Change Request, SmartWorks may create subsequent Change Requests to address those delays
  - Monitor and report progress



Within ten (10) consecutive business days of receipt of the Change Order Form, Customer shall either:

- Accept the proposed change by signing the Change Order Form, or
- Reject the proposed change and inform SmartWorks Project Manager via email.

If SmartWorks is advised not to perform the change, or in the absence of Customer acceptance or rejection within ten (10) days, then SmartWorks:

- Will not perform the proposed change and will proceed only with the original services
- May create a new Change Request to accommodate the expenses incurred during the discussion of the proposed change. This may happen only in cases where:
  - Customer takes longer than ten (10) days to reach the decision, or does not reach a decision, and/or
  - Overall project timeline, budget or scope are affected.

#### 4.4. Risk Management Approach

Risk Management planning is an important part of project management and a core component of the SmartWorks Project Implementation Methodology. Risk Management planning is about defining the process of how to engage and oversee risk management activities for a project. Having a viable plan on how to manage risk allows one to mitigate risk versus attempting to decide in the midst how to handle a risk. The earlier Risk Management planning is engaged within the project increases the probability of success of risk mitigation activities. Risk Management planning will be initiated at the start of the project by having the initial discussion with Customer prior to, or during the Project Kick Off Meeting.

Risks can be raised by any project stakeholder, including project team members, Customer, third-party integrators, or vendors during the project.

Risks will be entered on the Risk Log and categorized by type and priority. The Project Manager will investigate the risk and, if necessary, will update the Risk Log with background information to place the risk in perspective.

At a minimum, the following information will be captured and tracked for all risks:

- RISK ID – each risk should have a unique ID
- TITLE – short description of the risk (usually a few words or a sentence, helpful when reporting risks)
- DESCRIPTION – complete description of the risk, the more details the better
- IMPACT – impact to the project and/or business in terms of money, time, and/or quality
- PROBABILITY – indicate the probability of the risk
- SEVERITY – risk severity (typically values could be “critical”, “high”, “medium”, “low”)
- TYPE – type of risk (e.g. technical, process, organizational, etc.)
- RISK MITIGATION PLAN – detailed description of actions (including dates and owners) required mitigating the risk



- STATUS – current status of the risk (typical values are “open” or “closed”)

The following Risk Matrix will be used to establish the severity of risk:

PROBABILITY	High (3)	3	6	9
	Medium (2)	2	4	6
	Low (1)	1	2	3
		Low (1)	Medium (2)	High (3)
		IMPACT		

Throughout the duration of the project, as risks are identified they will be added to the Risk Log and will be reviewed at weekly Status Meetings with the team to determine the possibility of occurrence and the best plan for mitigation.

If identified risk(s) and/or mitigation strategies are deemed to have an effect on project timeline, or budget, or scope, a Change Request may be created, as per section 4.3, to address those concerns.

Based on SmartWorks’ experience, the following have been identified as dependencies that could have negative effect on project timeline, cost and/or scope and could become potential risks:

- VPN ports not opened for SmartWorks personnel and for communication between integration points
- AMI not ready on time, or not sending the data
- Data source not ready for DataSync
- Resources not available to provide required information

Early engagement and commitments on timelines by all parties can significantly reduce risks linked to the above dependencies. SmartWorks will do its best to not change assigned personnel during the course of this project. Should any change be considered, SmartWorks will communicate such consideration to Customer.

#### 4.5. Acceptance Management Approach

In collaboration with Customer, SmartWorks will develop and maintain a central listing of all Deliverables and Work Products to be completed throughout the project **“Deliverable Acceptance Criteria Document”**. The Deliverable Acceptance Criteria Document will also set forth the acceptance criteria for each deliverable (**“Deliverable Acceptance Criteria”**).

A baseline version of the Deliverable Acceptance Criteria document will be created through a combined effort between SmartWorks and Customer during the Initiation and Build phase. The Deliverable Acceptance Criteria Document will be reviewed with Customer regularly and updated to record the



approval of the Deliverables as they are accepted. The approvals of the Deliverables in the Acceptance Criteria document will constitute final system acceptance.

A core component of the Deliverable Acceptance Criteria Document will be the execution of the test plan and test cases. The Testing Plan, also created in the Initiation and Build phase, and the Test Case Scenarios, created during the Initiation and Build phase, are customized specific to the implementation for Customer. The Test Plan and Test Case Scenarios are used for testing and will be provided to Customer for their own review and testing of the system. SmartWorks Implementation Team and Customer staff will work as a team to ensure that exhaustive testing is carried out. During the Testing phase, when the system testing is being executed, the Project Team will be meeting to review the testing status and ensure that scheduled testing is being carried out.

Once system testing has been completed, and Customer staff has been trained on the system, Customer staff will have the necessary tools to review the system for acceptance. Customer will have access to its own instance of the SmartWorks Software, loaded with their data, to train and test on. SmartWorks Consultants assigned to Customer will provide training of the system to the staff, along with training documents, consisting of User Guides and PowerPoint. Training will be conducted onsite and using MS Teams sessions, phone calls and documentation when needed.



## 5. Delivery Approach

### 5.1. Implementation Approach – Phases, Deliverables, Key Milestones

Successful implementation is based on SmartWorks' understanding of Customer requirements and experience gained through the implementations of SmartWorks Software at various Customers across North America. This project will leverage SmartWorks' Implementation Methodology which has been honed and perfected over the company's long history to successfully guide project implementation from Initiation to Deployment.

### 5.2. Implementation Methodology

The SmartWorks Methodology is based on the following guiding principles:

- *Promote and foster customer ownership of solution;*
- *Establish and maintain consistent and regular touchpoints with Customer;*
- *Ensure that project performance is visible, measurable, tracked and risks identified and mitigated – No Surprises!; and*
- *Seek to minimize customer cost and time while still achieving project objectives.*

The Implementation Methodology consists of two main areas: **Project Management** and **SmartWorks Software Implementation Management** where each has associated (where applicable):

- Processes / Checklists / Matrices that define how to operate;
- Deliverables that are formal outputs that require Customer sign-off;
- Work Products that are outputs produced as part of the work required to achieve the desired project goals; and
- Tools / Assets that are leveraged to produce defined outputs.

The **Project Management** area defines how projects are managed. It includes:

- **Communication/Status Management** aimed at establishing internal and external communications as well as monitoring and communicating project status and effort spent;
- **Relationship Management** aimed at measuring the pulse of Customers and partners;
- **Work Management** aimed at capturing and monitoring effort, cost and work to be performed;
- **Change Management** aimed at defining and controlling project scope;
- **Risk Management** aimed at planning, mitigating, tracking and monitoring risks;
- **Acceptance Management** aimed at ensuring that expected deliverables are delivered and accepted; and
- **Financial/Contract Management** aimed at monitoring project financial health.

The **Implementation Management** area defines the Implementation Phases and associated Work Products and Deliverables that are part of this project. The Implementation Phases are defined in the following table:



Implementation Phases	Objectives	Key Work Products and Activities	Deliverables
<b>Phase I</b> <b>Initiation and Build</b> <i>Key Milestones</i> <ul style="list-style-type: none"> <li>Kick Off Meeting Held</li> <li>Project Plan Reviewed/Updated</li> </ul>	<ul style="list-style-type: none"> <li>To Kick Off project and establish successful working relationship</li> <li>To obtain detailed agreement on Project Plan</li> <li>To install and perform base configuration work</li> </ul>	<ul style="list-style-type: none"> <li>Kick Off Meeting</li> <li>Implementation Questionnaire</li> <li>Acceptance Criteria Document</li> <li>Initial Configuration complete</li> <li>Physical Architecture Recommendation</li> </ul>	<ul style="list-style-type: none"> <li>SmartWorks Software installation</li> <li>Software Overview Training Session</li> </ul>
<b>Phase II</b> <b>Analysis</b> <i>Key Milestones</i> <ul style="list-style-type: none"> <li>Integration Documents signed</li> <li>Functional and Integration Requirement Document signed</li> </ul>	<ul style="list-style-type: none"> <li>To demonstrate base configuration functionality</li> <li>Conduct Discovery Sessions</li> <li>To obtain an agreement on what is remaining to be delivered</li> </ul>	<ul style="list-style-type: none"> <li>Discovery Session(s) Summary</li> </ul>	<ul style="list-style-type: none"> <li>Functional and Integration Requirements Document</li> </ul>
<b>Phase III</b> <b>Development</b> <i>Key Milestones</i> <ul style="list-style-type: none"> <li>Solution Feature / Code / Configuration Complete</li> </ul>	<ul style="list-style-type: none"> <li>To configure according to requirements and build the Solution components</li> <li>To write associated test cases that Customer would execute for acceptance of the Solution</li> </ul>	<ul style="list-style-type: none"> <li>Test Scenarios / Cases</li> <li>User Acceptance Test Scripts</li> <li>Base Solution Installed and Configured</li> </ul>	<ul style="list-style-type: none"> <li>SmartWorks Software configuration</li> <li>SmartWorks Software integration</li> </ul>
<b>Phase IV</b> <b>Testing</b> <i>Key Milestones</i> <ul style="list-style-type: none"> <li>User Acceptance Testing Complete</li> </ul>	<ul style="list-style-type: none"> <li>To move the Solution to a known state of quality and ready for deployment</li> <li>To train customer on their Solution</li> </ul>	<ul style="list-style-type: none"> <li>Functional Testing Results</li> <li>Integration Testing Results</li> <li>UAT Acceptance Criteria</li> <li>User Acceptance Test (UAT) Results</li> <li>Accepted Solution per UAT</li> </ul>	<ul style="list-style-type: none"> <li>Functional and Process Training</li> <li>User Acceptance Testing Support</li> <li>Go-Live Plan Document</li> </ul>
<b>Phase V</b> <b>Deployment</b> <i>Key Milestones</i> <ul style="list-style-type: none"> <li>Solution Live</li> </ul>	<ul style="list-style-type: none"> <li>To move the Solution into a production environment state and transition support to the operations team</li> </ul>	<ul style="list-style-type: none"> <li>Solution Live</li> </ul>	<ul style="list-style-type: none"> <li>Installation Acceptance</li> </ul>

To minimize project costs, the majority of project work will be performed at one of the SmartWorks' locations except for key project activities such as Discovery Sessions where face-to-face is deemed more effective for a successful project. Throughout the project, SmartWorks' Project Team will be engaged with Customer using WebEx sessions to review configuration work and provide remote support.



### 5.3. Implementation Timeline

The estimated duration to implement the SmartWorks Software within scope is approximately 10 months.

The actual duration and scheduling of project activities will be evaluated during the Initiation and Build phase and a detailed baseline Project Plan will be jointly created at that time.

A baseline plan for SmartWorks Software will be delivered within fourteen (14) calendar days of the project Kick Off Meeting allowing Customer's PMO to incorporate this into the overall Integrated Project Plan. Customer's PMO and SmartWorks will work collaboratively to develop a mutually agreeable plan within a reasonable timeline.

The Project Plan will include a project completion date (the date where project is completed based on the criteria in section 5.7 Project Completion Criteria). The Project Plan will be reviewed periodically during the project and may be revised. Changes to the project completion date will require a Change Order if it is mutually determined that the delay in completion is the fault of the Customer or Customer's third-party vendors.

### 5.4. Validation/Testing Approach

Systems Testing is an activity that is addressed through all Phases of the SmartWorks Software Implementation Methodology but is the focus of the Testing Phase.

To ensure that a quality Solution is delivered to Customer, the Testing Phase focuses on validating that the configured and developed Customer Solution performs per agreed upon requirements for each module. This includes three (3) main testing activities:

- **Unit Testing to test** individual Solution components to validate that each component meets the specifications set forth during the project.
- **Functional Testing** to test the core Solution components (Configuration, Interfaces, Reports, and Modifications) against agreed upon requirements as defined in the Functional and Integration Requirements Document based on the test cases and scenarios developed during the Development phase.
- **Integration Testing** to test the end-to-end process based on business processes and scenarios developed during the Development phase.
- **User Acceptance Testing** to provide Customer the opportunity to validate that Solution behaves per agreed upon requirements as defined in the Functional and Integration Requirements Document based on the test cases and selected scenarios collaboratively developed with Customer during the Development phase. User Acceptance Testing sign-off per agreed upon criteria is necessary to move to Deployment phase.

The progress for performing the three (3) testing activities will be logged into Salesforce. At a minimum, the Salesforce will include the following information:

- The test name
- The objective for performing the test
- A Description of the steps required to perform the test **"Test Script"**





- The expected result that will demonstrate the test is successful **“Test Acceptance Criteria”**
- The actual result observed after performing the test **“Test Result”**

Prior to commencing Functional Testing and Integration Testing activities, the Test Scripts and Test Acceptance Criteria will be documented in Salesforce by SmartWorks using Test Scripts that have been defined by SmartWorks.

While performing testing activities, the tester will update the Salesforce with the Test Result and will make a determination as to whether the result meets the Test Acceptance Criteria.

Functional Testing and Integration Testing will be performed by SmartWorks. User Acceptance Testing will be performed by Customer with support from SmartWorks.

#### 5.4.1. User Acceptance Testing Procedure

Once Functional Testing and Integration Testing have been completed, and Customer staff has received Functional Process Training, Customer staff will have the necessary tools to perform User Acceptance Testing.

Prior to commencing User Acceptance Testing activity, the Test Scripts and Test Acceptance Criteria will be documented in Salesforce by SmartWorks collaboratively with Customer.

Customer will have its own instance of The SmartWorks Software, loaded with its data, to train and test on. The Application SmartWorks assigned to Customer will provide the documents and training of the system to the staff. Training will be conducted onsite and using MS Teams sessions, phone calls and documentation as needed.

Customer will have a defined period of time to perform User Acceptance Testing on the Solution (including testing in a live production environment) (the **“Acceptance Testing Period”**). The length of the Acceptance Testing Period will be defined in the Detailed Project Plan. This User Acceptance Testing Period will begin upon formal written notification from SmartWorks to Customer that the SmartWorks Software has been configured and is ready for testing. During such Acceptance Testing Period, both Parties shall work diligently and dedicate the appropriate resources to conclude the evaluation in a timely and efficient fashion.

If the Solution substantially meets the Functional and Integration Requirements Document, and substantially satisfies the testing criteria set forth in Salesforce (together the **“Solution Acceptance Criteria”**), Customer will provide SmartWorks with written acceptance notice thereof, and the date of such notice to be the **“Actual Solution Acceptance Date”**.

In the event Customer determines that the results of a test do not meet the Solution Acceptance Criteria, following the initial User Acceptance Testing cycle, Customer will provide SmartWorks with written notice thereof, specifying in reasonable detail how the Solution failed to meet the Solution Acceptance Criteria. If Customer delivers to SmartWorks such notice of retesting, SmartWorks shall make all necessary corrections, repairs, fixes, modifications, or additions to or replacements of all or any part of the rejected SmartWorks Software as well as integrations for which SmartWorks is responsible so that it conforms to and performs in accordance with the Solution Acceptance Criteria. SmartWorks will have a defined period



of time **“Correction Period”** to correct any deficiency, after which the User Acceptance Testing will be resumed. The Correction Period will be defined in the Detailed Project Plan.

Should the Customer require additional testing outside of SmartWorks’ standard testing routines, such as for Disaster Recovery, these can be brought into scope via Change Order.

In the event retesting is required by Customer, the User Acceptance Testing process will then be repeated.

Customer shall not unreasonably reject or fail to accept the Solution based on any Severity 3 issues, as defined in the table below.

Severity Level	Description
<b>1</b>	<ul style="list-style-type: none"> <li>• <i>System Down (Software Application, Hardware, Operating System, Database)</i></li> <li>• <i>Program errors without workarounds</i></li> <li>• <i>Incorrect calculation errors impacting one-third of records</i></li> <li>• <i>Error messages preventing data integration and update</i></li> <li>• <i>Performance issues of severe nature impacting critical processes</i></li> <li>• <i>Security Issues</i></li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>• <i>System errors that have workarounds</i></li> <li>• <i>Calculation errors impacting less than one-third of records</i></li> <li>• <i>Reports calculation issues</i></li> <li>• <i>Performance issues not impacting critical processes</i></li> <li>• <i>Usability issues</i></li> <li>• <i>Workstation connectivity issues (Workstation specific)</i></li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>• <i>Training questions, how to, or implementation of new processes</i></li> <li>• <i>Aesthetic issues</i></li> <li>• <i>Issues where a workaround is available for a large majority of cases</i></li> <li>• <i>Recommendations for enhancements on system changes</i></li> <li>• <i>Questions on documentation</i></li> <li>• <i>Test environment issues or questions</i></li> </ul>

During the Acceptance Testing Period, Customer may in collaboration with SmartWorks, acting reasonably, extend the Acceptance Testing Period, the Correction Period, and the Expected Solution Acceptance Date (such that the extended Acceptance Testing Period shall expire on the revised Expected Solution Acceptance Date). During the Acceptance Testing Period, Customer should provide written notification to SmartWorks of any deficiency of a test result. Any issues identified after the end of the Testing Period will be address by SmartWorks according to the Support and Maintenance agreement.



## 5.5. Software Progression and Configuration Management

During the course of the project, updates are performed as described in the table below.

Phase(s)	Environment	Updates	Details
<b>Initiation and Build Analysis Development</b>	Pre-production	Configuration	Performed on an ongoing basis by SmartWorks Implementation Team. No Customer approval required.
		Software updates	Performed on an ongoing basis by SmartWorks Implementation Team. No Customer approval required.
		Software upgrades	<b><i>Not performed without prior agreement between SmartWorks and Customer.</i></b>
<b>Testing</b>	Pre-production	Configuration	Performed to address issues raised as a result of UAT.
		Software updates	Performed to address issues raised as a result of UAT. Release notes will be available upon request.
		Software upgrades	Not performed.
<b>Deployment</b>	Pre-production	Configuration	Performed for items related to Go-Live deployment activities.
		Software updates	Not performed, unless issues found during Go-Live deployment activities. <b><i>Requires agreement between SmartWorks and Customer.</i></b>
		Software upgrades	Not performed.
<b>Deployment</b>	Test*	Configuration	Can be performed by Customer to test additional configurations for Post Go-Live.
		Software updates	Not performed, unless exception scenario is encountered. <b><i>Requires agreement between SmartWorks and Customer.</i></b>
		Software upgrades	Not performed.
<b>Post Go-Live</b>	Pre-production & Test	Configuration	See Software Support Agreement
		Software updates	See Software Support Agreement
		Software upgrades	See Software Support Agreement

\*Once the Test instance is setup during the Deployment phase, the migration of items (configuration, updates or upgrades) from Test to Production will be evaluated for each scenario and a plan will be agreed upon between Customer and SmartWorks.



## 5.6. Customer Resource Involvement

SmartWorks strongly believes that a successful implementation project requires that both Customer and SmartWorks resources work openly and collaboratively towards a common objective. As such, Customer's involvement will be required through all phases of the implementation project. SmartWorks also believes that the involvement of key Customer resources will help with the organizational change management activities that are essential to obtain acceptance of the new solution.

The factors that will determine the size of Customer's team includes the following:

- The level and expertise of each of the Customer Project Core Team members;
- The ability of Customer Project Manager to make decisions regarding the project;
- Whether current job responsibilities will interfere with Core Team responsibilities;
- The amount of business reengineering that Customer determines is necessary; and
- The number of personnel that Customer will use to run their Solution, which in turn affects the amount of training needed.

Based on SmartWorks' experience with other clients, the following list outlines the anticipated involvement of Customer throughout the implementation project, by phase.

### **Phase I: Initiation and Build**

1. Work with the SmartWorks to develop the Project Schedule.
2. Identify users of the Solution.
3. Complete the Implementation Questionnaire provided by SmartWorks. This questionnaire provides SmartWorks with the technical and environmental details required to configure the SmartWorks Software.
4. Ensure that any third-parties required for the success of this project such as the AMI and CIS vendors have been informed and that they are ready to participate and contribute on an as-required basis.
5. Install VPN connection(s).
6. Assist with ensuring that SmartWorks Software is accessible from within Customer environment.

### **Phase II: Analysis**

1. Ensure the staff members that have been identified to participate in Discovery Session(s) are available on dates agreed to and scheduled.

### **Phase III: Development**

1. Provide and ensure all required technical staff are available on dates agreed to and scheduled.
2. Create User Acceptance Testing Plan, including Test scenarios.



#### **Phase IV: Testing**

1. Determine the appropriate staff to be trained.
2. Ensure the staff members that have been identified to participate in the training sessions are available on dates agreed to and scheduled.
3. Assist with Functional / Integrated Testing.
4. Conduct User Acceptance Testing.
5. Log issues in the SmartWorks Salesforce system (a web-based issue tracking system). The issues logged in Salesforce will be addressed by SmartWorks Consultants per triage and priority.
6. Assist SmartWorks in developing a Go-Live Plan Document.

#### **Phase V: Deployment**

1. Assist in activities as defined within the Go-Live Plan Document.

### **5.7. Project Completion Criteria**

The Implementation Project is deemed complete once the following criteria have been met:

- An agreed upon sample of AMI meters representing different meter types and location classes have been installed and tested during User Acceptance Testing, within the project timeline indicated in section 5.3.
- Solution Acceptance has been given by Customer.
- SmartWorks Software Functionality within scope of this SOW has been deployed for a minimum of thirty (30) calendar days "Post Implementation Grace Period".
- Severity Level 1 issues identified during the Post Implementation Grace Period have been addressed. The Severity Matrix Table presented in section 5.4.1, defines the Severity Level 1 issues.

Customer will be transitioned to support upon completion of the project. Severity Level 2 and 3 issues logged in Salesforce within the first three (3) weeks of the Post Implementation Grace Period will be reviewed by the Implementation Team prior to the transition to support and if possible, will be addressed prior to the end of the Grace Period. After the transition to support all outstanding Severity Level 2 and 3 issues will be addressed following the Master Support and Maintenance Agreement.



### 5.7.1.Completion Criteria Summary

Milestone	Deliverable/ Completion Criteria	Assumptions/Dependencies
<b>Contract execution for Mobilization</b>		<ul style="list-style-type: none"> <li>• Agreements signed by all parties</li> </ul>
<b>Software installation</b>	<ul style="list-style-type: none"> <li>• Pre-production system provisioned</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction call between SmartWorks and Customer Project Managers held prior to installation</li> </ul>
<b>Discovery Session held</b>	<ul style="list-style-type: none"> <li>• Team Introduction</li> <li>• Confirm project planning and review of Statement of Work</li> <li>• Initial review of Data Mapping requirements and implementation Questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>• Data Mapping requirements and implementation Questionnaire have been presented but will be updated throughout the project</li> </ul>
<b>Initial DataSync integration completed</b>	<ul style="list-style-type: none"> <li>• Initial Data Mapping requirements completed</li> <li>• Initial Implementation Questionnaire completed</li> <li>• Initial DataSync completed for pre-defined test meters</li> <li>• Compass Overview training session has been delivered</li> </ul>	<ul style="list-style-type: none"> <li>• Customer provided timely input for the documentation presented during Kick Off</li> <li>• Acceptance only includes pre-defined test meters</li> <li>• 3<sup>rd</sup> parties provided requested data as per agreed upon schedule</li> <li>• Initial DataSync setup refers to the initial setup and may need further configuration before Completion of Integration Milestone.</li> </ul>

Milestone	Deliverable/ Completion Criteria	Assumptions/Dependencies
<b>Initial AMI integration completed</b>	<ul style="list-style-type: none"> <li>Initial Implementation Questionnaire completed</li> <li>AMI data populated in MDMS for pre-defined test meters</li> <li>Compass Overview training session has been delivered</li> </ul>	<ul style="list-style-type: none"> <li>Customer provided timely input for the documentation presented during Kick Off</li> <li>Acceptance only includes pre-defined test meters</li> <li>3<sup>rd</sup> parties provided requested data as per agreed upon schedule</li> <li>Initial AMI integration refers to the initial file delivery and setup. Further configuration will be needed before Completion of Integration Milestone.</li> <li></li> </ul>
<b>Completion of Process and System Review</b>	<ul style="list-style-type: none"> <li>Initial integrations as defined in section 3 of the SOW have been delivered</li> <li>Process and System Review as defined in section 2.8 has been delivered</li> </ul>	
<b>Acceptance of requirements documents</b>	<ul style="list-style-type: none"> <li>Discovery Sessions have been held (as outlined in Section 2.8)</li> <li>Initial requirements documents have been delivered to Customer for review</li> </ul>	<ul style="list-style-type: none"> <li>Acceptance linked to initial delivery of documents</li> <li>Customer will complete review and comment on each draft of the Requirements Document within 10 Business Days to maintain adherence to the project schedule.</li> </ul>



Milestone	Deliverable/ Completion Criteria	Assumptions/Dependencies
<b>Completion of Functional and Process Training</b>	<ul style="list-style-type: none"> <li>• Software modules as defined in section 2.5 available</li> <li>• Training as defined in section 2.8 has been delivered</li> </ul>	<ul style="list-style-type: none"> <li>• SmartWorks provides agenda prior to training</li> <li>• SmartWorks provides training plan prior to training</li> <li>• Customer is engaged and completes training exercises</li> <li>• Configuration has been completed, as mutually agreed upon between SmartWorks and Customer PMs</li> </ul>
<b>Due at Completion of Connect/Disconnect and Move-In/Move-Out configuraton</b>	<ul style="list-style-type: none"> <li>• Software modules as defined in section 2.5.6 and 2.5.7 available</li> </ul>	<ul style="list-style-type: none"> <li>• Configuration has been completed, as mutually agreed upon between SmartWorks and Customer PMs</li> </ul>
<b>Completion of UAT</b>	<ul style="list-style-type: none"> <li>• Test results documented by Customer</li> <li>• Severity level 1 tickets have been addressed</li> </ul>	<ul style="list-style-type: none"> <li>• Test scripts have been defined by Customer</li> <li>• Customer resources are available to perform testing for a period of 10 business days</li> <li>• Tickets logged after completion of UAT will not delay acceptance</li> </ul>
<b>Transition to Support</b>	<ul style="list-style-type: none"> <li>• Transition to Support meeting has been held</li> </ul>	
<b>Completion of Advanced Process Automation Module Training</b>	<ul style="list-style-type: none"> <li>• Training as defined in Section 2.6 has been delivered</li> </ul>	





Milestone	Deliverable/ Completion Criteria	Assumptions/Dependencies
Monthly PM/meeting Fee	<ul style="list-style-type: none"><li>Project Discovery Session held</li></ul>	<ul style="list-style-type: none"><li>This fee will be billed monthly and calculated over the estimated duration of the project, commencing with the Discovery Sessions.</li><li>A monthly PM fee will be charged to Customer throughout the estimated project duration, until the Transition to Support phase is reached.</li><li>These tasks include: weekly project teams attended by Project Manager, Technical Consultant, and Business Consultant; Project Manager meetings; meeting agenda and minutes.</li></ul>



## 6. Assumptions

The Services, fees and delivery schedule for this project are based upon the following assumptions:

1. This SOW defines the scope of work for SmartWorks and does not include any work or expenses required from other vendors including GIS, AMI, CIS, etc.
2. This project currently has, and will continue to have, the support of senior Customer management and will be assigned sufficient priority with respect to other projects to ensure its success.
3. Customer will assign a Project Manager and Integration Coordinator to act as an internal resource and guide throughout this project.
4. Customer will have a PMO (Program Management Office) to manage the entire AMI Program, including the integration work and SmartWorks will provide deliverables and
5. Customer will secure the appropriate staff in a timely fashion in order to discuss or review the various materials produced when required, provided SmartWorks gives reasonable notice of such request. A Change Order may be created if the Customer is unavailable or non-cooperative and as such results in an impact to the schedule or effort.
6. SmartWorks will provide a written agenda and notice of any prerequisites to prior to any onsite or remote sessions.
7. SmartWorks will provide adequate resources to support the efforts to complete the project as schedules and within the constraints of the project budget.
8. SmartWorks will provide the resumes for resources assigned to the project upon Customer's request.
9. The SmartWorks Solution implementation is dependent upon accurate and timely information cooperation and delivery of third-party vendors solutions in order to achieve functional integration. SmartWorks will identify those dependencies to Customer and create a mutually agreed schedule to provide the assistance and information. Customer will ensure the cooperation and involvement of third-party vendors on or before the agreed schedule date. Failure to achieve delivery of the identified dependency on the agreed schedule will result in a change order being issued.
10. Customer will secure, as required and in a timely fashion, the assistance and cooperation of third-party vendors (e.g. CIS, AMI, OMS) to ensure a successful implementation. A Change Order will be created if the third-party vendor is unavailable or non-cooperative and as such results in an impact to the schedule or effort.
11. Third-Party vendor solutions are able to provide data required by the SmartWorks Software as well as accept information provided by the SmartWorks Software.
12. All third-party software and hardware products are assumed to perform correctly in Customer environment, in accordance with the appropriate third-party vendor's specifications.
13. All documentation provided by Customer shall be up-to-date and accurate or if that is not the case, advise SmartWorks as such.
14. All network components supplied by Customer are working properly and are free of defects and will meet minimum industry standards provided during the project.
15. To minimize project costs, the majority of project work will be performed at one of the SmartWorks' locations except for project activities where onsite is deemed more effective.



16. In the event the Consultant is required to travel to the Customer's site, the Customer is responsible for travel related expenses (Flight, hotel, per diem, transportation, and travel time).
17. Customer will provide the appropriate monitored remote access to its network, facilities, and systems as may be required to perform activities from one of SmartWorks' locations. SmartWorks shall abide by all rules and directions of Customer when accessing Customer's network, facilities or. A Change Order will be created if appropriate remote access to its network is not available during agreed upon business hours, resulting in project delay or additional fees.
18. Any items not explicitly identified within this document are considered out of scope. Any changes to those responsibilities and/or deliverables will be considered a change in scope for the project. Any proposed change to the project scope must be put into written format and be submitted to SmartWorks during this project for review and consideration.
19. Roles and responsibilities listed in this Statement of Works regarding SmartWorks' involvement in this project supersede other third-party vendor documents.
20. System Integrator might have additional requests outside of what is covered within this agreement (such as additional training sessions, additional meetings, additional testing, etc.). SmartWorks will follow System Integrator's lead and will leverage change orders to bring in scope additional effort related to new requests.



## 7. Pricing

### 7.1. Effort

Description	Effort (Hours)
<b>Compass Implementation and Configuration</b> <ul style="list-style-type: none"> <li>– Electric ONLY (MDMS &amp; Modules)</li> <li>– Includes: <ul style="list-style-type: none"> <li>○ Removal of Zero Reads</li> <li>○ Register Reads Estimation</li> </ul> </li> </ul>	1,405
<b>Modules</b> <ul style="list-style-type: none"> <li>○ Connect/Disconnect</li> <li>○ Move-In/Move-Out</li> </ul>	225
<b>Testing</b>	120
<b>Extended UAT</b> <ul style="list-style-type: none"> <li>• Adding 4 weeks of UAT to SOW</li> <li>• 20 hours x 4 week</li> </ul>	80
<b>Training and Preparation</b>	105
<b>Customer Meetings &amp; Discovery (12-month period)</b> <ul style="list-style-type: none"> <li>– 52 weeks x 2 resources x 1 hour meeting per week (52 meetings in total)</li> <li>– 5 hours for discovery meetings (ad hoc).</li> </ul>	109
<b>Documentation</b>	95
<b>Project Management</b>	150
<b>Additional hours for Reports</b>	200
<b>Additional hours for Rules</b>	100
<b>Project Total</b>	<b>2,589</b>

### 7.2. Fees

#### **Professional Services**

This is a fixed price quote based on the scope described above. If there are material changes to the scope or our understanding of the scope, the price is subject to change.



### **Support and Maintenance**

Monthly Support & Maintenance fees may be adjusted based on the increased functionality or complexity resulting from this scope of work.

### **Taxes**

Fees exclude any applicable taxes.

### **Validity**

The price estimate is valid for a period of 30 days from the quote submission date (as identified in Section 1 of this document). Customer may request this date to be extended.

### **Scope Changes**

If there are material changes to the scope or our understanding of the scope, the price estimate is subject to change:

- The Standard hourly rate for additional services is \$260 USD.
- The Support & Maintenance fees may be adjusted accordingly as well.



## 8. Payment Schedule

Customer will be invoiced based on the following payment fees and schedule. All prices are in USD.

Description	Payment	
<b>License Fee</b> (For 2 modules: Connect/Disconnect and Move-In/Move-Out)		
Due at Contract Execution	100%	<del>\$52,023</del> (40% discount on license) \$31,214
<b>Services Payment Milestone:</b>		
Due at Contract Execution for Mobilization	10%	\$67,314
Due at Software installation	10%	\$67,314
Due at Discovery Session Completed	10%	\$67,314
Due at Initial DataSync Integration Completed	2.5%	\$16,828.50
Due at Initial AMI Integration Completed	2.5%	\$16,828.50
Due at Completion of Process and System Review	15%	\$100,971
Due at Acceptance of Requirements Document	15%	\$100,971
Due at Completion of Functional and Process Training	5%	\$33,657
<b>Due at completion of</b> Connect/Disconnect and Move-In/Move-Out configuration	5%	33,657
Due at Completion of UAT	5%	\$33,657
Due at Transition to Support	5%	\$33,657
Due at Completion of Advanced Process Automation Module Training	5%	\$33,657
Monthly PM/Meeting Fee - <b>To be invoiced</b> quarterly (4)	10%	\$67,314
<b>Services Total</b>	<b>100%</b>	<b>\$673,140</b>
<b>Project Total (License and Services)</b>		<b>\$704,354</b>
<b>Additional Annual Support &amp; Maintenance fees:</b> - Move-In/Move-Out Module - Connect/Disconnect Module		<b>\$13,005</b>
<b>Additional Annual Support &amp; Maintenance fees:</b> - Extended Support for legacy system and new Production system Note: - This fee will start at project go-live- Support for legacy system will last 18 months		<b>\$18,920</b>



<p><b>Additional Annual Support &amp; Maintenance fees:</b></p> <ul style="list-style-type: none"> <li>- Transformer Loading Analysis Module</li> <li>- Outage Performance Module</li> </ul> <p>Notes:</p> <ul style="list-style-type: none"> <li>• The fee will be applied upon installation in test environment (or production if a test environment is not available)</li> <li>• This fee is intended to cover support and maintenance activities anticipated for new functionality provided in this quote.</li> <li>• The first year fee will be pro-rated to align with customer's existing maintenance payment schedule.</li> </ul> <p>Annual fees are subject to change as defined in the Support and Maintenance agreement</p>		<p><b>\$12,635</b></p>
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Invoices are payable on a net 60-day basis.

In the event Authority fails to pay all or any portion of an invoice on or before sixty (60) days after the date it becomes due, Authority shall pay a late charge of 1.5% per month, or the maximum rate permitted by law, whichever is less, on the outstanding balance. The late charge shall be calculated from the date the payment was due and shall be added to the outstanding balance. Contractor reserves the right to waive or reduce the late charge in its sole discretion.

## 8.1. Pricing Assumptions

Please note that upon delivery of a customization, Customer will have thirty (30) calendar days for acceptance testing, during which time, issues reported within the 30 days will be resolved at no charge provided they are part of the original scope of work defined in section 2.1 and 2.2 of this document. The customization will first be tested in the test environment, and then ported to the Live Environment on agreement from the customer where it will be validated once again.

If required, Customer and Consultant can arrange an extension to the 30-day acceptance period if Customer is approaching the end of the 30-day acceptance period and known validation issues exist which will require additional time beyond the 30 days to resolve, provided Customer is actively engaged in testing initiatives.

All changes or issues reported after 30 days will be considered billable, unless a prior arrangement or extension to the acceptance period is made during the initial 30 days. If the testing period extends past 30 calendar days, there will be an additional charge to move the modification into Production unless a prior arrangement or extension has been agreed upon.



## 8.2. Payment Method

Customer will be invoiced for the entire level of effort identified in this quote using the direct invoice payment method.

### 8.2.1. INVOICING INSTRUCTIONS

Contractor shall submit invoices in accordance with the payment terms described in this Agreement. Each invoice must include the following documentation, as applicable to the invoiced line items.

- Detailed Description of Goods and Services Rendered: A clear breakdown of each item or service billed, including reference to the corresponding line item in the pricing schedule.
- Professional Services Documentation: Description of milestone(s) approved for invoicing.

## 8.3. Travel and Expense Reimbursements

Travel expenses shall be reimbursed in accordance with the prevailing Department of Defense (DoD) per diem rates.

- Reimbursement requests must include itemized receipts for all eligible expenses, including travel, lodging, meals, and incidentals.
- A summary report shall be provided, categorizing reimbursable expenses by individual employee and the corresponding trip purpose.
- The Authority shall reimburse the Contractor for all reasonable and properly documented out-of-pocket expenses incurred in performing the Services under this Contract. Reimbursable expenses include transportation and authorized off-island travel, which shall be reimbursed at U.S. Government rates for the applicable area and limited to coach-class airfare or its equivalent.
- For travel within the U.S. Virgin Islands, the official Department of Defense per diem rates can be found at:  
[https://www.travel.dod.mil/Portals/119/Documents/Allowances/Per\\_Diem/OCONUS/Current\\_OCONUS\\_Rates.pdf](https://www.travel.dod.mil/Portals/119/Documents/Allowances/Per_Diem/OCONUS/Current_OCONUS_Rates.pdf)

## 8.4. Certification Statement

Customer shall certify that all goods and services have been delivered in full compliance with the terms of the contract, and that all costs submitted for reimbursement are accurate, allowable, and allocable under the applicable funding sources.





## 9. Document Acceptance and Sign-off

Accepted on this day by:

**Virgin Islands Water and Power Authority**

**N.Harris Computer Corporation (Harris Utilities,  
SmartWorks)**

By: Karl Knight

Signed by:  
Eric Chabot  
A99C6535942A452

Name: Karl Knight

Name: Eric Chabot

Title: Executive Director/CEO

Title: Executive Vice President

Date: 10/15/2025

Date: 10/10/2025

Approved for Legal Sufficiency:

Patricia Quinland 10/14/2025

Patricia Quinland, Asst. General Counsel

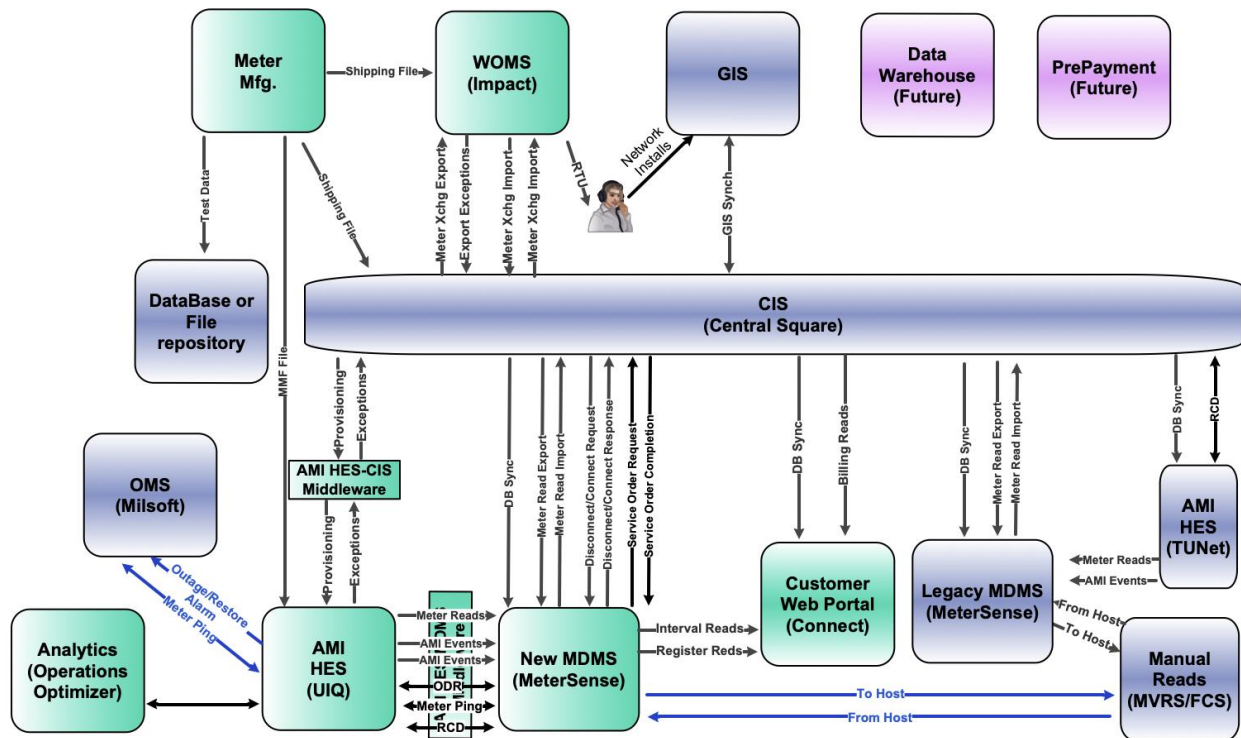
## 10. Appendix A

### 1) Project Roles and Responsibilities

#### 2) Overview

In this Statement of Work, VIWAPA has indicated in general which party (**SmartWorks** or VIWAPA (Note that VIWAPA role includes the Systems Integrator (**TRC Engineers** (“TRC”)), CIS Developer (**Central Square**), AMI Solution Architect (**Itron**), PMO (**Witt O’Brien’s** and **Z2Solutions**) and **VIWAPA**) is responsible for various tasks throughout this **systems integration project plan**. The intention is that the project is a highly collaborative effort; however specific deliverables are the responsibility of one party. In all cases, it is expected that the responsible party will be able to count on the reasonable support and assistance of the other party to help achieve each deliverable. Detailed roles and responsibilities will be defined, and a responsibility matrix will be a deliverable result of the Planning and Analysis stage.

The assigned **SmartWorks** Project Manager will actively participate in all stages of the project (limited in scope to the implementation of Compass as listed in SmartWorks’ Statement of Work) and will be the point of escalation for any issues related to SmartWork’s scope of work or technology requiring escalation. Witt O’Brien’s will be responsible for the program management of the project and will be the point of escalation for any issues and Z2Solutions will be responsible for the technical management for the project and will be the point of escalation for any technical issues. Other SmartWorks subject matter experts will also be called upon to participate periodically in various stages of the project. These roles are not called out specifically in the stages below; however, they are implied throughout and have been considered in resource plans. Weekly status updates which summarize progress, plans, and challenges will be provided by the SmartWorks Project Manager throughout the project. The solution architecture for the integrated solution is shown below.





The Project Plan and Schedule will be initialized in the Preparation and Planning stage; refined and finalized at the end the Analysis stage; and then become working project documents that are updated and managed by the PMO with input and review by the SmartWorks Project Manager. SmartWorks Project Manager will provide SmartWorks initial project plan for SmartWorks activities and the PMO will incorporate such into the Integrated Project Plan (IPP).

TRC will coordinate design workshops with SmartWorks, Central Square, Itron and VIWAPA and each vendor and document the configuration and functionality and each integration/interface of their solution (SmartWorks for the MeterSense and Compass software, Itron for the AMI HES and WOMS software, Central Square for the Naviline software) and TRC will validate and document the end-to-end integration architecture and any middleware integrations necessary. TRC will support all VIWAPA vendors in their creation of the integration points. TRC Engineers will ensure that the planning, analysis, design, development and testing of each interface take into account the core system capabilities and VIWAPA's business processes. TRC Engineers will lead the overall integration effort and SmartWorks will be responsible for integration between their systems (MeterSense MDMS and Compass). TRC will conduct all systems integration testing and SmartWorks will support and execute the integrations testing between MeterSense MDMS and CIS, MeterSense MDMS and AMI HES. All vendors will support VIWAPA as they conduct User Acceptance Testing. TRC will be responsible for developing all test scripts for all test phases and SmartWorks will provide input to these test scripts for the functionality and configuration of the MeterSense MDMS and Compass products as well as the integration between MeterSense and CIS or AMI HES.

### 3) RACI Matrix

The high-level tasks and associated RACI described below identify the major work efforts for the project deliverables. SUPPLIER uses this RACI matrix to clearly indicate project responsibilities through the duration of the project. Please note the definitions of the terms comprising RACI are:

(R) Responsible - Those who do the work to achieve the task.

(A) Accountable - The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to those responsible. must be only one accountable specified for each task or deliverable.

(C) Consulted - Those whose opinions are sought, typically subject matter experts; and with whom there is two-way communication

(I) Informed - Those who are kept up-to-date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.

Item	SmartWorks	VIWAPA	Notes
<b>Project and Solutions Activities</b>			
SmartWorks project management	A, R	C	SmartWorks will manage the overall project reporting to VIWAPA's Program Management Office
Plan and conduct joint project kickoff, including MDMS, CIS and meter installation vendors.	R	A,R	*Joint responsibility for each entity; VIWAPA has overall ownership



Item	SmartWorks	VIWAPA	Notes
Plan and conduct integration and configuration workshops	R	A,R	TRC will be responsible for the overall planning and coordination and each vendor will participate in the relevant workshops to ensure that all requirements and integrations are fully defined.  For clarity, the workshops will be business process based rather than individual product based. As an example, a Billing Workshop will include SmartWorks and Central Square to ensure a complete solution.
Build and maintain project management plans (quality, change, risk, communication)	R	A, R	VIWAP PMO to maintain overall Integrated Project Plan
Develop and maintain SmartWorks project plan	A, R	C	
Develop and maintain overall integrated project plan	C	A, R	CUSTOMER PMO to manage IPP
Document business process flows (to-be)	C	A, R	Z2Solutions will provide and maintain the Business Process Models (BPM) and Solution Architecture. SmartWorks will provide details for process flows which impact the MDMS.
Updates MeterSense and Compass configuration worksheets	A, R	C	For clarity, a detailed CWB (Configuration WorkBook) is required for each system to define the configurations and settings of the product to ensure the VIWAPA has a complete documentation of the configured system.
Maintain SmartWorks activities within overall project schedule	A, R	I	
Develop overall integration architecture	C	A, R	TRC will be responsible for the integration architecture and SmartWorks will provide technical input and review of this architecture.
Develop SmartWorks component integration plans	A, R	C	



Item	SmartWorks	VIWAPA	Notes
Provide standard interface specifications and test data	A, R	I	Sync, On demand engine, billing export, etc. (All API's).
Provide Formal classroom training and documentation on all SmartWorks products	A, R	C	VIWAPA to attend training All training will be recorded and electronic versions of the training are required.
<b>Software Installation and Configuration Activities</b>			
Business Process Model Review	A, R	C	SmartWorks will review the Business Process Models and Business Requirements in each BPM and provide comments or agreement to such. The Business Requirements will be the basis for testing and acceptance of the integrated solution and each vendors specific configuration and integrations.  Note that the BPMs and Business Requirements will use industry standard terms.
Provide hardware/network infrastructure specifications for SmartWorks products	A, R	I	
Validate hardware/network infrastructure installation and configuration	A, R	C	This is applicable to the hardware that is Commissioned by SUPPLIER.
Provide procedures for MDMS and Compass Backup and Maintenance Activities.	A, R	I	
Provide operations runbook for MDMS and Compass environments	C	A,R	
Complete MDMS and Compass installation (test and production environments)	A, R	I	
Complete MDMS and Compass configuration	A, R	C	
Provide Unit and System testing, including unit and system test report, of MDMS and Compass software configuration	A, R	C	
<b>Software Integration Activities</b>			



Item	SmartWorks	VIWAPA	Notes
Define and document Middleware requirements for the integration between CIS and AMI HES, MDMS and AMI HES and CIS and Impact	C	A, R	Where translation is required between MDMS and AMI HES, TRC will develop Middleware integrations so that each system can maintain their standard interfaces.
Define and document Middleware requirements for the integration between CIS and MDMS	A, R	R	Where translation is required between MDMS and CIS, SmartWorks will work with VIWAPA to design and develop Middleware integrations.
Incorporate Middleware design and requirements into Integration Architecture	C	A, R	TRC is responsible for the Integration Architecture
Develop and unit test Middleware between CIS and AMI HES, MDMS and AMI HES	C	A, R	
Develop and unit test Middleware between CIS and MDMS	A, R	R	
Develop Knowledge Transfer and Exception Handling processes for Middleware between CIS and AMI HES, MDMS and AMI HES	C	A, R	
Complete MDMS-Side Integration between CIS and MDMS (Sync, On demand engine, Billing extract, service orders, etc.)	A, R	C	Based upon documented design and integration architecture.
Complete MDMS-side Integration between MDMS and CIS (reads, events, commands,)	A, R	C	
<b>Integration Testing Activities</b>			
Develop Overall Test and Test Management Strategy	C	A, R	TRC will develop the Test Strategy for all testing phases and SmartWorks will contribute and review this strategy
Itron and SmartWorks will provide all test data as required to validate integration between AMI HES and MDMS, functionality and configuration of MDMS.	R	A, R	TRC will facilitate



Item	SmartWorks	VIWAPA	Notes
Central Square and SmartWorks will provide all test data as required to validate integration between CIS and MDMS, functionality and configuration of MDMS.	A, R	R	TRC will facilitate
Test data flow between each integration point between the MDMS and CIS	A, R	R	
Test data flow between each integration point between MDMS and AMI HES	A, R	R	
Develop use cases/test cases for MDMS and Compass configurations	A, R	R	SmartWorks and CentralSquare will provide the use cases and TRC is responsible for providing the template and working with the vendors
Develop use cases/test cases (including any VIWAPA test data) for User Acceptance Testing	C	A, R	SmartWorks can support TRC and VIWAPA in development - SmartWorks to provide TRC with standard test cases
Perform initial system validation	A, R	C	
Perform and document initial MeterSense to Compass systems integration testing	A, R	C	
Establish SIT test schedule	C	A, R	TRC, with support from PMO will maintain the overall test schedule and SmartWorks will contribute and review such schedule
Conduct standup test meetings, testing status meetings and defect meeting for SIT	C	A, R	TRC will conduct meetings and SmartWorks will participate
Perform overall end to end systems integration testing	R	A, R	SmartWorks will execute any integration tests involving the MDMS or Compass
Develop SIT Test Report	C	A, R	TRC will develop the SIT Test Report and SmartWorks will contribute and review such report
Establish UAT test schedule	C	A, R	



Item	SmartWorks	VIWAPA	Notes
Conduct standup test meetings, testing status meetings and defect meeting for UAT	C	A, R	
Perform user acceptance testing	C	A, R	VIWAPA will perform acceptance testing and SmartWorks will support
Develop UAT Test Report	C	A, R	
Resolve system defects related to SmartWorks products and integrations	A, R	C	
Provide system configuration and integration acceptance approval/sign-off	I	A, R	
<b>Production Cutover/Stabilization Activities</b>			
Provide standard MeterSense and Compass Operations Guide	A, R	I	
Customize and expand MeterSense and Compass Operations Guide, if required to add customer specific additions.	C	A,R	Specific to VIWAPA Operations procedures
Provide “as built” configuration workbooks, Administrations and Operations Guide for SmartWorks products	A, R	I	
Develop and provide Go Live handover documentation covering the as built configuration, integration and processes.	R	A, R	TRC will develop the overall Go Live handover documentation requirements and plan and SmartWorks will be responsible for the documentation handover for SmartWorks products.
Develop migration/go-live plan	R	A, R	TRC will develop the overall migration/go-live plan and SmartWorks will participate and provide steps and activities specific to SmartWorks products, including any go-live items for the Legacy MDMS
Execute migration/go-live plan	R	A, R	
Provide post-go live support for up to 90 days	A, R	C	





Item	SmartWorks	VIWAPA	Notes
Transition VIWAPA to SmartWorks application Support teams	A, R	I	
Conduct project lessons learned	R	A, R	TRC will be responsible for the overall lessons learned and SmartWorks will contribute and participate in this session.
Provide overall systems integration completion approval	I	A, R	

VIWAPA will be conducting the AMI Program with the following phases:

- Planning & Preparation Stage (July and August)
- Analysis Stage (September through October)
- Build & Design & Unit Test Stage (November through December)
- Testing and Training Stage (January through March)
  - SIT (January thru February)
  - UAT (March)
- Production Cutover Stage (April)

#### 4) Planning & Preparation Stage Deliverables

SmartWorks Deliverables:

SmartWorks Project Management Plan input to AMI Program Integrated Project Plan (IPP)  
 Design Workshop Plan contributions and review  
 Integration Architecture Template review  
 MeterSense and Compass Configuration Worksheets  
 Context Diagram for MeterSense  
 Project Contact List

#### 5) Analysis Stage Deliverables

SmartWorks Deliverables:

Environment specs (Hardware sizing, prerequisite software, versions, etc.)  
 Integration architecture for AMI solution contributions and review  
 Functional requirements for the AMI solution review  
 Updated MeterSense and Compass Configuration Worksheets  
 Updated Project Plan and Schedule to be incorporated into the Integrated Project Plan  
 Interface Specification documentation for all MeterSense and Compass interfaces identified as within the scope of this project

#### 6) Interface Development Phase (NOTE: This is from the Systems Integrator SOW for context)

In this stage, SUPPLIER and CUSTOMER system vendors will complete development of the interfaces between the CUSTOMER systems and AMI HES or Meter Installation Work Management System identified as in the scope of this project. CUSTOMER will principally be responsible that SmartWorks and CentralSquare will produce the design specifications as needed for SUPPLIER's end to end integration architecture and SUPPLIER will supply all information required about the AMI HES and WOMS, and



insight from its experience in supporting relevant prior integration efforts, to support this process. SUPPLIER will manage the overall development (i.e. design & build) process and SmartWorks and CentralSquare functional and technical resources will perform the development (i.e. design & build) process (deployment and maintenance). SUPPLIER will support the process and continue to provide guidance and knowledge about the capabilities and requirements of the system relevant to the integration effort. SUPPLIER will provide test data as required by SmartWorks and CentralSquare to unit test and validate the development of the interfaces.

During this stage:

CUSTOMER's vendors will build and test utility system interfaces identified as in the scope of this project.

CUSTOMER's vendors will, build and test designated utility third party system interfaces identified as in the scope of this project.

SUPPLIER will build and test SUPPLIER's system interfaces for AMI HES or Meter Installation Work Management System for the CUSTOMER's system identified as in the scope of this project.

SUPPLIER will provide integration specifications as agreed upon in the integration architecture and sample data and CUSTOMER's vendors will conform to these mutually agreed upon specifications.

SUPPLIER will provide integration between SUPPLIER systems.

SUPPLIER will test all interfaces between AMI HES and MDMS and CIS as part of the system testing.

SUPPLIER will test all interfaces between WOMS and CIS as part of the system testing

SUPPLIER will verify that all interfaces between MDMS and CIS are tested as part of system testing

SUPPLIER will test all configurations and functionality of the AMI HES as part of system testing.

SUPPLIER will test all configurations and functionality of the WOMS as part of system testing.

## 7) Design, Build & Installation Stage Deliverables

SmartWorks Deliverables:

Initial Technical Architecture Overview for MeterSense and Compass

Initial Integration Architecture review and contribution

Initial Configuration Worksheet for MeterSense and Compass

Installed and Configured MeterSense and Compass

Unit test scripts and unit test report for MeterSense and Compass

Migration to Production Process for MeterSense MDMS (both legacy and new) and Compass

## 8) Testing Stage Deliverables

SmartWorks Deliverables:

Test Strategy contribution and review

System test plan contribution and review

System test cases for MeterSense functionality

System test cases for Compass functionality

System test results for MeterSense functionality

System test results for Compass functionality

Integration test plan contribution and review

Integration Validation (test plans, test data, use and test cases, and test results) for Point to Point

Testing for integrations into and out of MeterSense

Integration Validation (test plans, test data, use and test cases, and test results) End-to-End Testing for integrations involving MeterSense



## 9) Production Cutover and Stabilization Deliverables

### SmartWorks Deliverables:

- Operational knowledge transfer checklist
- Updated design and configuration documents
- Updated integration architecture contributions and review
- Hardware and software optimization recommendations
- Standard Support Procedure



## 11. Appendix B

### Hardware and Software Requirements

#### DATA RETENTION REQUIREMENTS

Compass will store the interval and register read data according to the following table:

Service	Number of Meters	Interval Length	Number of Channels
Electric Residential	45,827	15 min.	3
Electric Commercial	10,081	5 min.	4

- The number of daily processed reads is estimated to be 24,811,488.
- Actual account numbers can vary over time. The server size is recommended with the assumption that the number of services may expand by 25% over five years.
- A minimum of three (3) years of data must be retained for immediate access.
- And additional five (5) years can be maintained for secondary access via the Compass APR process (Archive Purge and Restore)

### SmartWorks Compass Hardware & Software License Requirements

Based on our current understanding of the project requirements, we are providing the following hardware and software recommendations for the Compass Solution.

**Note:** Additional storage may be required if data granularity or meter volume requirements change. It is recommended that the requirements be reviewed with the customer prior to purchase as these requirements may change based on actual Customer environment.

#### Application/Database Production Server

CPU	2 Socket CPU Server, 64 hyper-threaded or virtual 2.5 GHz Cores
Memory	512 GB RAM
Operating System	Linux Red Hat Enterprise Edition 9.x (or newer) (one license per server)
Database	PostgreSQL Server 14 (no license required)

Disk Size	RAID Level of Disk Array or SAN LUN	Min. Disk RPM	Purpose
100 GB	RAID 1	15K RPM	Operating System
300 GB	RAID 1	15K RPM	Application/DB Transaction Disk
2 TB	RAID 10	15K RPM	Database data (with 3 years of online data)
38.5 TB	RAID 1	10K RPM	Offline Meter Data Archive (5 years, Optional)
26 TB	RAID 5	10K RPM	DB Backup (Optional, for a 7-day backup retention policy)

#### Database Disk Storage Subsystem



Min. IOPS Requirement	Read Percent	Write Percent	Expected Communication Bandwidth Utilization
24,811	80%	20%	6,625 Mbits/sec

Notes:

1. SmartWorks Infrastructure, as per standard operation procedure, uses SSD storage for the database drives.
2. A discussion with Smartworks Infrastructure support should take place before final hardware orders are placed.

**Software License Requirements**

- PostgreSQL Server 14 (no licensing required)
- Linux Red Hat Enterprise Edition 9.x (the most recent, one subscription per server)

# **VIRGIN ISLANDS WATER AND POWER AUTHORITY**

## **Exhibit “A”**

### **PROFESSIONAL GENERAL CONTRACT TERMS/FEDERAL REQUIREMENTS**

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**VIRGIN ISLANDS WATER AND POWER AUTHORITY**

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## PROFESSIONAL GENERAL CONTRACT TERMS

### 1. DEFINITIONS

As used herein, the following terms shall have the meanings set forth below:

- a. The term **“Work”** or **“Scope of Work”** shall mean all work described in the Specifications, Request for Proposals, Invitation or Bid or Contract and all requirements of these Professional General Contract Terms (including alterations made before the Contract was signed and changes provided for by Clause 10 hereof).
- b. The term **“Specifications”** shall mean the detailed description of, and requirements for, work to be performed, including all plans and drawings, which are a part of the Specifications.
- c. The term **“Authority”** shall mean the purchaser and owner of the Work, the Virgin Islands Water and Power Authority, or an authorized agent thereof.
- d. The term **“Contractor”** shall mean the successful bidder who had been awarded the Contract for the performance of the Work, and shall include his/her legal personal representatives, successors, and assigns.
- e. The term **“Contract”** shall mean the written agreement between the Authority and the Contractor.
- f. The term **“Site”** shall mean anywhere the work is required to be performed.
- g. The term **“Contracting Officer”** shall mean the Executive Director of the Authority and any other officer or employee who is properly designated and shall include, except as otherwise provided, the authorized representative of the Contracting Officer acting within the limits of his authority. The Contracting Officer shall not mean the Project Coordinator.

### 2. GENERAL STATEMENT OF RESPONSIBILITY OF THE CONTRACTOR

a. The Contractor shall perform the work in accordance with the terms of the Contract. This work includes all necessary services, the furnishing of all labor, materials, equipment, tools, supervision, transportation and insurance, except as otherwise provided. The obligation of the Contractor shall be deemed to carry with it the obligation to incur all items of necessary expense to perform the Work.

b. The Contractor shall be an independent contractor and shall have complete and undivided responsibility for complying with the Contract, including sole discretion for the means by which the Work is to be performed. Without any qualification of such undivided responsibility, the Contractor shall have the right to enter into such subcontracts, purchase orders, and other



commitments with third parties for the performance of any part of the Work, as may in his opinion be advantageous or necessary for the expeditious or economical prosecution of the Work. The Contractor shall not assign the Contract or any of his/her duties or responsibilities thereunder.

c. Any provisions of the Contract which appear to give the Authority the right to direct the Contractor as to the means by which the Work is to be performed, or to exercise any control over the Work shall mean that the Contractor shall be obliged to follow the desires of the Authority only as to the end results and shall not in any way modify or relieve the Contractor of his/her complete and undivided responsibility for the means by which the Work is to be performed.

d. All services performed or materials provided by Contractor under the Contract shall strictly comply with the terms, conditions, and requirements, and shall be done in a professional and workmanlike manner in accordance with the Contract.

e. Contractor shall be responsible for the professional quality, technical accuracy and timely completion of its services furnished under the Contract. Contractor shall, without additional compensation, and at its own cost and expense, correct or revise any errors, omissions or other deficiencies in the services.

### **3. COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK**

a. The Contractor agrees to commence the Work promptly after receipt of a written Notice to Proceed from the Authority and to complete it no later than the Contract completion date.

b. The Contractor shall furnish and maintain during the performance of the Work, a competent resident supervisory representative who shall have the title of Project Manager: Provided that the Authority shall have the right to require the removal from the Site of any employee of the Contractor of any subcontractor if in the judgment of the Contracting Officer such removal is necessary to protect the interest of the Authority.

c. The Contract completion date shall be the date specified in the Contract, unless the parties have agreed to an acceptable later date, except that the completion date may be extended under Clauses 10 or 13 hereof. The Work shall be deemed to be completed upon acceptance by the Contracting Officer following written notification from the Contractor that the Work has been performed in accordance with the Contract scope.

### **4. LICENSES AND RESPONSIBILITY FOR WORK, ETC.**

Contractor shall comply with all federal and local laws, codes or regulations, which apply to performance of the Work. Contractor shall secure at its own expense, all necessary license and certificates necessary to perform the Scope of Work.

## **5. PROGRESS REPORTS AND WORKING SCHEDULES**

The Contractor shall prepare monthly progress reports of the Work or such reports as required by the Project Coordinator. When requested by the Authority, the Contractor shall furnish the underlying documents used in the preparation of any progress report including, if applicable, estimated material and equipment, procurement, manufacturing, shipping, installation and construction schedules: Provided that if, in the judgment of the Contractor, furnishing copies would involve inordinate expense the Authority may be provided access to such document instead.

## **6. CHANGES**

The Contracting Officer may at any time and without notice to the sureties issue a written request for changes in the Work if within its general scope. Within the time specified in the request but not later than thirty (30) days after its receipt, the Contractor shall submit an estimate of the effect of the changes, if any, upon the Contract price, the completion date, or other terms or conditions of the Contract. The changes shall not be put into effect, nor shall any work proceed, until ordered in writing by the Contracting Officer. Contractor's actions in proceeding with the changes to the scope of work without first securing written authorization from the Contracting Officer shall result in the legal presumption that shall be prima facie that the Contractor is not entitled to additional compensation. Compensation for changes to the scope of work, or extensions of the completion date because of changes, or other modifications of the Contract due to change shall be set forth in Contract change orders. Provided however, that disagreement between the parties on adjustments for changes shall not excuse the Contractor from proceeding with the prosecution of the Work as changed.

## **7. SUSPENSION OR INTERRUPTION OF WORK**

a. The Contracting Officer may in writing, order the Contractor to suspend all or any part of the Work for such period of time as he may determine to be appropriate for the convenience of the Authority.

b. If without the fault or negligence of the Contractor the performance of all or any part of the Work is suspended or interrupted hereunder for any unreasonable period of time, the Contract price shall be adjusted for any increase in the cost of performing the Work excluding profit necessarily caused by such unreasonable period of suspension or interruption, and the Contract shall be modified in writing accordingly. Provided that a claim therefor shall be asserted in writing as soon as practicable after the termination of such adjustment or interruption; and

provided further that no adjustment shall be made to the extent that performance by the Contractor would have been prevented by other causes, even if the Work had not been so suspended or interrupted.

c. Paragraph b, above shall not be construed to apply to specific periods of delay or suspension for which advance provision has been made such as anticipated weather conditions.

**8. A. TERMINATION FOR DEFAULT**

- (i) If the Contractor shall commit a material breach or default of any of its covenants or obligations under the Contract and shall fail to commence to remedy the same within thirty (30) days after receipt of written notice thereof by the Authority, and also to proceed with due diligence to remedy the same and in all events, to remedy the same within forty-five (45) days after such written notice, the Authority may terminate by fifteen (15) days written notice the Contractor's right to proceed with the Work or such part thereof as to which there has been a default.
- (ii) If the Authority shall commit a material breach or default of any of its covenants or obligations under the Contract and shall fail to commence to remedy the same within thirty (30) days after receipt of written notice thereof by the Contractor, and also to proceed with due diligence to remedy the same and in all events, to remedy the same within forty-five (45) days after such written notice, the Contractor may, by fifteen (15) days written notice to the Authority, terminate the Authority's right to proceed with the Work or such part thereof as to which there has been a default. In such event, the Authority may be liable for damages.
- (iii) Upon receipt of a termination notice, Contractor shall (a) promptly discontinue all Work to the extent directed; and (b) secure the Work site to avoid damage or injury to persons or property.

**B. TERMINATION FOR CONVENIENCE**

The Authority may terminate this contract if funds are not appropriated, provided, however, that it shall provide notice to Contractor immediately upon notice of non-appropriation

- (a) Upon receipt of written notice from the Authority of such termination for the Authority's convenience, the Contractor shall:
  - i. cease operations as directed by the Authority in the notice;
  - ii. take actions necessary, or that the Authority may direct for the protection and preservation of the Work;
  - iii. except for Work directed to be performed prior to the effective date of the termination stated in the notice, terminate all existing subcontracts and purchase order and enter into no further subcontracts and purchase orders.
- (b) In the case of such termination for Authority's convenience, the Contractor shall be entitled to receive payment for Work executed and reasonable costs incurred (as outlined in b (iii)) by reason of such termination. All materials, supplies and equipment purchased in connection with the scope of work shall, if and when paid for by the Authority, become the property of the Authority.

## **9. DELAYS AND DAMAGES**

The Contractor shall not be liable for any failure or delay in the completion of the Work resulting from any cause beyond his control and without his fault or negligence, including but not restricted to, compliance with any instructions or priority requests of the Federal Government or any agency thereof, or the Government of the Virgin Islands, acts of God, acts of the public enemy, acts or omissions of the Authority or its agents, acts of another contractor in the performance of a contract with the Authority, fires, floods, epidemics, unusually severe weather, strikes, lockouts, embargoes, wars, riots, or delays of subcontractors or suppliers arising from unforeseeable causes beyond the control and without the fault of or negligence of both the Contractor and such subcontractors and suppliers: Provided, that the Contractor shall within 10 days from the beginning of any such delay (unless the circumstances prevent such timely notice or make it unreasonable, in which case such notice shall be reasonable) the Contracting Officer shall grant a further period of time prior to the date of final settlement of the Contract, notify the Contracting Officer in writing of the delay and causes of delay: and provided, further, that the Contractor shall be excused for delays of suppliers only if the Contracting Officer shall determine that the materials or supplies to be furnished are not procurable in the open market. Any excusable failure or delay hereunder shall extend the Contract completion date accordingly, upon agreement by the Authority, but shall not affect any of the other terms or conditions of the Contract.

## **10. CONTRACT PRICE**

The Work shall be performed for the Contract price. This Contract price shall be subject to change only in accordance with Clause 12 hereof and shall be inclusive of all duties, fees, and levies, and all taxes imposed with respect to the performance of the Work.

## **11. TERMS OF PAYMENT**

Payments will be in accordance with the Statement of Work to which this Exhibit is appended.

(1) Upon completion and acceptance of the Work, the amount due the Contractor under this Contract will be paid upon the presentation of a properly executed and duly certified invoice thereof. The Contractor shall furnish the Authority with a release, if required, of all claims against the Authority arising under and by virtue of the Contract, other than such claims, if any, as may be specifically accepted by the Contractor from the operation of the release in stated amounts to be set forth therein.

Any overpayment to the Contractor shall, unless otherwise adjusted, be repaid to the Authority upon demand.

(2) Upon presentation of a request for payment, Contractor shall provide a statement of payments made or owed to all subcontractor(s), which statement shall be independently verified by the subcontractor(s). The Authority reserves the right to withhold payments to Contractors that fail to satisfy subcontractor claims(s).

## **12. COMPLIANCE WITH APPLICABLE LAWS AND ACCEPTED PRACTICES**

a. The Contractor shall comply strictly with all federal and local laws, codes, and regulations.

b. Should any amendments or additions to territorial laws, codes, or regulations subsequent to the date of advertisement for bids affect any designs or requirements set forth in the Work so as to increase the Contract price or extend the Contract completion date, such amendments or additions shall be deemed to be changes within the meaning of Clause 7 hereof.

### **13. INSURANCE**

The Insurance requirements are as set forth in the attached Exhibit A

### **14. INDEMNIFICATION FOR INJURY AND DAMAGE CLAIMS**

(a) Subject to the Limitation of Liability in the underlying Agreement, Contractor shall indemnify, defend, and hold the Authority and its servants, employees and agents harmless against any and all claims, damages, injuries, suits, actions, causes of action for damages or alleged damages, orders, judgments, expenses, costs, and attorney's fees, arising after the commencement of the contract, brought for damages or alleged damages arising out of any injury or loss of life, claim or demand of any person or property in any way connected with or arising out of the performance of the work. It is the intention and express agreement of the parties that the Authority shall not be liable for any bodily or personal injuries, loss of life or damage, to Contractor, its servants, employees, agents, invitees, or to Contractor's subcontractors, subcontractor employees, agents, or invitees, or to any other person, or property of Contractor, irrespective of how the same may be caused, whether from action of the elements, or acts of negligence of the Authority, its employees or agents, the Contractor, its servants, employees, agents, or invitees, or the Contractor's subcontractors, subcontractor employee, agents and invitees. It is the intention of the parties that this paragraph shifts the cost of all insurance, whether benefitting Contractor or the Authority, or both, to the Contractor.

(b) If the Authority is sued for acts arising out of those set out in (a) above, the Contractor shall promptly accept the tender of defense made by the Authority, as a condition of this contract.

(c) It is further the intention of the parties, that Contractor, its servants, employees, agents, and its carrier will not look to or require the Authority to contribute to any settlement.

(d) Notwithstanding any other provisions of this Agreement to the contrary, neither the Authority or Contractor shall be liable whether in contract, tort (including negligence), strict liability, products liability, indemnity, contribution, or any other cause of action for punitive, special, indirect, incidental or consequential losses or damages, including loss of profits, use, opportunity, revenues, financing, bonding capacity, or business interruptions; provided that the limitation of liability set forth in this Section shall not apply to Contractor's: (i) indemnity obligations with respect to Third-Party Claims, (ii) willful misconduct, and/or (iii) gross negligence. "Third-Party Claim" means a claim by any person other than (i) a Party or (ii) person providing or receiving indemnity under this Contract.

### **15. RIGHT TO AUDIT**



Contractor shall establish and maintain a reasonable accounting system that enables the Authority to readily identify Contractor's assets, expenses, costs of goods, and use of funds. The Authority shall have the right to audit, to examine, and to make copies of or extracts from all financial and related records (in whatever form they may be kept, whether written, electronic, or other) relating to or pertaining to this Agreement kept by or under the control of the Contractor, including, but not limited to those kept by the (Contractor), its employees, agents, assigns, successors, and subcontractors. Such records shall include, but not be limited to, accounting records, written policies and procedures; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, etc.); all paid vouchers including those for out-of-pocket expenses; other reimbursement supported by invoices; ledgers; cancelled checks; deposit slips; bank statements; journals; original estimates; estimating work sheets; contract amendments and change order files; back charge logs and supporting documentation; insurance documents; payroll documents; timesheets; memoranda; and correspondence.

Contractor shall, at all times during the term of this Agreement and for a period of five years after the completion of this Agreement, maintain such records, together with such supporting or underlying documents and materials. The Contractor shall at any time requested by the Authority, whether during or after completion of this Agreement, and at Contractor's own expense make such records available for inspection and audit (including copies and extracts of records as required) by the Authority along with an adequate workspace and access to photocopying machines. Such records shall be made available to the Authority during normal business hours at the Contractor's office or place of business and subject to a three-day written notice/without prior notice. In the event that no such location is available, then the financial records, together with the supporting or underlying documents and records, shall be made available for audit at a time and location that is convenient for the Authority. In no event shall any such audit occur more than once in any twelve (12) month period.

Contractor shall ensure the Authority has these rights with Contractor's employees, agents, assigns, successors, and subcontractor, and the obligation of these rights shall be explicitly included in any subcontracts or agreements formed between the Contractor and any subcontractors to the extent that those subcontracts or agreements relate to fulfillment of the Contractor's obligations to Authority.

Costs of any audits conducted under the authority of this right to audit and not addressed elsewhere will be borne by the Authority unless certain exemption criteria are met. If the audit identifies overpricing or overcharges (of any nature) by the Contractor to the Authority in excess of five percent (5%) of the total contract billings, the Contractor shall reimburse the Authority for the reasonable and actual total costs of the audit. If the audit discovers substantive findings related to fraud, misrepresentation, or non-performance, the Authority may recoup the costs of the audit work from the Contractor. Any adjustments and/or payments that must be made as a result of any such audit or inspection of the Contractor's invoices and/or records shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of the Authority's findings to Contractor.

The Contractor agrees to provide the Authority, Virgin Islands Housing Finance Authority (VIHFA), HUD, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the

Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions. Unless otherwise prohibited by law or confidentiality agreement, and subject to the Authority entering into an appropriate confidentiality agreement, the Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.”

**16. CONTINGENT FEES**

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Contract nor is there any agreement or understanding for a commission, percentage, brokerage, or contingent fees, in connection with obtaining this contract. For breach or violation of this provision the Authority shall have the right to annul this Contract without liability or, in its discretion, to deduct from the Contract price, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

## **17. GRATUITIES**

The Authority may, by written notice to the Contractor, terminate this Contract if it is found by the Authority, after notice and hearing, that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative thereof, to any officer or employee of the Authority with a view towards securing the Contract or securing favorable treatment with respect to the performance of such Contract. The Authority's findings hereunder shall be conclusive.

In the event this Contract is terminated pursuant to this paragraph, the Authority shall be entitled (i) to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor, and (ii) as a penalty, in addition to any other damages to which the Authority is entitled by law, to exemplary damages in an amount (as determined by the Authority) which shall not be less than three nor more than ten times the costs incurred or paid by the Contractor in providing any such gratuities to any such officer or employee.

The rights and remedies of the Authority under this provision shall not be exclusive and are in addition to any other remedies provided by law or under this Contract.

## **18. NOTICE**

Any notice which shall be required to be given under the Contract shall be in writing in duplicate, mailed in a postage prepaid wrapper, registered and addressed, in the case of the Contractor to his home office, and in the case of the Authority to the Contracting Officer.

## **19. ENFORCEMENT**

The failure of either party to enforce at any time any of the provisions of the Contract or any rights in respect thereto, or to exercise any option herein provided, shall not be construed to constitute a waiver of such provision, right or option or in any way effect the validity of the contract or the obligation and responsibilities of the parties thereto. The exercise by either party of any of its right or options herein shall not preclude or prejudice either party from exercising any other right it may have.

## **20. GOVERNING LAW**

The laws of the Virgin Islands shall govern the interpretation and construction of the Contract to the extent applicable, otherwise the laws of the State of New York shall be the governing. The

Authority shall not invoke the defense of sovereign immunity in any litigation arising under the Contract.

## **21. EFFECTIVE DATE**

The Contract shall become effective retroactive to the date of signature by the authorized representative of the Contractor or the Authority, whichever is later, which later date shall be the effective date of the Contract.

## **22. ENTIRE AGREEMENT: MODIFICATION**

The Contract constitutes the entire agreement between the parties. The Contract may not be amended or modified except by an instrument in writing signed by duly authorized representatives of the parties.

## **23. OTHER REQUIREMENTS**

All of the reports, information, data, studies, reports, memoranda documents, etc., prepared or assembled by Contractor pursuant to the Work are confidential and Contractor agrees that they shall not be made available to any individual or organization without the prior written approval of the Authority.

All documents and data, written or otherwise generated by Contractor under the Contract including original drawings, estimates, reports, specifications, calculations, field notes, data, etc., and work product are to become the property of and shall be delivered to the Authority. Contractor to retain once reproducible copy of these documents generated by the Contractor.

Contractor shall remove from the Work any person assigned thereto who is deemed by the Authority to be objectionable and shall indemnify and hold harmless the Authority regarding any claim arising out of such action. Contractor shall not remove or reassign its Project Manager in charge of the Work or its other key personnel designated in the Contract without the prior approval of the Authority unless such person is no longer employed by the Contractor.

## **24. STANDARD OF CARE**

The standard of care applicable to Consultant's services will be the degree of skill and diligence normally practiced by professionals or consultants performing same or similar services.

## **25. FALSE CLAIMS**

Contractor warrants that it shall not, with respect to this Contract, make or present any claim upon or against the Government of the Virgin Islands, the Virgin Islands Water and Power Authority, or any officer, department, board, commission, or other agency thereof, knowing such claim to be false, fictitious or fraudulent. Contractor acknowledges that making such a false, fictitious, or fraudulent claim is an offense under Virgin Island law.

## **26. NOTICE OF FEDERAL FUNDING**

Contractor acknowledges that if this Contract is funded, in whole or in part, by federal funds, Contractor warrants that it shall not, with respect to this Contract, make or present any claim knowing such claim to be false, fictitious or fraudulent. Contractor acknowledges that making such a false, fictitious, or fraudulent claim is a federal offense.

## **27. EQUAL EMPLOYMENT OPPORTUNITY**

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; laying off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared

ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter onto such litigation to protect the interests of the United States.”

## **28. COMPLIANCE WITH THE COPELAND “ANTI- KICKBACK” ACT**

1. Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145. and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.
2. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as the FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.
3. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.”

## **29. COMPLIANCE WITH CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for

all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such district or to such territory), for liquidated damages. Such liquidated damages shall be computed with request to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
3. Withholding for unpaid wages and liquidated damages. FEMA or such other authorized Federal agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same the prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

### **30. CLEAN AIR ACT**

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.S. 7401 et. seq.
2. The contractor agrees to report each violation to the local Department of Planning & Natural Resources ("DPNR") and the Authority and understands and agrees that DPNR and the Authority will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional office.

3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

### **31. FEDERAL WATER POLLUTION CONTROL ACT**

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The contractor agrees to report each violation to the Department of Planning and Natural Resources ("DPNR") and the Authority and understands and agrees that DPNR and the Authority will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency regional office.
3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

### **32. SUSPENSION AND DEBARMENT**

1. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
2. The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
3. This certification is a material representation of fact relied upon by Contractor. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the Government of the Virgin Islands, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
4. The Contractor agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions."

### **33. BYRD ANTI-LOBBYING AMENDMENT, 31 U.S.C. § 1352**

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal



appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress or an employee or a member of congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

#### **34. ACCESS TO RECORDS**

1. The contractor agrees to provide the Government of the Virgin Islands, the Authority, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representative's access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.
2. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
3. The contractor agrees to provide the FEMA Administrator or his authorized representative's access to construction or other work sites pertaining to the work being completed under the contract.

#### **35. DHS SEAL, LOGO, AND FLAGS**

The contractor shall not use the Authority, or DHS seals(s), logos, crests, or reproductions of flags or likeness of DHS agency officials without specific FEMA or Authority preapproval.

#### **36. COMPLIANCE WITH FEDERAL LAW, REGULATIONS, AND EXECUTIVE ORDERS**

This is an acknowledgement that FEMA financial assistance will be used to fund the contract only. The contractor will comply with all applicable federal law, regulations, Executive Orders, FEMA policies, procedures, and directives.

#### **37. NO OBLIGATION BY FEDERAL GOVERNMENT**

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

#### **38. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENT OR RELATED ACTS**

The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False

Claims and Statements) applies to the contractor's action pertaining to this contract.

### **39. PROCUREMENT OF RECOVERED MATERIALS**

- (1) In the performance of this contract, the Contractor shall make the maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired-
  - (i) Competitively within a timeframe providing for compliance with the contract performance schedule;
  - (ii) Meeting contract performance requirements; or
  - (iii) At a reasonable price.
- (2) Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guidelines-cpg-program> . "

## **EXHIBIT B**

### **HUD GENERAL PROVISIONS (“HUD RIDER”)**

The following terms and conditions apply to any contract for which any portion of the funding is derived from a grant made by the United States Department of Housing and Urban Development (“HUD”). In addition, Contractor/Subcontractor shall comply with the Federal Labor Standards Provisions set forth in Form HUD-4010, available at:

<http://www.hud.gov/offices/adm/hudclips/forms/files/4010.pdf>.

***Warning: Any person who knowingly makes a false claim or statement to HUD may be subject to civil and criminal penalties under 18 U.S.C. 287, 1001 and 31 U.S.C. 3729.***

#### **1. PROVISIONS REQUIRED BY LAW DEEMED INSERTED**

Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein and the Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then, upon the application of either Party, the Agreement shall forthwith be amended in writing to make such insertion or correction.

#### **1. STATUTORY AND REGULATORY COMPLIANCE**

Contractor/Subcontractor shall comply with all laws and regulations applicable to the Community Development Block Grant-Disaster Recovery funds appropriated by the Disaster Relief Appropriations Act, 2017 (Pub. L. 115-56) and the Bipartisan Budget Act of 2018 (“BBA”), (Pub. L. 115-123), including but not limited to the applicable Office of Management and Budget Circulars, which may impact the administration of funds and/or set forth certain cost principles, including the allowability of certain expenses.

#### **2. BREACH OF CONTRACT TERMS**

VIHFA reserves its right to all administrative, contractual, or legal remedies, including but not limited to suspension or termination of this contract, in instances where the Contractor or any of its subcontractors violate or breach any contract term. If the Contractor or any of its subcontractors violate or breach any contract term, they shall be subject to such sanctions and penalties as may be appropriate. The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

### **3. REPORTING REQUIREMENTS**

The Contractor/Subcontractor shall complete and submit all reports, in such form and according to such schedule, as may be required by VIHFA. The Contractor/Subcontractor shall cooperate with all VIHFA efforts to comply with HUD requirements and regulations pertaining to reporting, including but not limited to 24 C.F.R. §§ 85.40-41 (or 84.50-52, if applicable) and 570.507.

### **4. ACCESS TO RECORDS**

The State, the U.S. Department of Housing and Urban Development, the Comptroller General of the United States, or any of their duly authorized representatives, shall have, at any time and from time to time during normal business hours, access to any work product, books, documents, papers, and records of the Subcontractor which are related to this contract, for the purpose of inspection, audits, examinations, and making excerpts, copies and transcriptions.

### **6. MAINTENANCE/RETENTION OF RECORDS**

All records connected with this contract will be maintained in a central location and will be maintained for a period of at least three (3) years following the date of final payment and close-out of all pending matters related to this contract.

### **7. SMALL AND MINORITY FIRMS, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS**

The Contractor/Subcontractor will take necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used in subcontracting when possible. Steps include:

- i. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- ii. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- iii. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- iv. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- v. Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

1. **RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT**

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 C.F.R. Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by HUD.

9. **ENERGY EFFICIENCY**

The Contractor/Subcontractor shall comply with mandatory standards and policies relating to energy efficiency issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

10. **TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

The Contractor/Subcontractor shall comply with the provisions of Title VI of the Civil Rights Act of 1964. No person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

11. **SECTION 109 OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974**

The Contractor/Subcontractor shall comply with the provisions of Section 109 of the Housing and Community Development Act of 1974. No person in the United States shall on the grounds of race, color, national origin, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title. Section 109 further provides that discrimination on the basis of age under the Age Discrimination Act of 1975 or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, as amended, is prohibited.

12. **SECTION 504 OF THE REHABILITATION ACT OF 1973**

The Contractor/Subcontractor shall comply with section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 94), as amended, and any applicable regulations.

The Contractor/Subcontractor agrees that no qualified individual with handicaps shall, solely on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives Federal financial assistance from HUD.

13. **AGE DISCRIMINATION ACT OF 1975**

The Contractor/Subcontractor shall comply with the Age Discrimination Act of 1975 (42 U.S.C. § 6101 et seq.), as amended, and any applicable regulations. No person in the United States shall,

on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.

#### 14. **DEBARMENT, SUSPENSION, AND INELIGIBILITY**

The Contractor/Subcontractor represents and warrants that it and its subcontractors are not debarred or suspended or otherwise excluded from or ineligible for participation in Federal assistance programs subject to 2 C.F.R. part 2424.

#### 15. **CONFLICTS OF INTEREST**

The Contractor/Subcontractor shall notify VIHFA as soon as possible if this contract or any aspect related to the anticipated work under this contract raises an actual or potential conflict of interest (as defined at 2 C.F.R. Part 215 and 24 C.F.R. § 85.36 (or 84.42, if applicable)). The Contractor/Subcontractor shall explain the actual or potential conflict in writing in sufficient detail so that the State is able to assess such actual or potential conflict. The Contractor/Subcontractor shall provide VIHFA any additional information necessary for VIHFA to fully assess and address such actual or potential conflict of interest. The Contractor/Subcontractor shall accept any reasonable conflict mitigation strategy employed by VIHFA, including but not limited to the use of an independent subcontractor(s) to perform the portion of work that gives rise to the actual or potential conflict.

#### 16. **SUBCONTRACTING**

When subcontracting, the Contractor/Subcontractor shall solicit for and contract with such Contractor/subcontractors in a manner providing for fair competition. Some of the situations considered to be restrictive of competition include but are not limited to:

- (i) Placing unreasonable requirements on firms in order for them to qualify to do business,
- (ii) Requiring unnecessary experience and excessive bonding,
- (iii) Noncompetitive pricing practices between firms or between affiliated companies,
- (iv) Noncompetitive awards to consultants that are on retainer contracts,
- (v) Organizational conflicts of interest,
- (vi) Specifying only a *brand name* product instead of allowing an *equal* product to be offered and describing the performance of other relevant requirements of the procurement, and
- (vii) Any arbitrary action in the procurement process.

The Contractor/Subcontractor represents to VIHFA that all work shall be performed by personnel experienced in the appropriate and applicable profession and areas of expertise, taking into account

the nature of the work to be performed under this contract.

The Contractor will include these HUD General Provisions in every subcontract issued by it so that such provisions will be binding upon each of its subcontractors as well as the requirement to flow down such terms to all lower-tiered subcontractors.

**17. ASSIGNABILITY**

The Contractor/Subcontractor shall not assign any interest in this contract and shall not transfer any interest in the same (whether by assignment or novation) without prior written approval of VIHFA.

**18. INDEMNIFICATION**

The Contractor/Subcontractor shall indemnify, defend, and hold harmless VIHFA and its agents and employees from and against any and all claims, actions, suits, charges, and judgments arising from or related to the negligence or willful misconduct of the Contractor/Subcontractor in the performance of the services called for in this contract.

**19. COPELAND “ANTI-KICKBACK” ACT** (Applicable to all construction or repair contracts)

Salaries of personnel performing work under this contract shall be paid unconditionally and not less often than once a month without payroll deduction or rebate on any account except only such payroll deductions as are mandatory by law or permitted by the applicable regulations issued by the Secretary of Labor pursuant to the Copeland “Anti-Kickback Act” of June 13, 1934 (48 Stat. 948; 62 Stat. 740; 63 Stat. 108; Title 18 U.S.C. § 874; and Title 40 U.S.C. § 276c). The Contractor shall comply with all applicable “Anti-Kickback” regulations and shall insert appropriate provisions in all subcontracts covering work under this contract to ensure compliance by subcontractors with such regulations and shall be responsible for the submission of affidavits required of subcontractors thereunder except as the Secretary of Labor may specifically provide for variations of or exemptions from the requirements thereof.

**20. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

(Applicable to construction contracts exceeding \$2,000 and contracts exceeding \$2,500 that involve the employment of mechanics or laborers)

The Contractor/Subcontractor shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-330) as supplemented by Department of Labor regulations (29 C.F.R. part 5).

All laborers and mechanics employed by contractors or subcontractors shall receive overtime compensation in accordance with and subject to the provisions of the Contract Work Hours and Safety Standards Act, and the contractors and subcontractors shall comply with all regulations

issued pursuant to that act and with other applicable Federal laws and regulations pertaining to labor standards.

**21. DAVIS-BACON ACT**

(Applicable to construction contracts exceeding \$2,000 when required by Federal program legislation)

The Contractor/Subcontractor shall comply with the Davis Bacon Act (40 U.S.C. §§ 276a to 276a-7) as supplemented by Department of Labor regulations (29 C.F.R. part 5).

All laborers and mechanics employed by contractors or subcontractors, including employees of other governments, on construction work assisted under this contract, and subject to the provisions of the federal acts and regulations listed in this paragraph, shall be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis Bacon Act.

**22. TERMINATION FOR CAUSE**

If, through any cause, the Contractor/Subcontractor shall fail to fulfill in a timely and proper manner his obligations under this contract, or if the Contractor/Subcontractor shall violate any of the covenants, agreements, or stipulations of this contract, VIHFA shall thereupon have the right to terminate this contract by giving written notice to the Contractor/Subcontractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor/Subcontractor under this contract shall, at the option of VIHFA, become VIHFA's property and the Contractor/Subcontractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder. Notwithstanding the above, the Contractor/Subcontractor shall not be relieved of liability to VIHFA for damages sustained by VIHFA by virtue of any breach of the contract by the Contractor/Subcontractor, and VIHFA may withhold any payments to the Contractor/Subcontractor for the purpose of set-off until such time as the exact amount of damages due to VIHFA from the Subcontractor is determined.

**23. TERMINATION FOR CONVENIENCE**

VIHFA may terminate this contract if funds are not appropriated, provided, however, that it shall provide notice to Contractor immediately upon notice of non-appropriation.

**24. SECTION 503 OF THE REHABILITATION ACT OF 1973**

The Contractor/Subcontractor shall comply with section 503 of the Rehabilitation Act of 1973 (29 U.S.C. § 793), as amended, and any applicable regulations.

Equal Opportunity for Workers with Disabilities



- A.** The Contractor/Subcontractor will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor/Subcontractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with disabilities without discrimination based on their physical or mental disability in all employment practices, including the following:
- i. Recruitment, advertising, and job application procedures;
  - ii. Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
  - iii. Rates of pay or any other form of compensation and changes in compensation;
  - iv. Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
  - v. Leaves of absence, sick leave, or any other leave;
  - vi. Fringe benefits available by virtue of employment, whether or not administered by the Subcontractor;
  - vii. Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
  - viii. Activities sponsored by the contractor including social or recreational programs; and
  - ix. Any other term, condition, or privilege of employment.
- B.** The Contractor/Subcontractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
- C.** In the event of the Contractor/Subcontractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.
- D.** The Contractor/Subcontractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the Contractor's/Subcontractor's obligation under the law to take

affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The Contractor/Subcontractor must ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor/Subcontractor may have the notice read to a visually disabled individual or may lower the posted notice so that it might be read by a person in a wheelchair).

- E. The Contractor/Subcontractor will notify each labor organization or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor/Subcontractor is bound by the terms of section 503 of the Rehabilitation Act of 1973, as amended, and is committed to take affirmative action to employ and advance in employment individuals with physical or mental disabilities.
- F. The Contractor/Subcontractor will include the provisions of this clause in every subcontract or purchase order, unless exempted by the rules, regulations, or orders of the Secretary issued pursuant to section 503 of the act, as amended, so that such provisions will be binding upon each subcontractor or vendor. The Contractor/Subcontractor will take such action with respect to any subcontract or purchase order as the Deputy Assistant Secretary for Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

25. **EXECUTIVE ORDER 11246**

The Contractor/Subcontractor shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 C.F.R. chapter 60).

During the performance of this contract, the Contractor/Subcontractor agrees as follows:

- A. The Contractor/Subcontractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor/Subcontractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- B. The Contractor/Subcontractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by Contracting Officer setting forth the provisions of this non-discrimination clause. The Contractor/Subcontractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- C. The Contractor/Subcontractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor/Subcontractor, state that all qualified applicants will

receive consideration for employment without regard to race, color, religion, sex or national origin.

- D. The Contractor/Subcontractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers representative of the contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- E. The Contractor/Subcontractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- F. The Contractor/Subcontractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- G. In the event of the Contractor's/Subcontractor's non-compliance with the non-discrimination clause of this contract or with any of such rules, regulations or orders, this contract may be cancelled, terminated or suspended in whole or in part and the Contractor/Subcontractor may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order 11246 and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.
- H. Contractor/Subcontractor shall incorporate the provisions of A through G above in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor so that such provisions shall be binding on such contractor/subcontractor. The Contractor/Subcontractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for non-compliance, provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor/Subcontractor may request the United States to enter into such litigation to protect the interests of the United States.

26. **CERTIFICATION OF NONSEGREGATED FACILITIES**

The Contractor/Subcontractor certifies that it does not maintain or provide for its establishments, and that it does not permit employees to perform their services at any location, under its control, where segregated facilities are maintained. It certifies further that it will not maintain or provide for employees any segregated facilities at any of its establishments, and it will not permit

employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor/Subcontractor agrees that a breach of this certification is a violation of the equal opportunity clause of this contract.

As used in this certification, the term “segregated facilities” means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason.

The Contractor further agrees that (except where it has obtained for specific time periods) it will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause; that it will retain such certifications in its files; and that it will forward the preceding notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).

## **27. CERTIFICATION OF COMPLIANCE WITH CLEAN AIR AND WATER ACTS**

The Contractor and all its subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 U.S.C. § 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq., and the regulations of the Environmental Protection Agency (EPA) with respect thereto, at 40 C.F.R. Part 15 and 32, as amended, Section 508 of the Clean Water Act (33 U.S.C. § 1368) and Executive Order 11738.

In addition to the foregoing requirements, all non-exempt contractors and subcontractors shall furnish to the owner, the following:

- A. A stipulation by the Contractor or subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the Excluded Party Listing System pursuant to 40 C.F.R. 32 or on the List of Violating Facilities issued by the EPA pursuant to 40 C.F.R. Part 15, as amended.
- B. Agreement by the Subcontractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. § 1857 c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 U.S.C. § 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified

in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

- C. A stipulation that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that

a facility utilized, or to be utilized for the contract, is under consideration to be listed on the Excluded Party Listing System or the EPA List of Violating Facilities.

- D. Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraph (A) through (D) of this section in every nonexempt subcontract and requiring that the Contractor will take such action as the government may direct as a means of enforcing such provisions.

## 28. **LOBBYING**

The Contractor/Subcontractor certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Contractor/Subcontractor, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the Contractor/Subcontractor shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The Contractor shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

## 29. **BONDING REQUIREMENTS**

The Contractor/Subcontractor shall comply with VIHFA bonding requirements, unless they have not been approved by HUD, in which case the Contractor/Subcontractor shall comply with the following minimum bonding requirements:

- (1) *A bid guarantee from each bidder equivalent to five percent of the bid price.* The “bid guarantee” shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of its bid, execute such contractual documents as may be required within the time specified.
- (2) *A performance bond on the part of the Contractor/Subcontractor for 100 percent of the contract price.* A “performance bond” is one executed in connection with a contract to secure fulfillment of all the Contractor’s/Subcontractor’s obligations under such contract.
- (3) *A payment bond on the part of the Contractor/Subcontractor for 100 percent of the contract price.* A “payment bond” is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

**30. SECTION 3 OF THE HOUSING AND URBAN DEVELOPMENT ACT OF 1968**

- A. The work to be performed under this contract is subject to the requirements of 24 CFR Part 75. This part establishes the requirements to be followed to ensure the objectives of Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (Section 3) are met. The purpose of Section 3 is to ensure that economic opportunities, most importantly employment, generated by certain HUD financial assistance shall be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing or residents of the community in which the Federal assistance is spent.
  - (1) Section 3 projects. (i) Section 3 projects mean housing rehabilitation, housing construction, and other public construction projects assisted under HUD programs that provide housing and community development financial assistance when the total amount of assistance to the project exceeds a threshold of \$200,000. The threshold is \$100,000 where the assistance is from the Lead Hazard Control and Healthy Homes programs, as authorized by Sections 501 or 502 of the Housing and Urban Development Act of 1970 (12 U.S.C. 1701z-1 or 1701z-2), the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 et seq.); and the Residential Lead-Based Paint Hazard Reduction Act of 1992 (42 U.S.C. 4851 et seq.). The project is the site or sites together with any building(s) and improvements located on the site(s) that are under common ownership, management, and financing.
  - (2) The requirements in this part apply to an entire Section 3 project, regardless of whether the project is fully or partially assisted under HUD programs that provide housing and community development financial assistance.
- B. The parties to this contract agree to comply with HUD’s regulations in 24 C.F.R. part 75, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with part 75 regulations.

C. The Subrecipient/Contractor agrees to identify all those individuals that will be working on the construction jobs by name, address, job title and wage rate. They also agree to certify those individuals who are Section 3 workers or Targeted Section 3 workers per the definition in 24 CFR Part 75.

D. The Subrecipient/Contractor agrees to send to each labor organization or representative of workers with which the *General Contractor*/Subcontractor has a collective

bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the General Contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

E. The Subrecipient / Contractor agrees to include this section 3 clause in every contract, subcontract and procurement documents subject to compliance with regulations in 24 C.F.R. part 75 and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 75. The General Contractor will not subcontract with any subcontractor where the subcontractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 75.

F. Noncompliance with HUD's regulations in 24 C.F.R. part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

### 31. **FAIR HOUSING ACT**

Subrecipient/*Contractor* shall comply with the provisions of the Fair Housing Act of 1968 as amended. The act prohibits discrimination in the sale or rental of housing, the financing of housing or the provision of brokerage services against any person on the basis of race, color, religion, sex, national origin, handicap or familial status. The Equal Opportunity in Housing Act prohibits discrimination against individuals on the basis of race, color, religion, sex or national origin in the sale, rental, leasing or other disposition of residential property, or in the use or occupancy of housing assisted with Federal funds. Please visit [http://portal.hud.gov/hudportal/documents/huddoc?id=DOC\\_11868.pdf](http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_11868.pdf) for more information.

### 32. **FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA)**

The Federal Funding Accountability and Transparency Act of 2006 (FFATA), as amended, was signed with the intent of reducing wasteful government spending and providing citizens with the ability to hold the government accountable for spending decisions. 2 C.F.R. Part 170 outlines the requirements of recipients in reporting information on subawards and executive total compensation under FFATA legislation. Any non-Federal entity that receives or administers Federal financial assistance in the form of: grants, loans, loan guarantees, subsidies, insurance, food commodities, direct appropriations, assessed and voluntary contributions; and/or other financial assistance transactions that authorize the non-Federal entities' expenditure of Federal fund, is subject to these requirements.

Prime contract awardees and prime grant awardees are required to report against subcontracts and subgrants awarded in the FFATA Subaward Reporting System (FSRS), the reporting tool for Federal prime awardees. This information reported will then be displayed on a public and searchable website: [www.USASpending.gov](http://www.USASpending.gov).

### **33. PROCUREMENT**

The Uniform Guidance procurement requirements (2 C.F.R. Part 200, Subpart D) went into effect on July 1, 2018. These requirements are applicable to CDBG-DR funded projects, or as provided by 83 Federal Register 5844 VI A(1)(b)(2) permits a state grantee to elect to follow its own procurement policy. These policies and procedures ensure that Federal dollars are spent fairly and encourage open competition at the best level of service and price. Standards for procurement of supplies, equipment, construction, engineering, architectural, consulting, and other professional services are outlined in Title 31, Chapter 23, Sections 231-251 of the Virgin Islands Code and Title 31, Chapter 23, of the Virgin Islands Regulations.

### **34. CHANGE ORDERS TO CONTRACTS**

Change orders are issued when the initial agreed upon pricing or work to be completed requires modification. First, the contractor must complete a Change Order Request Form. This form and supporting documentation must be delivered to the Project Manager for review. Each change order must have a cost analysis. Once the Project Manager approves the change order, it is returned to the contractor for execution. Change orders are only invoiced on the final draw and categorized as "change order." The amount listed on the invoice must match the previously approved amount and must be cost reasonable. The Project Manager is responsible for verifying cost reasonableness. Verification documentation for cost reasonableness becomes an attachment to the change order.

### **35. ENVIRONMENTAL REVIEW**

Every project undertaken with Federal funds, and all activities related to that project, is subject to the provisions of the National Environmental Policy Act of 1969 (NEPA), as well as to the HUD environmental review regulations at 24 C.F.R. Part 58- ENVIRONMENTAL REVIEW PROCEDURES FOR ENTITIES ASSUMING HUD ENVIRONMENTAL RESPONSIBILITIES. The primary purpose of this Act is to protect and enhance the quality of our natural environment. The HUD environmental review process must be completed before any



Federal funds can be accessed for program-eligible activities.

The primary objectives of the HUD environmental review are to identify specific environmental factors that may be encountered at potential project sites, and to develop procedures to ensure compliance with regulations pertaining to these factors. The HUD environmental review is designed to produce program-specific environmental review procedures in a program that can vary greatly in terms of scope of work.

### 36. **LEAD BASED PAINT**

All housing units assisted using CDBG-DR funds must comply with the regulations regarding lead-based paint found at 24 C.F.R. Part 35- LEAD-BASED PAINT POISONING PREVENTION IN CERTAIN RESIDENTIAL STRUCTURES.

### 37. **ENVIRONMENTAL REVIEW RECORD**

The Environmental Officer is responsible for maintaining a written record of the environmental review process. The ERR for all programs contains all the governmental review documents, public notices and written determinations or environmental findings required by 24 C.F.R. Part 58- ENVIRONMENTAL REVIEW PROCEDURES FOR ENTITIES ASSUMING HUD ENVIRONMENTAL RESPONSIBILITIES as evidence of review, decision making and actions pertaining to a project of a recipient.

### 38. **FLOOD INSURANCE REQUIREMENTS**

Grantees and subrecipients of Federal funding must ensure that procedures and mechanisms are put into place to monitor compliance with all flood insurance requirements as found in the Flood Disaster Protection Act of 1973, 24 C.F.R. § 570.605- NATIONAL FLOOD INSURANCE PROGRAM and 24 C.F.R. § 570.202- ELIGIBLE REHABILITATION AND PRESERVATION ACTIVITIES.

### 39. **DUPLICATION OF BENEFITS**

CDBG-DR funding intends to address the unmet needs of a community. The funds are supplemental to primary forms of assistance, including private insurance and FEMA funds. The Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended, 42 U.S.C. § 5121 et seq., established the requirements for Duplication of Benefits (DOB) analysis.

### 40. **ANTI-FRAUD, WASTE AND ABUSE CHECKS**

The Anti-Fraud, Waste and Abuse (AFWA) check is designed to identify discrepancies and risk relevant issues in Applicant-provided information that may be indicative of fraud, waste, and/or abuse.

### 41. **AFFIRMATIVELY FURTHERING FAIR HOUSING**

The Fair Housing Act of 1968, as amended, 42 U.S.C. § 3601, et seq., dictates that grantees are required to administer all programs and activities related to housing and urban development in a manner to affirmatively further the policies of the Fair Housing Act. Per the regulations of 24 C.F.R. § 570.601 and in accordance with Section 104(b)(2) of the Housing and Community Development Act of 1974, as amended, 42 U.S.C. § 5301 et seq., for each community receiving a grant under Subpart D of this part, the certification that the grantee will affirmatively further fair

housing shall specifically require the grantee to take meaningful actions to further the goals identified in the grantee's Assessment of Fair Housing (AFH) plan, conducted in accordance with the requirements of 24 C.F.R. §§ 5.150-5.180 (Affirmatively Furthering Fair Housing) and take no action that is materially inconsistent with its obligation to affirmatively further fair housing.

#### **42. DRUG FREE WORKPLACE**

The Drug-Free Workplace Act of 1988, as amended, 41 U.S.C. § 81, as implemented by 24 C.F.R. § Part 24, Subpart F, §§ 983.251-983.262, requires that any grantee other than an individual must certify that it will provide a drug-free workplace. Any grantee found in violation of the requirements of this act may be subject to suspension of payments under the grant, suspension or termination of the grant or suspension or debarment of the grantee.

#### **43. TIMELY DISTRIBUTION OF FUNDS**

The Supplemental Appropriations for Disaster Relief Requirements, 2017 (Pub. L. 115-56),

approved September 8, 2017 (Appropriations Act), as amended, requires that funds provided under the Act be expended within two (2) years of the date that HUD obligates funds to a grantee unless otherwise authorized via waiver of this requirement by the Office of Management and Budget (OMB). The OMB waived the two (2) year expenditure requirement under 83 Fed. Reg. 40314 (Aug. 14, 2018); however, the provision to expend one hundred percent (100%) of the total allocation of CDBG-DR funds on eligible activities within six (6) years of HUD's initial obligation of funds remains in effect. The six (6) year expenditure period commences with the initial obligation of funds provided under 83 Fed. Reg. 5844 (Feb. 14, 2018). Additionally, per 83 Fed. Reg. 5844, the provisions at 24 C.F.R. §§ 570.494 and 570.902, regarding timely distribution and expenditure of funds, are waived and an alternative requirement was established.

Furthermore, consistent with 31 U.S.C § 1555 and OMB Circular No. A-11 (2017), if the Secretary of HUD or the President of the United States determines that the purposes for which the appropriation was made have been carried out and no disbursement has been made against the appropriation for two (2) consecutive fiscal years, any remaining unobligated balance shall be canceled and will be made unavailable for obligation or expenditure for any purpose.

#### **44. PROPERTY MANAGEMENT AND DISTRIBUTION**

Regulations governing property management and distribution of real property, equipment,

financial obligations and return of un-obligated cash post program closeout can be found in 24 C.F.R. § 570.506, 2 C.F.R. § 200.310, 2 C.F.R. § 200.343 and 2 C.F.R. § 200.344(b). The standards of 24 C.F.R. § 570.506 apply to any real property under a CDBG award recipient's control acquired in whole or in part with CDBG funds in excess of \$25,000.00. The recipient may not change the use or planned use of the property without proper notification to affected citizens and allowable time for comment by them. If the property is not a building for general government conduct, the use of the property may be changed with citizen approval if it either meets one of the national objectives as defined in 24 C.F.R. § 570.208 or if not, the recipient may either retain or

dispose of the property for the changed use if the recipient's CDBG program is reimbursed in the amount of the current fair market value of the property, less any portion of the value attributable to expenditures of non-CDBG funds for acquisition of, and improvements to, the property. Following such reimbursement, the property will no longer be subject to any CDBG requirements.

#### **45. LIMITED ENGLISH PROFICIENCY**

Executive Order No. 13166, signed on August 11, 2000, requires programs, subrecipients, contractors, subcontractors, and/or developers funded in whole or in part with CDBG-DR financial assistance to ensure fair and meaningful access to programs and services for families and individuals with Limited English Proficiency (LEP) and/or deaf/hard of hearing. Fair access is ensured through the implementation of a Language Assistance Plan (LAP), which includes non-English-based outreach, translation services of vital documents, free language assistance services, and staff training. Vital documents are defined as depending on the importance of the program, information, encounter, or service involved, and the consequence to the LEP person if the information in question is not provided accurately or in a timely manner.

#### **46. PERSONALLY IDENTIFIABLE INFORMATION**

In accordance with 2 C.F.R. § 200.303, regarding internal controls of a non-Federal entity, a grantee must guarantee the protection of all Personally Identifiable Information (PII) obtained. The program will enact necessary measures to ensure PII of all applicants is safeguarded as to avoid release of private information. If a contractor or employee should experience any loss or potential loss of PII, the program shall be notified immediately of the breach or potential breach.

#### **47. UNIFORM RELOCATION ACT**

CDBG-DR funds are subject to the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (URA or Uniform Act), as amended. 49 C.F.R. § Part 24 requires relocation assistance for lower-income individuals displaced as a result of the demolition or conversion of a lower-income dwelling and requires one-for-one replacement of lower-income units demolished or converted to other uses.

#### **48. RESIDENTIAL ANTI-DISPLACEMENT AND RELOCATION ASSISTANCE PLAN.** Per Section 104(d) of the Housing and Community Development Act of 1974 § 42.325

- (a) Certification.

- (1) As part of its consolidated plan under 24 CFR Part 91, the recipient must certify that it has in effect and is following a residential anti-displacement and relocation assistance plan.
- (2) A unit of general local government receiving funds from the State must certify to the State that it has in effect and is following a residential anti-displacement and relocation assistance plan, and that it will minimize displacement of persons as a result of assisted activities. The State may require the unit of general local government to follow the

State's plan or permit it to develop its own plan. A unit of general local government that develops its own plan must adopt the plan and make it public.

(b) Plan contents.

- (1) The plan shall indicate the steps that will be taken consistent with other goals and objectives of the program, as provided in Parts 92 and 570 of this title, to minimize the displacement of families and individuals from their homes and neighborhoods as a result of any assisted activities.
- (2) The plan shall provide for relocation assistance in accordance with § 42.350.

#### **49. COMPLAINTS AND APPEALS**

Citizen comments on VIHFA's published Action Plan, any substantial amendments to the Action Plan, performance reports and/or other issues related to the general administration of CDBG-DR funds are welcomed throughout the duration of the grant. The Citizen Participation Plan is posted as a stand-alone document at [www.vihfa.gov](http://www.vihfa.gov). Complaints regarding fraud, waste, or abuse of government funds shall be addressed to the HUD Office of Inspector General Fraud Hotline by phone: 1-800-347-3735 or email: [hotline@hudoig.gov](mailto:hotline@hudoig.gov).

#### **50. MONITORING**

As per CDBG regulation, 24 C.F.R. § 570.501(b), grantees of CDBG-DR funds are responsible for carrying out their programs to meet compliance with CDBG Program, statutory and regulatory requirements, including monitoring their project administrators, contractors, and subcontractors. As such, throughout the application, planning, design, and implementation phase of the program, VIHFA will conduct internal monitoring of processes, procedures, policy, applications, planning, design, construction, and other applicable phases.

#### **51. PROCUREMENT OF RECOVERED MATERIALS**

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds

\$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

**EXHIBIT D**  
**GENERAL CONTRACT CONDITIONS**

In addition to applying to this Agreement, Subrecipient shall include the provisions of this Section in each Third-Party contract as applicable.

**A. INDEPENDENT CONTRACTOR**

Nothing contained in this Agreement is intended to, or shall be construed in any manner, as creating, or establishing the relationship of employer/employee between the Parties. In the event that Agency contracts with third parties, including any Subrecipient or Contractor, to perform any of the services to be performed hereunder, such third parties shall at all times remain an "independent contractor" with respect to the provision of such services. The VIHFA shall be exempt from payment of all Unemployment Compensation, FICA, retirement, life and/or medical insurance and Workers' Compensation Insurance, with respect to such third-party contracts or Grant Fund Sub-Agreements.

**B. HOLD/HARMLESS/INDEMNITY CONTRACTORS/SUBCONTRACTORS**

To the extent that Agency is authorized to and utilizes the services of any third parties in performance of its duties and obligations in implementing the Projects described in this Agreement, any contract entered into shall contain a provision that the Contractor and/or Subcontractor shall hold Agency and the VIHFA harmless and defend and indemnify the Agency and the VIHFA against any and all claims, actions, suits, charges and judgments whatsoever that arise out of the Contractor and/or Subcontractor's performance or nonperformance of the services.

**C. MECHANIC'S LIEN**

Contractor agrees to protect, defend, and indemnify Agency and VIHFA from any claims for unpaid work, labor, or materials with respect to Contractor's Performance. Final payment shall not be due until the Contractor has delivered to the Agency a complete release of all liens for work completed arising out of Contractor's Performance or a receipt in full covering all labor and materials for which a lien could be filed or a bond satisfactory to Agency indemnifying Agency against any and all liens.

**D. WORKER'S COMPENSATION**

Agency shall require its Contractors/Vendors to provide Workers' Compensation Insurance coverage for all of its employees involved in the performance of any projects undertaken thereto under this Agreement.

**E. PRELIMINARY INSPECTION**

Prior to request for final inspection, the Contractor shall notify both VIHFA and SUBRECIPIENT of the anticipated completion date so that any major defects or deficiencies may be pointed out to the Contractor for correction prior to the final inspection.

**F. FINAL INSPECTION**

The Scope of Work shall be considered complete upon acceptance by Agency after a final inspection

conducted by WMA and/or VIHFA (upon VIHFA's request to also conduct a final inspection).

**G. MAINTENANCE OF AREA/FINAL CLEAN-UP & REMOVAL OF DEBRIS**

Contractor agrees to maintain the work area free from major obstructions/hazards to the greatest extent possible, and to ensure safe access to the project site at all times. Contractor agrees to remove all construction debris and surplus material from the property. The Contractor shall remove all construction related debris material from the construction site.

**H. INSURANCE & BONDING**

Agency shall require a Contractor to maintain liability insurance for protection against claims for damages because of bodily injury or death, claims for damages, to property which may arise out of or result from the Contractor's operation under a contract whether such operations be by the Contractor or by any Subcontractor or anyone directly or indirectly employed by any of them. This specific coverage amount for each project shall be identified in the ensuing contract for each specific project and the Contractor shall, upon request, present the Agency with a certificate of such insurance.

**I. AFFIRMATIVE ACTION PLAN**

In order to comply with Section 3 and Executive Order 11246, the U.S. Department of Housing and Urban Development requires that all contractors develop and implement an Affirmative Action Plan. This plan is a series of forms and statements, which shows specific steps taken by the contractor to promote Equal Opportunity and the utilization of area residents and business in the implementation of this Contract. This plan must be submitted to the Agency and VIHFA.

**J. SAFETY**

Agency shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages or property, either on or off the worksite, which occur as a result of its performance of the work. The safety provisions of applicable laws and building and construction codes, in addition to specific safety and health regulations described by 29 CFR 1926, shall be observed and the Agency shall take or cause to be taken such additional safety and health measures as the Agency may determine to be reasonably necessary.

The Agency shall provide safety insurance for its employees and shall require all Contractors, and Subcontractors to provide safety insurance for their employees.

**K. SECTION 106 COMPLIANCE**

The Contractor shall ensure that areas of archaeological sensitivity will not be disturbed during construction. No heavy equipment shall be used in any area which has been

determined to be an area of archaeological sensitivity. The Contractor agrees that, if there is any question relative to the archaeological value or historic designation of the site in general or any specific features on the site, it shall seek guidance from the State of Historic Preservation Office of the Department of Planning and Natural Resources before undertaking any work.

**L. CONTRACTOR'S REPRESENTATIONS**

The Contractor shall warrant that it is fully informed regarding all the conditions affecting the work to be done and labor and materials to be furnished for the completion of the Contract. Contractor shall further represent that it is fully equipped, competent, and capable of performing the work and is available to perform such work.

The Contractor will warrant that it, and any subcontractors, is eligible to receive contract awards using federally appropriated funds and that it is not suspended or debarred from entering contracts with any federal agency.

In the event the Contractor, or sub-contractor, misrepresents its eligibility to receive contract awards using federal funds, Agency agrees that said contractor or sub-contractor shall not be entitled to any payment for any work performed under this Contract and that it shall require the contractor or sub-contractor to promptly reimburse any progress payments heretofore made.

Nevertheless, this provision does not discharge Agency or VIHFA from their respective due diligence and undertaking its own independent search under "SAMS" to determine a Contractor's or sub-contractor's eligibility to receive contract awards using federal funds.

**M. FALSE CLAIMS**

The Contractor/vendor will warrant that it shall not, with respect to this Contract, make or present any false claim upon or against the Agency. The Contractor will acknowledge that making such a false, fictitious, or fraudulent claim is an offense under the Virgin Islands law.

The Contractor will acknowledge that its Contract is funded, in whole or in part, by federal funds. The Contractor will warrant that it shall not, with respect to this Contract, make or present any claim knowing such claim to be false, fictitious, or fraudulent. The Contractor will acknowledge that making such false, fictitious, or fraudulent claim is a federal offense.