

# **EXECUTIVE BRIEF ELECTRIC UTILITY MEETING**

**AGENDA DATE:** June 29, 2021

**TITLE:**

Agreement with Milsoft Utility Solutions Inc., for software, data conversion and implementation of Milsoft Engineering Analysis, Outage Management System & Geographical Information System modules

**SUMMARY:**

Agreement authorizes Milsoft Utility Solutions Inc., to provide software, data conversion and implementation of Milsoft Engineering Analysis, Outage Management System, Geographical Information System modules and training for the City's Electric Utility at a cost not to exceed \$170,355. This project has been identified as an element of the City's electric utility System Hardening and Reliability Improvement Project (SHRIP) and for which bonds were sold in November 2020.

**BACKGROUND AND JUSTIFICATION:**

As part of the City's System Hardening and Reliability Improvement Project (SHRIP), growth in photovoltaic system installations, ability to complete electric distribution system modeling & analysis as well as predictive analysis, the Electric Utility has identified the need for electric system modeling software and updated Outage Management System (OMS) software. The electric utility staff completed thorough research of available software providers to fulfill this need. One of the key components to evaluate and select the software provider, was to select a software provider and software that is a standard in the industry and also one in which the electric utility's consultants are familiar working with. The Electric Utility is recommending Milsoft Utility Solutions Inc., as the software provider to meet these needs and is currently being utilized by the electric utility's consultants to complete system modeling on circuits currently in design for storm hardening and voltage conversion.

The Electric Utility is requesting Single Source Procurement for Authorization of the Milsoft Agreement and software purchase under the City's Procurement Code; Article XIV, Sec. 2-112, (e), (1) and is in the best interest of the City.

Milsoft Integrated Solutions, Inc., was formed in 1989 and began providing software for electrical distribution analysis to electric utilities to help them operate more efficiently and safely. Efforts continued to make their software the most powerful and detailed distribution circuit modeling software in the world. They expanded their services to include outage management systems (OMS), interactive voice response (IVR) systems, geospatial information systems (GIS), and field engineering (staking). With the addition of Automation Consulting, Inc., in 2003, Milsoft Integrated Solutions, Inc., became Milsoft Utility Solutions, Inc. The Milsoft software can be found in over 1000 utilities, municipalities, consulting firms, and universities worldwide and offers a complete suite of utility solutions.

The City's Electric Utility is requesting three Milsoft Utility Solution software modules to begin; Engineering Analysis (EA) - WindMil, Outage Management System (OMS) - DisSPatch and

Geographic Information Systems (GIS) – WindMilMap. A brief description of the modules and their function is outlined below;

Engineering Analysis (EA) – Milsoft Engineering software gives the utility the power to perform system studies that result in the system operating more efficiently. Specific studies to assist in power loss reduction and optimization of the network have a direct correlation to dollars saved at the utility. It provides the electric utility with the ability to run a study whenever needed vs. waiting will get results faster, saving time and money. Milsoft EA Software will provide operations team members the ability to perform Fault Location, using field-measured faults to identify a possible fault location on the network. The system will also give the System Operations team abilities to pre-plan for outage scenarios, testing switching scenarios for proper voltage and capacity limits before implementing in the field. With Milsoft EA WindMil® software, the engineering team can create a detailed visual representation of the electric grid. The model will accurately represent the entire utility network, from delivery point to meter. You can also use Milsoft EA software to bring in data from other sources such as CIS, SCADA, and AMI. Optimization analysis quickly provides results on load balancing or capacitor placement optimizing system performance. Easily add proposed new load to the system to evaluate what impact it will have on the voltage and capacities of system equipment. The Milsoft EA software provides all the tools needed to create detailed system plans and long-range studies.

Outage Management System (OMS) - As costs for providing service increases, utilities face having to do more with less. Milsoft OMS software gives our customers the ability to manage outages more effectively and efficiently. Integrations to other critical utility systems like Automated Metering, SCADA, and Billing put all the information needed for efficient outage management in one place. The centralization of this data allows system operators to focus on one system equipped with the tools and knowledge required to get the power restored as quickly and as safely as possible. Leverage that with the power of Milsoft Communications products and improve your customer experience when it comes to power outages. Get rid of busy signals on the phone, give them accurate and up to date information about their specific outage, and provide that conversation in their preferred communication medium, phone, text, or email. Use the Milsoft Web Outage Viewer to give the public a map with all active outages on it and the information you wish to share displayed. With Milsoft Outage Management, we not only help employees restore outages; we also keep the public informed along the way.

The Milsoft OMS leverages the power of the Milsoft Circuit Model and provides the engineering team with the ability to run fault analysis, so when a fault is measured at a protective device on the system, Milsoft OMS can give locations where that fault is possible. Since the same model is available in Milsoft EA, load and voltage studies can be run on the model to ensure that outage restoration efforts will meet system requirements. The Switching Scheduler feature allows an engineer to use Milsoft EA to test different switching scenarios. Approved action plans can be accepted and sent directly to the Milsoft OMS for implementation in the field. The system operator is given the project exactly as it is designed, eliminating the need to search to data or reference a paper plan.

You never know when the next big storm is going to hit. It could be today or next year, but Milsoft OMS will prepare your utility for it. Milsoft puts all the tools needed in the hands of who needs them during the worst of times. Whether its call handling, dispatching crews, working outages from the field, or maintaining communication with your customer base, Milsoft has the tools to fit the role. The robust prediction engine processes the incoming events and provides the exact

outage location on the circuit model. Crews in the field can leverage Milsoft Mobile to see outages on the system and work those outages tickets to the point of restoration. Using Milsoft OMS frees up resources in the office to manage the entire event more efficiently. With Milsoft Communication software acting as the front line defense for customer calls and inquiries, resources are available to manage outages instead of being tied up on the phone. Getting rid of busy signals is also an excellent thing for anxious customers. Milsoft has the tools to fit any role when the big one hits.

Geographic Information Systems (GIS) - The utility is a complicated business model. While most companies house their assets in one building, an electric utility's inventory and human resources can be sprawled over hundreds of square miles. Managing this complex model can be simplified dramatically with GIS. With an effective GIS at your disposal, you can also implement proactive asset management programs. The possible ranges of GIS implementations are only limited by imagination. You'll see the paybacks when you start looking at capital planning, work order management, and compliance in a whole new way.

A complete, detailed electric circuit connectivity model is essential for planning and operating your system grid. The ability to easily maintain the connectivity model is a cornerstone of the Milsoft Geographic Information System (GIS). Designed to take the power of the Milsoft EA logic and embed it in the ESRI® environment, Milsoft GIS provides a single data source for the electrical connectivity model. This capability in our GIS is unique in the industry. The Milsoft GIS also includes project management tools to enable each user to create his or her versions of the model as necessary to do their job. Milsoft GIS effectively integrates mapping and engineering in a way that increases quality while minimizing an accidental mapping error.

The City's Electric Utility, Information Technology and Purchasing Departments have worked collaboratively with the Milsoft team to develop a scope of work, time-line, list of deliverables and expectations for the full implementation of this software and is detailed in Exhibit "A" of the attached agreement. The not to exceed cost for the software, implementation, data conversion and training is not to exceed \$170,355.

**MOTION:**

Move to approve/disapprove Agreement with Milsoft Utility Solutions Inc., for software, data conversion and implementation of Milsoft Engineering Analysis, Outage Management System & Geographical Information System modules at a cost not to exceed \$170,355.

**ATTACHMENT(S):**

Fiscal Impact Analysis  
Milsoft Agreement

**IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

<b>Fiscal Years</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Capital Expenditures	\$170,355	0	0	0	0
Operating Expenditures	0	\$23,500	\$23,500	\$23,500	\$23,500
External Revenues	0	0	0	0	0
Program Income	0	0	0	0	0
In-kind Match	0	0	0	0	0
<b>Net Fiscal Impact</b>	<b>\$170,355</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>No. of Addn'l Full-Time Employee Positions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**B. Recommended Sources of Funds/Summary of Fiscal Impact: Funds have been identified in account No. 421-6010-531-63.15, Project No. EL2121.**

Account Number	Account Description	Project Number	FY21 Budget	Current Balance	Agenda Expenditure	Balance
421-6010-531-63.15	Improve Other than Build / Infrastructure	EL2121	\$690,000	\$690,000	-\$170,355	\$519,645