



# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE: DECEMBER 13, 2021**

**SUBJECT: SERVICES AGREEMENT WITH ICE BEAR SPV #1 LLC DBA THULE ENERGY STORAGE TO PROVIDE THE COOLDATA PLATFORM AND PREVENTATIVE MAINTENANCE FOR 111 ICE BEAR UNITS IN THE CITY AND OPTIONAL, AS-NEEDED BREAK-FIX REPAIR SERVICES FOR A FIVE-YEAR TERM IN THE AMOUNT OF \$705,603**

**ISSUE:**

Consider recommending that the City Council approve the Services Agreement with Ice Bear SPV #1 LLC dba Thule Energy Storage to provide the CoolData Platform and Preventative Maintenance for 111 Ice Bear units currently installed in the City and optional, as-needed break-fix repair services, for a five-year term in the amount of \$705,603.

**RECOMMENDATIONS:**

That the Board of Public Utilities recommend that the City Council:

1. Approve the Services Agreement with Ice Bear SPV #1 LLC dba Thule Energy Storage to provide CoolData Platform and Preventative Maintenance Services and as-needed Break-fix repair services for a five-year term in the total amount of \$705,603; and
2. Authorize the City Manager, or designee, to execute the Agreement and any documents necessary to administer the Agreement, including making minor and non-substantive changes.

**BACKGROUND:**

In 2015, the Board of Public Utilities and the City Council approved a Goods and Services Contract with Ice Energy, Inc. (Ice Energy) to establish a Peak-Load Reduction Pilot Program (Program) using thermal energy storage. With Ice Energy's proprietary technology, called an Ice Bear, the Program provided valuable benefits to RPU customers, including: a) reduced energy consumption during peak hours; b) improved energy efficiency with new heating, ventilation, and air conditioning (HVAC) replacements; and c) integration of a demand response control on participating Ice Bears. The Program was structured for a five-year term starting in 2015 with the goal of installing 5 MW of capacity by the end of the term.

An Ice Bear unit turns a standard HVAC into a hybrid HVAC with an ice battery. The Ice Bear unit is scheduled to charge by freezing ice in an insulated tank at night. When dispatched, the Ice Bear

turns off the HVAC compressor automatically and provides ice cold refrigerant to the air conditioning (AC) unit. It offers flexible energy storage capacity that can be scheduled to meet the customer's most pressing cooling needs, typically during the peak electricity consumption period.

During the term of the contract, Ice Energy successfully installed 111 Ice Bears on customer sites throughout the City and commissioned a total of 3.12 MW in Peak-Load Reduction. Towards the end of the contract term, Ice Energy abruptly declared bankruptcy and was not able to achieve the 5 MW capacity target. Despite the bankruptcy, there was no immediate impact to any of the Ice Bear units already installed at customer locations.

The City owns all the commissioned Ice Bear units under the Program. Periodic maintenance is required at least once a year to ensure efficient and proper functioning of the equipment. Ice Energy is no longer able to provide such service under the original contract due to their bankruptcy. In order to preserve the value of City's investment and to continue offering benefits to participating customers, a new long-term maintenance service is needed.

## **DISCUSSION:**

Thule Energy Storage (Thule) acquired all of Ice Energy's assets and intellectual property through Ice Energy's bankruptcy proceeding. The company approached Riverside Public Utilities (RPU) staff in April 2020 and offered to provide maintenance service for the Ice Bear units installed in the City. Thule is the only contractor able to provide such services to Ice Bears due to its acquisition of the proprietary technology.

After a series of meetings and negotiations, staff and Thule were able to come to an agreement on the terms and conditions of a five-year Services Agreement. The Agreement has the following key terms:

**Scope of Services:** Thule shall provide the CoolData Platform and Preventative Maintenance Services for RPU's fleet of Ice Bear units. In addition, the City may request and authorize Thule to perform additional Break-Fix services.

- a) The CoolData platform is a software specifically created to remotely monitor and troubleshoot the Ice Bears to maintain their proper performance. The CoolData platform will allow Thule and RPU staff to readily identify problems without dispatching on-site service and provide detailed remote diagnostic for the Ice Bears.
- b) Preventative Maintenance entails a tailored 14-step process designed specifically for the Ice Bears to maximize their operating lives. The maintenance services will be performed by licensed and certified technicians with extensive training on Ice Bears.
- c) Break-Fix covers any additional maintenance and/or repair work that are not covered under the Preventative Maintenance services. Identifying and addressing issues with the Ice Bear units early-on is the most cost-effective approach and will ensure reliability of the Ice Bear units. Request for and authorization of any Break-Fix services will be at the sole discretion of the City.

**Price:** The CoolData and Preventative Maintenance services, labor rates for Break-Fix (repair) services and costs to replace non-standard parts are all fixed over the term of the Agreement, which is an exceptionally favorable attribute given the current trend of inflation.

- a) The CoolData and Preventative Maintenance services are \$450 per Ice Bear per year or \$49,950 fixed annually for the 111 Ice Bears under the Program over the term of the Agreement.
- b) Break-Fix services labor rates are fixed at \$270 for the first visit to each site for up to two hours of service or \$135 per hour. Any additional service for each Ice Bear will be charged at \$180 per hour per technician. Any non-standard part replacement, including labor, will be charged as detailed in Exhibit “B” of the Agreement.
- c) The pricing in this Agreement is approximately 30% below Thule’s standard pricing and lower than that of other municipal utilities who have retained Thule for similar services.

**Table 1: Fiscal Breakdown**

	First Year Cost	Total Cost 5-year term
CoolData and Preventative Maintenance Expense	\$49,950	\$249,750
Break-Fix Services Budget*	\$87,000	\$455,853
<b>Total</b>	<b>\$136,950</b>	<b>\$705,603</b>

\*Note: The amounts shown are available budget for Break-Fix Services, not actual expenditures. Authorization of any Break-Fix Services will be at the sole discretion of the City.

**Preventative Maintenance Report:** Upon completion of preventative maintenance services for each Ice Bear, Thule will provide proof of completion of services by submitting a Preventative Maintenance Report to the City showing completion of the 14-step process before any payment is made by the City to Thule.

**Termination:** The City will have the right to terminate any or all of Thule’s services and work covered by this Agreement at any time upon thirty (30) calendar days of written notice.

The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 23256, Section 702(c) which provides that competitive procurement through the informal or formal procurement process shall not be required, “When the Procurement can only be obtained from a sole source or timely from a single source and the Manager is satisfied that the best price, terms, and conditions for the Procurement thereof have been negotiated.”

### **STRATEGIC PLAN ALIGNMENT:**

This item aligns with Strategic Priority No. 2 Community Well-Being, specifically Goal 2.6 - Strengthen community preparedness for emergencies and disruptive events to ensure effective response and recovery.

This item aligns with EACH of the five Cross-Cutting Threads as follows:

1. **Community Trust** – Properly maintaining the City-owned Ice Bear units will allow participating RPU customers to fully reap the benefits of these units for an extended period of time which will result in greater community trust.

2. **Equity** – A fleet of well-maintained Ice Bear units will equitably provide utility-wide benefits to all customers by shaving demand during peak hours.
3. **Fiscal Responsibility** – Performing regular maintenance on the Ice Bear units through this Agreement will prevent much more costly repairs to the equipment should they fail abruptly. The pricing in this Agreement represents a 30% discount from Thule's standard rate.
4. **Innovation** – Thermal energy storage through Ice Bear units is a creative way to reduce peak load and at the same time offering savings on customers' electricity bills.
5. **Sustainability & Resiliency** – Providing preventative maintenance annually on the Ice Bear fleet will ensure the longevity of the Ice Bear units and provide relief to RPU's distribution peak system loading.

### **FISCAL IMPACT:**

The fiscal impact is fixed for the CoolData Platform and Preventative Maintenance Services at \$49,950 per year over the term of the Agreement, plus an additional \$87,000 for the first year of Break-Fix Services, which are only authorized at the City's discretion and based on available budget. Sufficient funds are available in the Public Utilities Ice Bear Unit Maintenance Account No. 6120100-422928.

Future year's funding will be included as part of the biennial budget process.

Prepared by:	Daniel E. Garcia, Utilities Deputy General Manager/Power Resources
Approved by:	Todd M. Corbin, Utilities General Manager
Approved by:	Kris Martinez, Interim Assistant City Manager
Approved as to form:	Phaedra A. Norton, City Attorney

Certifies availability of funds:	Edward Enriquez, Chief Financial Officer/City Treasurer
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### **Attachments:**

1. Agreement
2. Presentation