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## Northwest Power and Conservation Council

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February 7, 2023

### DECISION MEMORANDUM

**TO:** Council Members

**FROM:** Kevin Smit, Senior Energy Analyst

**SUBJECT:** Approval of Industrial End-Use Disaggregation Contract with Cadeo

**PROPOSED ACTION:** Approve Industrial End-Use Disaggregation Contract with The Cadeo Group LLC for an amount not to exceed \$37,625

**SIGNIFICANCE:** The industrial sector in the Northwest is robust and consumes about 42,300 GWh of electricity per year. In the 2021 Power Plan, the industrial sector accounted for 647 aMW of cost-effective energy efficiency potential (27% of the total). This sector is composed of 21 distinct segments such as Lumber, Refinery, Refrigerated Warehouse, and Silicon Growing/Manufacturing. Each of these segments has distinct electricity consumption equipment that can be categorized by end-use (e.g., water heating, pumps, fans, refrigeration). Energy efficiency measures are then quantified as a share (percent savings) of an end-use. Research is needed to determine our end-use shares more accurately for each of the 21 industrial segments. It has been well over 10 years since these end-use values have been systematically updated. Staff is seeking this contract now, as it is timely to provide important inputs into the new long-term load forecast being developed and will position the division well for the efficiency analysis for the next plan.

### BUDGETARY/ECONOMIC IMPACTS

\$37,625

### BACKGROUND

Estimating energy efficiency potential in the industrial sector had been done at a broad-brush, high level (e.g., a percentage of total Industrial sector consumption) up until the Sixth Power Plan (2010). In the Sixth Power Plan, a much more detailed assessment was conducted utilizing a new tool (the "Industrial Tool"), which applied a top-down

methodology that started with the total electricity consumption of an industry segment, then divided that total out by end-use shares (e.g., lighting, motors, HVAC) for each industry, with each measure then quantified as the percent savings of an end-use. When the tool was developed for the Sixth Plan, detailed research was also conducted to develop the measure and end-use share assumptions. Some of these values were updated for the Seventh Power Plan, and then again for 2021 Power Plan through review by industrial energy efficiency experts who provided qualitative advice regarding our assumptions. However, a comprehensive update has not been completed since the Sixth Power Plan.

As outlined in their proposal, Cadeo Group LLC will subcontract with Cascade Energy, Inc. to efficiently and effectively complete updates to the end-use disaggregation for all NW industries. Cadeo has demonstrated through prior work that they have the expertise to conduct this research and provide the quality data we seek. The contract start date will be March 1, 2023 and will conclude by June 30, 2023.

### **ALTERNATIVES**

In the alternative to proceeding as recommended by staff, the Council could choose not to contract out this work. Or the Council could choose not to proceed with this contract and request that staff issue an RFP and seek a different contractor.