

One-page public summary document

KMX Demonstration Plant: Uranium mining capacity debottlenecking and wastewater recovery through Vacuum Membrane Distillation

Wyoming Energy Matching Funds

Executive Summary

Project Applicant: KMX Technologies Inc.

Qualifications: KMX Technologies is the leading provider of Vacuum Membrane Distillation (VMD), an ultrahigh end water treatment technology designed to return clean water to the environment while reducing liquid waste products. This technology has been validated by the Canadian Government as well as through a variety of lab and field trials in the power, mining and oil and gas industries.

Project Overview: There is growing interest in the US in deploying small modular nuclear energy systems (SMR's) to support critical climate and energy security goals. The United States, Canada, Japan, France, and the United Kingdom have announced their intent to invest \$4.2 billion in enrichment and conversion capacity over the next three years. Ur-Energy, KMX's partner in this project, is well positioned to participate in this growth with a plan to develop 15 uranium mine units in Wyoming's Lost Creek and Shirley Basin areas. Through this project, a key bottleneck to that expansion (lack of deep well injection capacity) will be removed by recovering the mine wastewater for reuse using KMX's VMD technology.

Project Plan:

This project will entail the installation and evaluation of a demonstration scale VMD unit at Ur-Energy's Lost Creek site in Wyoming.

Phase 1: Complete detailed engineering, identify long delivery items and permitting requirements, completion of contractual agreements.

Phase 2: Secure permits, procure equipment, fabricate the KMX demonstration unit and on-site infrastructure at the Ur-Energy site in Lost Creek.

Phase 3 – Commission the demonstration unit and operate it for an 8-month period to confirm the effectiveness of the KMX technology in recovering high quality water for beneficial reuse.

The successful completion of this project will set the foundation for expanded uranium production not only at Ur-Energy locations, but also at other "insitu" mines across the State of Wyoming. Such an expansion will significantly contribute to the production of high-quality water from wastewater for use in agriculture or surface discharge (regulations permitting) to replenish the aquifers.