Project Title: UTA's Distributed Collector Preprocessing Strategy

Prime Recipient: University of Texas at Arlington (UTA, Arlington, TX)
Subrecipients: University of Nevada Reno (UNR, Reno, NV), National Renewable Energy Laboratory (NREL, Golden, CO)
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Key Participants

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Project Summary: The main innovation is to develop a scalable and affordable process for distributed collection locations to more efficiently perform some of the e-waste preprocessing tasks that are time and labor intensive for large downstream recyclers to enable more efficient and valuable downstream processing.

Project Impact: Our proposed innovation will decrease environmental impact by lowering transportation costs and reducing the need for energy intensive preprocessing at large scale refiners. It will also enable more focus to be placed on value-added downstream activities potentially unlocking the ability to recover critical minerals.

Proposed Project Goals: Our main goal is to develop a distributed collector preprocessing process that can be scaled to other distributed collectors unlocking downstream value. These goals can be described as:

1) *Evaluate different physical size reduction methods*
2) *Identify how efficiently different separation methods separate valuable materials*
3) *Understand the chemical composition of the reduced and separated feedstocks*
4) *Develop simple chemical processes for critical mineral recovery*