

<p>Project Information</p>	
<p>Investigators:</p> <p>A.J. Simon Group Leader Atmospheric, Earth, & Energy Division Lawrence Livermore National Laboratory simon19@llnl.gov</p> <p>Christian Hernández-Negrón PhD Student - UMass Amherst Graduate R&D - Strategic Analysis Atmospheric, Earth, & Energy Division Lawrence Livermore National Laboratory c.hernandeznegron@gmail.com</p>	<p>Organizations: Atmospheric, Earth & Energy Division at Lawrence Livermore National Laboratory</p> <p>Funded by: The Department of Energy of the United States</p>
<p>Project Goal</p> <p>We will assess the rate of technology maturation for water recycling technologies using learning curve analysis based on data gathered from wastewater treatment plants in the United States.</p>	
<p>Objective</p> <p>We will explore ways to understand how novel water resource recovery technologies have been adopted and advanced historically. We will also investigate what we might expect from the new technologies that are under development. We will focus on water recycling/reuse to understand factors driving cost reduction over time.</p>	
<p>Proposed Activities</p> <p>We will identify wastewater plants in California with different capacity characteristics. We aim to collect a dataset to construct different learning curves that will depict the actual situation of the technology. This will then be used to develop cost projections for water recycling/reuse and the effect of learning improvement.</p>	
<p>Expected products</p> <p>Expected products are (1) a historical compiled dataset of wastewater treatment plants (2) at least one academic research paper and one chapter of PhD dissertation of the applied methodology on the water technology; and (3) disseminate findings to participants of the survey as well as to WaterReuse California. This project collaborates with a PhD graduate student, acting as the Graduate R&D Strategic Analysis intern who is applying analytical skills and the intersection of renewables, environment, engineering, data science, and policy analysis.</p>	
<p>Expected Outcomes</p> <p>Our water recycling technology-specific results for water recycling will inform the understanding of technological change for water recycling and greater sustainability.</p>	