

# Management of End of Life Solar Panels

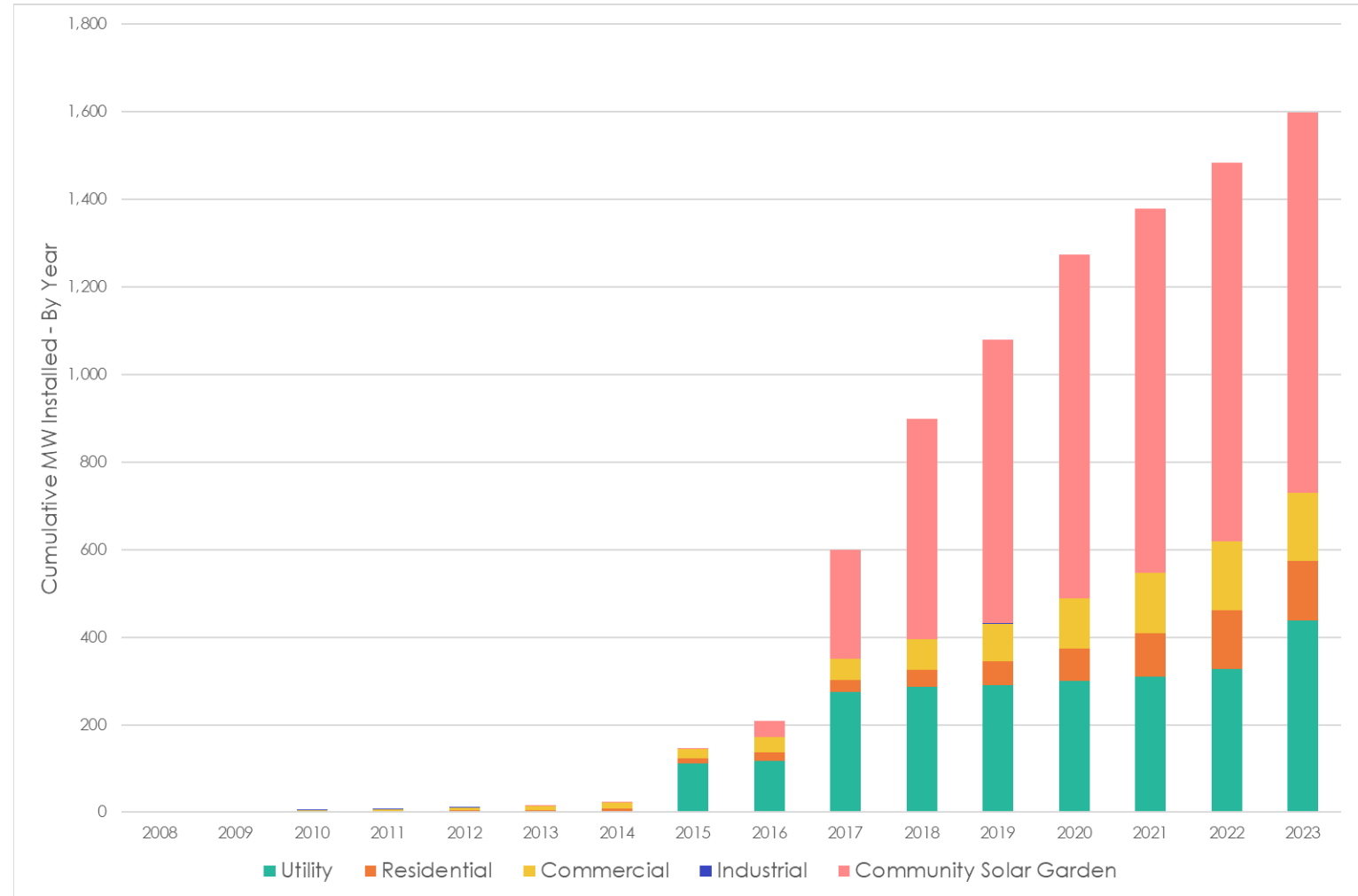
# Context

- In 2024 – Eunomia was commissioned by the Minnesota Pollution Control Agency (MPCA) to analyze the cost effectiveness of different policy measures to handle end of life solar panels.
- Eunomia undertook an 8-month project which included stakeholder outreach, quantitative modelling and report writing which was then submitted to the Minnesota legislature

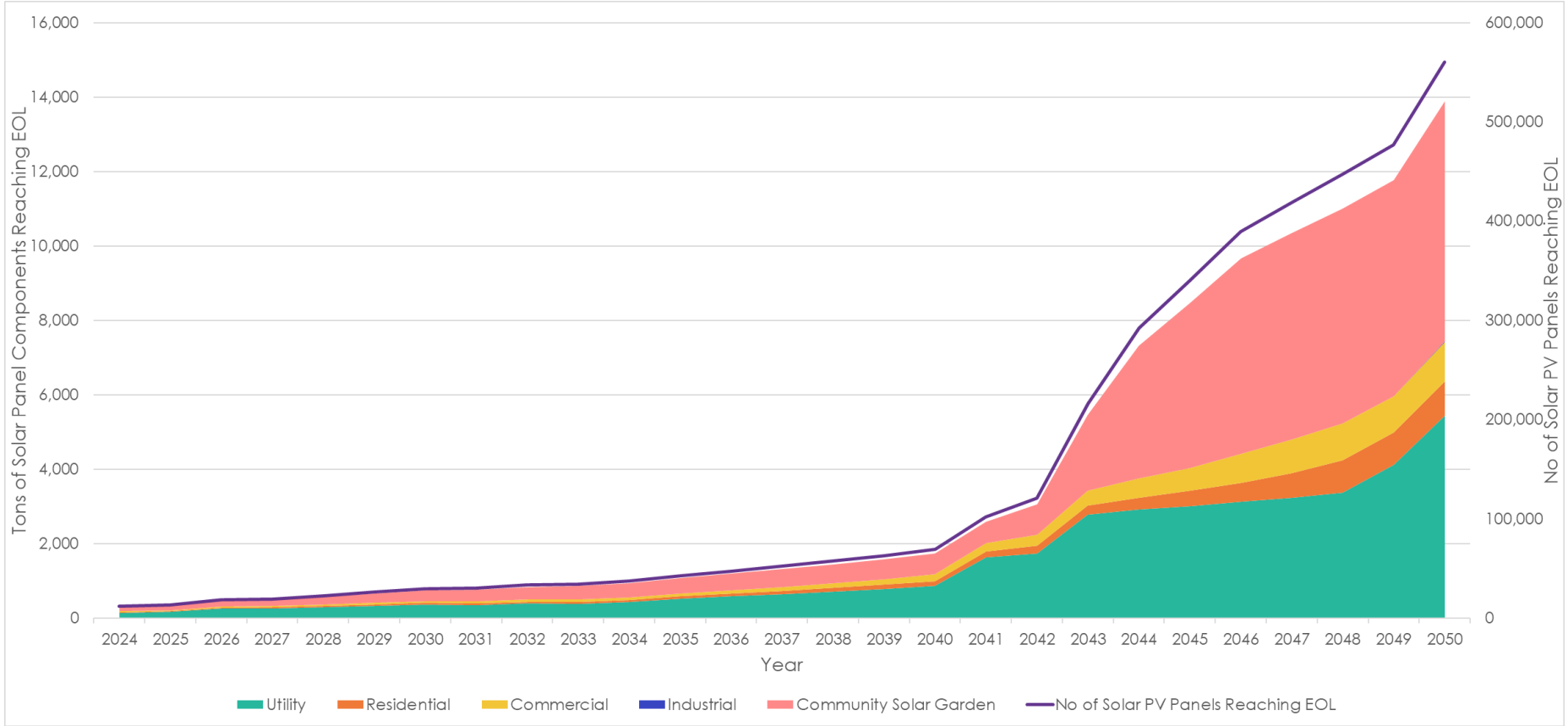


# Minnesota End of Life Solar Panel Generation – Showcasing Installation Diversity

- Most common installations were Community Solar Garden (CSG) and utility installations
- Small – scale residential and commercial arrays also important to consider



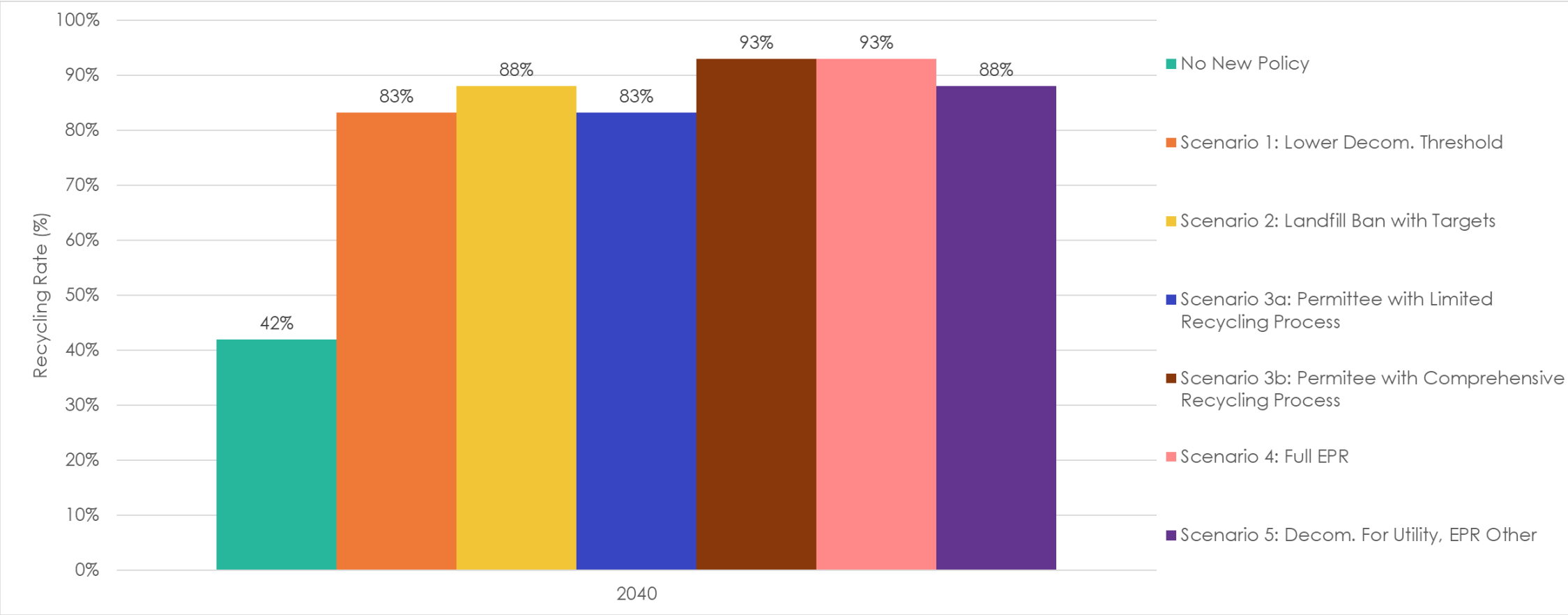
# Diverse installations lead to mix of end-of-life arrays – accelerating in 2040



# Diversity of End of Life Requires Diversity of Solutions

	No New Policy	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
<b>Short Description</b>	No policy except existing decommissioning (>50MW)	Lower Decomm threshold w/recycling requirement (e.g. >1MW); Disposal ban for all	Lower Decomm threshold w/recycling reqmt; Disposal ban for all; recycling targets <1MW	Permittee/Owner pays; Decomm reqmts >1MW, Disposal ban and recycling requirements for all	Full EPR to manage all panels; Decomm reqmts >1MW; Disposal ban and recycling requirements for all	Decomm/recycle reqmts for utility only, EPR for all other installations; disposal ban for all
<b>By Sector</b>						
<b>Utility</b>	Decommissioning (>50MW)	Decommissioning/ recycling >1MW; Disposal ban	Decommissioning/ recycling >1MW	Decommissioning/ recycling >1MW	Full EPR and Decommissioning (All Capacity)	Decommission/ recycling >1MW
<b>Residential</b>	No New Policy	Disposal ban	Landfill Ban with Targets	Permittee	EPR	EPR
<b>Commercial</b>	No New Policy	Disposal ban	Landfill Ban with Targets	Permittee	EPR	EPR
<b>Industrial</b>	Decommissioning (>50MW)	Decommissioning/ recycling >1MW		Decommissioning/ recycling >1MW; Permittee	EPR	EPR
<b>Community Solar Garden</b>	No New Policy	Disposal ban Decommissioning/ recycling >1MW	Decommissioning/ recycling >1MW Landfill Ban with Targets	Decommissioning/ recycling >1MW; Permittee	EPR	EPR

# High Recycling Achievable under Scenarios with Policy





Insert name  
Insert contact details

# Thank You



## About Eunomia

Eunomia is an independent sustainability consultancy driven by a genuine passion to make a positive change to the clients we work with and the communities they operate in. Founded in 2001, we have been pioneers in the sector - early advocates for helping NGOs as well as leading public and private sector organisations in the UK and overseas to adapt their approach and adopt more sustainable processes.

Our consultants are experts in the field, deeply immersed in the subject with the technical knowledge and skill to offer clients innovative, clear and practical recommendations. We are committed to finding solutions to better protect the planet, while supporting the wider aims and needs of our clients.

Each client is treated as an individual, with consultants taking the time to understand their objectives and how best we can support them. This personal service ensures a strong relationship is forged, based on honest and regular communication. It also ensures if these objectives change, there is the flexibility to adapt.

As an established leading independent consultancy, clients can have complete confidence that consultants will offer evidence-led solutions based on robust, impartial thinking that offer both pragmatic and positive outcomes.