

Subject: Testimony to the Senate Committee on Energy and Environment in **Support of SB 1582** - Community-Based Power in Oregon

Chair Solman, Vice-chair Brock Smith and members of the committee,

My name is Michael Mitton and I am a member of MCAT (Mobilizing Climate Action Together), a community of volunteers working on advancing a healthy climate and a green economy for future generations.

Community-based power is a collection of virtual power plants (VPPs) which act as software-coordinated fleets of distributed energy resources (DERs) like wind and solar. These VPPs can provide many of the same services as conventional power plants, but with greater flexibility and lower emissions, especially in renewable-heavy grids. They offer increased reliability by providing fast, flexible capacity during extreme weather or renewable output swings, and can keep critical loads powered using local wind, solar and storage when the wider grid fails. As non-wires alternatives, using existing VPPs can lower capital needs by avoiding building new peaker plants or grid upgrades. VPPs can also enable higher shares of wind and solar by time-shifting demand to coincide with renewable generation thereby displacing high-emitting peaker usage which reduces their emissions.

In addition, VPPs can bring flexibility and balancing services to our grid. They shift and shape demand (demand response) and charge and discharge storage by doing things like managing smart appliances, EV charging, etc. They also schedule and balance variable generation from distributed energy resources (DERs) like wind and solar thereby reducing reliance on gas peaker plants. They can also provide peak shaving and resource adequacy by lowering or shifting load at peak times and injecting stored energy. VPPs can support capacity needs and reduce peak demand, improving resource adequacy in systems with high renewable penetration. Because DERs are sited close to load, VPPs can relieve local distribution and transmission constraints, avoid bottlenecks, and support voltage and congestion management. Finally, VPPs can provide significant benefits to those who participate by potentially lowering their electricity bills by optimizing their energy consumption and potentially earning revenue by selling excess power to the grid.

For these reasons, I urge your support of SB 1582

Sincerely,

Michael Mitton