Solar Expansion in King County:

HOW IDENTIFYING BARRIERS CAN FOSTER NEW GROWTH FOR GREEN ENERGY

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Introduction:

- Solar is a growing sector in the green energy market with the potential to account for 40% of the nations energy supply in 2035
- King County DNRP is looking to utilize this clean energy source and currently has eleven solar arrays throughout the county (see figure 1)
- **Solar expansion in King County is happening at too slow of a rate to meet the county's climate action goals**
- This research project aims to identify the barriers to solar expansion and how to best address them

Question:

What are the barriers to solar expansion in King County and how do we overcome them?

Internship/Methods:

King County: Intern for DNRP Solar Expansion and Optimization project

Literature Review: Financial barriers and incentives to solar expansion in varying markets

Expert Interviews: Conducted interviews with three King County personnel to learn current successes for solar expansion and what they viewed as barriers

Results:

Barriers to Expansion:

Net-metering: current laws cap net-metering at 100kW making it difficult for larger arrays to be cost effective

Solar-Ready Appendix: jurisdictions failure to update building codes and solar-ready requirements for new construction

Financial Incentives: inconsistent financial incentives

Figure 1: Image from Vashon Transfer station solar array (left) and the Steve Cox Memorial Park installation (right).

Solutions:

Net-metering: Solar vendors will be pushing for net-metering expansion at next legislative session

Net-metering in other markets: California has pronounced solar market, in large part due to expansive net-metering policy which sets limits at 1mW, 10x larger than WA

Solutions (cont.):

Financial: The Inflation Reduction Act (IRA) presents an opportunity for King County to utilize the Investment Tax Credit (ITC) of 30-50% thus reducing costs

Implications:

- King County's solar project is a great first step in utilizing solar power as a green energy source, however, serious growth is at a halt
- Policy makers must work to: introduce and pass solar ready appendices, work with utility companies to expand net-metering, and utilize the new IRA to increase financial incentives
- Tackling these barriers opens King County to more solar opportunities and increases the county's capacity to house renewable energy options and achieve their goal of 1500kW by 2025 (see figure 2)

Figure 2: Currently, the King county solar project operates with nearly 800 kW of solar energy, marking a halfway point for the county's 2025 goals

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