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Local energy communities: everyone's darling or a tough sell?

BACKGROUND

Local energy communities (LECs) combine renewable energy deployment with active citizen participation. Understanding what citizens actually want from LECs, and what deters them, is essential for effective policy design.

RESEARCH QUESTIONS

R1 What governance arrangements within renewable energy communities do citizens prefer?

R2 To what extend do individual characteristics influence willingness to participate?

R3 How do citizen preferences for LEC design differ between countries?

2,067
RESPONDENTS

1,036 SWITZERLAND **1,031** UKRAINE

METHOD

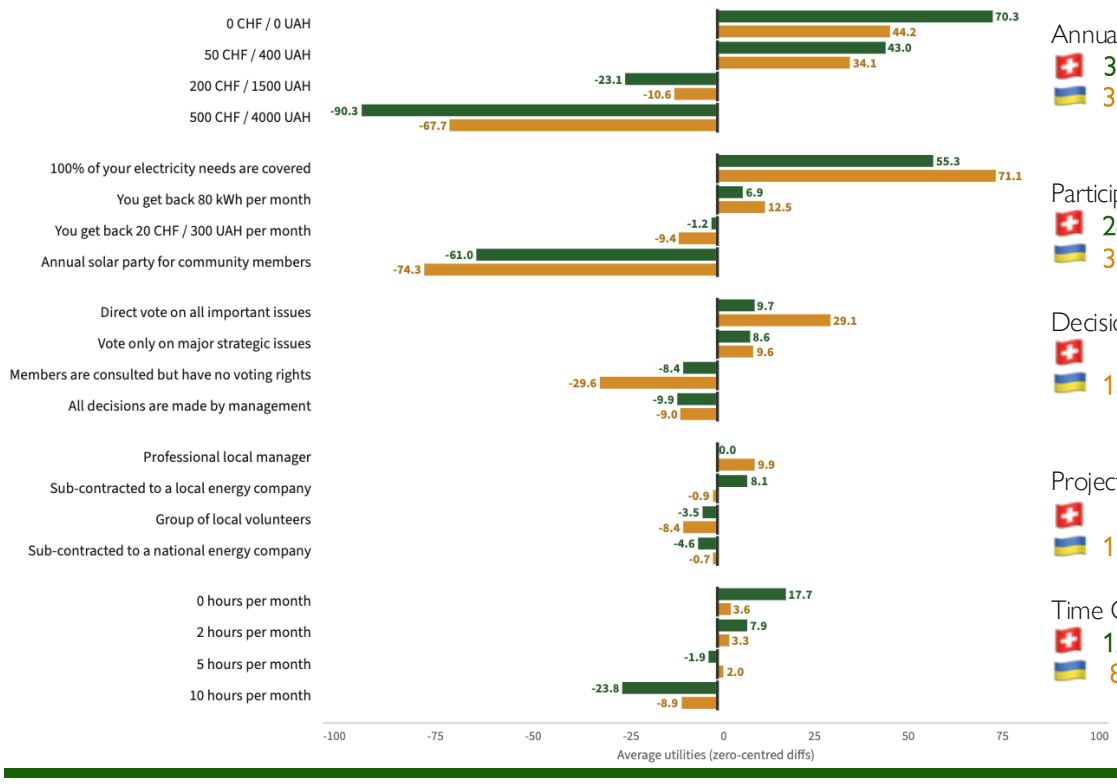
Choice-Based Conjoint Experiment

Hierarchical Bayes | Latent Class (3 classes) | Mann–Whitney U | Sawtooth CBC

10 choice tasks per respondent (5 attributes x 4 levels).
Sawtooth Software CBC design. Nationally representative samples with pre-defined quotas for age and gender.

KEY RESULTS I

Attribute Importance and Parth-worth utilites (HB, zero-centred): What citizens want most 🇨🇭 Switzerland 🇺🇦 Ukraine



Annual Membership Fee
🇨🇭 38.90%
🇺🇦 31.10%

Participation Benefits
🇨🇭 28.82%
🇺🇦 33.42%

Decision Making
🇨🇭 9.53%
🇺🇦 15.53%

Project Management
🇨🇭 9.84%
🇺🇦 11.78%

Time Commitment
🇨🇭 12.92%
🇺🇦 8.17%

HYPOTHESES

H1	Citizens prefer decentralised governance over centralised	✓ **Supported**
H2	Monetary benefits preferred over in-kind	✗ **Rejected**
H3	Heterogeneous preferences across citizens	✓ **Supported**
H4	Centralised-tradition ➔ lower participation demand	✗ **Rejected**

- Low annual fees and 100% electricity coverage is the strongest driver
- High fees and no voting rights are the strongest deterrents
- Swiss and Ukrainian citizens favor coverage of electricity needs and low membership fees
- Swiss citizens show stronger aversion to higher time commitments, while Ukrainian preferences are less sensitive
- All differences significant at $p < 0.01$

KEY RESULTS II

Three distinct citizen segments in each country

Two segments are comparable across countries; the third reflects institutional context.

🇨🇭 **Switzerland**

Introvert Autarkists
32.5%
Value energy autonomy. Low interest in social engagement or governance.

Time-Sensitive Localists
37.1%
Want local professional management. Unwilling to invest personal time.

Price-Sensitive Fence-Sitters
30.5%
Strongly deterred by high fees. Hesitant to commit to participation.

🇺🇦 **Ukraine**

Introvert Autarkists
39.6%
Driven by electricity provision. Low sensitivity to time costs.

Participation Seekers
31.3%
Strong demand for direct voting rights. Least price-sensitive segment.

Price-Sensitive Fence-Sitters
29.1%
Cost-driven. Benefits and governance play a limited role.

POLICY IMPLICATIONS

Designing LECs that citizens want to join

- **Convenience matters:** Many citizens value low time & financial requirements ➔ LECs should not be designed as one-size-fits-all participatory models.
- **Professional local management** is preferred over both volunteer-based & national company structures.
- **100% renewable electricity coverage** is the most compelling benefit, more attractive than monetary returns.
- **Governance preferences are context-dependent**: Ukrainian respondents show stronger demand for direct voting rights, while Swiss respondents prioritise convenience.
- **Diverse LEC models are needed** to match distinct citizen segments, from autarky-seekers to price-sensitive hesitators.

CORE INSIGHT

"Survey results suggest that convenience, particularly in terms of time and financial requirements, is a key consideration for many citizens. Accordingly, LECs should not be designed as one-size-fits-all participatory models."

Preferences for decentralised governance are neither uniform nor unconditional, but shaped by institutional context, perceived effort and expected benefits.

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