Net metering as a viable approach for decentralized renewable energy sources

Case study of Croatia

IRENA – Energy Community joint workshop
Cost-effective Renewable Energy in South East Europe
3-4 March 2016, Energy Community Secretariat, Vienna, Austria

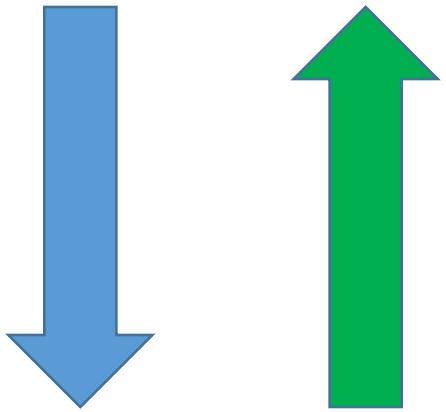
net-metering or net-billing?

net-metering

single digital read that moves forwards or backwards based on direction of energy flow

net-metering

energy taken
100 kWh

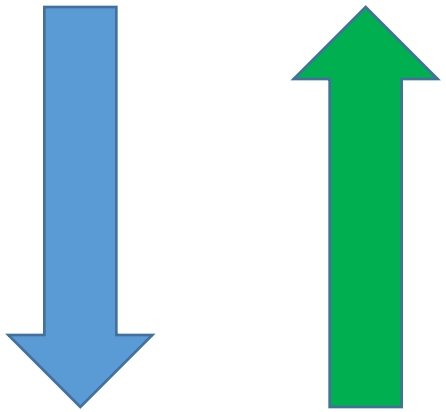


energy produced
100 kWh

meter reads
0 kWh

net-metering

energy taken
100,000 kWh



energy produced
100,000 kWh

meter reads
0 kWh

what about the grid usage costs?

net-billing

two reads: energy taken from the grid and energy put to the grid (kWh)

Croatian net-metering

(January 2016)

- only rooftop solar PV
- up to connected power (max. 500 kW)
- value of energy put to the grid = 0.9 x purchase price (or more)
- monthly billing

Croatian net-metering

doing the math for industry

- 60% self-consumption
- 30 kW solar PV
- 1.3 EUR/kWp

payback period: 15+ years

with 40-50% subsidy on equipment

9-11 years

Croatian net-metering

doing the math for private house

- 20% self-consumption
- 3 kW solar PV
- 1.3 EUR/kWp

payback period: 21+ years

with 40-50% subsidy on equipment

11-13 years

Barriers

- prosumer pays for grid usage cost for all taken energy
- grid usage costs amount to 45% of total energy costs
- grid connection cost is 2,500 EUR (up to 60% of system cost)
- monthly billing prevents seasonal balancing

Thank you for your attention!

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