eceee 2021 Summer Study on energy efficiency

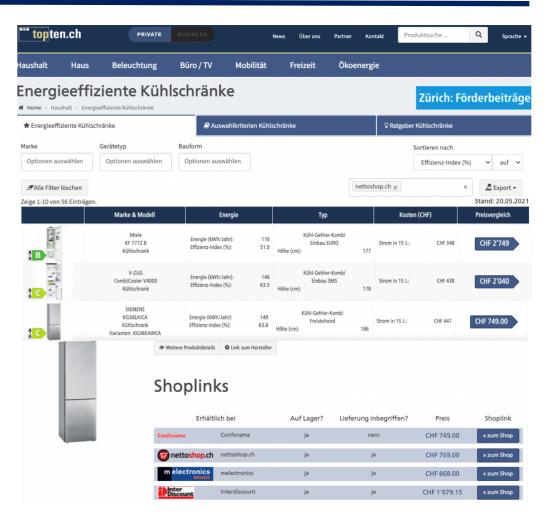
Effectiveness of rebate programmes: Swiss case studies

Eric Bush, Hélène Rochat, Maike Hepp, Nadja Gross, Topten, Switzerland Dionys Hallenbarter, ewz Power Utility of the City of Zurich, Switzerland



Topten.ch

- Online platform for best products: energy efficiency, environment, performance
- 70 product lists, 8'000 products
- 520'000 sessions, 1.9 million pageviews per year
- Basis for rebate programmes
- Founded in 2000 in Zurich, online in 19 countries
- European platform: topten.eu







ewz Power Utility of the City of Zurich

- Core business
- Employees
- Production, transmission, distribution and sales of electrical energy 1'200 (proportion of women 16 %)

230'000

- Customers
- Production
- Turnover
- 4'800 GWh (own and partner power plants) 1000 Mio CHF

Albignia, canton Grison



ewz strategy and political mandate

ewz sales strategy is led by three steps

- 1. To avoid unnecessary energy consumption
- 2. To use energy efficiently
- 3. To use renewable energies

On the road to a 2000-watt society

Plebiscite (2008) anchored sustainability and 2000-watt society in municipal code.

- 2000 watts per person (net zero emission from 2040)
- 1 tonne of CO2 per person and year
- Promotion of energy efficiency
- Promotion of renewable energies
- No new stakes in, no new supply contracts with nuclear power plants

Måkaknuten, Norway



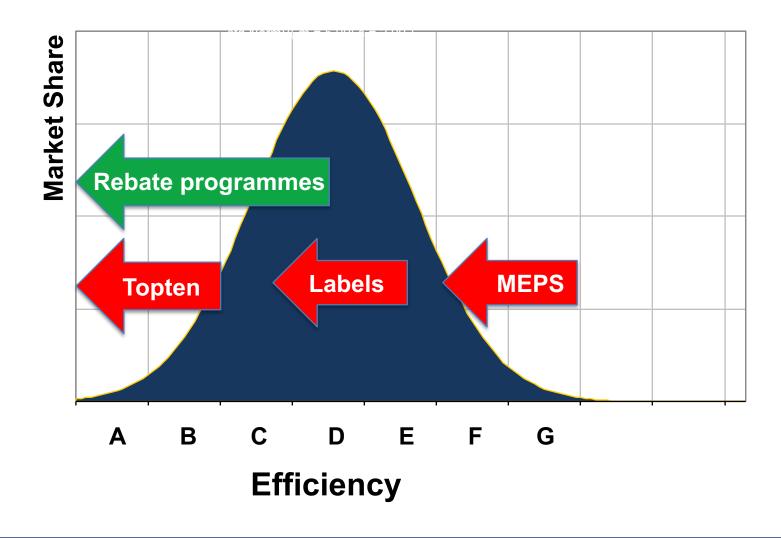


Rebate programmes for appliances

- Why are there so few rebate programmes for appliances in Europe?
- Is it necessary to request for each and every subsidy a detailed application form?
- How to adapt programme designs to specific goals?
- What about cost efficiency?
- Swiss case studies: great diversity



Market-transformation: push and pull

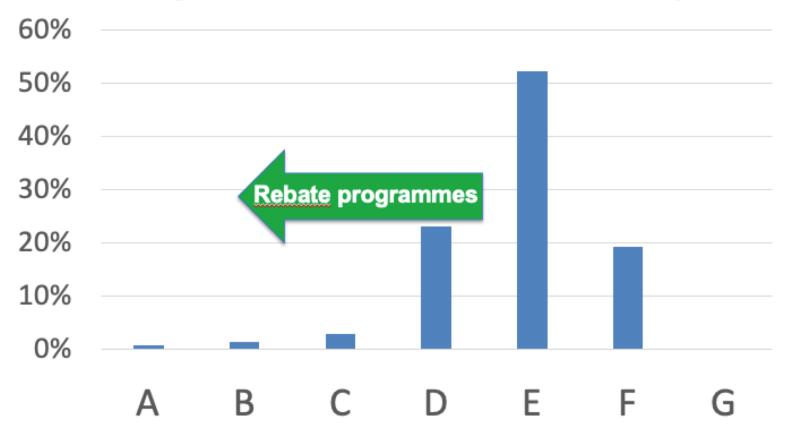


6



Selection criteria for Swiss rebate programmes

Refrigerator models in Swiss online shop

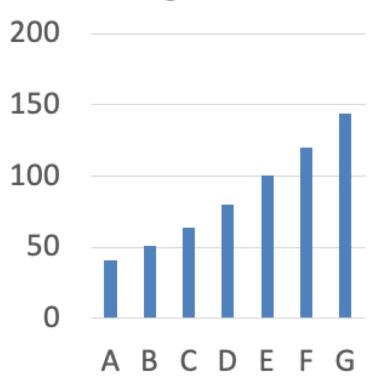


Source: nettoshop.ch / 2021/06/01

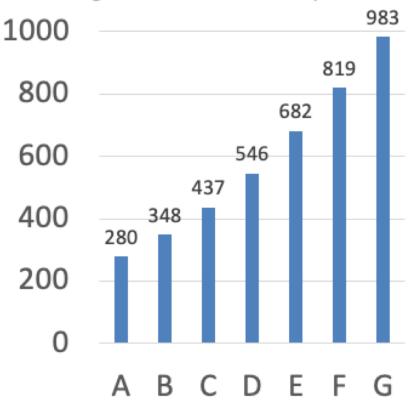


Energy classes and electricity costs

Efficiency index of refrigerators



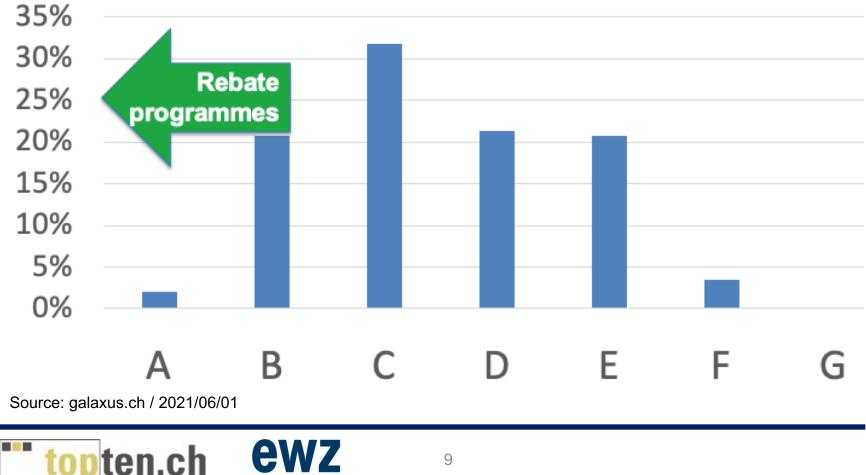
Electricity costs of typical 2-doorrefrigerator in euros over 15 years





Selection criteria for Swiss rebate programmes

Dishwasher models in Swiss online shop



Types of rebate programmes

#	Applicant	Beneficiary	User	
1	Private users	Private users	Private users	Bureaucratic
3	Companies	Companies	Companies	Reduces buyers- user dilemma Non-bureaucratic cost effective
2	Large buyers, landlords	Large buyers, landlords	Private users	
4	Food and beverage industry	Food and beve- rage industry	Shops, gastronomy	
5	Retailers, installers	Private users	Private users	
6	Retailers	Retailers	Private users	



Who applies and gets the subsidy?

Applicants	Benefit	
Private user	Big work to apply for small subsidy	
Landlord or company	Considerable work for big subsidy	
Retailers or installers	They take over the work of application and transfer subsidies to consumers	
Retailers or installers	Retailers get subsidy in order to optimize range of products	



Impact mechanisms of rebate programmes

- Direct effect : Every purchase of an efficient product results in an energy saving compared to an average product
- 2) Optimised long-term purchasing behaviour of large professional procurers
- 3) Optimising the product ranges of manufacturers, importers and retailers



Swiss rebate programmes for Topten-products

Förderbeitrag für energieeffiziente Geräte mit dem Topten Label

Für ewz Kundinnen und Kunden der Stadt Zürich





Product categories	Rebates in CHF		
	Zurich	Switzerland	
Refrigerators and freezers	70	70	
Induction hobs	25	-	
Dishwashers	70	70	
Washing machines for apartments	70	70	
Washing machines for the communal laundry	250	250	
Tumble dryer	100	-	
Comfort fans	20	-	
TVs and PC monitors	40	-	
Heat pump water heaters	800	-	

Cost efficiency: 13 eurocents per kWh

More information:

- www.topten.ch/ewz
- www.topten.ch/immo
- www.topten.ch/bonus

Rebates per piece in May 2021 1 CHF = ca. 0.9 euros = ca. 1.05 US\$





Rebate programme "Energy Efficiency in Trade"



Subsidies are reimbursed directly in the shop as a discount

- Budget: 2.5 million euros -> for 38,000 appliances
- Duration 3 years: 2021 to 2024
- Funding area: All of Switzerland
- Involved shops: Fust, Galaxus, Interdiscount, Microspot, Kaufsignal, melectronics, Nettoshop



Rebate programme for large property owners



- Budget: 2.3 million euros
- Duration 3 years: 2021 to 2024
- Funding area: All of Switzerland
- Contribution to solving landlord-tenant dilemma: Win-win: landlord receives subsidy, tenant saves electricity costs



Rebate programme for commercial appliances

Product category	Rebate in CHF
Beverage cooler	200
Ice cream freezer	100
Display cabinets	500
Storage refrigerators and freezers	500
Minibars	100
Drug cabinets	500
Commercial coffee machines	150
Commercial heat-pump dryers	3'000

Duration2017 - 20Budget1.9 millioSubsidiesfor 11'00Total savings120 millioCost efficiency1.6 eurooMore informationtopten.ch

2017 -2020
1.9 million euros
for 11'000 appliances
120 million kWh
1.6 eurocents per kWh
topten.ch/gewerbe

Förderbeitrag

energieeffizient & klimafreundlich

<mark>top</mark>ten.ch





National bonus programme for best appliances

Categories	Federal Subsidies (euros)	Retailers Price-offs (euros)	Duration Budget Subsidies Total savings Cost efficiency	2011 0.9 million euros for 11'000 appliances 106 million kWh 0.9 eurocents per kWh	
Refrigerators	15	Up to 540			
TV sets	16	45 - 450	Success factors:	Steering of promotions	
Tumble dryers	63	Up to 1'100		No administrative burdens	
Fully automatic coffee machines	16	180 - 450			
Coffee Capsule Machines	16	20 - 120	BS9.9-		
Humidifier	35	Up to 70	PHILIPS PHILIPS LEFT 4 PHILIPS LEFT 4 PHILIPS Manual Address for the year Address for the yea	Los non Los non	



Conclusions

- 1) Wanted: More innovative designs of rebate programmes
- 2) Sufficiently strict requirements (no watering can promotion)
- 3) Skip unnecessary bureaucratic programme requirements
- 4) Well designed programmes can reach high cost efficiency
- 5) Rebate programmes can bring additional benefit: . Market transparency
 - . Communication impact
 - . Acceleration of market transformation



Contacts:

eric.bush@topten.ch dionys.hallenbarter@ewz.ch

