SWITZERLAND
ENERGY STRATEGY 2050
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SWITZERLAND: KEY ENERGY DATA

• Relatively high share of transport, small share of industry, low share of natural gas
• 80% energy import dependence

Energy Strategy 2050 Indicative Targets

• Per capita energy consumption vs 2000: -16% by 2020, -43% by 2035
• Per capita electricity consumption vs 2000: -3% by 2020, -13% by 2035
ENERGY STRATEGY 2050: THE COMING ABOUT AND TIMELINE

• 2011 post Fukushima: Government and Parliament decide nuclear phase-out (i.e. no replacement after end of nuclear power plant lifetime)

• 2013: Parliament increases feed-in tariff. 25% increase of energy R&D funding. Government proposes legislation for Energy Strategy 2050

• September 2016: Parliament adopts Energy Strategy 2050 legislation

• 27 November 2016: “Popular Initiative” to limit nuclear power plant lifetime at 45 years rejected by 54.2% of votes

• 21 May 2017: Energy Strategy 2050 approved by 58.2% of votes in referendum

• 1 January 2018: Entry into force of Energy Strategy 2050 legislation
ELECTRICITY: THE NUCLEAR PHASE-OUT

- Nuclear plants to run as long as safe or commercially viable
- Efficiency measures to stabilise electricity demand
- Renewable build-up not fast enough to fill “gap”
- Increased import dependency (esp. in winter)
ENERGY STRATEGY 2050: FINAL ENERGY MIX

Largest total final energy efficiency potential in buildings sector

Largest electricity efficiency potential in industry/motors
ELECTRICITY: INVESTMENT IN NEW CAPACITY

Renewables

- Grid surcharge to finance renewable electricity, efficiency tenders, etc.
- Grid surcharge capped: 2.3 ct/kWh as from 2018
- Feed-in premiums end by 2023, investment aid ends by 2031
CLIMATE/EFFICIENCY POLICY

Emissions Targets
- **2020**: -20% vs 1990
- **2030**: -50% vs 1990 (of which -30% domestically)

Policy Instruments
- **CO₂ levy** on stationary fuels
- **Small Emission Trading System** (5.5 MtCO₂), linking with EU ETS
- **Offset obligation** for transport fuel importers

CO₂ Levy on Heating and Process Fuels

- **CHF 96/tCO₂** as of 2018
- **CHF 1.4bn**
- Exemption if compliant with target agreement
- Proportionate to wages, via pension fund
- Per capita, via health insurance
- Buildings Refurbishment Program (CHF450m p.a.)
- Technology Fund (CHF25m p.a.)
ENERGY EFFICIENCY INSTRUMENTS

• Efficiency tenders for projects/programs with payback >4 years
  • Winners with best investment/saved kWh ratio, covering max 40% of investment
  • Projects: CHF 20’000-1.5 million per project
  • Programs: CHF 150’000-3 million per program
  • 8 tenders since 2010 (CHF 25 million per year)

• Efficiency standards for cars, energy-using products, motors

• Topmotors: energy efficiency program for industrial motor systems

• PEIK: advisory program for small and medium enterprises

• Energy agencies EnAW and ACT support “target agreements” between Government and enterprises to lower CO₂ emissions to avoid CO₂ levy
ENERGY EFFICIENCY: FURTHER INSTRUMENTS

- Building codes tightened in January 2015 (harmonized cantonal codes)
- Utility savings obligations: rejected by Parliament. But: many utilities engage in energy service/saving activities
- “SwissEnergy” Program: Awareness-raising, training & education. CHF 50 million per year