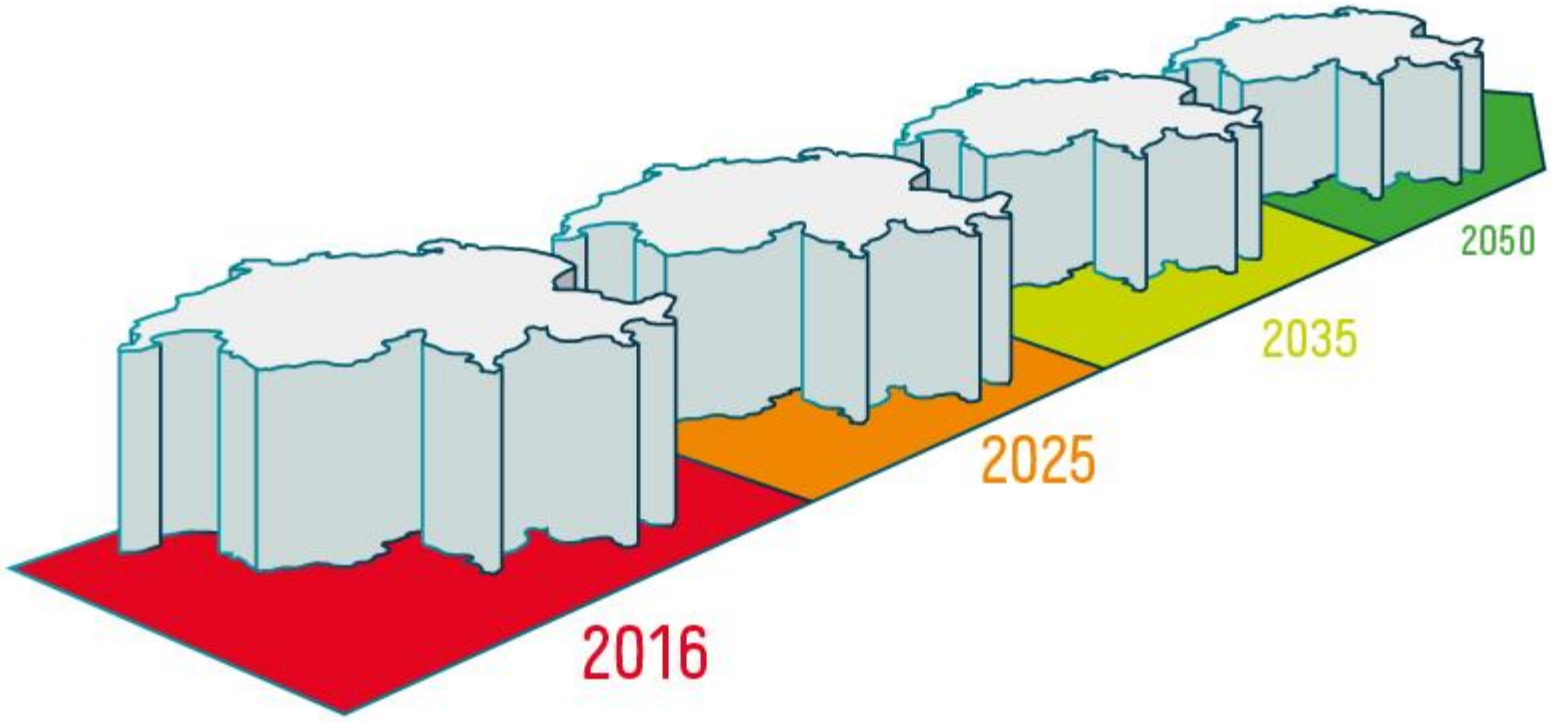
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Bundesamt für Energie BFE
Office fédéral de l'énergie OFEN
Ufficio federale dell'energia UFE
Swiss Federal Office of Energy SFOE



ENERGY STRATEGY 2050 AFTER THE POPULAR VOTE

SWISS FEDERAL OFFICE OF ENERGY ▪ MEDIA AND POLITICAL AFFAIRS DIVISION ▪ 21 DECEMBER 2017

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3. New Energy Act: next steps
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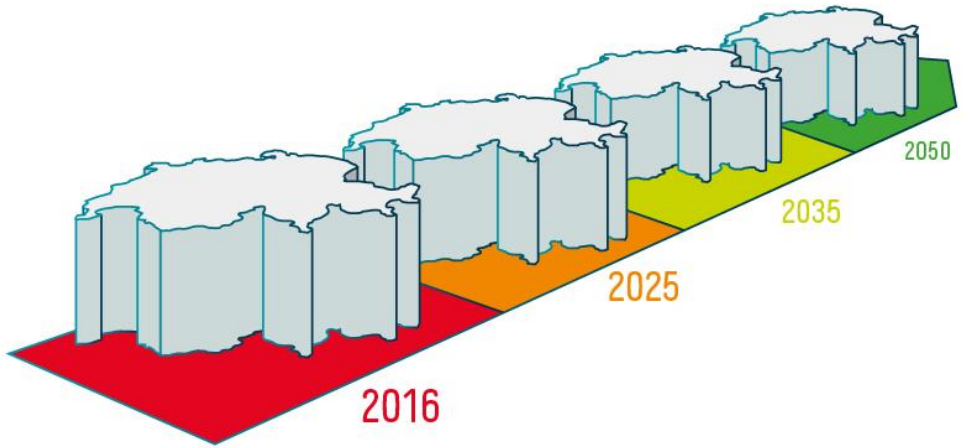
CURRENT STATUS OF ENERGY STRATEGY 2050



4 September 2013 — Federal Council adopts Dispatch to Parliament on new Energy Act

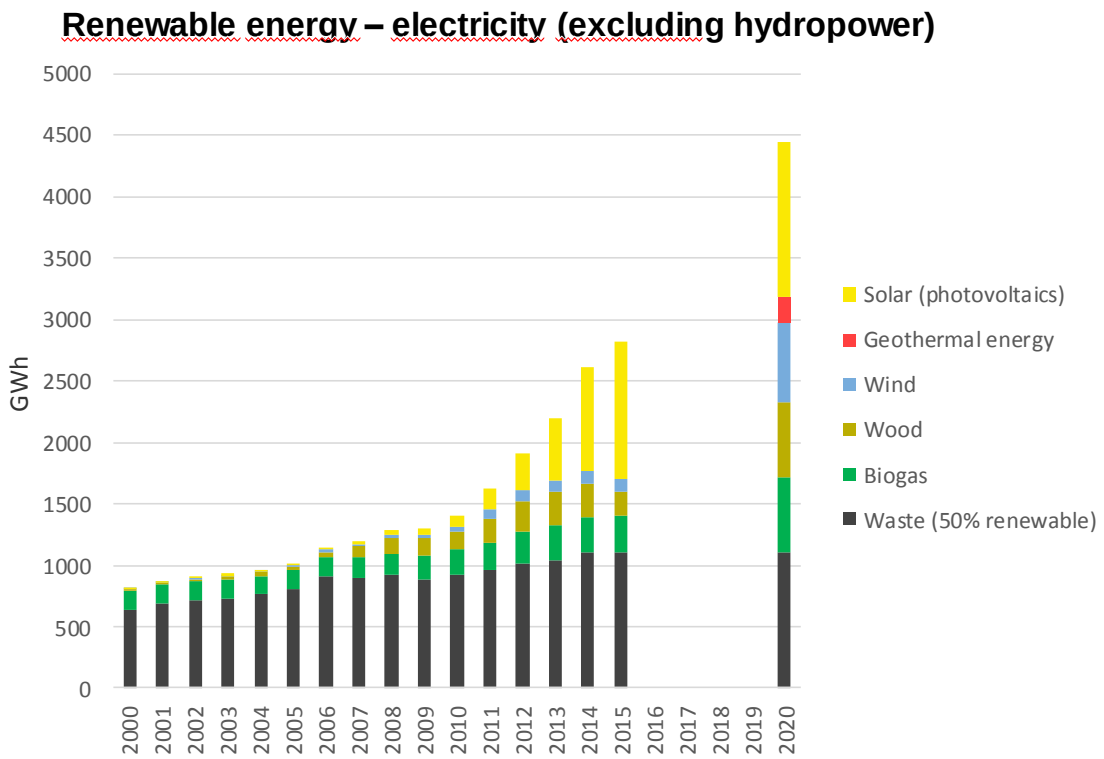
30 September 2016 — Final vote in Parliament

21 May 2017 — Referendum

1 January 2018 — Entry into force of revision of applicable legislation*

* The entry into force of the revised law on the federal direct tax is planned for 1 January 2020.

ENERGY STRATEGY 2050: INITIATED ACTIVITIES



Energy research

"Coordinated Energy Research in Switzerland" action plan – Swiss Competence Centres for Energy Research

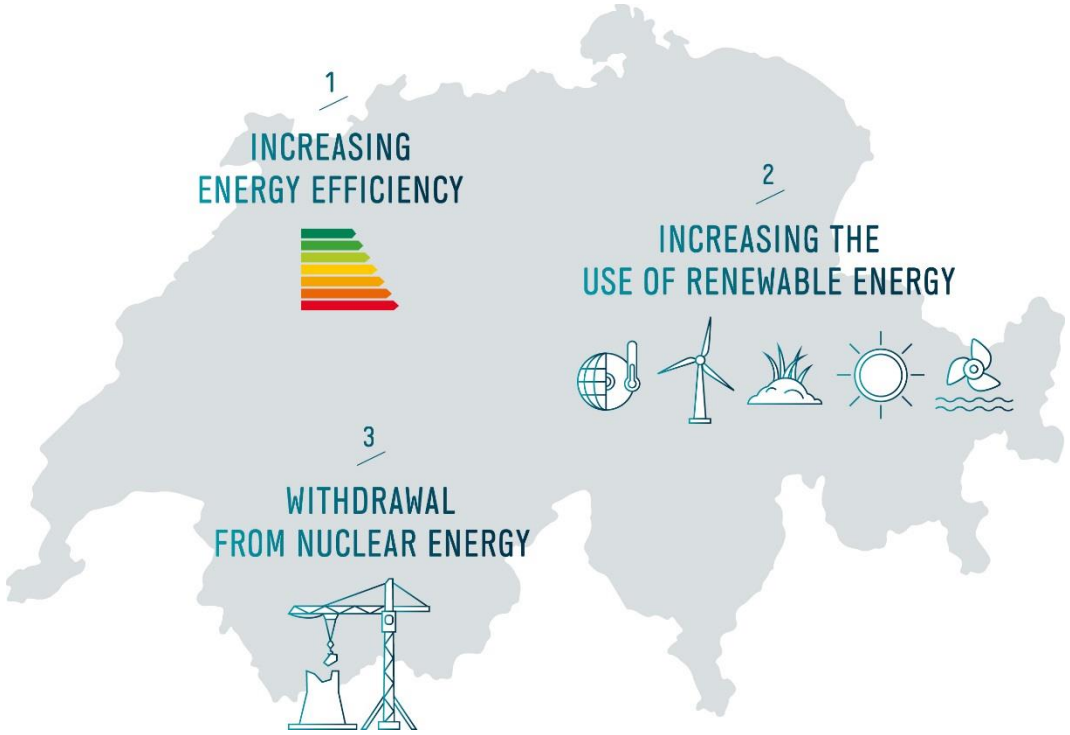
Innovation promotion

- Promotion of pilot, demonstration and flagship projects by the SFOE
- Market launch support by SwissEnergy
- Competitive tenders

Parliamentary Initiative 12.400

- Increase in network surcharge to 1.5 cents/kWh
- Partial to full refund for companies with high electricity consumption
- Regulation governing own consumption

NEW ENERGY ACT: THREE STRATEGIC OBJECTIVES



Measures to increase energy efficiency

- Buildings
- Mobility
- Industry
- Appliances

Measures to increase the use of renewable energy

- Promotion
- Improvement of legal framework

Withdrawal from nuclear energy

- No new general licences
- Step-by-step withdrawal – safety as sole criterion

NEW ENERGY ACT: ENERGY EFFICIENCY – TARGETS/GUIDELINES

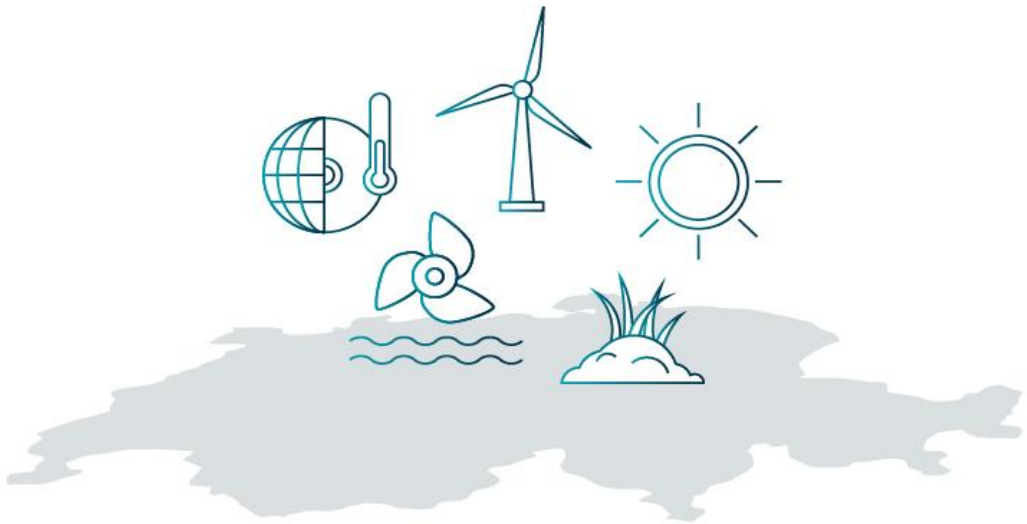
Average per capita energy consumption

Reduction versus level in 2000
- 16% in 2020
- 43% in 2035

Average per capita electricity consumption

Reduction versus level in 2000
- 3% in 2020
- 13% in 2035

NEW ENERGY ACT: RENEWABLE ENERGY – TARGETS/GUIDELINES



Average domestic production of renewable energy excluding hydropower

- in 2020: 4’400 GWh
- in 2035: 11’400 GWh

Hydropower

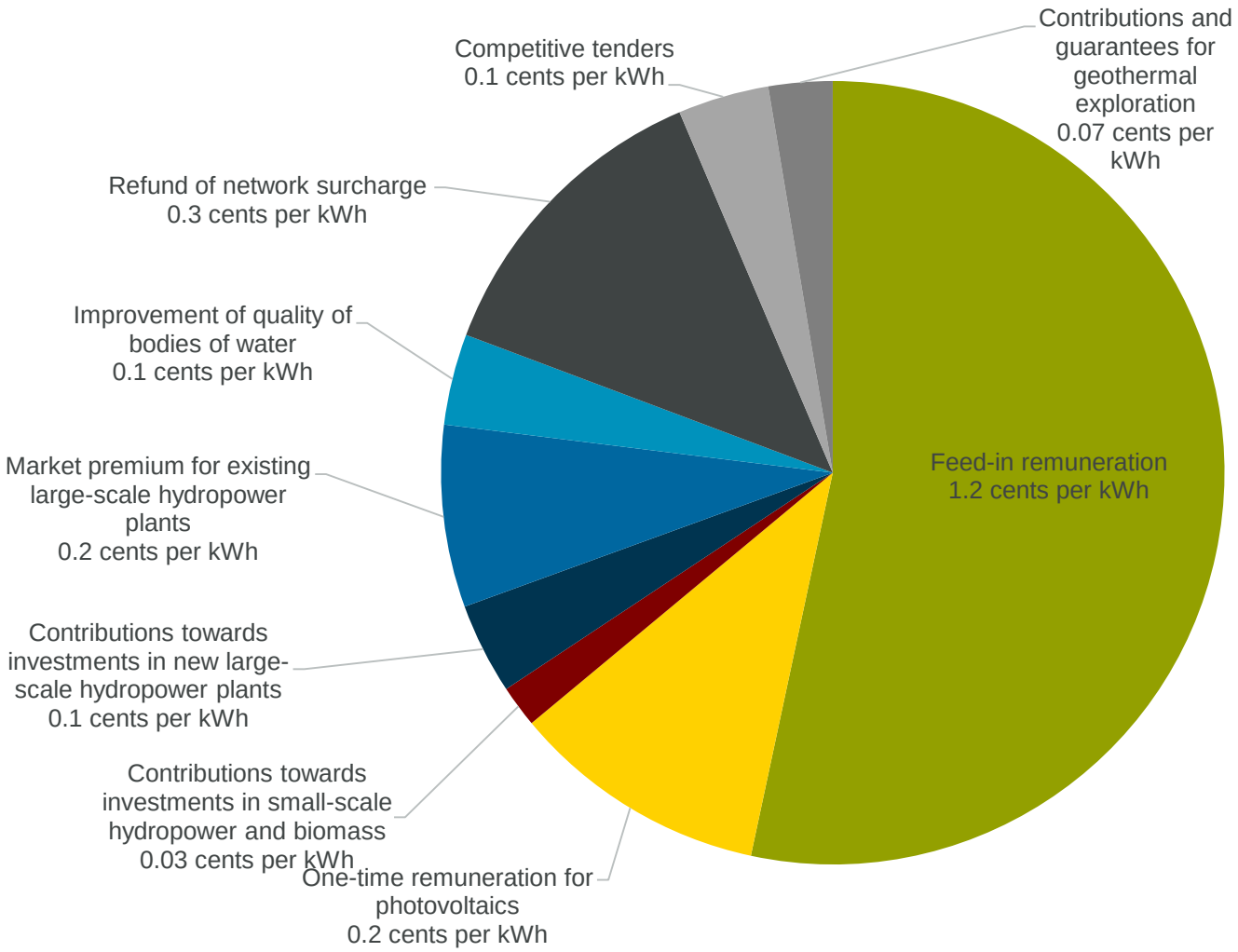
37’400 GWh in 2035

NEW ENERGY ACT: NETWORK SURCHARGE

Network surcharge for promotion of electricity from renewable energy, energy efficiency and improvement of quality of bodies of water

- new surcharge: 2.3 cents/kWh
- including 0.2 cents for market premium to existing large hydropower plants

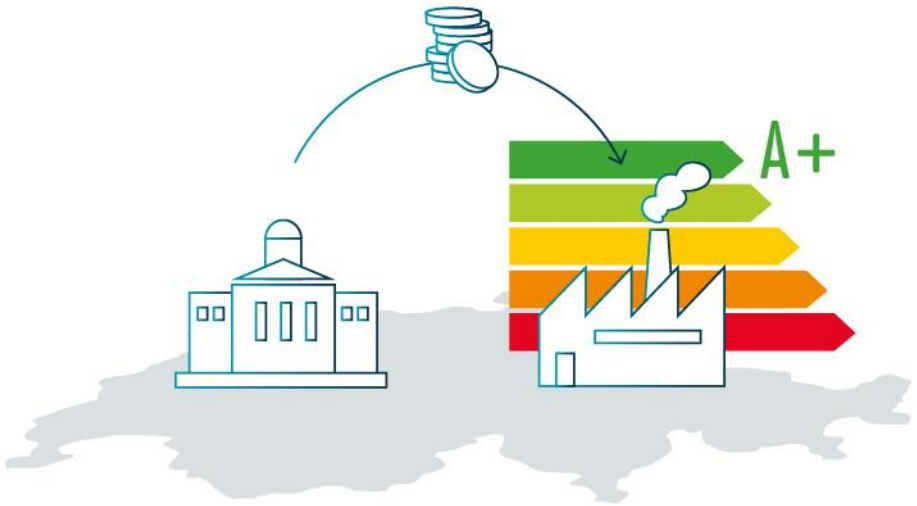
NEW ENERGY ACT: NETWORK SURCHARGE – USE



Use of network surcharge (2.3 cents/kWh)

Timeframe: For the duration of market premium for large hydropower plants (2018 to 2022), i.e. reduced one-time remuneration, geothermal energy contributions, investment contributions for small hydropower plants and biomass

NEW ENERGY ACT: NETWORK SURCHARGE – REFUND



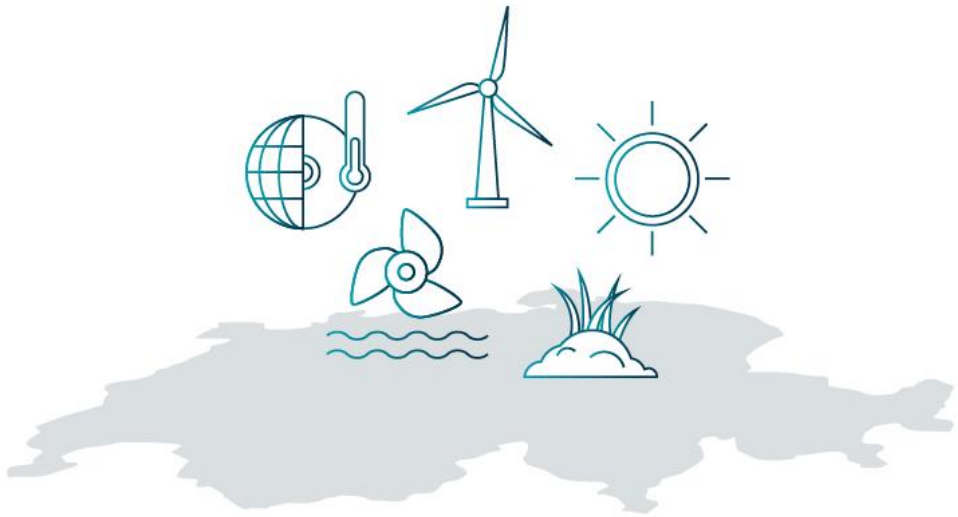
Lower prerequisites for refund to companies with high electricity consumption

Repeal of requirement to use part of refunded network surcharge for energy-efficiency measures

Current requirement in accordance with applicable energy legislation:

At least 20% of the refunded amount must be used for energy-efficiency measures.

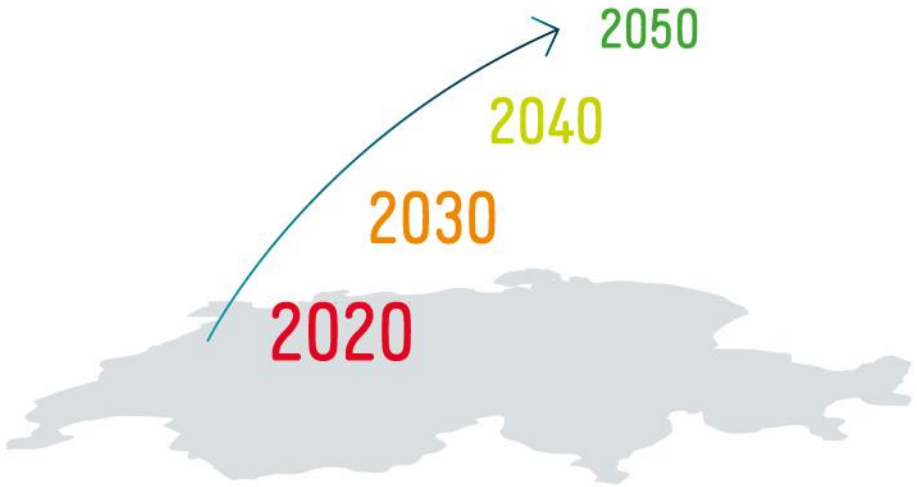
NEW ENERGY ACT: PROMOTION SYSTEM – DIRECT MARKETING



Changeover from current feed-in remuneration at cost scheme to feed-in remuneration with direct marketing

- Better market integration
- Direct marketing as basic principle, exemptions for small facilities

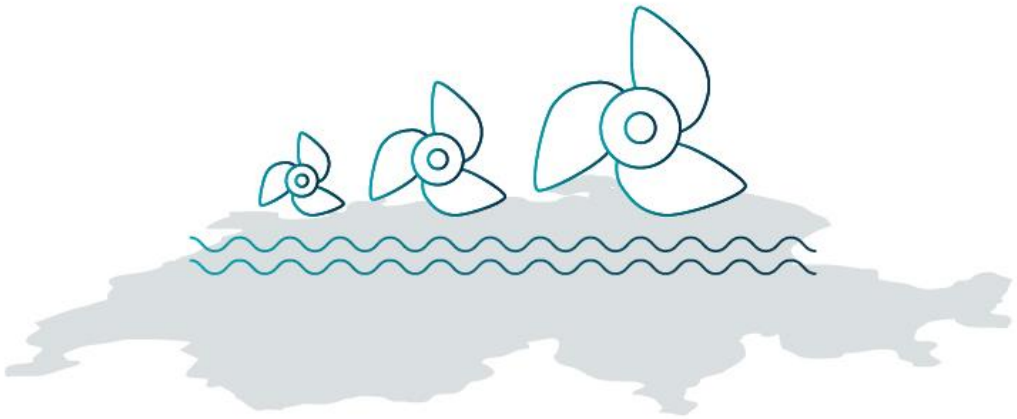
NEW ENERGY ACT: LIMITATION OF PROMOTION



Limitation of promotion in legislation

- With effect from the sixth year after entry into force of the initial package of measures, no new commitments in the feed-in premium scheme
- With effect from 2031, no new investment contributions / one-time remuneration

NEW ENERGY ACT: LARGE-SCALE HYDROPOWER PRODUCTION



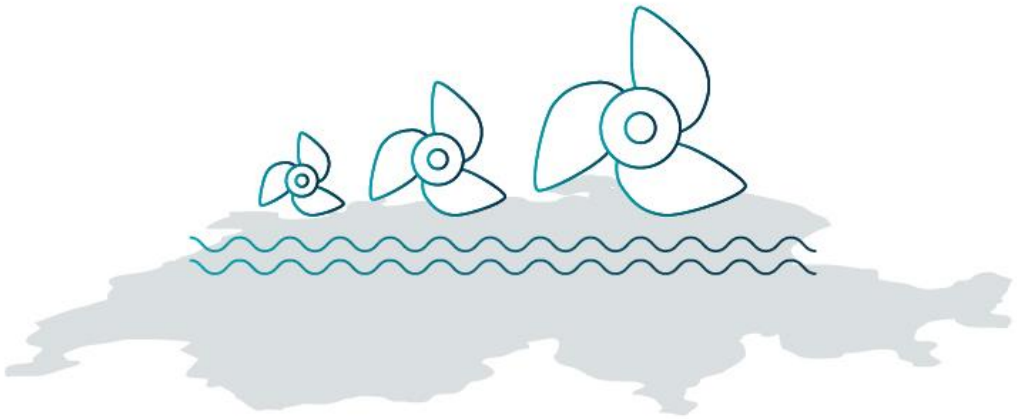
Market premium for existing power plants

- Compensation of difference between production costs and lower market price
- Power plants receive a premium of max. 1 cent/kWh for electricity they sell on the free market below production cost
- Financing via network surcharge (0.2 cents/kWh)

Investment contributions for new power plants

- Amount to be specified on a case-by-case basis; max. 40% of recoverable investment costs
- Financing via network surcharge (max. 0.1 cents/kWh)

NEW ENERGY ACT: SMALL-SCALE HYDROPOWER PRODUCTION



Lower limit for promotion of small-scale hydropower production: 1 MW

- Only hydropower production facilities with an output of at least 1 MW will be able to participate in the feed-in remuneration scheme
- Exceptions apply for facilities with low environmental impacts

NEW ENERGY ACT: NATIONAL INTEREST

The use and continued expansion of renewable energy are in Switzerland's national interest

- Improved basis for weighing up interests
- Shift of focus in favour of renewable energy
- Exclusion of new facilities in biotopes of national importance and in certain nature reserves

NEW ENERGY ACT: LICENSING PROCEDURES

Renewable energy: shortening and streamlining

- Cantons must endeavour to speed up licensing procedures
- Federal government as single point of contact
- Deadline for assessments by the Federal Commission for the Protection of Nature and Cultural Heritage

Networks: acceleration of licensing procedure

- Shortening of appeals procedure thanks to restriction on access to the Federal Supreme Court
- Official time limits for sectoral plan and planning approval procedures

NEW ENERGY ACT: BUILDING PROGRAMME

Partial earmarking of revenue from CO_2-levy for improving energy-efficiency in buildings

- Increase in upper limit from the present-day 300 million to 450 million SFr./annum (as before 1/3 of revenue)
- Increase in CO_2-levy as before if interim targets are not reached (current levy 84 SFr./tonne of CO_2)

Modification of “Buildings” programme

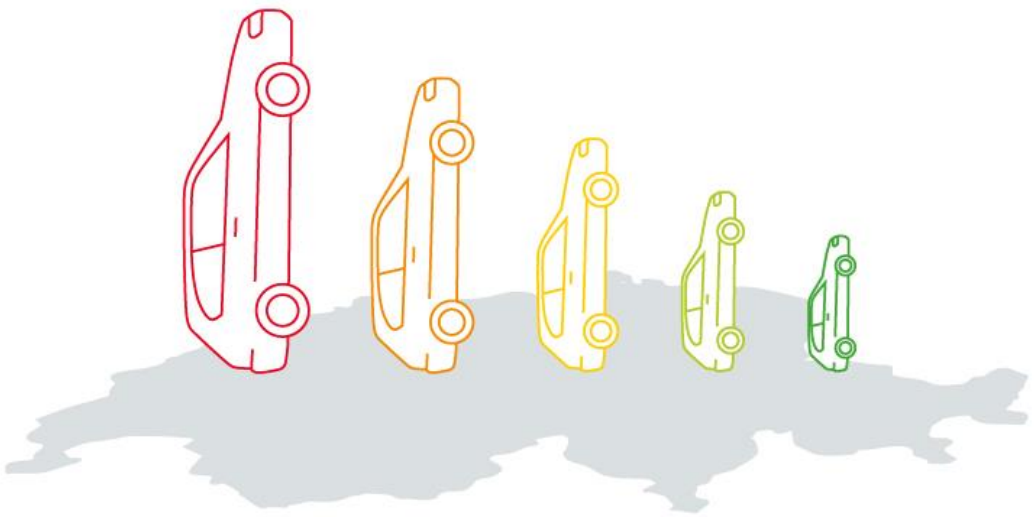
- Payout in the form of global contributions; cantons responsible for implementation
- New requirements placed on the cantons

NEW ENERGY ACT: TAX INCENTIVES FOR BUILDING RENOVATION

Higher tax incentives for improving energy efficiency in buildings

- Option of allocating energy-efficiency investment costs to the two following tax periods
- Tax deduction of demolition costs when replacing old buildings

NEW ENERGY ACT: MOBILITY



More stringent emission regulations for cars

- Reduction to 95 g CO_2/km by the end of 2020
- Harmonisation with the EU

Extension of emission regulations to utility vehicles and light semi-trailers

Reduction to 147 g CO_2/km by the end of 2020

Currently applicable regulation for cars as per CO_2 Act:

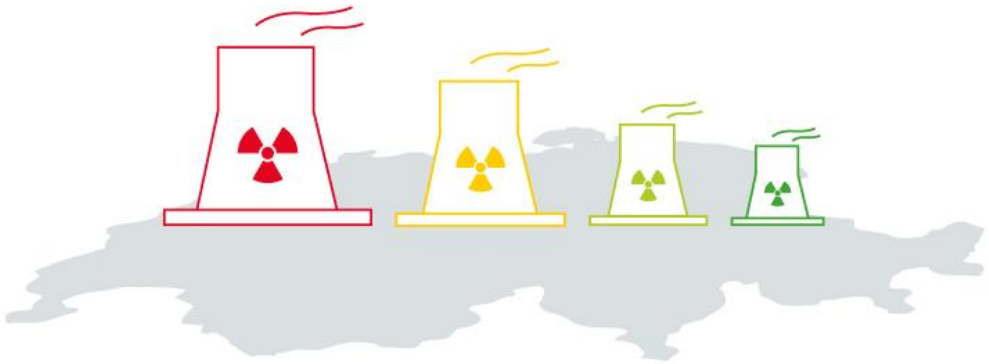
Reduction of emissions to 130 g CO_2/km by the end of 2015

NEW ENERGY ACT: SMART METERING

Basis for introduction of Smart Metering

- Clear framework conditions for introduction of Smart Metering
- Intelligent control and adjustment mechanisms

NEW ENERGY ACT: WITHDRAWAL FROM NUCLEAR ENERGY



No new general licences for nuclear power plants

- No ban on nuclear technology
- Continued operation of existing power plants as long as their safety is guaranteed
- Long-term operation to be regulated by Ordinance

Reprocessing of spent fuel elements

- Ban instead of the existing moratorium
- Extension of moratorium until June 2020 (separate regulation in effect)

NEW ENERGY ACT: NEXT STEPS

21 May 2017	Referendum
1 January 2018	Entry into force*

* The entry into force of the revised law on the federal direct tax is planned for 1 January 2020.

NEW ENERGY ACT: NEXT STEPS

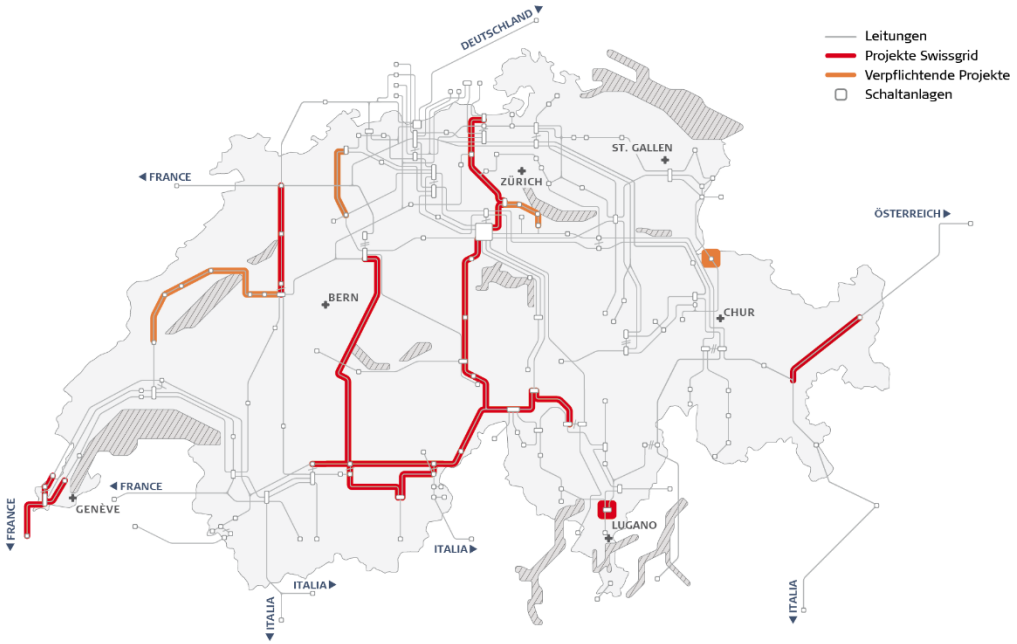
Need for comprehensive revision of applicable ordinances as a consequence of the new Energy Act

- Complete revision of Energy Ordinance
- Partial revision especially of CO_2 Ordinance and Electricity Supply Ordinance

Timetable (ordinances)

- Consultation procedure: 1 February to 8 May 2017
- Entry into force on 1 January 2018

ELECTRICITY NETWORKS STRATEGY: CURRENT SITUATION



Source: Swissgrid

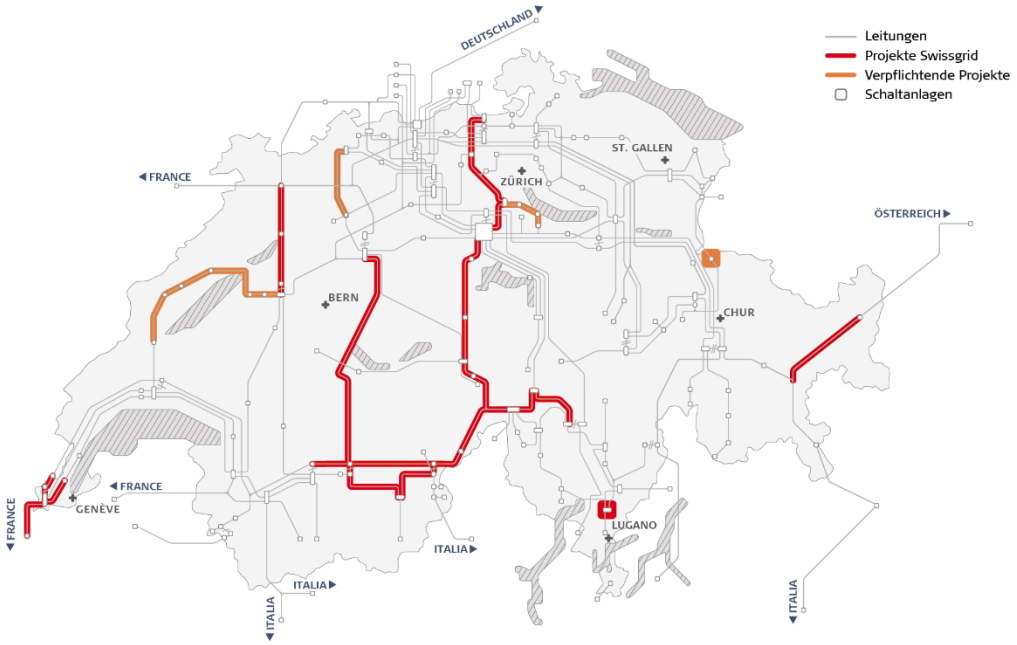
Need for action…

- Congestion in the transmission network, need for renovation
- Increasingly decentralised energy supply structure

… but slow progress

- Various conflicts of interest
- Insufficient transparency of processes
- Lack of understanding among the general population
- Lack of social acceptance

ELECTRICITY NETWORKS STRATEGY: STRATEGIC OBJECTIVES



Source: Swissgrid

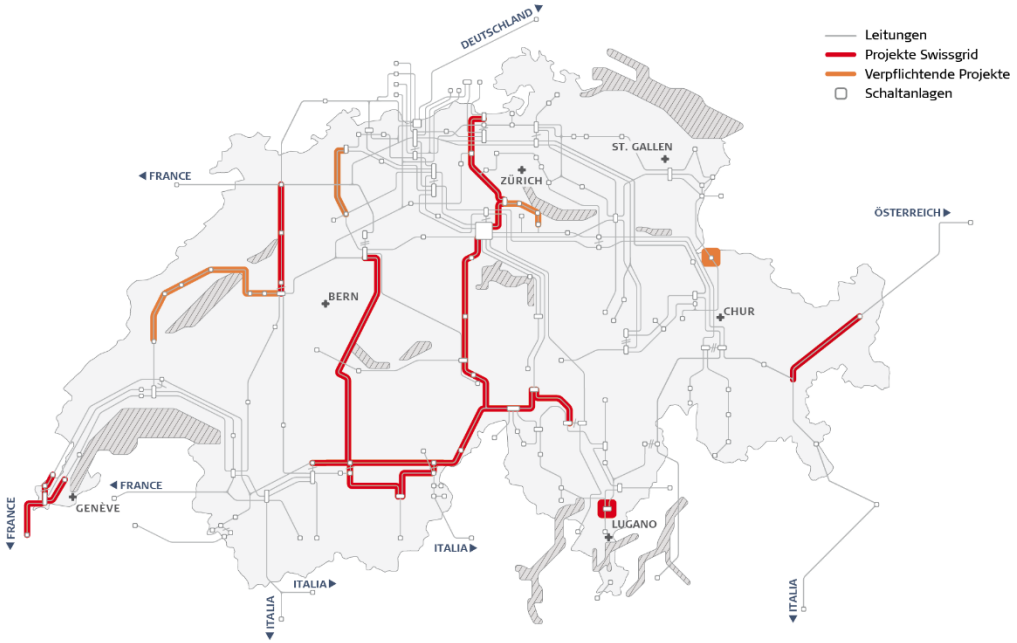
Objective of revision

Availability of the right network at the right time

Key points

- Criteria for further development of electricity networks
- Optimisation of licensing procedures for transmission line projects
- Criteria for decision concerning use of cabling or overhead lines
- Better acceptance of transmission line projects

ELECTRICITY NETWORKS STRATEGY: STATUS OF DEBATE

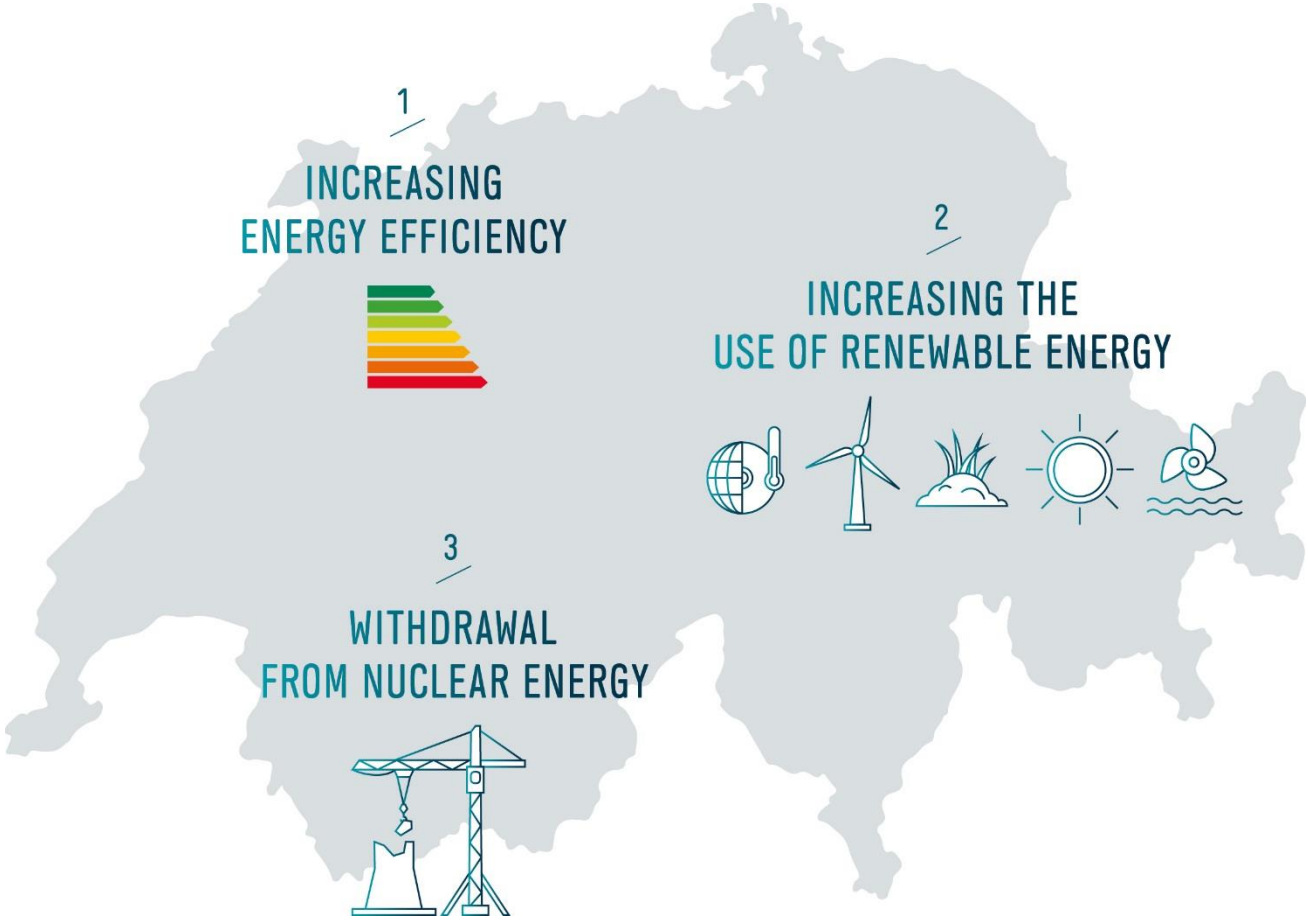


Source: Swissgrid

13 April 2016 — Adoption by Federal Council of Dispatch to Parliament

15 December 2017 — Adoption by Parliament in final vote

FURTHER INFORMATION



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