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Switzerland's response to paragraph 29 of the Glasgow Climate Pact

At COP26 in Glasgow, the Conference of Parties to the Paris Agreement requested Parties to revisit and strengthen the 2030 targets in their nationally determined contributions as necessary to align with the Paris Agreement temperature goal by the end of 2022, taking into account different national circumstances (paragraph 29, Decision 1/CMA.3). Switzerland hereby submit its response to this request.

According to the 2018 IPCC report "Global warming of 1.5°C", global net anthropogenic CO_2 emissions decline by about 45% from 2010 levels by 2030 in model pathways with no or limited overshoot of 1.5°C, or more precisely in a range of 45-60%. The IPCC Sixth Assessment report, in its Working Group III, specifies this target for net global greenhouse gas emissions at 48% by 2030 [36–69%] compared to 2019 emissions.

According to the IPCC Sixth Assessment Report (SPM B6), global GHG emissions in 2030 associated with the implementation of Nationally Determined Contributions (NDCs) announced prior to COP26 would make it likely that warming will exceed 1.5°C during the 21st century. In addition, policies implemented by the end of 2020 are projected to result in higher global GHG emissions than those implied by NDCs, indicating an implementation gap.

Today, Switzerland's share in global greenhouse gas emissions is around 0.1 percent. In 2020, total greenhouse gas emissions of Switzerland equated 43.4 million tCO_2eq. This corresponds to emissions of 5.04 tCO_2eq per capita, which is below world's average.

In Switzerland, the largest shares of greenhouse gas emissions arise from transport and from buildings (energy use in the commercial/institutional sector and in the residential sector). Industry and agricultural activities (energy use in the manufacturing industries and construction sector as well as emissions from industrial processes) also contribute substantial shares to Switzerland's total greenhouse gas emissions, while industries in the field of energy are less emissions-intensive when compared with many other countries. The remaining sources (energy use in the agriculture/forestry/fishing sector and other (military), as well as fugitive emissions from fuels and emissions from waste) as well as emissions of indirect CO_2 are of lower importance.

Switzerland has stabilized its emissions until 2010 compared to 1990, until 2020 the greenhouse gas emissions decreased by 19% within the country. In line with IPCC findings, Switzerland commits to reduce its greenhouse gas emissions by at least 50 per cent by 2030 compared to 1990 levels, corresponding to an average reduction of greenhouse gas emissions by at least 35 per cent over the period 2021–2030. By 2025, a reduction of greenhouse gases by at least 35 per cent compared to 1990 levels is anticipated. International carbon credits will partly be used.

Switzerland's NDC is an economy-wide target. Sectors covered include energy, industrial processes and product use, agriculture, land-use, land-use change and forestry, waste and other (consistent with 2006 IPCC guidelines). All categories and pools in Switzerland's inventory are covered.

In Switzerland, the 2030 climate target is subject to the CO2 Act. On 13 June 2021, the revision of the third CO2 Act was rejected in the referendum by the Swiss population. This referendum did not question the NDC of Switzerland to reduce its greenhouse gas emissions by at least 50 percent by 2030 compared with 1990 levels, neither its carbon neutrality target by 2050. Rather, it called into question specific measures of the revised CO_2 Act to reach these objectives. On 17 December 2021, the Swiss Parliament approved an extension of the CO_2 reduction target and crucial mitigation measures. This amendment to the CO_2 Act ensures that Switzerland will continue to reduce its emissions by 1.5 per cent annually until 2024 compared to 1990 levels through mitigation measures taken mainly domestically. On 16 September 2022, the Federal Council adopted the message on the revised CO_2 Act for the period from 2025 to 2030. The concrete measures proposed in the message allow Switzerland to achieve its formulated NDC. The Parliament is expected to start its deliberations this autumn.

In parallel, the popular initiative "For a healthy climate (Glacier Initiative)" was submitted by the Swiss Climate Protection Association on November 27, 2019. The initiative provides for the insertion of a new constitutional article on climate policy (Art. 74a BV), which requires that from 2050 Switzerland should

not emit more greenhouse gases than can be permanently stored in safe greenhouse gas sinks. The Swiss Parliament has come out strongly in favor of an effective indirect counter-proposal to the Glacier Initiative. This counter-proposal was supported by the Federal Council and finally approved by Parliament on 30 September 2022. The counter-proposal is subject to a facultative referendum.

The Parliament's indirect counter-proposal supports the main objective of the popular initiative: to achieve climate neutrality in Switzerland by 2050. With the counter-proposal, the goal of zero net greenhouse gas emissions by 2050 must be implemented in law. By drafting a legislative amendment in the form of a framework law, it aims to anchor concrete climate objectives in Swiss law as quickly as possible and thus to advance Swiss climate policy in the long term.

Switzerland is therefore pleased to communicate new measures and policies, to be applied in Switzerland, which will help strengthen its NDC implementation.

Emission reduction targets:

- The Swiss Confederation will ensure that the effect of man-made greenhouse gas emissions generated in Switzerland is reduced to zero by 2050 (net zero target) through the following measures
    - Reducing greenhouse gas emissions as much as possible, and
    - Offsetting the effect of the non-abatable greenhouse gas emissions by using negative emission technologies in Switzerland and abroad.

- After 2050, the amount of CO2 extracted and stored using negative emission technologies must be greater than the remaining greenhouse gas emissions.

- In order to achieve the goal of zero net greenhouse gas emissions by 2050, intermediate targets are set for greenhouse gas emission reductions:

    - **Between 2031 and 2040**: by at least **64%** on average
    - **Until 2040**: at least **75%**
    - **Between 2041 and 2050**: at least **89%** on average

- The reduction targets must be achieved by reducing greenhouse gas emissions in Switzerland compared to 1990 as follows:

    1) in the **building sector:**
        - until 2040: by 82%
        - by 2050: by 100 %

    2) in the **transport sector**:
        - through 2040: by 57%
        - until 2050: 100%

    3) in the **industry sector**:
        - through 2040: by 50%
        - until 2050: 90%

- After consultation with the concerned actors, the Federal Council may set target values for greenhouse gases and for emissions from fossil energy sources. In doing so, it will take into account the latest scientific knowledge, new technologies available and regional developments.

- The reduction targets must be technically feasible and economically viable. Wherever possible, they should be achieved through domestic emission reductions.

- Emissions generated by fuels that are filled up in Switzerland for international air and sea transport shall be taken into account in the above objectives.

Modifications to the Energy Act

- The Confederation will initiate an extraordinary ten-year programme to replace fossil fuel-fired heating installations, electric resistance heating systems, hot water preparation systems, and measures to increase energy efficiency of buildings.
- This programme is additional to the existing Buildings Programme, which aims to support emission reductions in buildings.
- If the replacement of the heating system is accompanied by thermal insulation measures in buildings, the Confederation may provide a guarantee for these measures.
- The extraordinary heating system replacement program is fully financed by the Confederation up to a maximum of fully financed by the Confederation, up to a maximum of CHF 200 million per year. The Federal Assembly will grant a 10-year commitment credit by means of a simple federal decree.
- These measures will reduce dependence on imported fossil fuels.

Roadmaps for companies and branches

- The Swiss Confederation will help companies plan, on a voluntary basis, the measures that will enable them to reach the objective of net zero by 2050.
    - All companies must have reduced their emissions to net zero by 2050 at the latest. In this context, at least direct and indirect emissions must be taken into account.
    - In order to achieve this objective, companies and industries may draw up roadmaps on a voluntary basis.
    - The Confederation shall provide companies or sectors that draw up such roadmaps with standards and professional advice by 2029. It may take into account recognized international standards in this area.

Promotion of innovative technologies and processes

- The Confederation shall provide financial support to companies, which have corresponding net zero roadmaps until 2030 for the use of innovative technologies and processes to implement such roadmaps.
    - The Federal Council will regulate in particular
      a. the requirements to be met by the individual measures;
      b. the date by which the roadmaps or individual measures must be implemented
- No contribution shall be paid for measures that are already being promoted or included in an instrument to reduce greenhouse gas emissions.
- The Federal Assembly grants a six-year commitment credit (up to CHF 1.2 billion) by means of a simple federal decree.

Risk coverage

- The Confederation will use this six-year commitment credit to cover the risks associated with the investments in public infrastructure required to achieve the net zero objective.

Objective to make financial flows compatible with climate objectives

- The Confederation ensures that the Swiss financial center makes an effective contribution to low-emission development that is resilient to climate change. This includes measures to reduce the climate impact of national and international financial flows. The Federal Council may conclude agreements with the financial sector to make financial flows compatible with climate objectives.

Leading role of the Confederation, cantons and municipalities

- The Confederation, cantons and municipalities play a leading role in achieving the goal of net zero emissions and in adapting to the effects of climate change.

- By 2040, the central federal administration must achieve at least net zero emissions. In addition to direct and indirect emissions, upstream and downstream emissions generated by third parties are also taken into account.
- The Federal Council determines the measures necessary to achieve this goal. It may make exceptions in the interests of national security and the protection of the population. It shall regularly inform the Federal Assembly of the extent to which the objective has been achieved.
- The cantons aim to achieve at least zero net emissions from 2040 for their central administration. The same applies to companies that are close to the Confederation. The Confederation will support them by providing them with the necessary foundations.

Implementation of the abovementioned measures

- After hearing all pertinent actors and taking account of the latest scientific knowledge, the Federal Council shall submit proposals to the Federal Assembly in due time for the implementation of abovementioned objectives.
- The provisions of other federal and cantonal acts, in particular in the areas of CO_2, the environment, energy, spatial planning, finance, agriculture, forestry and the timber industry, road and air transport and the taxation of mineral oil, must be designed and implemented in such a way that they contribute to achieving the abovementioned objectives.
- In the case of special situations in mountain and peripheral regions, additional support should be provided where possible.

Temporary measures to address possible energy emergencies in Switzerland

In order to address a possible energy emergency in Switzerland, the Federal Council has decided on 17 August 2022, to build a gas or fuel based reserve power station, which should be ready in the second half of the Winter 2022/23. This reserve power station would be used in coordination with the hydro power stations only in emergency situations when the demand for electricity cannot be met. If operational, the reserve power station would be fully integrated into the Swiss emission trading system and would therefore have to compensate its emissions with domestic emissions reductions. This emergency power station would be used, if at all, only for a few hours or days. There is a good probability that the emergency power station will never be used.

Thanks the integration into the emission trading system, this temporary measure to address possible energy emergencies in Switzerland will not lead to an increase of greenhouse gas emissions in Switzerland.

Conclusion

An important market signal: the anchoring of intermediate targets up to 2050 is a key element in the bill. Together with the sectorial objectives, the proposal gives the Swiss economy planning and investment certainty and reduces the risk of future expensive mis-investments. The benchmarks also specify how much each sector should contribute to the net zero target.

Better alignment of short-term with long-term targets: the concrete measures to achieve the net zero target will be included in future revisions of the CO2 Act. The precise objectives of the new law will therefore serve as a basis for short-term climate protection measures. These measures must be aimed at strengthening the economy and be socially acceptable.

Net negative after 2050: the core of the bill is the achievement of net zero emissions in Switzerland by 2050 at the latest. However, it goes even further and requires that the emissions balance must become negative overall after 2050. This is consistent with the latest scientific findings: only if greenhouse gas concentrations in the atmosphere fall again can global warming be limited to 1.5 degrees Celsius with a sufficiently high probability.