

# Factsheet on Energy Strategies for Transport Companies

Energy strategies and specific energy targets that are anchored in strategy are essential for ensuring that energy efficiency and climate protection measures are supported and implemented across the board within a transport company (TC). However, company-wide energy strategies are not commonly seen in the transport industry as yet. For example, in a survey amongst the members of the Association of Public Transport (VöV), only 40% of the participating TCs stated that they had such a strategy. Only a handful of TCs have a publicly accessible energy strategy with quantitative targets. This factsheet is therefore intended to assist companies in preparing an energy strategy, and is primarily aimed at energy officers of small and medium-sized TCs that do not currently have an energy strategy.

## Why is an energy strategy important for a TC?

The Federal Council's Energy Strategy 2050 and Climate Strategy 2050<sup>1</sup> establish the framework for increasing efficiency and mitigating climate change. Generally speaking, public transport is significantly more energy-efficient than private transport and can therefore make an important contribution to achieving the targets. However, public transport must continue to increase its energy efficiency in order to maintain this lead in view of the expected increase in transportation requirements.<sup>2</sup> As the survey shows, TCs with a specific energy strategy are more active in implementing efficiency and climate-change measures. If the issue is firmly rooted at the strategic level, this will ensure that it receives the necessary attention at all levels of the company. This helps to reduce energy consumption and thus costs and to achieve the overriding objectives of the federal government. By having an energy strategy and communicating it to the public, a company shows that it takes its social responsibility seriously.

## What does an energy strategy involve?

An energy strategy indicates the direction that a TC wants to take. It serves as a guide for the company's future development. It also encompasses specific targets, and the measures whereby these targets are to be achieved. Targets have been established for direct CO<sub>2</sub> emissions and energy consumption, the renewable share of electricity and other energy consumption (fuels and combustibles). These targets should be measurable

and verifiable. The objectives should therefore be quantified, and a project timeline should define the times by which the objectives must be achieved. A time span of five to fifteen years is considered reasonable.<sup>3</sup> The target values should be set according to the available potential and are based on the superordinate federal guidelines and the energy strategy of the VöV<sup>4</sup>. Defined target values from some of the existing energy strategies can be found in Table 1.

*"Key indicators show whether and in what direction we are changing something. The strategic guidelines mean that the topic of energy has to be considered, and personal sensitivities and motivating factors become less important. Devoting human and financial resources to the strategy become legitimate."*

- Head of Corporate Development  
Regional Transport Bern-Solothurn RBS

## What is the procedure for developing an energy strategy?

To ensure that an energy strategy is actually implemented, the process should be carried out with input from as broad a spectrum of employees as possible, and especially with the involvement of senior management. In companies that already have a company-wide energy strategy, a bottom-up approach involving the relevant business units and experts has proven to be the best way to define the specific content and targets of the strategy.

TC	Share of renewable power	Energy consumption of traction	Other energy consumption	CO <sub>2</sub> reduction graph
SBB	100% by 2025 (2025)	-20% by 2025 compared to unchanged energy consumption in 2025 (2025/2025)		-50% by 2030 compared to 2018 (2030/2018)
				-92% (2040/2018)
VBZ	–	Tram -10% / Bus -40% (2030/2018)	Power -10% / Heat -30% (2030/2018)	-70% (2030/2018)
RBS	60% (2018)	Rail -2% / Bus -24% (2018/2011)	–	Bus -25% (2018/2011)
VöV	100% (2050)		-10% (2035/2010) -30% (2050/2010)	-100% (2050)

Table 1: Summary of the key points of existing energy strategies (target year and base year in brackets)

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## What should be taken into consideration with regard to implementation?

Nine out of ten TCs cite a lack of human or financial resources as an obstacle to achieving the energy targets they have set. To achieve the defined targets, it is essential to provide appropriate resources. Specific people must be identified who will have the responsibility of working with specialists from other departments to implement the measures. In some TCs, business units or positions for specialists have been established in recent years to give energy and environmental issues greater prominence within the company.

## What are success factors?

“Motivation and support of the management and employees”, “cost savings”, and “clear policy guidelines and intent” are some of the success factors mentioned by TCs towards achieving the energy targets. The first two points can be achieved through the way in which the energy strategy is developed and implemented in the company, as described in this factsheet. The political framework cannot be directly influenced, but is perceived by the TCs as conducive to the implementation and financing of efficiency and climate protection measures.

## Which specific key indicators are useful?

Appropriate key indicators must be defined for monitoring the achievement of targets. A distinction must be made between absolute and relative indicators. For example, a reduction target of 50% can be measured in absolute terms (e.g. in tonnes of CO<sub>2</sub>), or relative to a functional unit (e.g. in tCO<sub>2</sub>/pkm). With regard to CO<sub>2</sub> emissions, absolute targets are preferable, since only

the absolute reduction of emissions is relevant to mitigating the consequences of climate change and to the federal government’s targets (net zero emissions by 2050<sup>1</sup>). For energy consumption which cannot be physically avoided, relative targets are often more practical. These may refer to passenger kilometres (pkm) for passenger transport and tonne kilometres (tkm, gross or net) for freight transport. As far as the rest of the infrastructure is concerned, functional units should be defined that are as representative as possible of energy consumption (e.g. m<sup>2</sup> of energy reference area or operating hours).

## What support can TCs expect from the authorities?

The Energy Strategy 2050 in Public Transport (ESPT 2050)<sup>2</sup> programme provides support to TCs, including financial support for projects that make an innovative contribution to increasing energy efficiency. This includes the development of energy strategies.

<sup>1</sup> Federal Office for the Environment (FOEN), 2050 climate target, [www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate-target2050.html](http://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate-target2050.html), accessed on 16 April 2020

<sup>2</sup> Federal Office of Transport (FOT), Energy strategy for Public Transport - ESPT 2050, [www.bav.admin.ch/bav/en/home/topics/environment/energie-2050.html](http://www.bav.admin.ch/bav/en/home/topics/environment/energie-2050.html) accessed on 14 May 2020

<sup>3</sup> Science Based Targets initiative, Target Validation Protocol, Version 2, April 2020, <https://sciencebasedtargets.org/wp-content/uploads/2019/04/target-validation-protocol.pdf>

<sup>4</sup> Association of Public Transport (VöV), Energy Strategy VöV, 2018, [www.voev.ch/de/unsere-themen/verkehrspolitik/Energiestrategie-VoeV](http://www.voev.ch/de/unsere-themen/verkehrspolitik/Energiestrategie-VoeV), accessed on 1 April 2020

## Case study: Zurich transport services (VBZ)

The designation of “environmental company” had long been a part of VBZ’s corporate strategy, with the qualitative targets of increasing energy efficiency and increasing the share of renewable energy. On this basis, the management decided that an environmental strategy should be developed, which, amongst other things, set out specific targets in the areas of energy and climate. From the very beginning it was important that all VBZ divisions be involved and able to express their standpoint. In four moderated workshops, a specialist group consisting of representatives from all corporate divisions developed an initial version of the strategy. This was then submitted to the divisions for consultation and revised on the basis of the feedback received. The strategy thus developed was pre-reviewed by a steering committee consisting of three members of the Management Board and finally approved by the Management.

In order to achieve the targets set and to implement the strategy at the operational level, a roadmap was drawn up with concrete measures for the sub-targets. Annual environmental targets are defined by the specialist group for the individual corporate divisions. The achievement of the annual targets and the targets of the overall strategy are monitored through internal reporting.