

EC-SWAP-PRO and EffEI

Standardised measure LU-01b · what the SFOE counts and what to enter

Electricity suppliers must demonstrate electricity savings at their customers in Switzerland every year (EffEI programme, Art. 46b of the Energy Act). When a two-speed ventilation motor is replaced by an EC motor driven by EC-SWAP-PRO, the change to sensor-based control can be reported under the SFOE standardised measure LU-01b, "Operational optimisation of ventilation systems".

Draft document. EC-SWAP-PRO is announced for 2027. Whether a project counts must be confirmed with the electricity supplier before the work: the supplier reports the measure to the SFOE and decides on its contribution.

WHEN MEASURE LU-01B APPLIES

SYSTEM

Less than 15 years old

The existing fan system (impeller, transmission, drive) is less than 15 years old. Motor above 125 W, in a building.

CONTROL

Two speeds → sensor

Control changes from two fixed speeds on a timer to a control that varies the airflow from a sensor: this is what EC-SWAP-PRO does.

CALCULATION

No detailed analysis up to 20 kW

Above 20 kW rated power of the old motor, a detailed analysis over several weeks is required.

- ✗ **Fan impeller replaced as well:** measure LU-01a (IE4 motor, fan with the SFOE minimum efficiency), not LU-01b.
- ✗ **EC-SWAP, two speeds kept:** the motor change does not count; only a reduction in operating hours counts, over one year.
- ✗ **System more than 15 years old, motor only replaced:** no standardised measure allows savings to be counted.
- ✗ **Public funding already received** (ProKilowatt, canton, municipality): the measure does not count for EffEI. LU-01b cannot be combined with another LU-01 measure.

WHAT THE SFOE COUNTS

The saving is the difference between annual consumption before and after, counted over the standard lifetime of the measure and reduced by a factor of 0.75.

$$\text{saving} = 0.75 \times 4 \text{ years} \times (\text{before} - \text{after})$$

Before: rated power of the old motor, efficiency by year of manufacture, hours at high and at low speed. **After:** same system, hours from the SIA profile of the building category for sensor-based control.

The efficiency of the new motor is not part of the calculation and no efficiency class is required: only the control counts.

BUILDING	MODULE	OLD MOTOR	CONTROL BEFORE	CONTROL AFTER	BEFORE KWH/A	AFTER KWH/A	COUNTABLE KWH	COUNTED OVER
School	EC-SWAP-PRO	5.5 kW · 2008–2016	2V · 2880 h + 480 h	M · SIA profile	14,074	4,250	29,472	4 years
Office	EC-SWAP-PRO	5.5 kW · 2008–2016	2V · 2880 h + 480 h	M · SIA profile	14,074	4,809	27,797	4 years
Office	EC-SWAP-PRO	2.2 kW · after 2016	2V · 3000 h + 1000 h	M · SIA profile	6,211	1,926	12,855	4 years
School	EC-SWAP	5.5 kW · 2008–2016	2V · 2880 h + 480 h	2V · same hours	14,074	14,074	0	·
School	EC-SWAP	5.5 kW · 2008–2016	2V · 2880 h + 480 h	2V · 2160 h + 960 h	14,074	11,571	1,877	1 year

Calculated on 26.10.2026 with the SFOE LU-01b monitoring list: 4-pole motor, direct drive, no detailed analysis. 2V: hours at high speed + hours at low speed; M: modulating sensor-based control, hours from the SIA profile of the category. The last two rows show EC-SWAP, which keeps the two speeds.

LU-01B MONITORING LIST · SHEET B, ONE ROW PER SYSTEM

Site and building

C-F	Name, address, postcode, municipality · mandatory; municipality follows the postcode	Where the system is located.
G	EGID · mandatory	Federal building identifier (buildings register, map.geo.admin.ch).
H	Building category · choice	SIA category (office, school, retail ...). It sets the hours profile of sensor-based control.
I	With detailed analysis · yes / no	No up to 20 kW. Yes: attach the analysis report to the notification and fill in S and AE.

Existing system (before EC-SWAP-PRO)

J	Rated power (shaft) · kW	Rating plate of the old motor. Two-speed motor: power at high speed (our reading, to be confirmed).
K	Number of poles · choice	Rating plate of the old motor, poles at high speed (same caveat).
L	Year of manufacture · choice	"2008-2016" or "> 2016": the system must be less than 15 years old.
M	Drive system · choice	None / direct, toothed or flat belt, V-belt.
N	Control · choice	2V: two speeds with timer.
O-P	Airflow, total pressure difference · optional	If known (commissioning, balancing report).
Q-R	Operating hours in V1 and V2 · h/a	Q: hours at high speed; R: hours at low speed. Time schedule or BMS history.

Optimised system

W	Comments · free text	For example: "EC-SWAP-PRO, EC motor [make, model], air quality sensor in the extract air, LOW and HIGH set at commissioning".
Z	Control · choice	M: modulating, sensor-based control. Hours then follow the SIA profile of category H: AC and AD stay empty.
U-Y, AA-AB	Make, model, class N, overall efficiency, airflow, pressure · empty	Reserved for full replacement (LU-01a): in LU-01b the new motor is not part of the calculation.

Company and commissioning

AG-AJ	Company that carried out the replacement · mandatory	UID number (CHE-...), name, postcode; municipality follows the postcode.
AK	Commissioning date · date	Commissioning of the sensor-based control.
T, AF, AL	Demand and savings · calculated	Consumption before, after, countable saving in kWh.

Savings protocol LU-01b, version 1.0 (11.2025), valid from 01.01.2026. The SFOE publishes updates in November; the previous version remains accepted for twelve months. Workbook language: sheet Version, cell L6 (German, French, Italian).

SUPPORTING DOCUMENTS

- ✓ **Without detailed analysis:** photo of the old motor's rating plate, or an equivalent data sheet.
- ✓ **With detailed analysis:** analysis report (PDF) by a qualified person or company, attached to the notification.
- ✓ **Invoices** for the replacement (PDF, PNG or JPEG).
- ✓ **Disposal:** the old motor must no longer be used in Switzerland; proof of disposal or export (PDF, two A4 pages at most).

Except for the analysis report, these documents are not submitted with the notification: they must be available within 30 days in the event of an inspection.

WHO DOES WHAT

- 1 Before the work,** the building owner or installer asks the electricity supplier whether it accepts the measure and what contribution it pays.
- 2 Installation and commissioning** by a qualified person or company: EC-SWAP-PRO, EC motor, sensor, LOW and HIGH setpoints.
- 3 File:** the installer records the data in this sheet and gathers the supporting documents.
- 4 Notification:** the electricity supplier fills in the protocol and reports the measure to the SFOE.

If the local supplier does not accept the measure, the saving can be transferred to another supplier subject to Effel.

Sheet prepared by Wellset from the SFOE LU-01b savings protocol and LU-01 documentation and the Effel office's reply of 23.10.2026. It does not replace these documents or the electricity supplier's decision, and is not legal advice. Readings marked "to be confirmed" have not yet been validated by the SFOE.