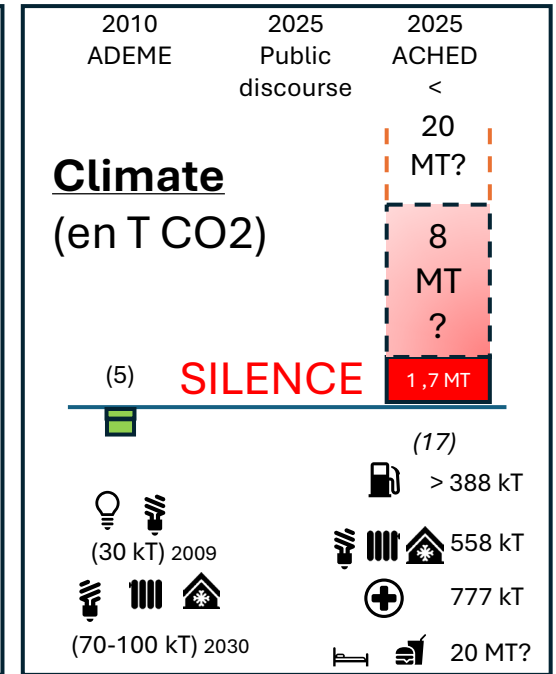
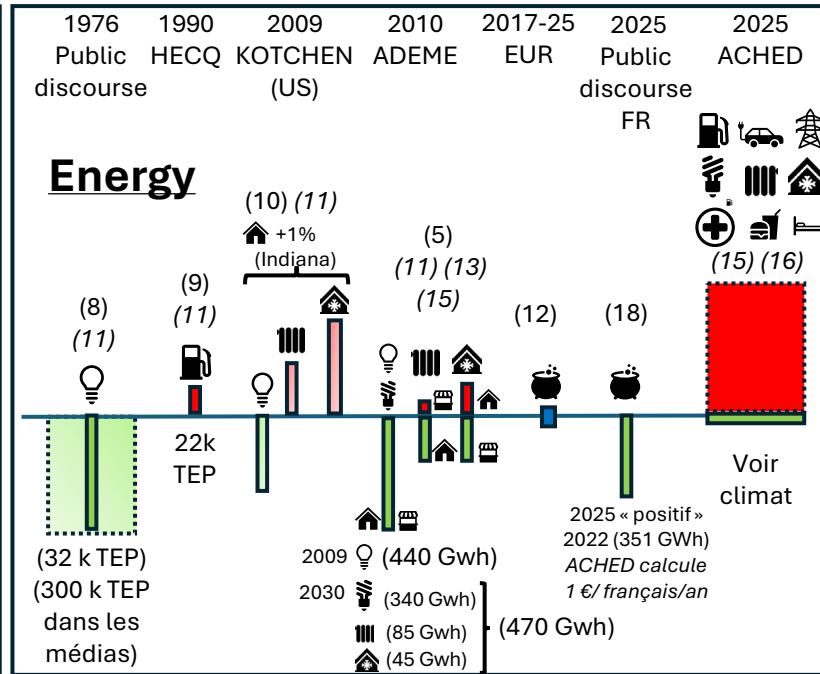
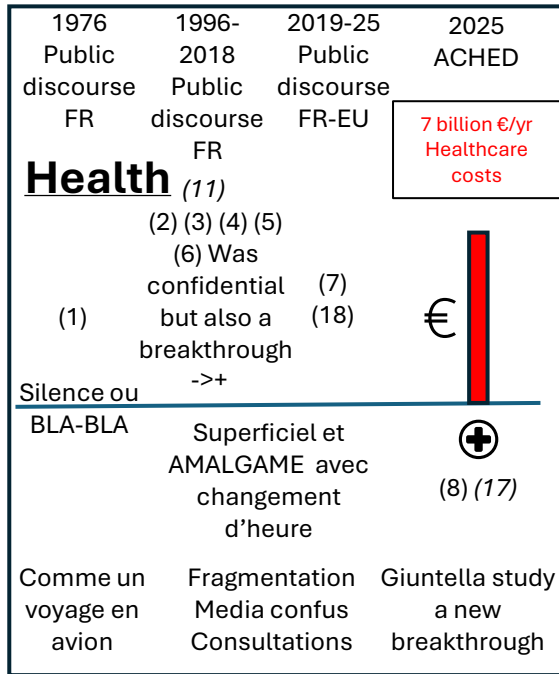


Appendix 1: (partial translation) Chronology & numbers in perspective

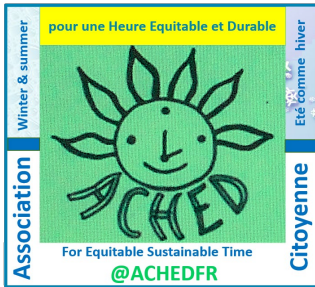
Effect of clock forwarding in France on health, alleged energy savings and climate.



- (1) [Président](#) et encore en 2017 (cf 12)!
- (2) [Juppé - Gonnot](#) Gouv 1996
- (3) [François Sénat](#) 1997
- (4) [Conseil de L'Europe](#) 1999
- (5) [Etude ADEME](#) 2010
- (6) [Chronobiologistes](#) 2018
- (7) [Consultation](#) 2019
- (8) [Giuntella, ACHED 20 mai 2019](#)

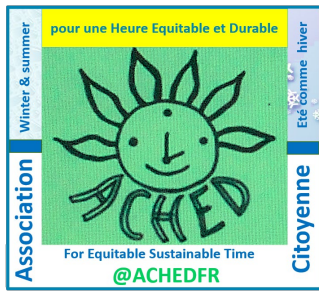
- (8) [Gouvernement et ancêtres ADEME](#)
 - (9) [Etude HECQ](#) 1992
 - (10) [Kotchen](#) (2009-2011)
 - (11) [Livre L Gabarain](#) 2015
 - (12) [Rapport EU 2017](#)
 - (13) [Lettre à Thillaye](#) 2019
 - (14) [351GWh 1€ ACHED](#) 2022
 - (15) [Lettre ACHED à ADEME](#) 2024
 - (16) [Contestation EU2017 ACHED](#) 2024
 - (17) [ACHED Lettre 24 mars 2025](#)
 - (18) [Service public](#) Octobre 2025
- Note1 : Echelle approximative
 Note2 : Hecq (Belgique) et Kotchen et Grant (US) sont pour référence.
 Note3: La modélisation ADEME ne produit pas de chiffre chauffage/clim avant 2030...

Lost time versus Climate change :
 Calculation by ACHED November 11, 2025.
 Given a carbon budget for France of 500MT / years, last 50 years France has lost
 If 2 MT/yr 100 MT aka **2 mois et demi**
 If 10 MT/yr, 500 MT aka about **1 year**
 If 20 MT/yr, 1000 MT aka about **2 years**
Petitions #RetourVersLeFuseau here



Size of the #TimeZoneBackShift compared with other initiatives (partial translation)

Initiative	Who	Cost	Size
RetourVersLeFuseau TimeZoneBackShift	ACHEDFR	Circa 0 5 M €?	2-10 MtCO ₂ /an
Stratégie nationale de captage, utilisation et stockage du carbone (CCUS)	Min Trans	?	1,5 à 8 MtCO ₂ /an
Décarbonation des zones industrielles bas-carbone (ZIBaC), Dunkerque	Acier / ArcelorMittal	2Billion€ of which 850M State Help	5 MtCO ₂ /an
Électrification + objectifs PPE/SNBC (scénario RTE)	RTE	7Billion€ /yr Total 100 billions by 2040	30 à 40 MtCO ₂ /an.



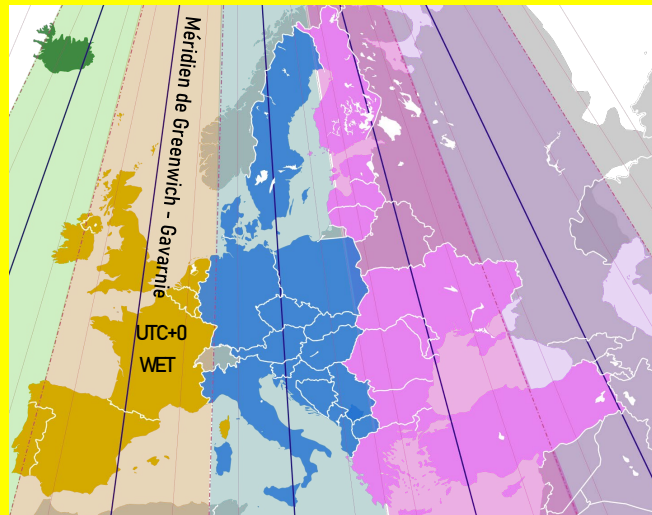
Appendix 1 the European Union _Time Zones

Washington 1884 Treaty
Close to natural time zones

Presently during winter
In France since 1945

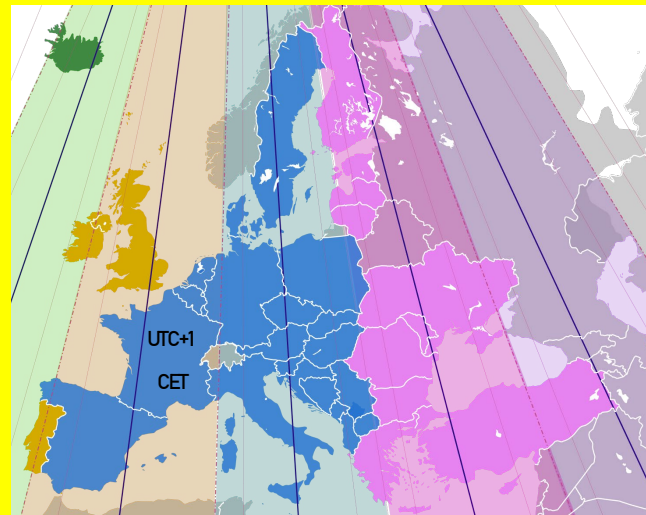
Presently during summer
In France since 1976

AZOT UTC-1 WET UTC+0 CST UTC+1 EET UTC+2 MT UTC+3



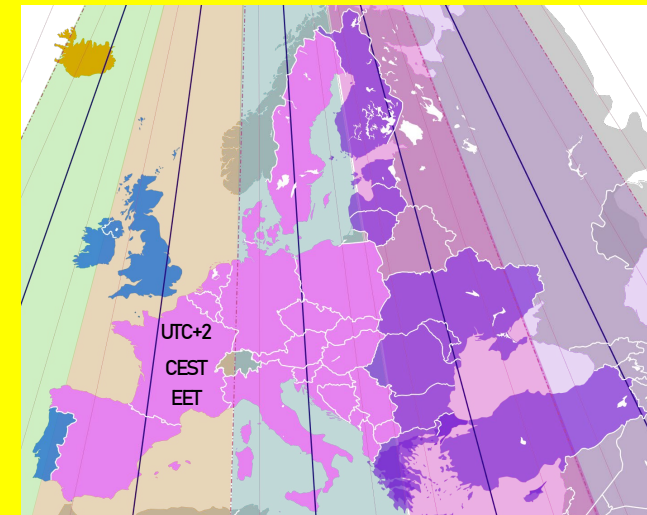
France on UTC+0, the time of the
Greenwich meridian that runs
through France

AZOT UTC-1 WET UTC+0 CET UTC+1 EET UTC+2 MT UTC+3



France, Spain, the Netherlands,
Belgium, and Luxembourg were
shifted to UTC+1 corresponding to the
solar time of 15°E. meridian that runs
through Vienna in Austria.

AZOT UTC-1 WET UTC+0 CET UTC+1 EET UTC+2 MT UTC+3



France at UTC+2, the solar time
of **30°E meridian** that runs close
to Kiev in Ukraine

Appendix 2

Time arrangements for France:
Status quo, Towards or Away from solar time

We are here

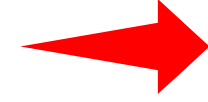
Towards solar time



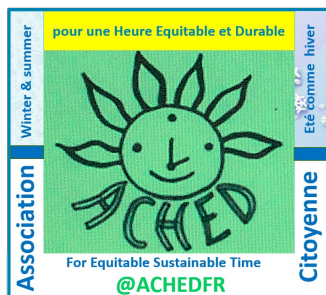
Away from solar time



Statu
quo



Arrangements possible for France in Theory	Permanently in its natural time zone	During the summer in the German natural time zone	Permanently in the German natural time zone	During the Summer in the Ukrainian natural time zone	Permanently in the Ukrainian natural time zone
WINTER	UTC+0	UTC+0	UTC+1	UTC+1	UTC+2
SUMMER	UTC+0	UTC+1	UTC+1	UTC+2	UTC+2
Time changes	NO	YES	NO	YES	NO



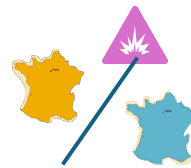
UTC+0
/ 365



Like in 1916

Natural time

UTC+1
In the Summer



Like in 1936

Seasonal DST*

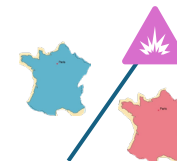
UTC+1
/ 365



Like in 1975

Permanent DST

UTC+2
In the Summer



Since 1976

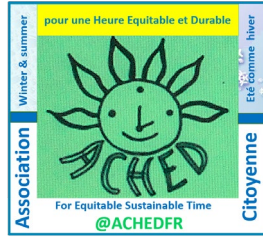
Seasonal
Double DST

UTC+2
/ 365



Never we hope!

Permanent
double DST



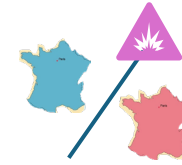
UTC+0
/ 365



UTC+1
In the Summer



UTC+1
/365

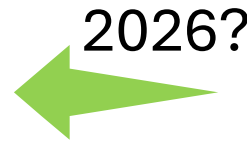


UTC+2
In the Summer



UTC+2
/ 365

Numbers for the opportunity of a shift towards solar time,
Mounting the path to sobriety



2026?



Current statu quo emits millions de tons of CO2/year

REAL overconsumption reviewed by ACHED

Additional Health expenditure: 7 billion Euros(?)	777 kT CO2
Lighting, heating, air conditioning:	558 kT CO2
Recreational fuel	388 kT CO2
Subtotal	+1753 kT CO2
Morning-Night Fuel	Increased / Not rated
Hyperconsumption/increased awake time	+20MtCO2?
Loss of Life and Productivity	Increased - Not Assessed

More than 2 million tons of CO2/year

Moving further away from solar time will further increase the damage.



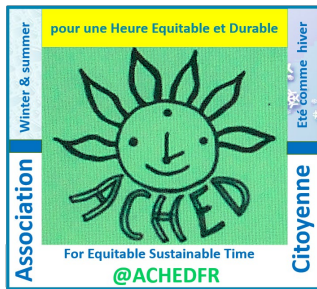
Additional overconsumption identified by ACHED, and not considered by ADEME or institutions

Heating, air conditioning, lighting, fuel, health, productivity,
+ hyperconsumption with increased awake time / decreased sleep

How many millions of tons of CO2/year?

Appendix 3

HOW MUCH DOES (double) DST COST in carbon emissions?

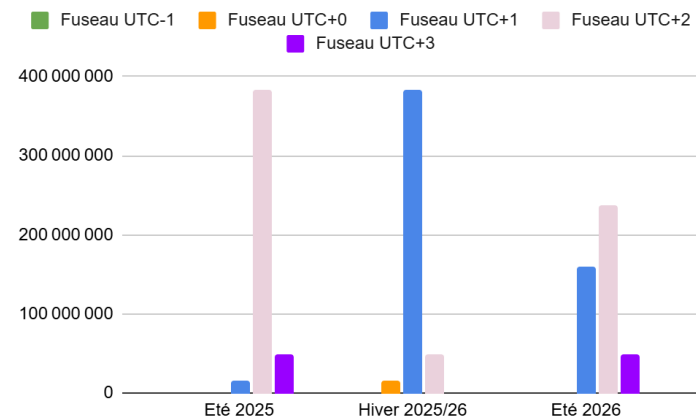


Appendix 4: Energy benefits of a more natural European time distribution

86% of the European population is currently in the mega time zone Central Europe UTC+1 in winter / UTC +2 in summer.

This figure could be as low as 53% if, as Portugal did in 1996, France, Belgium, Spain, the Netherlands and Luxembourg were to skip the March time change while the other countries are still changing.

A way to put an end to the double summer time with an interest perhaps in energy exchanges.



Habitants EU 2020

Population	Fuseau UTC-1	Fuseau UTC+0	Fuseau UTC+1	Fuseau UTC+2	Fuseau UTC+3	Total
Eté 2025	0	0	15 305 159	382 468 372	49 234 065	447 007 596
Hiver 2025/26	0	15 305 159	382 468 372	49 234 065	0	447 007 596
Eté 2026	0	0	159 815 167	237 958 364	49 234 065	447 007 596
Eté 2025	0%	0%	3%	86%	11%	100%
Hiver 2025/26	0%	3%	86%	11%	0%	100%
Eté 2026	0%	0%	36%	53%	11%	100%

[Population source ined](#)

Distribution and citations

[March 24, 2025](#) dans lettre publique à Emmanuel Macron (annexes 1 à 4)

[March 31, 2025](#) dans lettre publique à U. Von der Leyen (annexes 1 à 4)

[November 5, 2025 in French](#), lettre March 24, 2025 quoted in lettre to French PM

[November 15, 2025](#) add Chronology & numbers perspective, and comparison

[November 15, 2025](#) post dans page [ACHEDFR](#) de linkedin

November 16, 2025 modification add chronobiologists 2018 & Kotchen 2009

November 16, 2025 post dans page [ACHEDFR](#) de linkedin

November 23, 2025 new numbering, modification of appendix 1 and 3