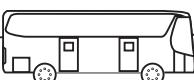
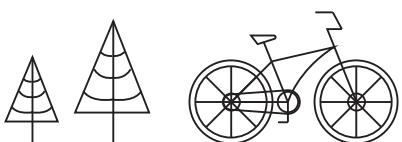




# *The positive energy* GOOD PRACTICE HANDBOOK



VALLÉE DE CHAMONIX  
MONT-BLANC

A POSITIVE  
ENERGY VALLEY +

# EDITORIAL

## THE CHAMONIX MONT BLANC VALLEY: **A POSITIVE ENERGY VALLEY!**

For several years now, the Chamonix Mont Blanc Valley has been working alongside its many institutional partners and neighbouring border regions to fight for the preservation and protection of its environment, which is home to thousands of residents and the basis of local economy.

Holder of the TEPOS (positive energy territory) and TEPCV (positive energy territory for the promotion of green growth) labels, the Chamonix Valley adopted the first Climate Plan in a mountain region in 2012 and developed a specific Air Quality Plan in 2015.

The valley takes a proactive stance with regard to the development of public transport and soft or electric mobility, it promotes energy-efficiency improvements for existing buildings by providing significant administrative and financial support for energy retrofit projects.

The electricity it uses is 100% renewable and practically all public buildings have been converted from using fuel oil to gas. Hydroelectric power plants are being built and the construction of a methanisation plant, as well as a multi-fuel «green station» (NGV, electric and hydrogen) should soon be underway.

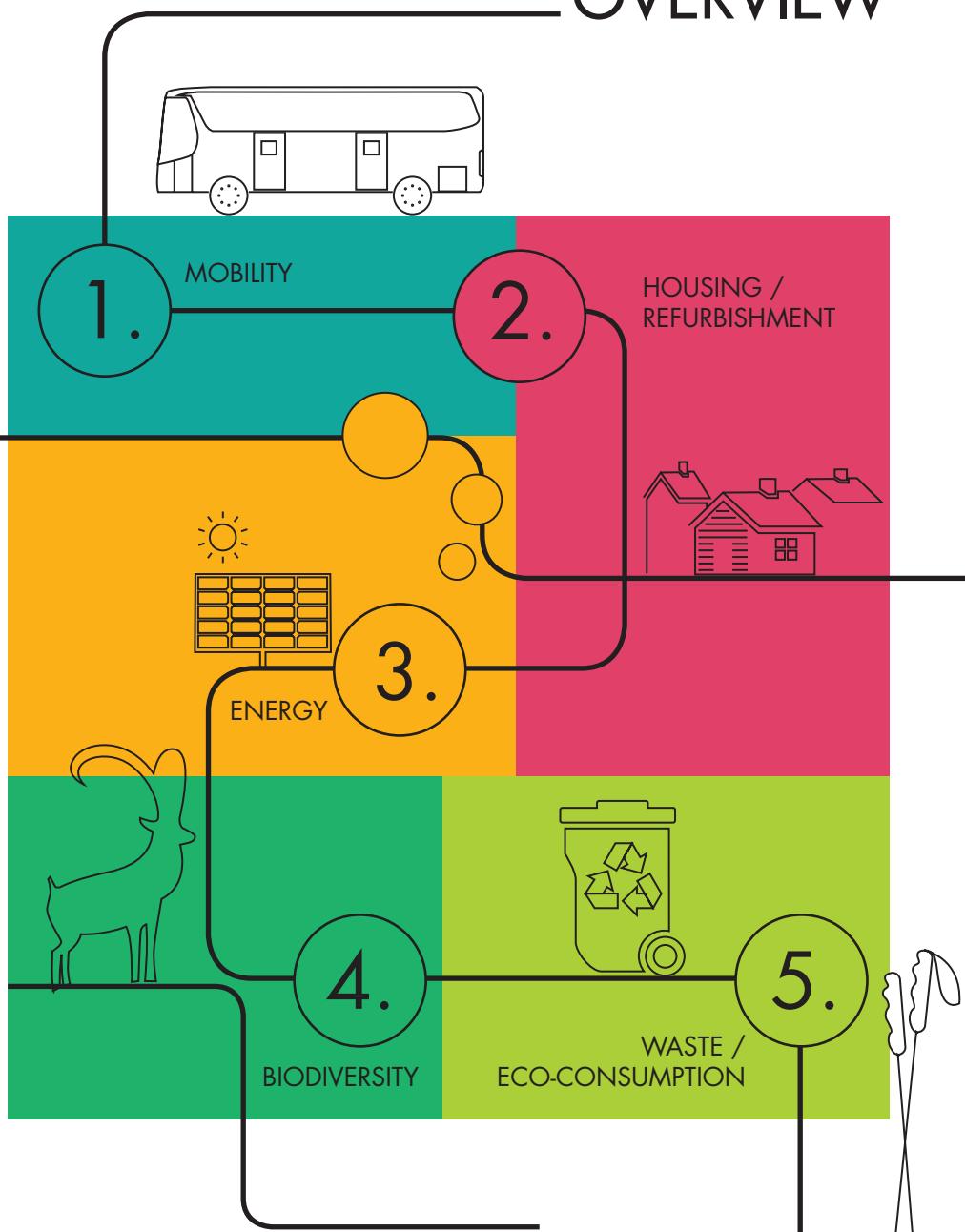
To protect the air we breathe, the water we drink and the exceptional landscapes which surround us is our priority. It is a complex and costly battle which must be conducted on multiple fronts. The stakes are high. Public investment is considerable.

Mobilization and commitment are necessary on all parts. This Good Practice handbook lists our main actions but above all, intends to help you, the citizens of the Valley, become agents of change by adopting the right behaviour and changing your habits for our planet.

We... you... we and you together, in the same dynamic on the path to energy transition and sharing the same objectives: to reduce greenhouse gases and air pollutants and to preserve and protect our exceptional surroundings and the inhabitants of the Valley.

*The elected representatives of the Chamonix Mont Blanc Valley.*

# OVERVIEW



# MOBILITY

## Getting around without polluting

**Over 3.2 MILLION PEOPLE**  
use the buses and trains every year

**15 ELECTRIC VEHICLES**  
form part of the communal fleet

**1 TRAIN EVERY HALF-HOUR**  
during the summer season

**18 KM OF CYCLE TRACKS** to be built by 2025  
and 11 km by 2020

**404 PLACES**  
in bicycle racks in 2018,  
124 additional places in 2019

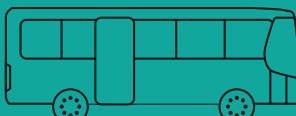
**20 ELECTRIC CHARGING POINTS**  
(excluding private charging points)



**6 ANNUAL BUS LINES**  
*13 during the tourist season (summer and winter)*

**2 100% ELECTRIC SHUTTLES**  
*Downtown "Mulets"*

**37 BUSES MEETING THE HIGHEST EUROPEAN STANDARDS**  
*(hybrid or Euro 6) representing 100% of the annual fleet in circulation*



## Communal actions...

Transport accounts for 36% of greenhouse gas (GHG) emissions in the Chamonix Valley, of which 46% can be attributed to private vehicles! Heavy goods vehicles are responsible for 39% of GHG emissions. Taking all transport modes into account, 80,000 road journeys are made every day during the high season. Not only is transportation a source of GHG emissions, but also of air pollutants (NOx). 74% of NOx in the Chamonix Mont Blanc Valley are due to diesel vehicles (47% of heavy goods vehicles and 36% of light vehicles).

### Going to work, going shopping or to our leisure activities... We are all concerned!

To limit the impact of road travel on our environment, the Community of Communes has been developing and encouraging eco-mobility for permanent residents and visitors for many years: 100% electric shuttles, hybrid or Euro 6 buses, cycle track, bicycle racks, electric charging points for cars, Mobil'Bus line for persons with reduced mobility... It has also been replacing its light vehicles, utility vehicles and trucks by less polluting vehicles and the results are highly significant already (-82% NOx per km since 2015).

# 1.

## The steps YOU CAN TAKE for a positive energy valley



- **Get about using your own energy** (on foot or cycling) for short distance trips: in town, you can walk 1km or cycle 3km in a quarter of an hour.
- **Travel collectively**: use public transport; buses and trains are free in the valley. Buses run hourly or half-hourly throughout the year, and every quarter of an hour during the winter season. Trains run half hourly during the summer season.
- **Shared travel**: think about carpooling with neighbours, colleagues or friends, or by posting your journey on one of the many carpooling websites, such as the mov'ici website for sharing daily journeys: <https://movici.auvergnerhonealpes.fr/>
- **Take small steps** which make a significant difference in terms of fuel consumption and pollutant emissions: turn off your engine whenever you are at a standstill for over 10 seconds, reduce your speed when driving, try and better anticipate gear changes, make sure your car is regularly serviced (filters, tires...).



### DID YOU KNOW



*The scale of the bus network in the Valley is similar to that of a medium sized city... 365 days per year!*



Transport service

**Community of Communes of the Chamonix Mont Blanc Valley**

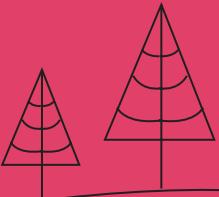
[transports@ccvcmmb.fr](mailto:transports@ccvcmmb.fr)

Phone: +33 (0)4 50 53 75 20

[www.cc-valleedechamonixmontblanc.fr](http://www.cc-valleedechamonixmontblanc.fr)

# HOUSING / RENOVATIONS

*For energy-saving  
and comfortable homes!*



**25 to 30%**

*is the percentage of heat lost through the roof  
in a non-insulated house*

**- 25%**

*is the possible reduction in your energy bills  
by applying certain eco-gestures at home  
(excluding heating and hot water production)*

**30 to 60%**

*savings on a class A+++ compared to  
a class A household appliance!*

## DID YOU KNOW ?

Efficient renovation works can turn a class E building into a class B building, thus dividing its energy consumption by 4 throughout its lifespan.

*Eco-renovating your home also has a positive impact on air quality in the Valley!*

## *Communal actions...*

The Community of Communes of the Chamonix-Mont Blanc Valley encourages energy efficiency improvement and renovation works on private homes by offering free counselling from an energy information advisor and numerous financial support schemes:

- **You wish to renovate your home:** Energy Housing Fund (Fonds Energie Habitat) Energy Housing + Fund (Fonds Energie Habitat +), Better Living Scheme (Programme Habiter Mieux),
- **You want to convert your heating system to gas** (Air Gas Fund) or change your wood burning appliance to a more efficient one (Air Wood Fund).

**Public buildings managed by the local authorities, municipalities and community of communes are also being renovated, thus allowing for reduced energy consumption, improved comfort for their occupants and limited greenhouse gas and air pollutant emissions.**

## 2.

# The steps YOU CAN TAKE for a positive energy valley



### • Think "sobriety"

**Adopt the 100 eco-gestures** to reduce your environmental impact and your energy bills: [www.renovalleechamonix.fr](http://www.renovalleechamonix.fr)

For example:

- **Install thick curtains and/or shutters:** closing your shutters at night can reduce window heat loss by up to 60%. You can save on up to 10% of your heating bills.
- **Set your thermostat** to 19°C in the living areas and 16°C in the bedrooms: every degree less on your thermostat means 7% off your heating bill. You should also know that the body needs about a week to acclimatize to a new temperature, so don't rush to the heating as soon as it gets colder, wait and see if you really need it.
- **Close the doors of the coolest rooms:** save 6% heating energy and use door draft stoppers to avoid drafts!

### • Think «efficiency» and «air quality»

- **Renovate your home to reduce your energy consumption:** starting with better insulation (of the roof, walls, attic space, low floors...).
- **Change your heating system:** if your fuel or gas heating system is over 20 years old, change it for a more efficient and less polluting system.
- **Change your open fireplace** or old wood-burning appliance for a more efficient and less polluting system. For the same amount of energy produced, a "7-star Green Flame" appliance can emit up to 30 times fewer fine particles than an open fireplace and up to 13 times fewer than an old closed fireplace, depending on fuel quality and user practices.
- **You want to do the best you can** to care for your health and improve air quality? But are you sure you have the right reflexes to be an eco-citizen? Consider these 40 received ideas: <https://www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-pollution-lair>

### • Think "renewable"

- **Integrate renewable energy production** into your home: photovoltaic or thermal solar panels, geothermal energy...
- **Add value to your property**, from 5 to 10% depending on the works! The results translate to the property's energy label (an evaluation of its energy consumption with a score from A to G). The energy label mandatorily appears in all real estate advertisements and buyers are increasingly sensitive to this ecological criterion.



[www.renovalleechamonix.fr](http://www.renovalleechamonix.fr)

**For free advice:** InnoVales  
Phone: +33 (0)6 21 92 69 97

**For the BETTER LIVING  
programme:** Solihia  
Phone: +33 (0)4 50 09 99 32

**For the Air Wood Fund:**  
SM3A  
Phone: +33 (0)4 50 25 24 91

# ENERGY *Moving towards more renewable energy*



**54%** of final energy consumption, is the potential for solar thermal energy in the valley: panels anyone?

The potential is **25%** FOR GEOTHERMAL ENERGY

and **16%** FOR PHOTOVOLTAIC SOLAR ENERGY!

## DID YOU KNOW



*Renewable energy production currently covers 12% of the Valley's needs...*

However, if we take the EDF dams into consideration (notably the hydroelectric plant of Les Bois, under the Mer de Glace), *we produce 111% of our energy!*

## Communal actions...

Renewable energy production in the area is essentially derived from hydroelectric power plants and wood (wood-fired heating plant in Vallorcine). Asides from these forms of energy, the Chamonix Mont Blanc Valley has very strong potential for developing solar thermal, geothermal and, to a lesser extent, photovoltaic solar energy.

Attaining full coverage of final energy needs using renewable energy is one of the community of communes' priority objectives.

**The Valley continues to reduce its dependence on fossil fuels through the development of local renewable energy:**

- **3 hydroelectric facilities** to be built by 2020: Taconnaz (production of 12.5 GWh per year), Favrands (3.2 GWh per year), and Bourgeat (3 GWh per year). In the long term, these 3 facilities should cover close to the total electricity needs of the valley's households (excluding heating and domestic hot water).
- **620m<sup>2</sup> of photovoltaic panels** on the tennis courts, as well as 14m<sup>2</sup> on the central kitchens' extension,
- **Solar thermal collectors** for the production of domestic hot water at the EHPAD retirement home,
- **Geothermal energy** at the «Petites cordées» nursery and for housing,
- **100% renewable energy** for the municipal «electricity» contract,
- **Securing energy supply:** in the light of extreme weather events, the Community of Communes has buried the high-voltage power line between Les Houches and Chamonix.

### Projects under study:

- **Methanisation plant** for the sludge from the sewage treatment plant, oils from public and private establishments and organic waste.
- **Multi-fuel green station:** NGV / biomethane, fast electric charging points, hydrogen.

# 3.

## The steps YOU CAN TAKE for a positive energy valley



### A positive energy valley is possible, but not without your help!

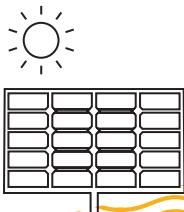
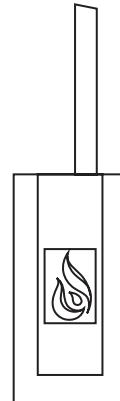
In the Chamonix Mont Blanc Valley, using renewable energy at home is possible! The community of communes provides a PlanETer energy land registry service, which allows you to find out about the solar potential of a building (photovoltaic or thermal), as well as the geothermal power potential of a land plot.

#### Think about equipping your home for:

- **Heating and hot water production:** boiler and solar heating, wood heating, geothermal energy...
- **Electricity production:** photovoltaic solar panels.
- **You can also** initiate or take part in a citizen project for the production of renewable energy; for example, by covering your roof in photovoltaic solar panels.

#### • Think about the energy saving eco-gestures:

- Do not leave your devices in "sleep" or "standby" mode: they continue using power! Sleep mode energy consumption is comparable to a water leak. You can save up to 400 kWh (or €56/year) by switching off your devices entirely. You can use multi-sockets with a switch to turn off your appliances for example.
- Use your washing machine's "eco" cycle rather than its short cycle (fast) which requires a lot of power.

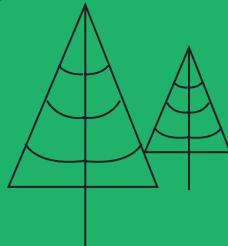


**Community of communes  
of the Chamonix Mont Blanc Valley**  
[contact@ccvcmh.fr](mailto:contact@ccvcmh.fr)  
[www.cc-valleedechamonixmontblanc.fr](http://www.cc-valleedechamonixmontblanc.fr)

**PlanETer**  
(energy land registry)  
[www.renovalleechamonix.fr](http://www.renovalleechamonix.fr)

# BIODIVERSITY

## Protecting the wild



**90%**  
**OF THE AREA'S LAND SURFACE**  
*(over 30,000 hectares) is under some level of protection*

**3 NATURE RESERVES**  
*in the Aiguilles Rouges Massif*

**2 LISTED SITES**  
*in the Mont Blanc Massif area*

### DID YOU KNOW



Global warming has a significant impact on the duration of the snow cover. Total snowfall in Chamonix has practically halved in 40 years.

**Nowadays, the winter season starts 12 days later and ends 26 days sooner than it did in 1970!**

And by 2050, with 1.5 to 2°C global temperature increase, snow depth should further decrease by at least 25% at 1500 metres altitude.

## Communal actions...

The preservation of our exceptional natural resources is a priority for the local authorities who have been working to reconcile environmental protection, human activity and awareness raising for many years.

### Notable communal actions and objectives:

- **Develop scientific knowledge** and grasp the impact of climate change, in order to adapt our policies and behaviour:
  - Loriaz, Le Péleray and Le Plan de l'Aiguille for example, are research sites for the CREA (Research Centre on High Altitude Ecosystems), an organization which accurately monitors the evolution of the vegetation with the help of the local community.
  - The communal forest of Les Houches hosts a permanent forest observatory: The National Forestry Office has put in place some 280 monitoring plots on wood production and forest biodiversity!
- **Raise awareness among the public, because better knowledge and understanding of the exceptional environment that surrounds us allows for better protection:**
  - Every summer, the chalet du Col des Montets welcomes close to 50,000 visitors for its exhibitions and activities dedicated to the fauna and flora of our mountains.
  - Throughout the valley, educational trails, such as the one in Les Chavants, and observation sites, offer the possibility to find out a lot about our natural heritage in a recreational manner.
  - "Nature guides" work with the schoolchildren in the valley and offer workshops during the holidays ("field games", "tiny animals"... at the House of the Lieutenant in Servoz, "Reserve your Friday" at the Col des Montets...).

Finally, communal services also play their part in preserving the biodiversity: no plant protection products used for roadside maintenance, flowered roundabouts, manual trail maintenance, eco-pastures...

# 4.

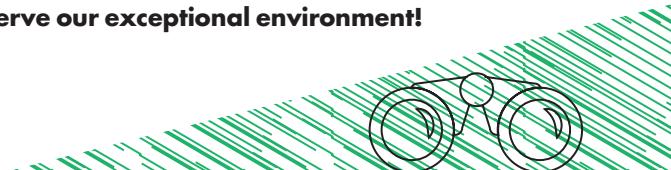
## *The steps YOU CAN TAKE for a positive energy valley*



Natural areas are places of exceptional freedom and privileged settings for numerous outdoor activities (hiking, skiing, mountaineering, paragliding...). They also host an exceptional, yet particularly vulnerable variety of fauna and flora. Here are some of the things you can do to help protect it:

- **Stay on the waymarked trails,** do not trample the flora: in the mountains the growing season is short and flora survival conditions are tough.
- **Do not swim in the high-altitude lakes,** this disrupts their extremely fragile ecosystem!
- **Try to keep to one ski touring track, keep your dogs on a lead** and respect the peace and quiet of your surroundings: although they are not always visible, the forest is home to many animals.
- **Share the natural areas in a respectful manner:** hikers, skiers... but also farmers, shepherds, hut wardens... There are many natural area users for whom the mountains are also a place of work.
- **Take your rubbish with you:** it often takes decades to degrade, so don't leave it in the wild!

**We can all act to preserve our exceptional environment!**



**Communauté de Communes de la Vallée de Chamonix-Mont-Blanc**  
[www.cc-valleedechamonixmontblanc.fr](http://www.cc-valleedechamonixmontblanc.fr)

**Mont-Blanc Atlas (CREA)**  
<http://creamontblanc.org/en>

**Asters**  
**Conservatory of natural areas**  
[www.cen-haute-savoie.org](http://www.cen-haute-savoie.org)

**ARNAR**  
[www.rnaiguillesrouges.org](http://www.rnaiguillesrouges.org)

# WASTE /

## *Discard less and throw away ECO-CONSUMPTION more intelligently!*

### Objective:

- 50% HOUSEHOLD WASTE BY 2025

The waste collection sites produce

**1 000 T OF  
COMPOST EVERY YEAR,**  
which anyone can come and collect for free!



#### DID YOU KNOW



**Over half (54%) of the waste generated in the area is incinerated!**

Yet 31% incinerated waste is compostable and 37% is recyclable.

### Communal actions...

Waste treatment generates greenhouse gas and pollutant emissions, energy consumption and road transport. The Community of Communes of the Chamonix Mont Blanc Valley has launched a waste reduction and recycling plan which aims to reduce incinerable waste (including household waste) by 50% and recycle 65% of all waste by 2025.

To achieve these objectives: widespread use of compost, collection of bio-waste from collective and professional structures and incentive-based rates (under study).

**The specificity of the area as a tourist destination implies participation from everyone: professionals, local inhabitants, short and long-term visitors!**

The Community of Communes and the Sitom provide everyone the means to generate less waste:

- **171 voluntary disposal points,**
- **2 waste collection sites open 6 days a week,**
- **New: a donation and free collection point at the Bocher waste disposal centre.**
- **23 collective compost bins** at the foot of the apartment buildings in Les Pèlerins and Les Bossons,
- **Individual compost bins and bio-buckets** (only €15 to be paid by the buyer),
- **7 textile containers** and associations to redistribute or recycle,
- **Gourmet bags** in partner restaurants to reduce food waste.

# 5.

## The steps YOU CAN TAKE for a positive energy valley



- **Produce less waste...** The best kind of waste is the waste we don't generate. The **3R** principle:
  - **Reduce production at the source:** no overpackaged or single-portion products (think bulk products!), buy what you need and consume what you buy (put a stop to wasting!), limit the travel/environmental impact by consuming eco-label or local products (support the local economy!),
  - **Reuse,** repair and give away or sell goods rather than throwing them away... Social networks in the Chamonix Valley are very effective!
  - **Recycle** to give a second life to your waste by allowing the recovery of usable materials.
- **Sort Better.** Take a quick check before you throw out! Recyclables in the yellow container: paper, plastic bottles, tins, cans, food cartons. Glass in the green container.
- **Take bulky items**, cardboard boxes, household appliances and batteries to the waste collection centre.
- **Composting bio-waste** is easy, useful and reduces household waste by 1/3!
- **Take your green waste to the waste collection centre.** Burning vegetation in the open is prohibited and punishable by a €450 fine (article 131-13 of the new penal code). Aside from the waste collection centre, other solutions exist, such as composting, crushing and mulching for example. Burning 50kg of green waste is equivalent to driving 18,400km with a new petrol vehicle, 5,900km with a new diesel vehicle or heating a house equipped with a powerful oil boiler for 3 months!
- **Challenge preconceived ideas!** Artificial Christmas tree or natural Christmas tree? Natural fir if it is grown in France! Did you know that not all thin plastic bags are biodegradable?

// Find out about 20 misconceptions and good practices concerning ecological and eco-labelled products, food and waste... on:  
<https://www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-consommation>



# TOGETHER

## Let's protect our environment!

### A few testimonials:



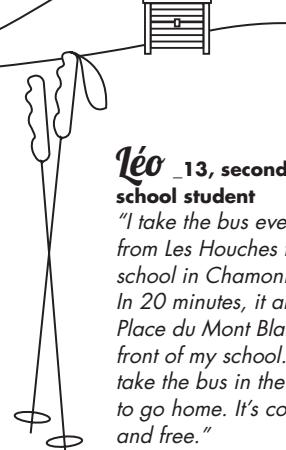
#### **Robert** \_71, retired

"I undertook energy efficiency renovation works on my house, which was built in 1973, by insulating the attic and installing a heat pump. I have reduced my energy consumption by over 35%, which translates to over €700 savings per year, and the whole family finds that the house is now much warmer. The investment cost me €18,000, but I was able to benefit from a €3,000 grant from the Community of Communes of the Chamonix Valley, €4,500 tax credit and €900 energy benefit thanks to the CEE (Energy Savings Certificate), totalling €8,400 financial support. The Community of Communes' Energy Information Advisor helped me in the choice of materials and with grant applications!"



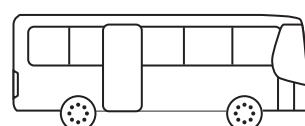
#### **Heather** \_47, British tourist

"I come to Chamonix every winter for the off-piste skiing. I recently found out that there are certain areas in which the wildlife should not be disturbed, like Charamillon for example. I am going to respect these areas. It's the condition for the survival of certain sensitive species."



#### **Léo** \_13, secondary school student

"I take the bus every day from Les Houches to go to school in Chamonix. In 20 minutes, it arrives in Place du Mont Blanc, in front of my school. I also take the bus in the evening to go home. It's convenient and free."



#### **Virginie** \_31, office employee

"I set up collective composting in my small condominium 2 years ago. My family's waste now fills one bin a week instead of one every other day. Today, I could no longer throw organic waste in the normal rubbish bin. We are taking concrete action for the environment."

# CONTACTS USEFUL INFORMATION

## **Community of Communes of the Chamonix Mont Blanc Valley**

[www.cc-valleedechamonixmontblanc.fr](http://www.cc-valleedechamonixmontblanc.fr)  
[www.renovalleechamonix.fr](http://www.renovalleechamonix.fr)



## **ADEME eco-gestures**

[www.ademe.fr/particuliers-eco-citoyens](http://www.ademe.fr/particuliers-eco-citoyens)

## **Mont Blanc Atlas (CREA)**

[www.creamontblanc.org](http://www.creamontblanc.org)

## **Asters - Conservatory of natural areas:**

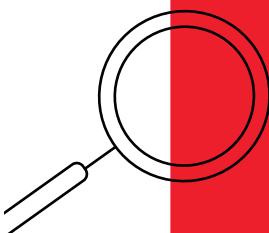
[www.cen-haute-savoie.org](http://www.cen-haute-savoie.org)

## **ARNAR :**

[www.rnaiguillesrouges.org](http://www.rnaiguillesrouges.org)

### **Check out these received ideas:**

- [www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-pollution-lair](http://www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-pollution-lair)
- [www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-maison-saine-economie](http://www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-maison-saine-economie)
- [www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-consommation](http://www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-consommation)
- [www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-vacances-voyages](http://www.ademe.fr/dossier/eco-gestes-idees-recues/idees-recues-vacances-voyages)



## **5 things**

### TO DO AND REMEMBER



- // Leave your car in the garage
- // Keep the heating down at home
- // Respect the fauna and flora when you are in the mountains
- // Make your own compost!
- // Consume products which are in season



A POSITIVE  
ENERGY VALLEY +

[www.cc-valleedechamonixmontblanc.fr](http://www.cc-valleedechamonixmontblanc.fr)



**La Région**   
Auvergne-Rhône-Alpes