

OVERVIEW

EDITORIAL

In response to the climate challenge, the Sovereign Prince has been a driving force at the highest level, setting ambitious goals for reducing our carbon emissions: **a 55% reduction in greenhouse gases by 2030 and carbon neutrality by 2050.**

Moving away from fossil fuels and decarbonising our economy requires everyone to get involved. To coordinate this effort, the Mission for Energy Transition was created in 2016, as a facilitator and accelerator of the transition, and the **National Green Fund** was established to fund public and private actions to help reduce greenhouse gas emissions.

The **National Pact** aims to bring the Monegasque community together around a shared initiative and to support the implementation of practical action to promote the energy transition in the three fields with most impact: energy use in buildings, waste and transport.

In 2022, the **fifth anniversary of the White Paper** provided an opportunity to bring the stakeholders back together to consider ways to accelerate the transition and achieve our carbon goals. Their contributions are available on [our website](#) and are already inspiring public action.

2022 saw a high degree of mobilisation, including the continued roll-out of **the ocean thermal energy loops, Monaco On** charging points and the **MaConsigne** container returns scheme, which went hand in hand with a strong determination to act, as illustrated by the growing number of businesses which have signed up to the National Pact – now more than 300, representing a third of employees in the Principality.

The year concluded with a **National Energy Efficiency Plan** combining actions and subsidies aimed at both reducing consumption and maintaining the purchasing power of Monegasque residents and businesses.

Energy transition actions are led by the teams at the Ministry of Public Works, the Environment and Urban Development; the role of the Mission for Energy Transition is to coordinate and promote these actions to accelerate progress.

Annabelle Jaeger-Seydoux, Director

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2022 ENERGY TRANSITION HIGHLIGHTS

In construction:

- New financial assistance for installing heat pumps in addition to the existing schemes (changing windows, insulating roofs, calls for exemplary renovation projects, etc.).
- A calculator to help users work out how much total support is available to renovate a building.
- A national energy efficiency plan.
- The BD2M initiative is progressing well: with 23 registered projects or plans, 1 assessment commission and 5 training sessions (water recycling in buildings, eco-friendly renovation, bioclimatic design, etc.).
- Continued roll-out of two ocean thermal energy loops (Larvotto and La Condamine districts) to support the end of fuel oil use in the Principality (ban in place since 1 January 2022).
- More than 60 audits of private buildings analysed.
- First committee to award subsidies for exemplary renovation projects.

In transport:

- New electric charging stations available to all: roll-out, with the Department of Urban Amenities and Public Car Parks Office, of nearly 400 Monaco On charging points on the streets and in car parks.
- Wider and successful introduction of car sharing in Monaco through working with Klaxit, the European leader in home-to-work car sharing, and mobilisation of businesses which have signed the Pact: by the end of 2022, the threshold of 12,000 journeys per month funded by the Prince's Government was reached.

In waste:

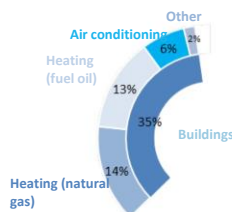
- Launch of MaConsigne, with 20 collection points and 32 partner sales outlets.
- New bans introduced as part of the zero single-use plastic waste regulations.

With the Monegasque community:

- Meeting of stakeholders to mark fifth anniversary of the Energy Transition White Paper.
- The number of businesses and individuals who have signed the Pact exceeded 2,000, with their commitments accounting for a reduction in CO₂ emissions of more than 1,300 tonnes per year.
- School Pact signed by all schools.
- 32 workshops held in schools to raise awareness among young people.
- Financial support to help businesses with their energy transition via the National Green Fund: by the end of 2022, €184,000 had been allocated to 14 companies.
- Thematic workshops on sustainable fashion, sustainable procurement, the circular economy, eco-friendly digital technology and energy efficiency.
- Publication of a Guide to Eco-Friendly Digital Technology for businesses.
- A national energy efficiency campaign.
- Increasing visibility of public and private actions to support the transition, through the Energy Transition Events and the Mission for Energy Transition's involvement in multiple events (EVER Exhibition, Riviera Electric Challenge, Monaco Business Fair, EWWR, etc.).
- The Mission for Energy Transition is also a partner of the Monaco Economic Board for the Monaco Matin Eco Club awards and sits on the jury for the Junior Chamber International Monaco Business Start-Up Competition.

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ENERGY



OUR MEANS OF ACTION

- Close collaboration between departments: analysis of BD2M permit applications and external insulation plans with the Department of Forward Studies, Urban Planning and Mobility; incorporation of BD2M into contracts and projects with the Department of Public Works; and cross-cutting BD2M issues and hydrogen with the Department of Health Affairs, the Department of Urban Amenities, the Fire Service and the Public Buildings Maintenance Office.
- Financial support for energy audits of private buildings: nearly 53% of private buildings have been audited and have received grants.
- Monitoring of energy use in the most energy-intensive buildings using SMART+ and SMEG (more than 100 sites have been equipped, representing 29% of Monaco's total consumption).
- Ongoing information and support to building managers to help them in their work, allocate grants and promote a change in energy use (individual meetings).
- Advice to businesses and individuals to help them manage their energy consumption.

BÂTIMENTS DURABLES MÉDITERRANÉENS DE MONACO (BD2M) INITIATIVE

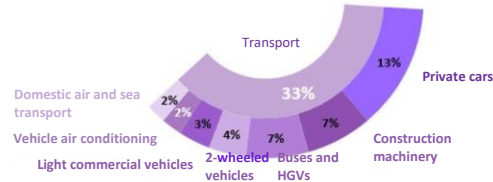
- Training sessions on water recycling in buildings, eco-friendly renovation and bioclimatic design.
- A BDM/BD2M assessment commission.
- Training for new Coaches and members of the commission, including building managers.
- 23 public and private construction or renovation projects registered with the initiative.
- Monthly Envirobat expertise days.
- Morning event for Coaches to enable sharing and ongoing improvement of the initiative.

RENEWABLE ENERGY IN MONACO

- In 2022, two ocean thermal energy loops were installed in Larvotto and La Condamine, in partnership with SeaWergie. Key moments: the connections of Testimonio II and Estoril.
- With regard to solar energy in Monaco, public buildings continued to be a focus in 2022: thanks to the National Green Fund, the Public Buildings Maintenance Office continued to install solar panels on public buildings, with more than 5,540m² in operation, equal to 1,285 MWh and 99 tonnes of CO₂ emissions prevented.
- Monaco Energies Renouvelables: by the end of 2022, Monaco Energies Renouvelables (MER) owned 15 photovoltaic power stations and three working wind farms, with total power of 129.5 MW (107.9 MW-peak of photovoltaic power and 21.6 MW of wind power), together generating 193.8 GWh per year, equivalent to 38.4% of the Principality's electricity consumption.
- In all of these areas, the Mission for Energy Transition is supported by competitiveness cluster Capenergies to actively monitor the technology of emerging solutions.
- Along with SMEG, it co-leads the Monaco Member Committee of the World Energy Council.

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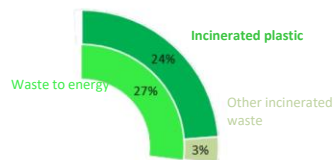
TRANSPORT



SUSTAINABLE MOBILITY IN MONACO

- At the end of 2022, as a result of a policy to promote electric transport launched in 1994, clean-energy vehicles made up nearly 14% of the vehicle fleet (7% electric vehicles and 7% hybrid vehicles).
- Between 2018 and 2022, nearly €20 million from the National Green Fund was devoted to subsidising the energy transition for vehicles.
- With nearly 400 electric vehicle charging points rolled out in public car parks and on the streets as part of Monaco On, 1,626 tonnes of CO₂ emissions were prevented in 2022.
- Klaxit, the home-to-work car sharing app is celebrating its second year in Monaco. The figures speak for themselves: at the end of December 2022, more than 5,490 people had signed up, there were 2,793 active car sharers and 104,804 journeys were completed – covering 2,513,500 kilometres and reducing CO₂ emissions by 283 tonnes!
- The Mission for Energy Transition leads the Clean-Energy Vehicles group to advance discussion on electric mobility.
- MC Hydrogen Group: participation in round table, co-organised by the Yacht Club de Monaco, Prince Albert II Foundation and Mission for Energy Transition on 8 July. The aim was to enable the development hydrogen for maritime use.

WASTE



TARGETING ZERO SINGLE-USE WASTE IN THE PRINCIPALITY

- To combat single-use plastic, a return scheme for takeaway containers was launched on 13 June 2022. By the end of 2022, there were 22 MaConsigne collection points and 37 partner sales outlets (i.e. two new collection points co-funded by businesses and five new partners).
- Leadership of the Waste working group (teams from the Ministry of Public Works, the Environment and Urban Development, the Tourist and Convention Authority, Monaco City Hall and the Monegasque Sanitation Company).

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OUR COMMUNICATION

Maintaining the momentum in favour of the energy transition by highlighting examples of change in the public and private sectors; showcasing what works to encourage others to act.

WEBSITES

- **Mission for Energy Transition:** transition-energetique.gouv.mc
 - **Mission for Energy Transition quarterly newsletter**
 - Accessible directly from the Mission for Energy Transition website (<https://transition-energetique.gouv.mc/Les-Newsletters-MTE>).
 - Sent to all National Pact signatories
- **Carbon Coach Platform:** pacte-coachcarbone.mc

CONTENT CREATED (available on the Mission for Energy Transition and/or Carbon Coach websites)

- **Calculator** to work out how much total support is available to renovate a building
- **Action guidance sheets** : 50 guidance sheets to help you take the Pact actions further
- **Digital map** listing repair and second-hand outlets in Monaco
- **Guide: How to carry out a carbon assessment**
- **Guide: How to conduct a lifecycle analysis**
- **Eco-Friendly Digital Technology Charter and Guide**

SOCIAL MEDIA

- **Instagram:** @mte_monaco - https://www.instagram.com/mte_monaco - 1,568 followers
- **Facebook:** Monaco Energy Transition - <https://m.facebook.com/MTEMonaco/> 1,407 followers. Total views: 43,223
- **LinkedIn:** Mission for Energy Transition - Monaco - 2,137 followers. Views: 314,102 <https://www.linkedin.com/company/mission-pour-la-transition-energetique-monaco>
- **YouTube:** Monaco Mission for Energy Transition https://www.youtube.com/channel/UCYVJtw6BVg_hpdC9UctKhww/featured

MISSION FOR ENERGY TRANSITION PARTNERS

- The Mission for Energy Transition contributes to the GFM newsletter (<https://www.grimaldiform.com/fr/e-mag#.Yea3tP7MI2w>)

VIDEOS PRODUCED (available on the [Mission for Energy Transition YouTube channel](#))

- 2016–2022: the major actions of the energy transition
- National Pact: 2022 review of signatories

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- Energy efficiency: 3 accounts from businesses which have signed the Pact
- BD2M training: Bioclimatic design
- BD2M training: Eco-friendly renovation
- BD2M training: Water recycling in buildings
- Eco-friendly digital technology workshop
- Responsible procurement conference

OUR EVENTS (25)

- BD2M: Water recycling in buildings (11 March)
- Workshop for the events industry: the circular economy for fitted carpets (23 March)
- 7th Energy Transition Press Event (5 April)
- EVER Exhibition: presentation of Monaco On charging points (27–29 April)
- Seminar to mark fifth anniversary of Energy Transition White Paper (9 May)
- Evening debate based on the film *Don't Look Up* (10 May)
- BD2M: BDM/BD2M project assessment commission (19 May)
- Pact event on sustainable fashion (25 May)
- Press conference to launch MaConsigne (13 June)
- Corporate workshop: responsible procurement (22 June)
- BD2M training: eco-friendly renovation (24 June)
- Monaco Hydrogen Group round table (8 July)
- Corporate workshop with the Digital Transition Office: eco-friendly digital technology (13 September)
- Riviera Electric Challenge: Mission for Energy Transition team finishes second! (14 and 15 September)
- Klaxit: taking stock after two years (20 September)
- BD2M training: bioclimatic design (23 September)
- Mission for Energy Transition involvement in “sustainable” Heritage Days (25 September)
- Official unveiling of first electric Riva by Lanéva (28 September)
- SMEG-Mission for Energy Transition conference on energy efficiency, Monaco Business Fair (4 October)
- MaConsigne initiative with Marcel Ravin during Taste Week (10–16 October)
- BD2M training session for Coaches (20 and 21 October)
- Corporate workshop on energy efficiency, in partnership with SMEG (8 November)
- Involvement of Mission for Energy Transition in first Monaco Sustainable Finance forum (30 November)
- BD2M training session for commission members (1 December)
- Energy efficiency workshops for traders (13 December)

SIGNATURES OF THE NATIONAL PACT

Since the Pact was launched, the number of signatories has continued to increase, and indeed increase significantly, rising from a total of 233 signatories at the end of 2021 to 312 at the end of 2022.

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The Union of Women, the Swimming Federation, and the Fashion Council of Monaco were among the signatories in 2022.

Corporate workshops were organised with the businesses who signed the Pact, covering Pact actions. These included workshops for Monaco Telecom (three workshops held in December).

Around 40 businesses who have signed the National Pact finalised their Low Carbon strategies in 2022, using the science-based target approach. Two workshops were held to support this effort, led by a specialist provider.

MISSION FOR ENERGY TRANSITION TEAM

- *Annabelle Jaeger-Seydoux, Director*
- *Arielle Barrabino, Communications Manager*
- *Cécile Biso, Assistant to the Director and the Team*
- *Raphaël Carossi, Building Energy Specialist*
- *Isabelle Curau-Bloch, Head of the National Pact Project*
- *Marie-Pierre Fassio, Head of the Buildings and Returnable Container Projects*
- *Géraldine Fievet, Building Energy Specialist*
- *Virginie Hache-Vincenot, Head of the Energy, Finance and Innovation Project*

OUR PLANS FOR 2023

- Accelerate renovation of existing buildings, drawing on audits and promoting dedicated support schemes.
- Support the transition away from the use of fossil gas to heat our buildings, through the provision of financial assistance to install heat pumps and help for individuals to purchase small appliances.
- Continue to develop the BD2M approach and roll out the circular economy in the construction industry.
- Monitor the transport plans of businesses that have made commitments in this area and support them to adopt Klaxit.
- Accelerate the transition to electric two-wheeled vehicles (support for dealers, regulations, information).
- Promote the use of returnable takeaway containers to win over new users.
- Develop the National Pact in new ways: reporting of commitments, creation of new actions at Levels 1 and 2, launch of pacts for wellbeing sector and Government.
- Support schools which have signed the School Pact, including through an energy efficiency challenge.
- Help 50 new businesses to develop their low-carbon strategies.
- Support start-ups and business creators, in partnership with the Business Development Agency, Monaco Boost, Monaco Tech and the Junior Chamber International.
- Disseminate best practices and information about financial support for the National Energy Efficiency Plan to individuals and businesses.

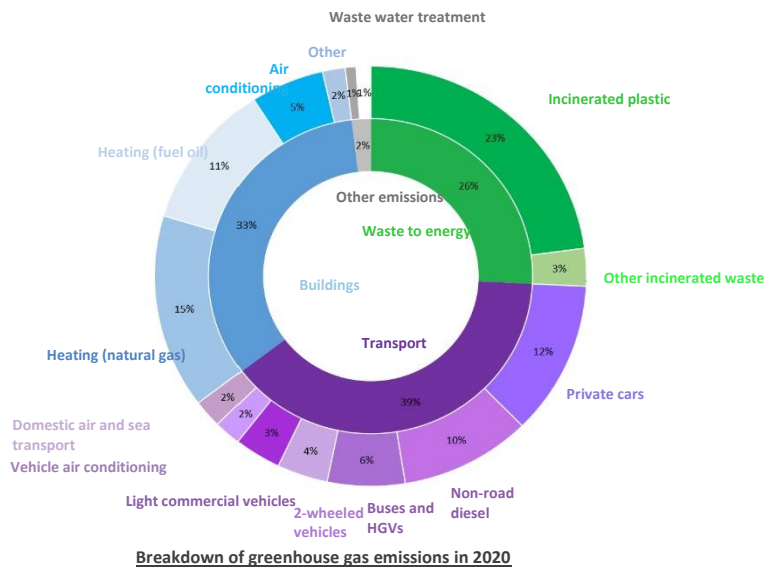
THE ENERGY TRANSITION IN 2022



Highlights

5th anniversary of the Energy Transition White Paper
 Launch of MaConsigne
 National Energy Efficiency Plan

Sources of emissions in Monaco



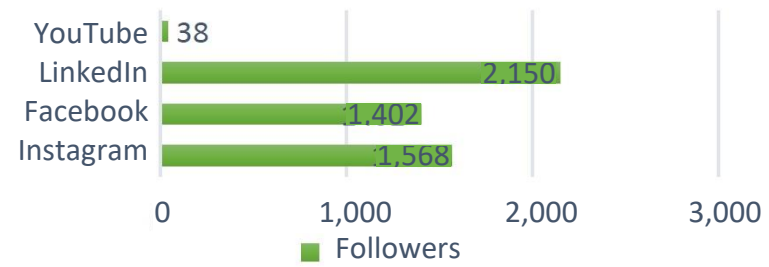
From 2017 to 2022, €140 million invested by the National Green Fund in energy efficiency and independence; €58 million for ocean thermal energy loops (nearly 50 buildings will no longer depend on fossil fuels);

From 2018 to 2022, €19.6 million (including €7.5 million in 2022) invested in clean-energy vehicles.

Key figures for the year

- 12 000** Car sharing journeys in November 2022, co-funded by the State, using **the Klaxit app**
- 400** MONACO ON electric charging points – **free, powerful and available to all**, **1,626 tonnes of CO₂ emissions prevented in 2022**
- 14 %** Of vehicle fleet made up of **clean-energy vehicles**, **€7.5 million** mobilised for vehicle transition
- 22** MaConsigne collection points, **37 partner sales outlets**
- 25 events organised** (Energy Transition Events, Pact Events, Eco-Friendly Digital Technology, Responsible Procurement, etc.)

Our communication



National Pact

- 1,800** individuals
- 300** businesses
- +1,300 tonnes of CO₂ emissions prevented per year**

- **14** business signatories received financial support for their environmental transition plans (€184,000)
- **32** workshops in schools
- **With KLAXIT, the leading French car sharing app, car sharing has taken off in Monaco: more than 5,490 users registered, 104,804 journeys completed, 2,513,500 kilometres travelled and CO₂ emissions reduced by 283 tonnes!**

Bâtiments Durables Méditerranéens de Monaco (Sustainable Mediterranean Buildings of Monaco)

23 public and private projects using the BD2M approach
 1 participatory assessment commission
 5 training sessions on sustainable construction and renovation

In addition, **nearly 53%** of private buildings have been audited, along with nearly **80%** of state-owned buildings (housing)

More than **5,540m² of solar panels** operating on public buildings, **preventing 99 tonnes of CO₂ emissions**