Session SB62 (2025)

Session starts: 21-03-2025 00:00:00 [GMT+1]
Session ends: 06-06-2025 23:30:00 [GMT+1]

Facilitative, Multilateral Consideration of Progress

A compilation of questions to – and answers by – **Andorra**

exported on 10-06-2025 by the UNFCCC secretariat

Question by European Union at Sunday, 20 April 2025

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Methodologies and assumptions for emissions reduction estimates

During the review of its BTR, Andorra informed of their plan to improve their methodological assumption to estimate GHG emissions reductions and removals.

Could Andorra elaborate on the models used so far for their projected emissions reductions and what are the assumptions and parameters used for reducing emissions in the transport sector?

Answer by Andorra

Thank you, European Union for your question and interest in Andorra's first BTR.

The initial greenhouse gas (GHG) emissions projections for Andorra were developed during the preparation of its First Biennial Update Report (BUR1), using data available in 2014. These projections relied on a baseline scenario constructed from historical trends and macroeconomic indicators, and were shaped by the methodological and data limitations at the time.

To evaluate the fulfilment of the commitments under the NDCs, Andorra has **partially updated** its scenarios by taking into account new data on the carbon sink capacity of forests, using the country's first National Forest Inventory (NFI).

Nevertheless, given the methodological refinements and changes in key assumptions, there is a clear need to update them. Future projections will incorporate revised macroeconomic forecasts, updated demographic trends, and the latest emissions accounting methodologies, ensuring consistency with the Enhanced Transparency Framework.

The projected scenarios will need to be recalculated considering the new considerations (see section 8.1.1 of the BTR).

The BAU scenario has inventory data until 2011 and the emissions are projected until 2050 based on population and GDP projections. The WEM scenario includes measures existing or implemented during the elaboration of the first NDC (2011-2014). The WAM scenario, includes all planned measures and instruments from 2014 to 2050.

Regarding projections of the energy sector, two sub-scenarios have been differentiated based on the impact of policies that promote electric cars in the national vehicle fleet. The scenario is based on the actions and assumptions, adapted, from the White Paper on Energy and the forecasts of the Energy Transition and Climate Change Law (Litecc), which define an action framework for the energy sector in Andorra. The two sub-sectors for the transportation category are:

a) these measures apply to all imported hydrocarbons.

b) it is assumed that the effect of electric vehicle promotion measures will only be effective in emissions resulting from domestic consumption.

Even if GHG emission projections were only partially updated, Andorra's emissions follow the trajectory to achieve the emission reduction goals. This has been considered by the TERT and reflected in para. 22 of the TERR.

During the TER, Andorra explained that an unpublished 2021 study enabled the inventory team to improve the characterization of fuel consumption in the transport sector. Thanks to the information provided on the vehicles of residents (domestic) and tourists by type of vehicle (according to the classification in the 2006 IPCC Guidelines) and by type of fuel (gasoline or diesel), it was possible to distribute fuel consumption for road transportation for 2020–2021 according to the characterization of the mobile fleet.

The same study identifies the domestic (internal) mileage by vehicle; however, it is important to note that not all the fuel imported and loaded in Andorra is consumed in the country, since the majority (79.6 per cent) of fuel consumption is outside the borders of Andorra. Despite this, data on mileage by vehicle type are not available for vehicles with foreign license plates (which represent 60 per cent of fuel consumption for road transportation) and therefore the methodology based on travel mileage could not be used in Andorra. An improvement in this area would be to characterize the distribution of average mileage by type of vehicle and type of fuel and include buses or heavy-duty vehicles in the characterization of foreign registered vehicles (because currently information is available only on passenger vehicles).

The TERT recommended to make efforts to collect the data required for applying a higher-tier methodology for estimating emissions from road transportation, ensuring that it considers the methodologies of neighbouring countries (Spain and France) to avoid potential double counting of fuel used by foreign-registered vehicles in its territory, and report thereon in the next BTR. Currently, France and Spain use higher-tier methodologies to calculate road transport emissions. As a result, there is a risk of double counting, leading to potentially overestimate its emissions from this sector.

To achieve this, Andorra is developing a public mobility model that will allow estimating the total vehicle mileage within the country, covering both national and foreign vehicles in circulation.

Question by European Union at Sunday, 20 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Policies and measures - Energy transition

Andorra reported that its energy sector reply relies heavily on imported fossil fuels and imported electrical energy for about 80% from neighbouring countries.

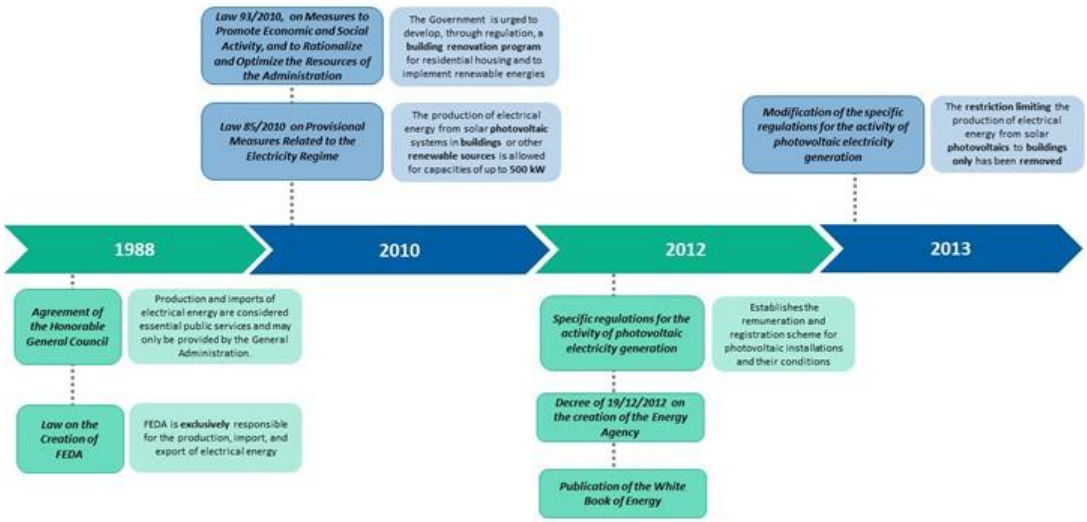
Could Andorra explain what are the provisions foreseen in their Litecc legislation to increase the share of renewable energy consumption and what are the expected impacts of the 'electrification' (from fuel use) provision on their energy emissions trend?

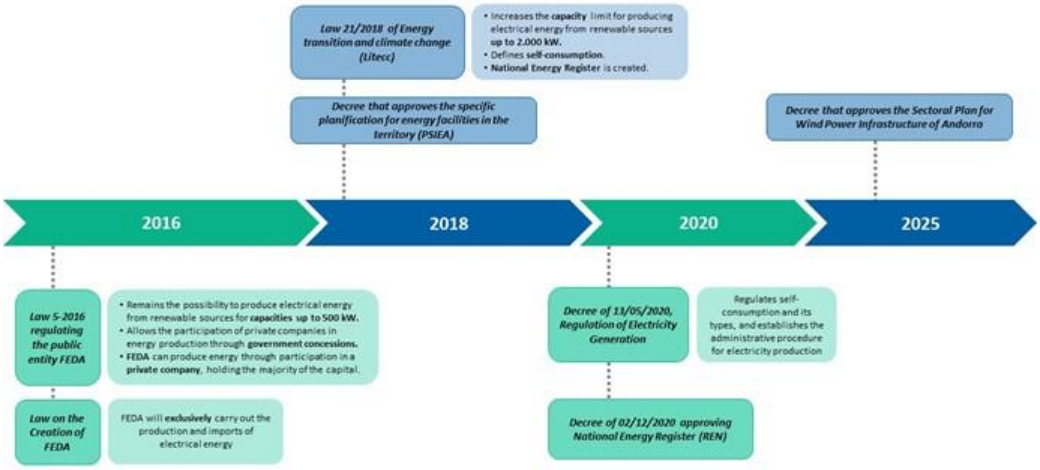
Answer by Andorra

Thank you, European Union for your question and interest in Andorra's first BTR.

Andorra's energy production regulations have evolved over the years in order to accomplish international standards and goals. Until 2010, Andorra's electrical energy production was a closed activity, where only the government or a public-private partnership was able to produce, import and distribute energy among users. In 2010, Andorra's Government approved the law 85/2010 that opened the production of electrical energy for installations up to 500 kW, however, the legal framework at that time was still very restrictive. This is why in 2016, the law 5-2016 was approved, which enabled that private companies could increase their participation in the activities of the energy system by government concessions, as well as determined that the public energy company (FEDA) could produce energy through participation in a private company, holding the majority of the capital.

As it is stated in the question, it was the energy transition and climate change law (Litecc), which aimed to regulate the reduction of energy dependency and improve renewable energies, that opened even more the possibility to produce energy with installations up to 2 MW, as well as it is defined the self-consumption in regulatory terms. Not only Litecc improved the legal framework for energy production, but also it established the national goals regarding energy transition critical points. It included the goal to increase national electricity production by 2030 in 33% and ensure a no less than 80% of share of renewable energies in this electricity production. It also established the increase of the share of electricity in transport sector in 20% by 2030. In 2020, Andorra's Government, supporting the declaration of the climate emergency promoted by countries around the world, approved our own recognition of the climate crisis and declaration of a state of climate and ecological emergency in order to also promote the provisions of the Litecc (like rising the goal of the share of renewable energies up to 80%). The next images show a scheme of the evolution of Andorra's regulations throughout the years, where it can be seen the improvements in legal terms to open energy production and increase the use of renewable energies. The following diagram represents the legal evolution of energy production in Andorra.





Litecc was a turning point for energy regulation in Andorra, but in the same year 2018, it was approved the specific planification for energy facilities in the territory (PSIEA). This regulation identifies and classifies the energy infrastructures and regulates its planification that affect to all the national territory. Being aware of the current wind energy potential, it has recently been approved the Sectoral Plan for Wind Power Infrastructure of Andorra.

It should also be noted that since 2010, Andorra's government has developed mechanisms and subsidies in order to promote the implementation of renewable energies and the renovation of buildings within the framework of energy efficiency. At the beginning, it was created a specific support mechanism that financed the purchase of electrical energy generated by renewable energy installations (photovoltaic and hydraulic). After Litecc was published, the type of subsidy changed and the government started to finance the installation price. Even financing the energy production or the installation itself, Andorra's has been committed to improve and promote the share of renewable energy in its energy system.

Question by Netherlands at Friday, 18 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Selection of indicators to track progress

In your first BTR, multiple indicators are reported to track progress in implementing and achieving Andorra's NDC, which is a reduction of greenhouse gas emissions. Could you explain why Andorra has choosen to include additional (sectoral) indicators using other metrics than GHG emissions? What opportunities and challenges do you see to track progress against these additional indicators?

Answer by Andorra

Thank you, Netherlands for your question and interest in Andorra's first BTR.

In the BTR and previous communications, the indicators that Andorra selected to monitor progress in implementing and achieving its NDC were also utilized for other purposes, including the assessment of progress toward the objectives outlined in Andorra's Long-Term Strategy on Energy and Climate Change. This integrated approach enables the use of a single, consistent set of indicators, facilitating coherence across policy frameworks and promoting their regular review and update. With this, Andorra aimed to be ambitious, but recognizes that adding complexity can be counterproductive.

Tracking additional indicators presents challenges such as increased data demands, the need for greater institutional capacity, and potential complexity in communication. A further challenge is that additional indicators may hinder effective tracking of NDC progress, as they are not directly aligned with its overarching objective and may complicate the interpretation of actual progress.

Moreover, as a result of the Technical Expert Review, Andorra received recommendations and findings related to the list of indicators used for tracking the NDC. These observations led to a revision of the set of indicators, based on the fact that Andorra's NDC does not establish sector-specific targets. In this context, it is considered more appropriate to adopt a single, aggregated indicator — **net greenhouse gas emissions** — which comprehensively reflects the overall trajectory of national emissions and serves as the most relevant metric for tracking progress. This streamlined approach enhances coherence with the structure of the NDC and ensures a clear and focused monitoring framework. Also, goes in line with what most other countries have presented in their submitted BTRs, this approach facilitates the harmonization and comparison of progress tracking across countries.

Therefore, the indicators to track progress of the NDC were updated through the submission of the CTF tables on January 10, 2025 and modifying the list previously published on the BTR.

Question by Republic of Korea at Friday, 18 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Use of sectoral indicators for tracking NDC progress

In its 2030 NDC, Andorra presented multiple sectoral targets, and the BTR tracked implementation using various indicators, such as energy intensity, renewable generation, and the number of electric vehicles. Does Andorra plan to continue using these sectoral indicators to track progress under its 2035 NDC? If so, are there any improvements under consideration based on lessons learned from the first BTR?

Answer by Andorra

Thank you, Republic of Korea for your question and interest in Andorra's first BTR.

The indicators that Andorra has selected to monitor progress in implementing and achieving its NDC are also utilized for other purposes, including the assessment of progress toward the objectives outlined in Andorra's Long-Term Strategy on Energy and Climate Change. This integrated approach enables the use of a single, consistent set of indicators, facilitating coherence across policy frameworks and promoting their regular review and update to ensure continued relevance and accuracy. With this, Andorra aimed to be ambitious, but recognizes that adding complexity can be counterproductive.

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Therefore, the indicators to track progress of the NDC were updated through the submission of the CTF tables on January 10, 2025 and modifying the list previously published on the BTR.

Andorra's NDC 3.0 submitted on February 5 th , 2025, already includes the abovementioned revision and update of the progress tracking indicators, meaning the use of only one indicator.

Question by Republic of Korea at Friday, 18 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Emission projections using WM, WOM, and WAM scenarios

Andorra presented projections to 2050 under three scenarios: With Measures (WM), Without Measures (WOM), and With Additional Measures (WAM), going beyond the minimum requirement under MPG paragraph 94. a) Could Andorra explain how each scenario—WM, WOM, and WAM—was defined and what process was used to develop them? b) The inclusion of a WOM scenario is relatively uncommon. Could the Party clarify why 2020 was selected as the base year for the WOM scenario, even though that year reflected the effects of implemented policies and measures?

Answer by Andorra

Thank you, Republic of Korea for your question and interest in Andorra's first BTR.

The initial GHG emissions projections for Andorra were developed during the preparation of its First Biennial Update Report (BUR1), using data available in 2014. These projections relied on a baseline scenario constructed from historical trends and macroeconomic indicators, and were shaped by the methodological and data limitations at the time.

To evaluate the fulfillment of the commitments under the NDCs, Andorra has **partially updated** its scenarios by taking into account new data on the carbon sink capacity of forests, using the country's first National Forest Inventory (NFI). This partial update has been published in Andorra's first BTR.

Nevertheless, given the methodological refinements and shifts in key assumptions, there is a clear need to fully update the projections. Future projections should incorporate revised macroeconomic forecasts, updated demographic trends, and the latest emissions accounting methodologies, ensuring consistency with the Enhanced Transparency Framework.

The projected scenarios will need to be recalculated considering the new considerations (see section 8.1.1 of the BTR).

The BAU (WOM) scenario has inventory data until 2011 and the emissions are projected until 2050 based on population and GDP projections; so 2020 was not taken as a base year for the WOM. The WEM scenario includes measures existing or implemented during the elaboration of the first NDC (2011-2014). The WAM scenario, includes all planned measures and instruments from 2014 to 2050.

Even if GHG emission projections were only partially updated, Andorra's emissions follow the trajectory to achieve the emission reduction goals.

Each scenario was defined based on the following assumptions (Table 27 of the BTR):

	2011 ***(Business as Usual - WOM)***	**2011 - 2014** ***(with existing measures - WEM)***	**2014 - 2050** ***(with complementary measures - WAM)***
Energy	The business as usual scenario was established from 2005, assuming emissions would remain constant relative to the equivalent population (average resident and floating population) through 2050.	This scenario was established from 2012, assuming 2011 emissions relative to the equivalent population (average resident and floating population) would remain constant through 2050.	The scenario is based on the actions and assumptions, adapted, from the White Paper on Energy and Litecc forecasts that define an energy action framework for Andorra. Two sub-scenarios derive from the "transport" chapter: (A) these measures apply to all imported hydrocarbons. (B) it is assumed that the impact of electric vehicle promotion measures will only be effective for emissions from domestic consumption.
Industrial Processes	2011 emissions were considered constant through 2050 due to a lack of historical data and available information.		

and Product Use			
Agriculture and Livestock	Emissions for the period 2001–2050 were assumed equal to the year 2000 levels.	Emissions for the period 2012–2050 were considered equal to the average of 2010 and 2011.	
LULUCF	GHG absorptions for the period 2021–2050 were considered constant and equal to the estimated average for 1990–2021.		
Waste	The WOM scenario was established for waste incineration from 1995, assuming emissions related to the equivalent population (average resident and floating population) would remain constant through 2050. For wastewater treatment, the reference year was 2005, with emissions assumed constant through 2050 based on the equivalent population.	The WEM scenario was established for waste incineration from 2011, assuming emissions related to the equivalent population (average resident and floating population) would remain constant through 2050. For wastewater treatment, the reference year was 2012, assuming the average emissions of 2010 and 2011 based on the equivalent population would remain constant through 2050.	The WAM scenario is based on the objectives of the National Waste Plan (2012–2016) and its quantitative targets. Goals include 45% for reuse and recycling (2015), with 5% specifically for organic matter recovery. No additional measures are currently planned regarding wastewater treatment and discharge.

Question by Republic of Korea at Friday, 18 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Traffic light color code for NDC tracking (TERR 10.3)

Andorra applied a traffic light color code approach to communicate progress on NDC implementation. The TERT encouraged further quantification of the criteria used to assign each color (TERR 10.3). Could Andorra provide any insights into how it plans to enhance the methodological clarity and transparency of this approach, and whether any institutional or technical steps are underway?

Answer by Andorra

Thank you, Republic of Korea for your question and interest in Andorra's first BTR.

As explained in section 3.3 of the BTR (pg. 76), progress of each of the indicators has been indicated with a traffic light colour code, where green is an appropriate progression, orange is a progression that does not respond to the set ambition and red is a progression that requires action for its improvement or that there is no data available to assess it.

Nevertheless, as a result of the Technical Expert Review, Andorra received recommendations and findings related to the list of indicators used for tracking the NDC. These observations led to a revision and update of the indicators, distinguishing them from those included in BTR 1, leaving only one indicator for tracking the NDC: net GHG emissions.

This streamlined approach enhances coherence with the structure of the NDC and ensures a clear and focused monitoring framework.

This approach eliminates ambiguity and facilitates the use of robust, well-established methodologies for emissions accounting, thereby strengthening the consistency, comparability, and transparency of progress reporting under the Enhanced Transparency Framework.

The indicators to track progress of the NDC were updated through the submission of the CTF tables on January 10th, 2025 and modifying the list previously published on the BTR.

Therefore, Andorra will not be using the traffic light colour code to communicate progress on NDC indicators any more.

Question by Republic of Korea at Friday, 18 April 2025

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Reporting disaggregated HFC data (TERR 4.1.1)

Andorra reported fluorinated gases as a group in CO_2-equivalent terms in its BTR. The TERT recommended that, in line with MPG paragraph 49, the Party report disaggregated data by chemical species (e.g., HFC-134a) and in mass units (TERR 4.1.1). Has Andorra already compiled HFC data at the chemical level? Could the Party share any challenges encountered or lessons learned in managing, compiling, or reporting disaggregated data?

Answer by Andorra

Thank you, Republic of Korea for your question and interest in Andorra's first BTR.

As reported in the TERR, data is available in the inventory calculation tool used (IPCC inventory software), but the information was not reported in the BTR1. Andorra has included this in its GHG inventory improvement plan (#I6) and will report disaggregated data by chemical species and in mass units on its next BTR.

As an illustration of this commitment, we attach the disaggregation by chemical species for the year 2021 as an example.

Tones	Importation	Exportation
HFC-23	0,000	0,000
HFC-32	3,038	0,150
HFC-125	2,835	0,177
HFC-134a	1,804	0,244
HFC-143a	0,193	0,027
HFC-152a	0,042	0,000
HFC-227ea	0,076	0,000
HFC-236fa	0,000	0,000

The main challenge in managing and reporting disaggregated data has been the initial lack of a systematic and centralized method for collecting information. The first data collected by the Department of Environment, starting in 2011, relied on manual reporting from refrigeration equipment installation companies and import data. This process was prone to inconsistencies and incomplete submissions.

A key lesson learned was the importance of establishing standardized procedures and digital infrastructure for data collection. To address these gaps, a dedicated software application was developed by the Department of Air Quality. This tool has enabled the automatic, systematic, and centralized collection of detailed data on refrigerant gases.

The application allows registered gas handlers to log the types and quantities of gases they manage throughout the year, enhancing traceability, consistency, and completeness of the dataset.

Question by Republic of Korea at Friday, 18 April 2025

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Reporting on NF_3 emissions (TERR 2.G.9)

In its first BTR, Andorra did not report NF_3 emissions, indicating that such gases were not emitted. The TERT recommended that the Party provide justification to support the indication of “Not Occurring” for NF_3 emissions (TERR 2.G.9). Could Andorra share how it plans to demonstrate the absence of NF_3 emissions in future submissions, and whether any analytical or methodological tools are being used to support this determination?

Answer by Andorra

Thank you, Republic of Korea for your question and interest in Andorra’s first BTR.

In Andorra, the industrial sector remains marginal at the national level, with 1,580 workers and 1.7% of the GVA, primarily in the subsectors of tobacco, food and beverage manufacturing, and publishing, printing, and recorded media reproduction.

In Andorra, no electronics manufacturing processes are carried out, and therefore no emissions related to this type of product are generated. As for NF3, it is assumed to be mostly present in imported products such as flat-screens and photovoltaic panels. The IPCC Guidelines establish that NF3 emissions take place only during the manufacture process.

Moreover, electronic devices are not dismantled in Andorra, and since 2001, discarded electronics are stored at the La Comella waste collection centre. From there, they are exported to an authorized treatment and recycling facility in Spain, in accordance with the European Directive on waste electrical and electronic equipment.

Question by United Kingdom of Great Britain and Northern Ireland at Thursday, 17 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Question to Andorra on their new home regulations

Thank you, Andorra, for the opportunity to comment on your 1st Biennial Transparency Report. You mention in your BTR that you are developing regulations for new build homes to have almost zero energy consumption. Can you share how you'll achieve this and whether you're also looking to retrofit existing homes with similar approaches?

Answer by Andorra

Thank you, United Kingdom of Great Britain and Northern Ireland for your question and interest in Andorra's first BTR.

The Energy transition and climate change Law (Litecc) outlines specific actions to promote energy savings and energy efficiency in buildings. These actions can be divided into: the rehabilitation of existing buildings, the reduction of energy dependence on hydrocarbons (for heat production in the building sector), efficient energy management, and the regulation of construction criteria for new buildings under nearly zero-energy building (NZEB) standards.

Currently, the requirements established for new constructions are based on the target values set out in the energy regulation for buildings, both for opaque and transparent elements. These values are more demanding and can be achieved through a judicious combination of various energy-efficient elements, components, or existing technologies.

For instance, see the next table with the main target values:

	Target values (U_{te} W/(m².K))	
Building envelope element vs. construction element	**Exterior or unheated space at less than 2 m**	**Unheated spaces or underground areas more than 2 m**
Opaque elements (roof, ceiling, walls, floor slabs)	0.09	0.15
Opaque elements with integrated heating systems	0.09	0.15
Windows, French windows	0.9	1.1
Windows with integrated heater	0.8	1.0
Doors	1.0	1.2
Doors larger than 6 m²	1.2	1.4
Shutter boxes	0.30	0.30

Table: Limit values and target values of thermal transmittance coefficients U for an ambient temperature of 20 °C

To this end, the government has implemented regulations with advanced energy requirements to ensure that newly built homes meet nearly zero-energy consumption standards and include a minimum percentage of on-site energy production from renewable sources. Additionally, the regulation is expected to be amended to require that derivative planning considers the feasibility of implementing centralized heating networks within development units during the pre-construction phase of building projects.

Regarding the retrofitting of existing homes, the Renova program encourages building renovation through direct subsidies and state-guaranteed loans to support improvements such as window replacement, enhanced façade insulation, and the installation of efficient thermal systems. This program directly contributes to the goal of reducing national energy intensity by 20% by 2030 and reducing greenhouse gas emissions from the building sector by 40% by 2030 compared to 2017 levels.

Throughout the various annual calls dating back to 2011, the Renova program has become the main tool for implementing much of the policy related to improving energy efficiency and energy savings in buildings. This is evidenced by the uptake rates for energy efficiency and renewable energy adoption in recent calls, which have exceeded 80% of all applications.

From 2011 to 2023, nearly 2,500 grants have been awarded for building rehabilitation or energy efficiency improvement actions (under chapters 4, 5, and 8 of the calls), totalling over €8.5 million granted.

This represents the total or partial rehabilitation of 5.27% of all buildings in the country (considering there were 46,790 buildings in 2022).

Question by New Zealand at Thursday, 17 April 2025

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Progress or barriers towards capacity building needs

New Zealand congratulates Andorra for being the first Party to submit its first BTR. The technical expert review report lists priorities for capacity-building for Andorra's reporting. Could Andorra provide an update on these capacity-building needs, and any progress or barriers to date?

Answer by Andorra

Thank you, New Zealand for your question and interest in Andorra's first BTR.

Regarding CBNs related to improving the **energy sector** data and the elaboration of the National energy balance (a, b, c, e), Andorra requested a specific capacity building activity implemented by the UNFCCC Secretariat that aimed to promote our Quality Assurance of the National Energy Information Management Systems (EIMS) and Energy Statistics.

Based on this Quality Assurance workshop the improvement process of Andorra's energy information system has started by improving the digital platform where all the national energy data is centralised and by streamlining the communication with the energy sector stakeholders and data providers (mainly trying to understand their databases and making easier their reporting obligation).

Andorra is also working on the elaboration of its first National Energy Balance, to be issued this year.

Regarding CBNs related to improving understanding of the **LULUCF sector** (f, g, h), Andorra has worked with an external consultant to improve the data quality and emissions calculation of the LULUCF sector, including a QA/QC methodology.

Regarding CBNs related to improving **GHG projections** (i), Andorra planned it as a top priority and has initiated efforts in this regard, with a particular focus on the implementation of the MITICA software that allows to quantify emissions reductions from individual mitigation actions. In pursuit of this objective, Andorra has actively engaged in MITICA-related activities, including on-site presentations at the COP28 and participation in online training sessions. It also has been using the software and helped improving it by finding errors and being in close contact with the software developers.

It is anticipated that the integration of MITICA into their processes will enable Andorra to enhance its capacity to update GHG emissions projections and assess the impact of mitigation measures over time. As a result, Andorra envisages that the next BTR will benefit from the use of MITICA, facilitating a more comprehensive and accurate representation of GHG emissions projections and quantify the effect of mitigation actions over time.

Regarding the CBN related to the estimation of the quantitative values for selected **indicators of progress** (j), it has to be considered that the set of indicators has been modified and reduced to a single indicator – GHG net emissions - so this CBN is no longer applicable.

Although progress has been made, Andorra is aware that there still is significant room for improvement. The country continues facing challenges related to very limited capacities, with small technical teams and no extra financial support.

Question by Japan at Wednesday, 16 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Tracking the progress of indicators

Andorra has defined a series of quantitative and qualitative indicators to evaluate the achievement of the objectives set by the national strategy and NDC. Could Andorra share the challenges and solutions encountered in selecting these indicators and assessing the achievement of the goals? Additionally, how are the results of these evaluations used to improve policies and measures?

Answer by Andorra

Thank you, Japan for your question and interest in Andorra's first BTR.

In the BTR and previous communications, the indicators that Andorra selected to monitor progress in implementing and achieving its NDC were also utilized for other purposes, including the assessment of progress toward the objectives outlined in Andorra's Long-Term Strategy on Energy and Climate Change. This integrated approach enables the use of a single, consistent set of indicators, facilitating coherence across policy frameworks and promoting their regular review and update. With this, Andorra aimed to be ambitious, but recognizes that adding complexity can be counterproductive.

Tracking additional indicators presents challenges such as increased data demands, the need for greater institutional capacity, and potential complexity in communication. A further challenge is that additional indicators may hinder effective tracking of NDC progress, as they are not directly aligned with its overarching objective and may complicate the interpretation of actual progress.

Moreover, as a result of the Technical Expert Review, Andorra received recommendations and findings related to the list of indicators used for tracking the NDC. These observations led to a revision of the set of indicators, based on the fact that Andorra's NDC does not establish sector-specific targets. In this context, it is considered more appropriate to adopt a single, aggregated indicator — **net greenhouse gas emissions** — which comprehensively reflects the overall trajectory of national emissions and serves as the most relevant metric for tracking progress. This streamlined approach enhances coherence with the structure of the NDC and ensures a clear and focused monitoring framework. Also, goes in line with what most other countries have presented in their submitted BTRs, this approach facilitates the harmonization and comparison of progress tracking across countries.

Therefore, the indicators to track progress of the NDC were updated through the submission of the CTF tables on January 10, 2025 and modifying the list previously published on the BTR.

Question by Japan at Wednesday, 16 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Measures to reduce GHG emissions from tourism

Andorra's attractive landscape makes tourism a major pillar of its economy. With a population of around 80,000 and over 10 million tourists visiting each year, the impact of the GHG emissions associated with tourists and tourism is expected to be significant. As the number of tourists visiting Japan has also been increasing rapidly in recent years, could Andorra share any successful or good practices of measures to reduce GHG emissions from tourists and tourism?

Answer by Andorra

Thank you, Japan for your question and interest in Andorra's first BTR.

Andorra is a renowned mountain and snow tourism destination that has been identified as vulnerable due to climate change. Due to the lack of a strong core industry, the country's economy is heavily dependent on tourism, which is driven by its natural beauty and winter sports. However, with 40% forest cover and 308 km of ski slopes, our country exemplifies both this vulnerability and the opportunity to lead the way in sustainable change.

Sustainability is not just a matter of social responsibility; it is a strategic cornerstone of Andorra's national development. The newly developed Tourism Law will reflect this aim by providing a comprehensive legal framework that integrates sustainability across its three pillars: environmental, social, and economic. This comprehensive approach aims to address persistent challenges such as the shortage of skilled labor, the seasonality of tourism, overcrowding in key destinations, the availability of tourism carrying capacity, and the rising cost of housing. These issues directly impact both the quality of visitor experiences and the well-being of the local population, influencing Andorra's long-term competitiveness as a global tourism destination.

In this process, UN Tourism plays a key coordinating role, working closely with our institutions and international experts to ensure that the law is in line with global standards and best practices. This collaboration provides both international validation and strategic support, strengthening law relevance at global and national level.

Regarding emissions, those from tourism are not specifically distinguished as a separate category under the IPCC Guidelines, and therefore cannot be reported independently as such. In the case of Andorra, it is also not possible to isolate tourism-related emissions within the national economy, as the country is predominantly based on the tertiary sector. Tourism plays such a significant role in the overall economy that its emissions are deeply embedded across various sub-sectors, making differentiation unfeasible.

The main emitting sectors in Andorra are the building and transport sectors. In the building sector, efforts are underway to ensure that all new constructions meet nearly zero-energy standards (e.g. passive house criteria). In addition, the government supports energy renovation and the improvement of energy efficiency in existing buildings through the Renova subsidy program.

In the transport sector, measures include making public transportation free of charge, promoting the electrification of the vehicle fleet, and working toward the implementation of segregated transport systems.

Lastly, carbon sinks and forests are protected under Law 7/2019 on the conservation of the natural environment, biodiversity, and landscape.

Question by Canada at Tuesday, 15 April 2025

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Institutional arrangements for data collection under the GHG Inventory

Could you describe the institutional arrangements in place to access or collect national energy activity data and any challenges or planned improvements in relation these arrangements?

Answer by Andorra

Thank you, Canada for your question and interest in Andorra's first BTR.

The energy transition and climate change law (Litecc) establishes as public information of interest and remains responsibility of the government its management the information of production, imports and exports of energy, sale of energy, energy sale prices and emissions from national GHG inventories. It also creates and defines for the first time the National Energy Register (REN) as a tracking and control tool that aims to centralize all the energy fluxes of Andorra and fulfil with the commitment of gather and register all the information subject to systematic observation.

Based on this definition established by the Litecc, the regulation of the National Energy Register (REN) was developed and approved in 2020 (Regulation 2-12-2020). This regulation defined the administrative and technical management conditions of the REN and defines the information needed and who should provide this information (look at the table below).

Information subject to REN	**Reporting Entity**
Electrical energy production	Electrical energy companies
Electrical energy consumption	Electrical energy companies
Electrical energy imports and exports	FEDA
Heat and electrical energy prices	FEDA
Non-electrical energy imports and exports	Department of taxes and borders of Andorra
Non-electrical energy transport, distribution, storage and sale	Hydrocarbon distributors companies
Heat and other energy products generation	Facilities owners

Currently, all this energy information system is not completely developed. For now, we gather part of the information of energy production by REN, where electrical energy companies are registered and upload all the electrical energy productions of their grid. For other energy production, we ask directly to the producers. For importation and exportation, we receive a private file from the

Department of taxes and borders of Andorra. And for the final use we compile information from Statistics Department.

As it can be seen, having different sources of information and different communication channels does not help to guarantee data quality and gather all the information completely. This is why we voluntarily requested a specific capacity building activity implemented by the UNFCCC Secretariat that aimed to promote our Quality Assurance of the National Energy Information Management Systems (EIMS) and Energy Statistics.

Based on this Quality Assurance, we have been improving our energy information system by improving the digital platform where REN is and improving its capacities in order to accomplish with the information necessary that is defined in Litecc. Talking with all the energy actors is also a task that we are in continuous improvement; trying to understand their own databases and making easier their reporting obligation.

Question by Canada at Tuesday, 15 April 2025

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Quality management system of GHG Inventory

Could you please share some examples of good practices used to ensure that QA/QC checks are done thoroughly for all sectors as well as for cross-cutting areas of the GHG inventory?

Answer by Andorra

Thank you, Canada for your question and interest in Andorra's first BTR.

In Andorra, due to human and administrative limitations, the national inventory team has focused its QA/QC efforts primarily on the Energy and AFOLU sectors, as these are the most significant in terms of emissions.

External technical assistance was engaged, resulting in the development of an improvement plan for energy statistics designed to enhance the consistency and accuracy of the data.

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At the same time, a reporting template for the AFOLU sector was developed, incorporating built-in quality control checks to support systematic data validation and minimize the risk of errors. For instance, land-use trends from the previous 20 years were extrapolated to fill historical data gaps, and hypotheses were established based on the analysis of orthophotos. Additionally, Andorra is considering the use of the Collect Earth tool to improve the identification of land-use changes and contributed to reducing uncertainty in the reported data.

The following table is an example of some of the quality checks of the AFOLU reporting template (there are more than 100 checks):

QA/QC Principle	Check	Code	Description	Source of check	Notes
Principle which this check adheres to (see box above) Multiple options may be selected	Title of the check to be undertaken		Description of the check	Where the check is from eg review checklist	Any issues or notes arising from the check
Land Use Data Checks					
Accuracy	Total area consistency		Checking that the total national area is consistent across the timeseries See column AM in the 'LU Matrix' sheet and column AL in the 'LU Matrix - KP' sheet	Aether LULUCF specific checks	No. Please check the reference to the column in Description of the check. It seems the sheet "LU matrix" has changed and the reference may be BA or BB
Accuracy	Initial vs final area checks		Checking that the initial area by land use type equals the final area in the previous year. See 'LU Matrix' sheet, the check is performed on an aggregate and disaggregated level	Aether LULUCF specific checks	No
Accuracy	Negative values in the land use matrix		Checking that there are not negative land areas in the land use matrix See 'LU Matrix' sheet	Aether LULUCF specific checks	No
Compilation Checks					
Accuracy	Activity data source		Is the appropriate data source being used for activity data?	Aether standard	Yes.
Accuracy	Correct units		Check that the correct units are being used	Aether standard	Yes.
Accuracy	Unit carry through		Are all units correctly carried through calculations to the summary table? This includes activity data and emission factors	Aether standard checklist	Yes.

Although QA/QC procedures are applied across all sectors and cross-cutting areas to the extent possible, current efforts are concentrated on the most impactful sectors. The expansion of QA/QC practices to other areas will be considered as additional resources become available.

Question by Canada at Tuesday, 15 April 2025

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Estimated emissions reductions by measure

EN: Does the Government of Andorra have plans to calculate estimated emissions reductions for the measures in Appendix VIII (mitigation measures)? If so, what are those plans? What support, if any, does Andorra need to include this information in future reporting?

ES: ¿El Gobierno de Andorra tiene planes de calcular las reducciones de emisiones estimadas para las medidas en el Apéndice VIII (Medidas de mitigación)? ¿Si es que si, cuales son los planes? Si lo hay, ¿qué apoyo necesita Andorra para incluir esta información en informes futuros?

Answer by Andorra

Thank you, Canada for your question and interest in Andorra's first BTR.

Andorra has identified gaps in its technical capacity to evaluate and quantify emission reductions resulting from mitigation actions; hence, flexibility has been applied with respect to this reporting requirement for the BTR1 and mentioned this as a high-priority capacity-building need in the BTR1 (section 6.6).

Updating GHG emissions projections is now planned as a top priority and Andorra has initiated efforts in this regard with a particular focus on the implementation of the MITICA software that allows to quantify emissions reductions from individual mitigation actions. In pursuit of this objective, Andorra has actively engaged in MITICA-related activities, including on-site presentations at the COP28 and participation in online training sessions.

It is anticipated that the integration of MITICA into their processes will enable Andorra to enhance its capacity to update GHG emissions projections and assess the impact of mitigation measures over time. As a result, Andorra envisages that the next BTR will benefit from the use of MITICA, facilitating a more comprehensive and accurate representation of GHG emissions projections and quantify the effect of mitigation actions over time.

Even if GHG emission projections were only partially updated, Andorra's emissions follow the trajectory to achieve the emission reduction goals. This has been considered by the TERT and reflected in para. 22 of the TERR.

Question by Canada at Tuesday, 15 April 2025

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Methods for projections

EN: Which specific models does the Government of Andorra use to produce its GHG emissions projections? ES: ¿Cuales son los modelos específicos que utiliza el Gobierno de Andorra para producir las proyecciones de emisiones y absorciones de gases de efecto invernadero?

Answer by Andorra

Thank you, Canada for your question and interest in Andorra's first BTR.

The initial greenhouse gas (GHG) emissions projections for Andorra were developed during the preparation of its First Biennial Update Report (BUR1), using data available in 2014. These projections relied on a baseline scenario constructed from historical trends and macroeconomic indicators, and were shaped by the methodological and data limitations at the time.

The BAU scenario has inventory data until 2011 and the emissions are projected until 2050 based on population and GDP projections. The WEM scenario includes measures existing or implemented during the elaboration of the first NDC (2011-2014). The WAM scenario, includes all planned measures and instruments from 2014 to 2050.

Given the methodological refinements and shifts in key assumptions, there is a clear need to update them. Future projections should incorporate revised macroeconomic forecasts, updated demographic trends, and the latest emissions accounting methodologies, ensuring consistency with the Enhanced Transparency Framework.

Improvements for future projections are listed in section 8.1.1 of the BTR.

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Question by Canada at Tuesday, 15 April 2025

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 20 April

Title: Achieving energy security goals

EN: What actions or measures has the Government of Andorra adopted or proposed to meet the energy security goals established in its LITECC legislation? How is the government expanding, or supporting the expansion of, domestic infrastructure for energy production?

ES: Para lograr los objetivos de seguridad en el abastecimiento energético establecidos en la legislación Litecc, cuales acciones o medidas ha adaptado o ha propuesto el Gobierno de Andorra? ¿Cómo se está expandiendo, o apoyando la expansión de la infraestructura domestica para la producción energética?

Answer by Andorra

Thank you, Canada for your question and interest in Andorra's first BTR.

As Andorra only produces 20% of its energy consumption and imports the 80% remaining, it is highly vulnerable to fluctuations in global markets because of its external dependence on energy resources. In addition, with an economy strongly based on tourism, lacking any big industry and with a small primary sector representation, the country must ensure a reliable and resilient energy supply to maintain its competitiveness and sustainability. This is why the energy transition and climate change law (Litecc) aimed to regulate the reduction of energy dependency and improve renewable energies by establishing the national goals like increasing national electricity production by 2030 in 33% and ensure a no less than 80% of share of renewable energies in this electricity production. Specifically, Andorra's commitments with the energy transition are based on the increase of the national production by improving the legal framework and allowing the participation of the private sector in

energy production and diversification of energy sources, providing economic support by subsidies or establishing legal goals like in Litecc.

Not only legal commitments have been determined. As a matter of fact, Andorra's electrical system has been improving constantly, being aware of its vulnerability, interconnections with our neighboring countries have become a key issue for Andorra.

Therefore, Andorra's transport network is connected to France and Spain via two high-voltage (HTB) double-antenna lines operating at different voltage levels (110 kV and 225 kV), and four substations responsible for dispatching electricity to the distribution network, without any possibility of interconnection between the two neighboring countries. As a result, Andorra can be supplied either 100% by the French network (RTE), 100% by the Spanish network (REE), or in a mixed configuration. Consequently, there is a technical limitation on the amount of electricity that can be imported while still ensuring the country's energy security.

However, the lack of national electricity generation capacity (only 20%) makes the grid's stability even more vulnerable, since 80% of the country's consumption depends on the two cross-border connections and their reliability. The country's main hydroelectric plant, which produces 17% of demand (around 85% of national production), is used for primary grid regulation, helping to meet peak demand and stabilize prices and to maintain competitiveness.

So, even if energy security is guaranteed by interconnections, Andorra's Government is aware of its highly external energy dependence. This is why self-consumption is promoted through subsidies and a wider legal framework that defines different types of self-consumption, including a distance or relocated modality, trying to increase the number of domestic productions facilities and increase distributed generation, where the consumer plays a more significant and active role in the electricity system.

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Session closed at 06-06-2025

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