

“THE RELEVANCE OF THE ENERGY CHARTER TO DEVELOP RENEWABLE ENERGIES IN LATIN AMERICA”

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1. INTRODUCTION

The energy sector is shifting from a national to a global industry due to international issues related to energy trade, investments, transit and climate change, which are becoming increasingly important. In order to strengthen the global response to the threat of climate change and aiming to improve energy security, it is necessary to mobilise energy investments worldwide. At the same time, this energy transition demands not just technology developments, but also a legal framework to the international level where the energy markets operate. Emerging regions such as Latin America are called to play an important role in this new era in order to contribute to sustainable development and each country has undertaken measures to foster renewable energies, including Chile, Colombia and Guatemala. The Energy Charter Treaty, which these three countries are observers, is a unique instrument under international law to foster investments, trade, transit, cooperation and energy efficiency with a great potential to further promote sustainable energy at global level and to strengthen global energy security by extending the application of its legal framework to an increasing number of countries. This article will help to understand the interactions between the Energy Charter Process and Latin America, as well as the relevance of the ECT to promote renewable energy sources worldwide.

2. NEW TRENDS IN THE GLOBAL ENERGY SECTOR

There are three emerging trends in the global energy sector: energy decarbonisation, demand response encouraged by technology and the Energy Charter Treaty.¹

This article will address two of these trends: the development of renewable energies as a way to contribute to energy decarbonisation and the Energy Charter Process, an important instrument to foster investments, trade, transit, cooperation and energy efficiency worldwide. The decarbonisation of the energy sector means reducing its carbon intensity. That is, reducing the greenhouse emissions per unit of energy produced. This is one of the commitments adopted in 2015 by 195² countries in the Paris Agreement COP-21, which agreed a long term goal of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C.

One of the ways to achieve these goals is to increase the share of low-carbon energy sources like renewables, in the global energy matrix. Renewable energy sources include technologies such as wind, solar, biofuels, biomass, geothermal, hydropower and tidal. What unifies these varied technologies is that they are not based upon finite resources; they are widely

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¹López-Ibor, Vicente in “International Energy Charter addressed at XI. ASIER Conference in Argentina”. Energy Charter. Brussels, 2016. http://www.energycharter.org/media/news/article/international-energy-charter-addressed-at-xi-asier-conference-in-argentina/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=fbac5cba5a8cd49b6e49a5fb7d381c0a

² Number of countries taken from: <http://newsroom.unfccc.int/unfccc-newsroom/finale-cop21/>

distributed; they do not add, at least in theory, to carbon, and thus have a much more restricted carbon foot print.³

Likewise, renewable energy is usually exploited in a decentralized way in small installations. Conventional energy, on the contrary, tends to be used in big, centralized power stations.⁴

As they are not concentrated in any region, the development of renewable energy sources are also a mechanism to foster energy security in countries highly dependent on imported fossil fuels. In the energy transition era, the Churchill's famous dictum about supply –“variety and variety alone”- still resounds powerfully.⁵

The implementation of alternative energies challenge the traditional market structures in terms of operation and competition. The case of the European Union (EU) and the electricity market is illustrative: *“(...) the use of renewable energy leads to the development of a more decentralized energy system and creates local employment throughout the Union. (...) the promotion of renewable electricity has increased competition in electricity markets. Owners of renewable power plants tend to be new entrants into the electricity market, rather than the incumbent operators. As a result, market power of incumbent operators, which due to their former monopoly often dominated markets, has reduced significantly in some Member States.”*⁶

³Yerguin, Daniel. “The Quest: energy, security, and the remaking of the modern world”. The Penguin Press. USA. 2011, p. 525.

⁴Maxian, Tim. “EU Renewable Electricity Law and Policy”. Cambridge Studies in European Law and Policy. Cambridge. United Kingdom. 2015, p. 3

⁵ Yerguin, Daniel. Ob. Cit., p. 716.

⁶ Maxian, Tim. Op. Cit., p. 3

The COP-21 is only one of the multiple examples which demonstrates how the energy sector is developing from a national to a global industry due to the increasing importance of international issues related to energy trade, investments, transit and climate change. In order to strengthen the global response to the threat of climate change and aiming to improve energy security, it is necessary to mobilise energy investments worldwide. At the same time, this energy transition demands not just technology developments, but also a legal framework to the international level where the energy markets operate.

At an international level, this policy was adopted in the 90s among Western European and Eurasian countries through the Energy Charter Treaty (ECT), a unique multilateral, legally binding investment protection framework for the energy sector.⁷ Nowadays, the ECT covers countries from the Atlantic to the Pacific, from Europe to Japan, being signed or acceded by fifty-two states, the European Union and the European Atomic Energy Community (EURATOM).

The ECT provides a multilateral framework for long-term cooperation in the energy field that is unique under international law. It is designed to promote energy security through the operation of more open and competitive energy markets, while respecting the principles of sustainable development and sovereignty over energy resources. The Treaty was signed in December 1994 and entered into legal force in April 1998. The ECT incorporates the main rules of the World Trade Organisation (WTO) with respect to trade in goods in the energy sector, as a particular sector of the economy. The provisions of the Treaty and its Protocols

⁷Rusnák, Urban. “Modernisation of the Energy Charter”. 2013. Available at: <http://eng.globalaffairs.ru/number/Modernization-of-the-Energy-Charter-16294>

cover energy trade, competition, transit, transfer of technology, environment, access to capital, investment promotion and protection, energy efficiency and focus on four broad areas:⁸

- The protection of foreign investments, based on the extension of national treatment, or most-favoured nation treatment (whichever is more favourable) and protection against key non-commercial risks;
- Non-discriminatory conditions for trade in energy materials, products and energy-related equipment based on WTO rules, and provisions to ensure reliable cross-border energy transit flows through pipelines, grids and other means of transportation;
- The resolution of disputes between participating states, and -in the case of investments- between investors and host states;
- The promotion of energy efficiency, and attempts to minimise the environmental impact of energy production and use.

Member countries of the ECT also found in energy integration and cooperation a foremost way to attract investments in energy infrastructure, create economies of scale, increase energy security through the use of geographic and seasonal complementarities, diversify the energy mix, expand trade markets, promote energy efficiency and reduce environmental and infrastructure costs.

⁸This description is taken from <http://www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty/> Last accessed December 30, 2016.

In May 2015, the Energy Charter process was modernised through the International Energy Charter (IEC), a declaration of political intention towards a new age of global energy cooperation. The IEC has been adopted by 83 countries from all continents, including the USA, China, the UK and Niger. From Latin America, so far Colombia, Chile and Guatemala have signed the IEC. IEC signatories confirm that cooperation is necessary in the field of efficient use of energy, development of renewable energy sources and energy-related environmental protection.

As it was set by the members of the Energy Charter Conference in the “*Tokyo Declaration*” in 2016 in Japan: “(...) *the ECT has the great potential to further contribute to promoting sustainable energy at global level and to strengthening global energy security by extending the application of its legal framework to an increasing number of countries (...)*”.⁹

3. RENEWABLES AND THE ENERGY CHARTER

Investments in renewable energies share most of the characteristics of those in conventional energies: projects are highly strategic, capital-intensive, require complex technology, there is a global competition, and the risks have to be assessed over the long-term.

In 1994, when the Energy Charter Treaty was adopted, unconventional renewable technologies such as solar and wind existed, but without any penetration in the energy markets. However, the treaty was conceived technologically neutral and its provisions promote sustainable development, environmental protection and energy efficiency. An

⁹ENERGY CHARTER CONFERENCE. “Tokyo Declaration on the Energy Charter” 26 November 2016. Available at: <http://www.energycharter.org/fileadmin/DocumentsMedia/CCDECS/2016/CCDEC201631.pdf>

example of these rules is Article 19, which sets that Contracting parties shall have particular regard to improving energy efficiency, to developing and using renewable energy sources, to promoting the use of cleaner fuels and to employing technologies and technological means that reduce pollution. The Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects, which entered into force at the same time as the Energy Charter Treaty (1998), also endorses these principles.

The Energy Charter Treaty benefits investments in traditional energy sources as well as in renewables, promoting the rule of law, the access to capital, investment protection, stability and transparency of the investment climate between contracting parties.

Furthermore, the broad scope of the ECT has been tested during the last lustrum by investor claims against European states such as Spain, Italy, Czech Republic and Bulgaria requiring protection to their investments in renewable energy sources, invoking ECT provisions.

These claims are mainly for *“breach of the fair and equitable treatment standard and for conduct amounting to expropriation. These are amongst the many broad protections provided to foreign investors in the energy sector under the ECT.”*¹⁰

¹⁰Grace, Stephanie. “The Energy Charter Treaty: new energy, new era”. September 2, 2016. In Thomson Reuters. Arbitration Blog. At: <http://arbitrationblog.practicallaw.com/the-energy-charter-treaty-new-energy-new-era/>

Comparing the conventional versus renewable energy cases, 48 out of a total of 99 ECT claims registered to date, now relate to renewable energy sector investments (26 out of 33 in 2015-2016).¹¹

Additionally, the IEC enshrines the use of new and renewable energies and clean technologies, energy efficiency and environmental protection by means of¹²:

- Creating mechanisms and conditions for using energy as economically and efficiently as possible, including, as appropriate, regulatory and market based instruments;
- Promotion of a sustainable energy mix designed to minimise negative environmental consequences in a cost-effective way through:
 - i. Market-oriented energy prices which more fully reflect environmental costs and benefits;
 - ii. Efficient and coordinated policy measures related to energy;
 - iii. Use of renewable energy sources and clean technologies, including clean fossil fuel technologies;
- Sharing of best practices on clean energy development and investment;
- Promotion and use of low emission technologies.

4. LATIN AMERICA AND THE ENERGY CHARTER PROCESS

Latin America and the Caribbean is a region rich in energy resources: it has the second oil reserves after the Middle East¹³, the second¹⁴ hydropower generation worldwide¹⁵ with a

¹¹ *Ibidem*.

¹² International Energy Charter. Title I, numeral 3.

¹³ British Petroleum. “BP Statistical Review of World Energy”. London. June 2016, p. 6.

¹⁴ After East Asia and Pacific.

¹⁵ International Hydropower Association. “Hydro Power Status Report”. London. 2016, p. 29.

further unexploited potential of 430GW¹⁶ of unexploited hydropower potential and a large potential for unconventional renewable energies. The share of renewable energy sources in total final energy consumption is one of the highest in the world, reaching 27% in 2013, compared to a global average of 18%. The region has seen energy demand increase by a third in a decade,¹⁷ and primary energy demand is expected to rise by more than 60% between 2012 and 2040.¹⁸The region achieved around 96% electricity access, remaining about 30 million people who do not have electricity. Regarding economic performance, in 2015 Latin America attracted 9% of world FDI inflows and 2% of FDI outflows. It means a decrease respect to the year 2015, when the region attracted 13% of FDI inflows.¹⁹

To attain its goals in the energy sector, Latin America faces three main challenges: a) growing energy demand, b) need of investments in energy projects, and c) regional and international integration.

Each country has adopted reforms to foster investments in the energy field with different scopes, and some milestone cases are Chile in 1982 and recently Mexico in 2014.

Regarding renewable energy, a marked feature of Latin America's electricity mix is the large share of hydropower. Conversely, unconventional energy sources such as solar and wind are still incipient. For Latin America it is necessary to diversify, considering its growing demand and dependence on hydro sources for electricity generation which are highly vulnerable to

¹⁶ Ibid, p. 40.

¹⁷ Ibidem.

¹⁸ Röhrkasten, Sybille. "Regional energy integration: the global energy governance and the Latin American Scenario" in Konrad-Adenauer-Stiftung. Regional Energy Integration. 2015, p. 29. Data based on IEA (2014: 678).

¹⁹UNCTAD. Ob. Cit. p. 36.

climate change. There are still isolated areas where conventional energy sources would result expensive and inefficient. There are several options to promote diversification, which include unconventional renewable sources and energy integration.

The region is looking towards unconventional energy sources, the challenge is to make unconventional energies cost efficient adopting mature technology and delivering appropriate investments signals. Each country has undertaken measures to foster renewable energies. In 2015, Brazil, Mexico and Chile ranked in the list of the top 10 largest renewable energy markets globally.²⁰

At the same time, Latin America has experimented multiple initiatives of subregional economic integration: the Andean Community (CAN), Caribbean Community (Caricom), Southern Common Market (Mercosur), Central American Integration System (SICA), Union of South American Nations (Unasur) and Pacific Alliance. The region, however, has not adopted a multilateral agreement for the energy sector. Only Central America has embraced a specific treaty to develop its electricity market.

According to the World Bank's report, Global Economic Prospects 2016, in Latin America:²¹

“Despite a multitude of regional trade agreements, economic linkages within the region [Latin America and Caribbean region] tend to be limited and largely confined to sub-regions.”

²⁰International Renewable Energy Agency (IRENA). “Renewable Energy Market Analysis. Latin America”. Abu Dhabi. 2016, p. 10.

http://www.irena.org/DocumentDownloads/Publications/IRENA_Market_Analysis_Latin_America_2016.pdf

²¹WORLD BANK. “Global Economic Prospects, 2016”. Washington. Enero. 2016., p. 112. Accessed February, 2016: <http://pubdocs.worldbank.org/en/842861463605615468/Global-Economic-Prospects-June-2016-Divergences-and-risks.pdf>

The existing fragmented landscape in Latin America could benefit from the Energy Charter Treaty, a comprehensive policy and multilateral agreement aiming to maximise energy resources, attract investments and even promote the intraregional flow of capital. This would facilitate rules for energy trade, investments, transit, integration and legal harmonization, which has been a barrier to develop, for instance, interconnection projects.

Among other benefits, increased levels of integration can allow for better incorporation of variable renewables into power systems while ensuring economies of scale for larger projects.²²

Spain, the UK, Belgium, France, Japan, the Netherlands and Germany are some top 10 investor economies in the region²³ which are full members of the ECT and leaders in renewables energies in the world. Therefore, the adoption of the ECT may be also an opportunity for Latin American countries to re-assess their energy FDI strategies and increase energy cooperation.

From Latin America, so far Colombia, Chile and Guatemala have signed the IEC, taking a step towards global energy integration and bearing in mind the relevance of renewable sources in order to satisfy their energy needs. These three countries have other aspects in common: great potential for renewable energy sources, the implementation of measures in their energy sector aiming to foster private investment and have signed the Paris Agreement –COP-21.

²²IRENA. “Renewable Energy Market Analysis. Latin America”. Op. Cit., p. 146

²³UNCTAD. “World Investment Report”. Geneva. 2016, p. 51.
http://unctad.org/en/PublicationsLibrary/wir2016_en.pdf

The following paragraphs describe measures and efforts made by Chile, Colombia and Guatemala, the Latin American countries observers to the Energy Charter Conference, in order to deploy renewable energy sources, attract investments to this sector and develop their “green energy law”.

4.1 Chile

The main source of primary energy production in Chile is oil (32,9%), followed by coal (24,4%), firewood and biomass (23,7%) and hydroelectricity (6,4%). 95% of oil is imported.²⁴ In 2014 the electricity matrix relied on fossil fuels: coal (41%) and natural gas (11%), followed by hydroelectricity power (34%), biomass (4%), wind (2%), solar (1%) and other sources (7%).²⁵ In 2015 Chile's power *sector* had 20.375 MW of installed capacity.²⁶ The principal renewable source of energy is hydroelectricity, while unconventional renewables such as solar, wind, biomass and small hydro have increased their share in installed capacity from 286MW in 2005 to 2.269 MW in 2015, representing 11,41% of total installed electricity capacity.²⁷

Chile is one of the main importers of energy resources in South America including natural gas, oil and coal. Additionally, in 2016 Chile began to export electricity and natural gas to Argentina.²⁸ For this reason, renewable energies are called to play a noteworthy role aiming

²⁴Ministry of Energy. “Energía 2050. Política Energética de Chile”. Santiago de Chile. 2015, p. 20. At http://www.minenergia.cl/archivos_bajar/LIBRO-ENERGIA-2050-WEB.pdf

²⁵Ibid., p. 22.

²⁶Ibidem.

²⁷Ibid., p. 24.

²⁸See “Chile to begin gas exports to Argentina this week”. May 10, 2016. <http://www.reuters.com/article/chile-argentina-gas-idUSL5N1877JD> and “Argentina to buy gas, electricity from Chile”. January 30, 2016. <http://www.buenosairesherald.com/article/207792/argentina-to-buy-gas-electricity-from-chile->

to diversify its electricity mix, carrying the country to undertake policies and enact laws and regulations to achieve this goal.

The legal framework to promote renewable energy sources is made up by Law 20257 enacted in 2007 which sets an initial quota of 5% renewable electricity in 2014 to be increased in 0.5% yearly until 2024. The quota applies to all electricity sales and has a non compliance penalty. In 2013 Law 20/25 increased the quota to 5% in 2013 with yearly increments of 1% until reaching 12% in 2020. Since 2005, Law 20018 introduced a regulatory instrument, non discriminatory auctions, requiring distribution companies to source power for regulated markets through this mechanism (including renewables) and allows renewable energy producers to sign long term power purchase agreements with distribution companies.²⁹ In 2013 Law 20/25 also brought in a new public auction system. In 2012 Law 20251 introduced a net metering scheme, grid access measures for renewable energies were implemented in 2004 by Law 19940. There are no fiscal incentives for renewable electricity in Chile, though a carbon tax was introduced in September 2014 (Law 20780 tax reform).³⁰

In December 2015 Chile enacted Decree 148 which sets up its long term energy policy until the year 2050, founded in four pillars: security and quality of supply, energy to boost development, environmentally friendly energy, efficiency and energy education. Regarding renewable energy sources, this policy establishes a target to generate 60% of electricity from renewable sources by 2035 and 70% by 2050; become an exporter of technology and services

²⁹IRENA (2015). “*Renewable Energy Policy Brief: Chile*”. ©IRENA, Abu Dhabi, p. 3. at http://www.energynet.co.uk/webfm_send/1191

³⁰ *Ibidem*.

for solar industry in 2035;³¹ decrease Greenhouse Gas Emissions levels in 30% by 2030 with respect to 2007 levels according with its Intended Nationally Determined Contribution and Paris commitments, and promote higher standards of green energy in transportation introducing 50% of low Greenhouse emissions fuels by 2035 and 60% by 2050.

The long term energy policy, also encourages interconnections to the Andean Electricity Interconnection System (SINEA) and Mercosur countries.

In 2015, Chile along with Mexico joined the list of the top 10 largest renewable energy markets globally.³² In 2015, Chile added over 400 MW of solar PV for the second consecutive year, while 110 MW of solar Concentrated Solar Power (CSP) is under construction (the first SP project in Latin America).³³

4.2 Colombia

In Colombia, 93% of primary energy production is made up of fossil fuels (coal, oil and natural gas), 4% is from hydro sources and 3% from biomass and residues. 78% of primary energy resources consumed are fossil fuels and 22% are renewable resources.³⁴ At the end of 2015 the installed capacity in the National Interconnected System was 16.436 MW³⁵ and 98% of the population has access to electricity.

³¹Ministry of Energy. “Energía 2050. Política Energética de Chile”. Santiago. Op. Cit., p. 69.

³²IRENA. “Renewable Energy Market Analysis. Latin America”. Op. Cit., p. 10.

³³Ibid, p. 53.

³⁴Mining and Energy Planning Unit. (UPME). “Integración de las Energías Renovables No Convencionales en Colombia.” Bogota. 2015, p. 27.

³⁵ UPME. “Informe Mensual de Variables de Generación y del Mercado Eléctrico Colombiano Diciembre de 2015.” Bogota. 2016.

Hydroelectric power generation represents 70% of the electricity matrix, followed by thermal energy with 29% and unconventional renewable energy at 0,68% (biomass 0.57% and wind 0.11%). There is still the potential for 56 GW of hydroelectric resources to be developed in Colombia,³⁶ being the second country in South America after Brazil in potential hydro resources.

In Colombia small hydroelectric (<10 MW), wind, solar, biomass, geothermal and tidal energy are considered unconventional renewable resources. Unconventional renewable energies are emerging in the country. There is a solar irradiation average of 194 W/m² over the territory, local winds with average speed of 9 m/s (up to 80 metres in the Department of La Guajira) and energy potential around 450.000 TJ per year in biomass residues.³⁷ The potential of wind power is estimated to be around 49.5 GW and geothermal about 1 -2 GW. The 'Indicative Plan 2010-2015 PROURE' established targets for unconventional renewable energies in the National Interconnected System. The target for 2015 was an increase of renewable energies participation in the energy matrix by 3.5%, and 6.5% for 2020.

Aiming to boost unconventional renewable energies, the National Development Plan NDP Law (2014-2018) establishes the following policy measures: encourage electricity generation based on unconventional renewables energies; foster energy efficiency; increase the use of biofuels; increase unconventional renewable energies installed capacity from 9.893 MW in 2013 to 11.113 MW in 2018; raise unconventional renewable energies installed capacity in non-interconnected zones from 2,8 MW in 2013 to 9 MW in 2018 and set up

³⁶UPME. "Plan de Expansión de Referencia Generación - Transmisión 2015-2029."Bogota. 2016.

³⁷UPME, 2015. Ob. Cit.

a strategy of low carbon development, including goals to reduce greenhouse gas emissions.³⁸

The National Development Plan NDP includes as one of the main objectives in the electricity sector to advance in the regional electric integration, developing projects as the Interconnection Colombia–Panama and the Andean Electrical Interconnection System (SINEA) among Colombia, Ecuador, Peru and Chile.

For the transport sector, policy focuses on biofuels with blending mandates (implemented in 2005) which have been progressively set since 2001 through Law 693 and fiscal incentives introduced by Law 939 of 2004. These measures have positioned Colombia as one of the top 10 countries for biofuel production, and the third in Latin America after Brazil and Argentina.³⁹

The legislation, as well as the government, have identified that the most feasible way to incorporate renewable energies is in non-interconnected zones, in order to provide electricity by replacing diesel power generation.

In 2014 the Colombian Congress enacted Law 1715 to promote unconventional renewable energies within the national energy system and encourage energy efficiency, seeking to support sustainable economic development, reduce greenhouse gas emissions and enhance the reliability of the energy supply. In the electric sector, fiscal incentives are the prevalent policy mechanism for promoting unconventional renewable energy. The main measures introduced by this law include: i) access of renewable self-generators to the transmission and

³⁸Nieves, Margarita and Hernández, Augusto. “Colombia Energy Investment Report”. Energy Charter Secretariat. Brussels. 2016, p. 34. At http://www.energycharter.org/fileadmin/DocumentsMedia/Other_Publications/20160729-Colombia_Energy_Investment_Report.pdf

³⁹World Economic Forum. (2015, November 17). “Environment: World Economic Forum”. Retrieved from World Economic Forum Web site: <https://www.weforum.org/agenda/2015/11/these-countries-produce-the-most-biofuels/>

distribution grid to deliver their surplus; ii) development and use of distributed energy resources; iii) the creation of the Unconventional Energy and Efficient Energy Management Fund (FENOGE) to finance renewable energy projects; and iv) fiscal incentives such as: a) reduction of up to 50% in income tax on investments in renewable power generation; b) accelerated depreciation of assets; c) value-added-tax exemption on pre-investments and investments in goods and services; and d) import tariffs exemption on pre-investments and investments in raw materials, machinery and equipment for the development of unconventional renewable projects. For the moment, the regulation has not implemented feed in tariff mechanisms, nor auctions.⁴⁰

By means of Law 629 of 2000 Colombia approved the Kyoto Protocol, which aims to reduce greenhouse gas emissions, fostering energy efficiency in each sector of the economy, among other policies. In 2001 the Congress enacted Law 697 to promote energy efficiency as well as unconventional energy resources, seeking to guarantee energy supply and economic competitiveness, to guard rights of the consumers, and to achieve sustainable development. The Energy Efficiency Law and its secondary regulations provide the legal basis and measures to promote and support energy efficiency improvements.⁴¹

4.2 Guatemala

Guatemala has the largest electricity installed generation capacity in Central America and a potential on renewable energy sources estimated at 6.000 MW of hydroelectricity, 1.000 MW of geothermal energy, 280 MW of wind energy and 5.3 kWh/km² per day of solar energy.⁴²

⁴⁰Nieves, Margarita and Hernández, Augusto. Ob. Cit., p. 60.

⁴¹Ibíd.

⁴²Ministry of Mines and Energy of Guatemala. “Energy Policy 2013-2027”. Guatemala. 2013, p. 15, at <http://www.mem.gob.gt/wp-content/uploads/2013/02/PE2013-2027.pdf>

In 2015, 58% of electricity generation in the country relied on renewable sources of energy.⁴³ Firewood still represents the main source of primary energy⁴⁴ and over two-thirds of households depend on traditional firewood for cooking,⁴⁵ which means that renewable energies are expected to play an important role in order to improve the quality of lives for Guatemalan people. The country is a net importer of oil products⁴⁶ and has introduced measures aiming to depend less on imports, replace firewood in 25% of households and change its energy matrix boosting renewable energy sources.

The Central American country has created fiscal incentives to foster renewable energy sources through the “Incentives Law for Renewable Energy Projects” Decree 52-2003 and its regulation in 2005. These incentives consist of value-added tax (VAT) exemptions, import and export fiscal benefits, income tax exemptions, among others. The country also implemented renewable energy auctions, biofuel mandates aiming to diversify its transport fuel mix, enacted a Climate Change Law in 2013 and is working on the implementation of an energy efficiency law.

These pro-renewable energy measures were strengthened in 2013, when Guatemala adopted a new energy policy for the period 2013-2027, which embraces sustainable development as its cornerstone. In terms of renewable energies, it has set up a goal of increasing electricity generation from renewable energies from 65% in 2012 to 80% in 2027, promote investments in new 500MW of renewable electricity generation, increase electricity access from 85% in

⁴³Ministry of Mines and Energy of Guatemala. “Revista Mensual de Estadísticas del Ministerio de Minas y Energía”. Guatemala. 2016, p.6. At <http://www.mem.gob.gt/estadisticas/>

⁴⁴Ministry of Mines and Energy of Guatemala. “Energy Policy 2013-2027”. Ob. Cit., p. 21,

⁴⁵International Renewable Energy Agency (IRENA). “Renewable Energy Market Analysis. Latin America”. Ob. Cit., p. 58.

⁴⁶Ministry of Mines and Energy of Guatemala. “Revista Mensual de Estadísticas del Ministerio de Minas y Energía”. Ob. Cit., p.13.

2012 to 95% in 2027 and enshrines clear goals in energy efficiency for households and industrial sectors.⁴⁷

Aiming to improve trade and attract global investments Guatemala has signed 18 bilateral investment treaties. Guatemala is a country member of the Central American Electricity Market Treaty, which allows electricity trade through the Central American Electrical Interconnection System (SIEPAC), the first subregional grid in Latin America which interconnects six countries: Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama, which has been in full operation since 2014.

As has been expressed, Chile, Colombia and Guatemala enshrine within their energy policies the deployment of renewable energy sources and energy integration as some of their main objectives in order to achieve national goals and recognizing their relevance for Latin America. They are involved in projects such as SINEA and MER and have interest in becoming energy resources exporters or strengthen their exports. The energy charter process can further strengthen and support these aims and policies, improving investment climate, energy cooperation and transference of technology.

6. CONCLUSION

To foster renewable energy it is essential to link more private investment and remove market and technological barriers. The development of unconventional renewable energies also needs to be carefully considered in light of comparative cost, grid access and dispatch. Latin America faces growing challenges, which require more investments in the energy sector and more international cooperation. The Energy Charter Process is a mature legal

⁴⁷Ministry of Mines and Energy of Guatemala. "Energy Policy 2013-2027". Ob. Cit., p. 38.

framework for global energy cooperation, which could further integrate the Latin American economy to the global energy markets, contribute to the improvement of the investment climate and encourage investments in renewable energy sources.

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