







# SUMMARY

- IBCC News
- New Associates
- Events
- Article of the Month
- Cultural Point





### **IBCC NEWS**

### **OUR TEAM GREW!**

The India Brazil Chamber of Commerce Team has grown and is ready to meet your demand!

After 3 weeks of intense training, the new members are already prepared to get their hands dirty and work hard to foster the India Brazil relationship.

> Who is behind the India Brazil Chamber of Commerce? Experience and joviality complement each other and translate into a team proactive and passionate about the India Brazil relationship!



Dr. Élson Gomes Honorary President



Fernanda Guimarães Business Analyst



Leonardo Ananda President



Thainá Queiroz Business Analyst



Nathalia Rodrigues Institutional and Commercial manager



Giovanna Menezes Junior Business Analyst



**Gleison André** Financial manager



**Sofia Salles Junior Business Analyst** 



Larissa Fernandes Advisor to the Presidency





**Adriano Andrade** Senior Business Analyst



João Heitor Luiza Pinheiro Junior Business Analyst Junior Business Analys

#### Meet our great team now, with our caricatures!





### MISSED ANY OF THE IBCC POSTS? DO NOT WORRY!

# CCIB

IBCC has now the Weekly IBCC Clipping, an iniciative of the Marketing Team that seeks to keep our Associates and Partners informed about the news that the IBCC has shared on our social media, by sending links and the subjects of our posts. If you are not receiving the Clippings, send an e-mail to rio@indiabrazilchambero.org.

### **MAILING UPDATE**

In order to keep our records up to date and ensure that all our Associates and Partners are receiving all our communications without any problem, IBCC is carrying out an update of its mailing. For this reason, please pay attention to your mail box as soon all our Associates will receive an information conference email. We hope to be able to count on your collaboration for this initiative!



## MEMBER NEWS



Porto do Açu wins two IAPH Sustainability Awards.





The New Equation Our strategy Helping clients build trust with their stakeholders and





Sterlite Power -Dunas Project

FULL NEWS

FULL NEWS







### **INTERNATIONAL YOGA DAY 2021**

The 21st of June was established as the International Day of Yoga by the UN due to the benefits of this ancient practice for human health. Since then, several cities in Brazil and around the world began to celebrate this ancient practice. In 2021, due to the moment of pandemic, the event took place online, on June 20, with attractions for all ages.

### **9TH FOREIGN RELATIONS SYMPOSIUM**

**Directions Brazilian Foreign Policy** 

The 9th Symposium on Foreign Affairs: Directions of Brazilian Foreign Policy, organized by the Foreign Affairs Magazine from June 23rd to 25th, discussed the history of Brazilian Foreign Policy and sought to expand contemporary debates on the same face of the pandemic and its consequences for future International relations. The event was attended by Ms. Fernanda Guimarães, Business Analyst and



Relationship Supervisor at the India Brazil Chamber of Commerce, giving a lecture on the theme "India-Brazil relationship in the current context: vaccine diplomacy".



### CRISIS MANAGEMENT IN THE FIGHT AGAINST COVID-19 IN BRAZIL AND IN THE WORLD

In the context of the covid-19 pandemic, the world order suffered impacts that were unimaginable before. After all, how many people have died so far? What is the impact of the pandemic on the GDP of each country? Which countries have developed vaccines? When did vaccines start to be applied? What is the recovery plan in Brazil and in the world? The Associates of the New Compliance Institute gathered in 5 groups and

carried out a study on crisis management and the impacts of covid-19 in China, Portugal, United States, Brazil and India. Check out the results of the work through the broadcast that took place on June 24, 2021, and understand how effective crisis management could have influenced the world during the pandemic! At the time, Ms. Nathalia Rodrigues, Commercial and Institutional Relations Manager at the India Brazil Chamber of Commerce, participated as a debater on the panel about India, proposing questions to those responsible for the study and providing additional information on the proposed topic.





### **ARTICLE OF THE MONTH** SOLAR ENERGY INDUSTRY IN INDIA

By Rafael Franceschi

#### INTRODUCTION

The present paper aims to concisely analyze the Indian renewable energy market, specifically the solar energy segment and the production and exportation of solar panels (photovoltaic cells), to show the sector to potential importers. Thus, to display how this segment has been playing in both Indian and International scope, a brief context will be exposed. An overview of the solar energy industry in India, exploring its potentialities and main players, and potential manufacturers, will help to elucidate it.



#### CONTEXT

On the international scene, India has been gaining prominence for its growth, development, and investment in the renewable energy sector, especially in the segment of solar energy production, in which the country is expected to lead the production in this area in the coming decades (IEA, 2021, p. 3). Of the nations that make up the G20 nowadays, India is the only one that has been meeting the targets of the 2015 Paris agreement as planned. In addition, the country is also among those that invest the most in the clean energy sector, occupying the sixth position in the world in the allocation of resources for this sector between 2010 and 2019, with investments of about US\$ 90 billion during the period, which demonstrates the nation's commitment in the search for a sustainable future (IBEF, 2021, p. 3-5).

Furthermore, it is noteworthy that the measures implemented by India are in line with the Sustainable Development Goals (SDGs) established by the United Nations and with the global trends in the energy production sector. Promoting the growth and development of clean and renewable energy is critical not just for India, but for the world. With these measures, India is increasingly becoming a key player on the international scene, especially in the solar energy segment. The projections show that the country can influence and even dictate future market trends in the sector. Notwithstanding, these measures also impact the Indian domestic market, which has great potential and room for innovation and growth. So, these actions also help the nation to achieve its goals in numerous other areas, including other SDGs, thus contributing to improving the situation of the country as a whole (IEA, 2021, p. 169-217).



#### INDIAN TRADE FLOW FOR THE SOLAR PANELS

Regarding the product analyzed, the trade flow in the Indian market is shown in the graphs below.







From the graphs above, we can see which are India's biggest partners concerning the trade flow of the Solar Panels and the amounts transacted with these countries. The results show that there is room for India to promote the diversification of partnerships in the segment, especially considering the potential for future growth and expansion of this sector in both the Indian and world economy.

#### OVERVIEW OF THE SOLAR ENERGY INDUSTRY IN INDIA

Currently, the Indian solar energy segment is booming, growing from 5.59 GW in 2015, when the country was the tenth largest producer in the world, to 39.2 GW in 2020, when it became the fifth largest producer in the segment. This result shows a 7-fold increase in its annual solar energy production capacity, between 2015 and 2020 alone (IRENA, 2020). Moreover, in the short term, there is the target for the production of solar energy in India to reach 114 GW in 2022, almost tripling the current production capacity of this segment in just two years (IBEF, 2021, p. 3).

The growing demand for energy in the country stands out among the factors driving this accelerated growth and development of the solar energy segment in India. It was a result of the expansion of the population, urbanization, industry, and the Indian economy as a whole. (IEA, 2021, p. 12). Furthermore, the government policies to support and encourage the production of clean and renewable energies and the relaxation of rules to attract foreign direct investment also ended up favoring greater dynamism in this market. The expectations indicate that the Indian energy sector can attract investments of around US\$130 billion between the fiscal years of 2019 and 2023 and the renewable energy sector investments of around US\$330 billion by 2030 (IBEF, 2021, p. 5; 18).

Chart 1: Developed by the author based on TradeMap, 2019



Moreover, solar energy has also been assuming a central position within the Indian governmental sphere. It has been seen as one of the most efficient, powerful, and practical ways of addressing the country's energy security challenges as well as problems with climate change, especially because solar energy is among the safest and most widely available of all energy sources. In this regard, India's National Climate Change Action Plan and the National Solar Mission, a government initiative to make the country the world leader in solar power generation and the diffusion of industry technologies across the country, are among the main policies that aim to foster innovation and dynamism in the segment in the country and ecological and sustainable growth and development of the nation (MNRE, 2021).

From a broader perspective, the overall panorama of the solar energy sector in India is very positive and quite promising, with numerous elements contributing to the country becoming increasingly central in this sector. Although the COVID-19 pandemic caused negative impacts on the energy sector as a whole, India remains one of the leading countries in terms of the continuous increase in energy demand. In this scenario, the space for innovation and growth in the country's solar energy sector, together with other sustainable development policies, will continue to be fundamental to India. It will place the country in the international spotlight as a pioneer and an example when it comes to sustainable growth and development (IEA, 2021, p. 12-6).

#### POTENTIALITIES OF THE SEGMENT

The potentialities of this segment in the Indian economy are even more impressive if evaluated in the medium and long term, where there is an expectation of accelerated growth in the sector over the next few years. Projections show that within two decades the rate of solar energy generation in India's total energy production could equal the rate of coal's energy generation, where each will correspond to approximately 30% of the total energy generated in the country. This change represents a massive transformation, given that nowadays coal accounts for around 70% and solar energy for around 4% of India's total energy production (IEA, 2021, p. 12).

Furthermore, this change is in line with the government's plans, which seek to achieve an installed capacity capable of generating 40% of India's total energy production using non-fossil fuels as early as 2030. To achieve these goals, the government of India has sought to promote numerous projects that encourage the development and generation of solar energy, such as solar parks and grid-connected solar roofs, among others. These projects, together with the Public-Private Partnerships and with the Indian Public Sector Undertaking companies in the sector, are the main government mechanisms for the development of the sector (MNRE, 2021).

Below follows a graph showing the current importance of the segment and the market share that India holds in the world, as well as a projection for 2040.





The graph above shows the preponderance that India's clean and renewable energy segment has and is likely to have in the world's total energy production. In 2019, India represented approximately 10% of the total solar energy production in the world. Besides, according to the projection, in 2040 the country will account for around 25% of the total world production of solar energy, aside from more than 10% of the production of wind energy and batteries (IEA, 2021, p. 213).

#### MAIN PLAYERS

In India, the main players in the solar energy segment consist of private companies producing photovoltaic solar cells, assembled or not in modules or panels, public financing institutions, and non-bank financial companies that provide loans and consultancy services. Moreover, Public Sector Undertaking companies, responsible for acting in the control, planning, coordination, and supervision of India's energy distribution systems on an interstate basis, and the government, which seeks to promote the development of the sector through stimulus and benefit-granting policies, are also fundamental players (IBEF, 2021, p. 13-4; 21-5).

The graph below shows, more broadly, how energy investments in India are structured and what type of company, public or private, is responsible for each slice of investment.





From the data in the graph, it is evident that the private sector (the portion in green) is responsible for more than half of the investment and dynamism of the energy sector in India. It is also true, indeed, for the country's solar energy segment. The Indian Public Sector Undertaking companies play the role of encouraging and helping the promotion and development of projects as well as the increase in competitiveness and productivity of private companies in the sector.

Thus, standing out in the public sphere within the Indian solar energy segment there are Power Finance Corporation Ltd. and Power Grid Corporation of India Ltd. The former is an Indian public sector company responsible for operating in financing and development of activities within India's energy sector, providing loans and consulting services, among others. The second is also a public sector company, but is responsible for planning, coordinating, supervising, and controlling the interstate transmission of energy (IBEF, 2021, p. 13-4).



INDIAN SOLAR PENALS MANUFACTURERS



Source: Invest India, 2021.

These states are among the most industrialized in the country and concentrate important manufacturers of solar panels in India. Below is a table containing more information about some of these companies, which may be potential partners.

India's solar energy segment is quite dynamic and is booming very fast. Thus, it was decided to present only the main Indian companies in the field, as they are the ones that are currently more consolidated within the segment and that would have greater capacity as potential international suppliers.

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**MEET THE AUTHOR** 



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### CULTURAL POINT DID YOU KNOW?





Sugarcane is extremely important in Brazilian culture and economy, but did you know that it came from India?

In colonial Brazil, sugarcane was introduced by the Portuguese, who brought it from the Indian state of Goa, also colonized by Portugal.

Currently, Ethanol is produced from sugarcane, which is widely used in Brazil as an energy source and which is increasingly becoming an Indian reality.

India is looking to invest more in biofuels, especially ethanol. Therefore, the country has set a target of 10% blending ethanol with gasoline by 2022.

Some states such as Goa, Delhi and Punjab are mixing around 9.5-10% ethanol with gasoline, coming closer to hitting the target set by the country.

Brazil has been using ethanol for 40 years and is willing and open to share its experiences with India, said the Agricultural Attaché of Brazil in India, Mr. Dalci Bagolin at the India Brazil CEO Forum held by the CCIB.



# THANK YOU! צרמק

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