

EMPOWERING BRAZIL ENERGY FUTURE

Brazil stands out as a leader in renewable energy, boasting a diverse and predominantly renewable energy matrix that positions the country advantageously for transitioning to a low-carbon economy. According to the World Bank, around 48% of Brazil's energy matrix and over 80% of its electricity matrix are composed of renewable sources, compared to global averages of approximately 15% and 27%, respectively. This strong reliance on renewable sources such as hydropower, biomass, solar, and wind provides a solid foundation for developing sustainable businesses and harnessing new opportunities in the energy sector.

- 1. Opportunities in Distributed Generation:** Distributed Generation (DG) is rapidly expanding in Brazil, particularly in the solar energy sector. Robust legislation supports the implementation of DG systems, allowing consumers to generate their own energy and offset the surplus in the grid. This regulatory environment encourages the adoption of sustainable technologies and reduces dependence on fossil fuels. The growth of DG presents significant opportunities, emphasizing the need for advanced technologies to enhance efficiency and integration into the broader energy system. This creates a promising market for innovative solutions and services in DG.
- 2. Floating Photovoltaic Plants:** Floating photovoltaic (FPV) plants represent an emerging and rapidly growing sector in Brazil's renewable energy landscape. Leveraging the country's vast water resources, these plants are installed on reservoirs, lakes, and other bodies of water, providing an innovative solution to land scarcity and enhancing energy generation efficiency. The FPV market in Brazil is expanding due to its high solar irradiance and the advantages of reduced water evaporation and improved solar panel performance due to the cooling effect of water. This sector offers substantial growth potential for companies specializing in FPV technology and related services.
- 3. Green Hydrogen Potential:** Brazil has significant potential for green hydrogen production, leveraging its renewable energy capacity for water electrolysis. The Hydrogen Observatory report highlights that Brazil could become a leader in green hydrogen exports, taking advantage of its renewable energy infrastructure and the growing global demand for clean energy solutions. Investing in green hydrogen technology and infrastructure can open new avenues for international trade and collaboration, positioning Brazil as a key player in the global hydrogen economy.
- 4. Sustainability and Innovation Initiatives:** The Institute for Industrial Development Studies (IEDI) emphasizes Brazil's unique opportunity to excel in green technologies such as solar and wind energy, biofuels, and green hydrogen. Sustainability and innovation are crucial for the country's industrial competitiveness. The UNCTAD stresses that technological development and mission-oriented industrial policies are essential to seize "green windows of opportunity." These initiatives underscore the importance of fostering an environment conducive to research, innovation, and sustainable development, paving the way for economic growth and environmental stewardship.

By capitalizing on these opportunities, Brazil can further solidify its position as a global leader in renewable energy and sustainable development, driving innovation and economic growth while addressing critical environmental challenges.

KEY FIGURES

- Renewable Energy Share: 48% of the energy matrix and 80% of the electricity matrix are renewable.
- Distributed Generation Growth: The DG sector, especially solar, has seen exponential growth in recent years, with thousands of new systems installed annually.
- Green Hydrogen Potential: Brazil is estimated to produce green hydrogen at competitive costs, positioning itself as a global leader in exports.

ABOUT NMENTORS ENGINEERING

nMentors is strategically positioned to capitalize on the opportunities in distributed generation and sustainability. Our expertise spans several key areas:

1. **PMO Support for EPC Companies:** nMentors provides comprehensive PMO support for EPC companies, ensuring efficient and timely delivery of renewable energy projects. Our services cover the entire project lifecycle, including site identification, technical and economic feasibility analysis, environmental licensing, engineering design, procurement, construction oversight, logistics, financial management, and transition to operation. This integrated approach ensures projects are completed on time, within budget, and with optimal efficiency.
2. **Data-Driven for Energy Efficiency:** We excel in leveraging data-driven solutions to enhance energy efficiency through advanced Business Intelligence (BI) and analytics platforms. Our platforms incorporate sophisticated machine learning algorithms for predictive maintenance, advanced energy efficiency analyses, demand management, and energy forecasting. These tools help organizations achieve significant energy savings and operational efficiencies, positioning them at the forefront of the sustainable energy landscape.
3. **Automation:** nMentors leads in automation for energy systems, implementing advanced SCADA systems and automation technologies, especially for floating photovoltaic (FPV) plants. Our solutions enhance energy capture and reduce operational costs. We also apply our expertise to green hydrogen production, integrating SCADA systems for monitoring and control, ensuring operational excellence and safety. Our automation solutions support comprehensive monitoring and control for distributed generation systems, driving efficiency and sustainability.
4. **Research and Development (R&D):** We are heavily invested in R&D projects, such as developing solar trackers for Norte Energia at the Belo Monte plant, the largest entirely national hydroelectric plant, using water from the Xingu River in a run-of-the-river modality to reduce the reservoir lake and preserve the Amazon rainforest and indigenous areas. Additionally, we pioneer hybrid energy generation environments, combining water and solar power in the Amazon, enhancing energy efficiency and demonstrating a commitment to sustainability and rainforest protection.
5. **Training and Capacity Building:** nMentors is committed to training and capacity building, recognizing that the success of technology deployment depends on the skills and knowledge of the operating personnel. We offer specialized training programs in PMO, data analytics, and automation, providing hands-on and practical training to accelerate the learning curve of your teams. This empowers your workforce to manage and optimize

advanced energy systems, fostering a culture of continuous improvement and innovation, and achieving greater operational efficiency, reliability, and sustainability.

Through these focused efforts, nMentors not only supports the growth and sustainability of the renewable energy sector but also ensures that organizations are equipped with the skills and technologies needed for the energy transition.

SOCIAL IMPACT INITIATIVES

1. **Energy Education in Schools:** nMentors proudly supports the "Energy Education in Schools" project, promoted by EDP Distribuidora São Paulo. This social initiative aims to educate over 2,000 elementary school teachers, reaching more than 60,000 children under 15, on energy efficiency practices. Through this program, we enhance the awareness and knowledge of young students about sustainable energy practices, fostering a new generation that values and understands the importance of energy efficiency.
2. **Efficiency Training Programs for ENEL São Paulo:** In a similar vein, nMentors has conducted training for over 400 infrastructure managers of ENEL São Paulo's clients under the ANEEL Energy Efficiency Program. This training equips managers with the skills to develop energy efficiency projects and leverage financial benefits from the program, promoting more sustainable energy use in their organizations.
3. **Municipal Training in Espírito Santo:** Additionally, we have trained municipal managers in the State of Espírito Santo, also for ENEL, to develop energy efficiency projects under the same ANEEL program. These initiatives ensure that local governments are well-equipped to implement and benefit from energy-saving measures, contributing to broader community sustainability goals.

ABOUT NMENTORS

nMentors stands out in the renewable energy market in Brazil, operating with a flexible and highly efficient structure that combines a qualified central team with the hiring of specialists per project. This approach allows us to scale quickly and ensure that we always have the best professionals available to meet the specific needs of our clients.

1. **Projects with Major Energy Companies in Brazil:** We have a proven track record of success in projects with some of the major energy companies in Brazil, including Enel, EDP, and Norte Energia. A significant example is our collaboration with Norte Energia in developing solar trackers for the Belo Monte plant, the largest entirely national hydroelectric plant, using water from the Xingu River in a run-of-the-river modality to reduce the reservoir lake and preserve the Amazon rainforest and indigenous areas. This project demonstrates our ability to manage large-scale and complex initiatives, promoting efficiency and sustainability.
2. **Partnerships in Research and Development (R&D):** Our partnership with Mackenzie University, a prestigious private university in Brazil renowned for its emphasis on research innovation and academic excellence, is crucial in the fields of Big Data and Machine Learning. Together, we develop and deliver specific training programs, such as those provided to the São Paulo Metro, enabling the operations team to use advanced predictive analysis techniques to improve operational efficiency and preventive maintenance. This

academic collaboration allows us to stay at the forefront of technological innovation, continuously refining our approaches and implementing best practices in the industry.

3. **Training and Consultancy:** In addition to our engineering projects, we offer specialized training to equip professionals with emerging technologies. We have conducted Machine Learning training for the São Paulo Metro, enabling the operations team to use advanced predictive analysis techniques to improve operational efficiency and preventive maintenance. This training is an example of how we transfer our knowledge to accelerate the learning curve of teams and ensure that our clients are well-prepared to face future challenges. We also provide energy efficiency consultancy for major international consulting firms, helping their clients in Brazil develop energy efficiency projects using financial benefits from regulatory programs such as the ANEEL Energy Efficiency Program. This consultancy includes training for infrastructure and municipal managers, equipping them to implement and manage effective energy efficiency measures.
4. **Flexible Approach and Professional Qualification:** The flexibility of our structure allows us to attract and hire the best market talent for each specific project. We maintain an extensive network of qualified professionals and a strong reputation in the sector, facilitating the hiring of leading specialists when needed. Our ability to adapt and respond quickly to market demands ensures the delivery of personalized and high-quality solutions for our clients.
5. **Project Management and Business Robustness:** Our integrated project management (PMO) approach ensures that all aspects of renewable energy projects are executed efficiently and accurately. From site identification, technical and economic feasibility analysis, environmental licensing, engineering design, procurement, construction, logistics, financial management, to the transition to operation, we are committed to delivering exceptional results. We use robust risk management practices to identify, analyze, and mitigate potential risks, ensuring the continuity and success of projects.

CONCLUSION

nMentors, with its robust and flexible structure, strategic partnerships, and focus on innovation, is well-positioned to lead the transformation of the renewable energy sector in Brazil. Our ability to manage complex projects, provide specialized training, and offer high-level consultancy demonstrates our solidity and commitment to sustainability and energy efficiency. We are ready to collaborate and drive the global energy transformation.

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WE ARE READY TO COLLABORATE AND DRIVE THE GLOBAL ENERGY TRANSFORMATION.