



## **GREEN WORLD SOLUTIONS GROUP COMPANY PROFILE**

### **Who is Green World Solutions Group and what is sustainable development?**

Green World Solutions Group, LLC ("GWSG") is a group of seasoned business professionals and specialists from several individual areas of Renewable Energy Industry that have come together to bring their area of expertise under one umbrella for one goal, Sustainable Development on a global scale. We work with Governments and IPP's globally to secure their countries future, with a clean energy approach and sustainable infrastructure.

The world is dependent on Energy, which is why we have a strong background within the Renewable Energy sector from Utility Scale Solar/ PV, Wind, Hydro, Geo, Energy Storage a special interest in Waste to Energy and Waste to Alternative Fuels.

All GWSG projects are self-sufficient and in some cases, we can facilitate funding up to 100% of the project total cost dependent upon project parameters.

### **Our Ethos**

Sustainable development can be described as "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs".

Sustainable development can be used as a route to better Municipality decision making and delivering better services. It is about ensuring well-being and a better quality of life, thinking about the impacts of today's actions on future generations and protecting and enhancing the natural and built environment by learning to live within environmental limits. Green World Solutions Group, LLC upholds a sustainability-based business model around which the company's activities and strategies revolve.

Thus, through the activity of its business units, GWSG promotes the use of clean renewable energies and efficient resource management; and therefore, the company's vision, mission and values reflect an unwavering commitment to economic and social progress, contributing at the same time to conservation of the environment and respect for fundamental rights. It is impossible, then, for the company to conceive of a business reality that does not encourage environmentally-responsible conduct and performance to halt climate crisis and thereby lay the true foundations for future development intended for everyone.

### **Why is sustainable development important for local government?**

Governments around the world know the impact humans have on the environment therefore we have been charged with "promoting the social, economic and environmental well-being of their area and producing community strategies which contribute to the achievement of sustainable development". Social, economic and environmental well-being is directly related to sustainable development. Everything a Municipality does should assist in the continuing sustainability of their local area and the delivery of a more sustainable Country.



### **GWSG can help Governments and Private Firms/ IPP's with**

A holistic view of planning and service delivery considering the social, economic and environmental dimensions of sustainability;

Future trends, for example climate change impacts, are considered and planning is for the long-term; Impacts beyond the local area are considered;

Local people and communities are engaged in the process of decision-making through participative systems. This helps to deliver the message that the Government cares while communities learn what they need to do to help facilitate change through a non-directive education/participation program.

### **Framework behind the Green World Solutions Group, LLC**

Apart from the implementation of Renewable Energy, Reduction of landfills and polluting our rivers and drinking water, we offer technology through our strategic Technology Partners and sustainable infrastructure that complements the planet.

For example; we can use technology to turn landfills into energy or advanced Bio fuels. Where we believe, there is a place for all renewable energy technologies, but we need to take special attention to landfill sites as they will not be reduced due to population increases. GWSG can reduce Municipality waste streams and produce energy/fuels, thus reducing the impact on the environment and producing power without fossil fuels.

### **GWSG Sustainable Development Framework**

The Sustainable Development Framework seeks to provide practical guidance at both a National and local Government level on delivering sustainable development. It aims to make sustainable development relevant and simple and to illustrate that its principles and outcomes lie at the heart of good governance.

### **Corporate Modules**

Provide guidance on mainstreaming sustainability and aligning corporate functions towards the delivery of sustainable development implemented with technology.

### **Futures Trends**

There are critical external factors, including demographic and climate change, energy security, food security, which will affect the well-being and quality of life of communities in the future. Such trends, or 'futures issues' will have a significant impact on the types of, and way that, authorities will need to deliver services.

Futures work also includes Community Centred Risk Management, which explores the 'primary strategic risks' in terms of events, patterns and trends in social, economic and environmental contexts, that either threaten the sustainable well-being of communities, or offer opportunities for its enhancement.



## **GREEN WORLD SOLUTIONS GROUP CAPABILITIES**

For 10 years, we have developed the in-house capabilities, which combined can create an affordable, low-carbon future.



### **ENGINEERING**

For the past 8 years, our expert engineers have established all the advanced skills necessary to support the development, construction, and operation of our global renewable energy projects.

### **PROJECT ENGINEERING**

We provide engineering expertise during the development phase, when our engineers assess site access for components and construction materials, including recommending upgrades to local roads. We're also responsible for land use requirements and on-site infrastructure. Our engineers design the foundations for both onshore and offshore projects, and we do everything as cost effectively as possible, allowing for any developmental or environmental limitations.

### **ELECTRICAL ENGINEERING and GRID CODE COMPLIANCE**

All our grid engineers are highly experienced with grid compliance in different markets around the world, and consider the complete system design – from turbine or panel through to grid connection. We have an in-depth knowledge and understanding of grid connections and grid code compliance, and understand the vital part that securing grid capacity for projects plays during development. We also understand how all generators must comply with stringent grid codes. It's essential for safe and efficient network operation.

### **PROCUREMENT AND ENGINEERING**

We've built up a wealth of experience specifying technology for our own projects. This is very useful for giving clients impartial specialist advice. It also means our engineers can work with wind turbine, solar panel and battery storage suppliers to prepare the technical specification and help manage design. We keep track of quality assurance to ensure equipment comes as specified, and evaluate and select the appropriate technology and continued reliability engineering to help manage risks over each project's lifetime.



### **TECHNICAL**

Generating, storing and transmitting energy efficiently over the lifetime of a project depends on the technical design expertise we apply to each site.



### For Example:

We have spent years understanding, refining and creating models to predict wind farms' long-term energy generation accurately. We know this reduces the financial risk and uncertainty on each project – and helps increase its value. Our expert in-house resource assessment and data analysis teams have led the way in research that has helped revolutionize industry practices. They produce data on wind speed prediction, flow modelling, turbine wake effects and noise that we then use to optimize wind farm layouts and improve energy yield and profitability.

We also use site-specific predictions for climatic conditions and terrain variations, including vegetation, residential development and other turbines, to refine our data. We can even compare individual turbine types and their power curves, using in-house software to optimize wind farm layout. Providing deeper data analysis identifies performance trends that ensure maintenance is carried out to avoid costly failure.



### LEGAL and COMMERCIAL

Our in-house legal and commercial teams get involved in all aspects of a project's life cycle. When developing renewable energy, storage and transmission projects, it's important to receive expert advice. Our specialist skills and close links with banks, finance houses, insurers, manufacturers, consultants and legal specialists, mean we can put together the best arrangements for any project.

The legal team advises on compliance – working with local experts where appropriate – and prepares and negotiates a wide range of commercial contracts for developing, constructing and operating projects.

The commercial team works with banks and financial institutions to secure short and long-term funding. They also negotiate with power supply companies on Power Purchase Agreements (PPAs), and advise on the viability of merchant or other long-term electricity sale arrangements.

We've negotiated several major financing deals with international banks to cover the refinancing of existing investments, and the construction and term financing of new projects. This all helps with the growth of renewable energy and moving to a low carbon future.

We know clients want clean, green, reliable power at a competitive price – all with flexible deal structures. We can offer fully developed projects for clients interested in buying green power or storage services across the Americas, Europe, and Asia Pacific. We can also structure distributed energy deals for commercial and industrial clients.

We structure deals in the way clients prefer, from using traditional PPAs or Contracts for Difference (CfD) financial settlement agreements, to build-own-transfer structures GWS and joint venture partnerships. We work with a number of independent power producers and can secure investment for long-term project ownership.

We work with lots of utilities and electric cooperatives, and with commercial and industrial clients too. Whoever the client, we provide them with affordable energy and assets, helping them reduce their carbon footprint while guarding against increases in fuel prices.



## **PROCUREMENT**

We've built up invaluable experience in procurement over 10 years of delivering our own projects, establishing reliable processes to efficiently procure products and services.

We provide an end-to-end service for everything from procuring land acquisition through to equipment. We are technology agnostic - not tied to a technology or manufacturer - so we remain impartial and source the best for your project. We also negotiate grid connection agreements and take care of all contracts for compliance and servicing a generating asset.

Using GWS to deliver your project eliminates the need for multiple supplier contracts. This avoids duplication or omissions as well as offering better value.



## **HEALTH, SAFETY, QUALITY and ENVIRONMENT**

HSQE teams have been established to ensure best practice is shared across the business. The management of health, safety, quality and the environment is key to the delivery of our sustainability principles.

*"We take responsibility for the safety of ourselves and other people. We are committed to a future where everybody goes home safe every day".*

We achieve this through:

- ✚ Safe Behavior – each of us taking responsibility for the safety of everyone working for us
- ✚ Safety Leadership – a commitment to the health, safety and wellbeing of everyone affected by our work including our employees, contractors, clients, visitors and the general public
- ✚ Environmental Management – minimizing the effects of our activities on the environment and integrating environmental concerns and objectives into business decisions
- ✚ Quality Management – setting quality standards that reflect the needs of the business