

# **The iHAT Green Value Proposition for Governments, Businesses & Communities**

The transition to incorporate sustainability for Governments, Businesses & Communities presents countless opportunities and iHAT is here and ready to help create optimal solutions.

## **Mission**

Drive the shift to a decarbonized society, enabling stakeholders to access renewable energy for sustainable living.

## **Vision**

Enable a new era of sustainable energy and bring it to all.

## **Value Proposition**

Serve as a green solutions innovation leader who is accelerating the green energy systems transition and helping to drive sustainable for growth for businesses and economies in equitable ways.

## **Value Realized**

iHAT designs, develops and delivers disruptive green technologies, that are safer, and more operationally, cost and environmentally effective, which engage both incumbent and new inclusive labor through the provision of updated and new skills training.

## **iHAT & Our Emphasis on Human Resource Value**

People are iHAT's most valuable asset and our focus on innovation adds value to both iHAT internal and community human resources.

iHAT is at the forefront of designing, testing and deploying innovative solutions that are giving a boost to the world's energy transition process including

- Big Data and digital technologies to increase wind farm, solar panel and green hydrogen delivery efficiency, as well as to support green systems operations and maintenance
- Green Hydrogen Energy storage for providing on-demand clean energy with no waste. Green Hydrogen storage is beyond lithium, providing long duration storage, operational flexibility and efficiency in power delivery. The Green Hydrogen Storage systems boosts the potential of renewable power stations by allowing a continuous supply of sustainable energy and guaranteeing stability to the grid.

## **iHAT is Helping Companies to Achieve Sustainability as a Competitive Factor**

Today, attention to the issue of sustainability in general, and decarbonization in particular has become a competitive factor for companies, as it is increasingly becoming decisive in terms of reputation and the bottom line! Being sustainable translates into a series of tangible benefits, from the creation of shared value for stakeholders, to the prevention of damage caused by natural catastrophes, to the reduction of environmental and social risks to the ability to not only comply with but anticipate the policies of regulatory authorities.

The additional consequences of focusing on sustainability include making investments in innovation that leads to the creation of products and solutions that not only have a low environmental impact, but also deliver superior quality with less waste. Sustainability choices also lead to a reduction in costs in the medium and long term and therefore can increase profit margins as well as deliver improvements in other financial performance metrics as well.

Note: Investors today, tend to prefer companies and organizations that have committed to an energy transition that is part of the fight against climate change.

## **The Present and Future of Electricity is Green & iHAT Has a Menu of Specific / Optimal Situation Green Solutions that it Can Deploy**

Renewable energy is the present and future of the world's electricity production. The term "renewable" expresses the essence of this type of energy, which is available in spontaneously generated, inexhaustible quantities that are continually renewed in nature without any human intervention.

iHAT has sun, wind, water, biomass, green hydrogen and the geothermal heat of the earth's abundance to create sustainable solutions that are cost effective and provide stable and abundant on demand electricity. Additionally, compared to electricity produced from conventional petroleum and coal related sources, iHAT's renewable energy solutions drastically reduce levels of carbon dioxide and other ecosphere destroying emissions. iHAT's unique design utilization of green disruptive technologies creates the worlds first 100% clean refueling infrastructure.

## **iHAT is Focused on Helping Governments, Corporates and NGO's to Abandon Conventional Sources of Energy**

All countries in the world share the same need to increasingly produce more renewable energy and to abandon conventional sources. According to the International Renewable Energy Agency (IRENA) 2019 report, renewables now account for three-quarters of the world's new energy capacity. Today green energy makes up more than a third of total global electricity production.

Renewables are destined to become the most advantageous source of electricity for the planet and its associated economic development. As a innovation leader in the green power revolution, iHAT is focused on delivering sustainable energy solutions for the future, today!

## **iHAT is Taking a Leadership Position in the Development of Renewable Energy in a Number of Developing Countries' Including Mozambique, Zambia, India and Guyana.**

iHAT's renewable energy programming is:

- producing energy from green sources to tip the overall energy mix scales in favor of renewable energy
- helping people worldwide to have constant safe access to electricity.
- Introducing green industry.
- Creating green jobs to strengthen the economy.

iHAT's green energy solutions include large scale Green Hydrogen Power plants, green hydrogen clean electrical storage and green e-fuels refineries, all of which are part of making green electricity affordable for both industrial and household users.

In developing countries, renewable energy is the only way to electrify entire rural areas. iHAT's Green energy solutions is helping to close the current huge gap in energy access in Africa, South America and the Asian subcontinent, with a goal of guaranteeing scalable development opportunities to the power underserved world.

## **iHAT and Sustainable Development**

We only have one planet, but we're living as if we had almost two available to us. Therefore sustainable development is more than just a catchphrase to iHAT; which is delivering green solutions today that will protect tomorrow for our children.

## **What Does iHAT Mean in its use of the Term Sustainable Development**

iHAT's Mantra is "Husbanding Resources Today Because We Are Thinking about Tomorrow!"

Over the years, many definitions have been used to communicate the concept of sustainable development. The most famous description, universally recognized, comes from 1987:

***"Sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs."***

**Brundtland Report, World Commission on Environment and Development, 1987**

At iHAT we say that Sustainable Development means learning to live within the limits of one single planet: in a fair and dignified manner for all, without depleting the natural systems we draw resources from and without exceeding the ecosystems ability to absorb the waste generated by our activities.

The iHAT sustainable development model seeks to integrate social sustainability, with economic and environmental sustainability. The iHAT development pedagogy delivers energy solutions that reduces harmful emissions and decreases pollution. iHAT is a strong proponent of the 2030 Agenda for Sustainable Development; which is a plan of action signed in September 2015 by the 193 member states of the UN. In it, **17 Sustainable Development Goals** – SDGs – were identified in one broader plan of action, for a total of 169 objectives to meet. The 2030 Agenda and the Sustainable Development Goals were put in place on 1 January 2016: countries committed to achieve the goals over the next fifteen years, but unfortunately have fallen short.

The SDGs are common goals on a set of issues that are key to development: fighting poverty, eliminating hunger and tackling climate change, to name a few. They are goals that concern all countries and all individuals: no one can be left behind on the path of sustainable development. The backbone of the Sustainable Development Goals is made up of the “5 Ps”:

### **People**

End poverty and hunger in all forms and ensure dignity and equality.

### **Prosperity**

Ensure prosperous and fulfilling lives in harmony with nature.

### **Peace**

Foster peaceful, just and inclusive societies.

### **Partnership**

Implement the agenda through a solid global partnership.

### **Planet**

Protect our planet’s natural resources and climate for future generations.

### **iHAT is Fundamentally Committed to These 5 Shared Value Principles**

The SDGs have been shared by all the Member States of the United Nations: a sign of strong global awareness. iHAT has made a formal commitment to all of these SDGs, as Sustainable development is the only way to safeguard biodiversity and ensure the survival of humankind, as well as endangered animal species.

Note: The increase in global population and the resulting demand for resources is irreversible: only sustainable development can ensure the correct balance.

## **The iHAT Energy Development Pedagogy is Based on a Circular Economy Model**

The iHAT solutions model like the Circular Economy Model is based on the following principles:

- We Innovate
- We renovate
- We reuse
- We recycle

These circular economy principles are what has made iHAT a preferred partner in designing and delivering the most efficient energy generation, transmission and distribution solutions for guaranteeing sustainable development.

## **The 5 Pillars of the Circular Economy That are the Foundation of iHAT's Business; Which Helps its Customers to Redesign Their Use of Scarce Resources in this Epoch of Global Warming and Other Climate Change Impacts**

### **iHAT Helps Customers to Optimize Their Use of Sustainable Resources In Energy**

iHAT BTU sources are biodegradable, recyclable and/or use renewable materials

### **iHAT is a Leader in Delivering Energy Solutions as A Service**

We offer a concept of shared ownership platforms for governments and companies. The shared green energy platform concept allows for iHAT solutions to be used in a cooperative form instead of green energy users being forced to use standalone iHAT solutions. The iHAT sharing platforms can serve to maximize the usage factor, service life and cost of ownership (use) of iHAT's green power generation, transmission and distribution infrastructure.

Note: The European Union has made the adoption of models aligned with circular economy principles such as iHAT's as a strategic priority. Politically, the circular economy offers a chance for growth and development in terms of competitiveness, innovation, environmental protection and employment.

### **iHAT and The Energy Transition**

The Global Energy Transition is not only limited to the gradual closure of coal-fired power stations and the development of clean energies: it is a paradigm shift that concerns the entire system. A huge contribution to decarbonization is beginning to come from green hydrogen electrification; which is

complemented by on-demand storage that is technology-positioned (iHAT's unique design utilization of green hydrogen and hydride storage solutions examples) for implementation. The sources of green on-demand electrification are solutions derived from green hydrogen, wind, water currents and waves, solar, geo-thermal and biomass. These green sources of energy can become the mainstay of power for the entire value chain including all forms of transportation, facilities, etc.

The type of green power generation and localized power transmission and distribution solutions that iHAT is developing and deploying provide benefits not only for the climate, but also for corporates, government and NGO operations, residents, and so the overall economy including those in emerging societies. iHAT believes that it is critical that the energy transition be inclusive and ensure that no one is left behind and so the firm is conducting many projects in Africa, South America and the Asian Subcontinent.

### **iHAT Actions that are Part of Driving the Energy Transition**

As we have mentioned, iHAT is in the business of replacing fossil fuels with renewables that feed a multitude of technology platforms including green hydrogen energy storage.

Developing renewable energies is the very core of iHat's role in the global energy transition. In recent years, photovoltaic and wind energy have joined more mature carbon neutral technologies such as hydroelectric and geothermal power, with green hydrogen technologies such as those developed and deployed by iHAT are quickly moving to become the star performers of the global movement towards green energy. iHAT is however, not only focused on green hydrogen power generation and storage for on-demand power solutions, but we are also developing for large scale deployment, tidal power solutions, which may soon contribute to the green energy transition. iHAT's design, development and deployment of multiple processes for green energy electrification of consumption for both industrial procedures and electricity grids, are part of the global movement to improve energy efficiency, and to eliminate toxic fossil fuel effluents, which taken together will complete the global energy transition.

### **iHAT and Decarbonization / Transitioning From Fossil Fuels to Renewables**

Although the ultimate aim of the energy transition is a move to renewables, in the shorter term:

- Existing Transportation platforms, e.g. Ships, trains, trucks, automobiles can be retrofitted with iHAT green carbon induction systems to:
  - eliminate CO<sub>2</sub> and other environment degrading effluents
  - increase engine torque
  - reduce maintenance

- Grid stability and resilience need to be guaranteed as we move away from the use of coal and fossil fuels. Virtually all green sources of BTU's will be used, often in combination such as in the case of iHAT's Portugal green power system replacement of coal power.

The evolution of renewable technologies goes hand in glove with the creation of completely new green jobs. As the old coal-fueled power stations are decommissioned, iHAT is focused on retraining technicians and operational staff who may then be re-employed in the green power sector. Note: In areas where there is energy poverty, iHAT is making investments that will both help guarantee access to clean energy for everyone in these communities, as well as we are training local people to construct, operate and maintain the green energy infrastructure that iHAT is deploying.

### **iHAT and the Creation of Green Jobs**

It is relatively straightforward to understand what we mean by the term green jobs. However, a universal formal definition for these types of professions is still lacking. The description that is often referred to is the one provided by the United Nations which, through UNEP (the United Nations Environment Program), has defined green jobs as ones that contribute in an incisive way to preserving or restoring environmental quality. This broad definition is applicable to various compartments, from manufacturing to services, from research & development (R&D) to agriculture. In short, green jobs already exist in many areas where we wouldn't suspect to find them.

According to the 2020 International Renewable Energy Agency (IRENA) report, around the world there are around 11.5 million green-collar workers, half a million more compared with 2018. These professions are concentrated predominantly in China, the United States and the European Union, with a prevalence in the renewable energy sector. The majority of 'green' workers are employed in photovoltaic (33% of the total, or around 3 million people), in particular in Asia, where two-thirds of green-collar workers can be found.

According to the Global Renewables Outlook 2020, which was also published by IRENA, the renewable energy sector alone will produce 42 million jobs by 2050, nearly four times as many as today.

In general terms, the energy sector is where the creation of new professional roles is most visible. Just think of the data and IT scientists employed in the digitalization of power generation plants, or the experts using machine learning to develop predictive maintenance, or the engineers specialized in energy efficiency. But there are also new green jobs in, for example, the production chain for research into new eco-sustainable materials for the construction industry. Indeed, a green job combines technical skills with a sensitivity towards issues of environmental protection, energy efficiency and circularity.

In short, sustainability creates benefits from many points of view, not only for the environment. It is no coincidence that in recent years there has been a growing demand among financial investors for features such as the capacity to create long-term value and reduce risks.

iHAT is focused on providing green energy investment opportunities related to sustainable green energy platforms that are connected to the UN's SDGs, thereby confirming, not only that sustainability is not a cost, but that it also makes good business sense.

In the context of iHAT's green energy infrastructure developments, we have adopted the labor unions concept of Just Transition, which is founded on the principle that the green economy must be fair to labor, as well as inclusive so that workers and project communities do not suffer the kind of nightmare impacts from decarbonization that they did from the last 50 years free reign processes of globalization.

### **iHAT and its Efforts to Interdict Energy Poverty in Mozambique, Zambia, the Caribbean & the Asian Sub-Continent, etc.**

Many areas of the planet are affected by what is known as energy poverty, the condition in which people are unable to ensure non-carbon burning solutions for cooking, as well as have no power for lighting and cooling and/or heating their homes. This problem of lack of electricity is particularly acute in sub-Saharan Africa where 700 million people still do not have access to electricity. iHAT is part of the Climate Justice movement which is tackling the issues of sustainability and inequality. iHAT is developing green energy projects in both rural and urban Africa, Latin America, the Caribbean and the Asian Subcontinent.

Thanks to iHAT's storage systems, energy can be stockpiled during periods of low demand to be subsequently released when demand is at its peak. Moreover, the iHAT systems can support grid stability thanks to their extreme readiness in responding to frequency oscillations. As a whole, iHAT supported energy systems deliver flexibility, sustainability and intelligence (smart grids).

### **iHAT & Energy for Corporate Customers Delivered as a Sustainable Service**

iHAT is in the business of developing tailor-made projects to give companies the best renewable energy supply solutions possible. iHAT's green energy sustainable projects deliver power anywhere in the world at competitive costs. iHAT's Power Purchase Agreements (PPAs) are customized tools that address the wide range of integrated services we provide and which address government regulations and policy, worker and community health and safety, protection of the environment, as well as quality and quantity of energy needed.