

Adani Green Energy Limited

**adani**  
Renewables

# TRANSFORMING TOMORROW WITH SUSTAINABLE EFFORTS TODAY





# Growth, the way it is meant to be.

Growth, to us, isn't about the businesses we're involved in. Growth is about the real impact we can create. It's about the lives we can touch, the communities we can nourish, the future we can inspire. With our sheer size of operations, we have been able to reach out to the remotest of geographies with ease. Be it power transmission or solar energy generation or agri logistics, we go for large scale execution that benefits millions of Indians. We are proud of this quality of our operations, which we have consciously extended beyond our businesses, to impact healthcare, education, employment generation and creation of sustainable livelihoods for the communities that deserve them. It is the belief that growth can lead to goodness, which inspires us and drives us.

# Vision

To be a world class leader in businesses that enrich lives and contribute to nations in building infrastructure through sustainable value creation.





# About Adani Group

Adani Group is one of India's largest integrated infrastructure conglomerates with interests in Resources (Integrated resource management), Logistics (ports, Airports, logistics, SEZ, shipping and rail), Energy (renewable and thermal power generation, transmission and distribution), and Agro (commodities, edible oil, food products, cold storage and grain silos), Real Estate, Consumer Finance, Defence & Data Centre. Headquartered in Ahmedabad, India, the group comprising of 6 publicly traded companies has created world class transport and utility infrastructure portfolio with a pan-India presence. Adani owes its success and leadership position to its core philosophy of 'Nation Building'. Over the years, Adani Group has positioned itself to be the market leader in its transport logistics and energy utility portfolio businesses focussing on large scale infrastructure development in India with O & M practices benchmarked to global standards. With four IG rated businesses it is the only Infrastructure Investment Grade issuer in India.

# Journey over the years



Trading House



Infrastructure



Integrated Infrastructure



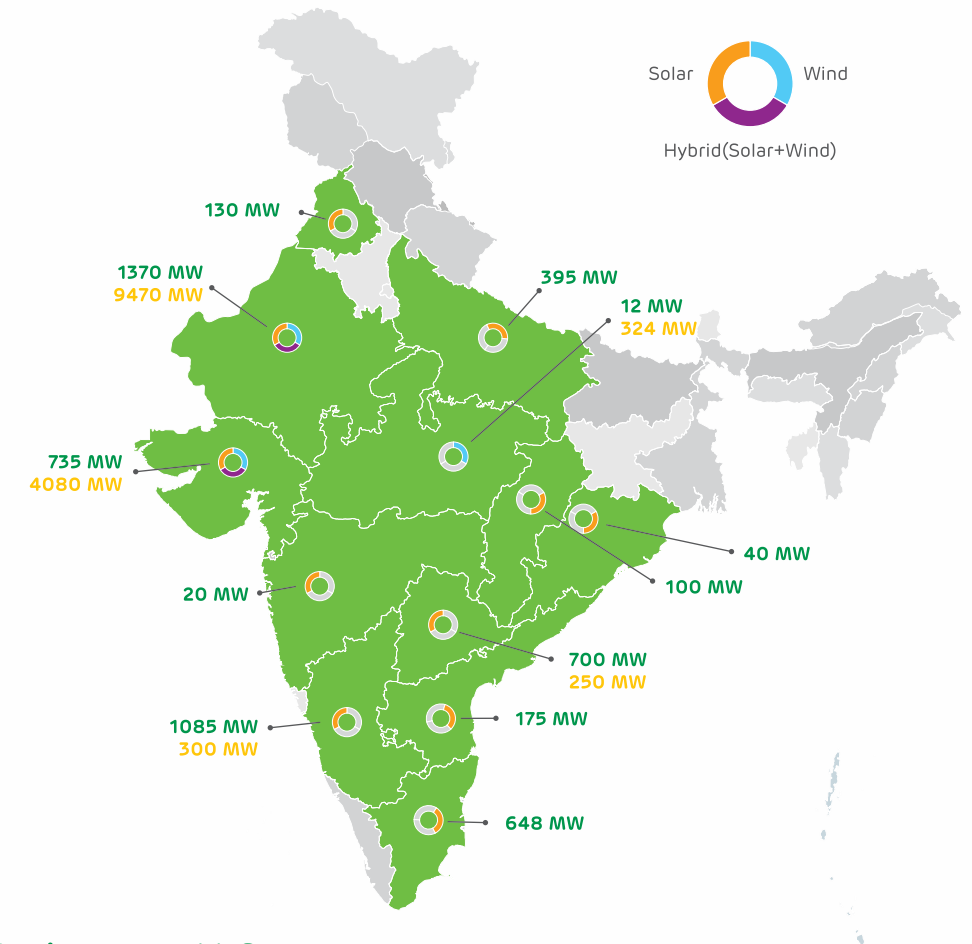
Diversified Infrastructure





# ADANI GREEN ENERGY LTD.

## AGEL Solar, Wind and Hybrid Portfolio Pan India presence



80+ Projects | 11 States

100% contracted 25 Year PPAs

AGEL is established to contribute to the aspiration of stimulating growth in the renewable energy domain. AGEL builds, owns, and operates Solar and Wind powered farms producing sustainable and reliable energy.

In line with India's commitment to reduce carbon emissions, we have built what is today, the largest solar generation entity in the

country, as a testimony to our commitment of helping the nation fulfil its global responsibilities.

Our vision is to witness every citizen adapting to healthier alternatives of energy consumption for building a greener, fruitful and sustainable world for all.

\*Operational and Under construction as on October 2021



# KEY DIFFERENTIATORS

As India's largest independent renewable energy producer, we are well-positioned to seize growth opportunities that are ahead of us. Our intellectual capital in the form of expertise in

operations and maintenance, strong network across the energy sector and regulatory know-how plays a crucial role in creating value for our stakeholders.

## Major Highlights

Ranked as the largest solar power developer in the world by US based Mercom Capital

Won 8 GW Solar bid from SECI, the largest renewable bid ever awarded in the world

Only large scale renewable company listed in India

Acquisition of SB Energy's 5 GW energy portfolio, largest acquisition in India's renewable sector

## Our Strengths



Deep know-how of Regulatory landscape



Well established relationship across energy ecosystem



Geography spread



Timely execution of large or complex assets



Operational expertise



Competitive project cost

## Our Strategy

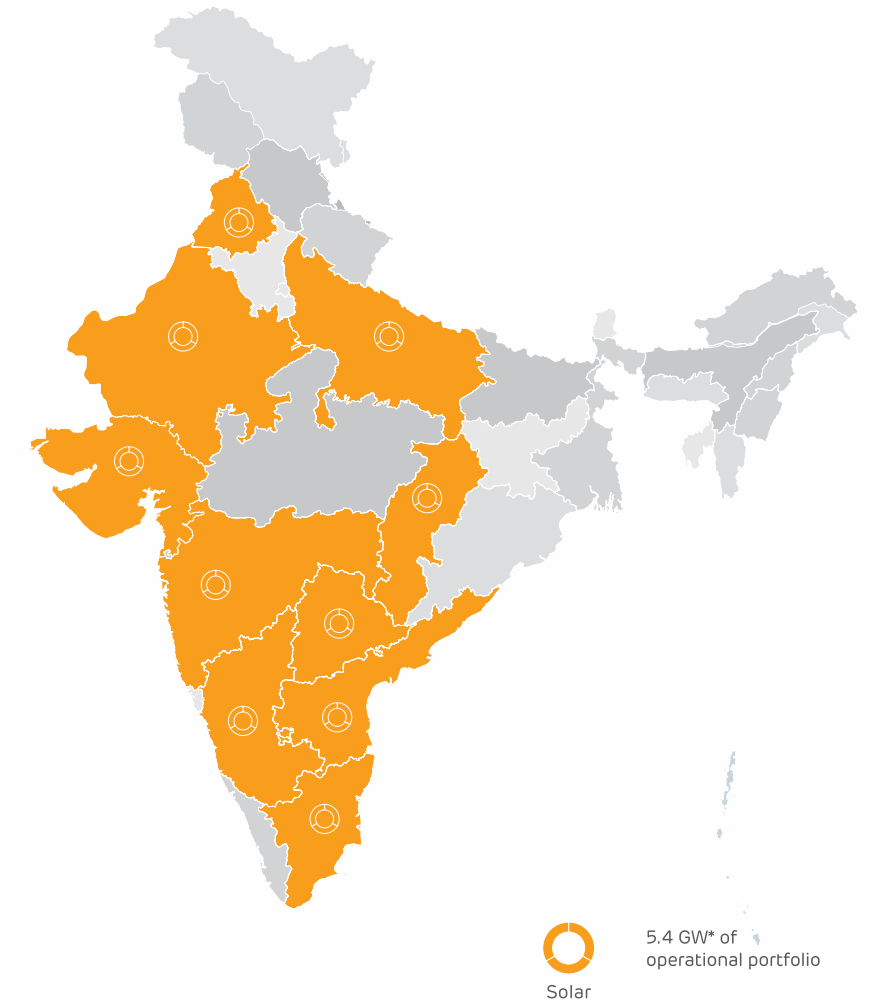
### Transforming challenges into opportunities

- Multiple resource model – Wind-Solar Hybrid
- GW scale plants or large clusters of plant
- Adopting cutting-edge technology for better resource utilization
- World-class O&M practices: proven past driven

- by Analytics & Continuous monitoring with ENOC
- Efficient capital management: Access to global capital markets and disciplined capital allocation
- Focus on risk management



# SOLAR ENERGY



Solar is an economical source of power with immense untapped with availability and abundance of solar energy across the country (300+ cloud-free days). AGEL's present diversification in solar energy stands at a sizeable 74%.

Our engineering capabilities helps us to design cost-efficient projects, backed by a thorough analysis of the land, solar radiation, grid connection infrastructure, and emerging technologies. Artificial intelligence-driven smart

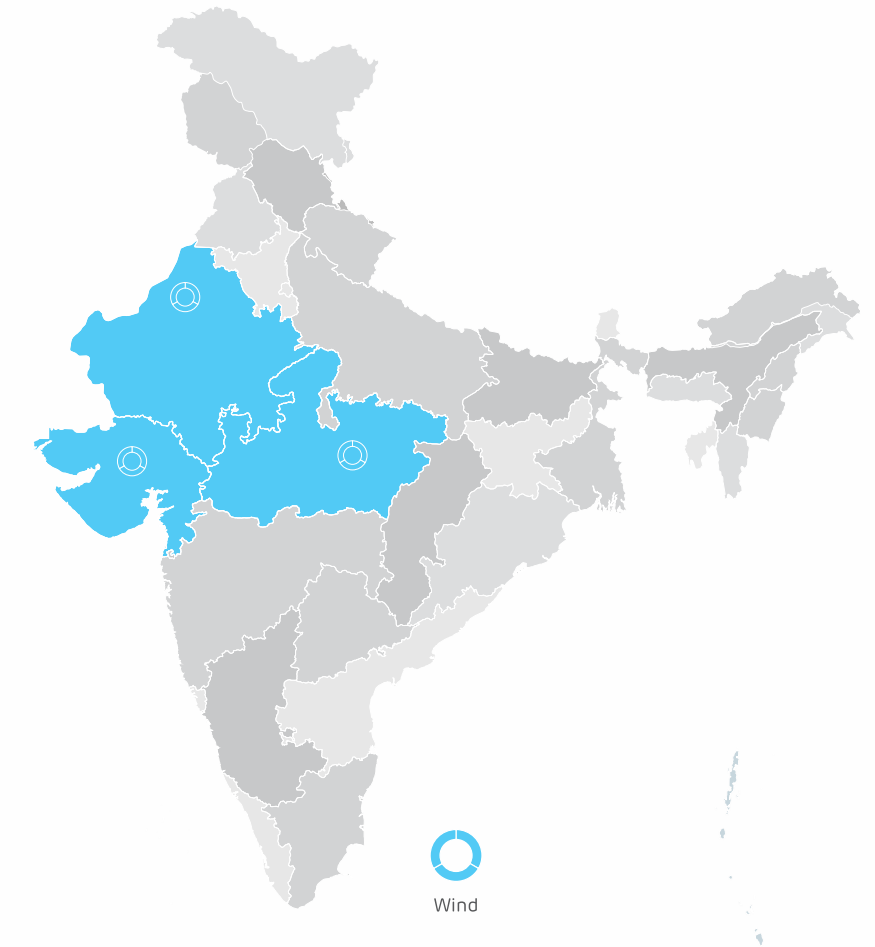
tracking solutions driving higher generation and improved plant CUFs.

Our project design also considers various factors such as the geographical location, climate conditions, temperature and its impact on equipment, local facilities as well as potential maintenance requirements. We, thus, ensure that all our capital investment projects are carried out after considering and studying the risks involved.

\*Operational capacity as on october 2021



# WIND ENERGY



Harnessing the power of wind energy can provide RE power to the grid throughout the day with relatively higher CUF. We develop, build, own, operate and maintain utility-scale grid-connected wind farm projects and generate revenue through the sale of electricity to central and state government entities and government-backed corporations.

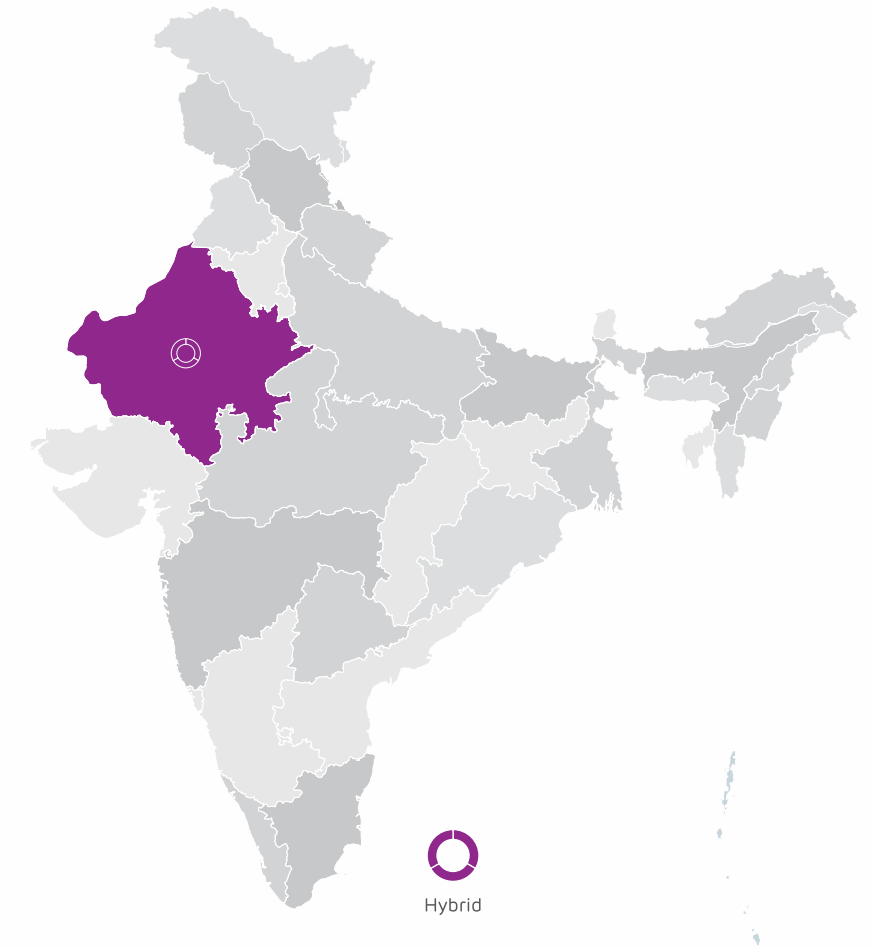
For wind project development, we continuously evaluate various regions of the country for wind

resource potential. We have already installed many wind-masts pan-India in resource-rich areas of our country. This has enabled us to confirm the site wind resource potential and allows micro-siting.

Adoption of higher efficiency machines, farm-level aggregation of wind machines, advanced algorithms for resource identification, and optimization of last mile connectivity of wind turbines has led to enhanced efficiencies.



# HYBRID ENERGY



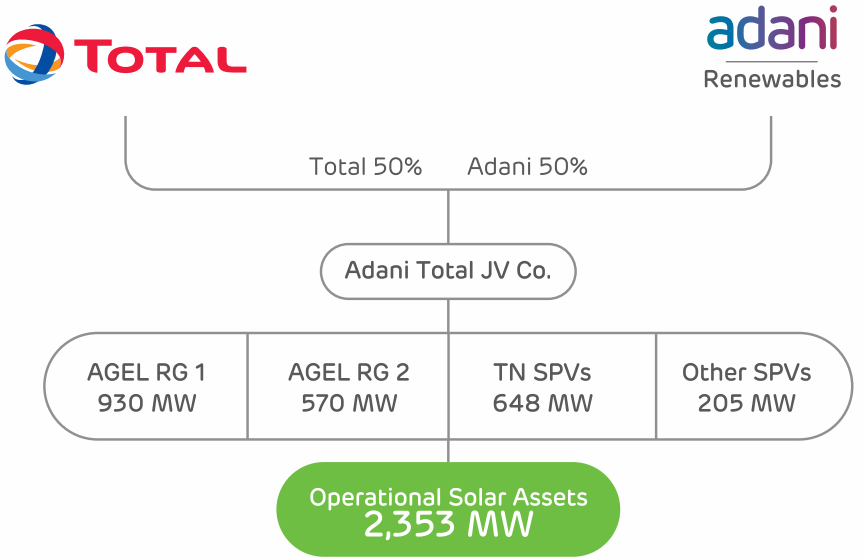
Variability in solar and wind generation has emerged as a concern in large-scale adoption of renewables, especially after it contributes a major share in the energy mix. The hybridisation of wind and solar plants is a developing solution that will reduce this variability due to complementary nature of their generation profile - solar generation is higher during the day, while wind generation can be higher in the night.

Hybrid projects would have much higher capacity utilization, thus, removing the intermittency challenge. Such projects also enjoy the additional benefit of a reduction in costs associated with sharing transmission lines.

AGEL's approach of thorough inspection to identify good locations for hybrid energy and creating a proactive transmission plan alignment with in-depth insights about resource / generation potential has become the largest hybrid portfolio owner in the country.



# SUSTAINABLE VALUE PROPOSITION



As a pivotal step in our journey towards building the world’s largest solar power company by 2025 and the world’s largest renewable power company by 2030, we have created a renewable platform which is significantly de-risked and generating immense value. Within a tenure of three years, AGEL has achieved a historic EBITDA Growth Rate and consistent EBITDA Return on Capital Employed. With this, AGEL’s accelerated growth is poised to continue.

The ‘Adani-TOTAL JV’ strategic tie-up demonstrates the global quality standard of renewable platform created by AGEL. The French oil major Total SA’s investment to acquire a 50% stake in AGEL’s operational solar business has resulted in immense value creation, capital de-risking as well as showcasing Governance through guided ESG glide path.

## Immense Value Creation

FY 17	
Capacity (MW)	748 MW
Credit Rating	Not Rated
Capital Employed	INR 50 bn
Run rate EBITDA <sup>4</sup>	INR 8 bn
EBITDA Return on Capital Employed	~ 16%

\*Figures as per Annual reports

FY 21	
CAGR of 47%	3,470 MW <sup>1</sup>
Investment Grade Rating	BBB <sup>2</sup>
CAGR of 37%	INR 178 bn
CAGR of 40%	INR 31 bn
Consistent	~ 17%





# OPERATIONAL EXCELLENCE

## **In-house O&M capabilities**

We have set up a dedicated in-house team for the Operation and Maintenance (O&M) of 5.4 GW solar plants and 497 MW wind plants. Our team has an expertise in handling renewable O&M asset including fault rectification and diagnostics, efficiency improvement, cost and process optimization and performance analysis which is key to delivering excellence.

## **Analytics lead excellence**

With major thrust on data analytics, a state-of-the-art facility Adani-Energy Operation Nerve Centre (Adani-ENOC) has been set up at our HQ which seamlessly monitors and analyzes the real-time performance of both solar and wind plants on a single cloud-based platform.

We are leveraging business intelligence tools to improve our O&M practices. We are also utilizing Radio Frequency Identification (RFID) and GPS technologies for automated inventory control, asset tracking and maintenance, productivity enhancement and compliance management.

## **Safe processes- safe people**

We are aligned to Adani's safety culture of zero-tolerance to incidents. SOPs and SMPs are defined considering all work-related safety aspects. A strong governance mechanism based on pre-defined KPIs and site-wise targets help create a safe and a healthy environment for our team. Our processes are further being accredited with IMS and 5S certification.

## **Continuous improvement mindset**

Best-in-class training of our team and state-of-the-art automation fosters our team to not only focus on performance improvement, but also sustain the improved performance.

Continuous improvement mind-set is a cornerstone for sustaining an edge of over our competitors. Our work environment encourages the team to continuously explore opportunities to improve our performance and raise the bar on an ongoing basis.

A comprehensive search for technologies that will help us further optimize our methodologies, processes and cost-efficiency is ongoing. We encourage start-ups and vendors to partner with us in developing automated / semi-automated water-based and waterless module cleaning system to achieve sustainable plant operations by reducing water consumption. We have already implemented a cleaning system which is a mix of air and water. This has reduced our water consumption by 50%. We are developing VR-based training modules for safe plant maintenance and are also deploying CCTV-based alert system for safety compliance.



# OUR REAL ASSETS



## The people

At AGEL, we have put in place a strong value system and best practices for enhancing and improving capabilities towards achieving our organizational objectives. Keeping this in mind, we have designed and executed people-processes and practices to facilitate a conducive work environment. We are a young and vibrant company with respect towards its people and value for their strength. The average workforce within the age group of early 30s.

We are focused on attracting, developing, and retaining the right talent to build a safe, engaged and performance-driven organizational culture that can deliver the best outcomes for our customers and other stakeholders. Our employees - permanent and contracted - spread across our corporate, project and O&M sites, play a vital role towards achieving this target. We continuously strive to ensure that the professional as well as holistic development of our employees takes place, and we can help keep them abreast of the emerging market and technological trends.

Our work culture enables employees to:

- Keep the nation's, stakeholders', customers' needs in mind and constantly grow
- Sustain and strengthen the group spirit of entrepreneurship - taking ownership and being accountable for their actions
- Integrate and leverage synergies to create impact, learn and build on the diverse experiences and required competencies of our various businesses and teams
- Create a high-performing organisation through meritocracy with a commitment to transparent systems and processes
- Be enterprising with a professional approach, aided by appropriate systems, processes, open and transparent culture and engagement



# ESG GLIDE PATH



## ESG indicators



**5.2**  
Million Tonnes  
Equivalent  
CO2 saved



**5,00,000**  
Direct and Indirect  
Beneficiaries



**47,446 EHS**  
Training  
man-hours

## Adani Green Energy Limited Official UN Global Compact Signatory

Sustainability at AGEL is not just about environmental stewardship, corporate governance, and community development. It is about taking a holistic approach towards establishing a business model today, that can withstand tomorrow's challenges and create long-term value for providers of diverse capitals.

AGEL has established strong governance and management practices to ensure proactive monitoring and management of our key focus areas. Our Enterprise Resource Planning (ERP) mechanism helps capture performance parameters on material procurement, project operations, employees and workforce, waste generation and disposal, amongst others. Data related to energy consumption, safety, training, and grievances, along with others, are captured and aggregated at the site level after due validation.

As stewards of the environment, we are working to conserve energy, reduce waste and build awareness of environmental issues. We undertake rigorous risk assessments at every stage of a project and put in place robust systems and processes to minimise any adverse impact, without compromising on our commitment to safety. We have identified projects for improving green cover in our locations of operation and identified mangrove areas for afforestation and conservation. We are also creating solar parks for better provision of infrastructure and have installed waste module recycling facilities at all our sites during the reporting period. We are committed to encouraging ecosystem biodiversity by establishing new and sustainable projects in a way that fosters harmonious coexistence and conserves, protects, and promotes the development and growth of natural heritage.





# SAFETY & ENVIRONMENT

## Safety

In the upliftment of people lies the growth of the country and in their happiness, thrives our impetus to do good. The Adani Group has established an Occupational Health and Safety (OH&S) Policy and a Safety Manual and has also identified the legal requirements in the legal register, as well as in operation and maintenance activities ensuring that concerns of health and safety steer clear of our journey towards realising dreams. There is a Corporate Safety Group under the CEO's guidance, monitoring safety at all sites. In a nutshell, all possible safety precautions are being observed and taken into consideration to meet the global standards in safety management systems. Our sites go beyond statutory requirements to achieve continual improvement year after year. This effort has been recognised in the form of awards and accolades from many organisations and safety forums.

## Environment

Helping India meet its energy needs while minimising the impact on the environment is a crucial challenge. Our environment protection initiatives aim to help curb the dangers of eroding landscapes and convert them into fertile, greener blankets of land. An exemplary achievement in this regard is the revival of ecologically sensitive areas like Mundra, where we have conserved and extended mangrove afforestation. We were the first power company in India to use 'supercritical' technology to reduce CO2 emissions, an initiative that won us the Clean Development Certification from the United Nations Framework Convention on Climate Change (UNFCCC). In addition, we operate one of the largest solar power projects in India. We are at the forefront when it comes to improving efficiency and reducing waste.



# ADANI FOUNDATION

Goodness is a practice that ought to be ingrained in those who truly believe in it. We, at Adani, leave no stone unturned to bring happiness and livelihood at every step of our journey towards Nation Building. The Adani Group invests about 2% of its total profit in social initiatives through its CSR arm, Adani Foundation, with an aim to lead the wave of goodness at grassroots level. It exhibits the humane, compassionate and benevolent side of the company. Adani Foundation is touching more than 3.7 million lives in 2410 villages across 18 states through its work in Education, Community Health, Community Infrastructure Development and Sustainable Livelihood Development.

## 1. Education

Adani Vidya Mandir, Ahmedabad (AVMA) is the first cost-free school in India to receive NABET Accreditation by the Quality Council of India, a benchmark in the field of education. Adani Public School, Mundra is now the first school in Kutch and Saurashtra region to receive the NABET accreditation. Adani Vidya Mandir in Ahmedabad, Bhadreshwar and Surguja are schools that provide cost-free education to about 3000 students annually. Adani Public School in Mundra, Adani Vidyalayain Tirora and Kawai, Adani DAV Public School in Dhamra and Navchetan Vidyalaya in Hazira provide subsidized education to students. The Foundation has started special initiatives such as Gyanodyay for Digital learning (Godda, Jharkhand), Utthan for strengthening fundamentals (Pan India) and Amchi Shala for reviving government schools (Maharashtra)

## 2. Community Health

Adani Foundation firmly believes that ensuring and improving the overall healthcare of the citizens can directly result in the economic growth of the nation. There are 12 rural clinics across the nation that provide timely services to around 33,000 patients annually. The Foundation also operates Mobile Health Care Units (MHCU), providing on-the-spot medical assistance to patients in remote locations. At present, the MHCUs attend to 2L people annually, on average. Health camps are organized at regular intervals which are seasonal/need-based to meet the specific needs of the community. The Foundation also provides health check-up cards to senior citizens from socio-economically marginalized sections under Vadil Swasthya Yojana. The green card is given to those with a family income of less than Rs. 2 lakh per annum to avail free healthcare services, while those with family income of more than Rs. 2 lakh per annum are given blue cards to avail healthcare services at the Adani Hospitals.

**Gujarat Adani Institute of Medical Sciences (GAIMS) and G.K. General Hospital (GKGH):** GAIMS is the first Public-Private-Partnership (PPP) endeavor between the Government of Gujarat and the Adani Education & Research Foundation. G. K. General Hospital (GKGH, attached teaching hospital) is the only multi-specialty modern teaching district hospital in Kutch. GKGH is often the last ray of hope for thousands of patients who come here from different parts of the district. It provides treatment to all socio-economic classes of patients, particularly the poorest of poor patients. On average, 1,700 patients take medical benefits from the hospital every day.

## 3. Sustainable Livelihood Development

Adani Foundation aims at promoting the growth and development of marginalized sections by promoting livelihood security. The programs span from skilling to offering support in market linkages to the creation of Self-Help Groups (SHGs) to the adoption of new and innovative techniques in crop production, and animal husbandry. It also supports bringing alternate livelihood to fishermen community. The Foundation is empowering women through creating over 200 SHGs, covering over 2000 women. These SHGs are undertaking various income-generating activities, ensuring additional income to families.

## 4. Community Infrastructure Development

Community infrastructure bears a direct impact on the standard of living and the micro economy of the community. Adani Foundation has worked towards improving the infrastructure in numerous rural and migrant populations.

**Water Conservation:** The Foundation has constructed 21 check dams, revived 374 farm ponds and deepened several streams across various geographies. This has helped boost the water storage capacity to 7871785 M3 and it has brought 18,200 acres of land under irrigation.

**SuPoshan:** SuPoshan is targeted towards breaking the cycle of anemia in women and malnourishment in children below the age of 5 years. SuPoshan Sanginis, who are from the community, ensure the right medical and social support to encourage mothers to adopt a healthy lifestyle. SuPoshan is spread across 12 states in more than 3.25 lakh households.

**Saksham:** Saksham or Adani Skill Development Programme (ASDC) is a skilling program that focuses on bridging the skill gap among the youth, make them employable and thus, contribute towards nation-building. The program is in line with the Government of India's Skill India Mission. Saksham has partnered with the National Skill Development Corporation (NSDC) and has trained more than 67600 plus young persons. Its innovative courses include simulator-based crane operation, 3D printing and welding through Augmented Reality. Currently, there are more than 65 Saksham centers operational across eight states in India offering skill training in 45 trades.

**Swachhagraha:** Swachhagraha, inspired by one of the largest pre-independent mass movements in India – 'Satyagraha', is aimed at inspiring people to get involved and take action towards 'Creating a Culture of Cleanliness'. The program focuses on four key themes, namely, Waste Management and Littering, Sanitation, Personal Hygiene and Toilet Etiquettes.

**Udaan:** Udaan encourages young minds to develop an interest in all sorts of enterprises and to encourage them to dream big in life. Adani Foundation takes students on an exposure visit to their power plants and ports, where the students get an opportunity to experience the scale of the businesses. More than 3.48L students and teachers from 5200 institutions have participated in Project Udaan.





Growth  
with  
Goodness

**contact us:**

[info@adani.com](mailto:info@adani.com)

[investor@adani.com](mailto:investor@adani.com)

**Corporate Office**

Adani Green Energy Ltd

Adani Corporate House, Shantigram,

Near Vaishno Devi Circle, S. G.

Highway, Khodiyar, Ahmedabad-382421



/AdaniOnline

[www.adanigreenenergy.com](http://www.adanigreenenergy.com)