

EMPLOYERS OF THE FUTURE: A FORTUNE INDIA-WORK UNIVERSE STUDY
OF FUTURE-ORIENTED WORKPLACES

War On Inflation P.42 | Sustainability: Hydrogen Play P.98 | Relentless Chinese Imports P.34

FORTUNE

INDIA



ADANI'S AMBITIONS

IN THREE DECADES, GAUTAM ADANI CREATED A \$30 BILLION INFRASTRUCTURE GIANT ACROSS 22 BUSINESSES. OVER THE NEXT EIGHT YEARS, HE BETS \$70 BILLION ON GREEN ENERGY. WHAT DRIVES THE WORLD'S 5TH RICHEST MAN?



Audaciously Adani

▶ ‘Adjacency’! That is how Gautam Adani patiently explains the group’s rapidfire entry into the nearly two dozen businesses that appear totally unrelated to the outside world. From ports to airports; thermal, solar and wind power to cement; and edible oils and FMCG to city gas distribution.

“Adani group is nothing but India’s success story in infrastructure,” explains Gautam Adani in a 90-minute conversation sitting relaxed at the corner of a sofa on the 16th floor of Adani house, the group headquarters at Shantigram, its private township in Ahmedabad.

Adjacency along India’s infrastructure deficiency makes the ₹2.30 lakh crore group India’s biggest infra player: The biggest in ports, biggest in airports, India’s largest private power company; largest solar power company; largest in city gas distribution; largest in power transmission; and the biggest edible oil company; and now with Holcim, the second largest in cement.

The blinding expansion, a majority via acquisitions in two years of the pandemic, has catapulted the valuation of his stake in listed entities more than seven times from ₹1.4 lakh crore at the end of 2019 to ₹10.3 lakh crore on May 24, 2022. That makes the about to be 60 Gautam Adani the world’s fifth richest in just 34 years of the group’s existence.

But Adani’s ambition goes beyond this. He talks in small, well thought out sentences, assimilating thoughts into simple one-liners, as he goes about explaining another audacious bet — a \$70 billion investment into fully backward integrated green energy capacity and infrastructure. “Today climate change is one of the biggest challenges. Those challenges also open up huge business opportunities. The opportunity in this case is energy transition, the transition from fossil fuels to renewables and to hydrogen. What the world has seen in the last

100 years of energy forms is set to change in the next 10-20 years,” says Adani.

Our cover story this issue is a peek into the mind of the one man whose ambition keeps growing bigger with each new milestone. Whom the whole corporate world is trying to decipher. Importantly, the big challenges before the first-generation group, including the ballooning debt, assimilation of massive acquisitions, entry into new businesses and transitioning of old businesses — all happening at the same time.

Our special issue this month is ‘Employers Of The Future’ — a unique study conducted with our partners Work Universe to identify some of the best practices among organisations who are on a mission to ready themselves for the future needs of their employees.

Our special gratitude to an eminent board of the ‘Employers Of The Future’, whose decades of HR experience guided us all along to form the bedrock of this study: Anand Kripalu, MD and global CEO, EPL; Deep Kalra, founder and group executive chairman, MakeMyTrip; Radha Ahluwalia, general partner, Work Universe; Rajeev Dubey, former group president, HR & corporate services, CEO, after-market sector & member of the group executive board, Mahindra & Mahindra; Rajkamal Vempati, head of human resources, Axis Bank; Santrupt Misra, director, group HR, Aditya Birla Group; Suresh Narayanan, CMD, Nestle India.



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ADANI'S GREEN AVATAR

Gautam Adani created a \$30 billion infrastructure giant across 22 sectors via rapidfire acquisitions and break-neck entry into new businesses. With India setting a 500 GW renewables target, he bets \$70 billion on green energy. What drives the world's 5th richest?

By **P.B. Jayakumar**

Photograph By **Narendra Bisht**

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Number 20 holds special significance in the life of Gautam Adani, chairman of the rapidly growing Adani group. All good things at the ₹2.30 lakh crore group begin with number 20. It's the sum of the birth date of 'Gautam-bhai', as everybody addresses him. It's also the sum of the number plates of each of the eight cars he owns, including the blue BMW 7-Series and Toyota Alphard, his favourites. All family owned and company owned cars sport 20 as the sum of their registration plates. The postal code of Shantigram, an 800 acre township housing the Adani group headquarters on the Sarkhej-Gandhinagar Highway, is 382421. You guessed right, it adds up to 20!

So it was only fitting that 2020 was the year that catapulted Gautam Adani from one among the large business houses in the country to the only one out to challenge the largest — Reliance and Tata — in depth and breadth of operations and value. The valuation of his holdings in seven listed companies shooting from ₹1.4 lakh crore on December 31,



SCALE MAKES AN INFRA GIANT

APSEZ
India's largest port operator handling 312 million metric tonnes of cargo at 15 ports.

Adani Airports
India's biggest private airports player with 7 airports under management and rights for one more under construction.

Adani Power
India's largest private thermal power company with 14,000 MW of thermal and lignite plants.

Adani Green Energy
India's largest solar company with 5,400 MW installed capacity and 14,600 MW under construction.

Adani Total Gas
India's largest city gas distribution company with 33 geographical area licences.

Adani Transmission
India's No.1 private power transmission and distribution company with 18,795 circuit kilometers.

Adani Wilmar
India's largest edible oil player with an 18.9% market share with brand 'Fortune'.

Adani Enterprises
India's largest coal importer, commodity and minerals trading company; among top global players.

2019 to ₹10.3 lakh crore as on May 24, 2022, overwhelming Mukesh Ambani's ₹8.7 lakh crore and nudging Tata Group promoter stake worth ₹12.6 lakh crore. In the process, he overtook large entrenched business groups such as Aditya Birla (₹2.2 lakh crore) and Mahindra (₹79,966 crore).

"Adani group is nothing but India's success story in infrastructure," explains Gautam Adani in a relaxed 90-minute conversation with Fortune India at the Chairman's Lounge on the 16th floor.

He speaks plain English, in well thought out small sentences, often assimilating complex business equations and jargons into easy one-liners. Lacing them with appropriate similes, euphemisms such as "For me, partnership is not a percentage — it is all respect, trust and transparency" or "Forget individual enterprises, India as a country faces shortage of capital" or "India is 10 years behind China."

Running up to the inflection year 2020, Adani had already built an enviable empire, tapping India's grave infrastructure deficiency. Now he has set up one of the boldest green plans globally with a proposed \$70 billion push in solar, wind, hydrogen, green gas, green cement, green steel — all to be implemented by 2030.

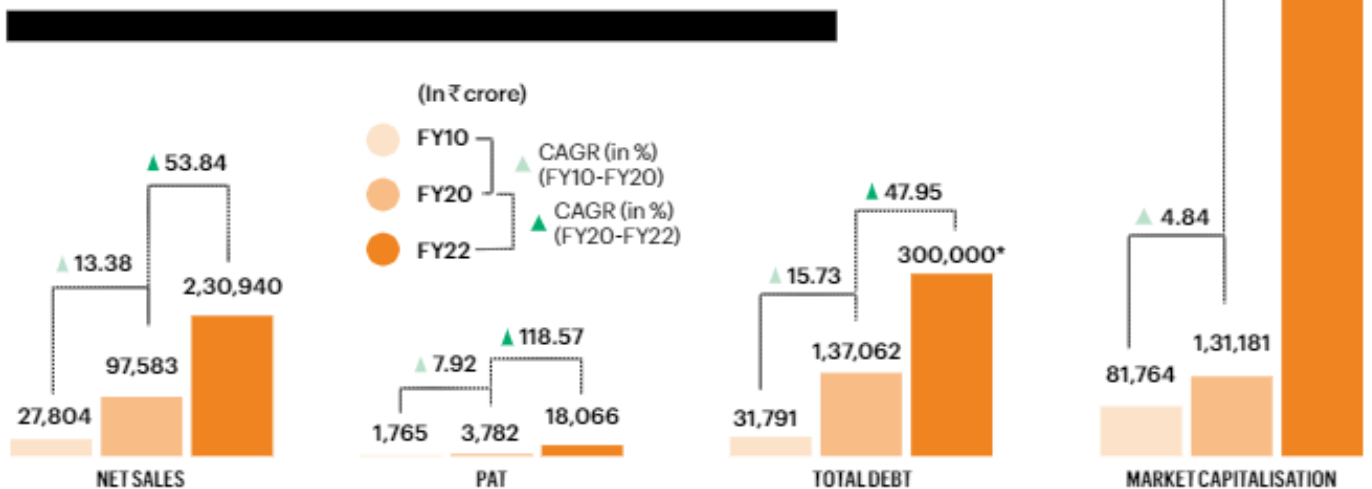
With its breadth of massive infrastructure operations, the group is already India's largest port operator handling 312 million metric tonnes (MMT) of cargo against No.2 JNPT's 76.14 MMT tonnes in 2021; India's largest private airports player with seven airports under management and rights for one more under construction; India's largest private thermal power company with 14,000 MW of thermal and lignite plants, followed by Tata Power's 8,860 MW thermal capacity; India's largest solar power company with 5,400 MW installed capacity and 14,600 MW under implementation; India's largest city gas distribution company with operations in 33 geographical area (GA) licences, Gujarat Gas is No.2 with 27 GAs; India's largest private power transmission and distribution company with 18,795 circuit kilometers; and India's largest edible oil player with an 18.9% market share with brand 'Fortune' in a highly unorganised industry.

In recent times, some of this growth came from 35-plus acquisitions

worth ₹82,600 crore in last five years. Of that, over ₹33,500 crore was spent in 2021 alone. In 2022, months after incorporating Adani Cement, the group acquired Holcim India's 70 million tonne (MT) cement capacity for \$10.5 billion (about ₹81,360 crore) to emerge as India's second-largest cement manufacturer, behind Aditya Birla Group's 117 MT. With 20,000 MW of solar power capacity under development, Adani aims to be the world's biggest solar power company by 2025.

Such rapid-fire growth and acquisitions have shot up group revenues from ₹70,463

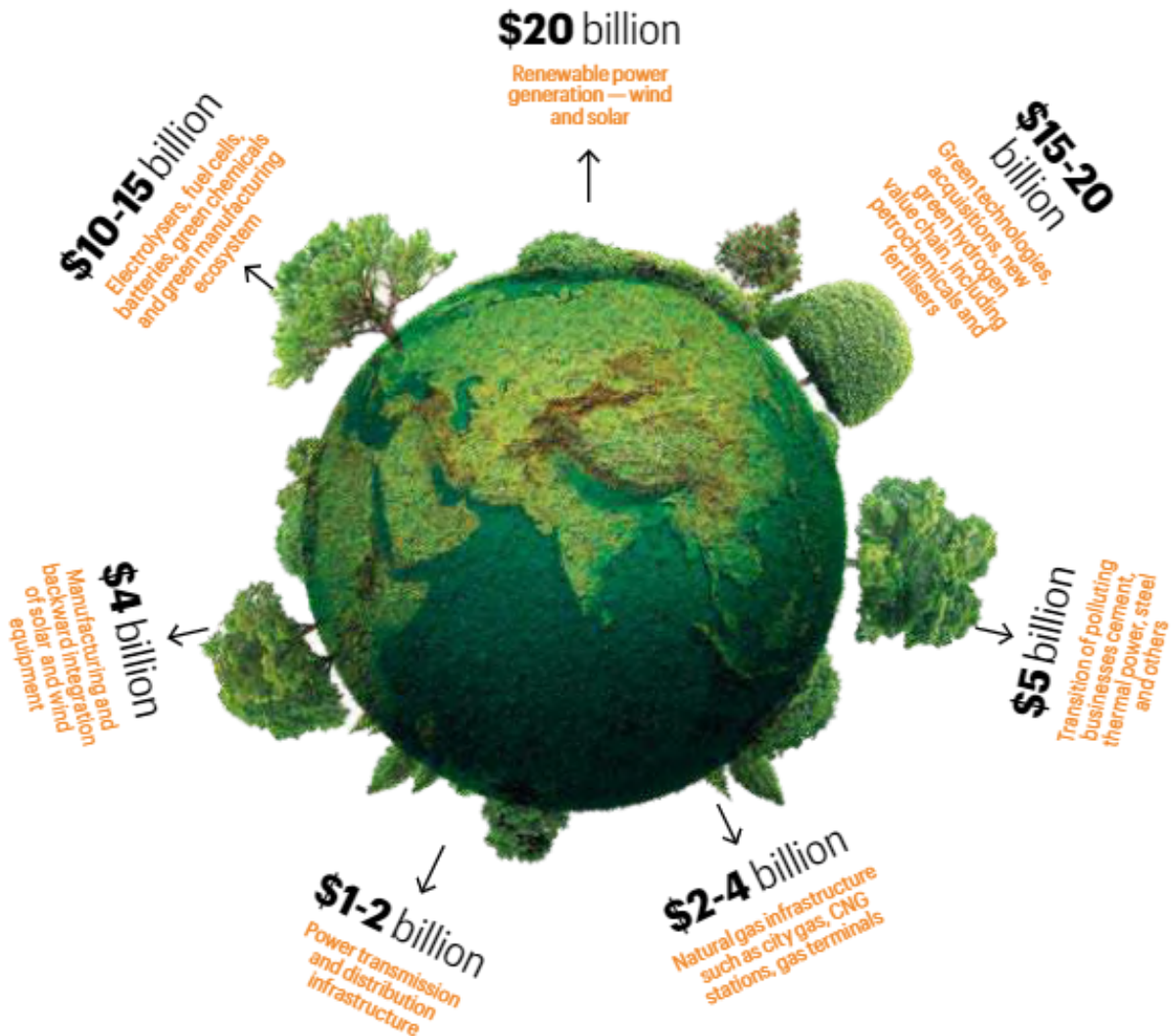
THE GROUP: THEN AND NOW



FY22 NUMBERS, TOTAL DEBT AND MARKET CAP FIGURES ARE INCLUSIVE OF THE HOLCIM DEAL; * ESTIMATED (ADANI GROUP'S DEBT STOOD AT ₹24,408 CRORE AS ON MARCH 31, 2022); MARKET CAP FOR 2022 AS ON MAY 24; SOURCE: FORTUNE INDIA, CAPITALINE

\$70 BILLION GREEN INVESTMENT IN 8 YEARS

Where it will be deployed



crore five years ago to over ₹2.30 lakh crore today. Of that, an astounding 53.84% was added since 2020. From losses of ₹858 crore five years ago, it clocked profits of ₹18,066 crore in FY22. "Gautam Adani has not only diversified group portfolio but has done it keeping emerging growth sectors in mind and achieved all these within a short period of time," says Dr. Kavil Ramachandran, professor of entrepreneurship

(practice) and senior advisor, Thomas Schmidheiny Centre for Family Enterprise at Indian School of Business (ISB), Hyderabad.

But acquisitions are not cheap. The recent acquisitions worth ₹1.6 lakh crore, have ballooned group debt from ₹1 lakh crore five years ago to around ₹3 lakh crore in FY22 (including the Holcim deal). That makes the 34-year-old Adani group, India's second-most indebted group after Tata (₹3.5 lakh crore), and ahead of Reliance Industries (₹2.8 lakh crore), as per the latest available listed company information.

In January 2021, senior political leader Subramanian Swamy tweeted without providing evidence, accusing Adani of creating ₹4.5 lakh crore

Backward integration in solar, wind manufacturing

PLANT	CAPACITY	INVESTMENT (\$ billion)	TAKE-OFF
Poly-silica	30 KTPA	1.2	FY25
Ingots & wafers	10GW	1.1	FY23
Copper smelter	500 KTPA	1.2	Q4 FY23
Ancillary like glass & aluminium	10GW	0.4	FY25
Wind machinery & auxiliary	3GW	0.1	FY24
Total investment:		4	

GW: GIGAWATT; KTPA: KILO TONNES PER ANNUM

as NPAs to banks. Adani group refuted the allegation saying it has maintained an “impeccable record of not a single NPA in three decades of existence.”

Sanjay Sethi, managing partner & CEO, Nestor Capital Consulting LLP says Adani has cash-generating businesses to fund equity expansion and maintains prudent financial discipline by refinancing previous rupee debts with low-cost bonds, bringing in external investments. And is adept at tapping primary and secondary markets.

Business is more than just money power. After expanding rapidly in 22 different businesses — seven of them added in the last two years — does the group have the capacity to absorb the massive transition or management and operational bandwidth to make it a success? Why did Adani enter seemingly unrelated businesses that are far removed from core competence?

Adani's 'Adjacency' Theory

Gautam Adani starts off slowly, patiently explaining his ‘adjacency’ theory behind the group’s entry into each of the businesses. As a listed trading company in 1994, investors often asked him why flagship Adani Enterprises had no assets. “People said Adani does not purchase any assets that can sustain. In people’s eye it was a finance company, a trading company. It is just individual expertise and not corporate. That was the real issue and we started thinking how to adjust,” explains Adani.

By then, Adani Enterprises was already India’s largest coal importer, using 20 ports to unload imported coal. Fortunately, India began opening public-private partnerships and Adani entered the port business at Mundra. “It was a natural extension for us to support our prime activity. That’s how our infrastructure journey started with a port,” says Adani. Power generation came next: “When you have a port and a large tract of land next to your port, and being the largest importers of coal, it was a natural extension to get into thermal power.”

Adani was also India’s biggest edible oil importer. While the port was being set up, Singapore’s Wilmar—from whom Adani imported edible oils—approached with a vision to set up port-based agri refiner-

80%

The group's capex on green initiatives

5,400 MW

Installed solar capacity. Another 14,600 MW is under construction

ies, keeping in mind the potential of India’s huge market. “Everyone thinks of India as a huge market. When anyone sees 1.4 billion population, it is a huge opportunity. You have to only work to tap that underlying market. No one can deny the potential,” says Adani.

Almost 4-5 years after entering power generation, it was natural to get into transmission and then distribution, explains Adani. When the government began focusing on renewables, Adani entered solar power. About 10-15 years ago, when the Centre’s piped gas policy was yet to evolve, the Gujarat Government pioneered piped gas distribution to create a large piped gas network in the state. Adani entered city gas distribution in Ahmedabad. In 2014, then Gujarat chief minister Narendra Modi became Prime Minister and he planned to replicate Gujarat’s gas distribution success across India. “We participated in all bids and won many. That is why we have a huge energy portfolio,” explains Adani.

“After our port and energy related ambitions were fulfilled, we looked at other areas. Delhi and Mumbai airports were

WHAT MAKES HIM TICK...

Takes audacious, risky bets early enough. Never relents, never backs off.

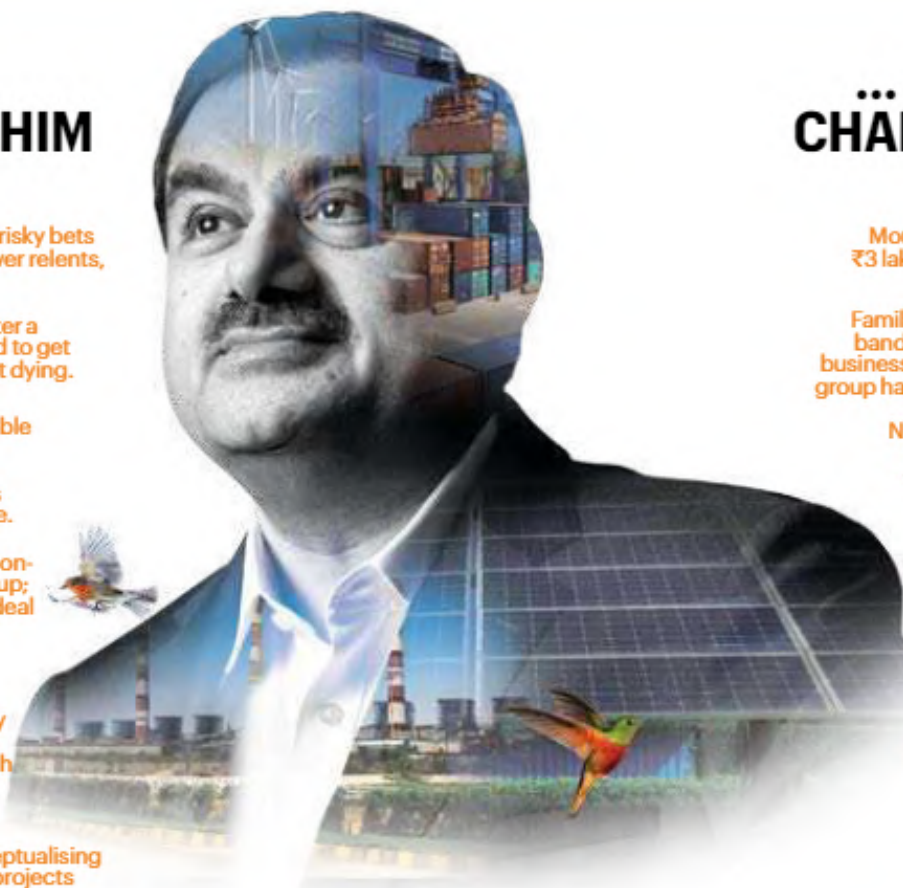
Believes if you enter a pipeline, you need to get out of that without dying.

Sets near impossible deadlines and pushes the team to achieve targets ahead of schedule.

Leads swift decision-making in the group; \$10.5 bn Holcim deal was sewed up in 30 days.

Propounds the unique 'adjacency theory' to explain the group's growth in seemingly unrelated areas.

Strength in conceptualising large green field projects such as ports and power plants and implementing in time.



... AND THE CHALLENGES AHEAD

Mounting debt of nearly ₹3 lakh crore after Holcim acquisition.

Family and management bandwidth to run 22-odd businesses, many where the group has no prior expertise.

Need for rapid project execution in dozen-odd new businesses simultaneously.

Sector-specific challenges in businesses such as worsening financials of state electricity boards, demand for scrapping power agreements and coming price crash in renewables.

Technologies yet to mature for renewable storage and green hydrogen as viable businesses.

privatised after 2005. Airports at Hyderabad and Bangalore also were developed by state governments. For the first time the government came up with privatisation of six more airports. We thought of this as an extension from ports to airports. These are adjacencies and we entered at the appropriate time. We did not enter telecom because there is no connection," says Adani.

Now in cement, steel and aluminium, Adani not just sees the same 'adjacencies' but also enormous opportunity as India embarks on a great infrastructure push through massive Centre-funded public expenditure to keep the country's growth engine kicking amidst a prolonged slowdown. "The drivers for this (Holcim) decision have been based on two primary factors—the demand-supply gap, and

synergies with our existing businesses. When we combine the cement demand pattern with existing businesses adjacencies that include Adani group's ports and logistics, energy, and real estate businesses, we are well positioned to build an integrated and differentiated business model that will be competitive and hard to match," says Adani right after acquiring Holcim's cement business in a swift deal. The group banks on India's low cement consumption: Just 240 kg per capita against the global average of 525 kg. In China, per capita cement consumption is over 1,600 kg.

The group's foray into defence is based on four priorities — collaborate with global partners, focus on platforms and technologies of critical importance to meet emerging security and defence needs, set up an ecosystem of capabilities through investment in MSMEs and facilities and capabilities — says Adani. Adani Defence and Aerospace established India's first Unmanned Aerial Vehicles (UAV) manufacturing facility at a 20 acre Adani Aerospace Park in Hyderabad in collaboration with Elbit Systems of Israel. In 2018, the group signed an agreement with Swedish fighter craft maker Saab to make Gripen series fighter aircrafts in India.

Never Back Off Mantra

Industry observers notice incredulous tenacity in Adani's actions. He neither relents, nor backs down, say close family circles and executives. Once convinced about a project, he sets near impossible deadlines and pushes teams to achieve targets well before deadline, meeting and monitoring them every month. Re-consideration is never on the agenda under any circumstances.

Some bold audacious bets with a lot of luck went behind the group's astronomical growth. Rivals do point to this coinciding with the rise and rise of Prime Minister Narendra Modi right from when he was chief minister of Gujarat, Adani's home state, to being the Prime Minister of India. Adani doesn't shy away from appreciating PM Modi on policy initiatives and his vision for energy security and defence. He narrates how he could launch city gas distribution in Ahmedabad, thanks to then chief minister Modi's vision.

In 2006, Adani's ambition to set up a large coast-based power plant at Mundra was shattered when his bid didn't make it to the ultra mega power project (UMPP) awarded to Tata Power and later three more to Anil Ambani's Reliance Power. But having made up his mind, Adani went ahead to set up the 4,620 MW Mundra Thermal Power Station right next to Tata Power's 4,000 MW UMPP at Mundra. It is the world's 11th-largest single location coal-based thermal power plant.

Or take the case of the widespread opposition to Adani's coal mining project in Australia. A project with high-quality potential coal reserves of 11.05 billion tonnes — enough to meet India's entire coal needs for 12 years. The group has already spent nearly \$3.5–4.5 billion in developing the mines, including a 200km rail line and a coal-handling terminal while protests erupted against the project among environmentalists and local communities.

We asked if Adani moderated his expectations from the project. "There is no question of moderating plans," Adani shoots back. "If you enter into a pipe, you have to get out at the other end. You cannot get stuck inside a pipe. Many people got stuck

FAMILY MATTERS



RAJESH ADANI,
MD, Adani Enterprises

Younger brother Rajesh associated with the group since inception. In charge of the group's operations and responsible for developing its business relationships.

PRANAV ADANI
MD, Agro and Oil & Gas

A Boston University graduate, nephew Pranav Adani is director, Adani Enterprises; heads coal mining and integrated coal management, agri, city gas distribution and real estate businesses.



KARAN ADANI
CEO, APSEZ

The eldest son of Gautam and Priti Adani is an Economics graduate from Purdue University, U.S.; CEO of Adani Ports and APSEZ since January 2016; handles Adani ports since 2009.

SAGAR ADANI
Executive director, AGEL

Rajesh Adani's son Sagar Adani leads the group's renewable energy foray; associated with Adani Green Energy since 2015, after graduating in Economics from Brown University, U.S.



JEET ADANI
Vice president, Group Finance

The younger son of Gautam Adani joined the group in 2019 after attending University of Pennsylvania School of Engineering and Applied Sciences. Started in the Group CFO's office, looking at strategic finance, capital markets and risk & governance policy; Works with all listed verticals; heads Adani Airports business and Adani Digital labs.

MEGA INFRA CREATION

Mundra Port

Created India's largest commercial port and SEZ on 35,000 acres from barren lands and marshy seas. The all-weather port handled over half of the 312 million tonnes cargo volume of FY22 among its 15 ports. APSEZ aims to be the world's largest port operator by 2030 with over 500 MMT capacity. Mundra also has one of the world's largest coal-handling terminal.

Mundra Thermal Power Station

The 4,620-MW Mundra Thermal Power Station with four 330 MW and five 660 MW units is India's second-largest operational power plant, and the world's 11th largest single-location coal-based thermal plant. All units commissioned between May 2009 and May 2012, two years before schedule.

Carmichael Mine & Rail, Australia

Bought Carmichael Mine in Galilee Basin of Australia's Queensland in 2010. Built a 200-km narrow-gauge rail line and a coal handling jetty at Abbot Point port. Ships have started sending coal to India. Have been awarded contracts worth over \$1.5 billion.

Kamuthi, Tamil Nadu Solar Power Project

At 648 MW, India's largest single-location solar power projects across 2,500 acres. Total investment at around ₹4,550 crore. It has 2.5 million solar modules, 38,000 foundations, 30,000 tonnes of structure, 6,000 km of cables, 576 inverters and 154 transformers.

Vizhinjam International Port, Kerala

Will be India's only transshipment deepwater multipurpose seaport. Project awarded in 2015. First phase to be completed by 2023. Capacity of 1 million TEUs and another 6.2 million TEUs in phases.

in between and died. You have to get out. Now we are through. We have got out of it (coal production has started). Already three ships have come to India," says Adani emphatically. Adani's voice thickens, then becomes heavy to near agitated while narrating how he was haunted for a decade by what he calls "so called environmentalists and philanthropists with agenda" against his Australian coal adventure. "It requires wherewithal and perseverance to fight up to the last mile," he proclaims.

Execution Is key

Adani's tenacity rubs off on the group's execution skills, which conceptualised large greenfield projects — from ports to power plants, transmission lines and solar projects — and implemented them under tight schedules. "Perseverance and wherewithal to execute are strengths and DNA of the group," says Adani.

His teams say Adani cherishes infrastructure execution challenges for the nation. At Mundra port, you can't miss Muhammad Iqbal's patriotic song "*Saare Jahan Se Achha... Hindustan Hamara*". It reverberates in each of the lifts of all group facilities at Mundra. When Adani took up the port in 1995, it was a ruined coastal port town with a barren coast, mostly marshy surface waters and land devoid of vegetation or habitat.

Construction began in 1995 and within three years the group operationalised the first two berths to anchor the first ship on October 7, 1998. Today the Mundra port and SEZ is spread over 35,000 hectares with over a lakh people directly and indirectly working there. Meanwhile, Mumbai's Nhava Sheva Port was commissioned in 1989, after decades of planning and construction.

Projects are centrally managed by a Project Management and Assurance Group (PMAG) and 125 Energy Network Operation Centres (ENOC), which provide real-time data monitoring on electricity generation, locations of plant faults, and rectification. Drones are used to monitor solar farms and wind turbines. Adani Green Energy Ltd (AGEL) has also set up a 2 lakh-plus vendor ecosystem across the country for components. Insiders say the mission is led by Sagar Adani, nephew of Gautam Adani and director, AGEL, along with Vneet S Jaain, MD and CEO, AGEL, who was earlier heading the thermal power business.

The group had no power plant experience before committing to the 4,620 MW Mundra Thermal Power Station. Yet all its four 330 MW and five 660 MW units were commissioned between May 2009 and March 2012, almost two years before schedule. It is among the fastest built mega power plants in the world in 60 months. Tata Power's 4,000 MW UMPP at Mundra took nearly 100 months.

In the 648 MW Kamuthi solar power project in Tamil Nadu in 2015, then the world's largest single-location solar project across 2,500 acres, 8,500 people worked 24x7 to complete the project in a record eight months. Adani is now replicating that in a much bigger 1,500 MW capacity solar park spread over 9,981 acres at Fatehgarh, Jaisalmer and a 500MW capacity solar park in Bhadla, Jodhpur.

Like a family patriarch, Adani showers praise on his team on ground for their operations and execution skills. "I'm biased towards our team's execution skills," says Adani.

The \$70 Billion Green Push

Gautam Adani's home 'Shantivan' on the prime Shantipath behind

HOW GAUTAM ADANI MADE IT BIG...

Jun 24, 1962: Gautam Adani, one of six siblings born in Ahmedabad to Shantilal and Shantaba Adani. Father was a textile trader.

1978: Drops out of school, moves to Zaveri Bazaar, Mumbai to work as diamond sorter.

1981: Returns to run brother's plastic unit in Ahmedabad.

1985: Starts importing primary polymers for small-scale industries.

1988: Starts Adani Exports for trading edible oils and coal, it later became Adani Enterprises, holding company of the group

1991: Enters into trading of metals, textiles and agri-products

1994: Adani Enterprises gets listed; bags management of Mundra port and sets up first jetty in a year

1996: Starts Adani Foundation.

1988: Released after abduction in Ahmedabad; sets up Adani Ports & Special Economic Zone (APSEZ).

1999: Forms JV with Wilmar to foray into agri-processing and edible oils; starts mineral-commodity trading.

2000: Starts Adani Wilmar JV in oil refining

2001: Starts city gas distribution in Ahmedabad

2006: Starts power generation with 4x330 MW units at Mundra

2007: Lists Adani Ports & Special Economic Zone

2008: Acquires coal mines in Indonesia; escapes 26/11 terrorist attacks at Taj Mahal Hotel, Mumbai

2009: Adani Power IPO raises Rs 3,020 crore

2010: Acquires Carmichael Mine in Queensland, Australia.

2012: Reorganises businesses; launches new brand identity.

2014: In the group's first acquisition, APSEZ buys Dhamra Port Company Ltd (DPCL) for ₹5,500 crore.

2015: Enters solar power generation.

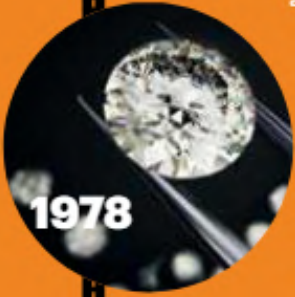
2017: Starts manufacturing of solar panels with imported wafers at Mundra.

2018: Demerges Adani Gas and Adani Green.

2019: Becomes second-largest mineral-commodity player in the world.

2020: Forays into airport business, buys Mumbai airport from GVK; wins world's largest solar bid by Solar Energy Corporation of India (SECI) worth \$6 billion — 8GW plants and 2GW of equipment


2022: Becomes Asia's richest person, surpassing Mukesh Ambani in February 2022; in May, is listed among top five richest in the world; buys Holcim's India cement business for \$10.5 billion.



1978




2000



2006



2015



1988



35

Acquisitions in the past 5 years by the Adani group

₹1.6L cr

Acquisition cost in last 5 years (including Holcim)

₹81,360 cr

Size of Holcim deal

Karnavati Club on Ahmedabad's SG Road, is powered by a 53 KV rooftop solar power plant with 153 panels.

Green is where Adani's heart is now. He sees India's energy landscape transitioning in just 10-20 years, opening up numerous opportunities in the country. It could also position India and the Adani group for a shot at world markets, just like China did. "Climate change is one of the biggest challenges. It also opens up huge business opportunities. The opportunity here is energy transition—from fossil fuels to renewables and hydrogen. That is what the whole game is about. What the world has seen in the last 100 years of energy forms is set to change in the next 30-40 years. The entire academia research is working towards how to make more affordable green energy," says Adani as he explains his vision — and mission.

The group is aware that going forward it will become difficult to find funds for polluting and non-ESG compliant businesses since globally banks, funds, corporations and governments are committing to sustainability goals. "Global fossil fuel majors are rapidly repositioning themselves as green energy companies — investing in solar and wind power generation as well as planning large green hydrogen capacities. Adani group already has a sizeable presence in green power generation and is now doubling down on expanding its footprint both organically as well as through acquisitions," observes Nestor's Sanjay Sethi. "More than 80% of our capex is on green investments. We still have to invest 20% capex to sustain energy transition, which is not going to happen overnight. It is a journey of a mini-

mum 30 years," says Adani.

The group announced an investment of \$70 billion by 2030 to transition towards a green future. It is spending over \$20 billion to set up 45,000 MW of solar and wind energy generation capacity. To protect itself from the vagaries of imported components, it will be backed by fully backward integrated manufacturing of an entire ecosystem of solar and wind power equipment. A \$4 billion investment is currently under implementation to build a poly-silica plant, solar wafers & ingots plant, copper smelters and ancillary aluminium and glass factories at Mundra. All of this is expected to take off in the next 2-3 years. It is also entering into wind turbine and auxiliary machine manufacturing. Adani-Total will be investing ₹20,000 crore (\$2.57 billion) in city gas distribution in 33 GAs.

If green EBITDA constituted only 4% of Adani group's utility business in 2015, it has grown to 43% by 2021. The group aims for renewable utilities to contribute 70% of utility EBITDA by 2025. A majority of the investment in recent times was in green infra assets such as SB Energy's solar and wind farms in India, Essel's advanced transmission lines and the Mumbai International Airport.

At the core of that strategy is fully backward-integrated manufacturing to support the green push — from solar cells and panels to wind turbines, all within the country for self-reliance. "Without self-reliance or '*atmanirbharta*', we can't serve 1.4 billion people. You have to be *atmanirbhar*. This is a huge opportunity for India to become *atmanirbhar* and move from '*atmanirbharta*' (self-reliance), to '*bharatnirbharta*' (reliance on India). Now the world is dependent on what China makes. India can play this role for the world," says Adani.

One of the big triggers was Covid-led supply chain disruption. Adani says Covid-19 was an eye opener for the Indian solar industry and government. More than 80% of solar equipment needed for planned projects in India is imported mainly from China, Vietnam or Malaysia. Imports of solar equipment since April 2021 have been consistently over 800 MW per month. Cumulatively, domestic manufacturers make only 4GW of solar cell and 16GW of modules, according to the All India Solar Industries Association (AISIA). There is no capacity for basic raw materials like ingots and wafers and polysilicon, which makes domestic manufacturers uncompetitive. During Covid-19, China raised prices by 50-60% to nearly 30 cents per panel from 18 cents, hitting Indian project equations.

To mitigate this, Adani is developing a big green solar manufactur-

ing ecosystem in Mundra, investing \$4 billion. That is also going to act as a platform for the group's green hydrogen ambitions. "It is happening on ground and we are not going to depend on any external suppliers," says Adani.

This future investment play is projected to be backed by green funds. The group's renewable energy arm Adani Green was the first energy utility from India to raise \$2 billion Global Medium-Term Notes (GMTN) or Sustainability Linked Bonds (SLB). Unlike in the past where the group took loans from local banks to fund cash-guzzling infra projects, as of March of FY21, at least 50% of total debt was secured from bonds, mostly low-cost green bonds. Just six years ago, in March of FY16, 55% of his debt at group level was taken from public sector banks and 31% from private banks. Now PSU banks fund only 21% and private banks' share of the debt has come down to 11%. For equity, the group is unlocking value in mature green businesses by bringing in external investors and multinationals with technological expertise.

Adani Green Energy brought in global energy major Total Energy as a strategic partner, investing ₹3,707 crore for a 50% stake in three SPVs and later diluted 20% stake in AGEL to Total for a \$2.5 billion investment commitment and a board seat. In gas, Adani and Total have equal stake of 37.4% each. Recently, the International Holding Company (IHC), the Abu Dhabi-based conglomerate, also committed to invest \$2 billion (₹15,400 crore) in three of Adani's green energy driven companies — ₹3,850 crore each in Adani Green Energy and Adani Transmission and ₹7,700 crore in Adani Enterprises.

AGEL sources say it has tied up 'diversified growth capital' with a revolving facility of \$1.35 billion to fully fund its entire project pipeline. In September last year, it raised \$750 million from green bonds for funding equity capex for underlying renewable projects under construction.

Next on the agenda is green hydrogen where Adani will be competing with Mukesh Ambani's Reliance Industries in the race to be the largest green H2 producer and exporter in the world. He is banking on the group's core competencies in ports, logistics and manufacturing. Adani group says it will set up electrolyser making units to split hydrogen and plans to get into production of green ammonia, green urea and methanol — the future way of making them with green hydrogen.

In this quest for the renewable energy chain, for the first time, Adani will come head to head with RIL in green chemicals, coal to PVC as well as hydrogen. "Competition between the Adani group and the Ambani group will make the green energy market more competitive, help develop green energy ecosystem and the entire value chain — R&D, development, storage, distribution and boost new employment opportunities too," says professor Ashish Pujari of DeGroote School of Business at McMaster University, Canada.

From ports to airports to data centres and at his main hub in Mundra, Adani envisions a greener future in all his current businesses. A journey that has already begun. For instance, fly ash from thermal plants will be



**ADANI CAN
EXTRACT 10 MT
OF COAL EVERY
YEAR FROM THE
AUSTRALIAN MINE.**

**RIVALS POINT
TO HIS GROWTH
COINCIDING WITH
THE RISE OF PM
MODI FIRST AS CM OF
GUJARAT AND THEN
AS PRIME MINISTER.
ADANI DOESN'T
SHY AWAY FROM
APPRECIATING
MODI'S POLICIES —
AS CM AND PM.**

RAPIDFIRE ACQUISITIONS

		Deal value (₹ crore)
2022	Adani to acquire Holcim India assets for \$10.5 bn	81,360
	International Holding Company to invest \$2 billion in three Adani Group's green companies	15,400
	Adani acquires India's largest marine services company Ocean Sparkle	1,530
2021	Adani Transmission to acquire Warora-Kurnool Transmission from Essel	3,370
	APSEZ acquires Dighi port and minority in Gangavaram port	2,695
	APSEZ acquires 58.1% controlling interest in Gangavaram Port from DVS Raju Family	3,604
	Adani Green acquires SB Energy's India assets	26,000
	Takes over Mumbai International Airport	Not disclosed
2020	Total invests in Adani Green's three SPVs	3,707
2019	Adani Power Completes Acquisition of GMR Chhattisgarh Energy	3,530
	600MW Korba West Power Co. acquired by Adani Power	1,800
	Adani Green buys Essel's 205 MW solar assets	1,300
	Qatar Investment Authority to invest in Adani Electricity Mumbai Limited	3,200
	APSEZ acquires Krishnapatnam Port	13,500
2018	Adani Transmission acquires Reliance Infrastructure's Mumbai electricity business	12,101
2015	Adani Power acquires Lanco Infratech's Udipi Power Plant	6,300
2014	APSEZ acquires Dhamra port	5,500

used in cement plants; Adani Ports plans carbon neutrality by 2025; the group plans to run the entire Mundra operations powered by renewable energy; renewables share in Mumbai power distribution is targeted to grow from 10-15% to 30-40%; besides hydrogen value chain it plans investments in biogas, biomethane and low-carbon mobility; and, Adani has tied up with US-based EdgeConneX to set up green data centres, and the group plans to make green airports and smart buildings.

"One cannot take a static view of the market and we have two trends coming mainstream — one is the irreversible growth of renewable power and second, the continued improvement in technologies that will keep dropping cost of generation," observes Adani, who predicts price of power can even go to zero in future. "While there may be some site-wise variations and instances of aggressive bid-

ding in the market by some players, large mega solar power parks that have scale is precisely where we will have competitive advantage and can create value. Execution, scale, backward and forward integration, procurement expertise, learning curve advantages, financial discipline and operational excellence, all of these must be synchronised to create value and it is our belief that there are very few companies in the world that can do this as well as us," he says.

Fossil Fuel Play To Go On

Adani also knows his big coal mining project, which has finally started production in Australia, will need to continue to contribute to revenues in the coming years. "For the next couple of decades, coal will be needed alongside renewables — the future is not about coal versus renewables. It is about coal and renewables contributing to a sustainable energy mix as the world transitions to a lower carbon future," says Adani.

Eyeing the vast untapped coal reserves of Galilee basin in Western Australia, he had bought the Carmichael mine in 2010, with reserves of 11.05 billion tonnes. From that mine, the group can dig out 10 million tonnes of thermal coal every year.

Despite environmentalist protests, he went ahead and invested over \$3.5-4.5 billion over the past decade. Already three ships have come to India with coal. "They (environmentalists and 'so called philan-

THE GROUP'S TOTAL DEBT HAS GROWN FROM ₹1.04 LAKH CRORE IN FY17 TO ₹2.24 LAKH CRORE IN FY22. POST THE ₹81,360 CRORE HOLCIM DEAL, IT IS PROJECTED TO BE AROUND ₹3 LAKH CRORE. NET DEBT IN FY17 WAS ₹99,830 CRORE, WHICH WENT UP TO ₹2 LAKH CRORE IN FY22.

thropists') should understand that we are going to replace every two tonnes of India's dirty polluting coal with one tonne of higher grade and cleaner Australian coal," explains Adani.

The group is setting up one metric million tonnes per annum (MMT-PA) capacity of coal to PVC (polyvinyl chloride) project at Mundra, with plans of using green hydrogen as fuel in future. India consumes about 3 million MTPA of PVC and the domestic supply caters to only 50% of total demand. India's PVC consumption is likely to grow at a CAGR of 7.6% due to rapid industrialisation and speedy growth in urbanisation, say industry observers. Ambani is also entering into PVC production and other chemicals in a JV with Abu Dhabi Chemicals Derivatives Company RSC Ltd, with production facilities planned in West Asia.

A Mountain Of Challenges

Even as the Adani empire expands at a pace never seen before in India's corporate history, industry observers believe Adani faces multiple challenges. While the adjacency theory has widened the breadth of operations into nearly two dozen businesses does the group have the management and execution bandwidth to acquire and absorb new ones such as Holcim or airports, enter solar, wind manufacturing and generation, steel, aluminium and data centres and yet transition old businesses such as power plants, ports — all at the same time?

Family business expert Kavil Ramachandran says it is difficult to imagine the next generation can operationally drive the group's businesses without bringing a significant level of professionalism and empowerment of non-family professionals. "This is not easy to achieve in a family business. Corporate governance will have to be strengthened further with the creation of a more active board to balance stability and entrepreneurship," he says.

Adani counters this saying if he can create a board and professionals sitting on the same table and divide responsibility, he will get the best of governance, best of growth and best of shareholder returns. "Family does not think of one-two quarters' performance. Therefore, in the operations, no family members are involved, except when doing reviews

of monthly and quarterly budgets. A blend of entrepreneurship, family and professionals is the best combination," says Adani. He takes enormous pride in his team of family and professionals that execute his vision, without naming any from his brothers, sons and nephews. There is also an army of professionals and former senior bureaucrats to manage the business empire.

The other challenge emerges from the ballooning debt from the ambitious expansion. Total debt has grown from ₹104,519 crore in FY17 to ₹224,408 crore in FY22. Net debt in FY17 was ₹99,830 crore, which grew to ₹200,021 crore in FY22, the third highest among India's largest business houses, already 44.62% higher than a year ago. As interest rates rise, servicing debt at this scale gets costlier. Following the Holcim acquisition, Adani group's revenues will jump to ₹2.30 lakh crore and debt to ₹3 lakh crore. Even though the Holcim acquisition has been done through a private family entity, Adani plans to service debt by deleveraging books of Ambuja and ACC, both listed in India, say analysts.

Gautam Adani knows his first-generation business, which has overtaken many century old business houses, has miles to go. With group strategy firmly aligned to India's strategic vision of a green future, all eyes are now fixed on how this ambition will translate into viable businesses on the ground. ■

The Conversation

GAUTAM ADANI, CHAIRMAN, ADANI GROUP

A GANPATI IDOL HOLDS A PRIDE OF PLACE ON THE 16TH FLOOR CHAIRMAN'S OFFICE OF ADANI HOUSE, THE GROUP HEADQUARTERS IN PRIVATE TOWNSHIP 'SHANTIGRAM' IN AHMEDABAD. LIGHT SEMI-CLASSICAL INSTRUMENTAL MUSIC FLOWS IN THE BACKGROUND IN THE MINIMALLY DECORATED CHAIRMAN'S LOUNGE. GAUTAM ADANI WALKS IN BRISKLY AND SETTLES DOWN AT THE CORNER OF A SOFA WITH A WARM, INFORMAL DEMEANOUR. HE IS AGILE, SPORTS AN UNFLINCHING AIR ABOUT HIM AND A FACE THAT DEFIES THAT HE TURNS 60 ON JUNE 24. GAUTAM ADANI SPEAKS TO FORTUNE INDIA ON WHAT DRIVES HIS AMBITION THAT HAS STUNNED THE CORPORATE WORLD FOR HIS SEEMINGLY INSATIABLE APPETITE FOR NEW BUSINESSES — AND A BOLD \$70 BILLION GREEN MISSION. **INTERVIEW BY RAJEEV DUBEY AND P.B JAYAKUMAR**

THIS EDITED Q&A HAS BEEN CONDENSED FOR SPACE AND CLARITY.

“If India commits 500 GW of renewable power, we can't depend on China for solar panels.”

VISION — AND MISSION

What is the larger vision driving the Adani group?

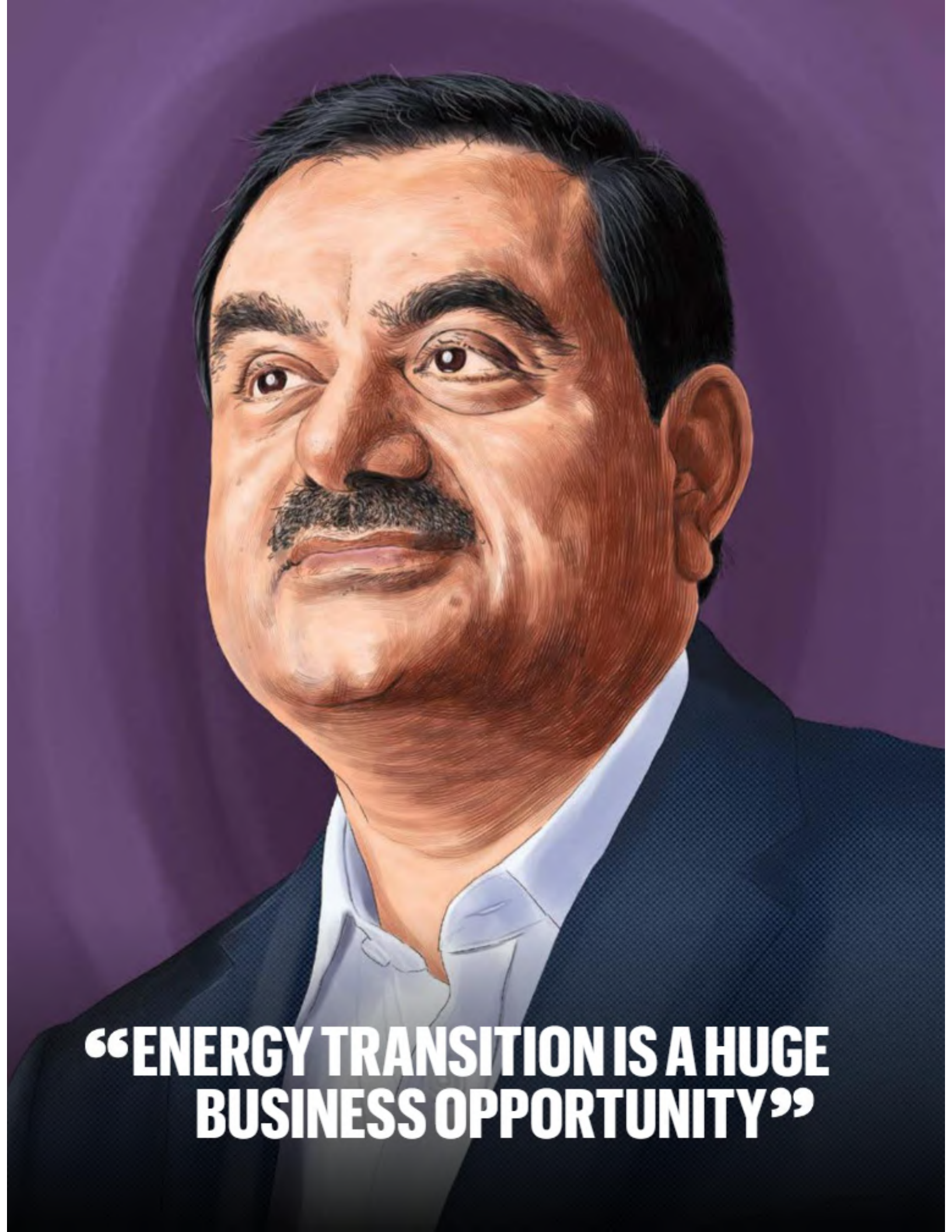
My vision for the Adani group has always been about nation building. Current global situation offers our nation unprecedented opportunities. Climate change is one of the biggest challenges. But it also opens up huge business opportunities in energy transition — from fossil fuels to renewables and hydrogen. What the world has seen in 100 years of energy forms is set to change in the next 10-20 years. Academia and research are working on how to make green energy affordable. India has a great advantage — geographically, and in producing cost-effective electrons, converting into green electrons. We can be completely self-reliant. India can also eye exporting energy. If India is to grow, we must find ways to increase per capita electricity consumption. We need to sharpen our focus on industries, rather than services and

agriculture. Without self-reliance or '*atmanirbharta*', we can't serve 1.4 billion people. This is a huge opportunity for India to become '*atmanirbhar*', and move from '*atmanirbharta*' (self-reliance), to '*bharatnirbharta*' (reliance on India). Right now, the world is dependent on what China makes. India can play this role for the world.

How do you bring '*atmanirbharta*' into energy transition?

We are not going to import anything. Silica (sand) is available here. From silica you can make polysilicon and ingots and wafers. From wafers, you can make PV cells and from the cells you can make solar modules. For making modules, you require glass. You require aluminium frames. About 97-98% value addition can be done within the country.

You announced an even larger \$70 billion green investment plan for the next 8 years...



**“ENERGY TRANSITION IS A HUGE
BUSINESS OPPORTUNITY”**

We are the only group to announce huge investments with a 2030 target. This is feasible and the best opportunity for India. We have already started implementing and the manufacturing ecosystem is under development.

We must be willing and capable of capitalising on India's natural advantages. India is blessed with an abundance of sunshine, which we must economically capture and convert into electrons. At the last COP, Prime Minister Modi announced an enhanced target of 500 GW by 2030. Quite clearly, India is pushing ahead with green policies.

The government is playing its role. It has announced the right policy structure and is leading the way to 'atmanirbharta' with support schemes like the Production Linked Incentive (PLI) scheme. Now corporates need to step up and play their roles in developing the entire green ecosystem. If India commits 500 GW of renewable power, we can't depend on China for solar panels to create this infrastructure. During Covid, China raised the prices of panels from 18 cents to 30 cents. At 30 cents, your development programme gets stuck and can't produce cheap electrons. Without cheap electrons, you can't have a sustainable energy transition.

DRIVING FORCE

How do you pick businesses to get into? You chose energy, logistics, and now you are in so many unrelated businesses...

We follow a model that picks new businesses based on adjacencies to our existing businesses. This 'adjacency' business model is a strategy that

BETWEEN THE LINES

151.4GW

(1) India's installed renewable energy capacity as of December 31, 2021.

50%

(2) Of India's energy requirements will come from renewable energy by 2030, PM Modi said at COP26 Summit in Glasgow in October 2021.

we have fine-tuned over decades into a hard-to-copy differentiator. Our story is India's infrastructure story — be it ports, logistics, thermal power plants, green energy, transmission, distribution and now hydrogen. For western economists and management experts who look at core competence, these are diverse industries.

Our core competency is infrastructure. The issue with some overseas companies developing greenfield projects in India is that they expect returns to be provided to them. What one needs to keep in mind is that India is a developing country and, like in any other developing country, one has to take risks and work with the local processes and systems to succeed. You have to be long on India.

What philosophy drives entry into a new business?

We started as a trading house. In 1994, we listed our trading platform. Two years later we realised the issue. People said Adani does not purchase any assets. In their eyes it was a finance or trading company with individual expertise and no assets.

Then India started opening public-private partnerships. We entered ports because we were into trading and were using over 20 ports. That is how our infrastructure journey started. When you have a port and a large tract of land next to it, and being the largest importers of coal, it was natural to get into thermal power plants.

In 2006-07 there was a huge energy crisis. In 2003, the Electricity Act was amended and in 2006, the rules were changed. That is how the cycle with energy started. After 4-5 years of power generation, it was natural to get into transmission and then distribution. When the government started focussing on renewables, we started renewables.

About 10-15 years ago, when the gas policy was not clear, the Gujarat government started piped gas distribution. It was an opportunity for us to develop city gas distribution in

Q: Will you be able to make all these at the cost of what China produces?

India can produce cheaper than China as their labour costs have increased. This is a huge opportunity and we have to capture it right.

Ahmedabad. In 2014, CM Narendra Modi became Prime Minister and visualised what he did in Gujarat for gas distribution for the entire country. We participated in all the bids and won many. That is why we have a huge energy portfolio.

Then we looked at other areas. Delhi and Mumbai airports were privatised after 2005. Airports in Hyderabad and Bangalore were developed by state governments. Then the government came up with privatising six more airports. We thought of it as an extension from ports to airports. These are adjacencies and we entered at the right time. We did not enter telecom because there is no connection for us.

But you entered food and agri business...

We were the largest importers of edible oil. Our partner Wilmar approached us 25 years ago, when we started developing the port. They had the vision of port-based agri-refineries. Everyone sees India as a huge market. When anyone sees 1.4 billion people, it is a huge opportunity. You have to work on tapping the opportunity. As part of adjacencies and areas that are essential to be aligned with the government's policy and India's growth, we see media and healthcare becoming big businesses in future.

What about data centres, water management, defence etc?

Defence is nothing but how to secure our country. To strengthen your economy, you have to strengthen your defence. Otherwise, your economy could go for a toss. After 70 years of Independence, we are still the largest importers of defence equipment. Don't you think that is a shame?

How do you assess political risks of new geographies? Your announcement of investment in Bengal was a surprise...

I can tell you Bengal is a huge opportunity...Orissa, Jharkhand etc...

“As part of adjacencies, we see media & healthcare becoming big businesses in future.”

34.3%

(3) Estimated share of coal in India's power generation by 2040, a steep decline from 66.4% in 2022.

• India wants to reduce the carbon intensity of its economy by more than 45% by 2030.

• India is the third-largest global emitter of CO₂, despite low per capita CO₂ emissions.

• Domestic coal-fired power plants account for 1,104 million tonnes of CO₂.

SOURCE: IEA

somehow it has not been explored to potential. There are many reasons. Once upon a time it was a great state, but it deteriorated. Mamata also understands the same and importance of development of the state. When you want to work with the government, you also have to understand such issues will come.

I am clearly seeing the changes happening in every state. Orissa, Jharkhand, Bihar, Kerala. In infrastructure long-term view is needed. One thing is you go and then go on complaining. I always look at how things are improving and how we can keep working with them. There are positivities and negativities...you have to go with the positivities. In Kerala we start with ₹10,000 crore. In Gujarat we can start with ₹50,000 crore. I can't look at the political system and what I am going to get in that state. I can't go everywhere expecting the same treatment I get from Gujarat or Rajasthan. And so, I can't decide I will not go to Kerala or West Bengal. They also want to start working with you.

How does entry into cement and Holcim fit in with your ESG goals?

We recognise the cement industry needs to be greener. We are positioned to become the world's greenest cement manufacturer and provide affordability that every Indian consumer needs. India's per capita cement consumption is 240 kg, against the global average of 525 kg. An apt comparison would be China with per capita consumption of 1,600 kg. Acceleration will come from infrastructure: 100 smart cities, 200 new airports, housing for all, concrete highways and the ministry mandate

stipulating minimum 25% of concrete volume in national highways, expressways, the rise of dedicated freight corridors — the possibilities to drive cement consumption are endless. It is a game of supply chain and energy efficiency. Our natural adjacencies look highly attractive. Be it mining, ensuring raw material availability, fuel sourcing, supply of power, or efficient logistic capabilities, all are existing synergies. The ability to utilise fly ash from power plants and use it in cement production is a significant advantage. There could not have been a better way for us to jump-start this business. From the current 70 million tonnes, we expect to reach 100 MT in 3-4 years and 130 MT in six years.

So, these 'adjacencies' are natural extensions of existing businesses? You don't make a choice: 'iss mein galti ho sakti hai' (things can go wrong)...

Things can go wrong. It is not that it cannot go wrong. But you have to ensure you have expertise and capability to overcome mistakes..

GREEN POWER

When the Australia project came, that was a big move for you, probably at a time the group did not have the capability to handle a big mistake...

You have to see the group's DNA. Perseverance is a very powerful tool in business. Seven of 10 groups in thermal power got into trouble. All 10, including Adani, can get into trouble. Why did the Adani group come out of those troubles? It is

BETWEEN THE LINES

\$160 bn/year

(4) Investment needed across India's energy economy between now and 2030 to reach net zero emissions by 2070

\$80 bn

(5) Estimated domestic market size of renewable batteries, green hydrogen and other low-carbon technologies by 2030.

SOURCE: IEA

because of perseverance, where-withal and push to correct things. Today we are the only group — not even NTPC—setting up a greenfield thermal power plant in addition to 20,000 MW of green power.

Perseverance is strength. In Australia we were fighting for 7-8 years. It requires perseverance to fight up to the last mile. We held on. NGOs and so-called foundations and philanthropists work with their own agendas. They do not understand we are replacing 2 metric tonnes of dirty Indian coal **■** with 1 tonne of high-quality Australian coal. They don't appreciate Adani spends 80% capex on green initiatives. By blocking Adani on this, you are blocking their capital which can be pushed to other green initiatives. They are not appreciative. That is fine. We work with the Government of Australia and local governments.

Have you moderated your ambitions in Australia?

There is no question of moderating plans. If you enter a pipe, you have to get out at the other end. You cannot get stuck inside. Many people got stuck in between and died. You have to get out. Now we are through. Coal production has started.

Energy transition will move from fossil fuels to renewables, EV, LNG and then hydrogen. We depend on coal for 65% of electricity. How do you look at this transition?

We are looking at net zero by 2070 **■**. That is 50 years away. The Adani group is nothing but the faraway India story. India is committing the transition, but we don't know how it will happen and when we will be net zero. We should not commit a net zero roadmap which is not feasible.

The real issue is per capita electricity consumption — ours is 1,100 units against the world average of 3,300, while China is at 5,500 and America at 12,000. We need to ensure all citizens have electricity. That is the

Q: Your M&A spend is the highest ever. Is this the time to get into more non-fossil fuel businesses?

Over 80% of our capex is on green investments. We still have to invest 20% of capex to sustain energy transition. It is at least a 30-year journey.

way to uplift people. Today, Adani is committing because it is aligned with India's ambitions.

In your view, what are Adani group's core strengths?

The great part of growth is connecting adjacencies. We created many adjacencies. Very few groups in India possess the strength to conceptualise and implement large greenfield projects. We have 15 ports connecting the country and a large land bank. We are now working with Sri Lanka to generate wind energy there and bring it to Indian shores.

How do you execute big, complex infrastructure projects such as Mundra port and power plants?

We have become experts in project execution. We may be short on many issues, but have one of the greatest outcomes in execution. We conceptualise large, complex, difficult projects and execute per schedule, or ahead. That gives confidence.

Green energy was less than 5% of your generation five years ago and your plans are to increase it to 35% plus in another five years...How?

The world is going through an energy crisis due to the Ukraine-Russia war. You cannot push ESG and transition the way people in developed world are pushing it. Users want 24X7 power. Renewable can give intermittent power for only eight hours. Someone has to supply for the balance 16 hours.

How will green hydrogen play out?

Construction is on. India today imports LNG at \$12 and \$15 per mmBtu. Hydrogen at scale will most certainly cost us less than that. Green hydrogen will cost us even lesser given that renewable power prices continue to drop. Therefore, as we build out an end-to-end value chain, from sand for silica to green electron and our own green hydrogen electrolyzers, we will be one of the most influential hydrogen players in the world.

31.4%

(6) Estimated share of solar in India's power generation by 2040, against 5.9% in 2022, according to IEA.

The cost of solar power has declined 90% over the past two decades across the globe, and is expected to go down 15-25% in the upcoming decade, according to global research firm Wood Mackenzie.

You have committed 45GW of solar. How viable will this be as prices are down to ₹2 and even less?

Ultimately it is headed to zero cost.

BUSINESS & FAMILY

If you look at family & professionals in family driven groups, there's a certain way of handling it, especially in the first generation. How are you readying the group for perpetuity?

Neither pure family run nor only professional-run companies are going to give perpetuity. If you can build a board with family members and professionals on the same table, divide responsibility, you will get best governance, growth and shareholder returns. The family does not think of one-two quarters performance and how the share market will move. Therefore, in operations, no family members are involved, except when doing reviews of monthly and quarterly budgets. According to me, a blend of entrepreneurship, family and professionals is the best combination. But family should know when to enter decision-making and when not to.

Within the family, how do you debate, agree and disagree on things. How does that work?

We have a family constitution, a family business office. We are the first and second generation in business. They talk online. We lunch together for an hour and debate on issues. It is a closed meet within the family.

How will you ensure family disputes and dissent don't arise? This is the first and second generation. It is still manageable. Once you have a second and third generation...

Family is nothing but a partnership of multiple generations. It depends on your family structure, responsibility, and respect among members. Give equality, opportunity to every capable member. You can't have all five fingers of the same size. Yet, five fingers together will have more power. ■