



Ujaas Energy Limited

Recommendation: Buy

Target: Rs.82

Initiating Coverage

20th December,2016

Sector: Heavy Electrical Equipment CMP: Rs.46

MARKET DATA	
CMP (Rs)	46.00
EPS(FY16)	1.01
P/E(FY16)	22.67
52 Week High (Rs)	52.25
52 Week Low (Rs)	19.40
Equity (Rs. Mn)	200.00
Mkt. Cap (Rs. mn)	9620.00
CODES	

BSE	UJAAS
NSE	UJAAS
Bloomberg	UJEL@IN



SOURCE: BSE

Shareholding pattern

	Sep-16	June-16	Mar-16
Promoter	70.69	70.69	70.69
FII	Nil	Nil	Nil
DII	1.71	1.57	1.48
Others	27.6	27.74	27.83

source: BSE

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Ujaas Energy – A One Stop Shop providing solar energy solutions

UJAAS Parks' is UEL's flagship offering for one stop comprehensive solar turn-key projects to any potential solar power producer. Leveraging the company's experience, both in the power and solar sector, the company is now offering solar EPC solutions to potential solar power producers and captive generators. The company operates and maintains over 160MW on behalf of its clients. UEL also has a 15.4MW solar power plant on its own books.

The Jawaharlal Nehru National Solar Mission

The Jawaharlal Nehru National Solar Mission was launched on the 11th January, 2010 by the former Prime Minister, Dr. Manmohan Singh. The Mission has set the ambitious target of deploying 20GW of grid connected solar power by 2022 and aims at reducing the cost of solar power generation in the country through (i) long term policy; (ii) large scale deployment goals; (iii) aggressive R&D; and (iv) domestic production of critical raw materials, components and products. It had been envisaged to achieve grid tariff parity by 2022.

India revised its target to 100GW of solar energy capacity by 2022

India has raised its 2022 solar energy target five-fold to 100GW from an earlier target of 20GW as part of the Narendra Modi-led National Democratic Alliance (NDA) government's efforts to reduce dependence on coal-fuelled electricity. Of the planned 100GW capacity, 40GW has to come from rooftop solar projects and 60GW from grid-connected solar projects. India has crossed 1GW in total installed rooftop capacity till October 2016.

Solar Rooftops - A major growth driver

As per a study by The Energy and Resources Institute, the estimated realistic market potential for rooftop solar in urban areas is about 124GWp whereas the government has set a target of 40GW to be achieved by 2022. Ujaas is all set to tap this underpenetrated market and capture a large share of the pie.

Increased Renewable Purchase Obligations (RPO)

India has high ambitions around solar & it plans to increase this by 2022 to 100GW through a shifting of the Renewable Purchase Obligation target from 3% to 10.5% of all power consumption in the country.

Valuation

Under proposed amendments to the National Tariff Policy 2005, India's central government is looking to generate 8% of its electricity from solar by 2019, and 10.5% by 2022. According to Bridge to India, this would require a cumulative capacity of 69 GW and 100GW in 2019 and 2022, respectively. This holds tremendous potential for players like Ujaas Ltd. We Initiate Coverage with a BUY rating, with a price target of Rs.82 based on its average PE of 20x FY19E EPS of Rs.4.12 per share.

Key Highlights					
Year end (Rs. Mn)	FY15	FY16	FY17E	FY18E	FY19E
Net Sales	1111	2771	4838	7445	10663
EBIDTA	423	620	763	1080	1382
Margin (%)	38.07%	22.39%	15.78%	14.51%	12.96%
Net Profit	117	203	396	615	824
Margin (%)	10.51%	7.32%	8.19%	8.27%	7.72%
EPS	0.58	1.01	1.98	3.08	4.12
PE	29.11	22.67	24.23	15.60	11.66
Source:Company/Wallfort Research					



Solar the most versatile form of electricity

Solar is the most versatile and democratic form of power available because it can be used in many sizes and applications anywhere in the world. Not only does solar have more generating potential over a wider area than any other source – and can be used for smart on-grid distributed generation, it is a disruptive leapfrog technology uniquely suited to empower the 1.3 billion people who currently lack access to electricity.

Solar power also has the highest share of popular support of any electricity technology. Most people without access to electricity live in areas with high solar resources.



Source : NASA, IEA

Solar is the only source of power that can be used in basically any size and uncounted applications: from large utility-scale power plants to grid-connected residential rooftop systems; from beautiful building-integrated architecture and smart digitalized houses to simple solar home systems; from large installations on commercial buildings for self-consumption and backup to hybrid installations in mines to reduce diesel consumption; from solar car ports to consumer electronics.

There is a solar system and type for anyone anywhere.	
* <u>.</u>	

Initiating Coverage





1, 2, 4 © Photo courtesy of Canadian Solar Inc. / 3, 6, 7, 9, 10 © Photo courtesy of Phaesun Gmbh. 5 © Photo courtesy of SunPower Corporation / 8 © Photo courtesy of Scatec Solar

Source:Global Solar Council

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Solar Key to meeting Climate goals

It is already one of the fastest growing electricity sources globally. Starting in 2022 and beyond, each year more emissions-free solar will be installed than any other energy source, including all fossil fuels combined - and this estimate stems from the moderate central scenario of BNEF.

SOLAR POWER - THE FASTEST GROWING ELECTRICITY SOURCE BY 2022

Global gross annual capacity additions by technology, 2015-2040 (GW)



Source: BNEF New Energy Outlook 2015

Even if implemented aggregated and globally scaled up, the government commitments (INDCs) submitted to COP-21 in Paris are not enough to keep the average global warming below 2°C. But if national governments set the right market conditions, solar - with its quickly decreasing cost and versatility - is the top candidate to help closing the gap of the INDCs. Estimates from Bloomberg New Energy Finance see total solar power generation capacity up to 5 Terrawatt (TW) in 2040, reaching a penetration level of close to 20%.



The potential of Solar is huge - forecasts for global installations & penetration



Source: BNEF New Energy Outlook 2015



GLOBAL SOLAR INSTALLATIONS FORECAST TO REACH APPROXIMATELY 64.7GW IN 2016, REPORTS MERCOM CAPITAL GROUP

Mercom Capital Group, IIc, a global clean energy communications and consulting firm, forecasts another year of solar growth with installations expected to reach 64.7GW in 2016 up from 57.8 GW forecast for 2015.

"The largest markets in 2016 will again be China, the United States and Japan; the United States is set to overtake Japan as the second largest solar market behind China. These three countries will account for about 65% of installations next year" said Raj Prabhu, CEO and Co-Founder of Mercom Capital Group.



China will continue to be the largest solar market in the world, installing approximately 19.5GW in 2016. China has installed almost 10GW in the first three quarters this year, well ahead of 3.79GW installed in the same period last year. Curtailment and delayed subsidy payments remain a challenge. The announcement of an additional 5.3GW installation quota with a completion deadline of June 2016 for provinces that have met or exceed their installation goals is likely to help China get close to meeting its installation goals in 2015, and ensures a strong 2016. The Chinese government is expected to increase its 2020 installation target to 150-200 GW.



Mercom is forecasting the **United States** to install about 13GW of solar next year which will be the best year for U.S. solar installations by far. The U.S. solar market is expected to experience robust growth for the next 13 months as the industry rushes to complete projects before the 30% investment tax credit (ITC) drops to 10%. The industry is hopeful, but not betting, on a possible extension to 30% ITC at 30%. The 2016 installation estimates will need to be revised if solar projects are allowed to "begin construction" by December 31, 2016 instead of reaching completion, or if there is an agreement in Congress to extend the ITC in any form.

Japan is expected to install about 9GW of solar in 2016. The Japanese solar industry has experienced two feed-in tariff (FIT) cuts in 2015 as the government looks to trim solar subsidy costs. So far, Japan has approved a little more than 80GW of solar projects under its FIT program, of which about 25% has been installed. Japan is going through a transformation in the energy sector with a change in its energy mix going into 2030, giving more weight to renewables and cutting back on nuclear energy. Japan also is in the process of deregulating its utilities and breaking up monopolies. Japanese domestic solar module shipments have dropped the last two quarters following the reduction in FITs.

In **European** market activity, the U.K. is expected to lead in terms of PV installations in 2016 followed by Germany and France. There is a lot of uncertainty surrounding the U.K. PV market with a decision on FIT cuts still pending and Renewable Energy Credits set to expire in April 2016.

Indian solar installations have reached about 8.7GW till October 2016, significant growth compared to the 2.1GW in 2015. Momentum has picked up after the government set a target of 100GW by 2022.





Top Solar Markets In 2016

Source: Mercom Capital Group, IIc

Dec 2015

Globally Solar – A cost effective source available today

Today solar is one of the cheapest forms of electricity globally. The levelized cost of solar electricity (LCOE) is 80% lower than it was during COP-15 in Copenhagen in 2009. In fact, every solar market segment has reduced prices faster than any other generation source in history.



India's Energy Challenge

India is one of the fastest growing economies in the world, with a population of 1.2bn people. As the country grows, it faces different pathways to meet the challenges of growing electricity demand, rising pollution levels and providing energy access.

Growing Energy Demand

India remains one of the few countries with rapidly growing power demand and its total electricity consumption is projected to increase fourfold between 2015 and 2040. Demand is expected to grow with increases in economic output, usage of electricity and with more people connected to the grid.



Projected electricity demand (TWh)

Greenhouse Gases and Local Pollution

India also remains an exception amongst major countries as it will continue to build fossil fuel power plants to meet its power demand. By 2040, India's coal and gas power generation emissions will go from about 1Gt to more than 3Gt even after adding over 470GW of renewables (excluding hydro) over the period.

Power sector CO2 emissions (MtCO2e/yr)



Source: Bloomberg New Energy Finance's New Energy Outlook 2016

Source: Bloomberg New Energy Finance's New Energy Outlook 2016



India's long-term clean energy push will be spurred on by its Intended Nationally Determined Contribution (INDC), which aims to reduce emissions intensity of the country's GDP by 33-35% by 2030 from 2005 levels. India also committed to source 40% of its electricity from non-fossil sources by 2030.



Per Capita Carbon Emmission (in t CO₂)

Energy Access and Electrification

India's per-capita power consumption is expected to increase 3.2 times by 2040 but even then it would be less than that of the US, China and Japan in 2015. The country is expected to overtake China as the world's most populous country in 2021. Around a quarter of its population is not connected to the grid and those that are connected generally do not have round-the-clock power. To address this, the government has set an ambitious goal of providing 24x7 'Power for All' by 2019.

India's electricity demand, population, GDP per capita and per capita power consumption growth



Source: New Energy Outlook 2016 Note: all numbers are rebased to 100 in 2015.





India - Electricity Consumption (BU) - Where India Stands

Indian Power Sector - Total Installed Capacity- 308GW



Source: Central Electricity Authority (CEA) as on 31.10.2016

Indian Renewable Power Sector - Total Installed Capacity- 46.4GW



Source: MNRE 31.10.2016





Targets and actual capacity installed across India's renewable energy sector (GW)

India's Triple Energy Challenge

India's energy system faces the triple challenge of meeting growing demand, cutting pollution and offering more than 300m people not connected to the power grid access to modern energy. The government has set the target of building 175GW of renewable energy by 2022, primarily solar and wind, and mandated the rapid electrification of more than 18000 villages. If realised, this presents an investment opportunity of more than \$150bn in clean power generation.

India's Renewable sector

India's renewable energy sector can be divided into four distinct categories, namely utility-scale projects (>1MW), small and rooftop solar (1kW - 1MW) projects, small energy grids (100W- 50kW) and solar home systems and lanterns (<100W).

Utility-scale projects

Installed capacity: at the end of FY2016, the country had 42.6GW of installed renewable energy capacity (excluding large hydro) – representing 14% of total generation capacity – and 2016 is on track to become the best year for renewable installations. The sector is not only drawing Indian firms but also foreign utilities. Power generation companies particularly from Europe and Asia are increasing their presence through greenfield investments or acquisitions.

Annual capacity additions in India's renewable energy sector (MW)



Source: Bloomberg New Energy Finance, Note: Other renewables include biomass, small hydro and waste to energy. The size of off-grid market is marginal as compared to utility and rooftop solar. Hence a separate chart has been drawn for it. FY2016 = financial year, ending March 2016.



Renewables versus coal

The share of renewable energy (excluding large hydro) in the total capacity mix increased from 12.5% in FY2013 to 14.1% in FY2016. This percentage is expected to keep on increasing, as India adds renewables, coal and some hydro capacity. Renewables already have a higher growth rate in the country, with a cumulative CAGR of 15% which is higher than 12.5% for coal power plants.

Small and rooftop solar

Installed capacity: the government aims to install 40GW of rooftop solar by 2022. Cumulative installations have grown to 500MW at end of FY2016 at a staggering annual CAGR of 92% in four years. The surge is primarily from commercial and industrial customers although some residential installations are also taking place. A cumulative CAGR of 108% is required in the next six years to achieve the 40GW target.

Annual rooftop solar installations in India (MW)



The segment will continue to see high growth rates, given ambitious government targets, specific rooftop solar policy in most states, new business models being tried by entrepreneurial companies and an increasing availability of debt and equity



Target and actual small energy grid installations (MW)

Source: BNEF

Small energy grids

Potential for off-grid market

The government has ramped up its efforts to extend new power lines to central buildings in villages, but often fails to connect individual residences or provide 24hour electricity. Nonetheless, India's 73m rural households that are not connected or are underserved by the Powergrid, are benefitting from solar energy in their own ways.

Installed capacity and reach

Small energy grids (100W-50kW) are now serving over 75,000 households. Almost 2.9MW of these had been installed by the end of FY2016. The falling cost of solar PV and its modularity have made it the technology of choice for small energy grids (SEGs), ahead of biomass, which dominated this market until a couple of years ago.



Installations in FY2016 were almost 300% higher than in FY2013 (after a relatively poor FY2015), and the average size of these grids is rising as well.



Annual small energy grids (SEGs) capacity additions (kW)

Growth is a little bit uneven in the SEG segment, with activity concentrated within a small number of companies. A! lack of financing, or slow installation rates by a few companies, can impact; market total annual the sizei isignificantly. The SEG market is! seeing some innovation in terms of technical upgrades and business models. The arrival of the centralised grid is, however, the biggest threat to this business. Regulatory intervention and clarification on this issue is the pressing need in this sector.

Solar home systems and lanterns

Current market size

At least 5.5m lanterns and solar home systems had been sold in India by the end of FY2016 (excluding unbranded products). The majority of these were small portable lanterns smaller than 5W.





Solar home system and lanterns! category has seen impressive growth ias well with annual CAGR of 47% ini terms of annual sales. Historically, this market has been supported by! government subsidies and the efforts non-government organisations iof business-driven !(NGO). New however, distribution models are, starting to look promising.

Source: Bloomberg New Energy Finance. Note: The data has been gathered from interviews with leading players, IMNRE, NABARD and press releases. Non-branded products are not included in this estimate.

Source: Bloomberg New Energy Finance. Note: 11 companies were interviewed for this data.





Annual new households accessing solar home systems and small energy grids ('000)

Source: Bloomberg New Energy Finance and Interviews, Note: The annual sales of lanterns (<10W) are not included. 18 companies were interviewed for this data.

Market size: various solar categories (FY2013 - FY2016)

Category	Total installations	Market size of investments or revenues
Utility-scale solar projects (>1MW)	5.8GW	\$8.7bn
Rooftop solar (1kW - 1MW)	500MW	\$0.6bn
SEGs (100W - 50kW)	2.9MW	\$27m
Solar home systems and lanterns (<100W)	7.3m units	\$200m

Source: Interviews and Bloomberg New Energy Finance, Note: Market size refers to asset financing for a particular category except SHS and lanterns where it represents estimated sector revenues from sales of products. Average cost of installation for rooftop solar has been estimated from the interviews. For SHS and lanterns the total revenue has been estimated by assuming an average selling price of \$27/unit as per Global Off-Grid Lighting Association's solar off grid semi-annual market report.



Growth of solar

PV is rapidly emerging as the king of Indian renewables. The sector has seen an impressive 59% CAGR in the last four fiscal years to reach 6.8GW installed capacity at the end of FY2016 (March 2016). While it still represents only 2% of grid-tied generation capacity, it is growing twice as fast as wind and coal. Driven by federal and state-level auctions, solar power is also being installed in almost all states across the country, unlike wind power which is focused in the south-west of the country. The more distributed nature of solar helps alleviate transmission bottlenecks and brings generation closer to the point of consumption.

India's cumulative utility-scale renewable energy capacity (GW)



Source: Bloomberg New Energy Finance, Ministry of New & Renewable Energy. Note: small hydro sector consists of projects 25MW or below.

Breakdown of solar PV benchmark capex (INR/W)



Source: Central Electricity Regulatory Commission (CERC), Bloomberg New Energy Finance. Note: Indian financial year FY2015-16 represents the period from 1 April 2015 to 31 March 2016. \$1 was on average equal to INR 60.5 in FY2014, INR 61.2 in FY2015, INR 65.5 in FY2016 and INR 66.9 in FY2017 till June 2016.



Solar Generation in India

India is endowed with a rich solar energy resource. The average intensity of solar radiation received on India is 200MW/km sq (megawatt per km sq). With a geographical area of 3.287 million km square, this amounts to 657.4 millionMW.

By End of 2009, India had less than 10MW of Solar Power whereas the world was running 23 GW. India has presently above 3.5GW of grid-connected solar generation capacity that has been added only since year 2009.

With the last few years seeing a drop in solar power costs, the government perceives solar power as an economically rational investment and has raised its target from **20GW** to **100GW** by 2022. This was launched through the Jawaharlal Nehru National Solar Mission in 2010 with the objective to reduce dependence on imports of coal and diesel, reduce greenhouse gas emissions and improve energy security.

Comparison of Power Generation Methods

	Thermal Wind		Hydro	Ç.
Pros	 Abundant supply Currently inexpensive to extract Reliable and capable of generating large amounts of power 	 No emissions Affordable Little disruption of ecosystems Relatively high output 	 No emissions Reliable Capable of generating large amount of power Output can be regulated to meet demand 	 Non-Polluting Most abundant energy source available Systems last 15-30 Years
Cons	 Emits major greenhouse gases/ acid High environment impact from mining and burning 	 Output is proportional to wind speed Not feasible for all geographic locations High initial investment/on going maintenance costs Extensive land use 	 Environmental impacts by changing the environment in the dam area Hydroelectric dams are expensive to build Dams may be affected by drought Potential for floods 	 High initial investment Dependent on sunny weather Requires large physical space for PV cell panels
Cost/MW*	• INR 4 – 6 Cr	• INR 5 – 7 Cr	INR 8 - 10 Cr	• INR 5 – 7 Cr
RECs Band	None	INR 1.5 – 3.3 Per Unit	INR 1.5 - 3.3 Per Unit	 INR 3.50 - 5.80 Per Unit**
Average PLF'S	• 70.00%	· 20.00%***	• 60.00%	• 18.26%
Tax Benefits	• None	80%+20% depreciation	• None	80%+20% depreciation



Renewable Purchase Obligation

- Purchase Obligation ('RPO') is the requirement set by the Central Electricity Regulatory Commission (CERC) for an obligated entity to purchase electricity from renewable energy sources or buy Renewable Energy Certificates.
- While the definition may vary slightly from state to state, an obligated entity generally means the distribution licensee, consumer owning the captive power plant and open access consumers who are mandated to fulfill the renewable power obligations under the respective State's legislation.
- Based on the Renewable Purchase Obligation mechanism, in order to achieve the ambitious target of each state meeting 3% of its energy demand from solar sources, it is anticipated that by year 2022, the total Solar Power requirement in the country will be in excess of 34,000MW. As per the National Tariff Policy cleared by the union Cabinet on 20th January, 2016; 8% of electricity consumption excluding hydro power, shall be from solar energy by March 2022.
- The Ministry of New and Renewable Energy is planning to raise the mandatory RPO requirement to 10.5%

Official targets for Capacity addition in 2014-2022 (MW)						
Region	Solar	Wind	Hydro	Biomass		
Northern	31,120	8,600	2,450	4,149		
Western	28,410	22,600	125	2,875		
Southern	26,531	28,200	1,675	2,612		
Eastern	12,237		135	244		
North-Eastern	1,205		615			
Other	31	600		120		
Total	99,534	60,000	5,000	10,000		





Business Models for a Solar Plant



Utility

Utility / Private

Consumer



REC v/s Preferential Tariff





About the Company

Founded by Mr. Shyam Sunder Mundra in 1979, as a sole proprietorship firm under the name of M & B Switchgears Limited. In August 2013, M & B Switchgears Limited was re-named to Ujaas Energy Ltd. It started with the manufacturing of panel meter for energy controlling & thereafter developed a technology to transform energy with the manufacturing of Energy Transformers viz. Distribution, Power & Furnace.

Taking from its experience in the transformers and the utilities Industry, Ujaas Energy Ltd realized the huge potential in 'Green Energy' and ventured into the generation of Solar Power. It became a pioneer in generation of green energy by becoming one of India's first public companies to enter into the solar power generation and solar power turnkey project management. Ujaas Energy Ltd also became the first company to register under Solar REC Mechanism.

Realizing the vast potential, it has erected and commissioned its first 2.2MW Solar Power Plant in March 2012 and then went on to add over **160MW** of solar power projects across the country over the years.

Business Mix

AUSINESS MIX	UJAAS PARKS 'UJAAS PARKS' is UEL'S flagship offering for one stop Comprehensive solar turn-key Projects to any potential solar Power producer.	UJAAS EPC Leveraging the company's experience both in the power and solar sector, the company is now offering solar EPC Solutions to potential solar producers & captive generators.	SOLAR POWER PLANT O&M The Company operates and maintains over 160MW on beha of its clients. UEL also has a 15.4 MW solar power plant on its own books.
Ö MARKETS	UJAAS PARKS – UEL has set up individual clients like KRBL, SR UJAAS EPC – UEL has also set up	more than 160 MW of Solar power pl S, Friends Group, Rockwell, Avon Cycl solar power projects at client sites fo	ants for several corporate and es, NALCO, SECI etc. r various reputed Clients such



Ujaas Parks - A ONE STOP SOLUTION

Ujaas Park, is a product which provides a complete turnkey solution for investors who want to become a solar power producer "under REC/ Preferential tariff/ APPC/ Captive etc. Mechanism" It gives an opportunity to their investors to setup their own solar power producing units in their fully developed Solar Parks. These plants are available for the customers after they are fully operational and start feeding power to the grid. It provides all the required services for the customers and investors to make them a successful power producer. The plant size ranges from minimum of 500KW to several MWs. It has successfully established solar parks with capacities of more than 100MW.

It also enters into an O&M contract for next 20 years for operation & maintenance of the plant, which does not stop here but also include all the procedure till issuance of REC along with billing adjustment of power sale till realization of proceeds.

A Total Turnkey Solution	Under the UJAAS Parks segment, the company takes care of:	Phases in Project Development
Project Development	Land: Land selection for the Solar Power Plant plays a critical role in power generation. Land bank is available with UEL, having the clear title without any encumbrance. Required land will be sold to Solar Power Generator	Identification
Sale and Planning	Evacuation Infrastructure: UEL will provide the evacuation infrastructure for the evacuation of power from generating station to the grid.	Of ane
Design and Engineering	Common Facilities: A potential customer can utilize weather station set up by UEL along with the monitoring equipment and software like SCADA. Customer can also utilize the services of various intermediaries, selected by UEL.	Feasibility Study
Supply Chain	Permissions, Approval & Liaison: UEL has rich experience in speedy approval and permissions with various authorities. This is an invaluable service UEL can offer to its potential clients.	Obtaining
Installation and commissioning	Operation & Maintenance: UEL will enter in a long term agreement for operation and maintenance of Solar Power Plant. O&M of solar power plant involves, cleaning of solar panels, periodic maintenance of electrical and electronic equipment and lines, security, ground maintenance etc.	Approvais
Maintenance	Advisory Services: UEL will advise its customers in searching for a suitable power purchaser. UEL will also advise clients on REC pricing and selling strategy. UEL will also advise on documentation requirement of regulatory agencies.	Site Development



Economics of a Solar Power Plant



Some of Ujaas' Clients



It currently owns 7 solar parks each with a capacity of ~25MW to 30MW. It has a land of around 900 acres out of which 700 is on account of the MoU between Ujaas and the government of Madhya Pradesh and 200 acres of land is privately owned land. Developing solar parks or getting land is undertaken by the vertical in the company who looks after the land affair and the design is such that every six months they come up with a new solar park.



UJAAS EPC

It has over 35 years of experience in the power sector with a track record of over 140MW in the solar sector. It has experience in both ground mounted and rooftop projects. It has a proven design and construction capability along with an 0&M offering. It provides advisory services across the solar plant construction process, not limited to land acquisition, sale of power, solar component selection & SCADA systems. It has an Expert Team of Engineers & customers can remotely monitor real-time performance of solar power plant through the client login portal.



UJAAS Home

With UJAAS Home, the company brings the power of the sun to investor's doorstep. Offering small off grid solutions to the customer, Ujaas provides customers an opportunity to produce clean energy for their own house.

Using these small roof top solutions, consumers can produce solar energy for their captive usages and save on their electricity bills. Ujaas' solutions are battery backed systems which can produce power ranging from 0.5KW to 25KW.

Before installation, it studies the load requirements and perform technical demand analysis to understand investor's requirements. Necessary planning, designing, installations and delivery are all the company's responsibilities. O&M contracts can also be offered as per need of the customer.

As per a study by The Energy and Resources Institute, the estimated realistic market potential for rooftop solar in urban areas is about 124GWp whereas the government has set a target of 40GW to be achieved by 2022. Ujaas is all set to tap this under-penetrated market and capture a large share of the pie.





Solar Power Capacity Requirement (FY12-FY22)

As per the National Tariff Policy, it is envisaged that the targets for Solar RPO shall be 0.25% by 2012-13 extending to 3% by 2022. The Jawaharlal Nehru National Solar Mission has been the first step towards achieving these targets. The following table illustrates the Solar RPO requirement by 2022 on the basis of expected demand in India.

Year	Energy Demand (MU)*	Solar RPO (%)	Solar Energy Requirement (MU) for RPO compliance	Solar Capacity Requirement for RPO compliance (MW)
	(A)	(B)	(A)X(B)	
2011-12	953,919	0.25%	2,385	1,433
2012-13	1,022,287	0.25%	2,556	1,536
2013-14	1,095,555	0.50%	5,478	3,291
2014-15	1,174,074	0.75%	8,806	5,291
2015-16	1,258,221	1.00%	12,582	7,560
2016-17	1,348,399	1.25%	16,855	10,127
2017-18	1,443,326	1.75%	25,258	15,176
2018-19	1,544,936	2.25%	34,761	20,885
2019-20	1,653,700	2.50%	41,343	24,839
2020-21	1,770,120	2.75%	48,678	29,247
2021-22	1,894,736	3.00%	56,842	34,152

Solar Power Capacity Requirement by 2022

Note: *Based on the National Electricity Plan for Generation January 2012

Assumptions: Average CUF for Solar Power Technologies to be 19%



Key Inference

To achieve 3% RPO compliance by 2022, India would need ~34,000MW of solar capacity. To be able to achieve such capacity additions, states have come up with Renewable Purchase Obligations, with yearly targets, based on Model regulation by FOR (Forum Of Regulators).

Solar RPO Regulations

On the regulatory front, solar RPO norms (including draft orders which are yet to be finalised by SERC) have been amended in three states namely Tamil Nadu, Maharashtra and Jharkhand in the last four months. The SERC in Tamil Nadu has significantly increased solar RPO norm from 0.5% in FY2016 to 5% in FY2018. The SERC in Maharashtra has extended the solar RPO trajectory till FY2020 while gradually increasing the solar RPO norm from 0.5% in FY2016 to 3.5% in FY2020. The SERC in Jharkhand in its draft order has extended RPO trajectory till FY2020 and also gradually increased solar RPO from 1% in FY2016 to 4.5% in FY2020. Thus extension in RPO trajectory coupled with upward revision in solar RPO norms as seen in these states are positive developments for the domestic solar energy sector. Nonetheless, the overall solar RPO norms still show wide divergence across the states and are, by and large, below national RPO targets laid down in National Action Plan on Climate Change (NAPCC). SERCs in 24 of the 30 states have declared solar RPO targets for FY2017 which vary from 0.2% to 2.5% for the obligated entities. Significantly, two states with large solar potential, viz. Rajasthan and Gujarat are yet to announce the solar RPO targets beyond FY2017. Thus, the timely revision of the state solar RPO norms to bring them in line with the solar RPO target of 8% for FY2022 as per National Tariff Policy (NTP), 2016, and the compliance of the solar RPO targets by the DISCOMs remains a key monitorable.

Solar REC Trading

Ever since the Central Electricity Regulatory Commission (CERC) lowered the band of prices within which 'renewable energy certificates' issued to eligible solar power producers could be traded in the market, there have been consecutive record high trading sessions of solar RECs. Increase in trading volumes can also be attributed to increasing RPO enforcement.





Transmission Infrastructure

Lack of adequate transmission infrastructure is another major hurdle that India faces, in improving solar power penetration. The creation of solar parks in remote areas requires additional transmission infrastructure. The government is aiming to address this through Green Energy Corridor initiative to ensure creation of power evacuation infrastructure for upcoming renewable capacity.

Change in Accelerated Depreciation

The renewable sector has enjoyed accelerated depreciation (AD) of 80% under the Income Tax Act however with the recent Budget capping the accelerated depreciation tax benefit at a maximum of 40% from April 2018, it is expected to impact projects being set up for the tax benefit. Since the revised AD rates are effective from April 2018, the management expects the coming financial year may see a renewed interest in new project installation. Further, based on internal workings, the returns of a client investing in Ujaas Parks remain the same due to falling solar project costs.

EPC business

With over 35 years in the power sector and having commissioned more than 160MW, Ujaas Ltd. decided to venture into the EPC business due to the significant opportunities available, while following the company's motto of being asset-light. It has won bids of more than 20MW of solar power and commissioned 9.9MW in FY16.

Growth Outlook

Ujaas Ltd. has installed more than triple the capacity in FY16 than that achieved in FY15. Similarly, the country itself has achieved more than 3GW of solar power installations in FY16. With the MNRE targeting 12GW of installations in FY17, the management believes it is on the same growth trajectory during FY13 and FY14. Being a market leader in the solar sector and having won orders from respected customers such as Oil India Ltd, Rashtriya Ispat Nigam Limited and Airport Authority of India, it expects to continue excelling and winning significant tenders in the future. The management's vision is to erect and maintain 5GW of solar power for its clients out of the 100GW target by 2022.



Business growth dynamics

The Management is targeting around ~80MW of solar power plant in FY17. In FY2018 the government has an ambition of 100GW and India has achieved only close to ~10GW as of now. In FY2018 the EPC side of the business alone that is the tendering business will be close to 15 to 20GW in the country which is a huge number and is required to reach the level of 100GW by 2022.

The next big movement expected to happen in the solar power sector is the rooftop segment. Currently on the rooftop segment it has a capacity of around \sim 1GW in the country. Out of this 1 GW around 900MW are in the commercial and industrial segment and on the home rooftop the capacity is only or less than 100MW. Now this is going to be a very, very big business opportunity given the fact that 40GW out of the complete 100GW is supposed to be come from the rooftop.

The solar market is expected to grow by 40 times in next five years. No doubt it is a different market and it comes with different challenges, one challenge is on the policy side is the net metering policy which as per the electricity act, every utility needs to have and gradually slowly all the utility companies are coming out with the roll out of metering policy as well as the product.

Very recently it has received an order from Ureda in the state of Uttarakhand where it is going to put up solar rooftop on various zones on around 365 homes. It is expecting many further orders in that segment. In FY17 it has a target to put up that plant on at least 1000 homes. In FY2018 it has a target to achieve a capacity of around 20 to 30MW on the house rooftop segments and in FY19 it is aiming at a capacity of more than 50MW.

Sales in MW	2012-13	2013-14	2014-15	2015-16	2016-17E	2017-18E	2018-19E
Sale of Solar Plant-solar park - Total	25	78	10	45	82	130	195
Sale of Solar Turnkey projects- solar							
parks	25	78	10	33	40	60	90
Sale of Solar Plant-EPC	-	-	-	10	40	60	90
Sale of Solar Rooftops	-	-	-	2	2	10	15
Sale from Power Supply & O&M	23	91	100	144	226	356	551

Sales growth targeted in MW

Source: Wallfort Research



Order Book position

In the last ten quarters none of the quarters had a very high order book position as the delivery time of solar power brand is somewhere between 90 and 120 days. Currently it has an order book position of around 20MW and has a bid book position of around 80MW. In a scenario where the solar power plant or solar power has achieved overall parity, it is a very big incentive to any power consumer or any investor to put up a solar power plant and consume that power generation captively. The cost of generating energy in the state of Maharashtra is close to Rs.7 or Rs.8 a unit while power generated through solar cost less than Rs.5 a unit.

Tenders are expected from central PSUs, companies like Neyveli Lignite Corporation, NTPC, Airport Authority of India & other companies like Sardar Sarovar Nigam Limited and many others which come up with a bid every day.

Sales in Mn	2012-13	2013-14	2014-15	2015-16	2016-17E	2017-18E	2018-19E
Sale of Solar Turnkey projects- solar							
parks	2,085	4,836	848	1,953	2,120	3,180	4,770
% of Total Solar Park Revenue	100%	100%	100%	80%	48%	45%	46%
Sale of Solar Plant-EPC				482	1,946	2,919	4,379
% of Total Solar Park Revenue				20%	44%	42%	42%
Sale of Solar Rooftops				111	140	700	1,050
% of Total Solar Park Revenue				5%	3%	10%	10%
Sale of Solar Plant-solar park - Total	2,085	4,836	848	2,434	4,423	7,024	10,336
% of Overall Revenue	98%	95%	80%	89%	91%	94%	97%
% Growth					81.7%	58.8%	47.2%
Sale from Power Supply & O&M	46	233	218	300	415	421	327
% of Overall Revenue	2%	5%	26%	12%	9%	6%	3%
% Growth					38.6%	1.4%	-22.3%
Total Sales	2,131	5,069	1,065	2,734	4,838	7,445	10,663

Sales - in Rs. Mn

Source: Wallfort Research

Business Strategy

In its solution business it has constructed more than 160MW with almost 60 clients with them. Orders are largely repetitive from existing clients as well as it also gets orders from various new clients. Marketing is targeted at companies who have a PBT of more than Rs.3cr. With the falling price of solar power plant this spectrum is getting bigger day-by-day with an increased target audience.



Capex cost up per MW

For the solutions business capex cost is somewhere between Rs.5.25 to Rs.5.5 Crores per MW. For the EPC business it depends from tender to tender depending on the bill of material which may be as low as Rs.5cr per MW and maybe as high as Rs.6cr perMW.



Source: Wallfort Research

Strong Solar growth in India to boost sales growth for Ujaas Ltd.

In FY15 there was a drastic reduction in revenue on account of varied reasons -

- One reason was the fear of antidumping duty. At that time it was proposed by Ministry of Commerce to Ministry of Finance in May 2014 to impose a duty of 110%. This would have translated into a figure of around Rs.3.5 Crores per MW that proposes a very big risk proposition for the company. This risk along with the antidumping duty would have cost the company around Rs.150 to Rs.170 Crores.
- The second was the REC price which was very high around Rs.9 It has now been reduced to Rs.3.50 as of December 31, 2014, but in this process a lot of REC has been piled up in the market.

To mitigate this risk it is now focusing on the EPC side of the business. They are targeting multiple growths in this business. It has an ambition that by 2022 it should be able to capture around 5GW that is 5000MW which should be \sim 5% of the market share.



Concerns

- Traditional business risks such as un- anticipated labour costs,
- Market risks such as interest rates,
- Operational risks such as been supplier/distributor problems and execution challenges and
- Changes in government regulation, no major risks are foreseen

Competitive Peers

- In the solution business there is no apple-to-apple competition but it faces competition from some players like Rays Power & Enrich Solar.
- On EPC side of business it faces good competition from four to five companies like Sterling and Wilson, L&T, Juwi Solar & Waaree Solar.
- On the rooftop segment, there is a lot of competition from the unorganized sector. Key difference for Ujaas would be the product, process and the feedback capability which is nothing but SCADA.

Peer Analysis

Peer Analysis	CMP	Net Sales				Op Margins				NP Margins			
INR in Mn		FY15	FY16	FY17E	FY18E	FY15	FY16	FY17E	FY18E	FY15	FY16	FY17E	FY18E
Azure Power Global Ltd (INR)	18	1124	2626	4597	9296	26.3%	40.9%	47.8%	62.3%	-96.3%	-62.8%	-9.9%	-9.4%
Solar City Corp. Ltd (INR)*	20	25637	48865	65998	86794	-18.7%	-10.9%	-75.0%	-34.4%	-5.9%	-39.0%	-69.5%	-21.6%
First Solar Energy Ltd (INR)*	34	229607	194944	174348	169532	14.4%	13.5%	13.7%	1.8%	15.3%	17.2%	-3.9%	-1.0%
Inox Wind Ltd	203	27027	44065	48307	51035	15.0%	14.9%	12.3%	12.0%	11.0%	10.3%	9.7%	9.7%
Ujaas Energy Ltd	48	1111	2771	4838	7445	38.1%	22.4%	15.8%	14.5%	10.5%	7.3%	8.2%	8.3%

Peer Analysis	CMP	EPS				ROE				PE			
INR in Mn		FY15	FY16	FY17E	FY18E	FY15	FY16	FY17E	FY18E	FY15	FY16	FY17E	FY18E
Azure Power Global Ltd (USD)	18	-17.11	-26.33	-26.07	38.42	-44.4%	-63.2%	68.5%	53.9%	-1.05	-0.68	-0.69	0.47
Solar City Corp. Ltd (USD)*	20	-38.49	-15.36	-32.50	-63.59	-7.2%	-9.8%	-6.3%	-2.8%	-0.53	-1.32	-1.32	-0.32
First Solar Energy Ltd (USD)*	34	34.77	32.80	-16.95	23.11	10.4%	5.9%	-0.12%	1.5%	0.96	1.02	-1.98	1.45
Inox Wind Ltd	203	14.81	20.36	21.15	22.31	32.6%	27.9%	22.6%	20.0%	13.69	9.95	9.59	9.09
Ujaas Energy Ltd	48	0.58	1.01	1.98	3.08	6.7%	10.6%	17.3%	21.3%	29.11	22.67	24.23	15.60

(* Figures for Calender Year(CY) i.e as on 31st December.)

Source: Bloomberg



Financial Ratios





Source: Wallfort Research



Valuation

Under proposed amendments to the National Tariff Policy 2005, India's central government is looking to generate 8% of its electricity from solar by 2019, and 10.5% by 2022. According to Bridge to India, this would require a cumulative capacity of 69 GW and 100GW in 2019 and 2022, respectively. This holds tremendous potential for players like Ujaas Ltd. We Initiate Coverage with a BUY rating, with a price target of Rs.82 based on its average PE of 20x FY19E EPS of Rs.4.12 per share.

Valuation	
EPS FY19E	4.12
Target PE multiple	20
Target Price (Rs)	82
Current Stock Price (Rs.)	46
Upside/(Downside)	78%





Income Statement (Consolidated) Rs. Mn					Ratio Analysis						
Date End	FY15	FY16	FY17E	FY18E	FY19E	Category	FY15	FY16	FY17E	FY18E	FY19E
Net Sales	1111	2771	4838	7445	10663						
% Sales Growth	-79%	149%	74%	54%	43%	Margin Ratio					
Expenditure	688	2151	4074	6364	9281	EBIDTA Margin	38.07%	22.39%	15.78%	14.51%	12.96%
EBIDTA	423	620	763	1080	1382	Net Profit Margin	10.51%	7.32%	8.19%	8.27%	7.72%
% Growth	-54%	47%	23%	42%	28%	Profitability Ratios					
Depreciation & amortisation	81	80	80	82	83	ROCE	10.69%	16.02%	18.87%	24.40%	27.22%
EBIT	342	540	683	999	1299	ROE	6.74%	10.59%	17.26%	21.28%	22.27%
Other Income	21	23	64	74	85	DuPont Analysis					
Interest	180	155	141	132	125	PAT / PBT	0.64	0.50	0.65	0.65	0.65
PBT before Excep. Item	183	408	606	941	1259	PBT / EBIT	0.54	0.76	0.89	0.94	0.97
Exceptional Items	0	0	0	0	0	EBIT / Net Sales	0.31	0.20	0.14	0.13	0.12
PBT after Excep. Item	183	408	606	941	1259	Net Sales / Total Assets	0.31	0.56	0.76	0.90	0.96
Tax	67	205	210	326	436	Total Assets / Equity	2.10	2.56	2.76	2.88	2.99
Profit After Tax	117	203	396	615	824	ROE	6.74%	10.59%	17.26%	21.28%	22.27%
Adjusted PAT after exceptional											
items	117	203	396	615	824	Valuation Ratios					
% Growth	-69%	74%	95%	55%	34%	EV/EBIDTA	10.26	6.05	4.65	4.16	6.45
No of Equity Shares (in mn.)	200.00	200.00	200.00	200.00	200.00	, EV/ Net Sales	3.91	1.35	0.73	0.60	0.84
EPS	0.58	1.01	1.98	3.08	4.12	PE	29.11	22.67	24.23	15.60	11.66
						Leverage Ratios					
Balance Sheet						Debt-Equity Ratio	0.63	0.54	0.41	0.30	0.22
as at 31st March	FY15	FY16	FY17E	FY18E	FY19E	Turnover Ratios					
Share Capital	200	200	200	200	200	Fixed Assts	0.56	1.38	2.40	3.67	5.22
Reserves	1532	1717	2095	2693	3498	Working Capital	0.92	2.87	4.11	4.78	5.92
Networth	1732	1917	2295	2893	3698	Inventory	1.74	3.39	3.85	3.85	3.85
Minority Interest	0	0	0	0	0	Total Assets	0.31	0.56	0.76	0.90	0.96
Long Term debt	1099	994	894	805	724	Liquidity Ratios					
Short Term debt	1	42	48	74	107	Current Ratio	4.46	2.09	1.73	1.60	1.53
Total Loan	1099	1036	943	879	831	Interest Coverage	1.90	3.49	4.83	7.57	10.42
Deferred Tax liability	407	524	524	524	524	Other Ratios					
Total Liab.	3238	3478	3762	4297	5054	EPS	0.58	1.01	1.98	3.08	4.12
						Book Value per share	8.66	9.59	11.48	14.46	18.49
Gross Block	1995	2005	2017	2029	2043	DPS	0.00	0.00	0.00	0.00	0.00
Depreciation	(162)	(240)	(321)	(403)	(486)						
Net Block	1833	1765	1696	1627	1557	Cash Flow (Rs mn.)					
Capital work-in-progress	0	0	0	0	0	Year	FY15	FY16	FY17E	FY18E	FY19E
Total Fixed Assets	1833	1765	1696	1627	1557	Profit before Work. Cap.	422	621	763	1080	1382
Investment	20	261	261	261	261	Change in working capital	(308)	483	(355)	(591)	(527)
Inventory	637	819	1258	1936	2772	Less: Taxes	(170)	(65)	(97)	(150)	(201)
Sundry Debtors	824	1173	2080	3201	4585	Cash flow from op.	-55	1039	312	339	654
Cash & Bank Bal	160	686	797	984	1519	Change in fixed assets	(7)	(12)	(12)	(13)	(13)
Other Current assets	39	74	106	143	191	Change in investments	-10	-237	0	0	0
Loan and Advances	120	134	145	164	181	Other income	21	11	64	74	85
Total Current Assets	1780	2885	4386	6428	9248	Others	339	(531)			
Trade Payables	344	1249	2242	3443	5121	Cash flow from inv.	343	(769)	52	62	72
Other Current Liability	34	155	198	261	341	Change in debt	(216)	(63)	(93)	(63)	(48)
Provision	18	29	141	316	551	Dividend & dividend tax	-47	-30	-18	-18	-18
Current Liabilities & Provisions	395	1433	2582	4020	6013	Change in eq. & share prem.					
Net Current Assets	1385	1451	1805	2408	3235	Interest paid	(180)	(155)	(141)	(132)	(125)
Mis. expenses not written off	0	0	0	0	0	Cash flow from fin.	(443)	(248)	(253)	(213)	(191)
Total Net Assets	3238	3478	3763	4297	5054	Change in cash & cash eq.	(155)	22	111	187	535
						Opening cash and cash eq.	315	663	686	797	984

Cl. cash and cash eq.

160

685

797

984 1519



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