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International Journal For Research in  
Applied Science and Engineering Technology



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# **INTERNATIONAL JOURNAL FOR RESEARCH**

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

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**Volume: 6      Issue: II      Month of publication: February 2018**

**DOI: <http://doi.org/10.22214/ijraset.2018.2045>**

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# A Study on Financial Performance of Solar Companies in India with Reference to Tata Power Solar System and Websol Energy System – A Comparative Analysis

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**Abstract:** The main purpose of this research is to analysis and compares the most populous Tata Power Solar System and Websol Energy System. The methodology is based on a comprehensive literature review of major contribution made in this field of Solar Industry. The opinions and information contained in this paper are from secondary data studies, published materials and also include author personal opinions. I have taken ratio analysis as tool for the comparison. I found in my research Tata Power Solar System better than the Websol Energy System in all areas.

**Keywords:** Liquidity position, Profitability, Turnover position, Solar Industry.

## I. INTRODUCTION

Solar power in India is a fast developing industry. As of October 2017 the country's solar grid had a cumulative capacity of 15.60 GW. India quadrupled its solar-generation capacity from 2,650 MW on 26 May 2014 to 12,289 MW on 31 March 2017. The country added 3.01 GW of solar capacity in 2015-2016 and 5.525 GW in 2016-2017, the highest of any year, with the average current price of solar electricity dropping to 18% below the average price of its coal-fired counterpart. In Tamil Nadu was the state with the highest installed solar-power capacity in India on 21 September 2016, when the 648-MW Kamuthi Solar Power Project was dedicated. With this plant, the total installed capacity in Tamil Nadu is 1,697 MW as on 31 July 2017. Tamil Nadu is one of the national leaders in adding solar-power capacity. On 1 July 2017, solar power tariff in Tamil Nadu has hit an all-time low of Rs 3.47 per unit when bidding for 1500 MW capacity was held.

## II. OBJECTIVES OF THE STUDY

- A. To measure, the short-term financial feasibility of the sample companies.
- B. To identify the profitability status of the selected solar companies.

## III. REVIEW OF LITERATURE

S. Chandrakumarmangalam and P. Govindasamy (2010) investigate the relationship between the leverage (financial leverage, operating leverage and combined leverage) and the earning per share, and this study also explains the relationship between the Debt equity ratio and Earning per Share and how effectively the firm be able debt financing, the results suggest that the leverage and profitaility and growth are related and the leverage is having impact on the profitability of the firm. Chakraborty (2010) employed two performance measures, including ratio of profit before interest, tax and depreciation to total assets and ratio of cash flows to total assets and two leverage measures, including ratio of total borrowing to assets and ratio of liability and equity, and reported a negative relation between these ones.

## IV. PROFILE OF THE SELECT COMPANIES

### A. Tata Power Solar System

Founded in 1989, Tata Power Solar Systems was originally formed as a joint venture between the Tata group and British Petroleum Solar. It is now a 100 percent subsidiary of Tata Power. The company operates in three distinct segments — manufacturing of solar

cells and modules, engineering, procurement and construction (EPC) services for solar power projects and creating innovative solar products. The name Ladakh conjures an image of a land of many passes. It nestles in the trans Himalayan region bordered by Pakistan and Tibet at heights of 2,600 to 7,000m above sea level. Ladakh receives less than 100mm of rainfall in a year and is a high altitude, cold desert region with temperatures dropping to -40 degrees Celsius. Home to an estimated 170,000 people who live in remote villages and hamlets, it is completely cut off from the outside world for more than five months in a year. More than half the villages and hamlets are accessible by foot, up to three days walking from the nearest motorable point. As other energy forms were unviable, solar energy was the natural choice, considering that Ladakh is blessed with sunshine for more than 300 days in a year.

### B. Websol Energy System

Websol Energy System Ltd. (formerly Websol Energy Systems Ltd.) is a leading manufacturer of photovoltaic monocrystalline solar cells and modules in India. With a state-of-the-art integrated production facility at Falta SEZ, Sector II, Falta, West Bengal, Websol has steadfastly delivered an advanced and excellent products since 1994 – a commitment to quality that our customers worldwide have come to trust. Over the years the company has established a reputation for making highly reliable photovoltaic modules for various domestic, commercial and Industrial applications.

Websol has picked up many awards and accolades in addition to international certifications making it one of the few technologically independent manufacturers of solar cells and modules in India. Websol Solar monocrystalline PV modules are manufactured to the strictest engineering guidelines to meet the most stringent International quality standards requirement. Websol was awarded the prestigious PV GAP mark in 2005 .Websol Solar modules are approved as per IEC 61215, IEC 61730 and UL 1703 standards as well as FM requirements by various reputed institutes like Underwriters laboratories Inc , TUV Rhineland Germany, EuroTest Laboratori S. R .l Italy and CSA International Canada. Websol is also ISO 9001.2000 certified by Underwriters Laboratories Inc for Quality management Systems. These awards and certification have generated confidence in customers about the commitment of the organization for continual improvement in processes and products.

## V. SAMPLING METHOD

The study is based on convenience sampling method.

## VI. PERIOD OF THE STUDY

The period of this study covered ten years from 2007-08 to 2016-17.

## VII. DATA COLLECTION

The data used in this study are secondary in nature, The Financial data of the companies belonging to the solar companies are taken from the Money control.com.

## VIII. DATA ANALYSIS

The collected data have been analyzed by making use of Ratio analysis, Mean, standard deviation and Co-efficient of variation.

Table 1  
Ratio Analysis Of Tata Power Solar System

YEAR	CR	QR	DR	NP	INVTR	ATR
2007-08	1.82	1.60	0.38	14.70	12.48	45.19
2008-09	1.73	1.49	0.60	12.74	11.27	44.88
2009-10	2.67	2.41	0.56	13.35	12.05	37.45
2010-11	0.89	0.69	0.67	14.69	11.07	32.62
2011-12	1.32	1.10	0.71	14.52	9.94	33.82
2012-13	0.83	0.67	0.87	11.28	12.57	34.05
2013-14	0.46	0.37	0.74	11.84	12.14	28.24
2014-15	0.59	0.49	0.73	12.83	12.97	25.85

2015-16	0.59	0.47	0.73	15.58	12.25	24.74
2016-17	0.44	0.39	0.75	3.92	10.76	18.10
Mean	1.134	0.968	0.674	12.545	11.75	30.684
Stdv	0.737823	0.675192	0.133766	3.326861	0.950719	8.64683397
Covar	65.06	69.75	19.85	26.52	8.09	28.18

Table 2  
Ratio Analysis Of Websol Energy System

YEAR	CR	QR	DR	NP	INVTR	ATR
2007-08	2.04	1.46	1.57	5.22	2.65	41.70
2008-09	1.46	1.09	3.25	7.71	2.85	29.94
2009-10	1.77	1.17	1.96	-2	2.15	31
2010-11	1.03	0.36	1.92	1.07	1.42	27.24
2011-12	0.44	0.28	-4.65	-163.47	4.30	29.96
2012-13	0.43	0.31	-3.85	-13.92	2.91	21.53
2013-14	0.44	0.37	-2.41	-24.40	7.94	48.39
2014-15	0.40	0.32	-1.79	-14.71	6.71	60.55
2015-16	0.30	0.25	-1.57	-3.56	13.60	61.74
2016-17	0.12	0.10	2.09	26.88	69.97	92.28
Mean	0.843	0.571	-0.348	-18.118	11.45	44.43
Stdv	0.684512	0.476572	2.82124	52.99096	20.88738	21.83743
Covar	81.19	83.46	-810.70	-292.48	182.42	49.15

**A. Findings**

- 1) From the above data analysis it has been found that, the two companies' profitability ratio when compared to Websol Energy System, the Tata Power Solar System is satisfied.
- 2) Short term liquidity position is satisfactory because Current ratio and Quick ratio level is better than one and two companies.
- 3) In the turnover ratio, both the above solar companies are satisfied

**IX. CONCLUSION**

According to the result of the analysis, this study concludes that tata power solar system is higher than websol energy system during the last ten years. It can prove through the ratios and the statistical tools. The websol energy system should improve their profitability position.

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#### LIST OF ABBREVIATION

CR	-	CURRENT RATIO
QR	-	QUICK RATIO
DR	-	DEBIT EQUITY RATIO
OP	-	OPERATING PROFIT RATIO
NP	-	NET PROFIT RATIO
INVTR -		INVENTORY TURNOVER RATIO
ATR	-	ASSET TURNOVER RATIO
STDV -		STANDARD DIVIATION
COVAR -		COEFFICIENT OF VARIATION



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