

# TubeSolar AG

Germany / Renewable Energy

Düsseldorf

Bloomberg: 9TS

ISIN: DE000A2PXQD4

Capital increase

**RATING****PRICE TARGET**

Return Potential

Risk Rating

**BUY****€ 9.40**

31.5%

High

## EQUITY FOR HIGHLY AUTOMATED PRODUCTION

TubeSolar AG has decided to carry out a capital increase to partially finance the construction of the highly automated production of its innovative lattice-like TubeSolar tube modules. The modules are permeable to sunlight and rain, and particularly suitable for use in agro-photovoltaics (APV). APV is a rapidly growing PV market segment and is characterised by the simultaneous use of land for agriculture and power production, which can raise area productivity by up to 70%. In the course of the capital raise, the share capital of TubeSolar is to be increased by a nominal amount of up to €1.0m to up to €11.0m. The new shares will be offered to shareholders at a ratio of 10 (existing shares) to 1 (new share) as part of a public offer at a subscription price of €6.00 per new share. TubeSolar's major shareholder guarantees the capital increase in full. We had already anticipated the capital increase in our model. We confirm the Buy recommendation of our Initiating Coverage study of 29 October 2020 and the €9.40 price target.

**Securities prospectus approved, subscription period begins on 8 December** Following the approval of the securities prospectus by the Federal Financial Supervisory Authority (BaFin), the two-week subscription period will begin on 8 December. Shares that have not been subscribed will be offered to selected investors in a private placement following the subscription offer. TubeSolar's main shareholder guarantees the capital increase in full and will take over all new shares not purchased by shareholders as part of the subscription offer and subsequently not placed with other investors in the private placement following the subscription offer.

### FINANCIAL HISTORY & PROJECTIONS

	2018	2019	2020E	2021E	2022E	2023E
Revenue (€m)	0.00	0.00	0.00	0.00	25.60	84.24
Y-o-y growth	n.a.	n.a.	n.a.	n.a.	n.a.	229.1%
EBIT (€m)	0.00	-0.25	-2.66	-1.17	0.46	13.46
EBIT margin	n.a.	n.a.	n.a.	n.a.	1.8%	16.0%
Net income (€m)	0.00	-0.25	-2.94	-1.10	-0.88	9.60
EPS (diluted) (€)	0.00	-0.03	-0.29	-0.09	-0.06	0.62
DPS (€)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (€m)	0.00	-0.25	-8.93	-21.24	-39.29	-24.92
Net gearing	0.0	-37.5%	-7.5%	33.5%	40.5%	75.4%
Liquid assets (€m)	0.00	3.95	2.02	7.78	20.49	0.57

### RISKS

The main risks are: technological risk, financing risk, product and production risks, and increasing competition.

### COMPANY PROFILE

TubeSolar AG is a manufacturer of solar modules. The patented technology, which integrates solar cells into a glass tube, aims particularly at power generation on sites which are used for agriculture at the same time. TubeSolar is located in Augsburg, Germany.

### MARKET DATA

As of 03 Dec 2020

Closing Price	€ 7.15
Shares outstanding	10.00m
Market Capitalisation	€ 71.50m
52-week Range	€ 2.29 / 9.20
Avg. Volume (12 Months)	3,096

Multiples	2020E	2021E	2022E
P/E	n.a.	n.a.	n.a.
EV/Sales	0.0	0.0	1.1
EV/EBIT	n.a.	n.a.	63.4
Div. Yield	0.0%	0.0%	0.0%

### STOCK OVERVIEW



### COMPANY DATA

As of 30 Jun 2020

Liquid Assets	€ 2.06m
Current Assets	€ 2.25m
Intangible Assets	€ 9.56m
Total Assets	€ 12.61m
Current Liabilities	€ 3.03m
Shareholders' Equity	€ 9.41m

### SHAREHOLDERS

TSG 1. Vermögensverw. GmbH	55.2%
BD Vermögensverw. GmbH	11.1%
Solar Invest International SE	9.7%
BF Holding GmbH	5.1%
Free Float	18.9%



## VALUATION MODEL

DCF valuation model								
All figures in EUR '000	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Net sales	0	0	25,600	84,240	140,000	167,500	192,777	218,715
<b>NOPLAT</b>	<b>-2,925</b>	<b>-1,166</b>	<b>458</b>	<b>11,771</b>	<b>24,166</b>	<b>28,021</b>	<b>30,863</b>	<b>34,481</b>
+ depreciation & amortisation	1,192	2,910	6,492	10,495	13,420	15,304	16,125	14,742
Net operating cash flow	-1,733	1,744	6,950	22,266	37,586	43,325	46,987	49,223
- total investments (CAPEX and WC)	-7,180	-23,055	-44,909	-45,015	-29,872	-11,890	-12,919	-14,126
Capital expenditures	-6,880	-22,190	-44,256	-40,421	-24,662	-8,360	-9,131	-9,802
Working capital	-300	-865	-653	-4,593	-5,210	-3,530	-3,788	-4,324
Free cash flows (FCF)	-8,913	-21,311	-37,960	-22,749	7,714	31,435	34,068	35,097
<b>PV of FCF's</b>	<b>-8,835</b>	<b>-18,704</b>	<b>-29,500</b>	<b>-15,654</b>	<b>4,698</b>	<b>16,954</b>	<b>16,270</b>	<b>14,841</b>

All figures in thousands	
PV of FCFs in explicit period (2020E-2034E)	45,113
PV of FCFs in terminal period	50,925
Enterprise value (EV)	96,037
+ Net cash / - net debt (pro forma)	41,464
+ Investments / minority interests	0
Shareholder value	137,502
Diluted number of shares (discounted)	14,648
<b>Fair value per share in EUR</b>	<b>9.40</b>

WACC	12.9%
Cost of equity	14.6%
Pre-tax cost of debt	5.0%
Tax rate	30.0%
After-tax cost of debt	3.5%
Share of equity capital	85.0%
Share of debt capital	15.0%
<b>Price target</b>	<b>9.40</b>

WACC	Terminal growth rate							
	8.9%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%
8.9%	14.14	14.32	14.52	14.74	14.99	15.28	15.62	
9.9%	12.16	12.28	12.40	12.54	12.69	12.87	13.07	
10.9%	10.56	10.63	10.71	10.80	10.89	11.00	11.12	
11.9%	9.24	9.28	9.33	9.39	9.45	9.51	9.59	
12.9%	8.13	8.16	8.19	8.23	8.27	8.31	8.35	
13.9%	7.20	7.22	7.24	7.26	7.28	7.31	7.34	
14.9%	6.41	6.42	6.43	6.45	6.46	6.47	6.49	
15.9%								

\* for layout purposes the model shows numbers only to 2027, but runs until 2034



## INCOME STATEMENT

All figures in EUR '000	2019A	2020E	2021E	2022E	2023E	2024E	2025E
<b>Revenues</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,600</b>	<b>84,240</b>	<b>140,000</b>	<b>167,500</b>
Cost of goods sold	0	1,956	2,500	12,800	42,120	72,545	89,841
<b>Gross profit</b>	<b>0</b>	<b>-1,956</b>	<b>-2,500</b>	<b>12,800</b>	<b>42,120</b>	<b>67,455</b>	<b>77,659</b>
Personnel costs	297	2,142	2,904	4,084	9,821	10,698	13,082
Other operating income	177	512	6,000	2,995	1,348	1,400	1,675
Other operating expenses	134	1,625	3,347	4,762	9,688	11,200	11,893
<b>EBITDA</b>	<b>-254</b>	<b>-1,466</b>	<b>1,744</b>	<b>6,950</b>	<b>23,959</b>	<b>46,957</b>	<b>54,360</b>
Depreciation and amortisation	0	1,192	2,910	6,492	10,495	13,420	15,304
<b>Operating income (EBIT)</b>	<b>-254</b>	<b>-2,658</b>	<b>-1,166</b>	<b>458</b>	<b>13,464</b>	<b>33,537</b>	<b>39,055</b>
Net financial result	0	-12	-400	-1,710	-2,175	-2,300	-2,275
Non-operating expenses	0	0	0	0	0	0	0
<b>Pre-tax income (EBT)</b>	<b>-254</b>	<b>-2,670</b>	<b>-1,566</b>	<b>-1,252</b>	<b>11,289</b>	<b>31,237</b>	<b>36,780</b>
Income taxes	0	267	-470	-376	1,693	9,371	11,034
Minority interests	0	0	0	0	0	0	0
<b>Net income / loss</b>	<b>-254</b>	<b>-2,937</b>	<b>-1,096</b>	<b>-876</b>	<b>9,596</b>	<b>21,866</b>	<b>25,746</b>
<b>Diluted EPS (in €)</b>	<b>-0.03</b>	<b>-0.29</b>	<b>-0.09</b>	<b>-0.06</b>	<b>0.62</b>	<b>1.41</b>	<b>1.66</b>
<b>Ratios</b>							
Gross margin	n.m.	n.m.	n.m.	50.0%	50.0%	48.2%	46.4%
EBITDA margin on revenues	n.m.	n.m.	n.m.	27.1%	28.4%	33.5%	32.5%
EBIT margin on revenues	n.m.	n.m.	n.m.	1.8%	16.0%	24.0%	23.3%
Net margin on revenues	n.m.	n.m.	n.m.	-3.4%	11.4%	15.6%	15.4%
Tax rate	0.0%	-10.0%	30.0%	30.0%	15.0%	30.0%	30.0%
<b>Expenses as % of revenues</b>							
Personnel costs	n.m.	n.m.	n.m.	16.0%	11.7%	7.6%	7.8%
Depreciation and amortisation	n.m.	n.m.	n.m.	25.4%	12.5%	9.6%	9.1%
Other operating expenses	n.m.	n.m.	n.m.	18.6%	11.5%	8.0%	7.1%
<b>Y-Y Growth</b>							
Revenues	n.m.	n.m.	n.m.	n.m.	229.1%	66.2%	19.6%
Operating income	n.m.	n.m.	n.m.	n.m.	2839.8%	149.1%	16.5%
Net income/ loss	n.m.	n.m.	n.m.	n.m.	n.m.	127.9%	17.7%



## BALANCE SHEET

All figures in EUR '000	2019A	2020E	2021E	2022E	2023E	2024E	2025E
<b>Assets</b>							
<b>Current assets, total</b>	<b>3,950</b>	<b>2,325</b>	<b>8,983</b>	<b>23,645</b>	<b>10,951</b>	<b>24,402</b>	<b>57,618</b>
Cash and cash equivalents	3,950	2,025	7,783	20,489	565	5,979	34,139
Short-term investments	0	0	0	0	0	0	0
Receivables	0	200	200	2,104	6,924	11,918	14,752
Inventories	0	100	1,000	1,052	3,462	6,505	8,727
Other current assets	0	0	0	0	0	0	0
<b>Non-current assets, total</b>	<b>7,070</b>	<b>14,364</b>	<b>35,058</b>	<b>72,822</b>	<b>102,749</b>	<b>113,991</b>	<b>107,046</b>
Property, plant & equipment	0	6,742	28,494	67,080	97,689	109,478	102,859
Goodwill & other intangibles	0	7,397	6,339	5,518	4,835	4,288	3,962
Other assets	7,070	225	225	225	225	225	225
<b>Total assets</b>	<b>11,020</b>	<b>16,689</b>	<b>44,041</b>	<b>96,468</b>	<b>113,700</b>	<b>138,393</b>	<b>164,664</b>
<b>Shareholders' equity &amp; debt</b>							
<b>Current liabilities, total</b>	<b>418</b>	<b>417</b>	<b>452</b>	<b>1,755</b>	<b>4,391</b>	<b>8,219</b>	<b>23,744</b>
Short-term debt	0	0	0	0	0	1,000	15,000
Accounts payable	65	65	100	1,403	4,039	6,866	8,391
Current provisions	0	0	0	0	0	0	0
Other current liabilities	352	352	352	352	352	352	352
<b>Long-term liabilities, total</b>	<b>61</b>	<b>2,667</b>	<b>19,082</b>	<b>44,082</b>	<b>49,082</b>	<b>48,082</b>	<b>33,082</b>
Long-term debt	0	1,000	16,000	41,000	46,000	45,000	30,000
Deferred revenue	0	0	0	0	0	0	0
Other liabilities	61	1,667	3,082	3,082	3,082	3,082	3,082
<b>Minority interests</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Shareholders' equity</b>	<b>10,541</b>	<b>13,604</b>	<b>24,507</b>	<b>50,631</b>	<b>60,227</b>	<b>82,092</b>	<b>107,839</b>
Share capital	10,000	11,000	12,500	15,500	15,500	15,500	15,500
Capital reserve	795	5,795	16,295	40,295	40,295	40,295	40,295
Other reserves	0	0	0	0	0	0	0
Treasury stock	0	0	0	0	0	0	0
Loss carryforward / retained earnings	-254	-3,191	-4,288	-5,164	4,432	26,298	52,044
<b>Total consolidated equity and debt</b>	<b>11,020</b>	<b>16,689</b>	<b>44,041</b>	<b>96,468</b>	<b>113,700</b>	<b>138,393</b>	<b>164,664</b>
<b>Ratios</b>							
Current ratio (x)	9.45	5.57	19.85	13.47	2.49	2.97	2.43
Quick ratio (x)	9.45	5.33	17.64	12.87	1.71	2.18	2.06
Net debt	-3,950	-1,025	8,217	20,511	45,435	40,021	10,861
Net gearing	-37.5%	-7.5%	33.5%	40.5%	75.4%	48.8%	10.1%
Equity ratio	95.7%	81.5%	55.6%	52.5%	53.0%	59.3%	65.5%
Book value per share (in €)	1.05	1.36	2.04	3.62	3.89	5.30	6.96
Return on equity (ROE)	-2.4%	-21.6%	-4.5%	-1.7%	15.9%	26.6%	23.9%
Days of sales outstanding (DSO)	0.0	0.0	0.0	30.0	30.0	31.1	32.1
Days inventory outstanding	0.0	18.7	146.0	30.0	30.0	32.7	35.5
Days in payables (DIP)	0.0	12.1	14.6	40.0	35.0	34.5	34.1



## CASH FLOW STATEMENT

All figures in EUR '000	2019A	2020E	2021E	2022E	2023E	2024E	2025E
<b>EBIT</b>	<b>-254</b>	<b>-2,658</b>	<b>-1,166</b>	<b>458</b>	<b>13,464</b>	<b>33,537</b>	<b>39,055</b>
Depreciation and amortisation	0	1,192	2,910	6,492	10,495	13,420	15,304
<b>EBITDA</b>	<b>-254</b>	<b>-1,466</b>	<b>1,744</b>	<b>6,950</b>	<b>23,959</b>	<b>46,957</b>	<b>54,360</b>
Changes in working capital	0	-300	-865	-653	-4,593	-5,210	-3,530
Other adjustments	0	-279	70	-1,334	-3,868	-11,671	-13,309
<b>Operating cash flow</b>	<b>-254</b>	<b>-2,045</b>	<b>949</b>	<b>4,962</b>	<b>15,497</b>	<b>30,075</b>	<b>37,520</b>
Investments in PP&E	0	-6,880	-22,190	-44,000	-40,000	-24,000	-7,614
Investments in intangibles	0	0	0	-256	-421	-662	-746
<b>Free cash flow</b>	<b>-254</b>	<b>-8,925</b>	<b>-21,241</b>	<b>-39,294</b>	<b>-24,924</b>	<b>5,414</b>	<b>29,160</b>
Acquisitions & disposals, net	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0
<b>Investment cash flow</b>	<b>0</b>	<b>-6,880</b>	<b>-22,190</b>	<b>-44,256</b>	<b>-40,421</b>	<b>-24,662</b>	<b>-8,360</b>
Debt financing, net	0	1,000	15,000	25,000	5,000	0	-1,000
Equity financing, net	0	6,000	12,000	27,000	0	0	0
Dividends paid	0	0	0	0	0	0	0
Other financing	0	0	0	0	0	0	0
<b>Financing cash flow</b>	<b>0</b>	<b>7,000</b>	<b>27,000</b>	<b>52,000</b>	<b>5,000</b>	<b>0</b>	<b>-1,000</b>
FOREX & other effects	0	0	0	0	0	0	0
<b>Net cash flows</b>	<b>-254</b>	<b>-1,925</b>	<b>5,759</b>	<b>12,706</b>	<b>-19,924</b>	<b>5,414</b>	<b>28,160</b>
Cash, start of the year	0	3,950	2,025	7,783	20,489	565	5,979
<b>Cash, end of the year</b>	<b>-254</b>	<b>2,025</b>	<b>7,783</b>	<b>20,489</b>	<b>565</b>	<b>5,979</b>	<b>34,139</b>
<b>EBITDA/share (in €)</b>	<b>-0.03</b>	<b>-0.15</b>	<b>0.15</b>	<b>0.50</b>	<b>1.55</b>	<b>3.03</b>	<b>3.51</b>
<b>Y-Y Growth</b>							
Operating cash flow	n.m.	n.m.	n.m.	422.9%	212.3%	94.1%	24.8%
Free cash flow	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	438.6%
EBITDA/share	n.m.	n.m.	n.m.	241.6%	211.4%	96.0%	15.8%

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Anschrift:

First Berlin Equity Research GmbH  
Mohrenstr. 34  
10117 Berlin  
Germany

Vertreten durch den Geschäftsführer: Martin Bailey

Telefon: +49 (0) 30-80 93 9 680

Fax: +49 (0) 30-80 93 9 687

E-Mail: [info@firstberlin.com](mailto:info@firstberlin.com)

Amtsgericht Berlin Charlottenburg HR B 103329 B

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First Berlin Equity Research GmbH

**Authored by: Dr. Karsten von Blumenthal, Analyst**

**All publications of the last 12 months were authored by Dr. Karsten von Blumenthal.**

**Company responsible for preparation: First Berlin Equity Research GmbH, Mohrenstraße 34, 10117 Berlin**

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#### ASSET VALUATION SYSTEM

First Berlin's system for asset valuation is divided into an asset recommendation and a risk assessment.

##### ASSET RECOMMENDATION

The recommendations determined in accordance with the share price trend anticipated by First Berlin in the respectively indicated investment period are as follows:

Category		1	2
Current market capitalisation (in €)		0 - 2 billion	> 2 billion
Strong Buy <sup>1</sup>	An expected favourable price trend of:	> 50%	> 30%
Buy	An expected favourable price trend of:	> 25%	> 15%
Add	An expected favourable price trend of:	0% to 25%	0% to 15%
Reduce	An expected negative price trend of:	0% to -15%	0% to -10%
Sell	An expected negative price trend of:	< -15%	< -10%

<sup>1</sup> The expected price trend is in combination with sizable confidence in the quality and forecast security of management.

Our recommendation system places each company into one of two market capitalisation categories. Category 1 companies have a market capitalisation of €0 – €2 billion, and Category 2 companies have a market capitalisation of > €2 billion. The expected return thresholds underlying our recommendation system are lower for Category 2 companies than for Category 1 companies. This reflects the generally lower level of risk associated with higher market capitalisation companies.

##### RISK ASSESSMENT

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#### RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	29 October 2020	€6.60	Buy	€9.40
2...1	↓	↓	↓	↓
2	Today	€7.15	Buy	€9.40

#### INVESTMENT HORIZON

Unless otherwise stated in the financial analysis, the ratings refer to an investment period of twelve months.

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**Legally required information regarding**

- key sources of information in the preparation of this research report
- valuation methods and principles
- sensitivity of valuation parameters

can be accessed through the following internet link: <https://firstberlin.com/disclaimer-english-link/>

**SUPERVISORY AUTHORITY: Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) [BaFin], Graurheindorferstraße 108, 53117 Bonn and Marie-Curie-Straße 24-28, 60439 Frankfurt am Main**

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