



# Cost Competitive Solar Energy Ethiopian Example

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# Content

- **Brief Introduction to ACWA Power**
- **Solar Energy; a Cost Competitive solution**
- **Ethiopia Solar PV project Example**



“ **35GW** of Electricity  
**+ 6 Mil Cum/Day**  
of Desalinated water ”

**12**  
Countries

**3500+**  
Employees

**USD 48.8 Billion**  
Value of Assets in Operation  
+ Development



“ **7.5GW** of Renewable Energy Capacity in operation or construction ”

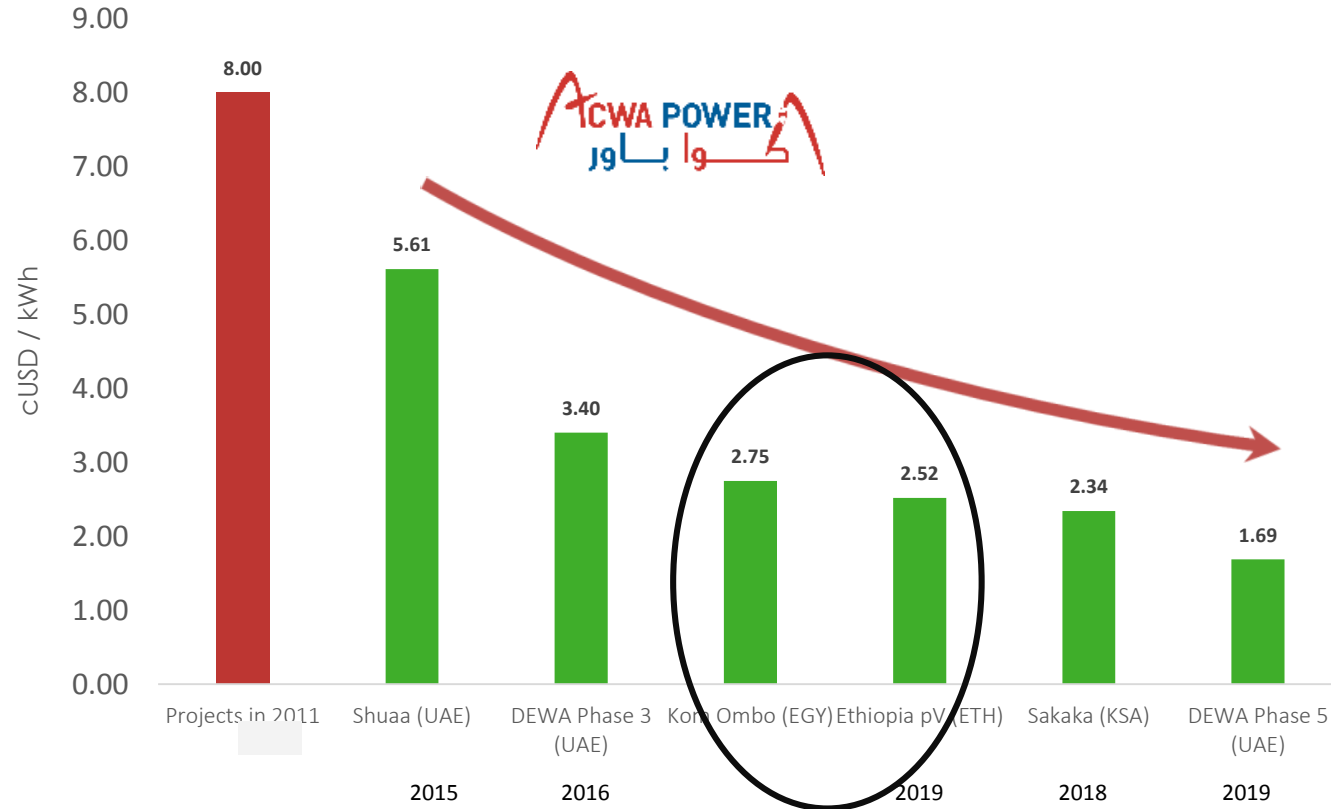
**11**  
Countries

**18**  
Assets in Operation + Under Construction + Advanced Development

**USD 14.5 Billion**  
Value of Assets in Operation + Development



# Photovoltaic Costs Have reduced dramatically



# Power Generation alternatives when the sun is shining

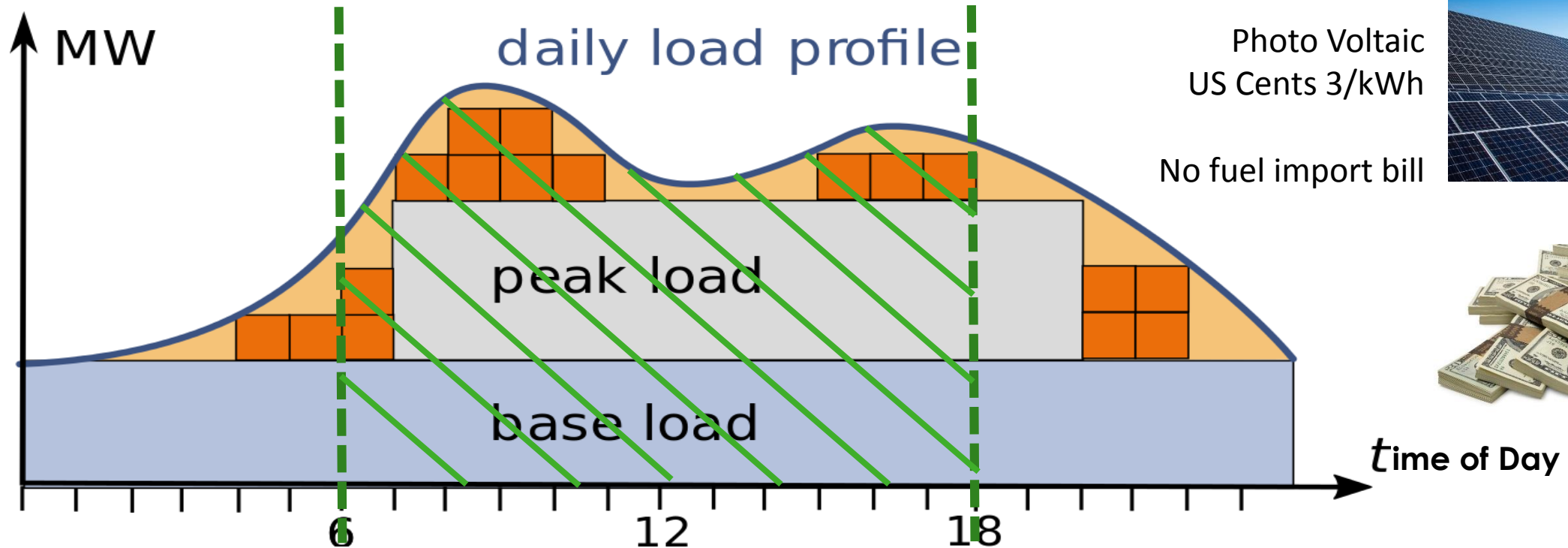
Coal  
US Cents 8/kWh











Each Year Fuel Import bill  
The 8 Cents will change with market price of coal



Photo Voltaic  
US Cents 3/kWh

No fuel import bill



|   |                              |  |
|---|------------------------------|--|
|    | <b>Client</b>                | Ethiopian Electric Power (“EEP”) But Performance Guaranteed by Ethiopian Government  |
|    | <b>Location</b>              | 1- 125 MWac is located in the Afar Region (Dicheto)<br>2- 125 MWac is located in the Somali Region (Gad)                           |
|    | <b>Scope</b>                 | Greenfield – Develop, Build, Own, Operate and at the end of Year 20 transfer   |
|    | <b>Capacity</b>              | 125 Mwac Each  |
|    | <b>Technology</b>            | Solar Photovoltaic (PV)  |
|    | <b>Fuel</b>                  | N/A – Solar Powered  |
|    | <b>Contract Term</b>         | 20 years commencing from completion of construction  |
|  | <b>Time for Construction</b> | 15 Months from the Effective Date (estimated July 2021) – Dicheto<br>18 Months from the Effective Date (estimated Sept 2021) - Gad |
|  | <b>Connection</b>            | Plant will connect to a 230kV  |
|  | <b>Developer</b>             | ACWA Power   |



|                             |  |
|-----------------------------|--|
| <b>Bid Bond</b>             | USD 1,000,000 per proposal/Project.  |
| <b>Performance Bond</b>     | USD 17,000,000 per Project.  |
| <b>Tariff</b>               | Tariff will be in USD  |
| <b>Government Guarantee</b> | The Government of Ethiopia is undertaking to cover all the Buyers obligations through the Implementation Agreement (with the Ministry of Finance) as well as covering the convertibility of the local currency exchange to USD |
| <b>Total Investment</b>     | US\$ 250 Million   |
| <b>Financing</b>            | 20% of Project Cost as Equity + 80% as Project Finance Debt  |
| <b>Local Content</b>        | Minimum of 15% of construction costs must be goods and services<br>Minimum of 5% Ethiopian shareholding  |



## Private Sector

- Technology (quality, function, fit for purpose)
- Delivery of asset within time
- Construction and operation within budgeted cost
- Availability of the plant to deliver output as when required
- Life of the asset

## Public Sector

- Volume Risk – Take the Power
- Force Majeure
- Inability of Power Company to pay – via government guarantees
- Exchange Rate for local currency
- Inflation adjustment on Operating cost only





Je vous remercie Danke obrigado  
 mihi koe рақмет cizre  
 Teşekkürler شكرا  
 நன்றி Asante மனம்  
 謝謝 Дякую  
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 Terima kasih Ngiyabonga Tak

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