European Energy

A Danish based project developer, EPC and IPP

Solar Power

Active in Europe, Australia and USA

Onshore Wind

Active in Europe and Brazil

Offshore Wind

Active in Europe

Downstream Technologies

Active in Europe

Jan Vedde

PV professional with manufacturing and R&D background

Professional experience

- Silicon Feedstock; Elkem Solar (production of upgraded metallurgical grade Silicon), 2005-2007.
- Crystal growth; Topsil Semiconductor Materials (Float-Zone silicon monocrystal), Denmark, 1992-2005
- Wafering; (silicon ingot slicing), Topsil Semiconductor Materials. 2002-2004.
- Solar glass; Vetro Solar, Germany. 2007-2010.
- Utility scale PV; European Energy (design, engineering, construction, financing and O&M of PV projects. 2007-

Location:

We secure the land rights in collaboration with the landowner and conduct environmental studies to minimize the local environment's impact.

Planning:

Once a location has been identified, a thorough analysis of the environmental impact, local grid capacities, both the political and the project economic framework conditions is needed. This includes but is not limited to all from navigating through national and local laws and permits to analyzing energy production estimates.

Involvement:

It is essential to involve local citizens and stakeholders as early as possible and strive to understand and address any concerns. At this stage we also invite investors to participate in the development of the project.

Construction:

When all the essential rights and permits have been acquired, the construction phase can be started. We manage the entire process from design of the energy plant, global sourcing of components, construction activities to grid connection as well as all many unforeseeable factors during this phase.

Managing the assets:

We consider managing the constructed assets as a part of our core business. This includes in-house competences in both technical, commercial and financial aspects of managing renewable energy plants.

Divestment:

We assess each project individually and take the risk-and-reward profile into consideration. In some cases, we divest the energy farm to long-term investors at the optimal price. Often, we keep managing the plant for the investor to optimize production output and minimize operating costs.

Independent power sale:

Other times we keep ownership of the energy farm and provide electricity as an independent power producer.

Power Purchase Agreements (PPA):

Many companies choose a PPA solution these days during the pre-construction and construction activities. These PPA's are long term supply contracts with a fixed price guaranteeing the delivery of renewable power from an energy farm to a business.

Product

- Price
- Performance (certifications)
- Product development (DFMEA)
- Sales support (EYA, statics, RfG)
- Supply security

Manufacturing

- Quality Assurance (implementation, SPC)
- Automation (technical support 24x7)
- Overall production volume (scaling with market)
- Full value chain control

Financing/divestment

- Supplier financial strength (tier 1)
- Reliability of components
- Predictable revenue-stream (value of project set by revenue, not EPC cost)
- Revenue determined by power price (merchant or CfD, convergence to LCOE)
- Storytelling:
  - no negative connotations
  - zero investor willingness to pay for green assets (utility scale, institutional investors)
- Bankable performance uplift documentation
- Credit support

Conclusion

Price, bankability and manufacturing professionalism are of importance for EPC's active with utility scale PV

European based manufacturing is currently not explicit valued by investors