Solarify emerged from a R&D research project at EGE University in Bornova, Turkey. Today, Solarify is leading in technology European technology provider of solar energy asset management systems using Artificial Intelligence (AI) and interactive operations and managements system all-in-one solution to scale total energy output and ease solar asset management.

Joint Forces for Solar talked to Solarify about increasing efficiency at solar power plants (SPP) and reducing the associated financial, technical, and operational risks, making solar energy a more sustainable investment.

JF4S: Energy efficiency and performance maximization are two of the main criteria for solar power plant asset managers and operators. Solarify support operators by stabilizing operations and increasing the energy output using AI. Can you tell me more about how Solarify works and how it benefits SPP operators?

As the SPP portfolio grows, SPP operations management becomes more complicated. With artificial intelligence powered interactive ticketing system, Solarify decreases operational costs in solar power plants. Also, Solarify can detect even the smallest performance issues without installing additional hardware (aside from its data logger). Let's talk about how it works.

Imagine a performance problem in 1 string of the SPP. Solarify will detect this issue and notify the monitoring engineer about the importance of this problem. After receiving this alarm via e-mail or Solarify Mobile, the monitoring engineer will issue a ticket to the responsible of the power plant.

After the ticket is made, the responsible will start operations. During the action the responsible will take photos about the incident. After the incident is resolved, the ticket is sent back to monitoring engineer. After the monitoring engineer's approval, an automatic report with predicted energy loss is generated with the photos taken during the operational activities.

So, the entire operation is managed within the portal without using any other 3rd party tool (mailing, WhatsApp etc.) and a standard service record report is generated without any hassle.

JF4S: This also ensures that the SPP generates the expected value and should therefore minimize financial risks associated with planning an SPP?

Exactly, as long as Solarify is connected, it will detect any problematic issue and report it to the operator. If the Operator acts, then we can say that Solarify ensures maximum energy generation from a SPP.

JF4S: What aspects of the solar system are monitored by Solarify and can the technology be used for all scales and applications of solar PV systems?

We are collecting the data, which is transferred by Inverters, energy quality analyzers, meteorological sensors, string boxes etc. As we are always using the latest technology, we do not have any limitation in terms of scalability in Solarify.

JF4S: Are there any preconditions necessary to use Solarify as an asset management tool?

Solarify needs to be able to collect the data from solar power plants. The data can be collected from other 3rd party data loggers which are capable to transfer data to Solarify. If that is not the case, Solarify Data Logger needs to be connected to the SPP.

JF4S: Large-scale solar power plants often have several contractors and sub-contractors, use multiple types of inverters and several different modules varying in capacity and output. How does Solarify manage the multitude of operators and technologies combined in one SPP?

Solarify is hardware agnostic, no matter the inverter or device it is, Solarify can display the collected values in one single interface. Also, In Solarify It is possible to divide SPP's or even Virtual stations bound to these SPP's to different users with different user levels.

Solarify shines when the portfolio is diverse and used by different levels of operators and subcontractors.

JF4S: When it comes to data safety and documentation, how does Solarify ensure the data is accessible while also safe?

Data transfer from Solarify to cloud services is made with 256-bit encryption with VPN. Connection from Solarify to its data loggers is also made via VPN tunneling. After collecting the data, Solarify stores it in 2 different countries (Belgium and Germany) to prevent data in force majeure event. With its data are stores in 2 different countries, Solarify ensures uptime and accessibility all the time.

JF4S: One final question; Will solar energy remain the leading technology? What is Solarify's vision for the global energy transition?

Solar energy will be main energy resource in 20 years. Its potential is unmatched compared to other energy resources. Unlimited input, low operation and maintenance costs are the main driving force of SPP's. Our vision is to decrease the operation and maintenance costs of solar power plants and maximize the energy generation of solar power plants.