







#### Energy Industry / Solar Tracker

# The generation of power

The generation of power from sustainable energy sources ranks among the major tasks of the future worldwide. And our solutions for photovoltaic systems are an important contribution. Planetary gears from IMS Gear help to drive **solar tracking systems**. The **precise adjustment of solar modules** significantly increases the energy yield: Following the Sun and Towards the Future

With its modular system, IMS Gear's spectrum ranges from quick quality solutions to customer-specific adaptations and sophisticated special gear configurations. The same applies to our drive solutions in the area of solar energy generation.

- Compact design
- High power density
- Robustness & long service life
- High flexibility & wide range of applicati

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## Solar Tracking, but Efficiently!

Solar modules tracking the sun increase the energy yield of a photovoltaic system. When it comes to designing solar tracking systems used for this purpose, the compact planetary gears from IMS Gear offer **flexibility** with both their **installation** and their adaptation to a **great variety of requirements**. Furthermore, they represent a technologically and economically powerful solution.

Tracking the solar modules in photovoltaic systems increases the energy yield. In a calculation of the overall return on investment, however, their higher total output is compared to their acquisition and maintenance costs. This results in the requirement to realize highly efficient systems. "We cannot influence the path of the sun", says Helmut Brugger, Technical Sales Manager at IMS Gear. "But the **flexibility and efficiency of our drive solutions.**" With our proven modular system for planetary gears, we are the perfect partner for efficient solutions for the future, including the field of power generation from solar energy.



## **Digging Deep into the Modular System**

The focus is on the **adjustment mechanisms**, starting with the selection of the proper drive solution. With their performance and design, gear drives largely determine the execution of the complete metal frame. From a technological and economic point of view, planetary gears from IMS Gear's modular system offer optimum solutions.

"Compared to other gear drive designs, the advantages of planetary gears lie in a **comparatively compact design with high power density**", explains Helmut Brugger. "This can make drive solutions consisting of motor, planetary gear and e.g. a thread spindle particularly rigid - and therefore ideally suited for the **high wind pressure** on the solar modules. At the same time, such drive variants are systems with sufficiently **low backlash** that also meet the demands with respect to the required self-locking."

Apart from these features, the freedom gained in the constructive design of a solar tracker becomes a profitability factor due to the flexible installation resp. attachment of the planetary gears. What's more, a variety of configuration options are available.

#### Summary

IMS Gear can convince by efficient and manifold drive solutions for solar trackers - like for many other industries of the future. In our modular system, users find more than 10,000 configuration options in plastic, metal or plasticmetal versions. This tremendous variety gives designers every freedom to perfectly synchronize motor, gear drive and transmission elements. Furthermore, a great variety of options is available to optimize the efficiency of the planetary gears with respect to the requirements in photovoltaic systems. The quantity structures with which the company produces the standard gear components already make planetary gears from IMS Gear economically interesting to use in solar trackers.

### empower solutions : worldwide

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