**Solar Electric Technician Training**

# **Module 2: Occupational health and safety**

**Examples related to tools-related experiences and hazards**

**Electrocution hazard**: A solar technician was installing photovoltaic panels on a rooftop. While connecting the panels to the inverter, he accidentally used a metal screwdriver instead of an insulated one. The screwdriver slipped and touched both the positive and negative terminals simultaneously, causing a short circuit. The technician received a severe shock. Fortunately, his safety gear prevented serious injury, but the incident highlighted the importance of using the correct insulated tools when working with live circuits.

**Damaged equipment**: A technician was using a power drill to mount solar panels onto a frame. The drill bit was worn out but the technician decided to continue using it. Midway through drilling, the bit snapped and flew off, damaging a nearby solar panel. This not only resulted in additional costs for replacing the panel but also delayed the project. The incident underscored the necessity of regularly inspecting and maintaining tools to avoid costly damages and delays.

**Incorrect tool usage**: A technician used a pair of pliers instead of a proper crimping tool to secure electrical connections. The makeshift solution seemed to work initially, but a few months later, the connection failed due to poor contact, causing a system outage. This incident stressed the importance of using the right tool for the job to ensure long-term reliability and safety of the installation.