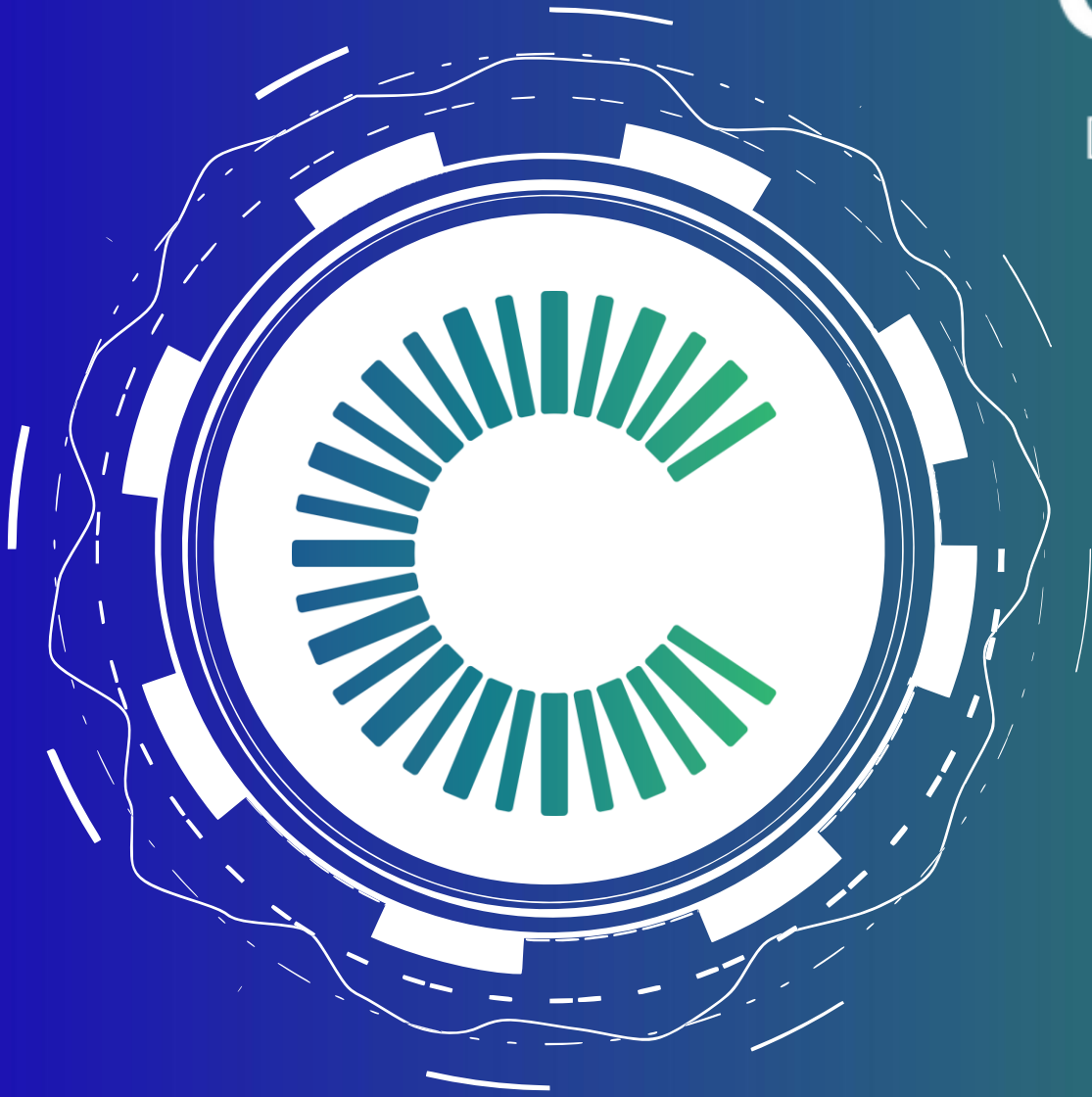


Clever solar devices

DIGITALIZING THE PHOTOVOLTAIC INDUSTRY



Clever Dx is a platform for photovoltaic solar facilities which allows **remote operation** and **maintenance** by **detecting all the failures** in **real-time** as well as **efficiency diagnosis, production improvement and costs reduction.**



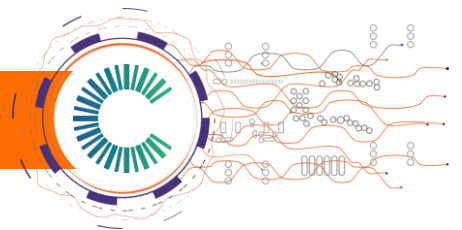
FALSOS MITOS:

“Los paneles no se rompen,
Tienen 30 años de garantía”

Garantía y mantenimiento son cosas diferentes



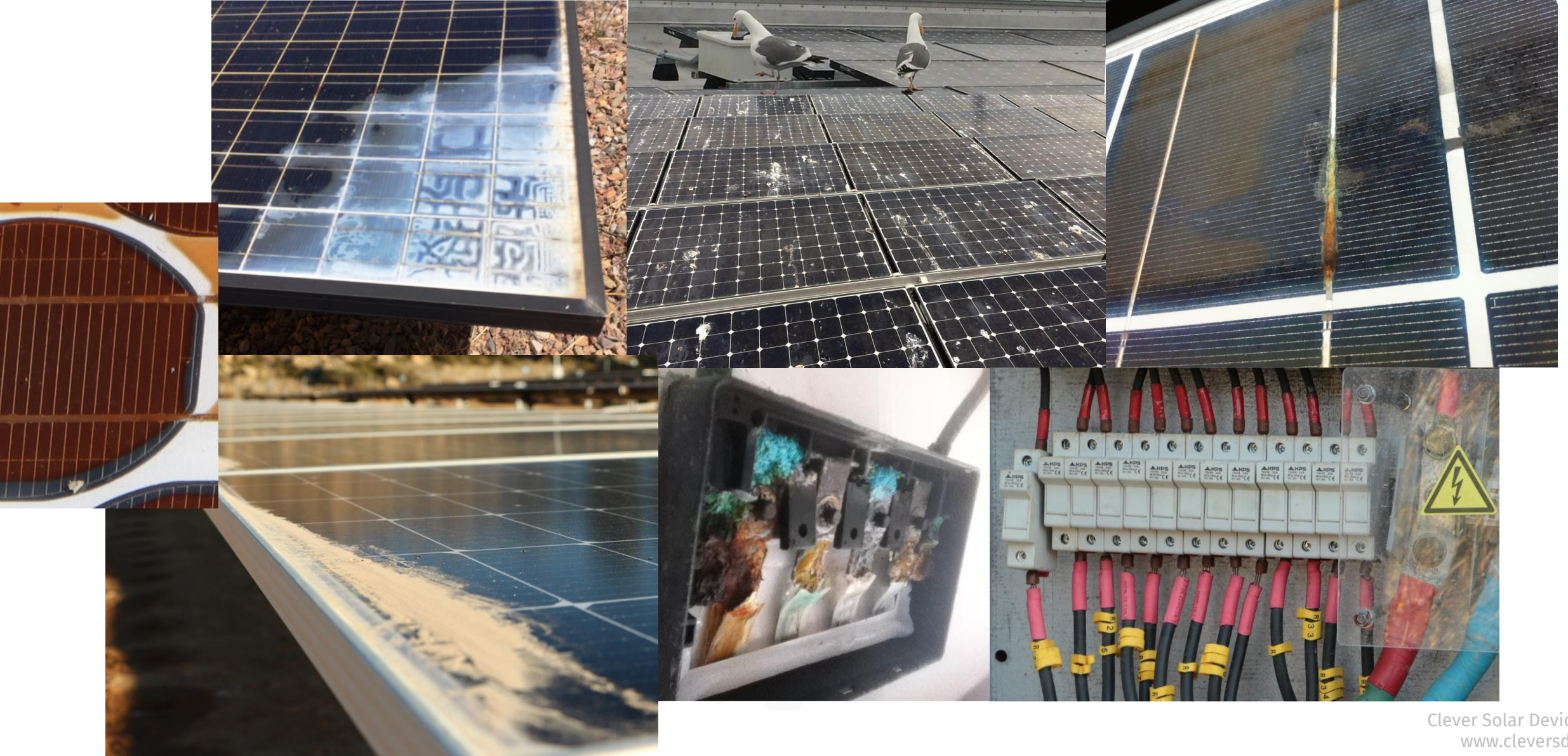
Garantía y mantenimiento son cosas diferentes



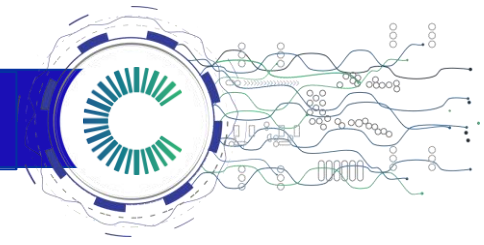
Garantía y mantenimiento son cosas diferentes



Garantía y mantenimiento son cosas diferentes



Qué opciones tengo para realizar el O&M?

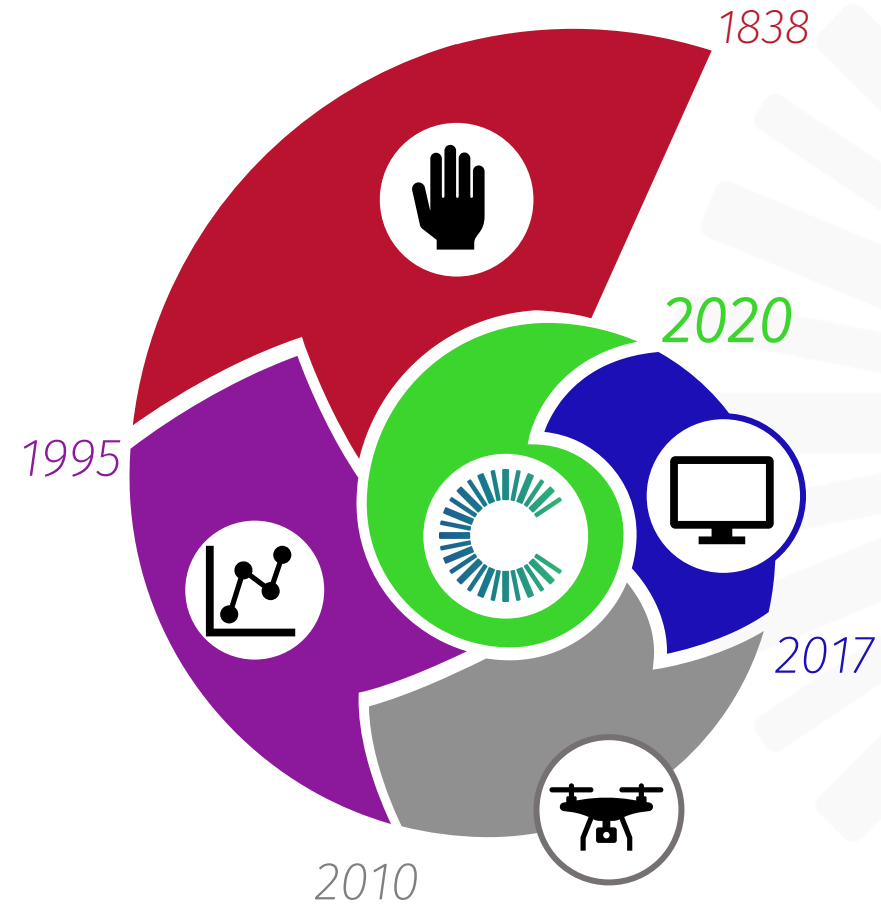
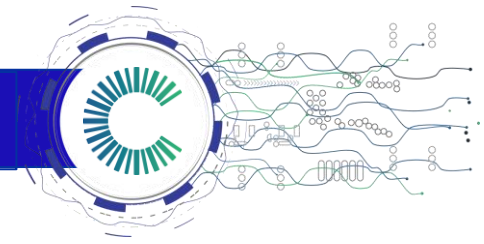


1838



Alexandre Edmond Becquerel

Qué opciones tengo para realizar el O&M?



Manual procedures

Screening IV-Curves
measurements of some
MODULES

Dataloggers

Automatic
measurements

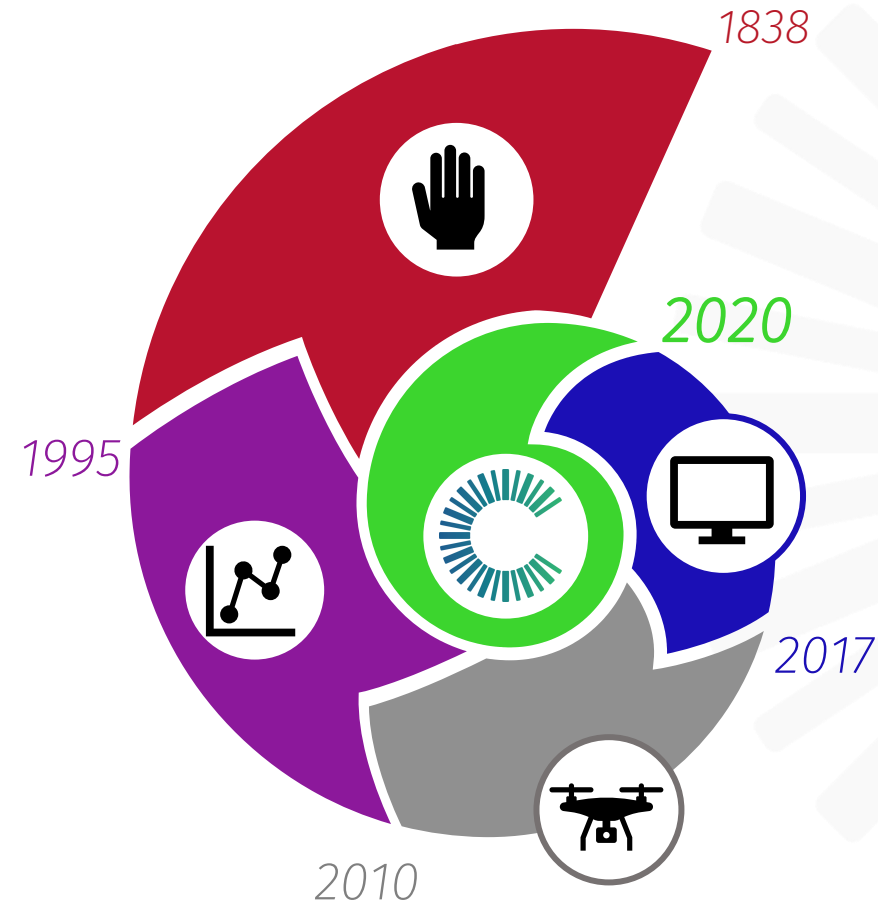
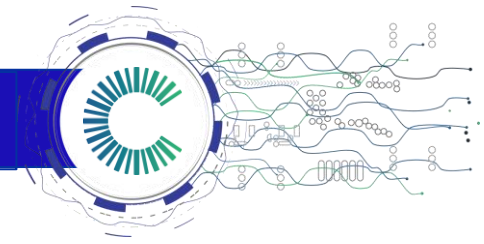
Monitoring

Information anytime
anywhere

Drones

Some sense of a general issues area
location + manual double checks

Qué opciones tengo para realizar el O&M?



Manual procedures

Screening **IV-Curves**
measurements of some
MODULES

Dataloggers

Automatic
measurements

Monitoring

Information **anytime**
anywhere

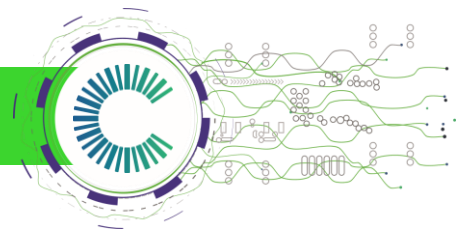
Drones

Some sense of a general issues area
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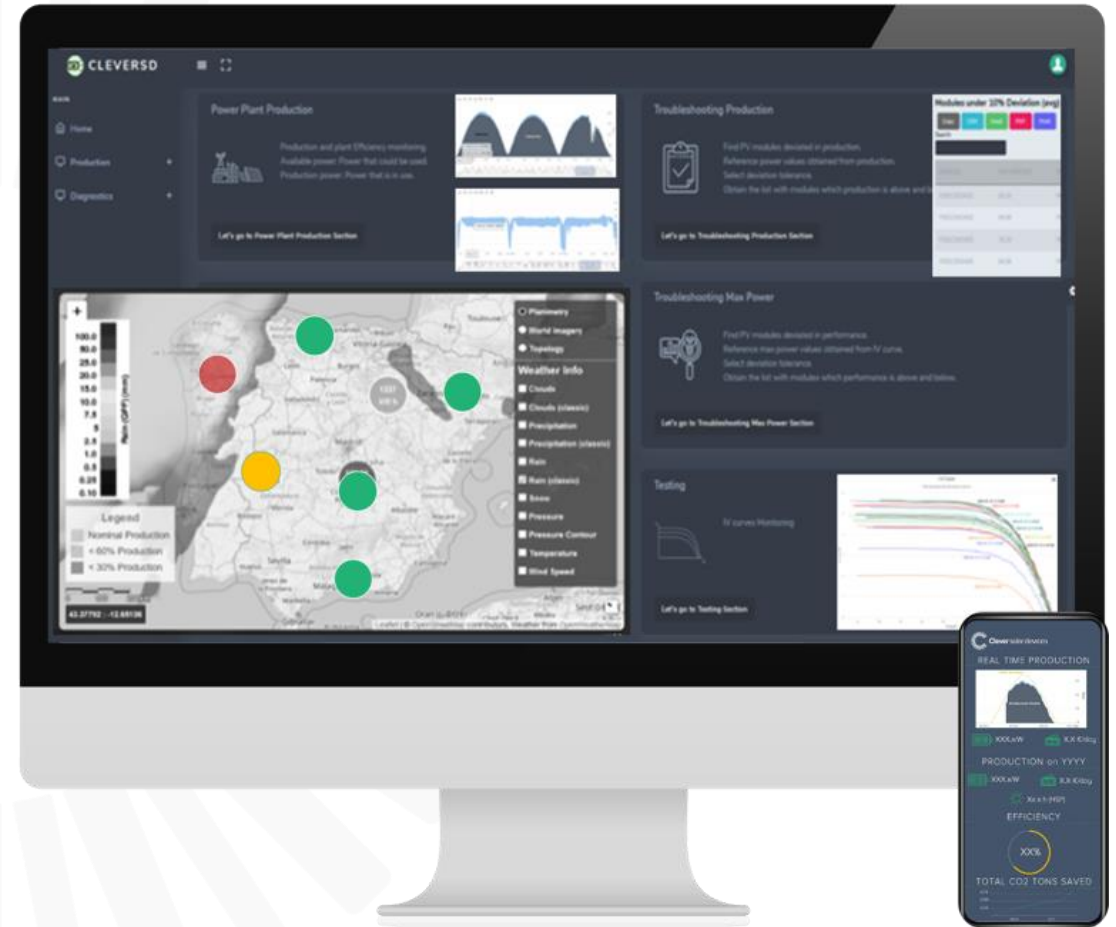
Clever Dx

Diagnóstico REMOTO a través de
Curvas IV AUTOMÁTICAS de
TODOS los módulos fotovoltaicos
en TIEMPO REAL

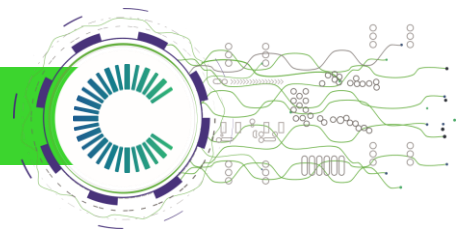
Propuesta Clever Dx



Hardware Patentado

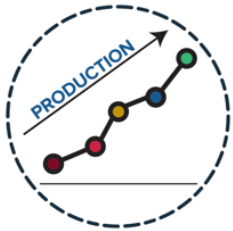


Plataforma de diagnóstico



Las **MEJORES MEDICIONES DIRECTAS** para el mantenimiento **PREDICTIVO**,
La información **MÁS PRECISA** para acciones **PREVENTIVAS**.

Aumenta la eficiencia



12%

Mejora de
producción

Facilita la gestion de instalaciones



70%

Reducción de
costes de O&M

Cubre la instalación completa

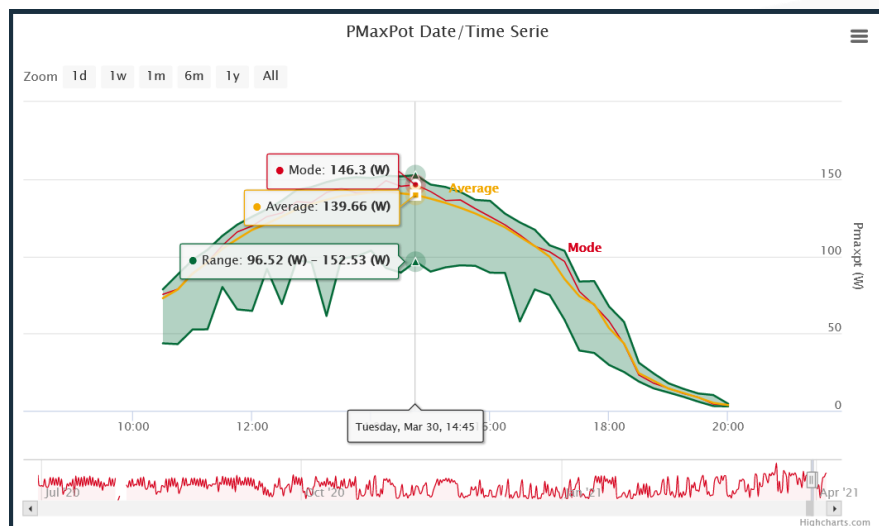
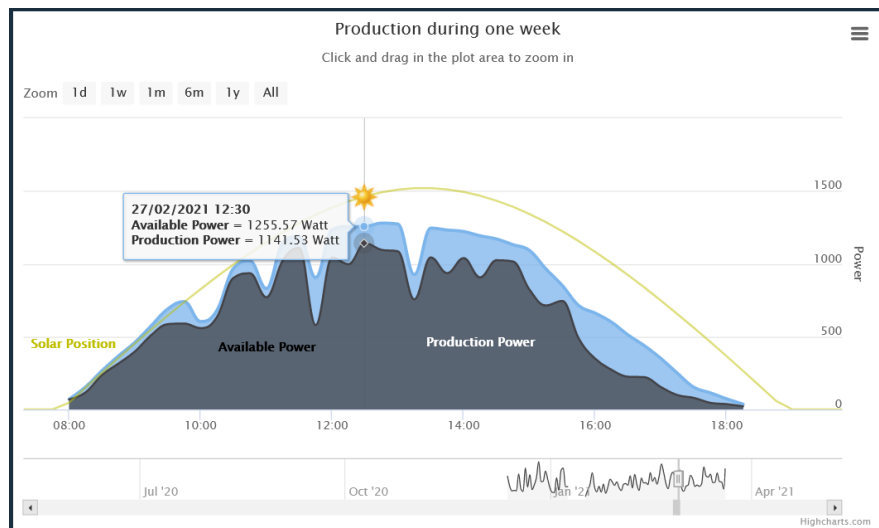


100%

Detección de
Problemas en planta

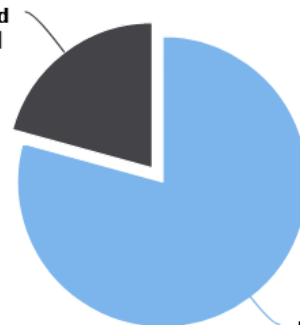
¡No tienes que elegir!
No sacrifiques en costes de O&M o Producción:
ahorra en ambos con Clever Dx.

Propuesta Clever Dx

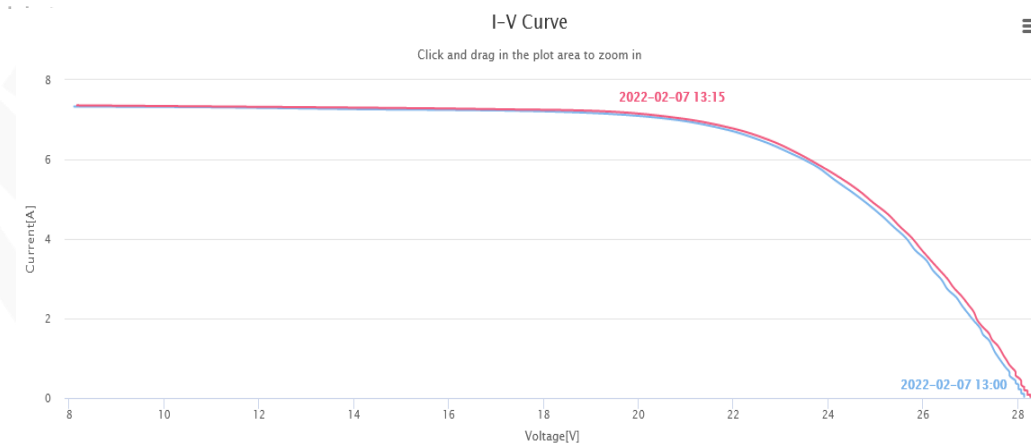
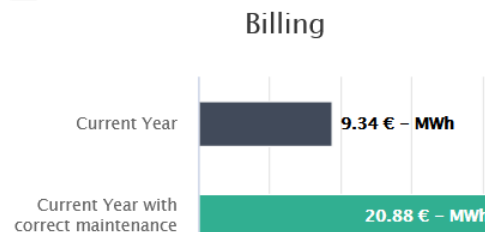
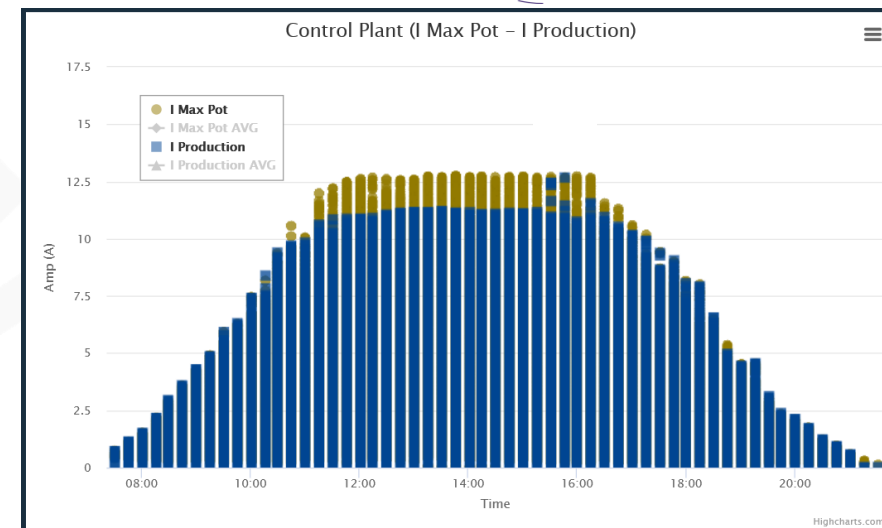


Total January / 2021

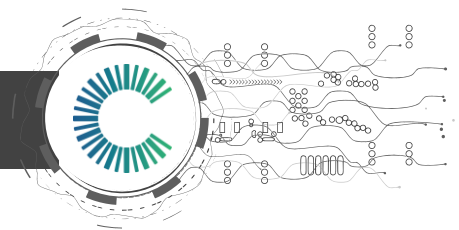
No Produced
13.43 kWh |
20.74 %



Produced 51.32
kWh | 79.26 %

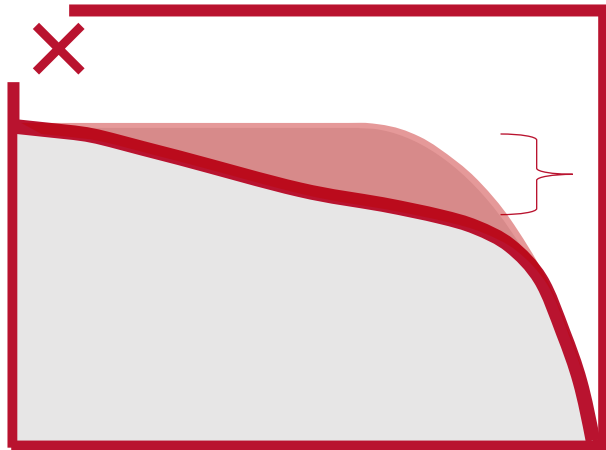


Qué opciones tengo para realizar el O&M?



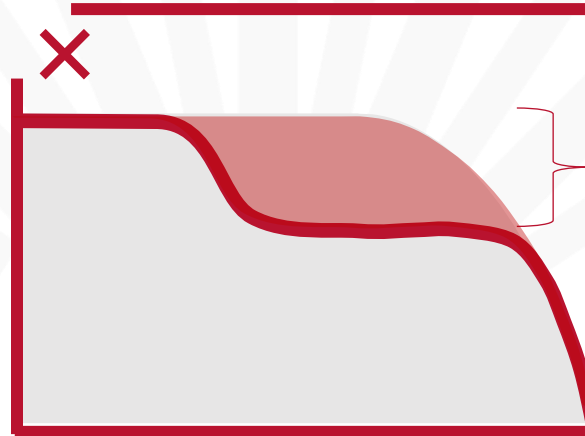
MODULE A

Oxide solar cell busbars



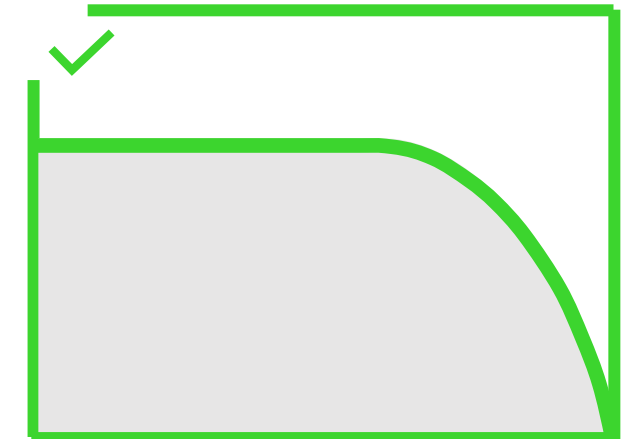
MODULE B

Broken cell string



MODULE C

PV module OK



Manual procedures

Los datos más preciosos (Curva IV)

→ **NO ESCALABLE**

Dataloggers

Mediciones indirectas

→ **PRODUCCIÓN, NO DIAGNÓSTICO**

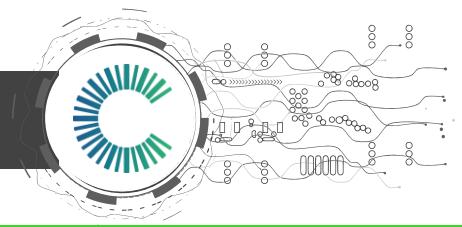
Monitoring

Estimaciones indirectas

→ **PRODUCCIÓN, NO DIAGNÓSTICO**

→ **IMPRECISIÓN**

It's all about DIGITAL TRANSFORMATION



PHONE INDUSTRY

PHOTOVOLTAIC INDUSTRY

Mobile phones



Wired phones



Phone calls thru operators



Thermography
disaster check



Manual troubleshooting



100% PV module remote
diagnosis with Clever Dx



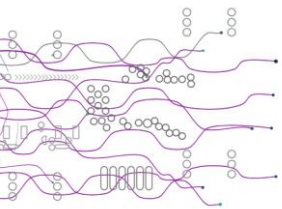
En qué parte de la cadena de valor quieres situarte?



Instalación

Operación y Mantenimiento

Tiempo de vida de la planta de producción– 30 años



¿Nos dejas ayudarte?

Contacta con nosotros



info@cleversd.com

www.cleversd.com

THANK YOU

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BACK  UP