ACCIONA Energía

New energy for a better planet

1st operator in the world dedicated 100% to renewables

WHO WE ARE

→ MAIN FIGURES 2023

15.4 GW total installed capacity

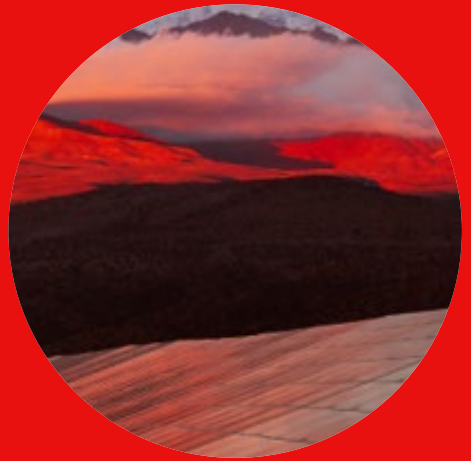
24 countries across 5 continents

+30 years of experience

3 224 employees and 53 nationalities

26.7 TWh total renewable production

14.4 MM tCO_2 saved



We optimize and decarbonize your energy

ACCIONA ENERGÍA IN FRANCE

→ YOUR STRATEGIC DECARBONIZATION PARTNER

+3 400 customers

+2 000 consulting and energy management missions

+5 600 energy efficiency projects funded

70 Employees

51 TWhc of energy savings

1 038 MW demand-side response capacity

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OUR RANGE OF SERVICES

PLAN YOUR ENERGY TRANSITION

- Audits
- Energy studies
- ISO 50001 implementation
- Energy Management
- Commissioning
- Energy training

DEMAND-SIDE RESPONSE MANAGEMENT

- Valorization of Demand Side Response
- Upward Demand Side Response
- Flexibility in the Tertiary Sector

FINANCE YOUR ENERGY TRANSITION

- White Certificate Scheme

INVESTING IN, IMPLEMENTING AND GUARANTEEING YOUR ENERGY TRANSITION

- Energy performance contract
- PV Self-consumption
- Energy As A Service contract

White Certificates

Impact Evaluation Methods

Deemed Savings:

Method that applies pre-specified unit savings or formulas with pre-specified parameters.

Deemed savings must be documented in a transparent and freely available manner.

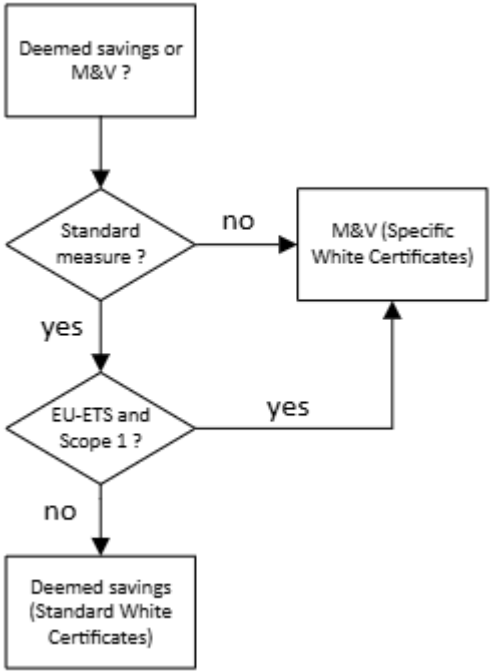
Appropriate for relatively simple, well-defined measures such as lighting or electric motors (Standard White Certificates).

Measured Savings:

Savings are determined by measuring the actual reduction in energy use, taking due account of factors such as additionality, occupancy, production levels and the weather, which may affect consumption.

This method is appropriate for unique and custom measures such as an industrial furnace replacement (Specific White Certificates).

Measured Savings Selection and Requirements



The French Energy Code only requires M&V for Specific WCs under EU-ETS. Energy consumption must be measured after the project implementation during a representative period (> 6 months) and adjusted to the baseline period conditions.

M&V is however highly recommended for any Specific WCs application in the administration guidelines.

The administration also indicates that we can use forecasted production rates for increased capacity or new construction.

Lessons Learned

Clients favor Standard WCs over Specific WCs because:

- Processing time is 2 months versus 10 months
- No measurements needed
- Much less uncertainty (baseline, lifespan…)
- Overestimated savings on average
- Higher MWh cumac rates

Industrials consider M&V regardless of WCs because:

- Projects sometimes included in ESPCs.
- Limited cost compared to the total investment.
- Already equipped with monitoring systems.
- Often certified ISO 50001.

→ The timeframe is the main issue for industrials (≈ 16 months upon closeout).

→ Cross-selling opportunities around energy management.

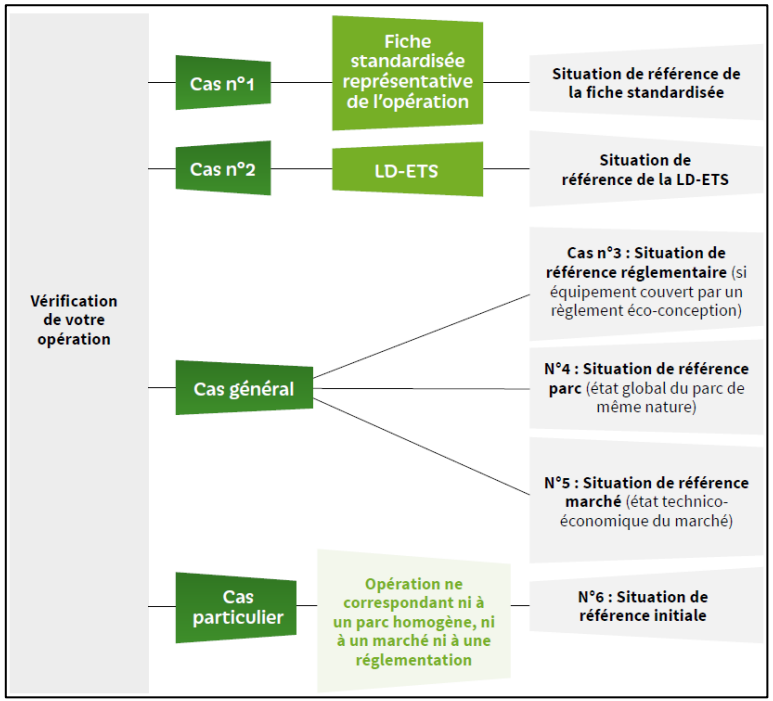
Case Study: Green Valley Energy

Project :

Green Valley Energy is a biomass CHP located in Golbey, Vosges, boasting a 25 MW power capacity and a 90 MW heat capacity.

GVE is the largest biomass CHP in France. It is expected to produce each year 200 GWh of electricity and 700 GWh of heat and avoid the emission of 210,000 tCO2e.

Case Study: Green Valley Energy



Baseline :

High-efficiency CHP as per the directive 2012/27/EU. It shall provide primary energy savings of at least 10 % compared with the references for separate production of heat and electricity.

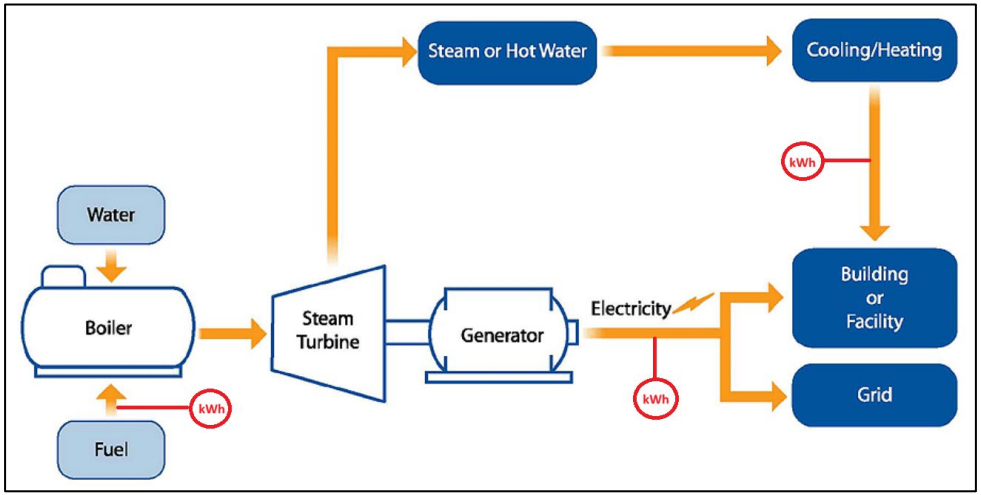
According to the decision (EU) 2015/2402 and the French Energy Code, the efficiency for separate production using biomass is :

- Electricity = 37%
- Steam = 78%

Case Study: Green Valley Energy

M&V Plan :

The intent of the M&V plan is to verify the performance of the new CHP in comparison with the baseline power plant and steam boiler.



During the reporting period, performance will be assessed by metering fuel consumption, electricity generation, and thermal output, along with the electricity and heat consumed to run the CHP.

$$CEE = \left(0.9 * \left(\frac{Q_{output}}{\eta_{ref\ heat}} + \frac{E_{output}}{\eta_{ref\ elec}}\right) - Q_{bio}\right) * EUL$$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