ENV2: Energy efficiency

Time of Effectiveness	Mid-Term Long term
Repeatability	90% (18 reports out of 20)
Level of Confidence	**9.09/10**
Category	Environment
Outcomes	• Decreased energy consumption • Reduction of CO2 emissions (Scope 1 & 2) • Economical savings • Increased customer satisfaction
Metrics	• Energy consumption (kWh/year) • Economical savings ($/year) • CO2 emissions (Scope 1,2 and 3) (tons/year) • Customer satisfaction (survey)
Problematic	• Paris Agreement Article 6. p.4 • UN SDG 7: Affordable and clean energy • UN SDG 9: Industry, Innovation and Infrastructure • UN SDG 12: Responsible production and consumption
Additional Components	• Products/services **(67%)** • **Facilities (83%)**[1] • Projects in the company **(67%)**

Description

In order to reduce their energy consumption, 90% of the investigated companies implemented energy efficiency policies. Most of them decided to focus on their facilities energy efficiency, which represents the building owned by the company (offices, factories, retail stores, etc.). However, more than half of these companies also invested in the energy efficiency of their products or services as well as energy efficiency projects in the company. The application of such strategies is directly translated into a reduced energy consumption. This reduced energy consumption induces indirect effects such as economical savings and CO2 emissions reduction since it represents the energy that you "do not consume". Finally, the energy efficiency aspects can be used as a marketing tool and then increase customer satisfaction.

Example: Cisco (p.82,93,99,101-103,105,111-115,139)

At Cisco they consider all the aspects of energy efficiency. First, in the level of their facilities, their two last data centers have a Leadership in Energy and Environmental Design (LEED)-NC Gold certification, which evaluates the global efficiency of a building. Moreover, they created a team dedicated to implement energy efficiency program across the company which allows them to slightly decrease their energy consumption as shown on the table below:

Table 8. Energy and GHG Emission Reduction Projects

KPI	FY11	FY12	FY13	FY14	FY15
Number of projects implemented	19	26	103	90	148
Annual energy avoided, GWh/yr	16.8	15.6	76.5	27.2	41.4
Total estimated annual CO_2e savings, tCO_2e/yr	7400	7300	34,000	14,100	19,100

[1] This additional component had a high level of confidence (7.68) compare to others in every category

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Finally, they constantly improve the energy efficiency of their different products. First, they conceive their products to do more with the same amount of energy used which make them indirectly more energy efficient. Then, they also think about reducing the energy consumption of their products. For example, by analyzing the energy consumption of each component and each functions of the products to identify way to optimize. All these efforts are translated with a constant increase of the power efficiency of their products as shown in the figure below. This power efficiency allows then Cisco to reduce their Scope3 CO2 emissions by reducing those coming from their product usage.