

ASSESSING LOW CARBON TRANSITION

POWER GENERATION ACT EXPERIMENTATION IN MEXICO AND BRAZIL

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ACT

Assessing Low-Carbon Transition is a joint voluntary initiative of the UNFCCC secretariat Global Climate Agenda co-founded by ADEME, the French Agency for Ecological Transition, and CDP, the global environmental disclosure system. ACT provides guidance and assessment methodologies as an accountability framework to support and assess companies' strategies and actions which contribute to the Paris mitigation goals.

ACTDDP

The ACT-DDP research project is an international pilot project, which aims at accelerating the implementation of national and sectoral deep decarbonisation through a better dialogue between private companies and governments and for a mutual enrichment of their low-carbon strategies. Through the synergy between two pioneer initiatives, the Assessing low Carbon Transition (ACT) initiative and the Deep Decarbonization Pathways initiative (DDP), the project partners built and tested methodologies and tools for developing national and sectoral deep decarbonisation pathways compatible with the Paris Agreement and assessing company strategies with them. This project is supported by the Fonds Français pour l'Environnement Mondial (FFEM) and by in-country French representatives such as the local French Development Agencies (AFD) and French embassies.



The ACT Initiative, through the implementation of the ACT-DDP project in Mexico and Brazil, assessed the low-carbon strategies of three Mexican and four Brazilian companies operating in the electric utilities sector. Four companies participated voluntarily in the experiment and provided assessors with additional data, the other three companies were assessed purely on the basis of public data. For the assessments conducted on the basis of public data, significant data gaps resulted in several indicators having low scores. Indicators with no available information were assigned a score of 0, indicating a lack of transparency. The accuracy of the analysis and the scores results might be improved if companies were to increase climate data disclosure and transparency [1]. An ACT assessment generates three scores: a performance score, a narrative score, and a trend score.

ACT average score

11 B +

11 The average performance score is (11)

The companies assessed obtained a wide variety of scores (between 6 and 17), with an average performance score of 11/20, indicating that the panel is rather homogeneous in terms of its level of maturity regarding the alignment of country level low-carbon electric utility pathways. Companies in the electric utilities sectors of both countries have started working on their climate strategies, but they display different levels of ambition and progress along the path towards achieving a low-carbon economy. The Brazilian companies outperform the Mexican companies, with an average performance score of 14 (as opposed to 7).

B The average narrative score is (B)

The narrative score is rather heterogeneous across participating companies, ranging from E to A. Despite this difference, a shortcoming for most Mexican companies is the lower scores in the reputation bracket: they have received complaints about the loss of habitats and biodiversity resulting from electricity plants being built.

Another relevant element is the companies' forward-looking targets. As of 2020, most companies have initiated or are about to initiate a target-setting process. At the same time, companies started developing low-carbon plans to decarbonise their activities and integrate climate change issues into their core strategy.

The average trend score is "+"
 As four out of seven of the companies received a "+" trend score. However, these four companies are

all Brazilian; all 3 Mexican companies received a "-" trend score. Indeed, In terms of their activity, the emissions intensity of Mexican companies is above the estimated low-carbon trajectory in all cases. This indicates that the sector needs to develop a clear roadmap to reduce emissions if it is to avoid exceeding the 1.5°C compatible sectoral pathway proposed by the DDP initiative. In short, more ambitious action is required from the energy sector in Mexico to work toward decarbonisation at a faster pace. Brazil, on the other hand, is on the right path.

AVERAGE SCORE PER PERFORMANCE MODULE

Overall, companies in both countries have integrated climate issues into their management structures, by designing a low-carbon strategy and establishing a committee responsible for overseeing its implementation.

In Mexico, a lack of data for assessing the most relevant indicators of the sector lowered not only the scores, but also the accuracy of the results. It is essential that Mexican companies improve disclosure of climate-related data – this is an essential part of their low-carbon journey. Otherwise, further efforts are needed, especially within the framework of mid- and long-term strategies; most of the companies assessed had not set medium- to long-term emissions reduction targets. This is also evident in their future emissions trend, which has increased over the past five years and continues to follow an upwards trajectory. Although

the Mexican companies assessed have identified and started to develop profitable business activities that drive the energy mix towards low-carbon energy and have plans for moderate and high expansion, none of the companies disclosed their R&D investments for low-carbon technologies, limiting their ability to develop and expand new business opportunities. Moreover, the companies assessed did not demonstrate strong public support for climate-friendly policies; further engagement with policymakers and public commitment around decarbonisation issues is required. On the other hand, electric utilities is the most mature sector studied in Brazil regarding the low-carbon transition. Most of the data was easily accessible, and companies voluntarily shared the information required. All the companies have set medium- or long-term GHG reduction targets. Thermoelectric plants have been mainly

Figure 1. Mexico, performance modules scores (%)

Sample of three Mexican companies

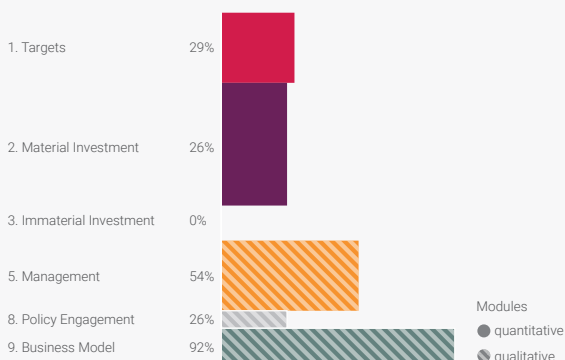
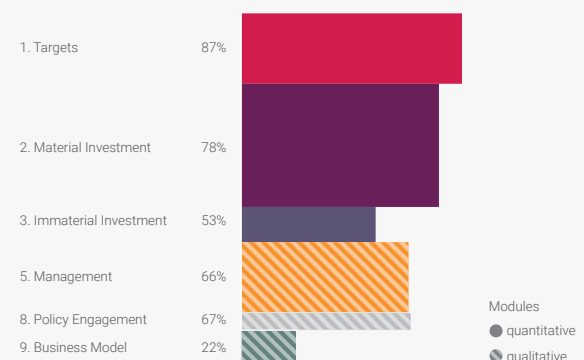


Figure 2. Brazil, performance modules scores (%)

Sample of four Brazilian companies



Note: bar heights represent modules the weighting of modules' scores

decommissioned, or the subject is under discussion, and companies have been investing in other renewable sources, such as solar and wind power, or even biomass. However, although Brazilian companies have been investing in low-carbon technologies for energy generation, these investments have not been sufficient to develop consistent business models aligned with

a low-carbon economy and future electricity needs. Although the Brazilian companies assessed have taken a position against climate change, they still need to support powerful climate policies more and communicate about their internal policies on engagement with trade associations regarding climate issues. (see **Figure 1** and **Figure 2**).

ACT ELECTRIC UTILITIES METHODOLOGY

The ACT sectorial methodologies have been developed and adapted to take into account the specific characteristics and decarbonisation levers being implemented by the sectors studied. Thus, the performance score weighting of each module varies for each sector. The following weightings have been used to evaluate the performance score of companies in the EU sector (see **Table 1**). The ACT methodology for Electric Utilities is available at <https://actinitiative.org/act-methodologies/>.

MODULES	ELECTRIC UTILITIES
1. Targets	20%
2. Material Investment	35%
3. Immaterial Investment (R&D)	10%
4. Sold Product Performance	0%
5. Management	20%
6. Supplier Engagement	0%
7. Client Engagement	0%
8. Policy Engagement	5%
9. Business Model	10%

GHG INTENSITY TRAJECTORY

For the ACT-DDP experiment in Brazil and Mexico, the DDP Initiative developed sectoral decarbonisation scenarios and trajectories which were then used to define the theoretical carbon budget and related emissions reduction trajectories. These served as the

main benchmarks for assessing quantitative indicators, such as target alignment, the past and future trend for the intensity of emissions and locked-in emissions, among others. The following trajectories were used for the cement sector (see **Figure 3** and **Figure 4**).

Figure 3. DDP Trajectory for Mexico

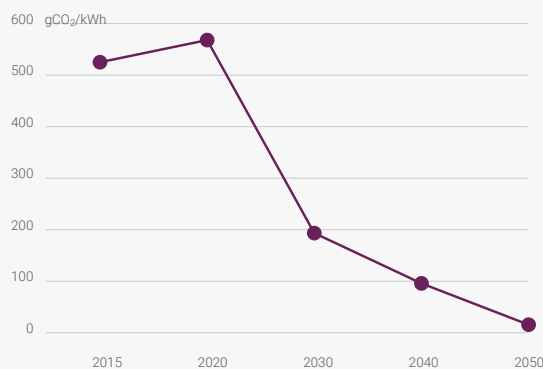
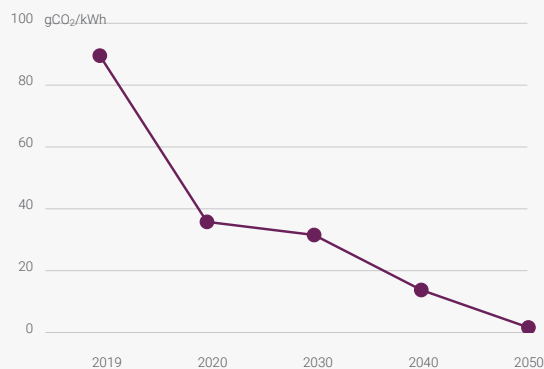


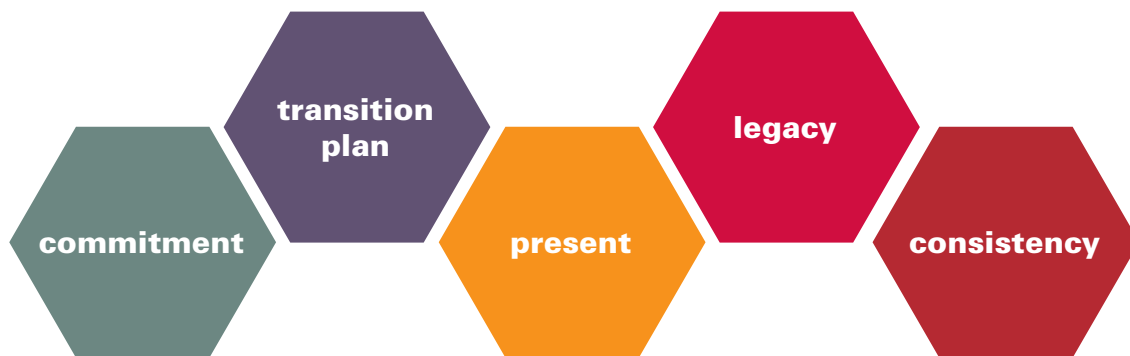
Figure 4. DDP Trajectory for Brazil



ACT LOW-CARBON ALIGNED STATE FOR ELECTRIC UTILITIES COMPANIES

To support the transition of companies in the electricity sector, ACT presents the responses of a low-carbon aligned company operating in the sector to the five questions in the ACT framework: What is the company planning to do? [Commitment], How is the company

planning to get there? [Transition Plan], What is the company doing at present? [Present], What has the company done in the recent past? [Legacy], and How do all of these plans and actions fit together? [Consistency]



1

The company's science-based targets have a time horizon that is longer than the expected retirement age of the majority of the asset portfolio.

2

The company's transition plan lays out the asset investment strategy in multiple 5-year steps to shift the generation portfolio to low-carbon technologies.

3

The investment strategy for new generation capacity and R&D places clear focus on low-carbon alternatives. The company's current generation portfolio leaves enough room in the carbon budget for a flexible investment strategy.

4

The company has demonstrated a trend of decreasing generation's emissions intensity over the past five years, in alignment with the speed of emissions reductions required in the short-term and through deliberate investment decisions.

5

The company's targets, transition plan, actions and legacy show a consistent willingness to achieve low-carbon transition goals. There are no secondary activities, such as coal mining, that clash with the such goals, and no management incentives in place that promote further utilization of fossil fuels.

[1] International standards and regulations (IFRS ISSB, EU CSRD, EFRAG ESRS E1, UK TPT...) and recommendations (TCFD, UNFCCC's Race to Zero) about corporates' climate transition plans should increase the availability of climate data from companies in the coming years.