

ENERGY AND CLIMATE SCENARIOS

Evaluation and guidance

Report by The Shift Project think tank for Afep

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KEY MESSAGES

1

Both energy transition and climate change adaptation are unavoidable challenges to be tackled in the long run. They can occur in a chaotic and uncertain manner and will affect the environment in which corporates operate (operations and markets).

2

Stakeholders, in particular in the financial sector, are increasingly asking companies to provide information regarding their alignment with the Paris Agreement targets. These information however do not cover all the issues at stake and, as such, cannot substitute for a more in-depth analysis carried out by companies.

3

A scenario-based foresight analysis is to consider how an organisation might perform under possible but different futures, each of them described by a scenario. This is an appropriate tool for incorporating energy transition and climate-related issues (mitigation and adaptation) into a company's strategic planning and for understanding the related uncertainties.

4

Public energy-climate scenarios – on which the analyses carried out by companies and their stakeholders are or may be based – are not necessarily designed for this purpose. They come with certain limitations, particularly as regards the choice of input assumptions and the type of models used. Discussions with public scenario producers may help to overcome these difficulties.

5

Given the limitations of public scenarios, companies likely to be particularly affected by energy transition and climate change are recommended to conduct an operational foresight analysis based on in-house scenarios. Such scenarios are first based on a storyline describing the changes in the company's business environment.

6

Once a company has completed an in-house scenario-based foresight analysis, it may disclose information following the TCFD framework and the European Commission new guidelines on reporting climate-related information (that supplement the guidelines on non-financial reporting).

1

An unstable business environment

Over the years to come, the necessary energy transition and adaptation to climate change's consequences will play a major role in public and private organisations' decisions, and companies in particular.

The transformations required to meet the Paris Agreement targets are of such scale that they are an unprecedented challenge for economic players.

These transformations may be chaotic, with far-reaching technological, political, economic and social disruptions. To cope with the inevitable upheavals, companies need to develop an in-depth knowledge of how their own business model could be impacted by energy and climate change-related issues.

2

Incomplete approaches

To date, these financial stakeholders – among which rating agencies and investors – have rarely asked companies about their foresight analyses, instead favouring a "reporting" approach. When they do decide for long-term analysis, these actors readily adopt a normative sector-based approach (using "2°C pathways" for example, which are often incorrectly referred to as "2°C scenarios"). Rating agencies do not directly integrate scenario analysis into their credit rating methodology. Instead, they develop analytical services based on certain public energy-climate scenarios (e.g. those of the International Energy Agency).

For companies, complying to this kind of request from financial stakeholders can be justified by reporting requirements and the need for comparability with competitors on the market. Nonetheless, such approaches remain incomplete and are not a substitute for a comprehensive in-depth strategic assessment focused on the challenges of the ongoing energy revolution.

Main steps of the scenario planning process



3 Anticipate the future, support decision

The main goals of foresight scenario analysis are to develop different but possible views of the future (described by scenarios) and to assess their impacts on the robustness and the resilience of an organisation. This method has gained recognition for modelling access to resources for an organisation within an uncertain future (it has been used for example in wartime economy and reconstruction planning). Energy operators, including oil and gas companies, frequently use this method as well.

Applying scenario-based foresight analysis to energy transition and climate-related issues offers multiple valuable ways of helping companies' managers to identify business disruptions, manage uncertainties and finally build more robust strategies.

Yet the surveyed companies still claim to lack methods to conduct such foresight analyses and to assess energy transition and climate change impacts on their own activities and business model.

5 Tailored in-house scenarios

The advantage of in-house scenarios is to focus specifically on the issues affecting the company. They are primarily based on a storyline. However, they may also include quantitative elements that describe company specific factors (such as the "physical" determinants underpinning its activities and demand for its products and services).

Companies of different sizes and from various sectors have embarked on this approach, devoting a fair amount of resources to it. Design and use of in-house scenarios are also a source of motivation and guidance to all the company employees. Both executive management and business units play a decisive role in terms of raising the necessary awareness within organisations, initiating the process and developing in-house skills.

4 Inadequate public scenario offer

A scenario describes, for issues at stake, a possible future and the pathway that leads to it. Many stakeholders (international organisations, research centres, companies and NGOs) produce scenarios describing futures affected by the energy transition and climate change. So far, these scenarios have mainly been designed for public policies assessment or academic researches. As they stand, they have not been made to be used by companies.

For example, beyond data issue (availability and use), these scenarios often do not describe plausible disruptions (political, economic, societal) nor include a detailed "storyline" which grants meaning to the underlying assumptions.

Most scenario producers are aware of the difficulties that companies face. They are willing to work with them to build more accessible public energy-climate scenarios that meet their needs.

6 A communication under control

The purpose of conducting scenario-based foresight analyses is to meet an internal strategic need of the company, focused on its own challenges and environment. Whatever may be the approach, it will produce a number of deliverables for use by the company's executive management.

Some of the information contained in these deliverables is not intended to be disclosed, while some of it can be, depending on the company's requirements with regard to its stakeholders. For example, it is recommended to disclose a description of the scenario analysis process applied, a summary of the scenario narratives studied, as well as the main results concerning the business model resilience. By design, a foresight analysis enables a company to objectively study several futures – desirable or not – without committing the company to follow a specific pathway.

If energy-climate issues, erratic but unavoidable, are to be better understood and incorporated into decision-making processes, companies must implement rational and objective methods to analyse the future and build confidence both within and outside the company.

An essential step is to identify the determining factors which could be significantly affected by climate change and low carbon transition among all factors that shape company activities and markets. As a matter of priority, the scenarios used by the company should describe different evolution pathways for these determining factors, desirable or not.

Scenario-based foresight analysis is accessible to all companies. It requires however a significant commitment from the executive management and business units, with sharp-cut steering. This is essential for the challenge to be met.

The scenario analysis method is an effective way for companies to integrate energy transition and climate change-related issues in their strategy. It helps them establish key information on their business model evolution, particularly for investors and rating agencies.

15 AFEP Member Companies have played a key role to launch this study which began in September 2018 and ended in June 2019.

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