United States House of Representatives
Select Committee on the Climate Crisis

Hearing on July 25, 2019
"Creating a Climate Resilient America:
Business Views on the Costs of the Climate Crisis"

Questions for the Record

Paula DiPerna
Special Advisor
CDP North America

The Honorable Kathy Castor

1. Many companies in the European Union are capitalizing on climate-related opportunities. What are some of the policies the EU has enacted to support businesses opportunities in addressing climate change and how can the United States learn from these successes?

First and foremost, the EU has set clear and coherent emissions reductions targets and goals consistent with the Paris Agreement. Each nation within the EU has its own nationally determined contribution, of course, but the EU overall has set reduction targets. All nations in the EU, therefore, are on the same "carbon diet." With a clear horizon line for reductions, companies can make intelligent investment decisions about when, how and where to achieve these reductions consistent with these targets. In turn, this regulatory certainty enables a longer term planning horizon for companies, which in turn enables them to make investments without concern that the return on investment has to be too short term to show profit.

Specifics on the EU targets can no doubt be found via the US Foreign Service and US Ambassador to the United Nations.

Policies on the financial front are of equal interest. The EU is making considerable efforts to make sure that basic investment vehicles and standards take climate change risks into account. In France, for example, companies are asked to show how their investment portfolios align with the national reduction target and other risk-related assessment concerning natural resource use, inside and out of France.

Also of considerable policy relevance is the European Commission High-Level Expert Group on Sustainable Finance (HI-LEG), which has examined and/or instituted numerous policies aimed at integrating climate risk considerations, and opportunities, throughout the investment landscape.
U High-Level Working Group on Sustainable Finance. The final report of HILEG can be found here: https://ec.europa.eu/info/publications/180131-sustainable-finance-report_en

Of particular note is the move toward integrating climate risk through investment benchmark standards, which I referenced in my comments at the Select committee hearing in July 2019 To expand on those remarks regarding benchmarks, significant changes are underway to ensure the accuracy and integrity of the main categories of low-carbon benchmarks used in individual or collective investment portfolios by establishing two types of financial benchmarks: 1) EU climate transition benchmarks, which aim to lower

the carbon footprint of a standard investment portfolio. More precisely, this type of benchmarks should be determined taking into account companies that follow a measurable, science-based "decarbonisation trajectory" by end-2022, in light of the long-term global warming target of the Paris agreement; and 2) EU Paris-aligned benchmarks, which have the more ambitious goal to select only components that contribute to attaining the 2°C reduction set out in the Paris climate agreement.

In addition, there would be an obligation for all benchmarks or families of benchmarks to provide an explanation of how environmental factors are reflected in their investment strategy, as well as how the methodology aligns with the target of reducing carbon emissions.

The intention of these benchmarks is to provide greater transparency and information for investors on the carbon intensity or "carbon risk" or "carbon footprint" of a given investment option.

Companies that do not meet the criteria for the new climate-sensitive benchmarks will be excluded from eligibility. So, to avoid exclusion, no doubt US public companies will try to come into alignment. This begs the question of why then would their not be comparable efforts in the US so that a US-based company would be able to meet a single set of global minimum standards, which would reduce uncertainty and operational dissonance, not to mention reduce compliance review costs.

And disclosure regimes in the EU will track with new regulatory requirements, so companies will be required to disclose to the public and investors the degree to which their activities are aligned with the objectives of the above changes. Many of these requirements are enshrined already in the recommendations of the TCFD (Task Force on Climate Related Disclosure). CDP, which is a voluntary quantitative and qualitative global disclosure system, has aligned its annual questionnaire with TCFD requirements already, so companies disclosing to CDP, including in the US, are better prepared than others to align and comply with emerging requirements.
In the US, we have no comparable coherent policy efforts that integrate the exigencies of climate with investment frameworks and some would argue this can leave US companies exposed to hidden climate risks—not to seek out may mean not to see.

2. Why are companies increasingly setting internal carbon prices and science-based targets?

On Carbon Pricing: CDP has been tracking use of internal carbon prices by US based companies since 2013 (https://www.nytimes.com/2013/12/05/business/energy-environment/large-companies-prepared-to-pay-price-on-carbon.html) Since this 2013 report, the number of companies using an internal carbon price has only risen. Reasons companies use such prices vary: 1) to comply with existing mandatory cap-and-trade or carbon tax regimes in jurisdictions where same apply, such as the EU; 2) to prepare for mandatory regulation, since most far-sighted companies expect such regulation to occur, even if they do not press for it; 3) for internal planning and/or reward systems to encourage reductions among staff and/or budget considerations. For examples, some companies such as Microsoft, which pioneered internal carbon pricing, put each department in the company on a "carbon diet" and tie budget allocation to a department's ability to reduce its ghg emissions/unit of production, etc. These segmented reductions then add up to a company-wide reduction strategy, incentivized by an internal carbon price where planning occurs "as if" each tonne of ghg emitted carried a higher cost than is today visible. (For further info See link below to CDP Carbon pricing report, 2017)

Most importantly, internal carbon prices are an emerging international financial tool and lingua franc that that helps companies price and gauge the financial costs of inaction as well as the premium attached to taking action. No matter the currency or price level used, only carbon prices can link financial implications to the actual physical problem—reducing tonnage of greenhouse gases going up into the atmosphere. Carbon pricing is quite literally becoming the coin of the realm.

Carbon prices are levied on a per tonne basis, and no matter what country, a tonne is a tonne is a tonne. Marrying this fixed physical unit to a price per that unit helps make it possible to compare relative costs and activities across companies, and within companies. And whether there are regulatory drivers that have created regulated carbon markets, such as in Europe with the European Union Emissions Trading Scheme, or in California, or in the northeast with RGGI, or individual state-based programs, or whether carbon pricing is purely a voluntary act of strategic and prudent planning, more and more companies are translating the language of tonnage to the language of costs via the mechanism of carbon pricing.

And whereas companies may express their internal carbon prices in local currencies for internal planning purposes only, as regulatory regimes emerge worldwide, ultimately those prices will be expressed in international currencies and become fungible. Companies that have acted early on carbon pricing will have their carbon accounting well in order—their diet plan in hand with a good grip on what it may cost.

Perhaps most to the post the standardized information in the CDP report enables investors to compare one company to another on environmental risk, to measure a company's progress over time, and to make investment decisions based on actual costs.

The extensive use of carbon pricing by companies suggest that they are increasingly preparing for the demands of a low-carbon economy and the extraordinary opportunities inherent in shifting away from a negative to positive. The less emissions, the less cost.

Through carbon pricing, the world speaks the same language and that can only help companies plan and be prepared for the unpredictable nature of climate risk, and think ahead to the significant opportunities that attend climate change intervention, innovation and technology shift.

On Science-Based Targets: Companies are increasingly setting science-based targets for similar reason as internal carbon prices: to conform corporate energy use and emissions patterns to the realities of climate science and predicted extremes of weather, supply chain disruption etc. Since the Paris agreement itself has a broad science-based target, complying with Paris means each company needs to manage its own "slice" of that target. Also, as noted above, various benchmarks and investor esg requirements are increasingly asking whether companies have science-based targets and the HILEG revised benchmarks will make science-based planning mandatory. In short, having a science-based target is increasingly necessary to attract investment in jurisdictions outside the US. Since most companies are now global, companies must conform to the highest standards regardless of home base.

3. Can you discuss CDP's matchmaker program and provide some examples of these projects?

What is Matchmaker?

Matchmaker is a specialized dashboard aimed at illuminating to potential investors climate-change related infrastructure projects that likely face a funding shortfall, but which represent significant environmental needs. Matchmaker cities disclose to CDP through the CDP-Cities program, and Matchmaker deepens their disclosure on infrastructure needs related to climate change. Many cities worldwide, including in the US, seek to implement local policies and infrastructure projects that address climate change and build resilience. But these projects are often isolated from basic economic development planning, and also from the investor community.

Matchmaker aims to bridge this divide. Launched in 2017, it provides subscribers with information on climate resilient infrastructure projects in cities through a specialized dashboard. Using data from 570

cities, collected through CDP, Matchmaker works with cities to highlight projects in flood control, waste management, sustainable transportation, renewable energy, water management, and energy efficiency and links them to the investment community. It serves as an important clearinghouse to provide cities with a streamlined pathway to showcase planned projects to the finance sector and better position them to mitigate against and adapt to climate change.

Another way of looking at this is that the Matchmaker pipeline represents a visible portion of the pending demand and need for project funding that could be met by private, public or innovative hybrid sources.

See Matchmaker Website (https://www.cdp.net/en/cities/matchmaker).

Potential subscribers include:

- Municipal banking
- Municipal bonds/municipal fixed income
- Impact/responsible investing
- Infrastructure/project finance
- Renewable energy development
- Corporate social responsibility teams
- Project developers
- Risk teams
- Credit rating agencies

Project types include:

- Renewable energy
- Energy efficiency
- Outdoor lighting
- Building retrofits
- Water management
- Stormwater retention/flood control
- Urban resiliency
- Greenspace/tree planting
- Waste management
- Waste recycling
- Urban planning/assessment

Current subscribers:

- Bank of America
- HSBC
- S&P Global

Quick facts on US coverage in 2018

- United States
    - 314 projects from 98 cities
    - 161 total cities disclosed
    - $15.2 billion USD pipeline
    - Average project $86 million

Matchmaker events thus far in 2019:

- Washington D.C.
- Toronto
- New York
- Cleveland
- Chicago

Information on Dashboard includes:

- 2018 project disclosure from disclosure cycle
- 2017-2019 project disclosure from Matchmaker
- City-wide emissions
- City-wide emissions by sector
- Local government emissions
- City-wide emissions reduction targets
- Change in community emissions
- City climate change action plans
- City-wide emissions reduction activities by sector
- Renewable energy & electricity targets
- City climate hazard disclosure
- Impact of climate hazards by anticipated timescale
- City vulnerability assessments
- City adaptation plans
- City adaptation actions to reduce vulnerability by hazard type
- Municipal water risks
- Water adaptation actions by water risk

Selected actual Projects* on Matchmaker dashboard from the Unites States (at 30 Aug 2019)
*For city locations and further details, contact paula.diperna@cdp.net

Sample CDP Matchmaker Projects – US solar and water focus

- **98 US cities** reported **314 projects worth $15.2bn** seeking investment through the annual disclosure to CDP.
- Of the 314 projects, 58 are renewable energy projects, 51 are energy efficiency projects, and 20 are water management projects.
- 19 US projects have been submitted through our more detailed project intake process. These projects are updated on a rolling basis.

Project Sector	**Status of Project**	**Total cost of project (USD)**	**Project Description**
Renewable energy	Operation	10,000,000	2 MW initial solar farm for City electric utility. There is an additional 8 to 10 MW opportunity on reclaimed city land fill.

Renewable energy	Scoping	10,000,000	Series of solar energy and energy resilience investments for County facilities
Renewable energy	Not reported	10,000,000	The City already has over 100,000 sq.ft. of green roofs and an additional 200,000 sq.ft. of parking garage roofs, both of which would be excellent candidates for large solar installations. Very few solar arrays have been installed to date, but zoning ordinances have been adjusted to allow for them. These roofs could potentially provide 1 megawatt of power. At an estimated cost of $10/watt this would come to $10,000,000.
Waste recycling/renewable energy	Implementation	8,000,000	Match funds for a waste-to-energy project at the Water Pollution Control Plan to install a bio-digester to use food waste, organic fraction, and other bio-solids to create gas for CNG fuel or to generate electricity.
Waste management	Not reported	7,000,000	The City desires a biogas digestion plant to reduce biosolid landfilling, reduce carbon emissions, and creating a sustainable source of independent energy. The City owns and operates its advanced wastewater treatment plant (AWWTP), which processes waste from the City and portions of OTHER CITIES. A biogas digester could save up to 85% of emissions, which would be nearly 15,000MTON of CO2 mitigated. Furthermore, it could power nearly all of the AWWTP's energy needs and potentially sell energy back to the grid providing additional revenues
Renewable energy	Pre-implementation	5,000,000	The City is looking to use power purchase agreements to increase solar on public buildings without upfront capital costs.
Energy efficiency/ retrofits	Scoping	5,000,000	Municipal building facility assessments, r etrofits and energy performance contracting.

Renewable energy, energy efficiency/retrofits	Pre-implementation	5,000,000	Installation of solar PV, battery storage and deep de-carbonization/energy efficiency retrofits to create a Zero Net Energy facility with microgrid on the City's Main Library. Would include electrification of all water heating and HVAC.
Renewable energy	Scoping	4,000,000	5 solar PV sites for a total of 1.1 MW. Prefer PPA arrangement with buyout option. Some self-financing may be involved. Sites are municipal facilities.
Renewable energy	Implementation	4,000,000	Solar PV and battery storage for the NAME Water Pollution Control Plant. Current project funding obtained from [STATE SOURCE] to create 1 Megawatt of power generation, comprising 60% of the plant's electricity needs. The City wants to add additional PV generation to provide a basis for microgrid (solar + storage) installation

References Page

CDP Archives and Key Reports:

Report on Risks and Opportunities Associated with Climate Change as Disclosed by Companies, 2018

https://www.cdp.net/en/research/global-reports/global-climate-change-report-2018/climate-report-risks-and-opportunities

CDP Report on ESG and role of Boards of Directors/Investor expectations

https://6fefcbb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/891/original/CDP-US-Report-2017-v2.pdf?1519227634

CDP Report on Use of Internal Carbon Pricing, 2017

https://www.cdp.net/en/climate/carbon-pricing

CDP Report on Mainstreaming of Low Carbon on Wall Street, 2015

https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/000/783/original/CDP-USA-climate-change-report-2015.pdf?1471960506

For further information see: www.cdp.net

Also contact: Paula DiPerna, Special Advisor, CDP: paula.diperna@cdp.net