Linking CDP and IIGCC's Investor Expectations of Electric Utilities Companies

Which CDP data points align with the expectations and guiding questions of the Global Investor Coalition on Climate Change's Investor Expectations of Electric Utilities Companies?

In order to assist investors in identifying relevant information on carbon asset risk within CDP's dataset and better inform their engagement activities with electric utilities companies, this document highlights relevant questions from CDP's climate change and water questionnaires against the investor expectations and guiding questions outlined in the GIC's *Investor Expectations of Electric Utilities Companies: Looking down the line at carbon asset risk*.

The number of electric utility company responses received by CDP in 2015 to the questions highlighted in the table below is indicated in parentheses. In total, 94 out of 325 invited electric utility companies responded to CDP's 2015 climate change questionnaire, and 31 out of 92 invited electric utility companies responded to CDP's 2015 water questionnaire.[1] This year, companies have till 30 June, 2016, to respond to CDP's 2016 climate change and water questionnaires.

[1] Please contact investor@cdp.net to find out more about CDP data.

Linkage table

Expectations and guiding questions from the IIGCC's Investor Expectations of Electric Utilities Companies	Relevant questions from CDP's 2016 climate change questionnaire and water questionnaire.
1. Governance	

EXPECTATION: We expect electric utilities to clearly define board and executive management responsibilities, capabilities and systems for managing the transition to a low-carbon, resource efficient power system. We expect senior accountability for managing climate-related risks and opportunities and for setting a viable long term strategy.
 	
QUESTIONS:
 	
Organization
• Who is responsible for managing climate risk?
• How are the impact of regulatory drivers and disruptive technology factored into business strategy and what expertise is drawn upon?
 	
Remuneration & KPIs
• Which other metrics or targets consider climate change, environmental risks and opportunities including managing the transition to a decentralised, resource efficient energy system?
	Group and Individual Responsibility
	• CC1.1 Where is the highest level of direct responsibility for climate change within your organization?
	  ○ (94 electric utility company responses in 2015)
	
	• CC1.1a Please identify the position of the individual or name of the committee with this responsibility
	  ○ (89 electric utility company responses in 2015)
	
	• W6.1 Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?
	  ○ (31 electric utility company responses in 2015)
	
	Individual Performance
	• CC1.2 Do you provide incentives for the management of climate change issues, including the attainment of targets?
	  ○ (91 electric utility company responses in 2015)
	
	• CC1.2a Please provide further details on the incentives provided for the management of climate change issues
	  ○ (68 electric utility company responses in 2015)
	
	• W6.2a Please choose the option(s) that best explains how water has positively influenced your business strategy [*Companies can specify that they have water management incentives*]
	  ○ (29 electric utility company responses in 2015)

	Risk Management Approach
	• CC2.1 Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities
	  ○ (94 electric utility company responses in 2015)
	
	• CC2.1a Please provide further details on your risk management procedures with regard to climate change risks and opportunities
	  ○ (86 electric utility company responses in 2015)
	
	• CC2.1b Please describe how your risk and opportunity identification processes are applied at both company and asset level
	  ○ (86 electric utility company responses in 2015)
	
	• CC2.1c How do you prioritize the risks and opportunities identified?
	  ○ (84 electric utility company responses in 2015)
	
	• CC2.1d Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in the future
	  ○ (5 electric utility company responses in 2015)
	
	Water Risk Assessment - Procedures and requirements
	• W2.1 Does your organization undertake a water-related risk assessment?
	  ○ (31 electric utility company responses in 2015)
	
	• W2.2 Please select the options that best describe your procedures with regard to assessing water risks

	○ (30 electric utility company responses in 2015) • W2.3 Please state how frequently you undertake water risk assessments, what geographical scale and how far into the future you consider risks for each assessment ○ (30 electric utility company responses in 2015) • W2.4 Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy? ○ (28 electric utility company responses in 2015) • W2.5 Please select the methods used to assess water risks ○ (30 electric utility company responses in 2015)
2. Decarbonization Strategy & 2 degree stress testing	
EXPECTATION: We expect electric utility companies to have a clear long-term decarbonisation strategy (i.e. from coal to gas to renewables) that reflect decreasing carbon intensity and include plans for how to deal with a future carbon price that more accurately prices the negative externalities of carbon emissions. We acknowledge that traditional power generation will continue to play a role in the energy mix for some years to come. However, we would like to see a 2 degree (or 1.5 degree) stress test or published assessment setting out how a company's portfolio are consistent with this trajectory. **QUESTIONS:** **Future power generation mix** • What is the company's actual and projected generation mix? Does the company have energy efficiency and GHG emission reduction targets in place? How does the company track	**Business Strategy** • CC2.2 Is climate change integrated into your business strategy? ○ (94 electric utility company responses in 2015) • CC2.2a Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process ○ (91 electric utility company responses in 2015) • CC2.2b Please explain why climate change is not integrated into your business strategy ○ (3 electric utility company responses in 2015) • CC2.2c Does your company use an internal price of carbon?

performance against these targets both for the company overall and for the energy supply type? Are these aligned with national and international science-based targets for GHG reduction?
- Does the company use an internal or shadow carbon price to influence business decisions? Is this public?
- How are the capex plans determined and how are they splits between regulated and unregulated returns and different energy investments

Scenarios

- Has the company undertaken a 2 degree (or 1.5 degree) scenario stress test?
- Does the company assess the impacts of such scenarios on the company's full portfolio of power generation assets and planned capital expenditures through 2040, including the financial risks associated with such scenarios?
- How robust is the strategy to technology developments such as carbon capture and storage, battery storage or water supply?

Management of legacy assets

- Is there a timeline for the phase out of coal-fired power plants?
- How is the company revaluing assets as projected closure dates approach to avoid large, sudden write-downs?
- How is the company managing capital provisioning for site remediation?

  - (87 electric utility company responses in 2015)

- CC2.2d Please provide details and examples of how your company uses an internal price of carbon
  - (46 electric utility company responses in 2015)

Emissions Reduction Targets

- CC3.1Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?
  - (93 electric utility company responses in 2015)

- CC3.1a Please provide details of your absolute target [*Including whether it is a science-based target*]
  - (48 electric utility company responses in 2015)

- CC3.1b Please provide details of your intensity target [*Including whether it is a science-based target*]
  - (38 electric utility company responses in 2015)

- CC3.1c Please also indicate what change in absolute emissions this intensity target reflects
  - (38 electric utility company responses in 2015)

- CC3.1d Please provide details of your renewable energy consumption and/or production target
  - (New question for CDP 2016)

- CC3.1e For all of your targets, please provide details on the progress made in the reporting year

	○ (In 2015 this was question number CC3.1d; 64 electric utility company responses in 2015) • CC3.1f Please explain: (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years ○ (In 2015 this was question CC3.1e; 29 electric utility company responses in 2015) **Emissions History** • CC12.1 How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year? ○ (91 electric utility company responses in 2015) • CC12.1a Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year ○ (85 electric utility company responses in 2015) **Emissions Intensity** • CC12.2 Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue ○ (84 electric utility company responses in 2015) • CC12.3 Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

	○ (In 2015 this was question CC12.4; 80 electric utility company responses in 2015) **Global capacity and production totals** • EU1.1 In each column, please give a total figure for all the countries for which you will be providing data [*This includes nameplate capacity (MW), production (GWh), absolute emissions (mtCO2e) and emissions intensity (mtCO2e/MWh*] ○ (76 electric utility company responses in 2015) **Individual country capacity and production profiles** • EU2.1 Please select the energy sources/fuels that you use to generate electricity in this country [*Companies complete this question for each country in which they operate by selecting from following energy source/fuel options: Coal – hard; Lignite; Oil & gas (excluding CCGT); CCGT; Waste; Nuclear; Hydro; Other renewables and Other. They then fill out tables with nameplate capacity, production, absolute emissions, and the emissions intensity of each energy source/fuel for each country*] ○ (73 electric utility company responses in 2015) **Renewable electricity sourcing regulations** • EU3.1a Please provide the scheme name, the regulatory obligation in terms of the percentage of renewable electricity sourced (both current and future obligations) and give your position in relation to meeting the required percentages

	○ (35 electric utility company responses in 2015) **Renewable electricity development** • EU4.1 Please give the contribution of renewable electricity to your organization's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) in the current reporting year in either monetary terms or as a percentage ○ (46 electric utility company responses in 2015) • EU4.2 Please give the projected contribution of renewable electricity to your organization's EBITDA at a given point in the future in either monetary terms or as a percentage ○ (41 electric utility company responses in 2015) • EU4.3 Please give the capital expenditure (capex) planned for the development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan ○ (47 electric utility company responses in 2015) **Water Governance & Strategy** • W6.2 Is water management integrated into your business strategy? ○ (31 electric utility company responses in 2015) • W6.2a Please choose the option(s) that best explains how water has positively influenced your business strategy ○ (29 electric utility company responses in 2015)

	Water Risk Assessment - Procedures and requirements
	• W2.4 Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?
	  ○ (28 electric utility company responses in 2015)
	• W2.4a Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?
	  ○ (27 electric utility company responses in 2015)
	• W2.4b What is the main reason for not having evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?
	  ○ (1 electric utility company response in 2015)
	• W2.6 Which of the following contextual issues are always factored into your organization's water risk assessments? [*In this question companies can describe scenario analysis of water availability of sufficient quantity and quality, regulatory and/or tariff changes at a local level, stakeholder conflicts concerning water resources at a local level, implications of water on your key commodities/raw materials, and potential changes in the status of ecosystems and habitats at a local level*]
	  ○ (31 electric utility company responses in 2015)

3. Consumer-facing strategy	
EXPECTATION: The rise of distributed generation presents both challenges and opportunities. We expect electric utilities to	**Renewable electricity development** • EU4.3 Please give the capital expenditure (capex) planned for the

consider how their strategy could diversify their revenue streams (e.g. energy services), monetise retail customer base, capitalise on digitalisation (e.g. Smart Home) and/ or invest in grid efficiency and flexibility. **QUESTIONS:** **Business model innovation** • Does the company offer demand response and energy efficiency programs to customers? Is the company growing its energy services business? Are there any plans to compete directly or develop business partnerships to promote distributed generation (e.g. getting into rooftop solar business) or energy efficiency and what are the regulatory hurdles (if any) to doing so? • Does the company have a comprehensive client relationship management approach (e.g. regular client satisfaction measurement) • What is the Smart Meter penetration amongst the company's client base? And how closely is the performance of this new technology being evaluated with customers? • Does the company offer demand response and energy efficiency programs to customers? Is the company growing its energy services business? How much electricity does the company help its customers save as a percent of total electricity sales? • What is the capex level for smart grids and energy storage solutions?	development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan ○ (47 electric utility company responses in 2015)
4. Operational efficiency and natural resource management	
EXPECTATION: We expect electric utilities to strive for operational excellence at their thermal generation assets. This includes having quantified thermal efficiency targets, upgrading coal-fired power plants to higher thermal efficiency plants and sourcing coal	**Emissions Reduction Targets & Emissions Intensity** • See the targets and intensity questions in section CC3 and CC12 of the climate change questionnaire

responsibly. Using other resources sustainably, including water, is of growing importance to the sector as growing water insecurity and regulatory uncertainty can materially impact operations.[2] **QUESTIONS:** **Upgrade of coal-fired power plants** • What are the thermal efficiency rates per plant and on group level and forward targets? • What technologies are in employed e.g. abatement technologies for GHG, VOC, mercury and selective catalytic reduction (SCR) technology) in company's coal-fired power plants/ co-generation (combined heat and power) / biomass co-firing? **Water use** • Have you assessed the physical, regulatory and reputational water risks within the water catchments or basins where you (will) operate or buy electricity supplies from over the next 20 years? • What proportion of your current and future assets are exposed to water risks? Do you report these risks and opportunities?	(these are outlined in detail above in reference to section 2. 'Decarbonization Strategy & 2 degree stress testing'. **Company-wide water accounting** • W1.2 For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not [*This includes water withdrawal, discharge and consumption]* ○ (28 electric utility company responses in 2015) **Supplier reporting (water)** • W1.3 Do you request your suppliers to report on their water use, risks and/or management? ○ (23 electric utility company responses in 2015) • W1.3a Please provide the proportion of suppliers you request to report on their water use, risks and/or management and the proportion of your procurement spend this represents ○ (11 electric utility company responses in 2015) • W1.3b Please choose the option that best explains why you do not request your suppliers to report on their water use, risks and/or management ○ (11 electric utility company responses in 2015) **Business impacts (water)**

[2] According to CDP, half of all respondents in the Utilities sector experienced detrimental impacts related to water in the reporting year, the highest of any sector. CDP "From water risk to value creation" (2014)

	• W1.4 Has your organization experienced any detrimental impacts related to water in the reporting year?
	  ○ (31 electric utility company responses in 2015)
	
	• W1.4a Please describe the detrimental impacts experienced by your organization related to water in the reporting year
	  ○ (11 electric utility company responses in 2015)
	
	• W1.4b Please choose the option below that best explains why you do not know if your organization experienced any detrimental impacts related to water in the reporting year, and any plans you have to investigate this in the future
	  ○ (0 electric utility company responses in 2015)
	
	Procedures and requirements (water)
	• W2.1 Does your organization undertake a water-related risk assessment?
	  ○ (31 electric utility company responses in 2015)
	
	• W2.2 Please select the options that best describe your procedures with regard to assessing water risks
	  ○ (30 electric utility company responses in 2015)
	
	• W2.3 Please state how frequently you undertake water risk assessments, what geographical scale and how far into the future you consider risks for each assessment
	  ○ (30 electric utility company responses in 2015)
	
	• W2.4 Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?
	  ○ (28 electric utility company responses in 2015)

	• W2.4a Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?
	  ○ (27 electric utility company responses in 2015)
	• W2.4b What is the main reason for not having evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?
	  ○ (1 electric utility company response in 2015)
	• W2.5 Please select the methods used to assess water risks
	  ○ (30 electric utility company responses in 2015)
	• W2.6 Which of the following contextual issues are always factored into your organization's water risk assessments
	  ○ (30 electric utility company responses in 2015)
	• W2.7 Which of the following stakeholders are always factored into your organization's water risk assessments?
	  ○ (30 electric utility company responses in 2015)
	• W2.8 Please choose the option that best explains why your organisation does not undertake a water-related risk assessment
	  ○ (1 electric utility company response in 2015)
	Water risks
	• W3.1 Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?

	○ (31 electric utility company responses in 2015) • W3.2 Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk ○ (30 electric utility company responses in 2015) • W3.2a Please provide the number of facilities per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure and the proportion this represents of total operations company-wide ○ (22 electric utility company responses in 2015) **Targets and initiatives (water)** • W8.1 Do you have any company-wide targets (quantitative) or goals (qualitative) related to water? ○ (30 electric utility company responses in 2015) • W8.1a Please complete the following table with information on company-wide quantitative targets (ongoing or reached completion during the reporting year) and an indication of progress made ○ (18 electric utility company responses in 2015) • W8.1b Please describe any company-wide qualitative goals (ongoing or reached completion during the reporting year) and your progress in achieving these [*Companies can specify goals related to watershed remediation and habitat restoration, ecosystem preservation*] ○ (22 electric utility company responses in 2015) • W8.1c Please explain why you do not have any water-related targets

	or goals and discuss any plans to develop these in the future ○ (7 electric utility company responses in 2015)
5. Public policy	
EXPECTATION: We expect electric utilities to ensure broad oversight and transparency of their positions regarding any relevant environmental legislation and of any lobbying activities directly or via trade associations or political spending at the national and international level. Where companies have come out in broad support of carbon pricing or the Paris Agreement, they must also engage with policy makers in support of cost-effective policy measure to mitigate climate change risks and support low carbon investments. They should likewise ensure that the company does not lobby against these positions, directly or indirectly via associations it belongs to.[3] **QUESTIONS:** **Policy positions** • What is the company's position on specific matters of climate and energy policy (e.g. capacity payments, renewables subsidies, energy-efficiency targets, carbon price, carbon tax, reform to local carbon markets, GHG reduction targets)? • How are these positions made public? • Is the company playing a leadership role to help ensure policy makers determine sustainable policies that will serve the long-term interests of investors?	**Engagement with Policy Makers** • CC2.3 Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? [*Companies select from: Direct engagement with policy makers, Trade associations, Funding research organizations, Other and No*] ○ (92 electric utility company responses in 2015) • CC2.3a On what issues have you been engaging directly with policy makers? ○ (78 electric utility company responses in 2015) • CC2.3b Are you on the Board of any trade associations or provide funding beyond membership? ○ (70 electric utility company responses in 2015) • CC2.3c Please enter the details of those trade associations that are likely to take a position on climate change legislation ○ (59 electric utility company responses in 2015)

[3] A group of 53 investors representing more than $US 3.3 trillion in AUM have recently released a statement addressed to companies asking for consistent policy engagement in support of a safe climate which protects long-term investment value – see *Investor Expectations on Corporate Climate Lobbying* http://unpri.org/corporateclimatelobbying

Activity

- How does your company conduct engagement with policy makers on a national and international level?
- How much is spent on lobbying activity and how is this spending broken down?
- Describe your engagement with policy makers directly on specific climate and energy and water policies described above?

Alignment

- What industry associations does your company have links with (including trade associations, chambers of commerce and business forums)?
- What is the governance process for managing these relationships?
- Does your organisation participate in any committee or hold board level roles at these trade associations or in other high profile fora?
- What are each association's positions on specific climate and energy and water policies (e.g. capacity payments, renewables subsidies, energy-efficiency targets, carbon price, carbon tax)?
- How do you ensure consistency between your company's own public positions on climate change or water security and those articulated by your trade associations and what actions are you prepared to take where there is a misalignment?

- CC2.3d Do you publicly disclose a list of all the research organizations that you fund?
  - (58 electric utility company responses in 2015)

- CC2.3e Please provide details of the other engagement activities that you undertake
  - (In 2015 this was question CC2.3g; 41 electric utility company responses in 2015)

- CC2.3f What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?
  - (In 2015 this was question CC2.3h; 87 electric utility company responses in 2015)

- CC2.3g Please explain why you do not engage with policy makers
  - (In 2015 this was question CC2.3i; 2 electric utility company responses in 2015)

Governance & Strategy (water)

- W6.3 Does your organization have a water policy that sets out clear goals and guidelines for action?
  - (30 electric utility company responses in 2015)

- W6.3a Please select the content that best describes your water policy (tick all that apply)
  - (23 electric utility company responses in 2015)

- W6.2a Please choose the option(s) that best explains how water has positively influenced your business strategy [*Companies can specify*

	that they align public policy positions with water stewardship goals] ○ (29 electric utility company responses in 2015) **Targets and initiatives** • W8.1b Please describe any company-wide qualitative goals (ongoing or reached completion during the reporting year) and your progress in achieving these [*Companies can specify goals related to engagement with public policy makers to advance sustainable water policies and management*] ○ (22 electric utility company responses in 2015)
6. Transparency & disclosure	
EXPECTATION: We expect electric utilities to disclose in annual reports and/or on their corporate website or through CDP, the company's view of and response to the substantial changes in their industry, what kind of scenarios and assumptions are being used, how the risks are addressed and how the company plans to profit from arising opportunities in response to the expectations and questions outlined in the document above. This information should be disclosed in a timely and complete manner.	**Communications** • CC4.1 Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s) ○ (93 electric utility company responses in 2015) As illustrated in this document, the CDP climate change and water questionnaires provide a consistent and comparable reporting platform for electric utility companies to provide environmental and carbon asset risk information to investors. In 2015, 94 out of 325 invited electric utility companies responded to CDP's climate change questionnaire, and 31 out of 92 invited electric utility companies responded to CDP's 2015 water questionnaire. Companies have till 30 June, 2016, to respond to CDP's 2016 climate change and water questionnaires.