



# Clearway Energy, Inc.

## Climate Risk Disclosures

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March 2021

## Executive Summary

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### ▪ **About Clearway Energy, Inc. (NYSE: CWEN, CWEN.A)**

- A leading energy infrastructure investor focused on modern, sustainable and long-term contracted generation assets across North America
- Owns a portfolio consisting of over 8,000 MW of assets including 2,632 MW of wind and 1,586 MW of solar; CWEN has acquired over 600 MW of renewables since September 2018<sup>1</sup>
- Through its parent company, Clearway Energy Group (CEG), CWEN is sponsored by Global Infrastructure Partners (GIP)<sup>2</sup>, one of the largest infrastructure funds in the world

### ▪ **CWEN's Portfolio has a Low Carbon Footprint and is Well Positioned for Energy Transition**

- Due to its large renewable fleet, CWEN has one of the lowest carbon intensities in the US power sector<sup>3</sup>
- 83% of 2020 electricity MWh from renewables<sup>4</sup>
- GIP<sup>2</sup>, CWEN's Sponsor, is a signatory to the UN supported Principles for Responsible Investment
- CWEN's parent company, and primary development partner, has a >10,000 MW renewable development pipeline<sup>5</sup> that is expected to add additional renewable assets to CWEN's portfolio over time

### ▪ **CWEN's Climate Risk Disclosures Discuss the Following Areas and Incorporate Components of the Task Force on Climate related Financial Disclosures (TCFD):**

- **Governance and Board Oversight**
- **Climate Transition Opportunities and Risks in the Short-, Medium- and Long-Term by Business Segment**
- **Physical Climate Risks to Assets and Operations**
- **Metrics:** Historical Scope 1 and Scope 2 CO<sub>2</sub> emissions
- **Target:** By 2035, 90% of the electricity CWEN generates is targeted to be from non-GHG emitting resources

<sup>1</sup> As of 12/31/20; <sup>2</sup> Sponsorship is held through funds comprising Global Infrastructure Partners III; <sup>3</sup> July 2020 Ceres Report: "Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States"; <sup>4</sup> Based on electricity MWh reported in 2020 CWEN 10-K; volumes do not include the MWh generated/sold by the Company's equity method investments; <sup>5</sup> Refer to slide 13 of the 4Q20 earnings presentation from March 1, 2021

# Governance of Climate Risks

Activity	Response
<p><b>Board Oversight of Climate Related Risks</b></p>	<ul style="list-style-type: none"> <li>▪ Pursuant to the Company's Corporate Governance, Conflicts and Nominating (GCN) Committee Charter, the GCN reviews the Company's strategies, activities, and policies regarding ESG, including those related to climate change. The GCN will discuss climate risks as part of its responsibilities. These responsibilities include evaluating the impact of climate change with respect to the financial impact to CWEN's existing portfolio and impact of future legislation/regulations. The Board also approves the Company's annual budget which entails reviewing potential financial risks related to climate change and reviews the status and performance of the Company's ESG initiatives at least semi-annually.</li> </ul>
<p><b>Management's Role in Assessing and Managing Climate Related Risks</b></p>	<ul style="list-style-type: none"> <li>▪ As part of the review of its Board approved annual budget, management analyzes potential changes in the regulatory and business environment, including climate change risk, for the potential impact to future operations of the Company's assets.</li> </ul>

# Climate Transition: Short Term Opportunities and Risks By Business Segment

Activity	Response
<b>Climate Transition Risks and Opportunities for CWEN in Short Term</b>	<ul style="list-style-type: none"><li>▪ <b>Renewables (62% of 2020 CAFD<sup>1</sup>):</b> CWEN's largest segment by Cash Available for Distribution (CAFD) has zero Scope 1 generation emissions and is well positioned for future CAFD growth through Clearway Group (CEG)'s +10 GW renewable development pipeline.</li><li>▪ <b>Conventional (29% of 2020 CAFD<sup>1</sup>):</b> Through the middle of 2023 the conventional assets primarily are contracted under agreements with load service entities that control the dispatch of the facilities and are compensated for availability. The segment's assets mostly consist of efficient peaking gas generation located in California used primarily for fast ramping and grid reliability. The conventional assets play an important role in enabling California's higher renewable penetration by backing up renewable power's intermittency and providing firm generation during peak demand periods. In 2020, the segment's electricity MWh were 16% of the company's total electricity MWh<sup>2</sup>.</li><li>▪ <b>Thermal (9% of 2020 CAFD<sup>1</sup>):</b> The majority of the Thermal segment's CAFD is either from capacity payments or under long term contracts.</li></ul>

<sup>1</sup> CAFD ratios based on 2020 actuals; excludes corporate costs; <sup>2</sup> Based on electricity MWh reported in 2020 CWEN 10-K; volumes do not include the MWh generated/sold by the Company's equity method investments

# Climate Transition: Medium and Long-Term Opportunities and Risks By Business Segment

Activity	Response
<p><b>Climate Transition Related Risks and Opportunities for CWEN Post 2023</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Renewables (62% of 2020 CAFD<sup>1</sup>):</b> The Company expects this will continue to be the largest segment as a percent of CAFD through future growth from CEG's renewable development pipeline.</li> <li>▪ <b>Conventional (29% of 2020 CAFD<sup>1</sup>):</b> The Company will align to stakeholder goals in California and Connecticut where its conventional assets are located. Studies have shown that “firm generation capacity is needed to ensure reliable electric load service on a deeply decarbonized electricity system [such as California]”<sup>2</sup>. The segment is expected to decrease as a percent of total Company CAFD long term given the expected growth in the Renewables segment. Scope 2 emissions from purchased electricity in the Conventional segment are expected to trend toward zero given that the segment’s assets are located in carbon reduction regulatory regimes.</li> <li>▪ <b>Thermal (9% of 2020 CAFD<sup>1</sup>):</b> Scope 2 emissions in the segment are expected to decrease over time as the majority of CWEN’s Thermal plants are in areas where renewables are an increasing part of the electricity supply stack long term.</li> </ul>
<p><b>Scenario Analysis for Climate Transition Risk</b></p>	<ul style="list-style-type: none"> <li>▪ Given that over 85% of the Company’s CO2 emissions are in states/regulatory jurisdictions targeting net zero CO2 the Company believes the current regulatory regime for its portfolio is largely aligned with a 2-degree scenario</li> </ul>

<sup>1</sup> CAFD ratios based on 2020 actuals; excludes corporate costs; <sup>2</sup> “Long-Run Resource Adequacy under Deep Decarbonization Pathways for California” study by E3 (June 2019)

## Physical Climate Risks

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Activity	Response
<b>Physical Climate Risks for CWEN</b>	<ul style="list-style-type: none"><li>As discussed in the Company's annual report (e.g., CWEN's 10-K), climate change may have the long-term effect of changing wind patterns at the Company's projects. In addition, the potential physical effects of climate change, such as increased frequency and severity of storms, cloud coverage, precipitation, floods and other climatic events, could disrupt the Company's operations and supply chain, and cause CWEN to incur significant costs in preparing for or responding to these effects. Physical risks to Climate Change are discussed further on page 25 of the Company's 2020 10-K. Physical risks for CWEN's renewable assets are qualitatively discussed in a climate scenario analysis that can be found at: <a href="https://www.clearwayenergygroup.com/wp-content/uploads/2021/03/Clearway-Energy-Climate-Scenario-Analysis-8.20.20.pdf">https://www.clearwayenergygroup.com/wp-content/uploads/2021/03/Clearway-Energy-Climate-Scenario-Analysis-8.20.20.pdf</a></li></ul>

# Metrics:

## Carbon Dioxide Emissions

Year	CO2 Emissions (Metric Tonnes)	
	Scope 1	Scope 2
2018	1.2	0.1
2019 <sup>1</sup>	1.2	0.1
2020	1.2	0.1

- Scope 1 and Scope 2 CO2 emissions disclosures reflect emissions from generation assets in CWEN's Conventional and Thermal segment
- Emissions from the Company's Renewables segment are immaterial to the Company's overall carbon footprint
- Target: By 2035, 90% of the electricity CWEN generates is targeted to be from non-GHG emitting resources

<sup>1</sup> 2019 figures include the Carlsbad Energy Center for the full year; the Carlsbad Energy Center was acquired by the Company on December 6, 2019