State of California Air Resources Board Executive Order DG-018 (January 2023) Distributed Generation Certification of Capstone Green Energy Corporation C65 Natural Gas CARB MicroTurbine

Whereas, the California Air Resources Board (CARB) was given the authority under California Health and Safety Code section 41514.9 to establish a statewide Distributed Generation (DG) Certification Program to certify electrical generation technologies that are exempt from the permit requirements of air pollution control or air quality management districts;

Whereas, CARB adopted the DG Certification Regulation in California Code of

Regulations (CCR), title 17, article 3, sections 94200 to 94214;

Whereas, this DG Certification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules, and regulations;

Whereas, on September 12, 2007, Capstone Turbine Corporation applied for a DG Certification of its 65 kW, C65-ICHP Microturbine and whose application was deemed complete on October 4, 2007;

Whereas, Capstone Turbine Corporation was issued DG Certificate DG-018 on October 12, 2007, for its C65-ICHP Microturbine;

Whereas, on October 22, 2012, Capstone Turbine Corporation requested an extension of the certification of the C65-ICHP Microturbine, wherein it was noted that no material changes to model form, fit, or function have been made;

Whereas, in the renewal application package, Capstone Turbine Corporation requested a modification to DG Certificate DG-018 to change the model name from C65-ICHP Microturbine to C65 Natural Gas CARB MicroTurbine;

Whereas, Capstone Turbine Corporation was reissued DG Certificate DG-018 on November 5, 2012, for its C65 Natural Gas CARB MicroTurbine;

Whereas, on October 24, 2017, Capstone Turbine Corporation requested an extension of the certification of the C65 Natural Gas CARB MicroTurbine, wherein it was noted that no material changes to model form, fit, or function have been made;

Whereas, Capstone Turbine Corporation was reissued DG Certificate DG-018 on November 22, 2017, for its C65 Natural Gas CARB MicroTurbine;

Whereas, on March 5, 2018, Capstone Turbine Corporation submitted a request to incorporate an upgraded heat recovery module with improved

thermal efficiency into its existing 2017 DG Certificate DG-018 for the C65 Natural Gas CARB MicroTurbine, and CARB approved the request on March 21, 2018;

Whereas, on November 8, 2022, Capstone Green Energy Corporation requested an extension of the certification of the C65 Natural Gas CARB MicroTurbine, wherein it was noted that no material changes to model form, fit, or function have been made;

Whereas, within the 2022 request for extension of the certification, Capstone indicated that the company name had changed from Capstone Turbine Corporation to Capstone Green Energy Corporation;

Whereas, within the 2022 request for extension of the certification, Capstone Green Energy Corporation indicated a reduction in the fuel efficiency used to obtain the original 2007 DG-018 certification has been observed on some of C65 microturbines;

Whereas, Capstone Green Energy Corporation will modify testing and acceptance procedures to specifically identify C65 engines meeting the original 2017 DG-018 fuel efficiency specification and only these identified engines will be incorporated into DG-018 compliant units designated by model number 65C-HD4-DH00 or 65C-HG4-DH00;

Whereas, the C65 Natural Gas CARB MicroTurbine is manufactured and sold with integrated combined heat and power technology;

Whereas, section 94203 (b) allows for an energy credit at the rate of one megawatt-hour for each 3.4 million British thermal units of heat recovered to be used when calculating emission rates;

Whereas, Capstone Green Energy Corporation has demonstrated the C65 Natural Gas CARB MicroTurbine (model numbers: 65C-HD4-DH00 and 65C-HG4-DH00) complies with the minimum efficiency requirement in section 94203 (b);

Whereas, Capstone Green Energy Corporation has demonstrated, according to test methods specified in title 17, California Code of Regulations (CCR), section 94207, that its natural-gas-fueled C65 Natural Gas CARB MicroTurbine (model numbers: 65C-HD4-DH00 and 65C-HG4-DH00) complies with the following emission standards:

- 1. Emissions of oxides of nitrogen no greater than 0.07 pounds per megawatt-hour;
- 2. Emissions of carbon monoxide no greater than 0.10 pounds per megawatt-hour; and

3. Emissions of volatile organic compounds no greater than 0.02 pounds per megawatt-hour.

Whereas, Capstone Green Energy Corporation has demonstrated that its C65 Natural Gas CARB MicroTurbine (model numbers: 65C-HD4-DH00 and 65C-HG4-DH00) complies with the emissions durability requirements in title 17, CCR, sections 94203 (d); and

Whereas, I find that the Applicant, Capstone Green Energy Corporation, has met the requirements specified in CCR, title 17, article 3, and has satisfactorily demonstrated that C65 Natural Gas CARB MicroTurbine model numbers: 65C-HD4-DH00 and 65C-HG4-DH00 meet the DG Certification Regulation's 2007 Fossil Fuel Emission Standards in CCR, 17, section 94203(b);

Now therefore, it is hereby ordered, that the DG Certification, Executive Order DG-018, originally executed at Sacramento, California on October 12, 2007, is hereby extended.

This DG Certification:

- 1) Includes only Capstone Green Energy Corporation model numbers 65C-HD4-DH00 and 65C-HG4-DH00.
- 2) Is subject to all conditions and requirements of CARB's DG Certification Program, article 3, title 17, CCR, including the provisions relating to inspection, denial, suspension, and revocation.
- 3) Shall be void if the unit is manufactured or sold without the combined heat and power system integrated.
- 4) Shall be void if any manufacturer modification results in the model no longer meeting the minimum efficiency requirements in section 94203 (b).
- 5) Shall be void if any manufacturer's modification results in an increase in emissions or changes the efficiency or operating conditions of a model, such that the model no longer meets the 2007 DG Certification emission standards.
- 6) Shall expire on the 12th day of October, 2027.

Executed at Sacramento, California, this 31st day of January 2023.

Matthew Botill

Chief, Industrial Strategies Division