PROSPECTUS SUPPLEMENT

(To the Prospectus dated June 23, 2015 and the Prospectus Supplement dated August 28, 2015)

\$30,000,000



Capstone Turbine Corporation

Common Stock

This prospectus supplement amends and supplements the information in our prospectus dated June 23, 2015 (File No. 333-203431) and our original prospectus supplement dated August 28, 2015. This prospectus supplement should be read in conjunction with the prospectus and the original prospectus supplement and is qualified in its entirety by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the prospectus or the original prospectus supplement. This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the prospectus and the original prospectus supplement and any future amendments or supplements thereto.

We filed the original prospectus supplement to register the offer and sale of shares of our common stock from time to time pursuant to the terms of an at-the-market equity offering sales agreement dated August 28, 2015 that we entered into with Cowen and Company, LLC, or Cowen, as our sales agent thereunder. As of the date of this prospectus supplement, we have sold shares of our common stock through Cowen under the at-the-market equity offering sales agreement having an aggregate offering price of \$13,364,810, though none of such sales was made pursuant to General Instruction I.B.6 of Form S-3. Without giving effect to any offering limit imposed by General Instruction I.B.6 of Form S-3, we may offer and sell additional shares of our common stock having an aggregate offering price of up to \$16,635,190 from time to time through Cowen acting as our sales agent in accordance with the terms of the at-the-market equity offering sales agreement.

On June 9, 2016, the date on which we filed our Annual Report on Form 10-K for the fiscal year ended March 31, 2016, the prospectus became subject to the offering limits set forth in General Instruction I.B.6 of Form S-3. As of September 16, 2016, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$57,341,592, based on 30,339,467 shares of our outstanding common stock that were held by non-affiliates on such date and a price of \$1.89 per share, which was the price at which our common stock was last sold on the Nasdaq Capital Market on August 23, 2016 (a date within 60 days of the date hereof), calculated in accordance with General Instruction I.B.6 of Form S-3. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 in the 12 calendar months preceding the date of this prospectus supplement.

We are filing this prospectus supplement to amend and supplement the information in our prospectus and original prospectus supplement based on the amount of securities that we are eligible to sell under General Instruction I.B.6 of Form S-3. After giving effect to the \$19,113,864 offering limit imposed by General Instruction I.B.6 of Form S-3, we may offer and sell additional shares of our common stock having an aggregate offering price of up to \$16,635,190 from time to time through Cowen acting as our sales agent in accordance with the terms of the at-the-market equity offering sales agreement.

Our common stock is listed on the Nasdaq Capital Market under the symbol "CPST." On September 22, 2016, the last reported sale price of our common stock on the Nasdaq Capital Market was \$1.39 per share.

Investing in our securities involves risks. You should read this prospectus supplement and the documents we incorporate herein by reference carefully before you make your investment decision. See "Risk Factors" set forth in the documents we file with the Securities and Exchange Commission that are incorporated by reference herein for more information.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement. Any representation to the contrary is a criminal offense.

Cowen and Company

Prospectus Supplement dated September 23, 2016.