Here is the code that is being used as the source Stream Analytics query shown in Figure 16-21. This source query will take the incoming streaming events and apply a SQL query to it which contains the addition of aliases, casting, and the usage of the spike and dip anomaly detection function which is a part of the Stream Analytics SQL query functions.

WITH anomalydetectionstep AS  
(  
       SELECT eventenqueuedutctime                                                                                                 AS time,  
              Cast(temperature AS FLOAT)                                                                                           AS temp,  
              anomalydetection\_spikeanddip(Cast(temperature AS FLOAT), 95, 120, 'spikesanddips') OVER(limit duration(second, 120)) AS spikeanddipscores  
       FROM   iothub )  
SELECT time,  
       temp,  
       cast(getrecordpropertyvalue(spikeanddipscores, 'Score') AS float)      AS spikeanddipscore,  
       cast(getrecordpropertyvalue(spikeanddipscores, 'IsAnomaly') AS bigint) AS isspikeanddipanomaly  
INTO   iotpowerbioutput  
FROM   anomalydetectionstep