# Create a Billing Alarm to Avoid Unexpected AWS Charges

A Billing Alarm will notify you by email when your AWS account charges for the month have exceeded a monetary amount you have set. This is an extremely useful tool to stay on-budget. It can also be a way to let you know if you have forgotten to stop or terminate an AWS service – such as an EC2 instance – and help avoid unexpected charges.

## Overview of the steps described in this recipe:

**A.** Prerequisites
**B.** Enable Billing Alerts for your account
**C.** Create a Billing Alarm using the *CloudWatch* console
**D.** Monitor a Billing Alarm status
**E.** Delete a Billing Alarm

## A) Prerequisites

a. You must have an AWS account. If you don't have an account, click HERE to create one.

> ***Note***: You will need to provide credit card information for your new account.

## B) Enable Billing Alerts for your account

***Note***: Billing Alerts must be enabled on your account before you can create a Billing Alarm.

a. SIGN IN to your AWS account.
    i. Make sure the region is set to **US East (N. Virginia)** (Fig. 1). This is the region that AWS stores billing information.

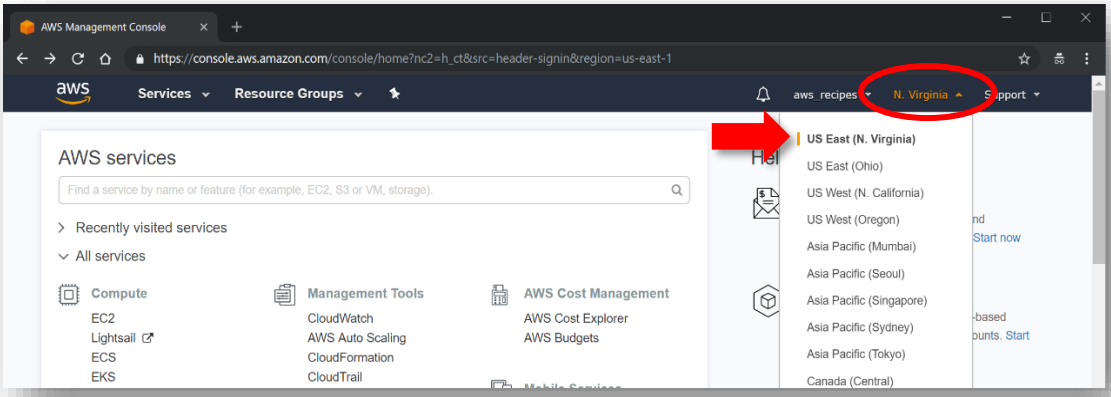



*Figure 1*

b. Click on your account name in the upper right corner.
   i. In the dropdown menu select **My Billing Dashboard** to open the *Billing & Cost Management Dashboard* (Fig. 2).
c. In the left Dashboard menu, click on **Preferences** (Fig.3).

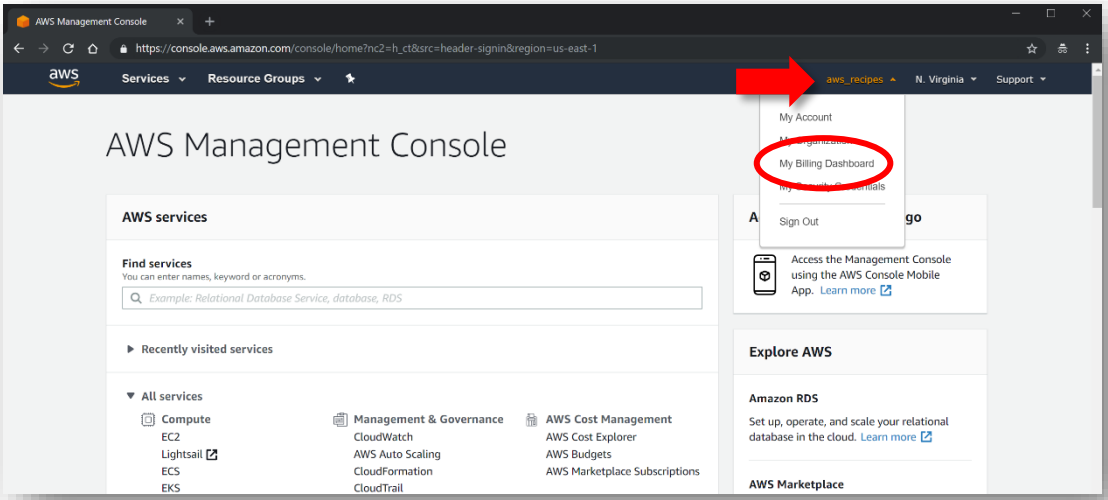



*Figure 2*

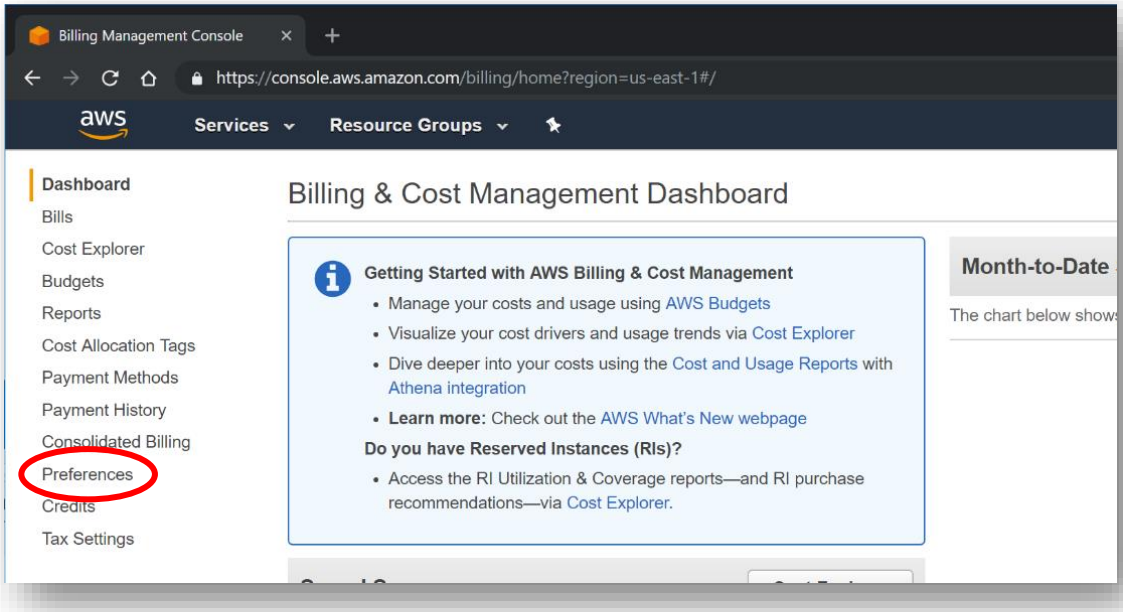



*Figure 3*

d. Check the box in front of **Receive Billing Alerts** and then click **Save Preferences.**
   i. ***Note***: If you are eligible, make sure the **Receive Free Tier Usage Alerts** box is checked as well.

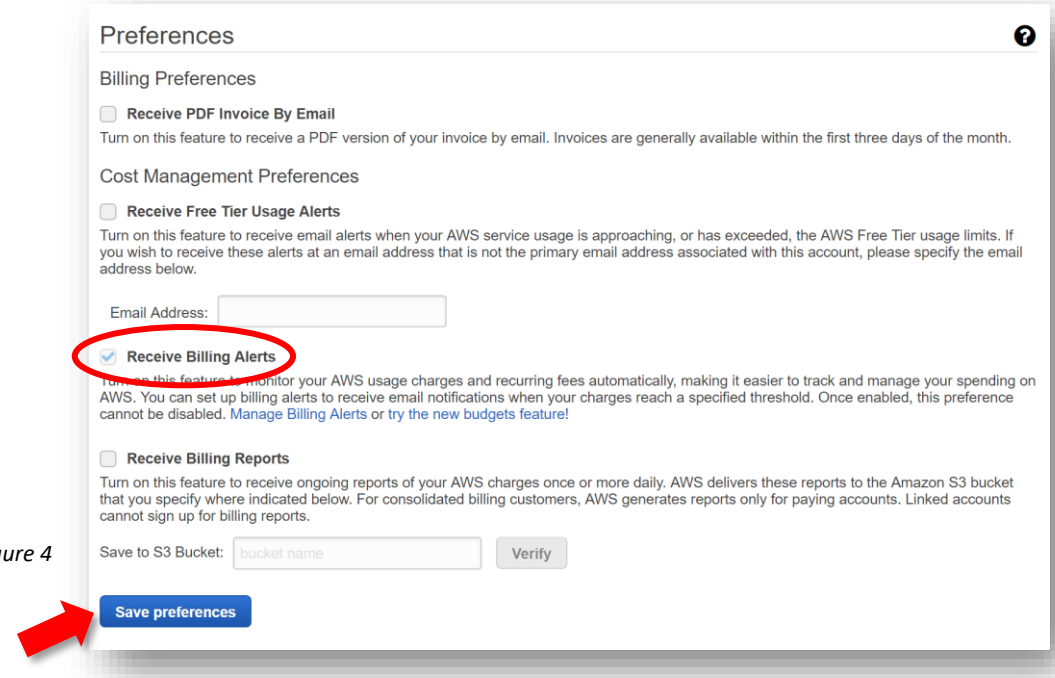



*Figure 4*

## C) Create a Billing Alarm using the CloudWatch console

a. Click on aws in the upper left of the *Billing & Cost Management Dashboard* screen to open the *AWS Management Console.*

b. Type ***cloudwatch*** in the *AWS Management Console* search box and then click on **CloudWatch** (Fig. 5).

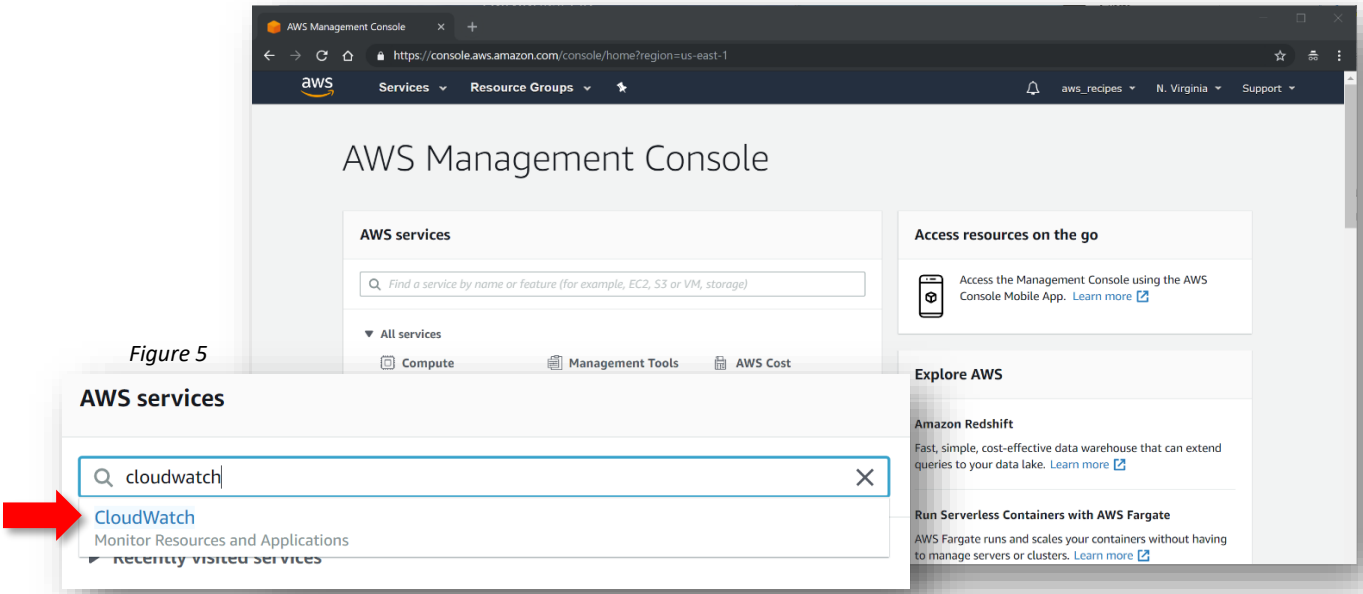



*Figure 5*

c. In the *CloudWatch* console menu on the left under **Alarms**, click on **Billing** (Fig. 6).

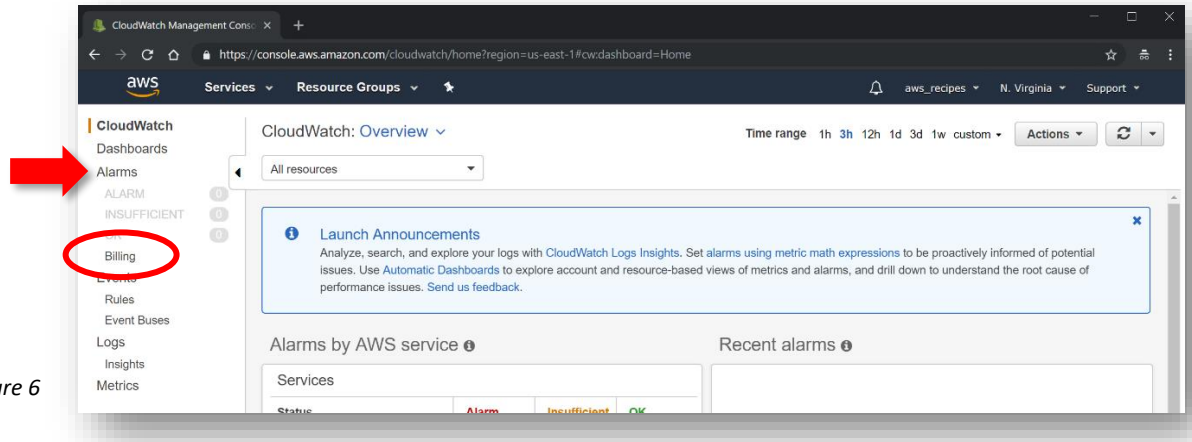
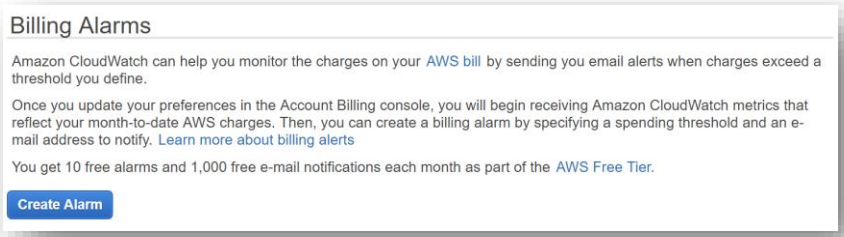



*Figure 6*

d. In the *Billing Alarms* window, click the **Create Alarm** button.




e. Scroll to the bottom of the *Create new alarm* page and click on **show advanced** (Fig. 7) (**1**).

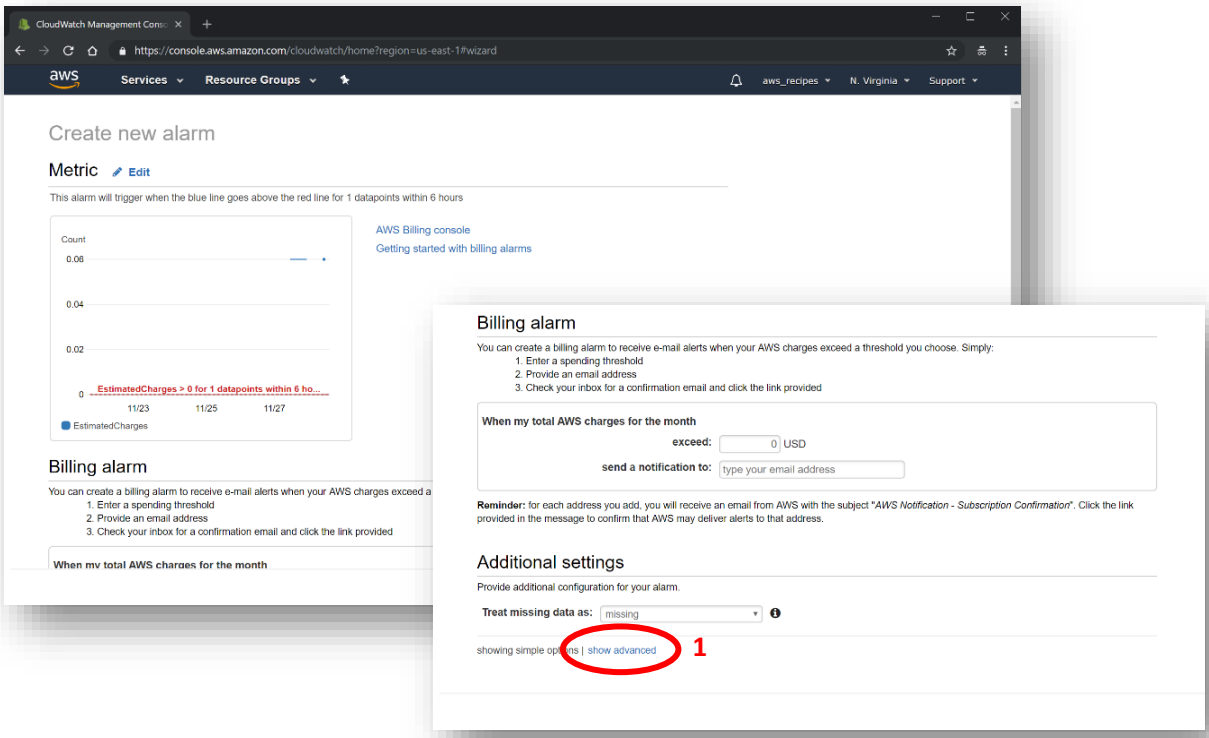



*Figure 7*

Advanced Settings (Fig. 8)

*f.* **Alarm details**

i. Add a *Name* for your new alarm and a *Description* (optional).

ii. Under **Whenever charges for:** set **is:** to >= and **USD $** to the amount in dollars you want to set as a limit (**2**).

***Note***: You will receive email notification when your account charges have reached or exceeded this amount.

g. **Additional settings**

i. Under **Treat missing data as:** choose *ignore (maintain the alarm state)* (**3**).

h. **Actions**

i. Under **Email list:** enter *your email address* (**4**).

ii. Leave the other settings unchanged

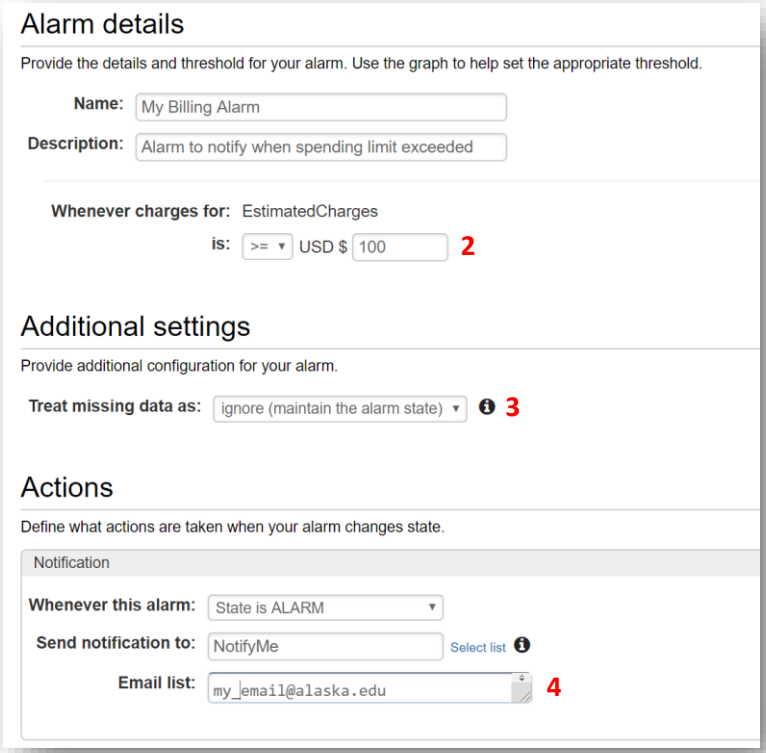



*Figure 8*

i. Click on the Create Alarm button at the bottom of the Create new alarm page (Fig. 9).

> ***Important***: You will be sent an email to confirm the email address set in your alarm. Open the email and click on the "**Confirm subscription**" link to enable notifications.

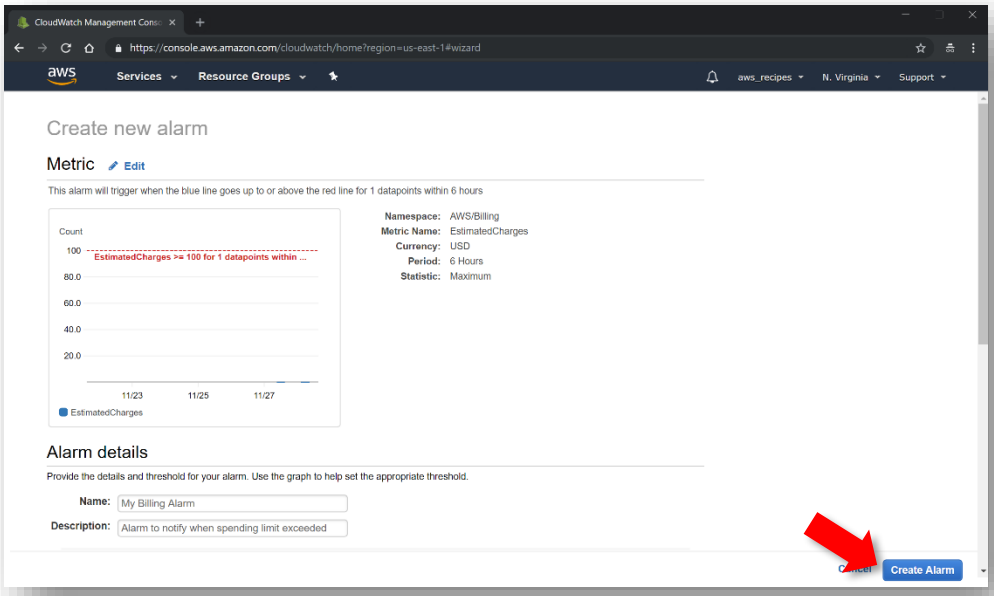



*Figure 9*

## D) Monitor a Billing Alarm status

a. When you create a new alarm, an alarm status window will open (Fig. 10). The **State** will initially show **INSUFFICIENT_DATA** but will update to **OK** in a minute or so.
***Note***: If the State shows PENDING_CONFIRMATION, open the confirmation email that was mailed to you and click on "**Confirm subscription**".

b. To see details of your alarm, check the box in front of the alarm description.

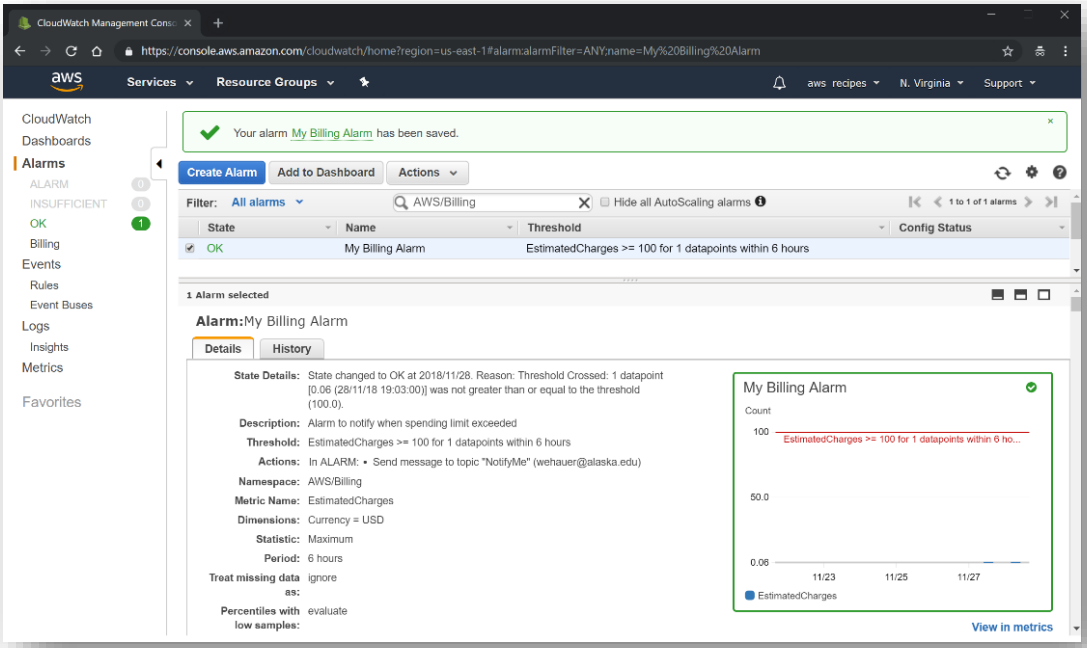



*Figure 10*

c. When the monetary limit set for your alarm has been exceeded, the **State** will change to **ALARM** (Fig. 11), the graph border will be red, and an email will be sent to you notifying you of this.

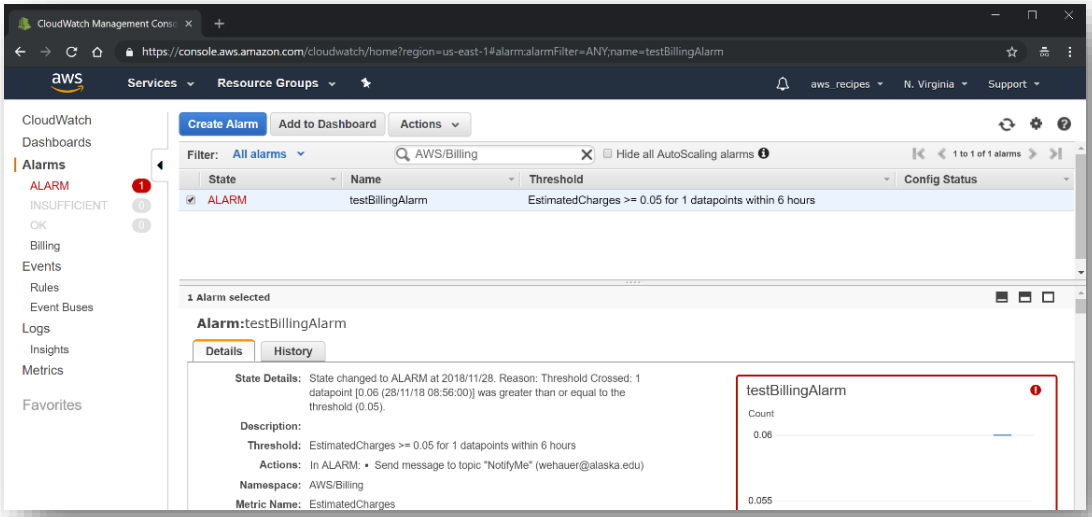



*Figure 11*

d. You can check the status of an alarm at any time by opening the *CloudWatch* console.
   i. Make sure the region is set to **US East (N. Virginia)**.
   ii. In the left menu, under **Alarms**, click **Billing**, then check the box in front of an alarm to see its details.

## E) Delete a Billing Alarm

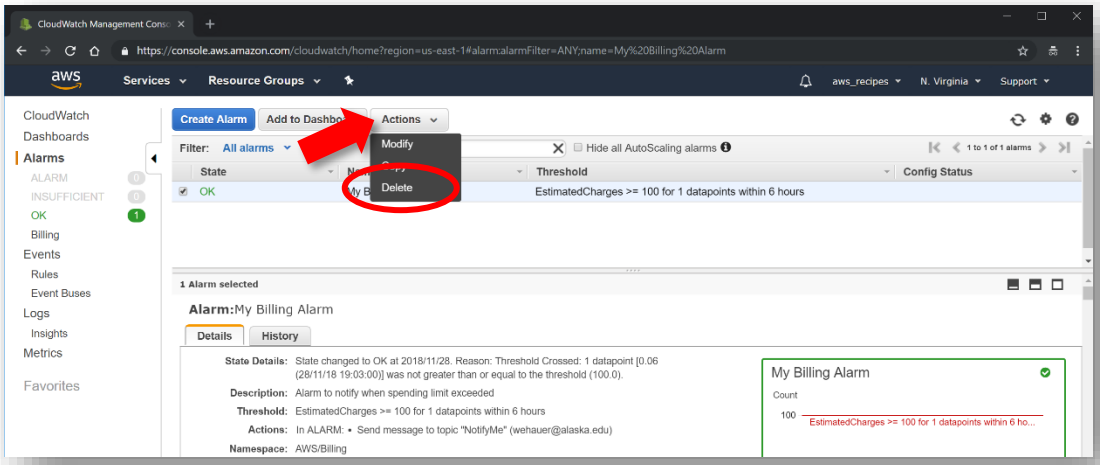



*Figure 12*

a. Open the CloudWatch console (Fig. 12).
   i. Make sure the region is set to **US East (N. Virginia)**.
   ii. In the left menu, under **Alarms**, click **Billing**, then check the box in front of an alarm to see its details.
   iii. At the top, click on the **Action** tab and select **Delete**.
   iv. When prompted, confirm *Yes, Delete*.

> ***Note***: To make changes to the settings for your alarm – e.g., set a new billing threshold – select Modify under the **Actions** tab.