You can download the energy trace data here:

https://drive.google.com/file/d/1RFVOwh5XeAJcJy8pjbNRIeZrp7tPojOW/view?usp=sharing

For the energy trace data the following setups were done (each setup being run for ~10 minutes):
1. MSP430 + Blink Internal LED
2. MSP430 + SmartMesh
3. MSP430 + Temp/Humid
4. MSP430 + N2O
5. Entire System (MSP430 + SmartMesh + Temp/Humid + N2O)

A few notes about each energy trace setup:
1. MSP430 + Blink Internal LED

- This setup had the MSP430 turn on an internal LED for 15 seconds and then sleep for 60 seconds. The procedure repeats.

2. MSP430 + SmartMesh

- This setup had the MSP430 send an integer value through the smart mesh mote and then sleep for 60 seconds. Procedure repeats.

3. MSP430 + Temp/Humid

- This setup had the MSP430 collect temperature and humidity data and then sleep for 60 seconds. Procedure repeats.

4. MSP430 + N2O

- This setup had the MSP430 supply 3.3V at the gate of the transistor to turn on the N2O sensor. Then there was a delay of 60 seconds for the N2O sensor to warm up. Afterwards, N2O data was collected and the voltage at the gate of the transistor was set to 0V to turn off the sensor. System was then put into sleep for 60 seconds. Procedure repeats.

5. Entire System (MSP430 + SmartMesh + Temp/Humid + N2O)

- This setup had temperature sampled every 1 minute, humidity every 2 minutes, and N2O every 10 minutes. System sleeps for 60 seconds, then wakes up to collect data and send via smart mesh and then returns to sleep for 60 seconds. Procedure repeats.

Notes regarding all setups:

- In the "EnergyTraceData" folder you will find five folders, one for each setup. In each folder there are seven files, listed below.

1. PowerPlot.PNG - This is a screenshot of the power consumption versus time.
2. EnergyPlot.PNG - This is a screenshot of the energy versus time.
3. DataTable.PNG - This table displays the time the system was run for, mean power consumption, battery life (1 x 3400mAh 3.7V), etc.
4. ".ino" file - This is the energia code that was used for the specific setup.
5. "EnergyProfile.csv" file - This file contains information regarding time (ns), voltage (mV), current (nA), and energy (uJ) for each setup. The dataset in this file exceeds the excel grid which means not all of the data will appear if you open this file in excel. Another program needs to be used to view the entire dataset.
6. "GraphExport.csv" file - This file contains the same information as the "EnergyProfile.csv" file but there are additional data columns such as power data. This file does not contain any units for some reason. However, the units for time are (ns), voltage (mV), current (nA), energy (uJ). The dataset in this file exceeds the excel grid which means not all of the data will appear if you open this file in excel. Another program needs to be used to view the entire dataset.
7. "EnergyProfile.profxml" file - You can ignore this.