Slide 1. **The Future**, Scenarios A, B & C: Residential Wood Burning for Home Heating with an indoor woodstove venting outdoors, possibly an E P A Certified wood stove, polluting the air of near neighbors with 90% PM 2.5, particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung, causing a cascade of human health problems, over 8 micrograms per cubic meter, exceeding the **future** U S standard at which it is determined harmful, although any wood smoke is not harmless.

Slide 2. The neighbor has a PurpleAir PM 2.5 monitor that has been collecting data for two months, half of the winter season. The average of each 24 hour reading over that two month period exceeds 8 micrograms per cubic meter at that location, only 80 feet from the wood burning stack, but the neighbor's security camera, pointed at the wood burner's rooftop to not violate privacy of human activity shows high PM 2.5 levels correspond with visible smoke coming from the wood burner's stack.

Slide 3. The local health department sends the wood burner a letter, stating the level of smoke, above 8 micrometers per cubic meter in a 24 hour period on average for two months, which exceeds the **future** new level of PM 2.5 pollution from residential wood burning allowed under the local ordinance for that municipality.

Slide 4. After two weeks, with no response from the wood burner, the local health department sends the wood burner a 2nd letter, stating the level of smoke, above 8 micrometers per cubic meter in a 24 hour period on average for two months, which exceeds the **future** new level of PM 2.5 pollution from residential wood burning allowed under the local ordinance for that municipality, if continued, will result in a $50 (or more) fine per day.

Scenario A. Slide 5. The wood burner detaches his wood stove and takes down his stack and gives them to the Health Department. The wood burner **donates his firewood to the community garden for mulch**. He starts using his existing natural gas furnace and produces thousands of times LESS particulates than from wood burning. The daily fines stop.

Scenario B. Slide 5. The wood burner detaches his wood stove and takes down his stack and gives them to the Health Department. The wood burner **donates his firewood to the community garden for mulch**. He says he got this woodstove in a woodstove changeout for free. Since he is not out any money, he is not compensated for now removing his free certified wood stove, which unfortunately does pollute. He should have taken a NATURAL GAS FURNACE for the wood stove changeout. He starts using a newly purchased natural gas furnace, (or existing natural gas furnace which has been his backup) and produces thousands of times LESS particulates than from wood burning. The daily fines stop.

Scenario C. Slide 5. The wood burner detaches his wood stove and takes down his stack and turns them over to the Health Department. The wood burner **donates his firewood to the community garden for mulch**. He says he got this stove for up to $4,500. He is indigent so he is given credit for a NATURAL GAS FURNACE for up to $4,500 through existing Federal or Local programs (probably L I H E A P). He should have taken a NATURAL GAS FURNACE for the earlier wood stove changeout. He starts using his newly purchased natural gas furnace and produces thousands of times LESS particulates than from wood burning. The daily fines stop.

Slide 6. The Low Income Home Energy Assistance Program (L i H E A P) helps keep families safe and healthy through initiatives that assist families with energy costs. It provides federally funded assistance in managing costs associated with home energy bills, energy crises, weatherization and energy-related minor home repairs. L I H E A P can help you stay warm in the winter through programs that reduce the risk of health and safety problems that arise from unsafe heating practices.