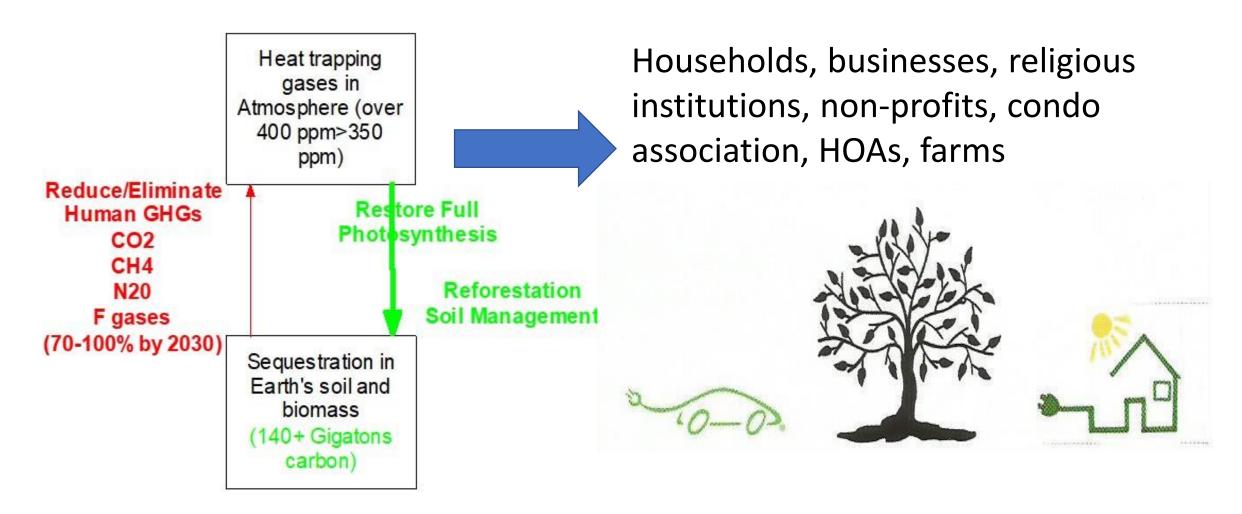


### Specific solutions/actions in our realms



Agenda

- Can I (we) make a difference?
- Energy- easier to quantify
- Behavior harder to measure
- Sequestration
- Offsets
- Divest
- Plan
- Refrigerant management
- Influence
- Q&A
- What's Next



### Can I (we) make a difference?

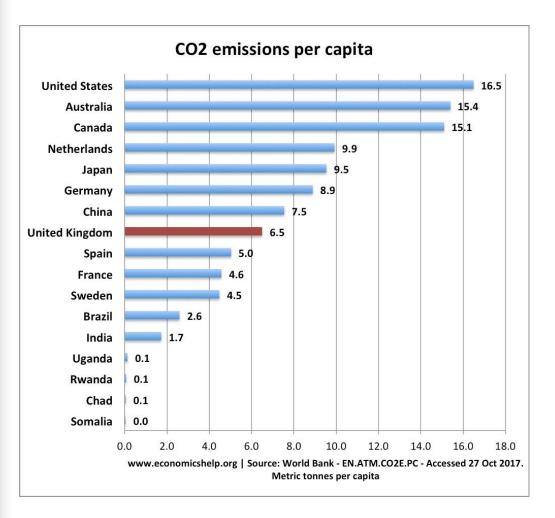
- 1. Every little bit helps
- 2. Save money
- Improve health
- 4. Set example
- 5. It's the right thing to do (moral duty to restore creation, prevent injustice)

We are not powerless. Send a signal to the market (Bill Gates)

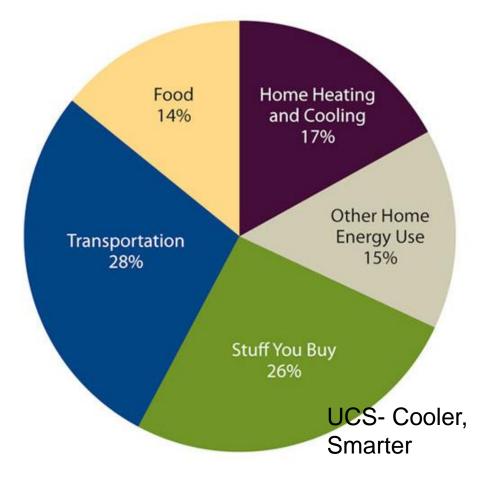
"Nobody made a greater mistake than he who did nothing because he could only do a little "

Edmund Burke, Irish philosopher

### Frame of Reference



### Where the Average American's Carbon Emissions Come From



# Buildings

Determine how much energy (of what type) is being consumed, and estimate the resulting emissions

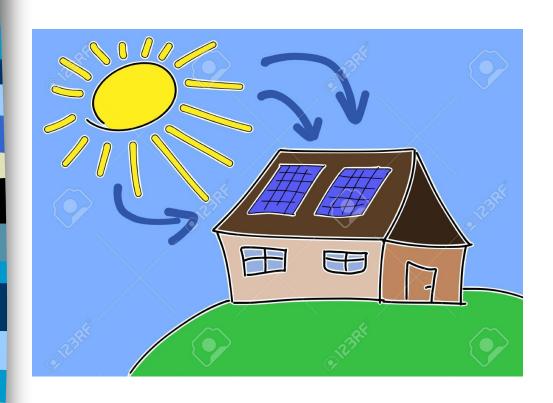
Investigate opportunities to

- Reduce energy consumption
- Transition to zero emission energy sources

#### 1. Emissions math

- Count it up: kwh, therms, gallons, pounds, cords;
- Calculate footprint (units x energy emission factor of fuel)
- Tools available
- Professional Audit
- 2. Reduce consumption
- 3. Electrify (almost) everything and transition to a source of zero emission electricity (such as solar)
- New Building: DOE Zero Energy Ready Homes standard.

## Examples



- New England home reduced energy use by 2/3, home became affordable
- Furniture Store Saved \$40,000 annually
- Florida home, EV and electric boat – net zero

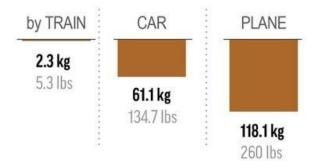
Different situations with 1 common factor: *energy audit* 

#### Flight shame

Environmentally conscientious consider traveling by car instead of by airplane



#### **CARBON EMISSIONS**



SOURCE: ecopassenger.hafas.de

#### AP

# Transportation

- Vehicle footprint @ 19.6 pound CO<sub>2</sub>/gal for gasoline, 22.4 for diesel.
- Conserve
  - Avoid driving, use public transit
  - Reduce/eliminate long distance travel
  - Take care to choose means of long distance travel (Train best, plane worst)
- Shift to Zero Emissions Bikes, EVs charged from the sun\*

<sup>\*</sup>EV's charging from "dirty" grid also reduce emissions, even if the source of electricity is mostly coal. (USC Replacing the tailpipe with a Smokestack)

# Decision process

#### Quantify emissions

- Buildings
- Transportation

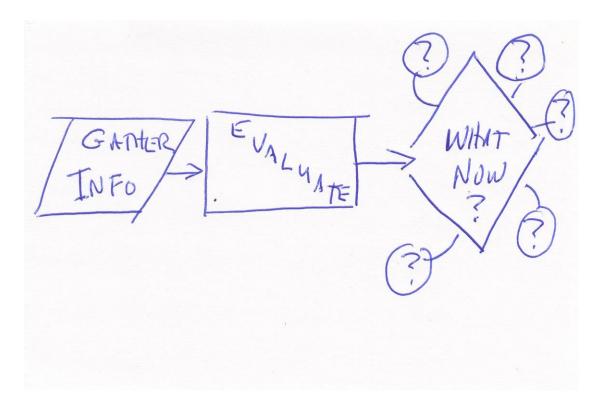
Subjective areas

- What we eat and waste
- Stuff we buy

Sequestration

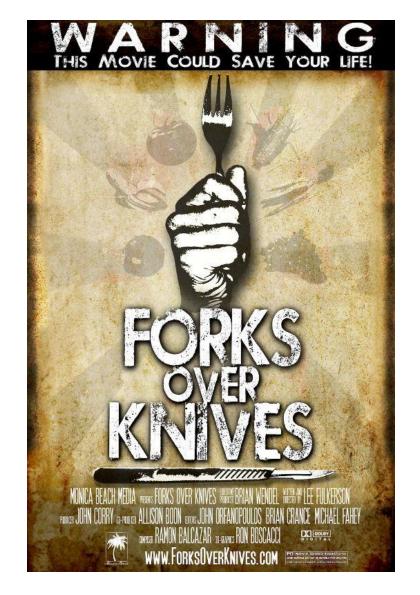
Offsets

**Divest** 



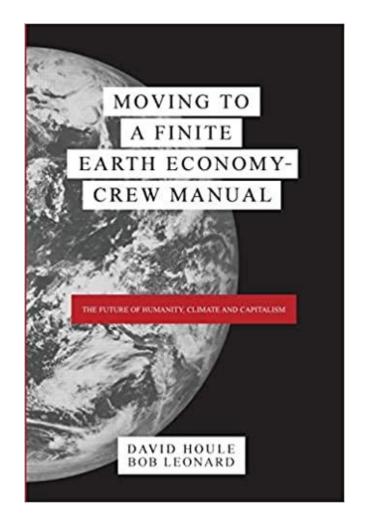
#### What we eat and waste

- Red meat and cheese have most impact on emissions
- Plant-Rich Diet
  - Climate benefits #4 of 100Drawdown
  - Health and financial benefits
- Support Community Sponsored Agriculture (CSA)
- Reduce food waste: buy less, compost, food recovery programs

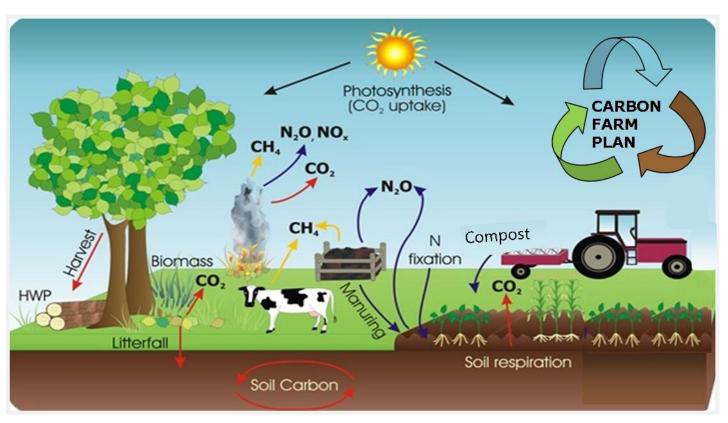


#### Stuff we buy – towards a finite earth economy

- Growth economy is not serving us well
- Individual strategies
  - Buy less stuff
  - Purchase recycled or reclaimed (used)
  - Repair/refurbish things instead of discarding and buying new
  - Pay attention to how goods are manufactured
    - Concrete and steel = greater emissions than sustainably grown wood (certified as sustainably grown -FSC -Forest Stewardship Council)



### Sequester

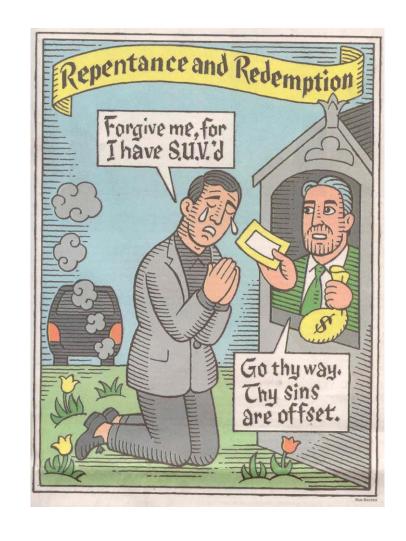


- Hero Farmers: Silvopasture, Regenerative Agriculture, Composting and Fertilizersnutrient management
- Natural landscapes (residence, business, condo associations, HOAs)
- Reduction/elimination of fertilizers and herbicides
- Reforestation projects

Credit: Marin Carbon Project

### Buy offsets?

- Pay someone to reduce atmospheric carbon
- Offsets cannot replace the good we do by reducing emissions or sequestering carbon in our realm
- Optimum strategy: act boldly in our own realm and buy offsets



Andrew Revkin, New York Times

### Divest from fossil fuels

- Movement started in colleges and universities
- Growing momentum institutions and individuals
- Consider your own banking and investment holdings, including retirement accounts
- Your influence in the workplace, non-profits



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### **Tools**



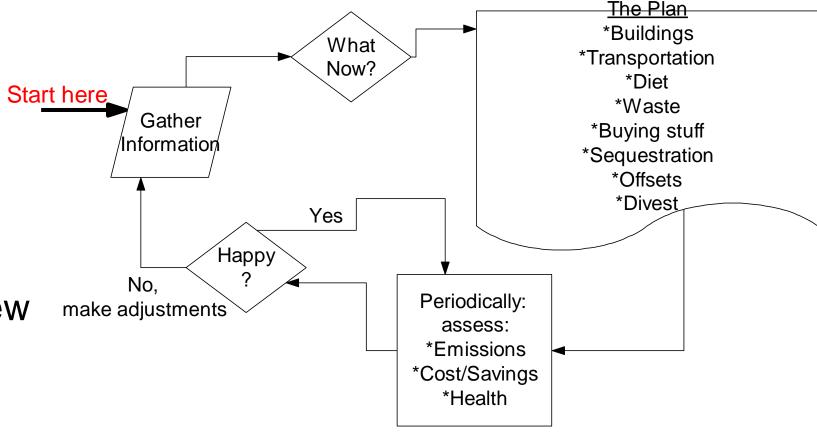
- Carbon counters
- My solutions portfolio
- 40,000 lb. carbon diet
- Energy factors
- i-Tree
- Eat to Live
- Forks Over Knives

### Make a plan

 Outcome and Investment significant enough to document

Periodic review

Adjust as needed



## No Brainer - Refrigerant management

- Drawdown #1 solution of 100
- 90 percent of refrigerant emissions happen at end of life
- Effective disposal of those currently in circulation is essential.
- A/C, Fridge



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### Influence

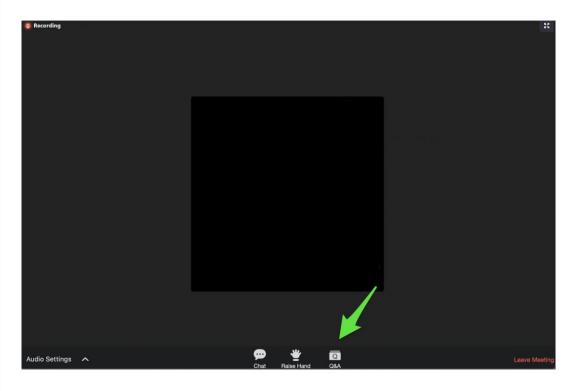
#### Awareness and education

- K to Gray
- Bully pulpit
- Energy coach
- Change management
- A force against special interests and misinformation



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### Q&A



- Buildings
- Transportation
- What we eat
- What we waste
- Stuff we buy
- Sequestration
- Offsets
- Divest
- Plan
- Refrigerant Mgmt.
- Influence

### What's next?

Session 5 – specific action Government

Follow up email tomorrow

- Home work (Quiz)
- Reminder to register for session #5
- references with tools
- Slide show

Recording of tonight's webinar

Can't wait? Go to

https://tinyurl.com/withGreta