Calculating Your Carbon Footprint

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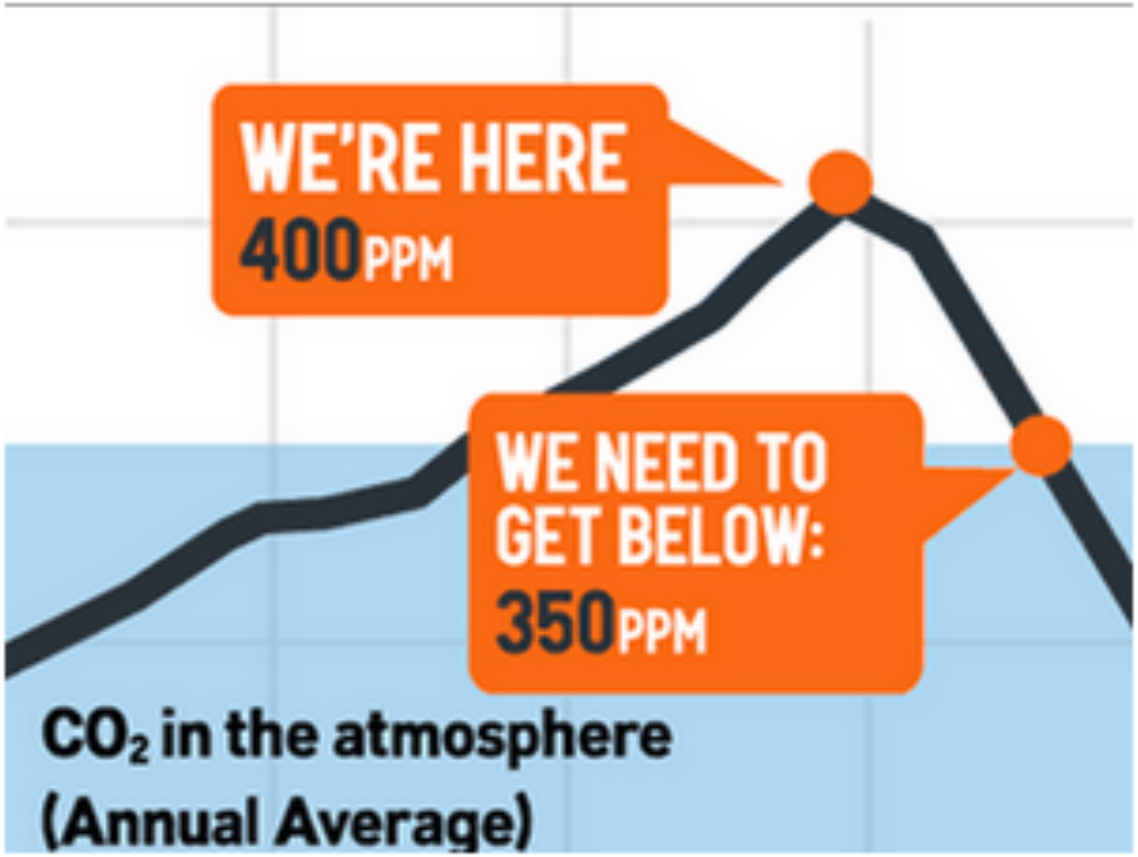
We've Got a Problem

A complex, severe, and urgent problem…



What's a local climate action group to do?

But We Can Help Individually and as a Community

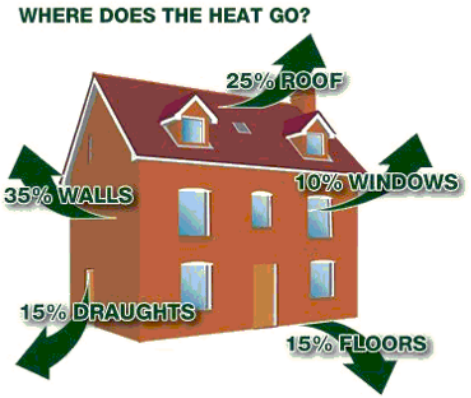
Fixing GHG emissions is like stamping out a disease--we know how to do it, but it must be done with everyone.

- one house at a time,
- one car at a time,
- one household at a time,
- one utility at a time,
- one airline at a time…

The ultimate way to disable the fossil fuel empire is to stop buying their products!

I. Reduce Personal and Community Carbon Footprints

- Calculate our C footprints, reduce, track
- Blaze the trail—cost/performance benefits, too!
- First 10%: just stop doing careless things
- 20%: change your habits
- 30-40%: change your efficiencies
- 50-70%: change your infrastructure
- 80-100+%: change societal infrastructure, including fossil fuel divestments



"Be the change you wish to see in the world." -M. Gandhi

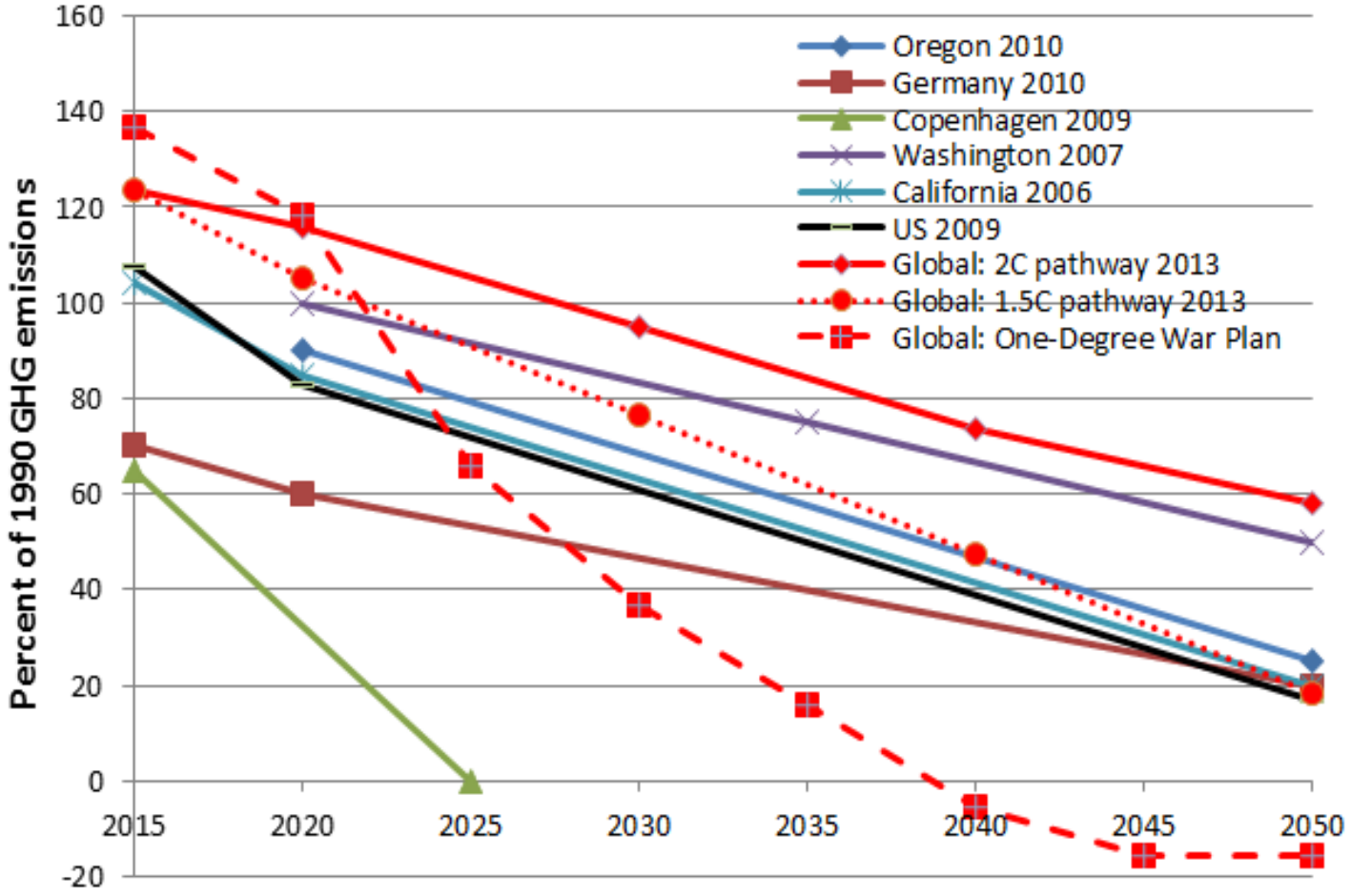
II. Drive Climate-Repairing Policies at All Levels of Government

- Increase awareness
  - Teach-ins, marches, protests, direct actions
- Lobby for the right policies
  - No coal or oil terminals; RPS; RFS; vehicle feebates; PUC policies; organic farming; fossil fuel divestments;…
- Campaign for and fund the right candidates
- Lobby to get Big Money out of elections

"We know we have a problem and we know what to do about it, but we have a political problem"—Tom Steyer

GHG Reduction Targets

- Red lines are the global recommendations of scientists
- Implies 50% reductions by 2025 (1C), 2035 (1.5C), 2045 (2C)



Online Footprint Calculator

- http://coolclimate.berkeley.edu/carboncalculator
- Easily compare to averages
- Displays all the calculated and estimated contributors

Calculator Example

- White Salmon averages
- Travel higher, home lower than US average

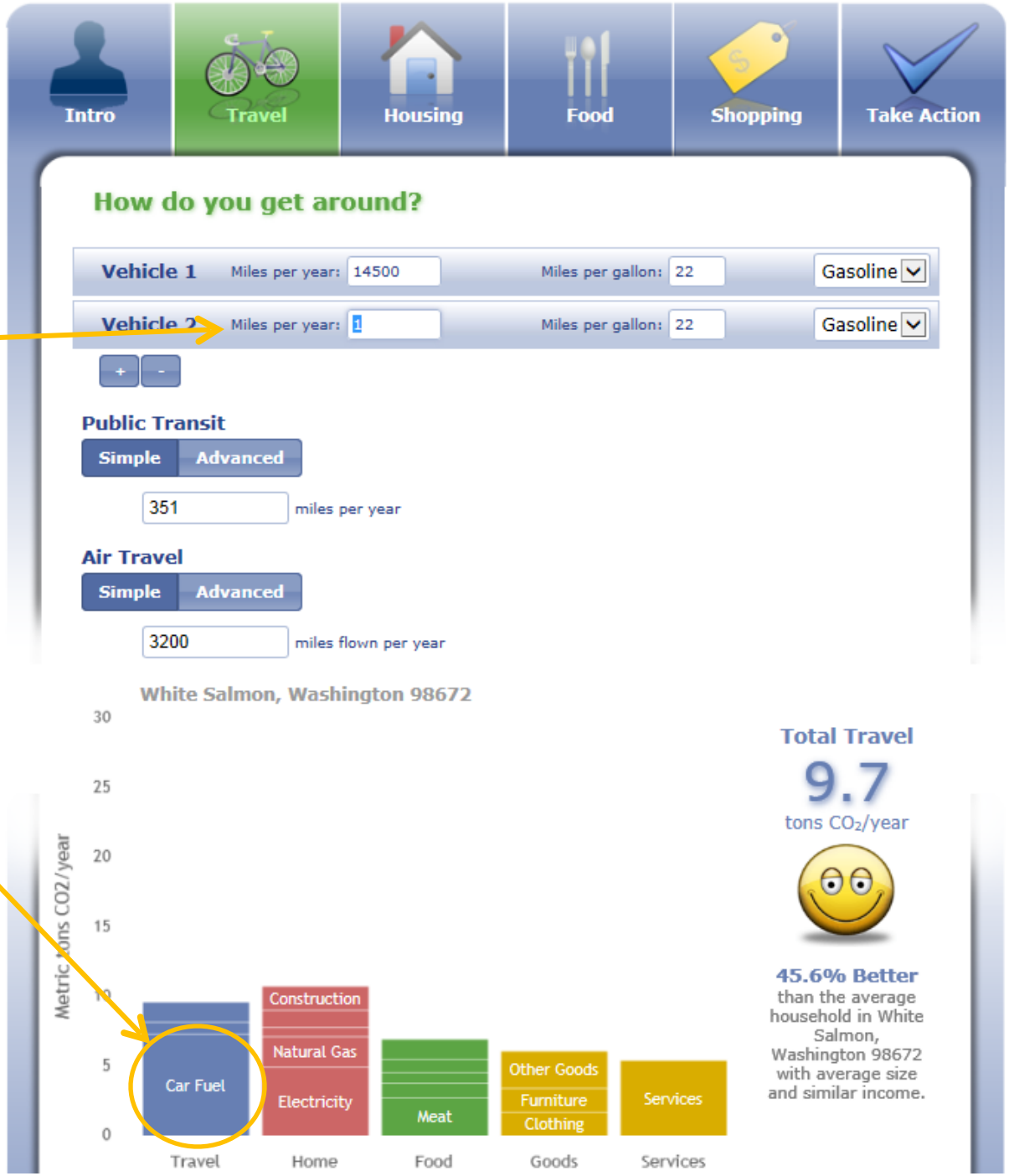
Calculator Example

What if our average household did half the driving?

Cuts total by 7 tons/yr

What else could we do?

- Carpool
- Higher mileage cars
- PHEV or EV



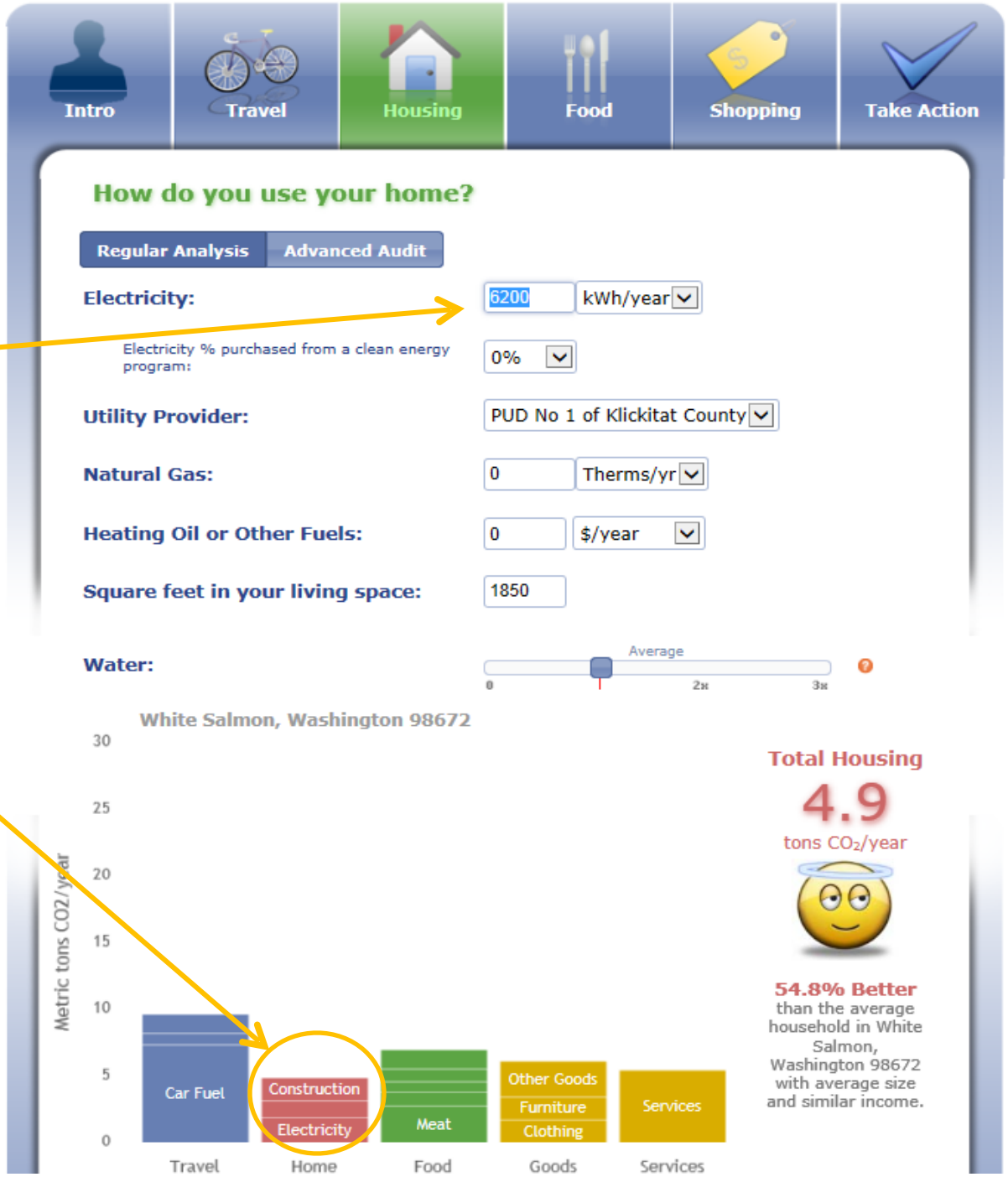
Calculator Example

What if our average household made their house 5 times as energy-efficient with better sealing and a heat pump?

Cuts another 6 tons/yr

What else could we do?

- Better sealing
- Add PV
- Water catchment
- Lobby for a clean energy program at PUD



Calculator Example

What if our average household went vegan?
(with same total calories)

Cuts another 2 tons/yr

What else could we do?

- Buy more local
- Plant a garden

Calculator Example

What if our average household shopped half as much and lived more?

Cuts another 3 tons/yr

What else could we do?

- Buy more local
- Buy less stuff
- Buy stuff that lasts longer

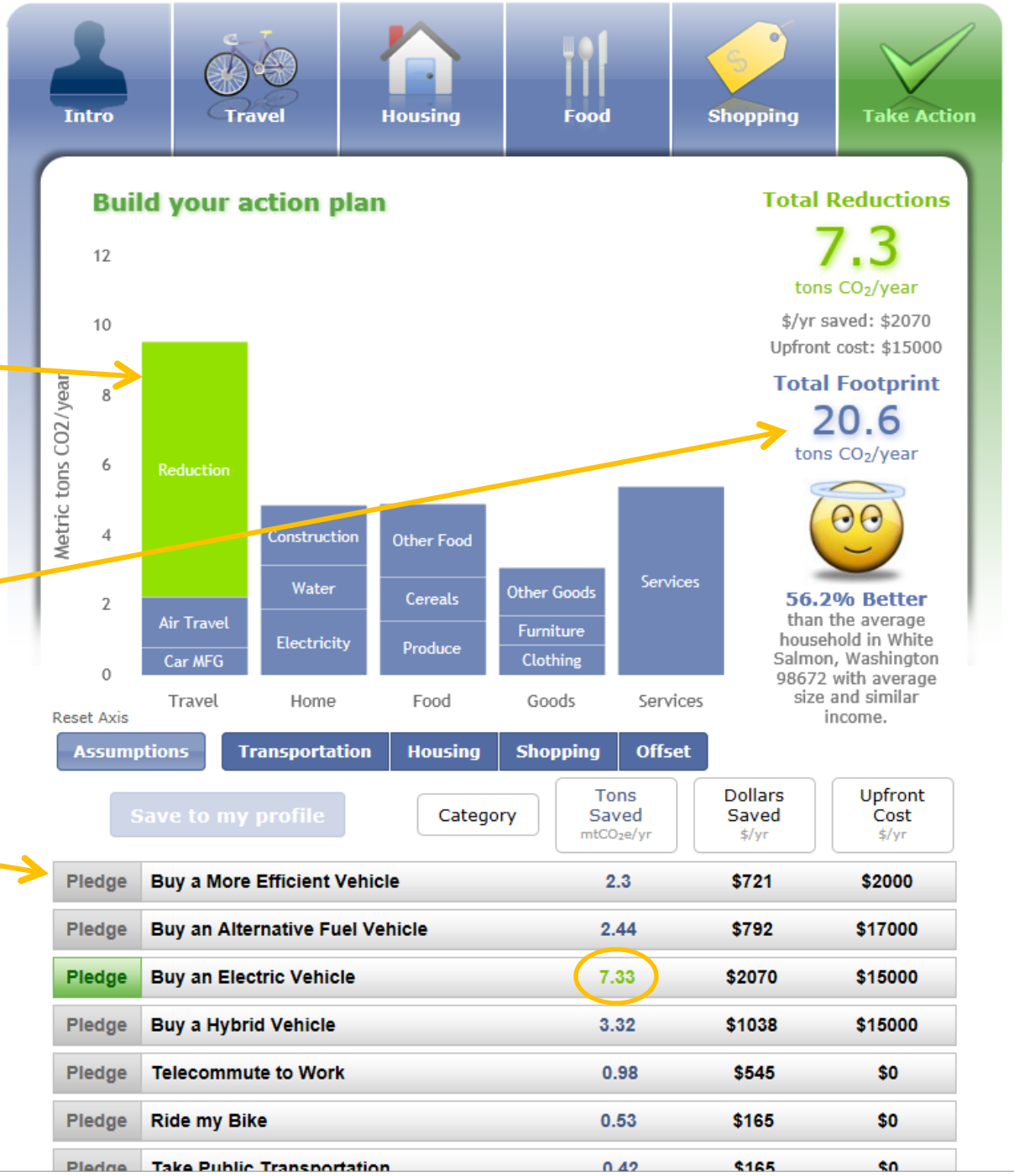
Calculator Example

What if our average household only bicycled or drove EVs?

Cuts another 7 tons/yr for 20.6 tons total

Their list of what else one could do (Note that these don't all add together.)

Everything left would be reduced by a price on carbon.



Roll Your Own to Track Progress

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	**CARBON BUDGET**	Example				2012		2013		2014 Budget		2015				
2	*Does not include embodied energy in food or other products purchased or consumed.*	Annual usage	multiply by	kg of CO2		Annual usage	kg of CO2	Annual usage	kg of CO2	Annual usage	kg of CO2					
3	**HOUSE HEATING**															
4	**GAS HEATING**	Enter data only in green cells														
5	Enter a figure for just one of these two															
6	New style units (Cubic metres) of mains gas	2	2.2	4.4			0		0		0					
7	Old style units (100's cubic feet) of mains gas		6.2	0		1000	6200	514	3187	0	Unhooked!		0			
8	**ELECTRICITY**															
9	Kilowatt hours (kWh) of conventional electricity		0.5	0		7250	3625	15530	7765	1000	500					
10	Kilowatt hours (kWh) of green tariff electricity		0	0			0		0		PV up Feb. 1		0	net-zero!		
11	**CARS**															
12	Van odometer 12/31					84800		86100		87500		TBD				
13	miles					800		1300		1400	BAU					
14	avg mpg					13		13		13						
15	Gasoline (gal)					62		100		108						
16																
17	Hybrid odometer 12/31					148500		164372		180000		Buy a 200-mile EV in 2015				
18	miles					15600		15872		15628	BAU					
19	avg mpg					38		38		38						
20	Gasoline					411		418		411		0				
21																
22	Leaf odometer 12/31					8000		13126		20000						
23	miles					6000		5126		6874						
24	avg miles/kWh					3.4		3.4		3.4						
25	kWh used					1765		1508		2022						
26		http://www.ucsusa.org/assets/documents/clean_vehicles/greentravel_report.pdf														
27	Gallons gasoline	10	11.36	114		472	5363	518	5881	519	5895	100	1136			
39	**PUBLIC TRANSPORT (bus, train, etc)**															
40	Miles		0.11	0			0		0		0					
41	**PLANE**	http://www.epa.gov/climateleadership/documents/resources/commute_travel_product.pdf														
42	Miles (air travel is ~ a single occupancy car at 57 mpg!)		0.2	0		33000	6600	40000	8000	17200	3440	Find some real offsets or don't fly				
44	**TOTAL PERSONAL CO2 EMISSIONS FROM HOME AND TRANSPORT**			**118**			**21788**		**24833**		**9835**					
45	**SO WHAT**															
46	Sustainable level: ~400 kg/person/year (sort of)	http://ww	http://www.manicore.com/anglais/				1200		1200		1200	*This is 35 gal of gas OR 2000 air miles/person/yr!*				
47	UK average in 2010: 7900 kg/yr															
48	US 2010 average: 17600 kg/yr															
49	http://data.worldbank.org/indicator/EN.ATM.CO2E.PC															
50	So our 2013 would say we're 8300 kg/person															
51	but this doesn't count food or other purchases															