“Limiting global warming to 1.5°C would require rapid, far-reaching and unprecedented changes in all aspects of society.”

- IPCC Summary for Policymakers, October 8, 2018

“The climate and the biosphere don’t care about our politics and our empty words for a single second.”

- Greta Thunberg, Climate Activist
Neighbors working with neighbors to inform, educate and systematically drive down emissions to zero emissions... 5% per year.
Overall goal

• Draw down net greenhouse gas emissions to **ZERO** in the twenty-year period from 2020 to 2040
  • Note that Croton is more wasteful than the national average of emissions per household
  • Every day of inaction means another 700+ tons of Croton emissions in the atmosphere
• In keeping with the UN’s IPCC report
• Scope
  • Zip code 10520 (12,810 population, 5,540 housing units)
  • Economy-wide, not just electricity
  • Economy-wide, not just municipal operations
• We will use 2019 as the baseline and reduce by 5% of the baseline every year for 20 years
• We will mimic the private/public partnership idea from Bedford and create a not-for-profit called **Croton100** (web site Croton100.org)
  • We will encourage sharing of costs and best practices with other towns and municipalities
• We want to be the first community to announce an economy-wide zero emission goal by 2040, to be a shining example, to be able to look the young people in the village in the eye and say yes, we did something about that
Student Presentations
Hand over to Chandu
Emissions goals

Zip code 10520 = 52.6 tons


https://coolclimate.berkeley.edu/maps
Croton emissions

- 52.6 tons per household per year
- 2.6 people per household

- 20 tons per person per year

1 ton of reduction per person per year over 20 years
Easy-to-remember goals

• Croton has per-capita emissions of 20 metric tons of CO$_2$e (give or take a few percent)
  • Reduction goal = 1 metric ton per person per year
  • = 1,000 kg per person per year
  • = 1,000 points per year

• Some people will drag their feet on emissions reductions, so we have to get the rest to over-achieve in the early years

• Point system will be used for various purposes
  • Track and measure goals (voluntary/honor system)
  • Recognize outstanding achievements
  • Gamification

• Specialized point systems for renters, landlords, businesses, public spaces

• Points will be tracked by means of a smartphone application
  • The application will allow us to keep residents informed, engaged and educated
The five Es of emission reduction

- **Efficiency**: Insulation, smart thermostats, carpooling, LED bulbs, biking, no idling, public transport, …

- **Electrification**: Electric vehicles, heat pumps, …

- **Electric generation**: Solar panels, community aggregation, community choice, …

- **Eating**: Low carbon diet, land use & agricultural impacts…

- **Education**: Build knowledge + engage with neighbors, friends, relatives, parishioners, politicians, regulators, …
Example of emission reduction: the car you drive

GMC Savana or Chevy Express

Family car

Hybrid

Plug-in hybrid

Electric

Annual CO₂ emission (kg)

Step-down reduces emissions AND reduces total cost of ownership!
Example of emission reduction: how you heat your home

- Oil
- Fracked gas
- Propane
- Heat pumps

Annual CO₂ emission (kg)

- 0
- 1,000
- 2,000
- 3,000
- 4,000
- 5,000
- 6,000

Step-down reduces emissions AND reduces total cost of ownership!
Example of emission reduction: electricity source

- **Fossil-based (0% clean)**
- **Cleaner grid (25% clean)**
- **Community solar (50% clean)**
- **Rooftop solar (75% clean)**
- **Fully 100% clean**

Step-down reduces emissions AND saves $$$$
Example of emission reduction: waste and recycling

[Bar chart showing annual CO₂ emissions (kg) for different recycling scenarios.]

- No recycling: 900 kg
- Paper: 700 kg
- Paper + Metal: 600 kg
- Paper + Plastic: 500 kg
- Paper + Glass: 400 kg

Waste and recycling
Hand over to Lisa
Funding of our Croton100 not-for-profit

Private donations

Corporate sponsorships

Grant proposals
Croton100 launch preparations

Board of Directors
Rachel Bernstein | David Hemmerling | Donna O’Malley | Lisa Moir | Karen Moy | Nicole Shapiro | Chandu Visweswariah

Co-Presidents
Lisa Moir | Karen Moy

Launch Committee
- Event plans (venue, celebrity speaker, etc.)
- Donations
- Corporate sponsorships
- Publicity
5 members

App. Committee
- Web site
- Smartphone app.
- Data
5 members

Recruitment Committee
- Recruit/train volunteers
- Draft pledge
- Gather pledges for launch
- Student committee leaders
5 members, 100 volunteers

Emissions Committee
- CO₂ accounting
- Campaign design
- Research, studies, grants
- Collateral
5 members

Co-Presidents
Lisa Moir | Karen Moy

Nicole Shapiro
Patty Buchanan

Tim Dinger
Hunter Brodie

Donna O’Malley
Karen Moy

Dr. Thomas Theis
Matthew Rubinstein

5 members

Croton100 organization

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Conclusions and call for help

Comprehensive, aspirational, draw-down plan
Clearly measured metrics and goals
Deliberate and systematic approach
“Neighbors influencing neighbors”
We will only succeed if we can get every Crotonite fired up!!!
Your presence today is a strong sign of commitment
Please sign up to be committee members and volunteers
Please lead by example!
Please join one of the break-outs to help us plan for a big launch event in early 2020
Croton100 launch preparations

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**5 members**

**5 members**

**5 members, 100 volunteers**

**5 members**