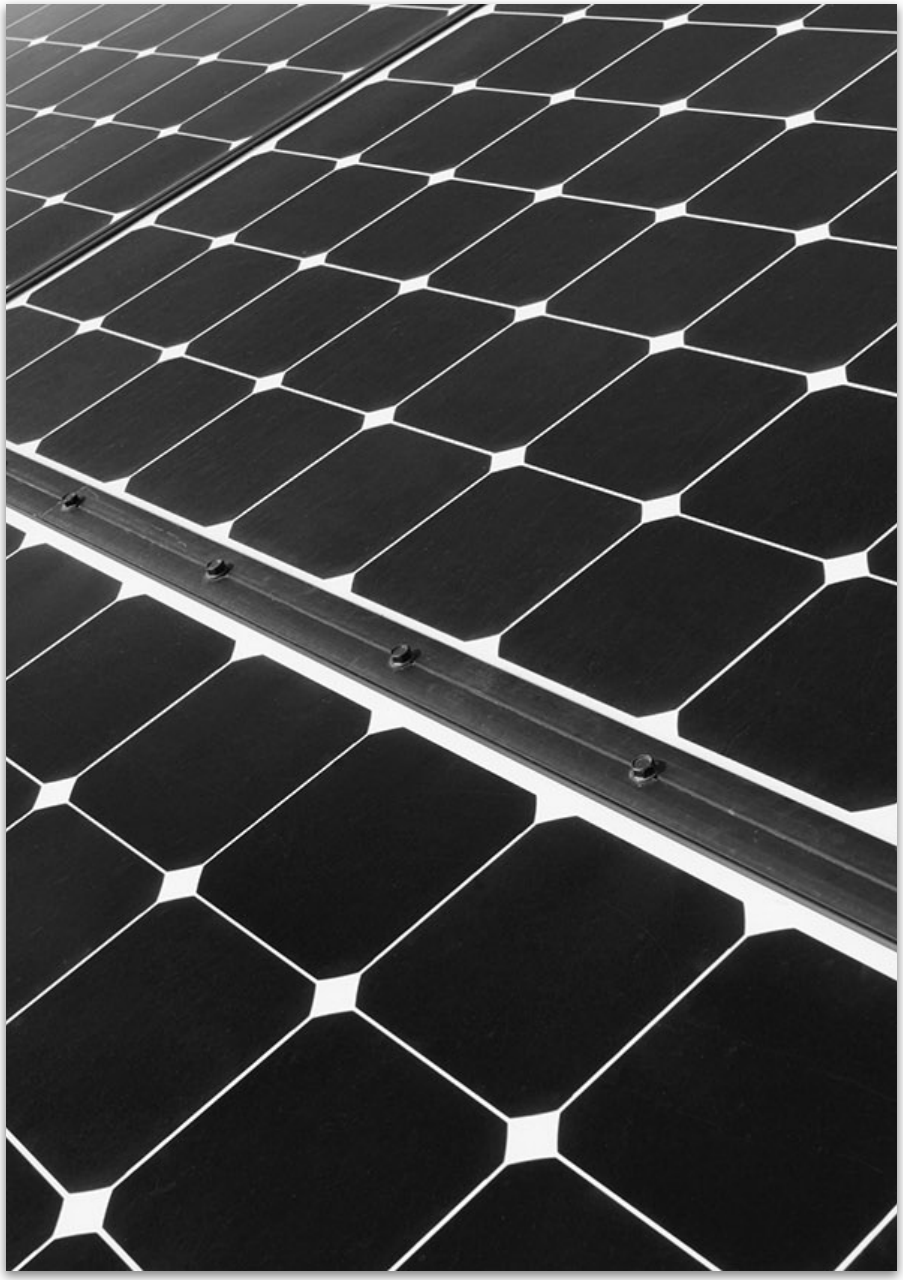
100% CLEAN ENERGY COMMITMENT

SUSTAINABLE COMMITTEE REGION 18

TRANSITION TO CLEAN ENERGY

- Clear skies revealed before/after photos and satellite imagery show human impact on air, water, lands
- Learn from lessons - NOT business as usual
- Policy makers plan for lasting infrastructure change towards net zero emissions in all energy sectors
- Region 18 is in a good position to take leadership position

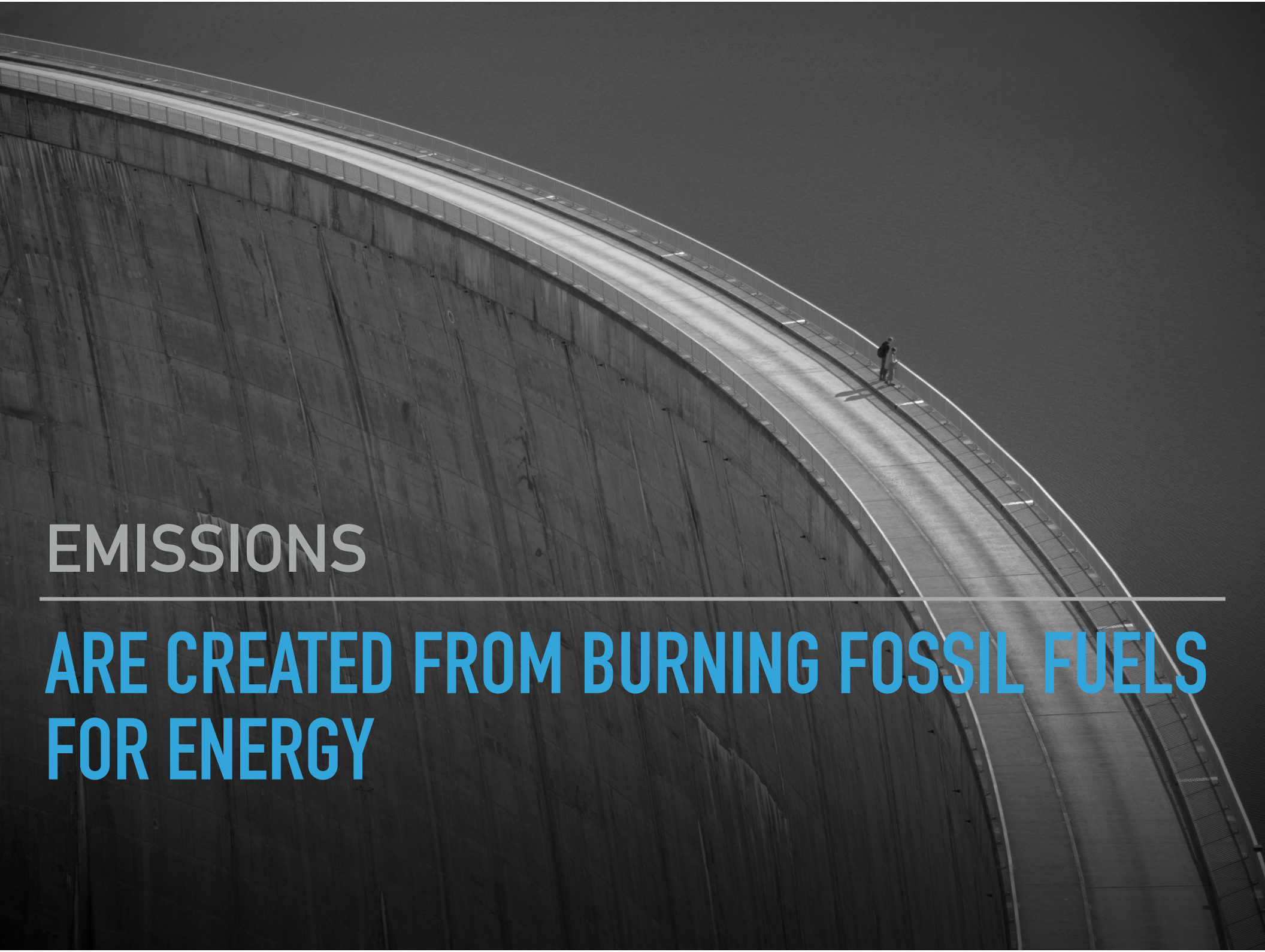


MAKE A COMMITMENT TO A SUSTAINABLE FUTURE

- Financial Benefits - Energy efficiency saves money 29% cost reduction
- Social, Environmental, Cultural benefits - a commitment creates a path for a holistic equitable transition to a sustainable future for our kids
- Already in budget 5 year plan for upgrading HVAC with air source heat pumps that run on electric MS, CS, Lyme, MC (NOT HS)
- Already made improvements in lighting
- Already offset electricity with 31% solar energy
- Already improve energy efficiency with mechanical controls

PASS 100% CLEAN ENERGY RESOLUTION

- The goal of a 100% allows us to fully plan for rather than incremental change that we may or may not achieve in the time frame scientists across the world have established
- Positive publicity - Let's be the First school district in CT to commit to 100% - Leader for other communities - Pave the way for other communities and support others.
- Capitalize on solidarity lesson from coronavirus. Same policy and action for climate change.
- Students, teachers - inspired, motivated - as facilities and academics move towards new energy paradigm

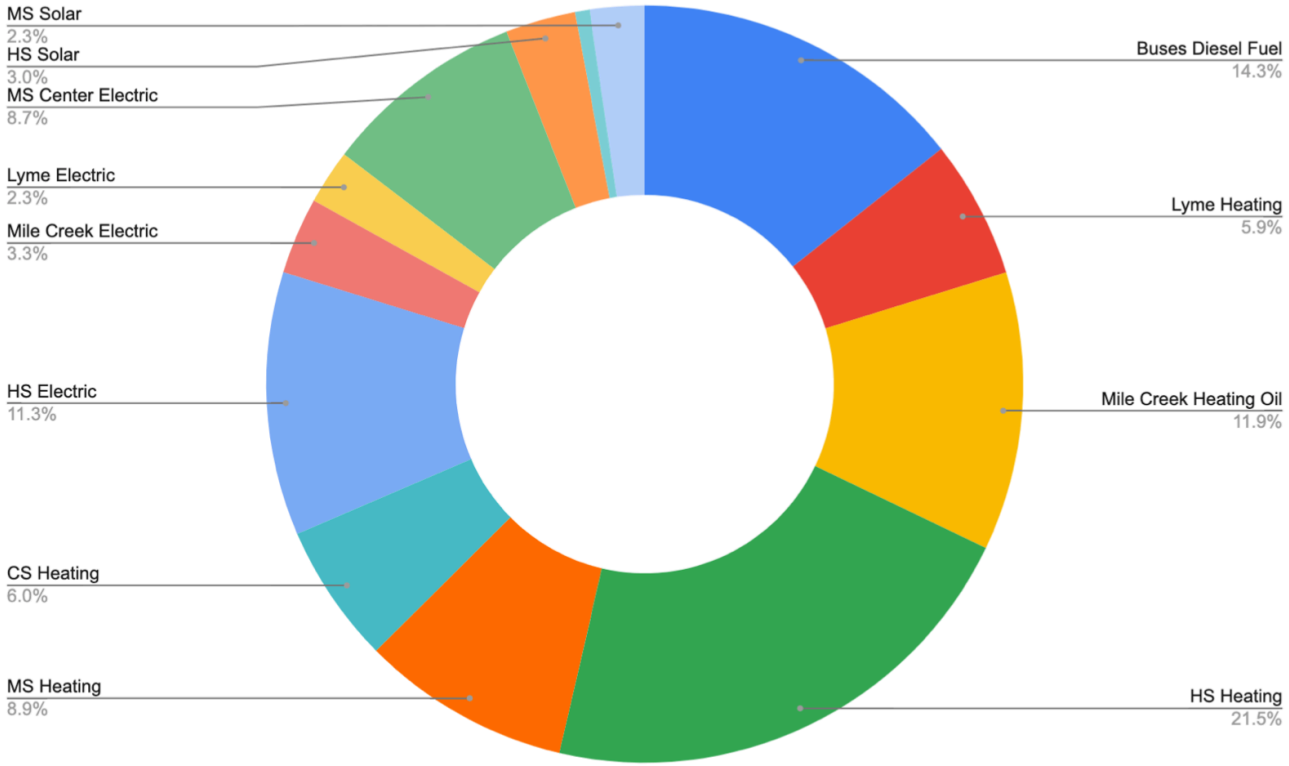


EMISSIONS

ARE CREATED FROM BURNING FOSSIL FUELS FOR ENERGY

ENERGY SECTORS

- Transportation
- Buildings
- Electricity
- Cooking



2018-2019 Energy Profile Data for Region 18
6% Clean Energy

HOW TO CRAFT A 100% CLEAN ENERGY RESOLUTION THE BOE WILL VOTE FOR

- 100% electricity 2030?
- 100% heating and cooling and cooking 2030?
- 100% transportation 2030?
- Do we change dates?
- Can we put a resolution to vote this year?
- How do we make sure 100% clean energy commitment is included in 5 year strategic plan that is being developed summer 2020?

PATHWAY TO ELECTRIC SCHOOL BUSES

- Opportunity to apply for grants as sole entity or collaborative with Clean Cities Coalition that includes 23 other towns in CT - 3 use M&J
- Grant pays for cost of regular school bus to full cost of electric school bus.
- DEEP grant opens in June, Additional funding from CT Green Bank, CT Dera Reduction and DERA
- Procurement through M&J on a plan for one or two electric school buses.
- Work with Town of Old Lyme Public works
- Plan new technology opportunities at Bus Depot for charging infrastructure, solar offset, vehicle to grid, battery storage, load management

UPGRADE ALL HVAC SYSTEMS

- Geothermal or Air Source Heat Pumps
- Energy source is Electricity
- MS, CS, Mile Creek, Lyme School already in Budget
- Engineering study budgeted for 2021/22
- Include in large spaces such as gym, auditoriums, open area in HS
- Any replacements from now until than are electric
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TRANSITION TO 100% CLEAN ENERGY WILL INCREASE ELECTRIC USAGE

- Onsite solar - Power Purchase Agreement (PPA) - no capital cost limited space to offset complete usage
- Build solar farm Old Lyme Landfill with Virtual Net Metering - PPA
- Shared Solar/Community Solar pay per kWh some companies guaranteed 10% savings
- Energy Storage
- Region 18 Electric Usage 3,346,022 kWh 2009-10 : 2,718,867 kWh 2018-19

VIRTUAL EVENTS

- US Green Building Council Center for Green Schools 4.30.20 1pm EST K-12 Energy Resiliency: Solar+Storage & MicroGrids
- Electric School Bus Event scheduled June 2020 - CT Clean Cities Coalition

REFERENCES

- 2020 EV Roadmap for CT http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/f7ed4932eec438d0852585520001c81b/$FILE/EV%20Roadmap%20for%20Connecticut.pdf
- Connecticut Physical Climate Science Assessment Report UCONN Atmospheric Science Group Aug 2019
- Carbon emissions are falling sharply due to Coronavirus. But not for long. https://www.nationalgeographic.com/science/2020/04/coronavirus-causing-carbon-emissions-to-fall-but-not-for-long/#close
- John Rhodes Presentation to BOE March 4, 2020