

# Hanover Pathway to 100%

What might it look like?



# Community-wide Electricity Usage

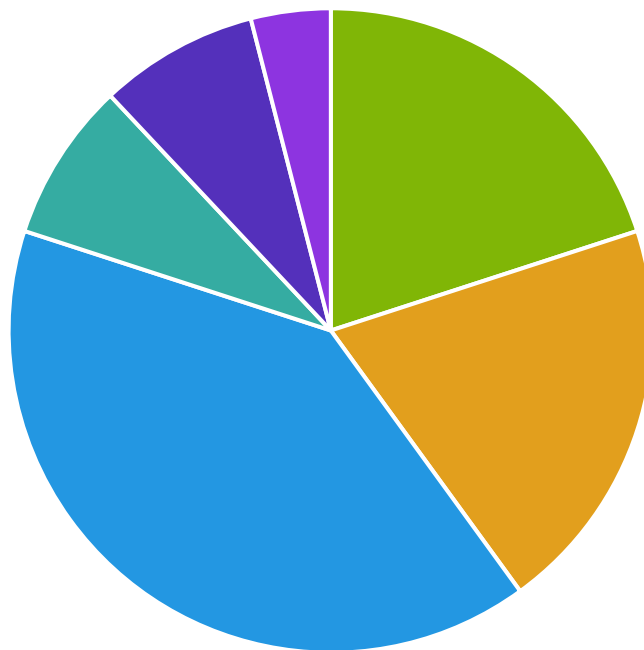
## 124,000,000 kWh

- ◆ Total community electricity usage based on Liberty Utilities data – **extremely difficult to obtain complete, ongoing data from electric utilities due to privacy concerns, utility industry opposition to renewable infrastructure, lack of State support in NH.**
- ◆ Total usage by sector – took 6 months and help of consultant to determine total electricity consumption by sector:

◆ Dartmouth College (G1)	60%	74 MW
◆ Town & other large users (G1/G2)	25%	31 MW
◆ Residents & small com accts (G3)	15%	19 MW
◆ Total	100%	124 MW

# Pathway to 100% Renewable Electricity Units in MW

Renewable Sources



■ NH RPS ■ Solar ■ PPA Large ■ Res Green ■ Energy Eff ■ Other

# Large User Power Purchase Agreement

- ◆ 3Degrees assists in determining innovative CES for purchase of Green-E Certified power for Dartmouth, Town, School District, other large business users.
- ◆ Goal to lock into competitive electricity rate for 20 years while supporting construction of renewable energy generator in the ISO New England region.

# Solar Options

- ◆ Currently host 100 residential systems = 664 kW
- ◆ Institutional and Municipal installations underway – 3 MW
- ◆ Develop 3 MW Town-owned site
- ◆ Dartmouth owns 13 MW site under study
- ◆ Target construction of 4 additional 1 MW sites (private)

# Residential Green Power Coop

- ◆ 3Degrees steers selection of CES registered to do business in NH (ability to service both commercial and residential accounts with shared RE100 philosophy).
- ◆ Offer 12 month rate for Green-E Certified electricity in rolling registration beginning May, 2019.
- ◆ Initial marketing focus on Hanover residents and small businesses but other interest around NH.
- ◆ Sign up easy and prices competitive – prospects are favorable in NH given high electricity prices in state.

# Challenges Moving Forward

- ◆ Lack of support for renewable energy initiatives in NH – Governor and GOP Legislature do not recognize climate change.
- ◆ Coupled with situation at the federal level under current administration.
- ◆ Lack of support from utilities who look for every opportunity to stymie efforts, arguing increases support for solar and wind will lead to higher default electricity rates.
- ◆ Ability to gather baseline and evaluative data still very difficult.
- ◆ Need to wait for transportation industry to innovate around use of non-carbon based fuels.