

Proposed Cost-Benefit Study Burying Utility Cables

For the Consideration of the Town of Sudbury, Annual Town Meeting, September 15 2020

Proposed by
Girish Pathak
gpathak@comcast.net



AGENDA

- The Problem, and the Solutions (or Our Choices)
- The Proposed Study Project, and its Deliverables & Timelines
- The Context - the Interested Parties (including MAPC*) and the Disinterested Parties in this Study
- The Benefits of the Study, if Implemented
- Deliverables from the Study at What Cost (Small, Medium or Large)?
- Question(s) and Answer(s)



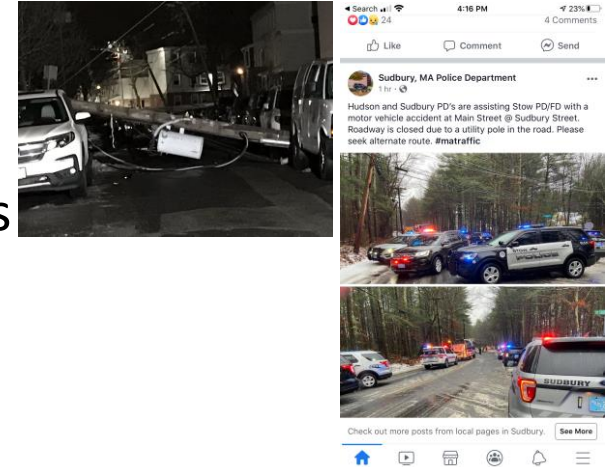
*MAPC stands for Metropolitan Area Planning Council



The Problem, and the Solutions or Our Choices

- The problem

- A number of Sudbury residents are facing long (> 1 hr.) & frequent power outages, mostly caused by downing of power cables by
 - snow storms, ice storms, and high winds
 - falling tree limbs
 - road accidents involving utility poles, etc.
- And our roads are getting blocked by downed power lines
 - For emergency vehicles to be able to reach a home or needy
 - To negatively affect our disaster preparedness



- The Solutions or Our Choices are:

1. Do nothing, and stay the course
2. Bury all utility cables, a costly proposition
3. **Bury select few utility cables/routes which are causing disproportionate outages**



The Study Project and its Deliverables/Timelines

- To support the choice #3 in the previous slide, the proposed study project is a small first planning/assessment step towards understanding cost-benefits of burying cables for the Town of Sudbury
 - to analyze historical power outages (duration and repair costs, if available)
 - to map outages to cable routes and
 - to potentially prioritize all cable routes into, say five categories, from a small investment and big payoff category on the one end to a big investment and small payoff category, on the other end
- Proposed Deliverables & Timelines
 - Provide power outage data and restoration cost/index, collected from utilities
 - Provide power outage data mapped to GIS maps with duration as the key parameter
 - A brief description of the data and key parameters of interest
- The study project is expected to complete in twelve months and will be done mostly by utility providers, at the request of the officials of the town of Sudbury



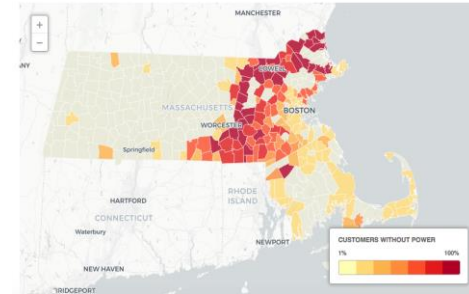
Context: Presumed Biased-Parties of the Study

- Interested Parties are
 1. Residents of Sudbury for having good data to analyze and to act on
 2. Sudbury Public Works for cost-effective alignment of their plans related to utilities, particularly when they are to dig a road for a utility
 3. Metropolitan Area Planning Council (MAPC) for better disaster preparedness and emergency response planning by the Town of Sudbury
- Disinterested Parties are
 - Utility companies for the short-term additional work that they will have to undertake and release data to town-residents who own it!!!
 - Utility companies for potentially committing them to a path leading to additional CapEx
 - Rate-regulated utility companies for reduction in their operating expenses => profits



The Benefits of the Study, if Implemented

- **Less power outages**
 - Less power outages in our town
 - Reducing risks to vulnerable residents, who rely on power and clear access roads
 - Reduced need to stock up on (a) UPSes or (b) inefficient/polluting generators
- **Improved road access**
 - Higher availability on our access roads
 - Better disaster preparedness for the Town of Sudbury
- **Roadside beautification**
 - Unsightly clumps of cables, Sagging cables, Dangling wires (safety hazard?)
 - Butchered and Bent trees
 - Un-appealing Bent poles, Double poles, Patched poles
- Potentially, **some long-term cost-savings** for the town and residents



Deliverables from the Study at What Cost?

- Small in Size, town staff labor hours only
 - Approximately one (1) FTE months of work or labor cost, mostly from the planning department of the Town of Sudbury and some from other departments



Any Questions on the proposed Study Project?

THANK YOU!

