



Article 26

Mr. Whelan moves: that the Town take affirmative action on Article 26 as printed in the Warrant in the sum of \$3,000,000 from borrowing under the provisions of Chapter 44, Section 20 of the Massachusetts General Laws or any other enabling authority.

Note to Moderator: 2/3 vote required



Existing Smart Grid Infrastructure

- 132 miles of fiber optic cable
- 73 gateways (handoffs from fiber to wi-fi)
- 665 repeaters (boosts wi-fi signals)
- 935 smart meters
- 505 load control switches
 - 139 ETS Customers
 - 357 controlled hot water customers
 - 9 other



Existing Smart Grid Services

- Demand response
 - ETS
 - Hot water
- Live meter data
 - Customer web portal
 - Monthly meter reads from the office
- Street light control
 - On/off only



Proposed Smart Grid Capabilities

- Demand response
 - ETS and hot water
 - Thermostats
 - Electric vehicle charging
- Live meter data
 - Customer web portal and monthly office meter reads
 - Power quality analysis, circuit loading, transformer sizing
 - Outage notifications
- Street light control
 - On/off and dimming and Fixture health



Current CMLP Initiatives

- Green House Gas reduction
 - Demand response programs
 - New rate structures (TOU, CPP etc.)
 - Distributed generation
 - Strategic electrification
 - Energy efficiency
 - Energy storage
- Financial stability
- Reliability



What Will Article 26 Accomplish?

- Full AMI (advanced metering infrastructure) deployment
 - 8678 total meters
- Up to 1300 smart photocells
 - Existing devices are not compatible with LED, no dimming ability
- Thermostats that do not require a C-wire
- Remote disconnect
 - EV charging control
 - Pre-pay potential, safer and more responsive shut-off interactions



Cost to Ratepayers?

- \$3,000,000 borrowing
- Assume a 10 year bond
- Assume 167,000,000 kwh sales annually
 - Difficult to forecast given how fast we are changing
 - CMLP is engaged in a strategic planning process to make the best forecast possible
- Median residential bill is 960 kWh
- Estimated cost to ratepayers:
 - \$0.00179 per kWh
 - \$1.72 / month for the median residential household



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