**Shelburne Energy Committee presentation to the Selectboard and Finance Committee on 8/14/2023**

Good afternoon members of the Selectboard and Finance Committee. I am here to present the Energy Committee’s recommendation on how we go about replacing our sodium vapor streetlights with LEDs. Two options are on the table: the first is to accept the “Eversource offer” to install 30 W, 3000 Kelvin LED cobra head lights at all 99 of the town’s current light locations. (These lights do not include the decorative lights in the village commercial zone.) The other, “Own our lights option” is to hire a streetlight consultant company that will:

* Acquire town ownership of the currently existing streetlights from Eversource.
* Conduct a thorough, cost-optimizing audit that, with community input, will determine where, and how many, streetlights we need.
* Purchase LED lights of brand, wattage, and kelvin temperature that meet our requirements.
* Take responsibility for their installation and maintenance.

The details of the second option are described in our final report to you dated August 1, 2023.

Let’s consider the pros and cons of both options:

**1A. The Eversource option – pros**

* 1. The Town has many years of experience working with Eversource.
  2. The switch to the 30 W LEDs will reduce our electric usage by ~30,500 kwh/yr and save the town about $5,000 per year on streetlight bills compared to what we now pay.
  3. We know what light we are getting –
     1. AEL Autobahn Series ATBX P40, R2, 30 W, 3000 K, etc.
     2. It is Roadway Type II, meaning it is designed for residential streets.
     3. BUG rating of 1-0-1, meaning no overhead illumination and restricted back-light illumination
  4. Eversource will maintain the lights, as they have for the town for years – a known entity.
  5. Presumably Eversource could make the shift to LEDs soon, initiating the $5,000 per year savings.

**1B. The Eversource option – cons**

1. We know the light we are getting -
   * 1. Much too bright and glaringly white for residential areas.
     2. Perhaps not bright enough for the lights along Route 2 or in some parking lots that currently have lights of much higher wattage than what are on the village residential streets.
     3. Their illumination pattern is much too broad, resulting in bright, glaring light trespassing onto many yards and dwellings.
     4. The lights are not preset for dimmable performance, resulting in greater energy usage, increased cost, and relatively shorter lifespans.
2. Eversource currently charges a “rental fee” of $6.97 per light per month in lieu of a maintenance fee. This adds up to $8,280 per year.

**2A. The “Own our lights” option – pros**

1. We save considerably more each year on electricity and maintenance – on the order of $11,000 compared to what we pay today, or ~$6,000 per year more savings than with the Eversource LED option.
2. There is no “rental” fee, and the maintenance fee would be roughly $2 per fixture per month, or $2400 per year.
3. The LED lights recommended by the lighting consultant company would be of warmer color – 2700 K or 2200 K, at least in the village, making them less blinding to the eye.
4. Light wattage would be lower than 30 W in the village and possibly higher, as needed, than 30 W in commercial areas such as along Route 2.
5. The lights could be dimmable, offering even more savings in electricity/cost and extend the lifetime of the lights.
6. Lights would be selected for their illumination pattern, assuring the light be directed only where it belongs: on the streets, roadways and sidewalks. No light trespass onto yards and dwellings.
7. Assuming an inflation rate of 3%, the town would pay much less over the 25-year lifespan of the LEDs – about a quarter of a million dollars less than what would be paid in the Eversource option.
8. Over 100 cities and towns in Massachusetts have gone this route, saving far more on their light bill than by going with Eversource.

**2B. The “Own our lights” option – cons**

1. An up-front cost is required. Our current desk-top quote, including the Eversource buyout, is about $55,000.
2. Finding this amount is not settled at this stage –
   1. Grants from Green Communities are likely to succeed.
   2. Stabilization funds (used for capital items) could be used.
   3. Tax-exempt lease purchase agreement for ~7 years is readily available.
   4. Other – Community Compact Fund? Municipal Vulnerability Program?
3. Will require the usual grant application timeline for the up-front cost, although a tax-exempt lease could begin within a month.
4. Uncertainty about who will maintain the lights, or how much it will really cost. (But we know that it will be far less than what Eversource charges for “rental fee”.) Greenfield pays just $2-3 K per year for their 1100+ lights, which averages out to about 25 cents per light per month, not $2/mo. that we are budgeting for, or $6.97/mo. that Eversource charges.
5. Uncertainty about the actual total cost for this option. The final cost depends on a few factors: how many total lights are involved – lights may be eliminated in the village, they may be added to dangerous intersections in the rural areas, and so on. (Hadley stated that the amount RealTerm Energy charged was “right on” the amount RTE had estimated in their desk-top study.)

**Our request.**

The Energy Committee requests that the Select Board defer on accepting the Eversource offer to convert the streetlights to LEDs, and authorize the Energy Committee to seek funding to hire a lighting consultant company such as RealTerm Energy or Tanko Lighting to audit our present lights, acquire town ownership of our lights, purchase and install new LEDs of acceptable lighting quality, using primarily Green Communities grant funds and possibly other sources.

**Finally:**

While we found RTE's desktop quote compelling, we had no way to confirm whether—or not—acquiring ownership of our lights was the best option. We needed proof: that the report's numbers bore out the end cost, that the savings were as significantly greater as stated, and that maintenance was truly minimal in its cost and physical operation.

We turned to other towns that had chosen to purchase their lights for input on their experience - both budgetary and operational. This was the only way to prove whether - or not - the purchase approach was working.

We spoke to five, randomly selected, town administrators and all have said they are very happy they purchased their lights. We spoke to town tax collectors and looked at online budget sheets. All confirmed significantly higher savings - both in energy and money - by going this route. Based on their experience - in Greenfield’s case 10 years strong - it is a clearly the way to go.

Towns have stated that the final cost came in on the nose with the assessed final proposals.

All of this gives us the confidence to make our recommendation for the approach we are advocating.

We suggest that if you feel uncertain about our report to you that you talk directly to town officials and seek your assurance there.

We are happy to provide names and numbers to help you: Greenfield, Hadley, Erving, Pepperell—even, going farther afield, Lummock, TX!

We must think beyond this moment, we must pull together as one United town.

We ask you to approve this request for all our children and their children. They are depending on us to make forward thinking decisions for their protection. Our choices today will greatly impact their future world. Every single effort to reduce our carbon emissions counts. If you can’t do this for yourselves or for those of us here with you tonight, do it for them.