

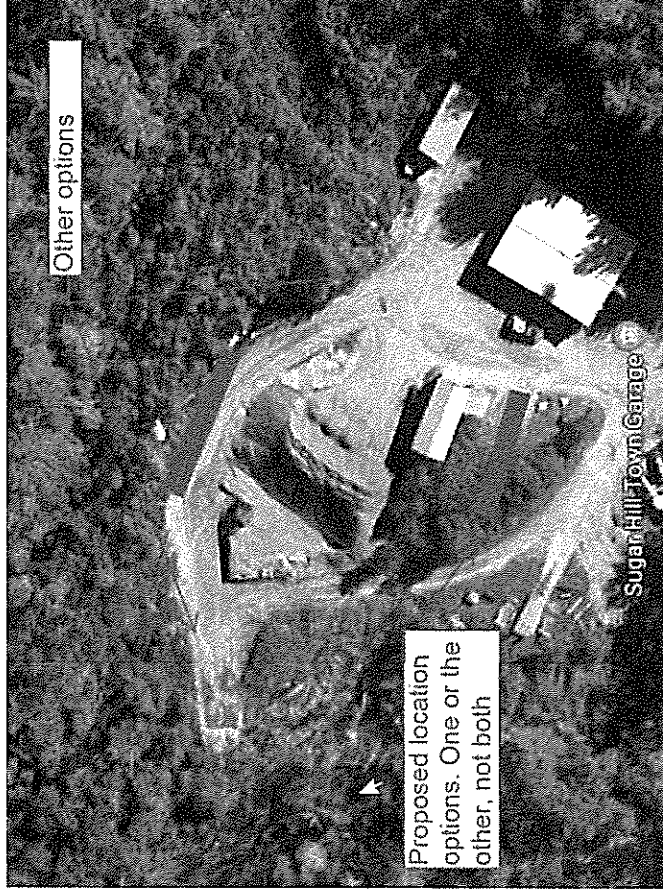
Sugar Hill Solar Array

Costs and Benefits of Installing a Solar Array to Provide Electricity for the Town's Buildings

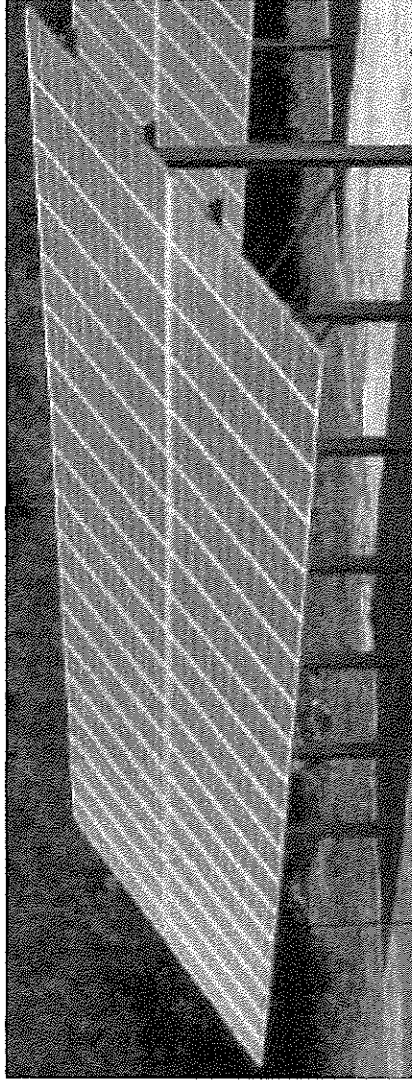
C.D. Martland

January 12, 2021

Revised January 28, 2012



Photos: NE Commercial Solar Services, proposal to Sugar Hill, October 2018



Benefits of a Solar Array

Green Energy

Long Life, Low Maintenance

Reduced Payments for Electricity:

\$4,000/year initially

More than \$135,00 over 30 years

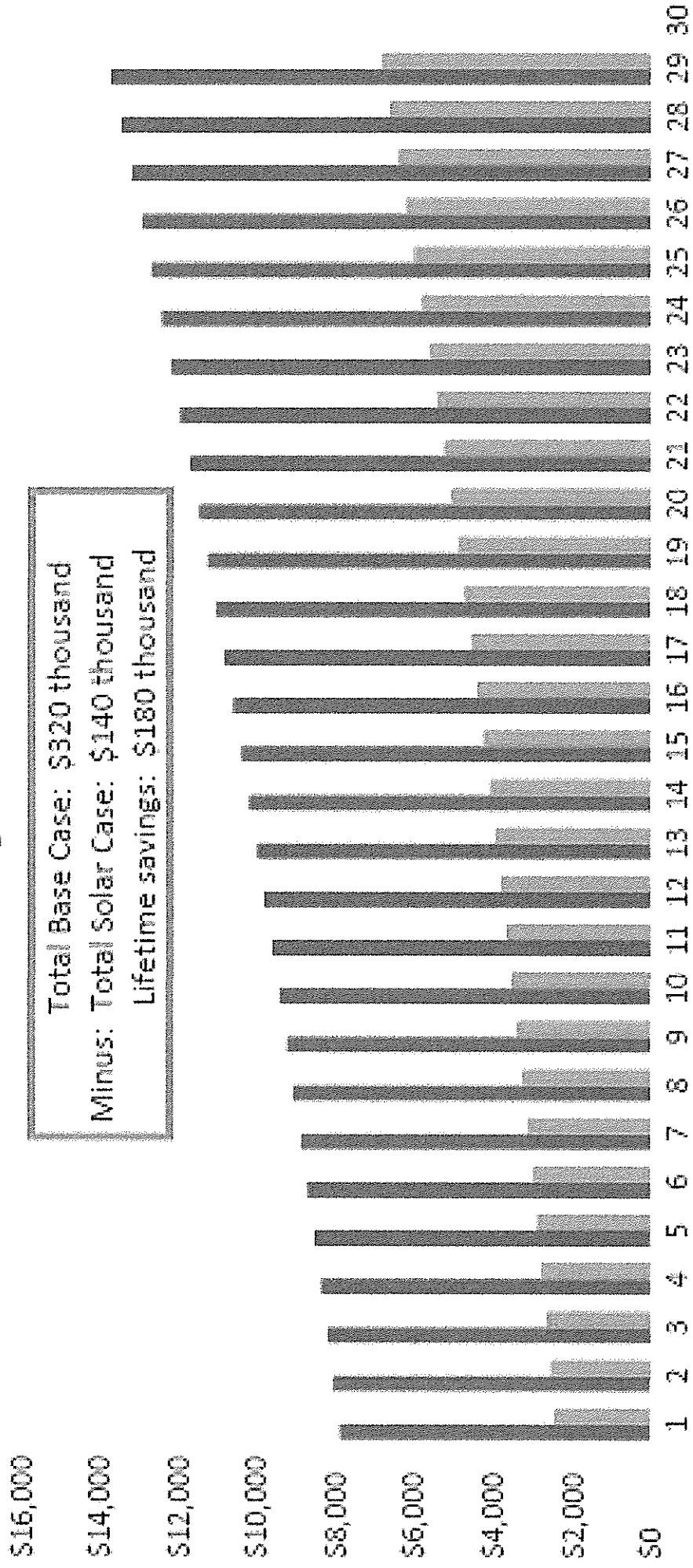
Renewable Energy Credits:

\$1,300/year initially

More than \$45,000 over 30 years

Lower taxes

Estimated kWh-Related Costs for Electricity Used in Town Buildings & Streetlights, 2021-2051



■ Base Cost ■ Cost with Array

Estimated Costs of a Solar Array

Installation Cost: \$110,000

Annual maintenance & insurance: <\$1,000/year

Total costs over project life of 30 years: ~\$140,000

Financing a Solar Array

Capital Reserve Fund as of 1/1/2020: \$7,500

Borrow as needed to cover additional installation costs of up to \$110,000.

The town can obtain a 5-year loan at 1.9% interest to cover the installation costs

Conclusion

- A solar array can be installed behind the town garage that will provide power for all of the town buildings.
- Project benefits are predicted to be \$180 thousand over 30 years.
- Project costs are predicted to be less than \$140 thousand over 30 years.
- The project can be financed with a 5-loan with an interest rate of 1.9%.
- Debt payments on existing town long-term notes can be adjusted so that budgeted debt payments would not increase.