

FINANCING SOLAR PHOTOVOLTAIC CANOPIES

The Apex Town Council has led other towns by previously approving a program to add solar photovoltaic (PV) systems to all of the town's public buildings. These systems will provide a positive rate of return that exceeds the interest rate of any loan the town now has. The systems will provide approximately 8% of the town's electrical energy consumption, so more needs to be done if the town is to meet the goal of 80% renewable energy by 2035.

The town's next most economic step for meeting the 2035 goal of 80% renewable energy is to install solar canopies on all the town's parking lots. These canopy solar PV systems will provide approximately 50% of the renewable energy necessary to meet the town's 2035 goal for renewable energy. The expected rate-of-return from a canopy based solar PV system will likely be in the 4% to 5% range, which is greater than the expected interest rate on any loan the town may procure. The beauty of solar PV canopies is that improved parking conditions will be provided to our citizens.

The cost of adding solar canopies to all of the Town of Apex parking lots is approximately \$15 million dollars.

It is proposed that the Apex Town Council task staff to begin investigating a bond issue for \$15 million dollars to be placed before the voters at the 2020 November election. The investigation should include estimated costs for the canopy structures in addition to evaluating the cost and performance of solar PV systems. A rate-of-return analysis may be provided. A formal application to the Local Government Commission for the \$15 million-dollar bond should be assembled, in addition to a voter information packet regarding the advantages of the town installing solar canopies. This information packet should include information regarding the reduction in the town's carbon footprint resulting from the installation of solar canopies throughout the town.