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Town of Athol Board of Selectmen

A Five-Year Plan to Reduce Municipal Energy Use

May 4, 2010

Whereas the Town of Athol seeks designation as a "Green Community" in accordance with the Green Communities Act of 2008 for our community (i) to advance strategic initiatives toward a sustainable energy future and economic development, (ii) to create access to state resources for locally driven projects that align with the energy conservation, energy efficiency and renewable energy development strategy of the Commonwealth and (iii) to demonstrate and strengthen regional collaboration in the North Quabbin; and,

Whereas designation as a "Green Community" requires compliance with five criteria, and the Town of Athol has put in place conditions to meet four criteria, including: provision of as-of-right siting for renewable and alternative research and development facilities and manufacturing facilities in designated locations; expedited permitting under which such energy facilities may be sited within the town; a formal policy to purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable; and, adoption of the Stretch Energy Code to require all new residential construction and all new commercial and industrial real estate construction to minimize life-cycle costs to the extent feasible; and,

Whereas the remaining criterion is the establishment of an energy use baseline inventory for municipal buildings, vehicles, street and traffic lighting and a comprehensive program designed to reduce this baseline by 20 percent within five years of initial participation in the Green Communities Program; and,

Whereas a municipal energy audit of the Town of Athol has been completed by a professional energy services company and an energy use baseline of 22,343,818,830 British Thermal Units (BTUs) for municipally owned and operated buildings and vehicles in FY2009 has been established – an inventory that excludes (a) street and traffic lights owned and operated by National Grid accounting for 1,486,867,712 BTUs of annual energy use in FY2009, (b) construction of a new senior center forecast to use 1,266,495,164 BTUs per year and (c) buildings, vehicles and lighting owned and operated by the Athol-Royalston Regional School District; and,

Whereas the professional energy services company defined:

- (i) Fifty energy conservation measures with a total estimated investment value of \$1,606,059 via a performance-based contract to achieve a total energy savings of 3,123,405,012 BTUs at existing municipal buildings and facilities, with an annual cost savings of \$76,856, and,
- (ii) Three energy conservation measures at the future senior center to reduce its forecasted energy use by more than 40% for an annual energy savings of 522,764,012 BTUs and an estimated annual cost savings of nearly \$17,000; and,

Whereas the Capital Planning Committee, in a 6-0 vote taken April 28, 2010, endorsed use of the municipal energy audit and its proposed energy conservation measures by the Athol Energy Committee as the basis for a more cost-effective detailed implementation plan to reduce fossil fuel consumption by municipally owned and operated buildings and facilities by 20% in five years; and,

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Whereas, during the first three years of this five-year program (FY2011-FY2013), the Town of Athol will investigate potential alternatives that are more cost effective and achieve greater energy savings than proposed energy conservation measures planned for implementation during the final two years of the program (FY2014-FY2015); and,

Whereas other such municipal energy conservation, energy efficiency and renewable energy projects will be subject to review and approval by the Capital Planning Committee, Finance and Warrant Advisory Committee and Board of Selectmen;

Now, therefore, be it resolved that the Town of Athol adopts the detailed plan presented by the Athol Energy Committee and summarized below as a comprehensive program for reducing municipal fossil fuel consumption by 20% in five years:

- By reducing annual energy use by approximately 14% by maximizing energy conservation measures defined during the investment grade audit and/or new and more cost-effective energy conservation measures defined during the five-year implementation period (FY2011-FY2015), and,
- By developing renewable energy resources to produce more than 1.3 billion BTUs, representing approximately 6% of municipal energy consumption, to reach the 20% goal and exceed this goal to the maximum extent practicable.

In addition, the Town of Athol will:

- Work with National Grid to develop an action plan for energy-efficient retrofits of street lighting and traffic signals to reduce the FY2009 energy use baseline of 1,486,867,712 BTUs by 297,373,550 BTUs – a 20% energy use reduction that equates to an estimated annual savings of \$14,425. This initiative will involve examination of ownership of street lighting and traffic signals, and the merits and rate structure and billing implications of town purchase from National Grid, and,
- Work with project stakeholders to implement energy conservation measures during construction of the new senior center to reduce its forecasted energy use of 1,266,495,164 BTUs by more than 40% – avoided energy use of 522,764,012 BTUs per year that equates to an estimated annual savings of nearly \$17,000.

Five-Year Plan by the Town of Athol to Reduce Municipal Fossil-Fuel Energy Consumption by 20%

Phase / Year	Energy Conservation Measures (ECMs) # of projects, building type	Budget	Funding	Estimated Energy Savings (BTUs/Year)	Estimated Cost Savings (\$/Year)
Phase 1 / FY2010	ECMs = 2 (existing)	\$173,300	Secured grant funds	728,037,564	\$16,123
Phase 2 / FY2011	ECMs = 33 (existing) ECMs = 3 (new)** RE Projects = 2	\$218,611 \$106,307 \$507,500	Secured grant funds, proposed bond, annual budget, proposed grant	986,525,340 522,764,012 1,434,811,800	\$27,789 \$16,993 \$67,475
Phase 3 / FY2012	ECMs = 1 (existing)	\$593,991	Proposed bond, annual budget, grants TBD	982,791,964	\$17,664
Phase 4 / FY2013	ECMs = 1 (existing)	\$176,683	May finance as part of expansion project, grants TBD	303,832,804	\$9,632
Phase 5 / FY2014-15	ECMs = 13 (existing)	\$290,587	To be determined	122,217,340	\$5,648
	55	\$2,066,979		5,080,980,824	\$161,324

*ECMs and associated cost savings defined by municipal energy audit. **Reduction in forecasted demand; not a reduction in FY2009 energy use baseline. Note: RE = Renewable Energy