

UTILITIES and PRIVATE SERVICES

INTRODUCTION

Presence and availability of adequate utilities is vital to the welfare of the community, in particular for meeting the health, safety, and security needs of the citizens, and in general for meeting their desires for comfort, entertainment, and quality of life. Further, the availability of certain utilities can support the community's goals for economic development.

To meet these needs, utilities presently being provided in the Town of Jaffrey include electricity and 3-phase power, telecommunications infrastructure (broadband, cable television, telephone/wireless communications, internet service), and solid waste service. Because of their diverse nature, each of these, as well as private services not currently provided such as gas, is considered separately in the following sections. It will be seen that, due to the rural nature of the Town, not all utilities are available throughout the community, such as 3-phase power and broadband. However, electricity and certain telecommunications services being somewhat easier to distribute and are available virtually everywhere in the Town. Electrical and telecommunications infrastructure are provided by private business entities.

ELECTRICAL INFRASTRUCTURE

Electricity

Public Service of New Hampshire (PSNH) is the main electricity supplier for the Town of Jaffrey. PSNH is the state's largest electric utility, providing service to more than 447,000 homes and businesses. PSNH is a wholly-owned subsidiary of Northeast Utilities, a utility holding company based in Connecticut. With three fossil-fuel fired generating plants and nine hydroelectric facilities, PSNH has over 1,110 megawatts of generating capacity.

In Jaffrey, PSNH provides service to approximately 1,700 customers, or "accounts," which include homes, commercial and industrial businesses and all streetlights. Distribution and transmission lines, which are placed along roadways, carry power throughout the Town to the individual customers. The voltage from these lines is stepped down to the voltage that is used by the specific customer by way of transformers.

Electricity in Jaffrey is distributed through one major substation, located off of Highway 24. Two circuits originate from the Jaffrey substation. The 382/313 line spans from the Monadnock Substation in Troy to the Jaffrey Substation. The line continues as the 313 to the Jackman Substation in Hillsborough. The 382/313 line has three (3) 19.92/34/5 kV taps in Jaffrey, which include;

- The 382X2 which starts near the Jaffrey Substation and crosses Highland Avenue. The line runs through the right-of-way in a southerly direction along Mountain View Drive and onto Highway 202 near Old Jaffrey Road in Rindge.
- The 313X3 begins along Amos Fortune Road running in an easterly direction onto Dean Farm Road. The circuit feeds west and north from Highway 137 to the coterminous town border of Jaffrey and Dublin.

- The 313X2 originates off of Lehtinen Road and feeds to Highway 202. The line toward Jaffrey becomes the 18X1 and continues to Downtown Jaffrey. Power from this line supplies the east quadrant and Contoocook Lake areas.

PSNH anticipates being able to provide current and future electricity demands of the Town of Jaffrey. There are currently no plans to expand operations.

3-Phase Power

Public Service of New Hampshire has indicated that three phase service, required for manufacturing operations, is available along a majority of Highway 202 and Highway 124. Additionally, 3-phase is available along portions of Old Sharon Road, Webster Street, Knight Street, Fitzgerald Drive, Plantation Drive, Sqantum Road, Prescott Road, Woodbound Road, Stratton Road, Charlone Street, and Nutting Road. Residents requesting 3-phase power service are reviewed on a case-by-case basis. PSNH indicates that the projected revenue from a new customer requiring three phase service would be reviewed and may be used to reduce customer contribution for the upgrade.

TELECOMMUNICATIONS INFRASTRUCTURE

Understanding Broadband (a.k.a. High-Speed Internet) Technology

What is Broadband?

Broadband is the common term for a high bandwidth internet connection one that can send or download information many times faster than with a standard telephone and modem. You can do everything you want to do online more quickly and more easily with broadband including logging-on, working from home through network connections, downloading files and music, and more.

Who Provides Broadband?

There are different ways of delivering broadband services over telephone lines, cable connections, via one or two way satellite systems and even by radio and there are many companies who offer these services. High speed or Broadband Internet connectivity, when locally available, is provided through either a Local Exchange Carrier (LEC), typically a phone carrier or an Internet Service Provider (ISP).

Is Broadband Available in Jaffrey?

The capability of existing infrastructure in the Town of Jaffrey to provide broadband service such as DSL (Digital Subscriber Line) through telephone and cable service, satellite cable, and wireless to individual homes and businesses is described in the sections below.

Cable Television

Adelphia Communications Corporation is the fifth-largest cable television company in the country. Adelphia serves customers in 31 states and Puerto Rico, and offers analog and digital video services, high-speed internet access and other advanced services over its broadband networks.

Jaffrey currently has cable television with expanded cable service capabilities. The expanded cable suite includes additional programming such as movie channels and additional features such as on demand in limited areas of Town.

Satellite cable television is available to individual residences and businesses throughout the community, provided a southeasterly exposure is available, and is an alternative cable service for those areas not served with cable options through Adelphia. There are a number of satellite cable providers and installers serving the area.

Telephone and Wireless Communications

Landline phone service is provided for new and existing residences and businesses in Jaffrey by Verizon. Long distance calling service through landline phones is available through a number of service providers. A list of Authorized Toll Providers is available from the NH Public Utilities Commission at <http://www.puc.state.nh.us/Telecom/telecom.htm>. In addition, Verizon and various other telecommunications companies provide cellular and personal wireless service to the area.

Based on the 2003 US FCC Towers database distributed by the New Hampshire Office of Energy and Planning, there is currently three wireless facilities in Jaffrey (see Utilities and Public Service Map). Table 1 identifies existing telecommunications towers in Jaffrey:

Table 1: Telecommunications Towers

Location	Height/Type	Owner
20 Webster Street	80-foot monopole	U.S. Cellular Corporation
141 Old Sharon Road	125-foot monopole	Crown Atlantic LLC
365 Turnpike Road	50-foot pole	Nextel Communications

Source: NH OEP Cell Tower Database, November 2003

Federal law regulates the placement of cellular towers in a given community; however, emphasis has been placed on balancing the need for telecommunications infrastructure with a community's desire to maintain community character. The Telecommunications Act of 1996 preserved state and local regulatory authority for the placement, construction or modification of wireless facilities. However, local zoning and regulations may not prohibit wireless services within the community or address the potential effects of non-ionizing electromagnetic radiation and unreasonably discriminate among providers of functionally equivalent services.¹

Internet Systems

Dialup connections (56k) over telephone lines are universally available. Digital Subscriber Line (DSL) high-speed computer internet service is the most widely available high-speed telephone connection type in the region. DSL phone service may be available to individual residential and business customers in Jaffrey through local phone service providers. Availability will depend on the residential or business location in proximity to a central office or substation of the service provider (DSL broadband has a limited service area of 18,000 feet from the central office or substation providing service).

High speed or Broadband Internet connectivity, when locally available, is provided through either a Local Exchange Carrier (LEC), typically a phone carrier or an Internet Service Provider (ISP). LECs typically provide bandwidth and contract with ISPs to market and sell connectivity. ISPs also typically offer value added products including web-hosting space, web design assistance, email and access to news groups and other services. For competitive reasons, LECs and ISPs offering services in Jaffrey change frequently.

¹ Source: Telecommunications Act of 1996, 47 U.S.C. 332(c)(7).

An up-to-date list is provided by the NH Public Utilities Commission at <http://www.puc.state.nh.us/Telecom/internetbroadband.htm>.

Fixed wireless broadband is a mesh network in which every station is fixed. It is ideal for distributing data between buildings (i.e. for multi-site companies). It is not a practical technology for the home or workplace as devices and actions can block or interfere with the radio paths.

NATURAL GAS

Natural gas is a private, for-profit utility that does not currently service the Town of Jaffrey. NH Gas Corporation, based in Keene, provides limited service of a propane/air mix to approximately 1,000 customers within the City of Keene. Expansion of such service for private utility providers is costly. NH Gas Corporation does not anticipate the expansion of its service area to include the Town of Jaffrey in the coming years. An up-to-date list of providers is maintained by the NH Public Utilities Commission at <http://www.puc.state.nh.us/Gas-Steam/gas-steam.htm>.

Although a natural gas system is not available in Jaffrey, individualized propane tanks are used by many property owners. The propane gas is provided by a private, for-profit utility used for cooking, hot water, and to a limited extent, home heating. Several private companies provide service to residents of Jaffrey and other communities in the region.

SOLID WASTE

The Town of Jaffrey operates a Transfer Station on Old Sharon Road operated by the Highway Department. The Town accepts municipal solid waste (MSW) and recyclables from Jaffrey residents only through an individual drop-off process. The Town maintains an agreement with Monadnock Disposal for the removal and disposal of MSW collected on-site; the MSW is believed to be landfilled. Recyclables are marketed through the Northeast Resource Recovery Association.

Additional information about the Town's solid waste facilities is included under the Community Facilities chapter of the Master Plan.