



EMS

Design Management Services

Client

UPC Poland

Location

Poland

CATV Network Upgrade

UPC Poland is a cable television, telephony, and broadband services provider and is owned by Liberty Global Europe, Inc., an indirect wholly owned subsidiary. Liberty Global Europe provides services in 13 countries in Europe. In Poland, UPC passes 1.9 million homes and has approximately 1 million cable subscribers. UPC Poland has been upgrading its CATV network to a 2-way, 860-MHz network. This will allow both downstream and upstream communication and thus allow services such as Internet, Video on Demand, and Voiceover IP. CH2M HILL is one of a selected number of companies which have been contracted to provide the network design services for this project.

As of February 2008, CH2M HILL's project team from the Krakow Project Delivery Office has designed approximately 4,700,000 homes passed in five Polish regions.

Network Inventory—An important aspect of the upgrade is the management of the network inventory. CH2M HILL is responsible for the accuracy and quality of the network inventory and will oversee the work of the local subcontractors to ensure that the inventory is always up to date.

HFC Node Design—CH2M HILL is responsible for all the RF calculations for each optical node, including trunk and distribution amplifiers from optical node up to the distribution point (lockbox). All calculations are performed with LodeData software to the UPC-approved LodeData specification. Network design and subsequent implementation is kept in AutoCAD. The designs consist of a number of different types of drawings such as building schematics, grid network, trunk routes, and logical schematics. The network is overlaid on city digital maps provided by UPC; any missing maps are purchased and digitized according to the UPC-approved standards. CH2M HILL is also responsible for the agreements with landlords to permit entry to sites for all network element changes or additions.

Power Design—CH2M HILL performs power calculations using LodeData software. The power design is based on standby power supply systems. CH2M HILL negotiates pre-agreements with landlords aimed at easy electrical permit capture.

In addition to the redesign of the existing network, CH2M HILL provides the following services to UPC Poland:

- New builds-RF network designs for new buildings in the optical node area
- Construction designs for new telecommunication duct sections
- Managing a number of design, geodetic, and inventory subcontractors
- As-built documentation for constructed network

The project that, in the beginning, included only design management services is now growing due to our capabilities of meeting our client's requirements and needs. The client has frequently prolonged the agreement and increased the scope of services (e.g., fibre-optics design).