



**Projecting the Economic Impact of the Proposed PGP  
Redevelopment of the Former Norwich Hospital Site  
Preston, Connecticut**

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## *Overview*

PGP is proposing to redevelop the site of the former Norwich Hospital in Preston, Connecticut. The redevelopment envisions building significant new retail space, two hotels, and a variety of residential housing.

The Town of Preston contracted with the Connecticut Center for Economic Analysis (CCEA) at the University of Connecticut to develop an economic impact study of the proposed redevelopment. CCEA performed the study using the REMI model of the Connecticut and New London County economies - a model that Regional Economic Models Inc. of Amherst, Massachusetts developed and maintains.

The proposed development will bring significant new economic activity to Preston and its region, generating more than **2675 permanent net new jobs**, adding on average **\$338 million** to the county economy. In 2038, complete development of the PGP will be adding just shy of **\$680 million** annually to the economy. The Town of Preston will gain substantial net new tax revenues – at the 2005 equalized mill rate, this project would generate net new tax revenues of **\$15 million** annually, more than *double* local revenue. Even assuming a significant reduction in state transfers, the Town of Preston could significantly reduce the local property tax rate while expanding municipal services.

# **Projecting the Economic Impact of PGP Proposal: Redeveloping the Former Norwich Hospital Site**

## *Overview*

PGP is proposing to redevelop the site of the former Norwich Hospital manufacturing plant in Preston, Connecticut. The redevelopment envisions building significant new retail space, two hotels, and a variety of residential housing.

At the request of the Town of Preston, the Connecticut Center for Economic Analysis (CCEA) at the University of Connecticut developed an economic impact study of the proposed redevelopment. This CCEA study provides an analysis of the impacts resulting from full implementation of the proposed development over the next twenty-one years to the Town of Preston, New London County, and the State of Connecticut. The CCEA analysis reports such key economic indicators as gross regional product, personal income, total employment, population changes, state and local tax revenues, and induced government spending.

CCEA performed the study using the REMI model of the Connecticut and New London County economies - a model that Regional Economic Models Inc. of Amherst, Massachusetts developed and maintains. The REMI model provides a dynamic representation of the state and county economies that allows CCEA to project in detail the annual impacts of projects and policies, measured in constant dollars (excluding the impact of inflation). CCEA then allocates municipal level impacts on the basis of a combination of a gravity model and the specific economic characteristics of the region. Appendix A provides a detailed description of the REMI model.

This analysis separates the economic impact of the construction phase, which PGP anticipates will run from 2008 to 2015, from the operational phase. The impacts from the construction phase are, of course, largely temporary, occurring principally over the years of construction; the impacts of the operational phase will be permanent. PGP has laid out the sequence of development for each aspect of their proposal. Following demolition and remediation, the first phase on construction includes a variety of residential housing—82 single family units, 176 town houses, 155 senior housing—construction of the 500 room hotel, 424,000 square feet of retail, 106,000 square feet of restaurants, the eighteen hole golf course, and its club house. PGP will complete this phase by 2013 and guarantees completion this component of its overall proposal.

A second phase of residential, retail, and restaurant development will begin in 2010, adding 58 garden court residents and 248 town houses. PGP will complete construction in this phase in 2013, with a total investment of \$116 million. The third phase will begin in 2012, again adding residential, retail, and restaurant capacity, with an investment of \$73 million. The fourth phase, running from 2013 to 2015, will complete the residential development and add 296,000 square feet of office space. PGP proposes spending about \$900 million in completing this project. (See attached PGP Phased Development Schedule)

## ***Results***

The CCEA analysis shows that the PGP proposal will have significant positive impacts, with Preston capturing a significant share of the fiscal benefits. The analysis breaks out the elements of the economic impact in terms of population growth, employment, gross regional product, and personal income. The analysis then provides an assessment of the fiscal impacts, measured in terms of net new revenues that flow to the Town of Preston.

### **Economic Impact**

The PGP project will generate a positive impact on total economic activity, employment and population. The analysis separates the impact of the construction phase from the operational phase: the first generates a large but transitory impact; the second produces a permanent increase in economic activity.

During the construction phase, running from 2008 through 2015, employment will average nearly 276 jobs, with peak employment of more than 1655 in 2011. For New London County, the construction phase will generate in aggregate, in present value, approximately **\$413 million** in new economic activity and **\$418 million** in new personal income.

When the development is fully operational, it will generate a continuous stream of new economic activity. The new employees, working in the new retail, hotels, and other facilities will, through their own spending, stimulate the regional economy and induce creation of additional new jobs within the area; this will also lead to an increase in the regional population. Assuming that hotel activity is fifty per cent (50%) net new, permitting REMI to set net new retail sales, and assuming that the office space will attract entire new activity to the region, the analysis projects that as a result of this development, total output in New London County (Gross Regional Product), over the first twenty years of operation, will rise in aggregate nearly **\$3.85 billion** in present value, an annual average of approximately **\$338 million**. The analysis forecasts an average annual increase in personal income of **\$193 million**, aggregating to **\$2.19 billion** in present value. The economy will also gain nearly 2700 permanent net new jobs, and the regional population expands above its baseline projection by almost 2600.

On-site employment would be substantial. Retail would support 1400 to 1725 jobs, the hotel would employ about 250, and the office space about 1400. Total on-site employment would thus reach as high as 3500.

### **Fiscal Impact**

#### **a) New Revenues**

The analysis anticipates the proposed development directly generating significant property tax revenue for the Town of Preston. Valuing properties at seventy percent (70%) of their anticipated sales price or using construction costs where no market project is available—a conservative assumption—and using the 2005 Preston equalized mill rate of 15.45 mills, PGP's proposed development generates averaged annual *net* property tax revenue of \$15.1 million; the discounted present value over the period 2008-2038 is \$467 million. In 2038, at current rates, the annual revenue stream would be \$23.7 million.



## *Conclusions*

The key highlights of the projected fiscal benefits to the Town of Preston are:

- **Over the first twenty-one years, 2008-2038, the PGP development, assuming full build out, and net of new government expenses, will generate annually on average for the Town of Preston approximately \$15 million.**
- **Over the twenty-one year period 2008-2028, net of new municipal expenses, Preston will gain nearly \$467 million in new revenues.**
- **In 2038, at current rates, the PGP development would generate net revenues for Preston of nearly \$24 million annually.**

## *Appendix A: Description of REMI model*

REMI is a dynamic, multi-sector, regional model used as an analysis tool by the Connecticut Center for Economic Analysis. The REMI model includes all of the major inter-industry linkages among 466 private industries aggregated into 49 major industrial sectors. With the addition of farming and three public sectors (state and local government, civilian federal government, and military), there are 53 sectors represented in the model.

The REMI model is based on a nationwide *input-output* (I/O) model that the U.S. Department of Commerce developed and continues to maintain. Modern input-output models are largely the result of groundbreaking research by Nobel laureate Wassily Leontief. Such models focus on the inter-relationships between industries, and provide information about how changes in specific variables—whether economic variable such as employment or prices in a certain industry or other variables like population—affect factor markets, intermediate goods production, and final goods production and consumption.

The REMI Connecticut model takes the U.S. I/O “table” results and scales them according to traditional regional relationships and current conditions, allowing the relationships to adapt dynamically at reasonable rates to changing conditions. Some of the salient structural characteristics of the REMI model are:

- Consumption is determined on an industry-by-industry basis, and is based on real disposable income in Keynesian fashion, i.e., with prices fixed in the short run and GDP (Gross Domestic Product) determined solely by aggregate demand.
- The demand for labor, capital, fuel, and intermediate inputs per unit of output depends on relative prices of inputs. Changes in relative prices cause producers to substitute cheaper inputs for relatively more expensive inputs.
- Supply and demand for labor in a sector determine wages weighted by regional differences. The supply of labor depends on the size of the population and the size of the workforce.
- Migration – which affects population size – depends on real after-tax wages as well as employment opportunities and amenity value in a region relative to other areas.
- Wages and other measures of prices and productivity determine the cost of doing business. Changes in the cost of doing business will affect profits and/or prices in a given industry. When the change in the cost of doing business is specific to a region, it will also affect the share of local and U.S. markets supplied by local firms. Market share and demand determine local output.
- “Imports” and “exports between states are related to relative prices and relative production costs.
- Property income depends only on population and its distribution adjusted for traditional regional differences, *not* on market conditions or building rates relative to business activity.
- Estimates of transfer payments depend on unemployment details of the previous period, and total government expenditures are proportional to population size.
- Federal military and civilian employment is exogenous and maintained at a *fixed* share of the corresponding total U.S. values, unless specifically altered in the analysis.

Because the variables in the REMI model are all related, a change in any one variable affects many others. For example, if wages in a certain sector rise, the relative prices of inputs change and may cause the producer to substitute capital for labor. This changes demand for inputs, which affects employment, wages and other variables in those industries. Changes in employment and wages affect migration and the population level, which in turn affect other employment variables. Such chain-reactions continue throughout the model. Depending on the analysis performed, the nature of the chain of events cascading through the model economy can be as informative for the policymaker as the final aggregate results. Because the model generates such extensive sectoral detail, it is possible for experienced economists in this field to discern the dominant causal linkages involved in the results. Results reported are the combined direct, indirect and induced effects of the economic activity.