

Practicing Fiscal Responsibility Through Energy Efficiency



A “free” stimulus that creates jobs, lowers energy bills, keeps dollars in-state, and reduces Connecticut’s carbon footprint

February 2010

Every two years, Connecticut law requires the electric utilities to file an *Integrated Resource Plan for Connecticut* (“IRP” or “Plan”), evaluating and outlining options to meet future energy needs. Among other things, the law requires utilities to pursue all cost-effective energy efficiency programs, that is, all efficiency programs that cost less than buying the equivalent amount of generation (energy).

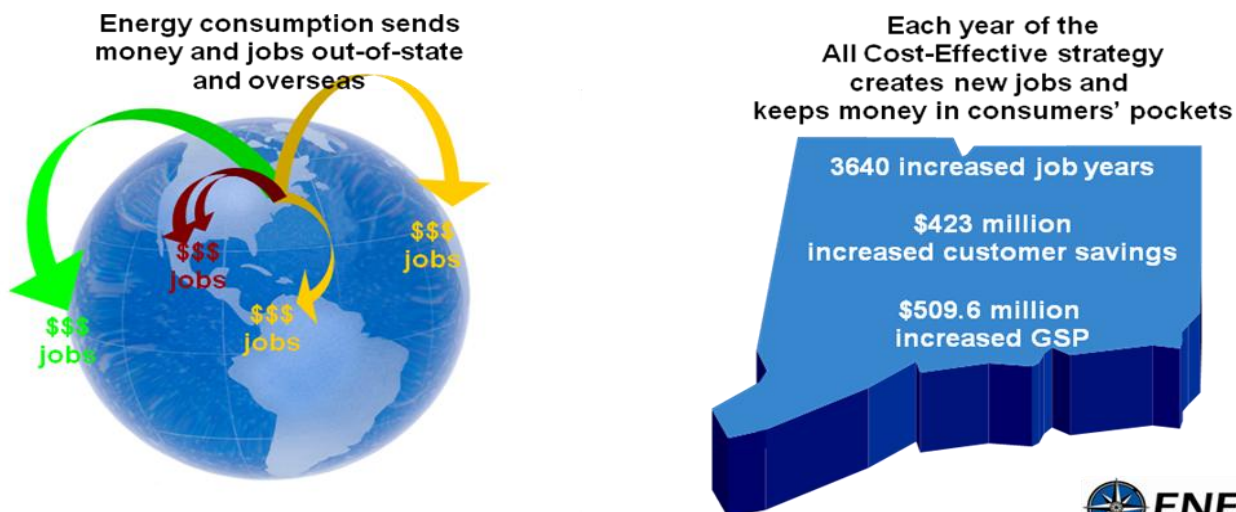
In January 2010, the utilities proposed a draft IRP that recommends a targeted strategy (“Targeted strategy”) that falls dramatically short of the all cost-effective investment (“All Cost-Effective strategy”) required by law. The Plan’s Targeted strategy would expand four specific efficiency programs that would largely benefit high income residential and large commercial/industrial customers. The All Cost-Effective strategy would instead expand efficiency programs for nearly all Connecticut residents. Moreover, the All Cost-Effective strategy is effectively a no-cost economic stimulus that would grow the State’s economy by a half billion dollars a year and create thousands of new non energy related jobs – as well as save consumers money on their energy bills.

The Department of Public Utility Control (“DPUC”)¹ is charged with determining whether the utilities’ proposed plan fulfills the requirements of PA 07-242 to meet the State’s energy needs by procuring “all available energy efficiency and demand-side resources that are cost-effective, reliable and feasible,” as well as “how best to eliminate or stabilize growth in electric demand” and incorporate “the impact of current and projected environmental standards, including those related to greenhouse gas emissions and the Clean Air Act goals, and how different resources could help achieve those standards and goals.” The DPUC’s approval of the All Cost-Effective strategy instead of the Target strategy will meet the statutory mandate, save consumers money, grow our economy, and benefit our environment.

Why the All Cost-Effective strategy is responsible economics

As illustrated below, energy efficiency investments that replace energy consumption provide multiple benefits to Connecticut residents.

Figure 1: The All Cost-Effective strategy keeps money in Connecticut



¹ The Plan is currently being reviewed by the Connecticut Energy Advisory Board (“CEAB”), who will then make its recommendations to the DPUC.



These benefits include:

- Connecticut consumers send hundreds of millions of dollars out-of-state and overseas each year to purchase the natural gas, oil, and coal used to produce much of the State’s electricity. Energy efficiency programs support jobs both related and unrelated to the energy sector.² See Figure 1.
- Consumers save money because efficiency programs help them use less energy, meaning lower energy bills.
- Consumers also save money because energy prices are lower when consumers as a whole use less energy, thus reducing demand for the most expensive energy sources.
- Connecticut residents will generally spend their savings in-state, and local businesses will be able to expand and hire new employees with their energy savings, facilitating broad economic growth and increased competitiveness for the State’s economy.
- More efficiency results in power plants running less, which leads to the reduction of greenhouse gases and other pollutants.

The utilities’ proposed Targeted strategy is politically attractive because it marginally lowers rates, but a lower rate does not guarantee a lower bill. The All Cost-Effective strategy substantially lowers bills (bills equal price times consumption). Moreover, as compared to the Targeted strategy, the All Cost-Effective strategy puts four times more money back into consumers’ pockets, increases the gross state product five times more, creates more than three times the number of jobs in all sectors, and reduces greenhouse gas emissions eight to nine times more.^{3,4} See Table 1 (below) comparing the Targeted and All Cost-Effective strategies to the business-as-usual (“Reference”) strategy. As previously mentioned, the All Cost-Effective strategy would double investment in efficiency programs for all customer classes, while the Targeted strategy would tip programming in favor of high-end residential and large commercial/industrial customers.

Table 1
Comparison of Reference, Targeted, and All Cost-Effective Strategies
Year 2020 (Annual Benefits)



Costs and Charges

	Net DSM Program Cost (\$ Mil.)	Average Gen. Rate* (\$/kWh)	Additional Rate Impact (\$/kWh)
Reference	96	0.1370	0
Target	115	0.1368	-0.0002
All Cost-Effective	162	0.1381	0.0011

Incremental Benefits

	Increased Customer Savings (\$ Million)	Peak Load Reductions (MW)	Increased Carbon Reductions (Tons)	Increased NO _x Reductions (Tons)	Increased SO _x Reductions (Tons)	Increased Gross State Product (\$ Million)	Increased Number of Job Years
Reference	0	0	0	0	0	0	0
Target	109	191	73,264	24	18	162.4	1160
All Cost-Effective	423	561 (2018)	633,079	144	552	509.6	3640

Sources: Costs and charges and savings are from Integrated Resource Plan, pp. II-40,41. Emissions reductions are from p. II-43. Peak load reductions are from pp. 2-14 to 2-16.

* Average generation rate includes DSM charges.

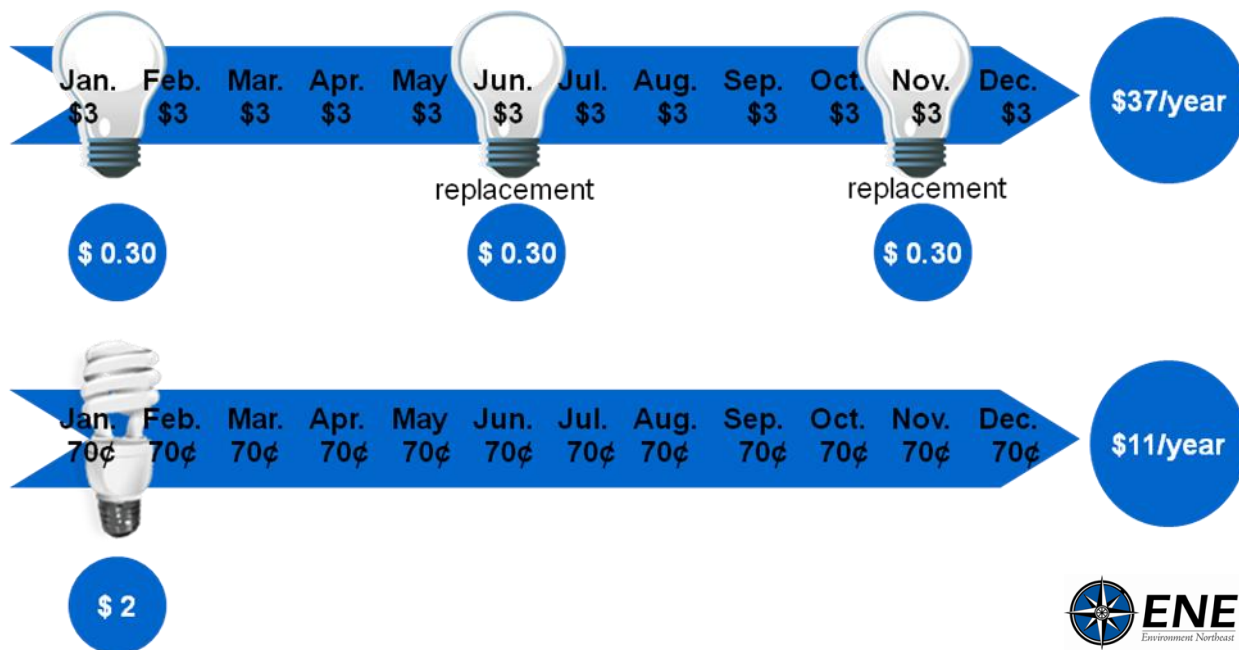
² Jamie Howland et al., “Energy Efficiency: Engine of Economic Growth,” Environment Northeast, http://www.environment.org/public/resources/pdf/ENE_EnergyEfficiencyEngineofEconomicGrowth_FINAL.pdf.

³ *Id.*

⁴ The Brattle Group et al., *Integrated Resource Plan for Connecticut* (January 1, 2010), pp. II-40-43, 2-14 to 2-16.

Therefore, while the Targeted strategy would reduce rates by a mere \$0.0002/kWh, the All Cost-Effective strategy would lower the average customer's total bill by \$8 per month. As programs expand, more and more customers participate. Even the minimal act of replacing a single incandescent light bulb with a compact fluorescent bulb—discounted in-store in Connecticut by efficiency programs—saves a consumer over \$25 a year, so over time, essentially all consumers will reap both the direct and indirect benefits of maximizing cost-effective efficiency investments. See Figure 2.

**Figure 2:
The cost of replacing a single light bulb**



Why this is one of Connecticut's most important policy decisions in 2010

The 2010 IRP will guide energy policy for the next two years and should establish expectations for efficiency program investments over the coming 5-10 years. The next two years are critical for the State's economy and its efforts to meet its environmental goals. The DPUC should require the State's utilities to implement the All Cost-Effective strategy in order to reap the intended benefits of PA 07-242 for all Connecticut residents.

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Environment Northeast is a nonprofit organization that researches and advocates innovative policies that tackle our environmental challenges while promoting sustainable economic development. ENE is at the forefront of state and regional efforts to combat global warming with solutions that promote clean energy, clean air and healthy forests.