



FREQUENTLY ASKED QUESTIONS: ENERGY AND CLIMATE PLAN



STANFORD UNIVERSITY ENERGY AND CLIMATE PLAN (2008-2009)

1. What are the main features of the Stanford Energy and Climate plan?

Answer: Stanford is moving forward with a plan that is visionary, yet practical. It provides direct action by the university to significantly reduce its environmental impact through adept business practices in its operations. These actions represent a balanced investment in energy efficiency in new and existing buildings and changes to Stanford's energy supply to achieve optimal environmental benefits while reducing operating costs. Most notably, the plan provides for innovative advancement in the campus energy supply in which 70% of the unwanted heat collected from campus buildings via the cooling process could be reused to meet 50% of the university's heating demands. Referred to as 'Regeneration,' this new process will replace the current cogeneration process that is now serving campus heating loads using fossil fuel. More than a promise, Stanford is committing to direct action to reduce its environmental impact.

2. How much will this initiative cost and save?

Answer: The overall plan will save approximately \$639 million over the next 40 years after repaying the initial capital investment, but the initial investment to make these significant campus transformations will be about \$250 million over the first ten years. About half the initial investment is for the new Regeneration plant, but a replacement of the aging Cardinal Cogeneration plant (in operation since 1987) would have been required soon anyway, at a similar cost. The real premium of this plan is for the replacement of the steam distribution system with hot water, which is about a \$120 million effort.

3. How much will this reduce Stanford's GHG emissions and do you have a specific target?

Answer: The Energy and Climate plan presents emissions reduction solutions that can reduce emissions 20% below 1990 levels by 2020, far exceeding California's landmark AB 32 Global Warming Solutions Act (1990 levels by 2020).

An absolute target that may be appropriate for Stanford University is still under development; however, the concrete emissions reductions provided for by this plan will move the university further toward any ultimate target it may establish.

4. What are the next steps for implementation?

Answer: In the next year, the campus will proceed with the design of the Regeneration (Heat Recovery) Plant and Steam to Hot Water Piping Conversion for the campus (in phases). The campus will also proceed with High Voltage planning (on- and off-site) and pursue Direct Access to the California electricity market to enable direct purchase of renewable energy.

5. How long will the full implementation take?

Answer: Full implementation of this plan will take five to ten years. Changes to the central energy plant itself can be made in three to five years; however changing the campus steam distribution system to hot water will require more time to carefully manage widespread impacts to campus operations.

6. Where can I learn more about the plan?

Answer: Please review our Fact Sheet and Full Report on Stanford Energy and Climate Plan at http://sustainable.stanford.edu/climate_action.

VISIT SUSTAINABLE STANFORD WEBSITE FOR MORE INFORMATION: http://sustainable.stanford.edu/climate_action

COMMENT

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