



Green Jobs/Green Homes NY:

An unprecedented statewide initiative to retrofit one million homes in five years

BACKGROUND

Green Jobs/Green Homes NY (GJ/GH NY) is a blueprint for mass-scale greening over five years. The program will make New York homes energy efficient, lower fossil fuel emissions, and combat climate change. It will save households an average of 30-40% of energy consumption, produce around 60,000 quality green jobs and obviate the need to site new power plants.

Most importantly, the upfront costs of the retrofit work will be paid for through third-party

investment (i.e., pension funds and/or private investment), and fully paid back through energy bill savings – all off of the state's budget. To support program costs that aren't contract related, the GJ/GH NY program combines several funding sources, all of which are renewable. Projected administrative costs of \$22.1 million in the first year will be funded with Regional Greenhouse Gas Initiative funds. The projected cost of initial audits that precede contracting of \$50.4 million in year one will be paid by utilities using System Benefits Charge funds.

This public/private initiative will be the largest residential retrofit program ever initiated: a model for the nation at a critical moment in national energy planning.

HOW WILL THE PROGRAM WORK?

A homeowner in Utica, NY, has a single family home and pays \$150 each month for her utility bill. She wants to make her home more energy efficient, to save money and help the environment. What now?

1. The homeowner calls GJ/GH NY, likely to be housed at the state's energy authority, NYSERDA.
2. The program sends out an energy auditor, funded through the homeowner's utility company. The auditor tests the home to determine what retrofits will make the home significantly more energy efficient (the auditor might recommend replacing the boiler, replacing energy-guzzling appliances, sealing leaks, and in some cases replacing windows, etc.). The auditor proposes a menu of retrofit options that save enough on the homeowner's energy bills to pay for the cost of the retrofit within 8 to 10 years. Some low-cost measures are included because they benefit the environment (like low-flow showerheads), whether or not they save a lot on bills.

3. Next, the homeowner chooses a contractor - one who is well-trained and certified, who has agreed to pay family-sustaining wages to their workers, and who has agreed to hire and train local workers. The contractor performs the work and guarantees the performance of the improvements.
4. GJ/GH NY pays the contractor through a Residential Retrofit Investment Fund created with private and/or pension fund investments, as described below.
5. The homeowner's utility bill goes from \$150 to \$100 - but the utility company bills her \$135. The homeowner pockets \$15 in savings, while \$35 in savings goes back into the fund each month to pay back the investors, until the cost is repaid.
6. If the homeowner moves, the new occupant takes over the bill, which is lower than it would have been without the retrofit.

HOW WILL THE PROGRAM WORK? (continued)

Apartment building owners can use the GJ/GH NY retrofits to lower the utilities bills they pay - often for heat or hot water - while including some work that benefits tenants or the community, like a green roof, or new energy-efficient appliances. The owner's energy consumption is lower than before the improvements were made.

For retrofits that don't perform as expected, the homeowner can call GJ/GH NY to request remedial visits. The measures, warranted by the contractor, will either be fixed - or, in the few cases where retrofits cannot be made successful, the homeowner will be relieved of her repayment obligation. In the event that the homeowner fails to pay the retrofit obligation, the utility can begin shut-off proceedings.

CREATING A NY STATE RESIDENTIAL RETROFIT INVESTMENT FUND

Contracting costs over the full five years are estimated at \$5.8b. To cover these costs, a revolving fund would need to raise \$4.5 billion. In the first year, contracting costs for 35,000 retrofits would be \$192 million. (A more modest start in 2010 and 2011, to avoid conflicts with stimulus-funded Weatherization Assistance Program work, might retrofit 20,000 units each year at an annual cost of \$110m.)

A rated, market-rate investment vehicle - the NYS Residential Retrofit Investment Fund - will be established to leverage third-party capital for residential energy-efficiency measures. The Fund will borrow from lenders and use the dollars to pay contractors for work and equipment installed in residential dwellings. Homeowners will repay the Fund monthly, through a line-item on their utility

bills. The cost of retrofits and the repayment schedule will be calculated so that the homeowner keeps up to 20% of the projected reduction in utility costs. The remaining portion will go toward their repayment obligation, monthly for 10 years. A loan loss reserve or other guarantee will secure investors and cover payment shortfalls.

Year 1 will be a pilot phase for the financing model, and may be extended depending on market recovery and program experience. Some elements of GJ/GH NY program design, including cost of retrofit investments and repayment schedules, will be flexible as stakeholders work to assess cost of risk capital, size of the Loan Loss Reserve and other features of the credit structure.

WORKFORCE DEVELOPMENT AND COMMUNITY IMPLEMENTATION: CRITICAL COMPONENTS

To ensure that GJ/GH NY is a success once enacted, we need to begin to strategically coordinate the resources to make sure there are enough interested families to participate in the program and enough trained workers to accomplish the target numbers of retrofits. These components are essential if we are to take advantage of the financing model and program. We propose that statewide community implementation of GJ/GH NY be built around the following framework:

Community Outreach: Identify lead organization to partner with 5-6 CBOs in regional hubs, to:

- Organize education on benefits of retrofits & build program supporters
- Test GJ/GH NY policy assumptions
- Canvass to identify potential participant homeowners & pre-enroll
- Referrals to WAP & other programs
- Identify potential candidates for retrofit training & jobs

Workforce Development: Seed Labor-Management-Community Partnerships in regional hubs, to:

- Identify clear training & hiring entry points for residents through CBOs
- Seed relationships between contractors & labor partners to expand apprenticeships
- Establish community based pre- apprenticeships linked to apprenticeship
- Create links to BPI certification & upskilling training programs for existing and displaced workers
- Codify pre-commitments on recruitment, hiring and training targets

POTENTIAL TIMELINE

Spring 2009	Commence collecting data to identify prime GJ/GH NY target areas
Spring/Summer 2009	Enact GJ/GH NY program legislation
Fall 2009	Begin community implementation in pilot regions & Y1 RRIF investments secured
Spring 2010	Ongoing quantitative and qualitative evaluation
Summer 2011	NYS rolls out implementation model statewide

BY THE NUMBERS: Early estimates of the impact of Green Jobs/Green Homes NY

Job-years directly created by GJ/GH NY	59,900
Jobs added in related industries, and through new household spending power	another 59,900
Total jobs (direct, indirect & induced) per \$million invested	16
People permanently up-skilled and employed in energy-efficiency contracting	14,200
Of jobs above, those requiring less than one year of training	37%
Of jobs above, those requiring advanced credentials	32%
Time needed for many entry-level workers, given the opportunity, to gain advanced credentials	6-12 months
Time required for entry-level workers to complete apprenticeships that provide union membership	1 year
Standard increase in wages above those currently paid for the same work	at least 15%
Contracting hard costs for 1 million homes	\$5.5b
Average investment in each housing unit, statewide	\$5,500
Total administration costs, including measurement & verification	\$605m over 5+ years
Basic job training, high-level credentialing and wraparound support costs	\$208m over 5 years
State budget allocations needed to run the program	\$0
Average energy saved per home	30-40%
Typical cost of that energy in 2008	>\$1,000
Expected reduction in New York's CO2 emissions from retrofitting <i>total</i> housing stock	14%