

# State of Georgia Energy Workforce Development Plan

Prepared by

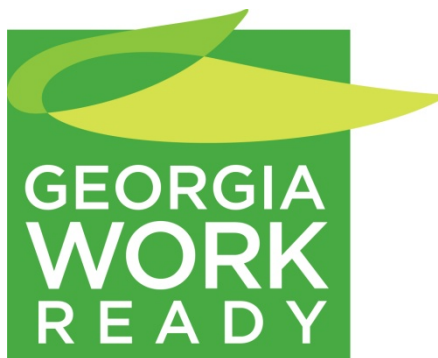
The Governor's Office of Workforce Development

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July 14, 2009

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## Georgia Statewide Energy Workforce Development plan

Successfully developing the workforce for the energy industry requires engaging key agencies from the public sector and key energy industry leaders from the private sector. The lead agency on energy policy in Georgia is the Georgia Environmental Facilities Agency. On the private sector side, the Georgia Energy Industry and Construction Consortium provide guidance where applicable for developing the energy workforce for the power generating and transmission and distribution industry. Their current initiative, 'Get Into Energy', is a statewide communications strategy, funded through a USDOL grant and in partnership with the Technical College System of Georgia, encouraging the emerging workforce to consider a career in the energy industry ([www.getintoenergy.com](http://www.getintoenergy.com)). In addition, much energy related research is taking place at Georgia's universities in transportation fuels, power generation processes and efficiency and conservation techniques.

Georgia's overall workforce development strategy is through Georgia Work Ready, the implementation of the Governor's vision of linking education and workforce development together and aligning to the state's economic development strategy at the state, regional and local levels. Governor Perdue launched Georgia Work Ready in response to business and industries call for a more knowledge based workforce. It is an innovative public-private workforce development partnership between the State of Georgia and the Georgia Chamber of Commerce and overseen by the State's Workforce Investment Board. It consists of four elements: Work Ready Certificates powered by ACT WorkKeys® National Career Readiness Certificate; Work Ready job profiles utilizing ACT certified job profilers; Certified Work Ready Communities validating a counties workforce readiness through Certificates earned and improving high school graduation rate; and Work Ready Regions, Industry led initiatives developing talent pools aligned to Georgia's growth industries.

Overall strategy is to use Georgia Work Ready tools and the state's education and training resources to transition from declining jobs to growing jobs in the energy industry that includes a focus on emerging energy technology that support efficiency and conservation. The information provided in this document is to give guidance to state and local agencies in applying for workforce development discretionary grants as they relate to developing the workforce to support the energy industry.

Georgia's energy workforce development plan focuses on preparing the emerging, transitioning and existing workforce three industry areas:

1. Transportation and distribution energy
2. Power generation, transmission and distribution
3. Efficiency and conservation in energy resources

## **'Green Energy' jobs**

The workforce development guidance provided in this document reflects the types of workforce development programs and strategies needed to holistically develop the energy workforce. There is much discussion around 'green jobs' and developing the workforce for 'green industry'. In this guidance document, 'green industries' and 'green jobs' are not considered a separate industry to be addressed, but rather are embedded throughout the entire document as an integration of efficiency and conservation into all energy workforce development. The outcome of integrating 'green jobs' in all preparation of energy related training and education programs is to ensure that the energy workforce is skilled in process and educated in products that are environmental friendly and energy efficient to help improve the quality of life in Georgia and conserve and protect that state's natural resources.

## **Developing the Energy Workforce for 'Transportation Fuel' Industry**

### *Production*

Motorized vehicles need fuel to run. These fuels include bio-fuels, natural gas, gasoline, ethanol, bio-diesel and green diesel. Since gasoline and natural gas are not produced nor their raw materials extracted in Georgia, the workforce strategy for the state for the transportation energy industry will focus on renewable fuels.

The workforce skill set needed to support the renewable fuels industry include a basic knowledge level validated by Georgia's Work Ready assessments (powered by ACT WorkKeys<sup>®</sup> National Career Readiness Certificate). Please see the table below for Work Ready Certificate levels needed by occupation. Individuals with Certificates at these levels have an 85% success rate at being trained to perform these occupations<sup>1</sup>.

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<sup>1</sup> ACT WorkKeys<sup>®</sup> literature

**Table 1: Work Ready Certificate Levels for Transportation Fuel Industry**

<b>Job Title</b>	<b>Applied Mathematics</b>	<b>Locating Information</b>	<b>Reading for Information</b>	<b>Work Ready Certificate Level</b>
Chemical Equipment Tenders	4	4	4	Silver
First-Line Supervisors/Managers of Production and Operating Workers	4	4	4	Silver
Mixing and Blending Machine Setters, Operators, and Tenders	3	4	4	Silver
Chemical Technicians	4	4	4	Silver
Maintenance and Repair Workers, General	3	4	4	Silver
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	3	4	4	Silver
Industrial Machinery Mechanics	4	4	4	Silver

*Source: EMSI and ACT, April 2009*

Renewable energy industry prefers workers with the additional occupational skills associated with chemical or biological technicians. These skill sets include basic understanding of:

- Basic industrial flow mechanics (Pumps, valves, gauges )
- Fundamentals of separation processes and unit operations

While short term certificate and associate degrees in basic industrial flow mechanics is available at every technical college, fundamentals of separation processes and unit operations are often learned on the job. Many workers who have previously been employed in the paper, chemical or kaolin industry have much on the job training in these occupational skills. Many Georgians recently laid-off from other declining industries, particularly in the manufacturing sector, have work experience and skill sets that are compatible with those needed to work in the transportation fuel production industry. For this reason, Georgia is ideally situated to provide the workforce needed today to ramp up this industry at the project growth rates for the renewable energy industry. Below is a table that contains statewide data showing the ease of transitioning workers from these declining occupations to those associated with this industry. The compatibility index is a number from 1 to 100 that assesses the ease of transitioning a

worker from one occupation to another; the higher the number the easier the transition. The Governor’s Office of Workforce Development considers a Compatibility Index greater than 90 and compatible Work Ready Certificate level associated with the occupation as indicators of the ability to transition the worker with on the job training.

**Table 2: Transitioning from Declining Occupations to Transportation Fuel Production Industry**

	<b>Job Title</b>	<b>Compatibility Index</b>
From	Paper Goods Machine Setters, Operators and Tenders	
To	Mixing and Blending Machine Setters, Operators and Tenders	96
	Separating, Filtering, Clarifying, Precipitating machine setters, operators and tenders	94

Source: EMSI, April 2009

The job numbers associated with these facilities is based on production output. A guideline for jobs required per production output may be found in the table below:

**Table 3: Ratio of Jobs to Renewable transportation Fuels Production (in gallons)**

<b>Renewable Transportation Fuel</b>	<b>Capacity per Year (Gallons)</b>	<b>Average Number of Jobs Created</b>
Biodiesel (Ethanol)	100M	50 direct jobs 200 indirect jobs
Cellulosic (Ethanol)	100M	140 direct 560 indirect
Cellulosic (Ethanol)	50M	70 direct 280 indirect

Source: GEFA, May, 2009

The recommended workforce strategy for the transportation fuels industry is to identify the workforce in the regions where the facilities look to locate and expand with Work Ready Certificate levels and occupation skills sets needed and to engage in short term, customized training through QuickStart if eligible, or through a technical college or other post-secondary institution. As the state succeeds in growing the renewable transportation fuel industry, developing a one or two year technical college chemical and/or biological technician program will help meet the long term workforce supply needs for this industry.

In addition, since Georgia seeks to be a major producer of renewable fuels, the suppliers of the feed stock for this industry will also grow in parallel with demand. However, since the feedstock is supplied

through Georgia’s agribusiness, with a strong forestry sector due to an abundance of pine trees, developing renewable fuels from this feedstock will not necessarily require a ‘new’ workforce. This is because the demand for traditional uses of forest products has declined; thus, a new demand for feedstock would ensure this current workforce remains employed. Other competing feed stocks for renewable fuel will need to be monitored and if increase market share and growth is seen in agri-business, then the state will need to ensure an adequate workforce is in place to match the growth. Georgia has strong agri-business programs at institutions such as the University of Georgia and ABAC (Abraham Baldwin Agriculture College), the current level of workforce supply for agri-business is adequate to meet the supply side of this industry for the next five years.

Georgia does seek to grow its market share in the renewable fuels which is an emerging industry. In order to compete, there is much research and development to be done to enable the renewable fuels to be competitive in price while remaining eco-friendly. The workforce to support this industry requires both engineers and scientists to develop new processes for synthesizing fuel and technicians to run batch and pilot projects. The majority of this work is connected to Georgia’s universities, and thus a strategy that brings research grants to these universities to develop the new processes and feed stocks will also develop the scientist and engineers need to continue to cultivate and grow Georgia’s renewable fuels industry.

*Distribution*

Gasoline is dependent on pipelines to move it from refineries into holding stations at a few key points in the state. From holding stations, final product is moved primarily by truck to gas stations located throughout the state. Natural gas product is moved into the state either by pipeline or rail into holding stations. From these holding stations, the product is either put into smaller tanks for purchase or transported by truck to other locations to be purchased by consumers. The Logistics Innovation Center is predicting continued growth for this industry; therefore, it is important that the state continue to prepare graduates of its CDL (Commercial Driver’s License) programs at the technical colleges to ensure an adequate workforce to support the distribution side of the transportation fuel industry.

The renewable fuels industry is dependent on trucks to move feedstock to facilities and then fuel from facilities to customers. Thus, increase in market share of renewable fuels will increase the need for truck drivers to distribute final product to customers. However, at this time an increase in market share of renewable fuels would help the feed stock supply side maintain its existing workforce as it would have found a new customer for its feed stock.

**Table 4: Georgia completers of all programs**

Program	Completers
Truck Driver/Commercial Vehicle Operation	2305

*Source: EMSI, April 2009*

**Table 5: Compatibility Rating of Declining Occupations to Truck Driver**

	<b>Job Title</b>	<b>Compatibility Index</b>	<b>Job Growth</b>	<b>Work Ready Certificate Level</b>
To	Truck Driver			Silver
From	Couriers/ Messengers	96	(224)	Silver
	Team Assemblers	93	(4452)	Silver
	Farm Workers	93	(317)	Bronze
	Textile Cutting Machine Setters, Operators and Tenders	93	(318)	Bronze
	Production Worker- Helpers	92	(2327)	Silver

Source: EMSI, April 2009

*Mechanical alternative energy and transportation industry*

As Georgians seek new ways to reduce out of pocket costs for transportation fuels, new and greater efficiencies are being developed that will require a workforce capable of manufacturing these products. The automotive manufacturers and suppliers in the state are designing new cars with engines capable of doubling and tripling the average miles per gallons. Preparing the workforce to meet the energy challenge through mechanical innovations will require developing the engineers, scientists and technicians so support the advanced manufacturing industry. While not directly addressed in this document, it should be noted that a more knowledge based advanced manufacturing workforce will be needed to support the growth of this aspect of the transportation industry. Currently, there are three automotive advanced manufacturing Work Ready Regions preparing students to produce high-tech, fuel efficient vehicle.

**Summary**

The renewable transportation fuel industry is less than 5% of the overall market, and thus demand is still relatively small for the product. Georgia’s strategy is to grow the market share for renewable fuels thus increasing economic growth and helping to transition its forestry industry supply chain into the transportation energy industry cluster. In order to grow demand, the public must be educated on how renewable fuels can be used in current vehicles, an adequate distribution system must be established and cost of renewable transportation fuel must be competitive with traditional gasoline. GEFA and the state’s economic development department are meeting these challenges head on and anticipate a growth of 2 to 3%<sup>2</sup> over the next several years. Since the workforce demands will be small per renewable facility established, a statewide strategy of transitioning the workforce from declining jobs with similar

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<sup>2</sup> Source, Georgia Environmental Facilities Agency

knowledge and skill sets into renewable energy jobs is a good strategy for the state and one that will meet the workforce requirements in the short term. As the demand for renewable grows in the state, developing a chemical and/or biological one or two year technician program will provide long term workforce demands. In addition, because so much of the distribution side of this industry is dependent on commercial truck drivers, ensuring a continuous supply of graduates from Georgia's CDL programs is necessary in order to meet the distribution demands of Georgia's transportation fuel industry.

### **Developing the Workforce for the 'Power Generation' Industry**

Georgia is one of the fastest growing states with a population increase of 18.3% since 2000 and is seeing an increase demand in power to support the growth in business and industry needs along with increase residential demand. When we think of 'power generating' we are talking about those companies that keep the lights on, power machinery and keep homes and office buildings warm. There are several suppliers of power generation that include coal (60%), nuclear (20%), water (5%), natural gas (14%), and to a smaller end, alternative energy from solar and wind and renewable such as FOG (fats, oil and grease), hardwoods and pine (less than 1%) and even landfill gases and municipal solid waste, although to a much smaller extent. Even though alternative and renewable energy sources are small, they are one of great focus as more environmental friendly forms of powering businesses and residential homes is sought.

Since the majority of the power generation industry focuses around coal, nuclear, natural gas and water, the primary focus of developing the energy workforce should focus around these industries. In addition, there are unique support industries closely integrated with it that includes transmission and distribution of the energy to customers. Another industry closely aligned to the power generation industry is the industrial construction contractors that supply the manpower to build and maintain facilities for the power companies. While there is much debate as to which of these industries are 'clean' and which of these comprise 'green', there is no debate that integrating conservation and energy efficiency through these core industries is important. Therefore, developing the workforce for the power generating industry cluster requires traditional skills set in fundamentals of electro-mechanical devices, industrial flow mechanics, unit operations, and specialization where necessary such as in nuclear and hydro-electric. However, institutions should prepare the future workforce by educating them on conservation and new clean processes techniques along with environmental regulations and an excellent understand of energy efficiency. Educational institutions, be it high schools with construction programs, two year technical colleges or four year engineering schools are encouraged to incorporate 'lean, clean and green' into their current energy curriculums rather than develop a specialized one. As a result, this focus of 'lean, clean and green' should be incorporated into every curriculum that supports all aspects of the power generation, transmission, distribution along with the industrial construction and maintaining of the power generation facilities and infrastructure.

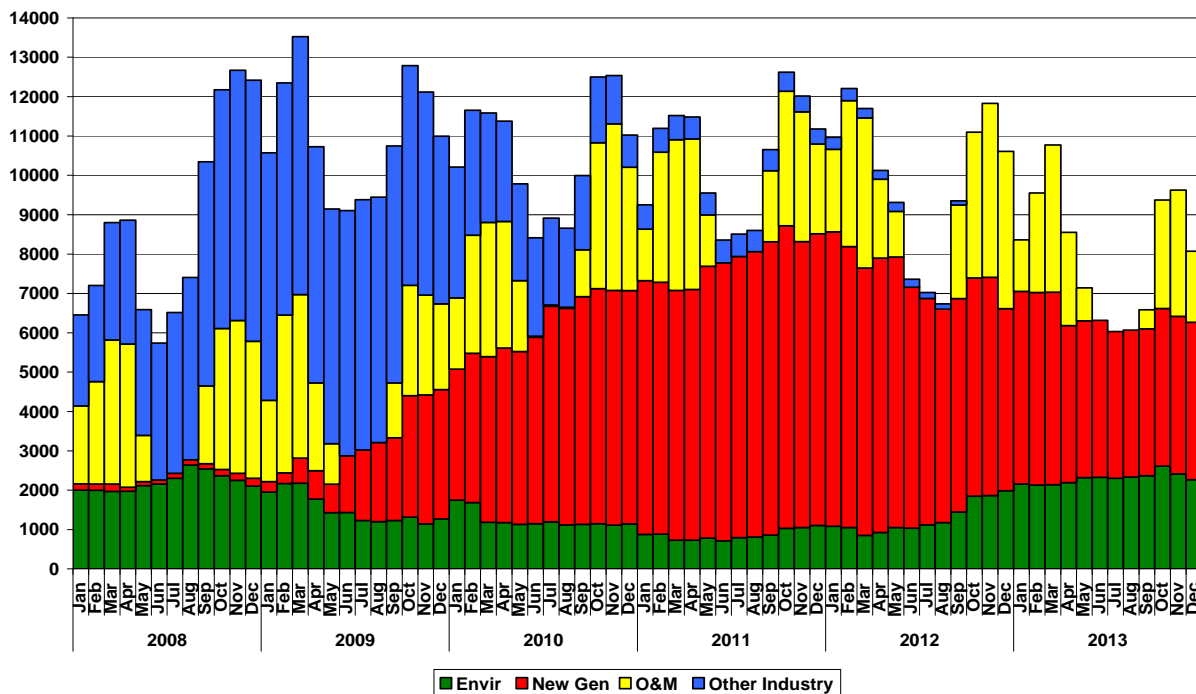
In working with Georgia's Energy and Industrial Construction Consortium, they are projecting a significant need for an increase in industrial construction and maintenance workers beginning in the

latter half of 2009 and ramping up through 2014. There are several factors that are contributing to this projected increase in this workforce:

- Population growth in Georgia will increase power generation demand
- Economic growth will increase the power generation demand
- The building of Plant Vogtle in Augusta will increase workforce needs
- The expansion of Ft Benning will compete for workers with similar skills

The Southern Company table on the next page projects workforce demand over the next five years.

Table 6: Industrial Craft Labor Demand  
Total Georgia



Source: Southern Company, 2008

The workforce to support the transmission and distribution of electrical energy requires similar skill sets as those needed in the power generation industry; therefore, engineers and technicians trained to work in generating power are usually cross trained to be able to work in power transmission and distribution as well. However, once hired by the power company, significant on the job training occurs depending upon whether the job is in generating, transmission or distribution. Once specialized, the worker usually continues to develop with one of the three specific areas through continuous on the job training.

The table below shows the various occupations needed to staff a power generating facility and the statewide workforce available to fill these jobs along with Work Ready Certificate levels.

**Table 7: Common Occupations Required in Power Plant Operations**

Energy Occupations	2008 Georgia Graduates of Related Program	Georgia Work Ready Profile Level	Georgia Work Ready Certificate Holders at Occupation Level
General and operations managers	7,515	Gold	8,654
Electrical engineers	631	Gold	8,654
Customer service representatives	OJT	Gold	8,654
Meter readers, utilities	OJT	Silver	22,871
First-line supervisors/managers of mechanics, installers and repairers	556	Silver	22,871
Electrical and electronic repairers - powerhouse, substation and relay	42	Gold	8,654
Control and valve installers and repairers, except mechanical door	OJT	-	
Electrical power line installers and repairers	90	Silver	22,871
First-line supervisors/managers of installers and repairers	556	Silver	22,871
Power plant operators	OJT	Silver	22,871
OJT - On-the-job training			

Source: EMSI, Governor's Office of Workforce Development, April 2009

The table below shows how best to transition the workforce from declining occupations into power generating energy occupation jobs

**Table 8: Compatibility of Declining Occupations to Power Generating Industry occupation**

	Title	2008 Jobs	2008-2010 Growth	2009 Hourly Earnings	Compatibility Index
To	Electrical Power-Line Installers and Repairers				
From	Telecommunications Line Installers and Repairers	4,946	(143)	\$17.21	95
	Heating and Air Conditioning Mechanics and Installers	9,867	(501)	\$15.09	94
	Team Assemblers	43,787	(4,453)	\$11.01	89

Source: EMSI, April 2009

**Table 9: Compatibility of Declining Occupations to Power Generating Industry Occupation**

	Title	2008 Jobs	2008-2010 Growth	2009 Hourly Earnings	Compatibility Index
To	Power Plant Operators				
From	Mixing and Blending Machine Setters, Operators, and Tenders	5,037	(206)	\$14.21	94
	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	1,567	(123)	\$15.61	94
	First-line supervisors of Construction Trades	36,989	(1,633)	\$19.14	93

Source: EMSI, April 2009

With the national commitment to increase energy efficiency, there is a need for university research institutions to continue to develop the new and more efficient processes for this industry. And, as this research is conducted, it will develop the next generation of engineers and scientists to meet the workforce challenges of ensuring ever greater efficiency as the best market price.

#### Renewable Fuels used in power generation

While only a very small percent in the Georgia power generating market, wood products used as fuel source in power generating plants in Europe is significant. This results in an exported forest product known as 'wood pellets' used to generate power and as a heat source overseas. This is a growing industry for the State and requires a workforce with skills sets similar to those needed by the paper industry. With the decline of paper mills across the state, this workforce is very suitable to transition into these pellet producing industries. Below is a table of declining occupations comparable to occupations found in wood pellet manufacturing. For other renewable fuels produced to supplement fuel for power generating companies, please refer to Table 2 in the renewable fuels for transportation vehicles.

## Alternative Power Generating Energy Industries

Alternative energy from solar and wind are both technologies being explored. Georgia has recently become home to Suniva, INC, a solar-cell manufacturing facility. While the workforce needed to support this industry requires an advanced manufacturing skill set, as growth in alternative energy continues, so will the demand on a more knowledge based advanced manufacturing workforce to produce these goods. Georgia's advanced manufacturing educational two and four year programs are preparing technicians and engineers that will supply the workforce to produce these goods. In addition, developing the construction and maintenance workforce to support building and maintaining power generation facilities will also develop the workforce for installing and maintaining solar panel units.

### Summary

In summary, the majority of the energy workforce to support the power generating, transmission and distribution industry is where the growth will be over the next five years. However, because of the emphasis and increased federal environmental regulations, integration of efficiency and conservation across the traditional electro-mechanical, industrial flow curriculums for technicians and in electrical and mechanical engineering programs will better prepare technicians and engineers to meet the challenges facing this industry over the next five years and beyond. In addition, university research conducted around efficiencies in power generation along with research in alternative energy sources and renewable fuels will provide future solutions for the need to reduce the carbon footprint of the power generation industry while preparing the future workforce on cutting edge technologies.

### **Georgia's Energy Work Ready Regions**

Georgia is investing in Work Ready Regions to develop the talent pool for regional industry clusters. Each region is focuses on producing five goals:

1. Develop a sustainable industry network to guide the project
2. Profile high demand jobs in the industry
3. Increase the number of gold level Certificates
4. Ensure every participating county attains Certified Work Ready Community status
5. Develop documented career pathways for the emerging, transitioning and existing workforce aligned to high demand jobs

There are six Work Ready Regions developing the workforce that will support the energy industry. Two are specifically aligned to the energy industry. They are the Chattahoochee Valley BRAC Energy Work Ready Region, preparing the workforce in building energy efficient military facilities that are LEED Certified and the East Central Energy Work Ready Region, preparing the workforce to build and maintain the new nuclear power facility, Plant Vogtle. There are four bioscience Work Ready Regions that include strategies for developing the workforce for renewable fuels used in transportation and power generation. For more information on Work Ready Regions please visit [www.gaworkready.org](http://www.gaworkready.org).

## Post-secondary Energy Education

Below is information on Georgia graduates of certificate, diploma and degree programs of study that are ready to fill energy related occupations. All post-secondary energy-related programs of study are encouraged to integrate conservation and energy-efficiency education

**Table 10: 2008 completers of Energy Related Associate of less 2 year programs:**

Job Title	Related Program	2008 Completers
Chemical Equipment Tenders	Chemical Technology/Technician	11
First-Line Supervisors/Managers of Production and Operating Workers	Operations Management and Supervision	653
Chemical Technicians	Chemical Technology/Technician	11
Maintenance and Repair Workers, General	Industrial Mechanics and Maintenance Technology	574
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	Manufacturing Technology/Technician	25
Industrial Machinery Mechanics	Industrial Mechanics and Maintenance Technology	574

Source: EMSI and TCSG, April 2009

**Table 11: 2008 Completers of Energy Related Bachelor Programs**

Job Title	Program	Completers
Industrial Engineer	Industrial Engineering, Ind. Technology/Technician	385
Mechanical Engineer	Mechanical Engineering, Mechanical Engineering Technician	587
Chemical Engineer	Chemical Engineering	123
Civil Engineer	Civil Engineering, Civil Engineering Technician,	318

Source: University System of Georgia, April 2009

## Specialized Industrial Construction Skills

All technical colleges are encouraged to seek partnerships with four year post-secondary institutions and other training providers of specialized trade skills, to facilitate pathways for those students desiring to obtain highly specialized industrial construction skills required in building energy facilities.

## **Entrepreneurship**

In developing the future workforce to build energy facilities, it is encouraged to include developing skills to run a small business. Many graduates of industrial construction programs become small business owners.

## **Additional considerations**

As the cost of energy continues to increase, the general trend by energy consumers in both the private and public sectors are to conserve. Conservation in reducing usage through change in how an individual or business consumes energy is best accomplished through education. Companies like Georgia Power have long had a history of educating the general public on how to save money through personal choices. More recently, Governor Perdue issued an Executive Order establishing the Governor's Energy Challenge which included challenging both the business and government sectors to reduce consumption by 15 percent by 2020. Any efforts that continue to educate both the public and private sectors on energy conservation are encouraged as this is one of the simplest and most direct methods to reduce energy costs while having a positive impact on the environment.

Another effective but more costly process to conserve energy is through modernizing residential, commercial and industrial facilities, including public facilities, so that they operate more energy efficient. This requires a workforce with maintenance skills to both perform retrofitting and updating of industrial equipment, modernizing heating and air conditioning units, and adding other energy efficiencies such as programmable thermostats and lighting sensors, to reduce costs.

## **Recovery Plan for Energy Related Jobs**

The American Recovery and Reinvestment Act funds administered by the Georgia Environmental Facilities Authority (GEFA) include a variety of incentive programs that will increase residential, commercial and industrial energy efficiency, and renewable energy. The programs are summarized on GEFA's website at [www.gefa.org](http://www.gefa.org). Implementing the programs will require a workforce skilled in producing the energy efficient and renewable energy products and in installing the products. Economic developers are encouraged to assess what 'green' products are made in the state, how best to connect the manufacturers of these products to potential customers and how best to educate their communities to take advantage of these tax credits, rebates and grants by purchasing local products. For agencies applying for workforce development 'green' energy grants that are Recovery funded, they are encouraged to assess how big an impact the installation of energy efficient and renewable energy products will have in their area, is the current workforce available through small contractors capable of providing these services, and to determine the best way of matching skills of those construction workers recently laid-off into jobs that may become available through these incentives. Where applicable short term training programs, through a local technical college, should be implemented to refine skills required for either manufacturing or installing these energy efficient or renewable energy products.

The GEFA program with the most direct impact on job creation is the Low Income Weatherization Assistance Program. These funds are made available to low-income citizens to assist them in making their homes more energy efficient. Since the funding is twenty times the normal state allotment, a workforce will be needed to assist local communities, including 'train the trainer' initiatives to assist in the training of additional crews for the Community Action Agencies (CAA). This 'train the trainer' program will be accomplished by GEFA; however, the hiring of the additional crews will be done at the local level by the Community Action Agencies. The Governor's Office of Workforce Development is working with GEFA to provide tools and assistance to the Community Action Agencies in helping them use Georgia Work Ready to assist in hiring decisions.

The Weatherization Recovery program looks to benefit citizens in two ways, by creating jobs and by promoting conservation and smarter energy usage. According to the Department of Energy, for every \$1 million invested through the weatherization program, 52 direct and 23 indirect jobs are created. Georgia's share of the WAP budget equals nearly \$125 million which equates to 9,375 direct and indirect jobs. However, in surveying the CAA across Georgia, it is anticipated that about 260 to 300 jobs may be created which is significantly less than DOE predictions. In addition to job creation, weatherization helps the environment. For the 100,000 homes that undergo weatherization this year there will be 30.5 million MBtu's of energy saved, 18 million fewer barrels of oil used and 1.61 fewer metric tons of carbon dioxide in the atmosphere.

GEFA and the Governor's Office of Workforce Development have identified initial occupations that will be needed to implement the additional weatherization projects brought in by the recovery plan. The vast majority of these jobs will be dealing with the renovation of homes. The Weatherization Coordinator, Crew Leader and Crew Steward all work on the front lines of the projects. Some comparable occupations are construction managers, first-line supervisors, and carpenters, which in most areas are declining due to the current economic climate. Fortunately, workers in these occupations can easily transfer into a comparable weatherization job. The clerical occupations also have non-weatherization counterparts for instance; the Purchasing Agent Inventory Manager may be easily filled by a former purchasing manager.

The Governor's Office of Workforce Development will be educating and training the Georgia Environmental Facilities Authority and the Community Action Association on the benefits of Work Ready and how it can be used to help each of their organizations both in the short and long term. Some specific areas where Georgia Work Ready may help CAA are:

- Action plan to hire the best workers to assist with weatherization plan
- Encouraging unemployed to earn Work Ready Certificates and improve their foundation skill levels
- Connecting Be Work Ready into their local communities
- Helping their counties become Certified Work Ready Communities
- Enabling easier transition of Weatherization workforce into next jobs

With this partnership Georgia stands to come out of the economic downturn cleaner, more efficient and Work Ready.

### **Strategies for ARRA competitive workforce development energy grants**

This document should serve as a guideline for all entities seeking to apply for energy-related workforce development grants. The Governor's Office of Workforce Development strongly encourages all bioscience and energy Work Ready Regions to consider making an application for competitive energy grants offered by USDOL. All entities considering applying for a USDOL energy workforce development grant are encouraged to use this document as a guideline in developing their proposals. To ensure continuity and connectivity of workforce development energy grants, the Governors' Office of Workforce Development asks all entities considering submitting a proposal to email [swilson@gov.state.ga.us](mailto:swilson@gov.state.ga.us) . Please include name of grantee, purpose of grant and relevant partners and how it ties into the state's overall energy workforce development strategy.

**Table 12: Compatible Occupations from Declining Occupations to those needed in the Weatherization Workforce**

Occupation required	Description	Number needed statewide	Primary Comparable Occupation	Current Workforce	Compatibility	Work Ready Certificate level	Hourly wage	Secondary Comparable Occupation	Compatibility	Work Ready Certificate level	Hourly wage
Crew Leader	Directs activities of worker(s) concerned with weatherization of low-income single-family dwellings.	44	First-line supervisors/managers of construction trades.	-1633	100	Gold	17.95	First-line supervisors/managers of production and operations workers	93	Gold	16.74
Crew Steward	Performs activities concerned with weatherization of low-income single-family dwellings.	167	Construction Carpenter	-2169	100	Silver	14.52	Drywall and Ceiling Tile Installers	93	N/A	15.24
Inspectors/ Auditors	The Weatherization Inspector/Auditor performs energy audits on clients' homes to determine weatherization measures and home repairs required to improve energy efficiency.	13	Construction and Building Inspectors	-155	100	Silver	18.43	Surveyors	93	Platinum	18.40
Intake Personnel	Takes applications from individuals and families requiring weatherization.	15	Interviewers, Except Eligibility and Loan	-447	100	Silver	10.64	Office Clerks, general	95	Silver	10.78
Purchasing Agent Inventory Manager	Coordinates activities involved with procuring goods and services such as raw materials, equipment, tools, parts, supplies, and advertising, for organization, as well as having responsibility for inventory control of all items.	6	Purchasing Managers	-47	100	Gold	39.06	General and Operations Managers	91	Gold	33.76
Weatherization Coordinator	Plans, directs, and coordinates activities of workers engaged in performing residential energy related home repairs of the Department of Energy's Weatherization Assistance Program by performing the following duties personally or through subordinate supervisors.	16	First-line supervisors/managers of construction trades	-1972	100	Gold	17.95	Construction Managers	93	Gold	18.24

Source: EMSI and ACT, April 2009

