

## How does PACE create jobs for Florida?



Florida elected officials from Governor Rick Scott on down have placed JOBS as a number #1 policy objective for Florida. **PACE (Property Assessed Clean Energy) is a program that does just**

**that by creating 5,892 net new jobs for every \$100 million dollars in PACE improvements financed<sup>1</sup>.**

PACE allows Florida property owners to make qualified improvements to existing properties to lower utility bills and/or hurricane insurance bills (also called wind insurance or reinsurance). Construction sector jobs are created directly through the upfront investment in authorized improvements. Then additional jobs are created each year through savings on energy and insurance and spending in other segments of the economy that produce higher rates of employment.

**These jobs are created without the use of tax dollars.** PACE is a public/private partnership in which the public sector facilitates the structure of the program while incurring no net cost nor liability. **PACE is funded 100% through private investment.**

Of course, it is common for job creation to be touted as a justification for public policy, programs, or projects. These claims typically cite gross job creation and rarely explain exactly how those jobs are created and what the numbers actually mean. In this fact sheet, we will attempt to provide clarity on how the net job impacts of PACE investments were calculated.

## How are jobs defined in economic analysis?

Table 1: Common Terms Used in Jobs Analysis	
<b>Job</b>	A metric that is equivalent to the resources required to employ 1 person for 12 months (or 2 people working 6 months each, or 3 people for 4 months each). Can be full-time or part-time.
<b>Gross Jobs</b>	The total number of jobs supported by an industry and its supply chain.
<b>Net Jobs</b>	The number of jobs created in an industry and its supply chain compared to a "business as usual" reference case.
<b>Direct Jobs</b>	Jobs generated from a change in spending patterns resulting from an expenditure or effort. (e.g. construction jobs for a retrofit project).
<b>Indirect Jobs</b>	Jobs generated in the supply chain and supporting industries of an industry that is directly impacted by an expenditure or effort.
<b>Induced Jobs</b>	Jobs generated by the re-spending of received income resulting from direct and indirect job creation in the affected region.
<b>Labor Intensity</b>	The number of jobs necessary to support the spending required to produce goods and services.

To calculate the actual impact to the Florida economy from PACE, it is important to measure the net jobs created over time, not the gross jobs created. See Table 1.<sup>2</sup>

Table 2<sup>3</sup> shows the number of jobs created from a million dollars of revenue for key

sectors of the economy. For example, the energy sector creates only about half the jobs per million dollars of revenue than the construction sector, which is far more labor intensive. In this example diverting \$1 million from the energy sector to the construction sector would produce a net of 10.4 jobs that year (20.3 minus 9.9). As you can also see from Table 2, a weighted average of key sectors of the economy shows that spending \$1 million creates 17.3 new jobs which we will call "business as usual"<sup>4</sup>. When a PACE project is initiated those funds are diverted from business as usual into the construction sector which creates 20.3 new gross jobs per million but 17.3 jobs cited above are *not* created. The net job benefit is therefore 3 (20.3 minus 17.3).

Before calculating the additional jobs created by PACE investments each year, it is important to understand the micro economics of why those investments are made. A rational property owner invests in sustainable or renewable energy improvements to save on future utility bills and/or wind mitigation features (impact windows and doors, enhanced roof to wall connections, etc.) to save on hurricane insurance premiums (typically required by lenders as a condition of the mortgage).

Although other factors certainly are important (such as safety, improved property values, better living conditions, and peace of mind knowing that your home or business is more likely to survive after a bad storm), most owners also take the pay-back period into consideration before making a PACE investment. In some cases, such as the replacement of windows and doors, property owners benefit from both energy savings and wind insurance discounts, and can achieve relatively short payback periods, often from 2 to 10 years. For purposes of estimating secondary job creation impacts, we assume an average 5-year payback, which would result in combined savings each year of \$20 million per \$100 million invested.

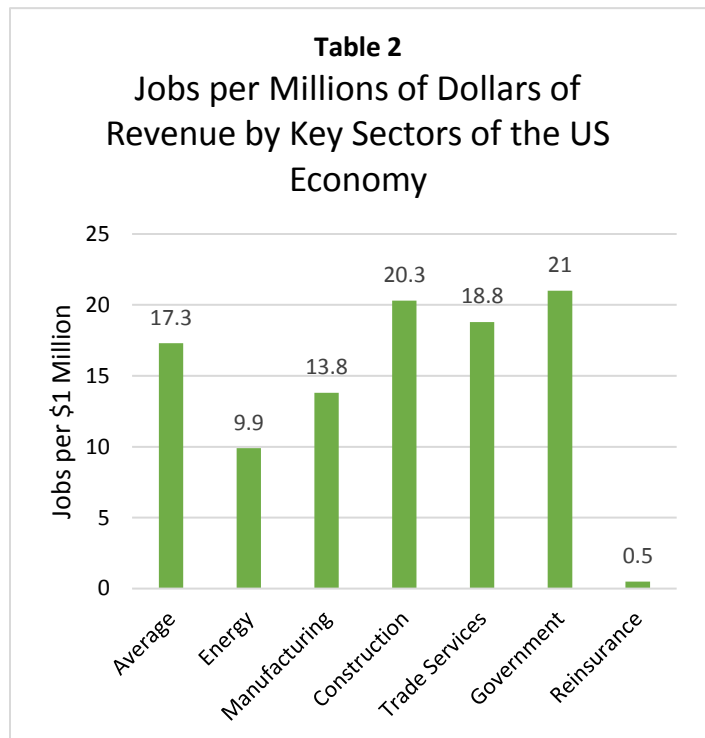
It is these savings on energy expenses and hurricane insurance that are freed up for property owners to spend in various other segments of the economy. For this calculation, we estimate that 60% of total PACE investments result in wind insurance savings, but not energy savings. 20% of PACE investments result in energy savings, but not wind insurance savings. 20% of PACE investments result in BOTH wind insurance and energy savings. See Table 3.

<sup>1</sup> See Table 3. Formula also used by the American Council for an Energy-Efficient Economy "How Does Energy Efficiency Create Jobs"

<sup>2</sup> U.S. Bureau of Labor Statistics data

<sup>3</sup> "IMPLAN U.S. Model All Sectors" Hudson, WI: MIG, Inc. Note: Since reinsurers are located off-shore, the job impact in the U.S. economy is de minimis.

<sup>4</sup> Also used by the American Council for an Energy-Efficient Economy



\$100 Million PACE Investment		
Construction Jobs Created	20.3 x 100	"Business As Usual"
	= 2,030 gross jobs	17.3 x 100
		= 1,730 gross jobs
<b>Net Direct Jobs Created = 300</b>		
Long Term Effects of the Investment		
<b>Savings</b>		
<b>Wind Insurance Only</b> (60% of total)	20 years x \$20 x 17.3 jobs created = 6,920 gross jobs	20 years x \$20 x 0.5 jobs created = 200 gross jobs
<b>Result: 6,920 - 200 = 6,720 net jobs</b>		
<b>Energy Only</b> (20% of total)	20 years x \$20 x 17.3 jobs created = 6,920 gross jobs	20 years x \$20 x 9.9 jobs created = 3,960 gross jobs
<b>Result: 6,920 - 3,960 = 2,960 net jobs</b>		
<b>Both Wind &amp; Energy</b> (20% of total)	20 years x \$20 x 17.3 jobs created = 6,920 gross jobs	20 years x \$20 x 5.2 jobs created = 2,080 gross jobs
<b>Result: 6,920 - 2,080 = 4,840 net jobs</b>		
Weighted Average Net Job Creation + 300 direct jobs first year		
<b>Averages</b>	<b>295</b>	<b>Result: 5,592 + 300 = 5,892 net jobs</b>
new net jobs per year		

**Table 3**