

PACE

Property Assessed Clean Energy

**A Paradigm Shift in Funding
Energy Efficiency & Renewable Energy Projects**

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Executive Summary

According to the United States Environmental Protection Agency (EPA) the average industrial and commercial building will waste 30% of the energy it consumes. Business leaders, facility managers, operations engineers and owners of industrial or commercial enterprises are now attempting to answer the following question:

“How can I reduce my energy costs without a large capital outlay and get a return on my investment in the shortest amount of time?”

That question has been difficult to answer in the past. The numbers just didn't pencil out due to the large up-front costs combined with a pay back period typically longer than most CFOs use to make their financial decisions.

Thanks to innovative policymakers in California that question is no longer difficult to answer!

PACE or Property Assessed Clean Energy financing, is a groundbreaking and innovative method of funding energy efficiency, water conservation and renewable energy projects. The brainchild of policymakers in California in 2005, it was adopted by the State of Michigan in 2010.

PACE has created a paradigm shift in energy project funding by allowing industrial, commercial, multi-family and

non-profit building owners to utilize a voluntary property tax assessment to finance energy saving projects. This is the same mechanism that finances road paving and sewer projects in most communities.

This report will serve to introduce this non-recourse, fixed rate, and long-term method of financing that overcomes the “traditional barriers” of funding energy efficiency and renewable energy projects.

It will also explain why business owners find the program especially attractive because of its ability to protect company capital and cash flow. Specific financial benefits of PACE financing will be explained in detail, and the benefits of PACE to various stakeholders will be described as well.

When the full financial benefits of PACE are understood throughout the business community, building and business owners will embrace this unique financing tool for energy efficiency and water conservation upgrades.

At first glance it's easy to understand the most significant benefits of PACE which are a combination of no capital investment, positive cash flow, non-recourse and can be considered off balance sheet.

“Owners of commercial and industrial property in the U.S. spend \$202 billion each year on energy for their operations – yet 30% of that cost is unnecessary. That's \$60 billion wasted every year due to inefficiency.”
Lean and Green Michigan

PACE History

The financing tool known as Property Assessed Clean Energy or PACE, was first used in California in 2005. Originally described as “On-Tax Bill Solar and Efficiency Financing” the stated purpose was to achieve the immediate financial benefits of reducing the use of energy. The cumulative cost of wasted energy in the commercial and industrial sector measures in the [billions](#) of dollars.

To achieve the financial benefits of reducing wasted energy, it became necessary to overcome the up-front cost of projects. This was a barrier to businesses desiring to incorporate the latest energy saving technologies.

California passed legislation in 2008 and became the first PACE district. Since then 32 states and the District of Columbia have passed PACE enabling legislation.

Michigan adopted PACE in 2010 and the first city to become a PACE district in the state was Southfield. The pro-

gram is known as Lean and Green Michigan and is administered by Levin Energy Partners who provide the oversight that assures compliance with the strict guidelines that are designed to protect Michigan consumers.

The state's first completed PACE project was an energy renovation initiated by the [Michigan Public Service Commission](#) on the building that houses their staff.

For PACE to be utilized as a source of project funding, the property in need of upgrading must be located in a PACE approved district. To become a PACE district the local county, city, or township's taxing authority has to approve the use of the local taxing mechanism for repayment of the PACE loan.

At the time of the writing of this report eighteen counties and seven cities are approved PACE districts in Michigan and more are coming on board each month.

“PACE is an innovative way that landlords, tenants and local officials can work together to pursue energy efficiency projects that would not otherwise take place.” John D. Quackenbush, Michigan Public Service Commission Chairman

An Introduction to Michigan PACE

PACE was adopted by the State of Michigan through the approval of Public Act 270 and is a new and innovative way for Michigan's industrial, commercial, non-profit and multi-family property owners to finance up to 100% of the cost of energy efficiency upgrades, on-site renewable energy projects and water conservation measures. In addition, unlike traditional lending, PACE also includes future maintenance and end-of-life replacement costs.

PACE allows qualified property and business owners in approved PACE districts to finance projects using long-term, fixed rate loans that are repaid through a voluntary property tax assessment facilitated by the local taxing authority. Assuming all eligibility requirements are met, PACE can also be used to refinance completed energy efficiency upgrade projects as well as new construction projects.

The resulting tax assessment on a PACE financed project is secured by the property and it "runs with the land" – meaning that upon sale of the property, the subsequent owner is responsible for continuing the repayments. The costs of the upgrades are spread over the life of the project which is generally between 15 and 20 years.

This innovative method of project financing eliminates the need for up-front capital and, for the vast majority of projects, provides property owners with improved cash flow through the reduction of energy expenses. If desired by the property owner, a PACE loan can be considered "off-balance-sheet". PACE projects lower monthly operating expenses, increase the marketability of property (both for lease or sale) and often create a more comfortable work environment.

Who Qualifies for Michigan PACE?

Michigan has established **PACE** for commercial, industrial, non-profit and multi-family buildings. Single family and government owned buildings do not qualify. Distressed buildings that require re-commissioning and new construction can also qualify. Additional eligibility requirements are:

- Building must be located in a Michigan PACE district;
- Building owner is not delinquent on current or past property tax and utility bills;
- Business is basically healthy and likely to continue to use the property for 10-20 years;
- Property is not overly leveraged – typically 80% or less but at the discretion of the lender;

- Maximum **PACE** loan roughly 25% of the property's assessed value but up to the lender;

- Minimum value of a **PACE** loan targeted at \$200,000 but can vary depending on the particular project and property owner;

- **PACE** financing can be used for projects that increase energy or water efficiency and/or add renewable energy-generating capability;

- Building tenants can qualify with the consent of the building's owner

What Projects Qualify in Michigan?

Michigan Public Act 270 allows PACE financing of projects that increase energy efficiency, water efficiency or add renewable energy generating capacity. The only exclusions are incinerators and digesters.

The statute includes a list of commonly approved projects. However, any energy efficiency or water conservation upgrade project where the results can be measured can qualify for a PACE loan. New technologies are also allowable.

Examples include:

- Building Envelope Improvements
- Energy Control Systems

- Lighting
- HVAC Systems Including Boilers and Chillers
- Water Usage Improvements
- Solar, Wind & Combined Heat and Power
- Geothermal & Biomass
- Manufacturing & Assembly Process Improvements
- High Speed Doors
- Compressed Air Systems

Per the Michigan PACE statute, incinerators or digesters do not qualify.

PACE was named one of the top 20 "world-changing" ideas by Scientific American magazine.

The Benefits of PACE

Conserves Company Capital

One of the primary obstacles to reducing wasted energy is the upfront cost of incorporating energy efficient technologies. These “first costs” are often sizable and have left many energy projects idled on drawing boards.

While using the least amount of energy at the lowest possible cost is a smart business decision, that decision often gets delayed due to the required outlay of capital. Often when company funds are limited, the preferred use of capital is focused on increasing production instead of reducing expenses.

Since PACE loans provide 100% financing and require

zero up-front capital, a choice no longer has to be made between increasing production and reducing wasted energy and water.

When company decision makers realize that PACE, by statute, requires a positive cash flow for the vast majority of Michigan projects (the energy savings MUST be greater than the total cost of the upgrade) the decision to upgrade energy technology becomes much easier.

In most cases it becomes clear that doing nothing is more costly than initiating a project due to the amount of wasted energy that could be eliminated.

Provides Access to New Capital

The PACE model of financing has created a large pool of investors that find PACE projects exceptionally attractive. By attaching the financing to real property, and then using the taxing authority of the county as the repayment mechanism, PACE investors achieve a significantly lower level of risk.

The result is a large number of private equity, retirement and insurance funds, that prefer investing in PACE projects due to the statistical safety associated with them. A large availability of funds also lowers the cost of borrowing money. The fact that the money funding PACE projects is from a non-taxpayer source is also very appealing to cash strapped municipalities!

PACE is an appealing alternative to traditional commercial bank loans that are usually for five to seven years, and typically only cover 60 to 80 percent of project costs. In addition

they most often require the business or property owner to be personally responsible for the loan repayment. That can present a problem to older business owners who are concerned about the estate ramifications of personal loans.

It also presents a problem if a sale of the business is under consideration for the near future. A traditional loan would have to be paid off in the event of the owner's death or sale of the business.

PACE on the other hand “runs with the land”. The property tax method assures seamless repayment of the financing that is not a burden in an estate settlement.

It also does not require a payoff upon sale of the business - the purchaser of the property assumes responsibility for paying the special tax assessment. This results in low risk to the PACE lender and no risk to the business owner's estate. Low risk means greater access to capital!

“Petros PACE Finance, one of Michigan's leading lenders, is ready and able to provide \$1 billion in on-demand financing for PACE projects in the coming years.” Kyle Peczynski, Petros PACE Finance

Positive Cash Flow Guarantee

According to Michigan's PACE statute, energy efficiency projects costing \$250,000 and more must generate energy savings in excess of all project costs and those savings must be guaranteed by the PACE project developer.

Being cash flow positive is a condition of approval for a PACE loan for these projects. Project approval is the responsibility of Michigan's PACE administrator, Levin Energy Partners, who will verify that all projects are in alignment with Michigan's PACE statute.

In essence, qualified PACE projects must pay for themselves. If a property or business is presently wasting a significant amount of energy, it will actually be costing money if there is any delay of an energy efficiency upgrade.

On PACE qualified projects, when the ultimate savings are measured against what was formerly being lost on waste, the savings are typically quite compelling.

Runs With The Land

In a PACE approved [district](#) commercial, industrial, multi-family and non-profit property owners can use the county's or city's property tax system to repay a PACE loan through a special property tax assessment.

This is a voluntarily assessment that has unique benefits due to the fact that it "runs with the land". This is especially important because it protects the property owner, the business and the county.

- Property Owner - PACE financing is "non-recourse" regarding the property owner. It is not viewed as a personal loan and the owner or the owner's estate is not held personally responsible. Since the loan "runs with the land", upon sale of the property the purchaser assumes responsibility

for the special assessment.

- Business - Since a PACE loan is a tax liability, the owner has the option to consider it "off-balance-sheet." This is important to stakeholders.

- County or city - The county or city benefits from PACE because the loan does not create any financial risk to them. While the tax mechanism funnels the funds to repay the financing, the county or city is not required to continue payments in the event of a property foreclosure. The normal tax mechanism in place to address property foreclosure takes over and repayment of the assessment is made when the property is resold or auctioned

Off Balance Sheet Option

When business decision makers consider financing energy efficiency upgrades there are concerns regarding how it will affect the corporate balance sheet. Traditional commercial loans show up as a liability on the balance sheet.

If the project does not result in a sufficiently attractive short term return on investment it can be difficult to justify to the shareholders and stakeholders. In that situation it is often easier for decision makers to do nothing and the money lost to wasted energy continues.

PACE provides company decision makers with an attractive alternative. Just like other property tax bills, the special assessment used to repay PACE energy upgrades can be considered "off - balance - sheet" for accounting purposes.

While that determination is made by the property owner and his accountant (depreciation may have to be factored in) it does provide a way to improve the balance sheet as well as the P&L statement through lower energy expenses.

Self-Financing Investment Strategy

One unique aspect of PACE financing is that it does not require outside funding. A property or business owner can self-finance a PACE project and receive an attractive return

on his investment. There may be other benefits such as energy tax write offs. An accountant's review will be necessary since benefits are specific to each situation.

Refinancing of Existing Projects

PACE financing can be used for new energy efficiency projects or to refinance energy efficiency projects that have already been completed. A specific example will provide the best illustration of this benefit.

A commercial real estate developer, specializing in historic preservation, bought a large vacant retail property which was built around 1930. The property underwent a \$19.8 million renovation with a strong focus on environmentally friendly design and adherence to Energy Star standards.

The successful transformation included geothermal heating and cooling, solar panels, high efficiency lighting and

windows and extensive use of recycled and sustainable building materials. The re-purposed property, now completely renovated, was fully leased and cash flow positive. The developer had several other properties that could undergo similar transformations but there was a need for capital to initiate those projects.

The amount of money invested in the initial renovation directly related to the increased energy efficiency of the building above the standard baseline building code, could be refinanced using PACE. The result was "new found capital" for the subsequent projects.

Increased Value

A survey done by Deloitte Consulting detailed the unique [value](#) of commercial property that has undergone energy efficiency renovations and retrofits. The list of values from the large employers that were surveyed is quite compelling:

- 93% of respondents reported a greater ability to attract talent;

- 81% saw greater employee retention;
- 87% experienced an improvement in workforce productivity;
- 75% reported improvements in employee health;
- 100% experienced an increase in goodwill and brand equity.

Improved Tenant Satisfaction

There is a documented [“green advantage”](#) for structures designed to meet high energy efficiency standards. The green advantage has a measurable improvement in tenant satisfaction.

That satisfaction is reflected in decreased vacancy rates, increased rental rates, a minimization of tenant turnover and an increase in tenant comfort and [productivity!](#)

Here is how tenant satisfaction is reflected in a real world example. The Michigan Public Service Commission leases the building that provides the space for their employees.

As the organization responsible for the public energy policy in the State they wanted to use the best practices for energy efficiency and renewable energy in their daily operations. A plan was drawn up that would be funded using PACE financing, and the plan was presented to the building owner for approval.

When the building owner was presented with the renova-

tion plan his response was simply this: “Now why wouldn’t I do this?”

The plan would result in his building becoming more valuable through an upgrade in the existing energy technology, the upgrade was not going to cost the owner any money, and because the tenant has a triple-net lease requiring payment of utilities and taxes in addition to the monthly lease, he would save several hundred thousand dollars through reduced energy use.

There was no downside to the owner and the tenant would be much happier with “their” upgrades. A true win-win solution!

The building owner was able to completely finance the energy upgrades with PACE and the PACE financing would be repaid out of the tenant’s energy savings with no increase in the lease payment. A satisfying project from both perspectives!

Access to Long-Term Financing

Longer term financing is necessary for larger capital projects like solar and geothermal upgrades. Most commercial banks provide short term loans (seldom over five years) requiring payments that are greater than the monthly energy savings.

This negatively affects a company’s cash flow and typically results in delayed energy upgrades until an emergency requires immediate action.

PACE financing removes the short term financing barrier to the adoption of energy efficiency measures by making

longer term financing available for capital intensive energy projects. The longer term results in the energy savings being greater than the monthly cost of the financing thus protecting a company’s cash flow.

The business owner can increase the value of their property by making energy saving upgrades using long term PACE financing with no adverse affect on present cash flow or capital reserves.

The result is an easier decision making process when considering action on the reduction of wasted energy!

“The fact that PACE enables a building owner to undertake an energy efficiency project that is cash flow positive will resurrect many that have been shelved due to capital and ROI concerns, as well as open the door to many new ones.” Curt Monhart, vice president, The Energy Alliance Group of Michigan

Improved Productivity

Growing evidence highlights the direct relationship between the work environment and an organization's productivity. Companies that ignore the work environment bear a lost productivity cost.

Companies that improve the workplace can achieve a direct benefit through increased workforce productivity.

Renovation of older buildings represents a significant opportunity to save energy while at the same time improve the

productivity of those that live and work within the space.

While the process of converting an older building into a "green" building is primarily focused on energy efficiency, indoor air quality is also of prime importance.

One of the frequent unintended [benefits](#) of energy efficient renovations is the improved health and productivity of those people living and working within the space.

"There is clearly an opportunity for organizations to begin to think differently and use their physical premises for competitive gain."

World Green Building Council

A study led by Harvard's environmental health researchers and reported in the [Washington Post](#) compared the ability of two groups of people to remember, perceive, reason and think. The first group worked in the conventional work environment while the second group worked in a "green" environment.

The level of Carbon Dioxide (CO₂), Volatile Organic Compounds (VOC's) and air exchanges were manipulated and

measured in the respective environments, and then mental testing was done on the inhabitants of those spaces.

The outcome was very clear - if the air you breathe is clean and replenished regularly with fresh oxygen rich air, your mental skills are greatly improved over those that breathe stale air polluted with high levels of CO₂ and VOC's!

The indoor air quality was found to be directly related to overall health and productivity!

"Because this study was designed to reflect indoor environments encountered by large numbers of people every day, these findings have far ranging implications for worker productivity, student learning, and safety." Harvard T.H. Chan, School of Public Health

According to the U.S. Energy Information Administration, almost half of all commercial buildings in the United States were constructed before [1980](#)! These older buildings often reflect the "conventional work environment" that was evaluated in the study.

The buildings were constructed during a time when energy was cheap and indoor air quality was barely on the radar.

PACE is a key contributor to employee health and productivity!

Benefits of PACE to Stakeholders

Business Leaders

Michigan's Public Act 270 mandates strict requirements for the program when it's utilized to fund energy upgrade projects over \$250,000. The most appealing requirement is that qualifying projects must be CASH FLOW POSITIVE!

Project costs must be paid for out of the net reduction in energy and water expenses. This means that a CFO can highlight increased profitability due to reduced energy

costs immediately without an increase in expense or a capital outlay!

Additionally, the property is often more valuable due to the resultant increase in energy efficiency. These factors keep shareholders happy and make moving forward on energy projects a less contentious issue!

"PACE can finance projects that would never be funded internally because they do not meet the company's internal hurdle rate. In the process PACE would generate free cash flow for your company. You really should use as much of it as you can get." George Caraghiaur, Senior Fellow at PACENow

Commercial Real Estate Owners

The Deloitte Center for Financial Services released a report entitled [2015 Commercial Real Estate Outlook](#) that highlighted the value of energy efficiency to owners of commercial real estate. Here's the essence of what that report had to say:

"Sustainability initiatives have a significant bearing on CRE (commercial real estate) operations, which manifest themselves in various forms—environment, portfolio performance, top and bottom line, asset values, stakeholder engagement and brand perception. Among other things, buildings with relatively better sustainability credentials tend to enjoy increased market-ability to both tenants and investors."

Sustainability initiatives are also called green renovations, energy efficiency upgrades, environmental efficiency, etc. The main point of the report is this - when energy efficiency initiatives are a component of a commercial building, it be-

comes more marketable, the value increases, it's easier to acquire tenants, tenants stay longer and investors achieve better results!

Property Assessed Clean Energy is a powerful tool for launching a wide variety of energy efficiency renovations and retrofitting projects.

When owners of commercial real estate take into consideration the financial advantages of PACE including the option for treating the loan "off balance sheet", long term financing, non recourse, stays with the property upon sale, etc., PACE becomes a powerful commercial property investment strategy.

Energy efficient commercial real estate has a [documented advantage](#) in the marketplace. They cost less to operate and maintain, provide a greater return on investment, foster lower vacancy rates and offer a key tenant acquisition advantage.

Investors

PACE financing is supported by a unique repayment mechanism that has resulted in a large pool of investors who find PACE projects especially appealing.

By attaching the financing of energy upgrades to the property, and then using the county or city tax system as the repayment tool, PACE has dramatically lowered the financial risk for investors.

Because of this unique repayment mechanism, a large

number of private equity, retirement and insurance funds prefer PACE investments due to their inherent safety and the resulting reduction in financial risk.

As a side benefit to the property owner, this large pool of funds has resulted in a lower cost of borrowing fixed rate, long term money. The access to a large pool of investment money makes taking action on reducing wasted energy much easier financially!

Developers

Developers face a common problem when traditional lending sources view energy efficiency upgrades that are over and above the minimum required by the local building code as non-essential.

Energy efficiency upgrades are typically viewed as a luxury and summarily dismissed from the design specs. They are dismissed because the goal of the traditional lender is a quick return on investment.

If the lender forces the developer to keep the building cost per square foot to a minimum, they earn a faster and less risky return on their investment.

PACE helps developers fill in the gap between what traditional lenders are willing to finance for minimal building codes and the energy efficiency upgrades that are becoming highly desired.

This trend is being supported by the U.S. Housing and Urban Development that showcased PACE as a way to fund

developers interested in embracing energy efficiency for affordable housing. The growing trend was [described](#) in this way: ***“This investment is the first PACE financing approved by the U.S. Department of Housing and Urban Development (HUD) for a HUD-assisted public housing property, and could become “a model for the nation” to spread sustainability across America’s disadvantaged communities.”***

Energy efficiency is becoming a necessity for truly affordable developments that go above and beyond the minimal building codes. Energy efficiency makes the cost of living or working in the resulting facility truly more affordable.

The energy efficient components become an investment that pays back perpetual dividends to the residents or employees occupying the space. The reduced energy bills also make green properties more appealing which results in lower vacancy rates - a big plus for the building owner, the investors, as well as the developers.

Once PACE financing entered the picture, so too did the full potential of clean energy technologies.” [CleanTechnica](#)

Tenants

For most energy efficiency projects the PACE statute requires that the total cost of the project must be less than the resultant energy savings.

Net energy costs are reduced resulting in a positive cash flow for the building owner. Reduced energy costs also help create happy tenants through reduced monthly energy bills!

Additional non financial benefits of energy efficiency typically include improved lighting, less noise, increased thermal comfort and a safer environment (low environmental toxins such as CO₂). Comfortable tenants are more likely to continue renting.

The stories that detail the indirect benefits of energy ef-

iciency upgrades are noteworthy. A brief list includes increased health, better productivity, less stress, improved concentration, less noise, etc. Often old technology is noisy, smelly, hums, flickers, runs too much, is too dim, breaks down or is just plain annoying.

Countless [studies](#) show the direct relationship between the indoor environment and productivity. When the air is clean, the lighting good, the noise diminished, and the environment more comfortable and safe, people perform better.

When you add energy and cost savings on top of all that – it’s truly a winning combination for tenants as well as landlords.

“There are reputable, robust studies that suggest the green design features of buildings lead to healthier, more productive occupants.”
[World Green Building Council](#)

Non-Profit Organizations

Non-profits are typically guided by a strategy of using as little of their donated money as possible to fund the day-to-day operations of the organization. The goal is to funnel as much of the donated money to their beneficiaries.

Non-profits with high overheads suffer from bad PR and benefactor apprehension. By keeping overhead low, donors become more inclined to support the cause. They realize their money is creating maximum benefits and not being squandered.

Non-profits with a plan for sustainability are looking closely at their fixed costs of operation regarding energy usage. If their operation is being run out of an extremely en-

ergy efficient facility, it demonstrates good stewardship as well as environmental sustainability. It is also a great PR tool when detailing social responsibility to potential donors.

PACE can be used by most non-profits (property taxes must be paid to qualify) and it is possible to use funds raised through capital drives to finance PACE projects. This can create significant financial advantages as previously discussed.

A PACE strategy for non-profits requires that the entity's legal and accounting team understand the nuances of Property Assessed Clean Energy and how it can be utilized to the maximum advantage.

Community

When a community creates an energy efficiency friendly environment by becoming a PACE approved district, an opportunity for economic development results.

PACE projects put people to work, fund the sale of energy saving technologies, increase the property value of the upgraded buildings and improve the comfort of those working within the buildings.

What makes PACE a very attractive economic development program for a community is the fact that it requires zero taxpayer money! While PACE guidelines are set at the

state and county level, the money that funds the program is most often sourced from private capital. This results in zero financial burden to the taxpayers in a community.

As research [details](#) clearly, energy efficiency projects ultimately benefit the local economy and create jobs. The vast majority of counties and cities voting to become a PACE district passed the initiative unanimously!

Why would anyone oppose economic development that benefits all levels of the community?

“These investments in energy efficiency and renewable energy will also be a net new source of job opportunities. More specifically, we find that new investments in energy efficiency and renewable energy will generate more jobs for a given amount of spending than maintaining or expanding each country’s existing fossil fuel sectors.”

[U.N. 2015 Special Report, Global Green Growth](#)

PACE Summary

Over 98% of all major energy efficiency proposals, including large renewable energy projects, do not launch due to these traditional barriers:

- A deficiency of capital
- Unacceptable payback periods
- Mistrust of the “proposed” energy savings

When these barriers are overcome the savings are often

extraordinary and they continue to yield benefits many years into the future. A recent [article](#) describes the benefits from an energy renovation of the Lenawee County Judicial Building funded by the resultant energy savings. An audit report detailed almost twice as much energy savings as had been expected. The following quote describes the energy saving results most business and property owners would enjoy reporting:

“We are not spending anywhere near as much as we would have spent had we not undertaken this project,” Martin Marshall, Lenawee County Administrator

There is a huge pent up demand for energy efficient upgrades to commercial, industrial, multi-family and non-profit buildings. Up until now there hasn't been a means to make these upgrades easy or affordable. That has all changed with PACE.

Improving a company's energy efficiency often requires a complex set of resources, technology and financing. When all of those components are brought together the result can be improved cash flow, increased profit and zero additional expense.

With the utilization of Property Assessed Clean Energy on larger comprehensive projects - \$250,000 and up – renovations and upgrades to energy intensive technologies becomes much easier to consider. When property owners

truly understand how much money can be saved through these types of projects, they're much more inclined to start looking for viable solutions. PACE makes financing those solutions affordable.

In the past, business decision makers typically approved energy projects in smaller phases to keep down the cost of financing and therefore preserve cash. That resulted in small energy savings and frequent disruptions to production.

A new approach that is made possible by PACE, is to figure out how to save the maximum energy possible and let the savings finance a comprehensive project.

The key is to generate sufficient energy savings to more than offset the entire cost of the project.

Additional Articles

[PACE Program - Making Energy Efficient Upgrades Affordable](#)

[3 Challenges to Becoming an Energy Efficient Auto Dealership](#)

[New Solution Helps Businesses Cut Energy Expenses](#)

[Green Energy Upgrades Without Additional Expense](#)

[5 Greatest Waste of Energy in Older Buildings](#)

[Energy Efficiency Increases Commercial Real Estate Profitability](#)

[Green Renovations Create Unique PR Opportunities](#)

[The Lost Productivity Cost of Not Being Green](#)

[Retailers Rein in Wasted Energy to Increase Profits](#)

[Investor Reveals Unique Financial Benefits of PACE](#)

[Can Green Buildings Make You More Productive](#)

PACE Project Calculator

To help determine if a potential project qualifies for PACE financing, click the following link for the PACE project calculator:

[Does Your Project Qualify for PACE?](#)

Frequently Asked Questions

1. What is PACE?

PACE stands for Property Assessed Clean Energy, a financing tool for promoting and funding energy efficiency and water conservation upgrades.

2. How does PACE differ from traditional financing?

PACE is a long-term, fixed rate financing option that is tied to the property and can be used to fund 100% of the energy efficiency, water conservation and renewable energy components used in commercial, industrial, multi-family and non-profit buildings. PACE also covers maintenance and end of life replacements. PACE loans can be considered "off-balance-sheet" at the discretion of the property owner. Traditional financing typically offers much shorter terms that cover 60% to 80% of a project's costs and is considered a debt attached to a person or the company.

3. How does PACE benefit a business?

The benefits of PACE are numerous but the most significant is any energy efficiency, water conservation or renewable energy project over \$250,000.00 has to be cash flow positive. The energy savings must exceed all project costs. This is guaranteed by the project developer. Zero capital is required by the property owner.

4. What if a business has already completed an energy efficiency upgrade?

A unique aspect of PACE is that it can be used to refinance recently completed energy efficiency, water conservation or renewable energy upgrades. This option results in a source of new capital that can be used for other projects.

5. What if a company has a project that must be done immediately?

Because of the ability to use PACE to refinance completed projects, urgent projects can be funded from company capital or short-term financing. Once the project is completed, the costs can be recovered with PACE financing. NOTE — A PACE advisor should be consulted prior to the project to make sure the upgrades qualify and how much PACE financing will ultimately be available.

6. Will PACE financing show up on the company balance sheet?

The determination of whether to list PACE financing on a company balance sheet depends on many factors and is best determined by an accountant's review of the specific situation. Factors such as depreciation, write offs, etc. must be considered before making that determination.

7. How do I know if my business would benefit from PACE?

The following factors are only a rule of thumb for evaluating potential PACE projects and there are many exceptions. Many factors have to be evaluated individually any time green renovations are being considered for PACE financing:

- Business or building is older than 15 years.
- High energy use (annual utility bills should be at least \$60,000) due to long hours of operation or multiple tenants
- Deferred equipment maintenance due to high cost of repair / replacement.
- Concerns about making the business / building more sustainable.
- Corporate social responsibility and green PR agenda.
- Desire to improve occupant comfort and productivity.
- Need to reduce risk of system failures due to outdated technology breakdowns.
- Desire to incorporate leading edge energy technology (geothermal, fuel cells, LED lighting, wind, solar, etc.).

8. Can PACE financing be written off as an expense?

The payment of the special assessment is considered a property tax and can therefore be listed as an expense.

9. Can equipment financed by PACE be depreciated?

The determination of whether to depreciate qualifying equipment financed through PACE depends on many factors and is best determined by an accountant's review of the specific situation. Factors such as depreciation, write offs, etc. must be considered before making that determination.

10. How does PACE affect the Loan to Value calculation of a business or building?

For those buildings that have a mortgage, the LTV is improved. Since all upgrades are considered real property vs. personal property, they have a direct impact on the value of the property. By increasing the property value, the LTV of an existing mortgage improves.

11. How is the amount of funding for individual PACE projects determined?

The general rule of thumb is PACE will loan up to 25% of the fair market value (FMV) of the property for qualified projects. It should be noted there are many factors that can affect that amount.

Each PACE district's assessment language will specify the percentage limit but that can possibly be overridden by the PACE Program Administrator depending on the circumstances. Each case is handled on an individual basis.

In addition, the provider of PACE financing will also establish a percentage of the property value that qualifies. This will vary between lenders based on their acceptable level of risk and, like the assessment language, it is variable.

The last point that can affect the overall funding level is the amount of mortgage debt (LTV) the property carries. There is no hard rule of thumb for this but typically the LTV must be less than 80%.

Again, each project must be handled on an individual basis and it is critical to define these variables upfront with a customer and the funding principals so when a Proposal Contract is signed, everyone has a good idea of the amount that's available for financing the project.

The amount of funding is also affected by the scope of work and its cost. Some PACE lenders will allow 90% of the project's costs to be used in establishing the fair market value of the property.

12. How is the value of the property determined?

There are a several acceptable methods used to determine the value of the property. The easiest and most available is 2x's the SEV on the tax bill of record at the taxing authority (county, city, township, etc).

In the case of refinancing a past project, it must be confirmed that the tax bill reflects the improvements that were made to the property. If this has not been accounted for, the options are to request a new assessment or obtain an appraisal.

The second method to determine property value is to refer to the most recent appraisal or have a new appraisal completed. Each PACE lender will specify if a current appraisal is acceptable based on age, type, and who provided the appraisal. If a new appraisal is required, the PACE lender

must be contacted to determine what type of appraisal is required and who is qualified to perform the appraisal.

The last method is referred to as the Fair Market value. If the SEV is not up to date, and improvements have been made, typically you can take 2x's the SEV value and add 90% of the cost of the improvements in calculating the new market value. Again, this varies by each PACE lender and therefore they must be consulted in advance.

13. For multi-phase projects, how is the value established?

Multi-phase projects can provide an advantage. The advantage is that one phase can be completed based on the initial SEV if an appraisal is outdated or does not exist. This postpones incurring the cost of the appraisal, and has the added benefit of including the value of the improvements made in the first phase to the overall value of the property.

This higher value will then be reflected in the appraisal required for subsequent phases. Additionally, for larger projects, the first phase value is automatically eligible to be considered in the fair market value calculation resulting in an increased property value that may be sufficient to fund subsequent phases without having a new appraisal.

14. For new construction or re-purpose projects, how is the value established?

Although in theory a pre-project appraisal can be done based on the current property value, along with the value of the improvements, this has yet to be actually tested in Michigan.

Remember, PACE upgrades are considered "Real Property" whereas if the upgrades were done with cash or traditional funding, many of them would be considered "Personal Property" which has no bearing on the actual value of the property.

15. Does PACE vary by state?

Since PACE is a state based program, and not Federally governed, there can be significant variability within each state, county, city, or township.

Ann Arbor, Michigan is a perfect example. Initially its PACE program was to be funded by bonds. That proved to be too time consuming and costly.

All other areas of Michigan now utilize private equity funds to finance PACE projects which provides access to much greater source of funds in significantly less time than that required to issue bonds.

Any project considering PACE financing should have a qualified consultant look at the project first in order to determine what qualifies and how much funding the project will ultimately be available.

The Energy Alliance Group of Michigan

The Energy Alliance Group of North America, the parent company of The Energy Alliance Group of Michigan, is an energy solutions and cost recovery company providing energy-saving products, technologies and services.

We guide our clients through the complexity of technology and service choices, utility and tax incentives, and project financing alternatives to achieve the greatest energy savings and maximum return on investments.

In many cases, our clients reduce energy costs by 50% or more and for those qualified, no upfront capital is required as project costs are fully paid for through various incentives, rebates and the resultant energy savings.

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We define the total cost of ownership and financial benefits for a 20 year outlook period.

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