

powerHOME
save energy | solar energy

Proposal for:

John and Jayne Smith
123 South Face Drive

Prepared by:

Diana and Michael Kassian
Advisor and Project Manager

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Executive Summary

Earlier this year, the Green Energy Act was passed to make Ontario a global leader in the development of renewable energy, clean distributed energy and conservation, creating thousands of jobs, economic prosperity, energy security, and climate protection.

Recent advancements in clean energy technology include conservation, efficiency, and solar generation solutions. Many homeowners today are aware of the tremendous global investment opportunity in clean technologies, yet they struggle to understand how that opportunity applies to their family. Coupled with low interest green financing and massive government rebates, an average family can increase their monthly cashflow by more than \$1,000 a month and significantly reduce their carbon footprint on the environment.

powerHome offers Ontario homeowners a sustainable approach towards energy empowerment and financial independence. By working with a unique and diverse team of local financial experts and clean technology providers, we optimize a solution which integrates:

- Low interest green mortgages, leasing & other financing options
- Government rebates & incentives for clean energy home investments
- Professionally managed, high-growth potential, energy technology funds

Ontario homeowners have the opportunity to start saving and generating hundreds, if not thousands, of additional dollars each month by going green. By converting an inefficient home into an energy-efficient and clean energy producing powerHome, Ontario homeowners have an opportunity to serve as role models for their family, neighbourhood and community.

Time of Crisis Calls for Action

Global Situation

“That we are in the midst of crisis is now well understood. Our nation is at war, against a far-reaching network of violence and hatred. Our economy is badly weakened, a consequence of greed and irresponsibility on the part of some, but also our collective failure to make hard choices and prepare the nation for a new age. Homes have been lost; jobs shed; businesses shuttered. Our health care is too costly; our schools fail too many; and each day brings further evidence that the ways we use energy strengthen our adversaries and threaten our planet.” - President Barack Obama, inaugural speech.

Provincial Challenge

The Ontario electric utility industry is entering a moment of transition. The industry now faces the ever-present risk of natural disasters, price fluctuations, terrorist attacks, and blackouts. Since last October, more than 400,000 jobs have been lost in Ontario. MPP, George Smitherman, guided by the Green Energy Act Alliance, has played an integral role in supporting and passing the Green Energy Act. Presented with a wide range of options, homeowners still struggle to identify the right mix of solutions for their home and investment portfolio.

Homeowners Struggle

Scrambling to understand fluctuating energy costs and the unexpected financial crisis, most homeowners find themselves in a state of silent desperation. Millions stand-by and watch helplessly as their RRSP portfolios take them on an endless roller coaster ride. In the midst of confusion and chaos, challenges are compounded even further as basic monthly expenses continue to rise, and jobs start to disappear.

In this time of crisis, homeowners search for a way to align with the Green Energy Act. The global movement towards Renewable Energy Technologies has begun, the race is on. In the midst of panic and chaos, those who are willing to invest the time and energy, will discover a world of infinite energy possibilities. Like never before, Ontario families are presented with a *win-win* opportunity: build sustainable wealth *and* make a lasting difference.

Mission and Vision

No Home Left Behind

We aim to offer Ontario homeowners a simple and practical implementation plan for financing and investing in sustainable energy solutions. We help homeowners to substantially increase monthly cashflow and build long term wealth by investing in clean energy technologies and investments.

Think Big. Act Small.

powerHome aims to financially optimize and environmentally align at least 10,000 Ontario homes before 2013. We are in the process of identifying the first 500 powerHome owners in the Greater Toronto Area (GTA) for the 2010 Pilot Project. We aim to demonstrate how 500 GTA homeowners may increase their monthly cashflow by at least \$500 a month while reducing their carbon footprint by the equivalent of 5 average cars.

Dreams, Goals, and Strategies

Say what you mean and act how you feel,
because those who matter don't mind,
and those who mind don't matter.

~ Dr Seuss

To demonstrate, we show how a family's short and long term goals are met by sustainably increasing their cashflow by \$1,000 a month:

Short-term goals: eliminate credit card debt, build emergency funds, and take family to Bahamas.

Long-term goals: start saving for children's education, early retirement and help build school in Africa.

Clarity = Freedom

How much of an impact is your home having on the environment? You work hard for your money, how hard is your money working for you? Getting a crystal-clear, big-picture, of where you are today is half the battle. Most of us have a fairly clear picture of where we wish to go be 5 or 10 years from now, the challenge is to know where you are today. A powerHome consultant can help you better understand where you stand in terms of your energy and financial picture. Once you have a clear picture, we then show you a simple way to get to where you want to go.

Simple Solutions

Our teams work together to deliver an optimal energy - financial strategy that is in harmony with nature. The Green Energy Act, Bill 150, has positioned Ontario homeowners to lead North Americans into this new booming Environmental Technology (ET) industry. Today, many homeowners are acutely aware of recent clean-technological breakthroughs, government rebates & tariffs, low mortgage & loan interests and sustainable investment opportunities. Despite this awareness, perhaps due to a lack of time or resources, most homeowners are watching this opportunity pass them by. Our strategies offer a simplified, step-by-step, approach towards converting your home into a powerHome.

Asking Questions That Matter

powerHome takes a new and innovative approach towards energy and financial planning. The way our consultants look at the world today has largely been shaped by asking ourselves meaningful questions:

How confident am I in the “exponential-growth theory” of the general markets today? Like most people, are we living pay cheque to pay cheque, hoping for a better day? With the money we make and invest, do I know where it’s going? Do I care? Am I perhaps paying more in taxes than I should be? How much of my monthly income is being funnelled into the bank’s pocket? Am I scared of rising energy costs? Is my family prepared in case we lose electricity or heat in the middle of winter? What kind of impact do my financial decisions have on the environment? Am I concerned about the world we are leaving for our children? Have I positioned myself to prosper in these greener economic times? How will I make a difference?

Massive Value

The wisest energy strategy for Ontario, in terms of cost, environmental benefits, and potential is to invest in long-term energy demand reduction through the increased deployment or improved performance of energy-efficient equipment.

On the supply-side, using smaller, decentralized units such as solar heating and photovoltaic (PV) systems are among the best strategies. It is these miniature generators—not mammoth and capital-intensive power plants—that offer the best strategy for diversifying electrical and heat generation in a competitive energy environment.

powerHome Value

We help homeowners convert their existing energy inefficient and financially unsustainable homes into highly efficient, money-making, clean energy producing powerHomes.

PowerTeam Value

Our team is comprised of a carefully selected group of Money Specialists and Energy Experts who work together to deliver an environmentally aligned, financially profitable, powerHome.

Money Specialists

Our team of *Money Specialists* share a big picture understanding of low interest financing solutions, clean-technology investment opportunities and government backed green rebates and incentives. We work with homeowners to help them meet both their current and future lifestyle goals by increasing monthly cashflow and building long term sustainable wealth.

Energy Experts

Energy Experts, on the other hand, work with technology solution providers to implement efficiency, conservation, and solar generation solutions which provide the homeowner with the highest return on investment. We help you take a closer look at the way your family is currently using energy and identify the best path forward. Once the plan is in place, we then connect you to local licensed and approved auditors, installers, plumbers and electricians who can then help you to implement the complete

powerHome solution. A powerHome includes efficient lighting & appliances, low-flow shower heads & toilets, solar water heating systems & solar PV panels and water heat recycling Power-Pipes.

PowerTeams include “green-collar” professionals:

- Experienced green-mortgage brokers, financial advisors & accountants
- Passionate power auditors, project managers and product providers
- Authorized clean-energy electricians, plumbers & installers

Innovative Approach

Simple Systems

As important as all this may seem, we understand that for most of us, the “busy-ness” of life often takes priority over helping the world. With all that is happening, most people simply do not have the time or energy to take action. We found that most of us want to do the right thing, but will only take action when it makes extreme *financial sense*. Our approach is to provide homeowners with a one-stop financial-energy consultancy shop. We provide homeowners with easy to use budgeting & tracking tools, Canadian made clean technology products and access to local *green collar* professionals in a simplified and systemic way.

Show Me The Money!

Projected to create more than 60,000 jobs in the next 3 years, the Ontario government is pouring billions of dollars into the “green economy”. At the same time, homeowners struggle to find time and reliable resources to make educated decisions about green investments. Our team of engineers, financial brokers and clean technology experts are aligned with on-going government initiatives and competitive financing sources, so that you do not need to be.

Government Alignment

In response to the voice of GTA homeowners, Ontario recently approved a revolutionary Green Energy Act, Bill 150. This Act provides a tremendous range of profitable opportunities:

- Earn a guaranteed 80.2 cents/kWh for 20 years to generate electricity using Solar PV (~10% ROR, backed by the *sun*)
- Get back between 40% - 80% rebates on conservation and efficiency investments
- Use government subsidized, low or no-interest mortgage loans (Powerhouse program still pending)

Green Financing and Low Interest Mortgages

By the government stepping in and offering the necessary guarantees and incentives through the Green Energy Act, Banks and other financial institutions are also providing incentives to invest in green initiatives. As a result, homeowners have access to a wide range of low interest (and possibly no interest) leasing and financing options through companies such as Manulife, TD Bank and RBC Bank. Our

team brings you specialized and relevant knowledge of appropriate financing solutions to help increase your monthly cashflow and deliver the lifestyle you desire.

Clean Technology, What Does It Mean?

While there is no standard definition of "clean technology," it has been described by Clean Edge, a clean-tech research firm, as "a diverse range of products, services, and processes that harness renewable materials and energy sources, dramatically reduce the use of natural resources, and cut or eliminate emissions and wastes." It notes that "Clean technologies are competitive with, if not superior to, their conventional counterparts. Many also offer significant additional benefits, notably their ability to improve the lives of those in both developed and developing countries"

Investments in clean technology have grown considerably since coming into the spotlight around 2000. According to the United Nations Environment Program, wind, solar and biofuel companies received a record \$148 billion in new funding in 2007 as rising oil prices and climate change policies encouraged investment in renewable energy. Overall, investment in clean-energy and energy-efficiency industries rose 60 percent from 2006 to 2007. By 2018 it is forecast that the three main clean technology sectors, solar photovoltaics, wind power, and biofuels, will have revenues of \$325.1bn. (source: Wikipedia)

Clean Energy-Technology Products

Our licensed and approved clean technology product providers and installers work together to provide you with a turn-key, clean energy solution that is tailored for your home and lifestyle requirements. Saving the environment comes down to 3 main areas: efficiency, conservation, and clean energy generation technology.

Taking performance, financing and government incentives into consideration, we assist homeowners to identify a mix of solutions that meet 3 critical criteria:

- 1) Fast ROI (return on investment) ~ 5 years
- 2) Maximize monthly cashflow ~ \$500/month
- 3) Minimize carbon foot-print ~ 5 cars

Finding harmony between making money AND helping our environment, that's the common vision that we share with our clients.

Clean Energy-Technology Investments

So, how much of a - positive or negative - impact is your current investment portfolio having on earth? Interested in learning more about sustainable ethical funds? Destined for success, top fund managers from Criterion, offer Canada's first professionally managed, global, clean energy mutual fund. Capitalize on the next boom, the Energy Technology, ET boom.

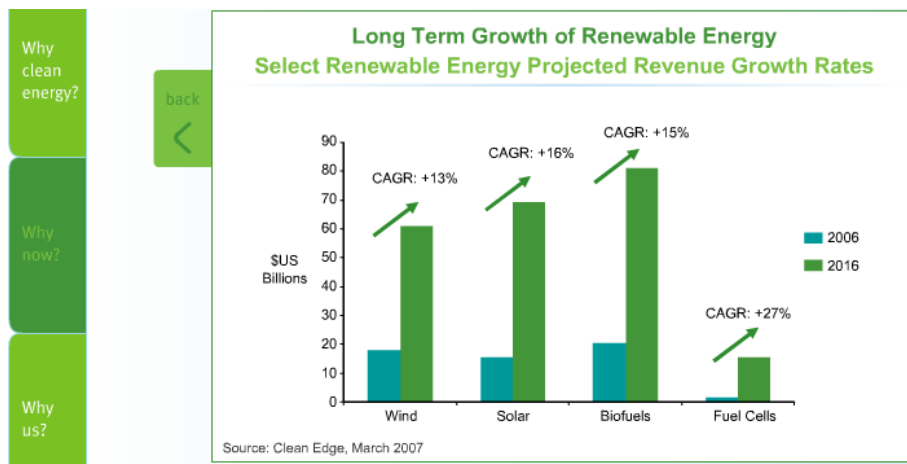
Germany, a Shining Example

The climate crisis and the credit crunch are forcing us to transform our societies; we must seize the opportunity. We can look to Germany for guidance. The country, over the past 10 years, has employed more than 400,000 people in the renewable energy sector.

Germany is taking big strides towards the mass-consumption of renewable energy. The German feed-in system - the Law on Renewable Energy that was recently passed here in Ontario - laid down the framework conditions for rapid growth of renewable energy resources in Germany. By 2008, more than 15% of Germany's total energy mix was coming from renewable energy sources. The global average is 0.01%.

Professionally Managed Clean Energy Technology Mutual Funds

Experts agree that the CAGR (compound annual growth) of the solar industry will grow at 16% until 2016. At a growth rate of 16%, investments double every 5 years - look to Albert Einstein's Rule of 72 to calculate doubling time. There is an opportunity for homeowners to make a difference and make money at the same time. Here's a graph from Criterion Global Clean Energy Fund's [website](#) showing the CAGRs of several renewable energy systems up to 2016:



Investing in Solar Funds

The Solar Income Fund LP provides accredited investors with a unique opportunity to own secure and stable income generating investments in the **Solar Photovoltaic ("solar PV")** energy power generation sector.

The Fund seeks to take advantage of the long term government-backed incentives, in the form of guaranteed energy feed-in tariffs and 20 year power purchase agreements. Through their exclusive offering, qualified and accredited investors will have an opportunity to generate both *Green Income* and *Green Tax Deductions*.

One Stop Shop

A powerHome consultant helps you take a look at the full picture. We work with experts and licensed professionals who can guide you with respect to socially responsible investment opportunities.

Our approach is to offer homeowners a turn-key, environmentally aligned financial solution that will increase a family's monthly cashflow by *at least* \$500 a month – an extra \$500 in your pocket, every single month. In the example below, you will see how an average family, with the help of their powerHome advisor, was able to increase their monthly cashflow by more than \$1,000 a month.

Solution: Smith Family Case Study

How is an average Ontario family tackling the financial and energy challenges of today? Here, we will briefly explain what a typical Ontario family's financial and energy situation may look like.

Pay Cheque to Pay Cheque

Living at the heart of Toronto, John and Jayne raise their two boys in the home which they purchased 7 years ago. Justin, in grade 4, and Jason, in Grade 7, are both earth advocates at their school and constantly remind their parents to take action towards preserving our earth.

Between both hard working parents, they earn a combined average income of \$90,000 a year; yet for some reason, they find themselves living month to month, paycheque to paycheque. After watching the [Story of Stuff](#), by Annie Leonard, and reading [Our Choice](#), by Al Gore, going green has been top of mind for both John and Jayne for quite some time. However, the chores and responsibilities of daily life hold the Smith's back from taking serious action.

Cashflow Analysis

After sitting with their powerHome Consultant, John and Jayne recently noticed that more than half of the money they are earning today is going directly to the government, banks, and utility companies. They explain, "It was like driving really, really fast down a highway and then suddenly realizing that we were going the wrong way. A part of you doesn't want to slow down and face the truth; we felt that we had come so far. But in our hearts, we knew that we needed to pull over and get directions." After their first consultation with a powerHome representative, they received clarity about their current financial and energy situation. Clarity = Freedom.

| Monthly Cashflow Snapshot | | | |
|---------------------------|--------------|-------------|-------------|
| | Monthly (\$) | Yearly (\$) | % of Income |
| Total Income | 7,500 | 90,000.00 | 100% |
| Government Taxes | 1,875 | 22,500 | 25% |
| Bank Payments | 1,500 | 18,000 | 20% |
| Utility Expenses | 375 | 4,700.00 | 5% |
| Family Expenses | 3,750 | 47,000.00 | 50% |

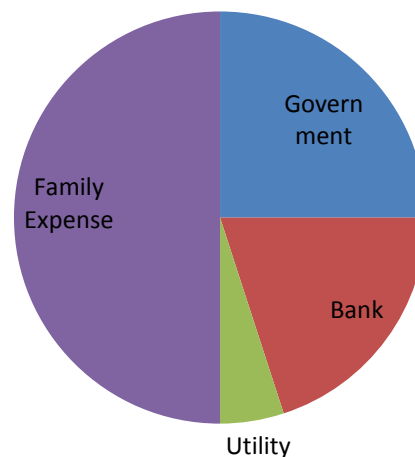


Figure 1 - Smith's Monthly Cashflow

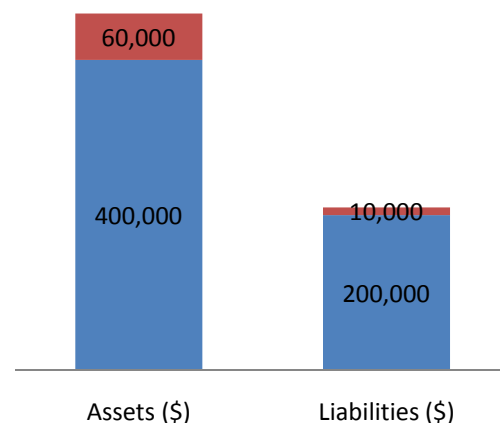
Networth Analysis

They bought their home for \$300,000 almost 7 years ago. Today, the value of their home has gone up to more than \$400,000. Their mortgage balance is around \$225,000 and their monthly mortgage payment

works out to \$1,200. Their \$10,000 credit card debt costs them around \$300 a month. The family's gas bill comes out to around \$200 a month and their electricity bill is just under \$175 a month.

From a *wealth* perspective, their networth looks a little like this:

| Networth Snapshot | | | |
|-------------------|-------------|------------------|----------------------|
| | Assets (\$) | Liabilities (\$) | |
| Home Value | 400,000 | 225,000 | Mortgage balance |
| Investments | 60,000 | 10,000 | Bad debts |
| Total Assets | 460,000 | 245,000 | Total liabilities |
| Networth | \$215,000 | | Assets - Liabilities |



A Simple Solution

After a quick chat with their financial advisor, the Smith family realizes that the equity sitting inside their home is not really working for them, instead, its working for the banks. The Smith's were shown a few strategies of how to make their home for them. To learn more about Using Home Equity to Your Advantage, see appendix C.

Using Home Equity Wisely

After learning about the new and innovate mortgage solutions available to Canadian homeowners, they decide to move forward with a low interest green mortgage solution. Refinancing their home at 75% of their home value allows them to secure a Green Home Equity Line-of-Credit Mortgage for \$300,000. With this money, they first pay off their old \$225,000 mortgage and then they are left with \$75,000 in available equity to invest.

John realizes, "There is money sitting in the walls of my home. I never realized that this money was sitting idle until my advisor told me about the concept of 'sleeping home equity'. I finally realized that this money could be used to help the environment and generate a sustainable flow of monthly cash for me and my family."

Make Your Home Work for You

With the \$75,000 in available equity, the Smith's are advised to first pay down their \$10,000 credit card.

Energy Audit and Feed in Tariff

To get a detailed energy picture of their home, they first have a energy audit done on their home. After learning more about the Feed in Tariff, they choose to invest \$20,000 in a 2.4 kW solar PV system from Sun-Volt. After learning about the 20 year guarantee by the Ontario Power Authority, they realize their

Solar PV system will give them a sustainable rate of return of 10%/year and the investment will pay itself in less than 7 years.

Solar Water Heater

They also decide to invest \$10,000 into a solar water heating system from Bright Solar Inc. After factoring in the \$4,000 in rebates offered by the provincial and federal government, they realize that they will pay this system off in less than 5 years.

Efficiency and Conservation

They invest another \$10,000 on energy efficient light bulbs & energy star appliances and another \$10,000 on efficient toilets, PowerPipes and insulating their windows & attic. By investing in these solutions, the Smith's receive a total of more than \$15,000 in government rebates which they plan to keep aside as an emergency fund.

The Networth Solution

After speaking with a qualified real estate agent, the Smith's are surprised to learn that their home is actually worth much more now because of the green renovations that were made to their home. After completing their final power audit, they realize that the energy rating of their home has jumped from 70 to 80.

The Green Energy Act originally proposed to have all homeowners perform a power audit before selling their home. Before you buy a used car, it makes sense to have the car looked over by a mechanic who specializes in automobiles. The same way, before buying a \$400,000 home, it also makes sense to get a quick *check-up* for your home. To learn more about the role of the Power Auditor or National Energy Advisors program, see appendix.

Clean Energy Investments

After hearing about all the corruption on Wall Street, aware and concerned investors are beginning to question where their retirement money is being invested.

The Smith's have accumulated \$40,000 in their RRSP accounts which have been fluctuating randomly over the past few years. Having seen the benefits of green technologies in their home, the Smith's decided to invest \$15,000 in clean technology funds?

They wanted to learn how they could ride this new Clean Energy Technology Boom that was happening all over the world. After taking a closer look at their current portfolio mix, they saw that a lot of their investment dollars were going towards things they never even believed in. Their powerHome advisor showed them how social responsibility and sustainable profitability should go hand in hand.

Financial snapshot before and after implementing powerHome plan:

| | |
|-----------------|----------------------|
| Cashflow Before | \$ -236.72 |
| Cashflow After | \$ 763.83 |
| Networth Before | \$ 205,000.00 |
| Networth After | \$ 220,000.00 |

Cashflow and Networth, Before and After

Detailed breakdown of cashflow and networth before and after implementing powerHome plan:

| | Before | | Source | After | | | |
|------------------|-----------|-------------------|------------------|--------------------------|-------------------|------------------|-----------|
| | Monthly | Yearly | | Monthly | Yearly | | |
| Monthly Cashflow | Money IN | \$ 3,333 | \$ 40,000 | John's Income | \$ 3,333 | \$ 40,000 | Money IN |
| | | \$ 4,167 | \$ 50,000 | Jane's Income | \$ 4,167 | \$ 50,000 | |
| | | | | Solar PV Income | \$ 229 | \$ 2,750 | |
| | | \$ 7,500 | \$ 90,000 | Total Money In | \$ 7,729 | \$ 92,750 | |
| | Money OUT | \$ 7,737 | \$ 92,841 | Total Money Out | \$ 6,965 | \$ 83,584 | Money OUT |
| | | \$ 2,083 | \$ 25,000 | Taxes | \$ 2,083 | \$ 25,000 | |
| | | \$ 1,578 | \$ 18,941 | Mortgage Payment | \$ 1,307 | \$ 15,684 | |
| | | \$ 275 | \$ 3,300 | Property Tax | \$ 275 | \$ 3,300 | |
| | | \$ 300 | \$ 3,600 | Credit Card | \$ - | \$ - | |
| | | \$ 500 | \$ 6,000 | Heating & Hydro | \$ 300 | \$ 3,600 | |
| \$ 3,000 | | \$ 36,000 | Family Expenses | \$ 3,000 | \$ 36,000 | | |
| Networth | OWN | Value | | Source | Value | Govt Incentives | OWN |
| | | \$ 400,000 | | Home | \$ 400,000 | | |
| | | \$ - | | Solar PV | \$ 20,000 | \$ 500 | |
| | | \$ - | | Solar Thermal | \$ 10,000 | \$ 4,000 | |
| | | \$ - | | Conservation Initiatives | \$ 10,000 | \$ 3,000 | |
| | | \$ - | | Efficiency Initiatives | \$ 10,000 | \$ 3,000 | |
| | | \$ 40,000 | | Total RRSP Investments | \$ 55,000 | \$ 4,500 | |
| | | \$ 440,000 | | Total Own | \$ 505,000 | \$ 15,000 | |
| | OWE | \$ 235,000 | | Total Owe | \$ 300,000 | | OWE |
| | | \$ 225,000 | | Mortgage | \$ 300,000 | | |
| \$ 10,000 | | | Credit Card | \$ - | | | |

After increasing monthly cashflow by more than \$1,000 a month, the Smith's were no longer in the red, they were in the green! The stress of living paycheque to paycheque finally came to an end. Now it was time to revisit their goals:

Short-term goals: eliminate credit card debt, build emergency funds, and take family to Bahamas.

Long-term goals: start saving for children's education, early retirement and school in Africa.

They used the \$15,000 in government rebates and tax deductions as their emergency fund so that they would no longer need to use their credit cards in times of crisis.

With the available monthly cashflow, the Smith's start putting aside \$200 a month towards their children's education and \$50/month to help build a solar school in Africa through World Vision.

They decide to put away \$300 a month into their RRSP investments and other tax sheltered investment solutions such as the insured retirement strategy.

The last \$200 a month is tucked away to start saving for their next vacation. They calculate that it will take between 9 months for them to save up for a family trip to the Bahamas.

The Smith family's initial lump sum of **\$55,000** plus payments of **\$300 12 times / year** at an investment rate of **12.00 %** will result in total savings of **\$803,909**.

An Opportunity of a lifetime for Ontario Homeowners

This is merely one of many options available to homeowners today. If it makes so much sense, why doesn't everybody jump on board? Good question.

Homeowners, on their own, are trying to understand, integrate, and implement a web of hard to understand technologies and financial strategies.

At the end of the day, our aim is to provide a turn-key, one-stop shop financial-energy solution to all Ontario homeowners.

For more information, email: info@powerhome.ca



Appendix A

Solar Energy

If we were to harness just one hour's worth of the sun's energy, we would have enough energy to light and heat the world for an entire year. The German government and renewable energy industry are in line to hit their target of 50% renewable by 2030. Currently, less than 0.01% of our civilization's energy source comes from the sun.

Solar PV and Feed in Tariff

A Feed-in Tariff is an incentive structure to encourage the adoption of renewable energy through government legislation. The regional or national electricity utilities are obligated to buy renewable electricity (electricity generated from renewable sources, such as solar thermal power, wind-power, biomass, hydropower and geothermal power) at above-market rates set by the government.

Solar photovoltaics (PVs) are arrays of cells containing a material that converts solar radiation into direct current electricity. Materials presently used for photovoltaics include amorphous silicon, polycrystalline silicon, microcrystalline silicon, cadmium telluride, and copper indium selenide/sulphide. Due to the growing demand for renewable energy sources, the manufacture of solar cells and photovoltaic arrays has advanced dramatically in recent years

For additional information, see **Our Power** [website](#):

Low-Risk

The Ontario government's Green Energy Act contains a significant monetary incentive for solar PV electricity generation; offering 80.2 cents per kilowatt hour of electricity generated from systems with a rated capacity of 10 kW AC or less. The incentive is delivered through the Ontario Power Authority's (OPA) Feed-In Tariff (FIT) program. The financial backbone of the FIT program is a 20 year power purchase contract with the OPA, backed by rate payers AND the provincial government. This kind of creditor rating has proven to be successful for raising capital in other jurisdictions such as Germany.

Profitable

A 2.6 kW solar array system produces 10.37 Kwh average daily production and costs \$19,293. With a straight cash purchase, this equates to a 6.5 year pay back period. See chart below for further details:

| | | |
|--------------------------|---------------|-----------------|
| Solar Array System | 2592.00 | Watt |
| System Cost | 19293.00 | \$ |
| Average Daily Production | 10.37 | kwh |
| Feed In Tarrif | 0.80 | \$/kwh |
| Daily Revenu | 8.32 | \$/day |
| Days/Year | 365.00 | days |
| Yearly revenue | 3035.61 | \$/year |
| Monthly revenue | 252.97 | \$/month |
| Payback period | 6.36 | years |

Tax Implications

Rooftop solar PV systems qualify for a federal capital cost allowance, which essentially eliminates any obligation to pay tax on the earnings from the system until the capital costs are fully repaid. After this point, income from a solar PV system is subject to income taxes.

Home Resale Value

While some of Ontario's first distributed electricity generators were hit with property tax re-assessments, systems installed under the FIT program will be exempt from this. As such, the increase in home value will not be accompanied by an increase in property value or property tax rates.

Unlike a normal home improvement project that increases your property value and municipal tax payments, a solar PV system operating under a FIT contract, is an asset on your home that generates a revenue stream. The resale value that this asset adds to your home is a function of the revenue that the system will continue to generate after the sale.

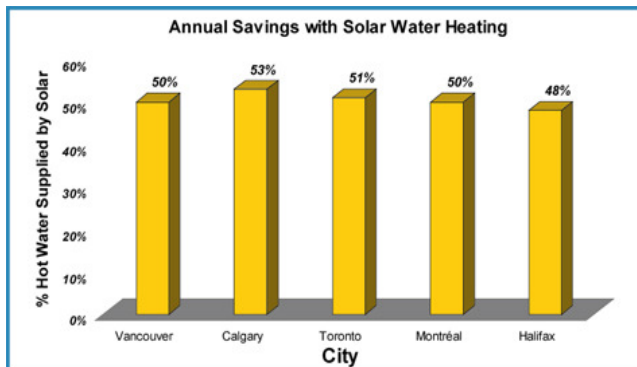
This is easily quantifiable over the duration of the 20 year FIT contract but gets more complex thereafter. Because of their simple design, no moving parts and low maintenance characteristics, Solar PV systems can produce electricity for over 40 years and valuing the electricity sales revenue in the 21st year is difficult.

For example

A 2 kW solar PV system produces roughly 2100 kilowatt-hours/kilowatt/year in Toronto, worth roughly \$1684 in annual revenue. Rather than selling a home that is worth \$20 000 more, the transaction resembles selling your home with an investment that yields \$1684 annually, bundled into it.

Solar Water Heater

Solar water heating is water heated by the use of the sun's solar energy. Solar heating systems are generally composed of solar thermal collectors, a fluid system to move the heat from the collector to its point of usage. The system may use electricity for pumping the fluid, and have a reservoir or tank for heat storage and subsequent use. The systems may be used to heat water for a wide variety of uses,



including home, business and industrial uses. Heating swimming pools, under floor heating or energy input for space heating or cooling are more specific examples. The chart is based on an EnerWorks 2-collector appliance installed on an average 4-person home over a 20-year period. Average personal hot-water load of 70 L/day (family load of 1960 L/week) assumed. Product performance varies with household hot water usage patterns.

Appendix B

Efficiency: Home Appliances and Lighting

Here, we will list out the appliances which we would recommend replacing. For example, right now, buy replacing your old, energy-sucking fridge in the basement with a new fridge, that's an investment which pays itself off in less than 3 years due to the rebates and energy savings, etc. A chart listing these items will be included. The budget is approximately \$10,000. We are actively seeking partnership opportunities with the eco-team at Sears regarding collaboration on this front. To learn more about the best ways to leverage the ecoENERGY Retrofit-Homes Program: see this important Sears [presentation](#).

Conservation: Insulation & Power-Pipes

Attic Insulation

While previous generations may have been content to live in drafty houses, most people now want comfortable warm houses. A healthy house today is well sealed, well insulated and properly ventilated.

A well-insulated house is a bit like dressing for the weather. A wool sweater will keep you warm if the wind is not blowing and it is not raining. On a windy, rainy day, wearing a nylon shell over your wool sweater helps keep you reasonably dry and warm. A house is similar. On the outside, underneath the brick or siding, there is an air barrier that does the same thing as the nylon — it keeps the wind from blowing through. Then there is the insulation (like your sweater) and a vapour barrier, which helps keep moisture away from the house structure where it can do damage.

Take advantage of combined grants + rebates for attic and roof insulation from the Canadian and Ontario governments:

Canada ecoENERGY grants — Ontario homeowners can get up to **\$750** in grants for attic and roof insulation through the Canadian government's ecoENERGY Retrofit - Homes program, which is in effect until March 31, 2011.

Ontario Home Energy rebates — Double your money with a matching rebate of up to \$750 from the Ontario government – for total rebate incentives of **\$1,500** for attic and roof insulation. Ontario's Home Energy Audit program matches dollar for dollar up to \$5,000 from the Canadian government — for a total of up to \$10,000.

Toronto Rebates — Toronto homeowners can get up to **\$200** more for attic and roof insulation improvements through the City of Toronto's HEAT program.

Home Energy Assessments — To qualify for Government of Canada attic insulation grants, and matching Ontario government attic insulation rebates, Ontario homeowners must get a home energy assessment **before and after** their attic and roof insulation improvements. Get up to \$150 cash back on the cost of your first energy assessment with rebates from the Ontario government's Home Energy Audit program.

Home Renovation Tax Credit — Ontario homeowners can claim the cost of their attic and roof insulation improvements and other energy-saving home renovations against their federal income tax. Get income tax credit of up to \$1,350 when you make home improvements in 2009. The home renovation tax credit (HRTC) can be claimed for a wide range of home improvements, including energy-saving renovations. The home renovation tax credit is separate from Canadian government ecoENERGY grant and Ontario Home Energy Savings rebate programs.

Power-Pipes

Nearly one-third of the energy you consume in your home is used to heat water for everyday household tasks. 90% of that energy runs down the drain, mostly in your shower.

A powerHome would not be complete without a Power-Pipe. Now you can recover and re-use much of that energy before it is lost, with a Power-Pipe® Drain Water Heat Recovery (DWHR) System. With a Power-Pipe installed on your home shower, you save energy, reduce your overall household water heating costs by up to 40% and protect the environment by reducing greenhouse gas emissions.

For further details, check out RenewABILITY Energy's Power-Pipe [website](#).

Appendix C

Using Home Equity to Your Advantage

Canadians purchase homes for a variety of reasons. Some want the stability of owning their own home, while others also look at home ownership as an investment vehicle. No matter what the reason, the truth is that home ownership has proven itself to be a good stable investment over time, and one which many Canadians are profiting from.

While many people have chosen to purchase their first home during these times of lower interest rates, there has also been a large movement to refinance home loans and pull out equity for home improvements, investments, college expenses, and even high interest debt consolidation. Canadians have been borrowing against their home's equity in record numbers, taking out billions of dollars in cash each year.

In years past, many saw their homes as a shelter of safety, yet today, they are more than ever before, willing to borrow against the equity owned in their homes to further their investment portfolios, get out of debt, send their children to university, make improvements to their home, or even boost their RRSP contributions. Where home equity was once sat upon, today it is often used to one's advantage.

While removing equity from your home can be a good idea, you should do so with caution and fully understand the benefits and possible risks. The best thing you can do is to consult a licensed mortgage professional and financial planner to discuss opportunities to make your home's equity work for you.

To learn more about mortgage solutions, see Dominion Lending [website](#).