

CITY OF SATELLITE BEACH, FLORIDA

BUILDING & ZONING DEPARTMENT
565 CASSIA BOULEVARD 32937-3116
(321) 773-4409
(321) 777-6619 FAX



INCORPORATED 1957

AGENDA

AD HOC GREEN COMMITTEE REGULAR MEETING

**SATELLITE BEACH COUNCIL CHAMBERS
565 CASSIA BOULEVARD, SATELLITE BEACH, FL 32937**

**JULY 14, 2015
7:00 P.M.**

- 1. CALL TO ORDER BY CHAIRMAN JEFF CHESTINE**
- 2. PLEDGE OF ALLEGIANCE**
- 3. PUBLIC COMMENT**
- 4. PRESENTATION BY THE SPACE COAST ELECTRIC VEHICLE DRIVERS**
- 5. PRESENTATION OF OUTLINE TO ESTABLISH A SUSTAINABILITY PLAN**
- 6. DISCUSS/TAKE ACTION ON SUSTAINABILITY PLAN**
- 7. ADOPTION OF THE MINUTES: JULY 2, 2015, REGULAR MEETING**
- 8. AGENDA ITEMS FOR THE NEXT MEETING**
- 9. ADJOURNMENT**

NEXT MEETING: JULY 30, 2015

(One or more Council members may be present at this meeting)

Item # 4



IS PRESENTED BY



National Drive Electric Week 2015

National Drive Electric Week, September 12-20, 2015, is a nationwide celebration to heighten awareness of today's widespread availability of plug-in vehicles and highlight the benefits of all-electric and plug-in hybrid-electric cars, trucks, motorcycles, and more. They are fun to drive, are less expensive and more convenient to fuel than gasoline vehicles, are better for the environment, promote local jobs, and reduce our dependence on foreign oil.

Started in 2011 as National Plug In Day with the simple idea to hold simultaneous events across the country on the same day, by popular demand we have expanded to an entire week of events and changed the name to emphasize the thing we all want to do: drive electric. We expect National Drive Electric Week 2015 will again grow to include more events in more cities with more drivers reaching out to share the many advantages of driving electric with the public.

Want to organize or help with an event? Go to our [events page](#) to see if there's one near you, then go to the [volunteer page](#) to offer your assistance. Thank you!

Contact [sponsorship-2015](#) for national sponsorship opportunities.

Each event is led by local plug-in drivers and advocates and typically includes some combination of EV parades, ride-and-drives, electric tailgate parties, press conferences, award ceremonies, informational booths, and more. [Plug In America](#), [Sierra Club](#), and the [Electric Auto Association](#) serve as the national team providing support to the events throughout the country. We are pleased to partner with the many other organizations and individuals working to bring National Drive Electric Week to communities across the country.



Two BMW i8 EVs featured in Montclair, NJ

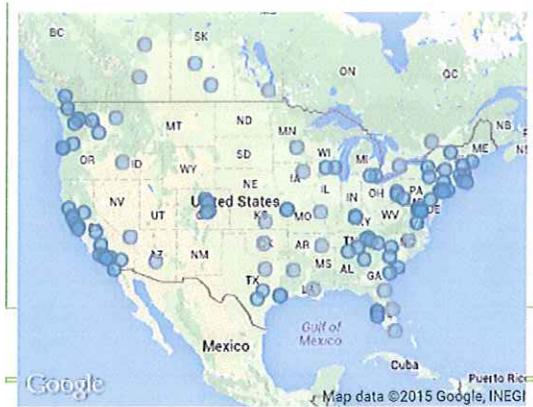


[Guinness World Record EV Parade](#) in Cupertino, CA

Find An Event Near You

To find an event near you, visit the [events page](#). If there's no event in your area, you can [volunteer to organize an event](#). Learn more about [how to host an event](#).





National Drive Electric Week History

National Drive Electric Week started in 2011 as National Plug In Day. Learn more on the [history page](#).



Follow @NatDriveElecWk



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Nissan LEAF® is the exclusive automotive sponsor of National Drive Electric Week.

Bronze Level Sponsor: [ClipperCreek](#)

Local events will vary; they are independently organized.

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Space Coast EV Drivers



NATIONAL DRIVE ELECTRIC WEEK

NDEW2014 CITY PROCLAMATION

SEPTEMBER 3, 2014 | SPACE COAST EV DRIVERS TEAM

NDEW2014 City of Melbourne Proclamation





Tony Patton, Josh Pritt, Brenna Kaminski, Julie Foster, and Mayor Kathy Meehan pose for a photo after the Melbourne National Drive Electric Week City Proclamation is read

On August 26th the Space Coast Electric Vehicle Drivers founders Josh and Brenna attended the City of Melbourne's National Drive Electric Week City Proclamation reading during August's City Council meeting. The Proclamation was read by Mayor Kathy Meehan . Julie Foster of the City of Melbourne, a Volt owner, and an SCEV Driver herself also spoke.



Mayor Kathy Meehan reads the City of Melbourne's National Drive Electric Week Proclamation

Julie spoke about the National Drive Electric Week Melbourne Event taking place Sept 20th and invited the attendees of the Council meeting to join us on Saturday Sept. 20th for the event. She also thanked the SCEV Drivers for their hard work and drive to bring this event to Melbourne, Fl.



Julie Foster of the City of Melbourne speaks at the Council meeting.

Tony Patton, a leaf owner and a regular at the SCEV Driver meet ups along with Ken Sherman, a future EV driver, came to show their support. After the proclamation was read we had time for a few more photo opps.



Ken Sherman (not pictured), Tony Patton, Josh Pritt, Brenna Kaminski, Julie Foster, and Mayor Meehan pose for another photo opp.

We are very excited to have the opportunity to work with the City of Melbourne to bring **National Drive Electric Week to Melbourne, FL** this year. Thanks to all who attend the meeting in person and in spirit! We look forward to seeing everyone on Saturday September 20th from 10-3 at City Hall for the first annual Melbourne, Florida National Drive Electric Week event.

◀ BREVARD COUNTY ◀ CHEVY VOLT ◀ ELECTRIC VEHICLE ◀ ELECTRIC VEHICLES ◀ EV ◀ MELBOURNE
◀ MELBOURNE FL ◀ NATIONAL DRIVE ELECTRIC WEEK

With Google+ plugin by Geoff Janes

Space Coast EV Drivers



EV NEWS, LOCAL EV EVENT

DRIVE ELECTRIC WEEK MELBOURNE 2014 RECAP

SEPTEMBER 22, 2014 | SPACE COAST EV DRIVERS TEAM

National Drive Electric Week – Melbourne, FL 2014 was a great success!

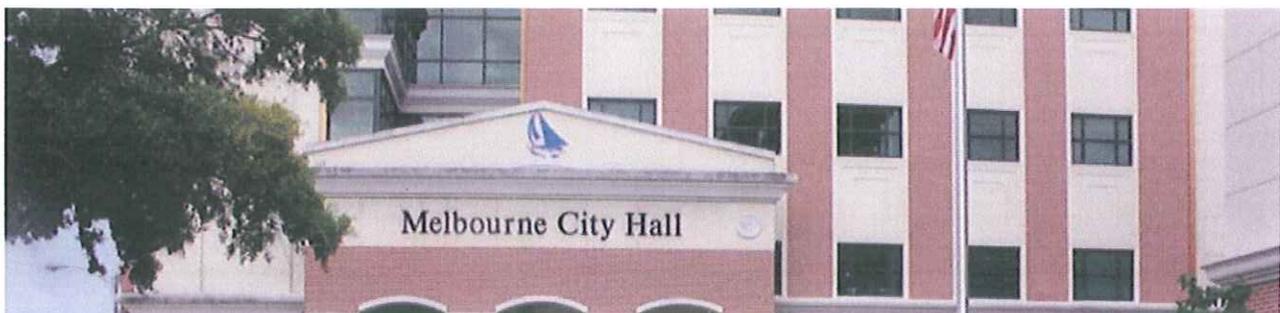


Despite poor weather conditions National Drive Electric Week Melbourne drew around 300 people from the hours of 10-3 to the event on Saturday, Sept 20th at City Hall in downtown Melbourne, FL. The event was organized by our group, the Space Coast EV Drivers with the City of Melbourne partnering with us as our location sponsor. Event sponsors included Melbourne BMW, Schneider Electric, Brevard Solar, SEMAConnect and FPL who were all on site with information for EV owners and future owners. WFIT 89.5 FM was Melbourne's local Na-



tional Drive Electric Week Media sponsor. Exhibitors included our sponsors as well as Blue Life Florida, Central Florida Clean Cities Coalition, Tesla Motors, and Space Coast Progressive Alliance. Donations for the event were received from our sponsors as well as Tesla Motors, Electric Car Insider Magazine, Palm Bay Kayaks (prize donation), Corey's Bagels (food donation) and 5th Avenue Starbucks

in Indialantic (coffee donation).





Mayor Kathy Meehan opened the event by reading a National Drive Electric Week Proclamation alongside members of the City Council as well as representatives from the City of Melbourne's Sustainability program.

Over 26 different types of electric vehicles were on display at the event and owners gave a combined number of over 50 test rides or drives during our event. Event attendees were able to drive or ride in privately owned Nissan Leafs, Chevy Volts, Tesla Model S vehicles and a Toyota RAV4EV while the owners of the vehicles shared their personal experience with their vehicle. Even the Mayor got in on the fun and learned more about the all electric Tesla Model S.

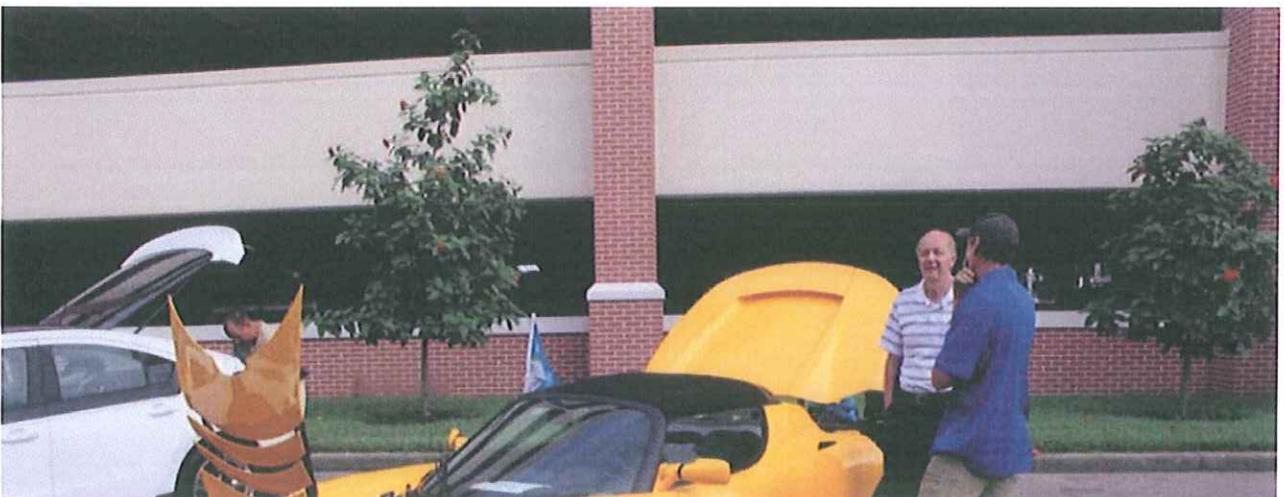


The attendees were able to learn about, price, availability, cost savings and more from the owners of the vehicles. Other EVs such as e-bikes, a Tesla Roadster, BMW i3s, Ford Fusion Energi plug in hybrids and a Porsche Panamera S E-Hybrid were also on display at the event. Personally owned Nissan Leafs as well as Chevy Volts dominated the event.

Josh and Brenna, founders of the SCEV Drivers group were on hand all day to give information to attendees and answer any questions.



Both Florida Today and News 13 were on site to cover the event as well as local bloggers.





"The Melbourne event, organized by the Space Coast Electric Vehicle Drivers club, had high-end electric vehicles as well as economy models on display. The yellow Tesla Roadster, BMW i3 and Porsche Panamera S E-Hybrid were the most popular vehicles." - Florida Today



We look forward to next years event!

Be sure to check out the event coverage from Florida Today by following these links:

<http://www.floridatoday.com/story/news/local/2014/09/20/event-shows-latest-electric-car-models/15989847/>

<http://www.floridatoday.com/videos/news/local/2014/09/20/15976679/>

<http://www.floridatoday.com/videos/news/local/2014/09/20/15980589/>

◀ MELBOURNE ▶ NDEW

With Google+ plugin by Geoff Janes



IS PRESENTED BY


**Plug In
America.**

**SIERRA
CLUB**
FOUNDED 1917


National Drive Electric Week Event - Satellite Beach

Day: Saturday, September 19, 2015

Time: 10 am to 4 pm

Location: David R Schechter Community Center
1089 S Patrick Dr
Satellite Beach, FL 32937

to attend this event.

to help the organizers for this event.

the organizers for this event.

The Space Coast EV Drivers will be partnering with the City of Satellite Beach, FL for this year's National Drive Electric Week event. We'll be at the David R Schechter Community Center, 1089 S Patrick Dr, Satellite Beach, FL 32937 from 10 am until 4 pm answering everyone's questions about electric cars. So bring the whole family and take a look at all the different models from the Chevy Volt to the Nissan Leaf to the Tesla Model S and everything in between! It's free for all and includes ride and drives in the electric cars. If you've never taken a ride in an electric car this will be a great time to see how smooth and quiet the drive can be.

Learn all about the differences in the various models like some that have a built in gasoline generator that automatically starts when the battery runs out so you can take long trips without worrying about where to plug in. Or how the Tesla Model S can use the Supercharger stations throughout the US along highways for a super fast charge on long trips for free for life! Pack some food, stay with friends, and leave your wallet at home!

If you have questions about driving electric bring them to the Space Coast EV Drivers club and try to stump our members who have been driving them every day for several years. Sign up here as an attendee or volunteer if you want to help out during the event. Thanks for visiting and we'll see you in September!

Like [Share](#) 15 people like this.

0

Registered Attendees

There are currently 20 attendees registered.

Expected Plug-In Vehicles

Vehicle	Registered
Chevrolet Volt	4
Ford Focus Electric	2
Tesla Model S	2
Ford C-Max Energi	1
Tesla Roadster	1
5 Models	10

Registered attendees report 161,857 electric miles driven.



Nissan LEAF® is the exclusive automotive sponsor of National Drive Electric Week.

Bronze Level Sponsor: [ClipperCreek](#)

Local events will vary; they are independently organized.

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Item # 5

ICLE's Creating a Sustainability Plan Outline

Part 1

A. Introduction

- a. "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."
- b. **The five major milestones for sustainability:**
 - i. Conduct a sustainability assessment
 - ii. Establish sustainability goals
 - iii. Develop a local sustainability plan
 - iv. Implement policies and measures
 - v. Evaluate progress and results
- c. **1.1 Sustainability and local governments**
 - i. Visionary local leaders "think globally, act locally" on issues from climate change to unemployment and public health
- d. **1.2 What is sustainability?**
 - i. "Meeting the needs of the present without compromising the ability of future generations to meet their own needs."
 - ii. Three basic pillars: Environment, Social equity and economic development
- e. **1.3 Why develop a sustainability plan?**
 - i. Many governments (including Satellite Beach) have already implemented a number of environmental and energy saving programs, often on a one-off basis. However, these lack the single measuring framework that a plan provides.
- f. **1.5 Lessons learned from NYC**
 - i. PlaNYC includes 10 overarching goals and 127 separate initiatives aimed at achieving those goals and reduce city-wide greenhouse gas emissions by 30% by 2030
 - ii. Initiatives in the plan address land use, parks and open space, affordable housing, transportation, air quality, water quality, energy supply and demand, climate change mitigation and adaptation

B. Scope of a Sustainability Plan

- a. **2.1 Sustainability Plans vs. Climate Action Plans**

- i. Climate Action Plans focus primarily on reducing greenhouse gas emissions resulting from local government operation and the community as a whole
- ii. Sustainability plans typically include an overarching goal to reduce emissions, in addition to addressing a set of environmental, economic and social equity goals. The plan should recognize and highlight how its measures can help achieve multiple sustainability goals.

b. Typical elements of a sustainability plan

- i. Facts, charts, and figures that summarize and quantify the sustainability assessment and the greenhouse gas inventories
- ii. Goals that set vision and framework for the plan
- iii. Short and long-term measures with implementation plans (timing, funding, responsibilities)
- iv. Explanation of how the measures will achieve the sustainability goals
- v. A timeline and framework for monitoring implementation process/updating the plan

c. Potential topics to be addressed:

- i. Environment-- Natural Systems, Planning and design, Energy and Climate
- ii. Economy-- Economic development, Employment and workforce training
- iii. Society-- Affordability and social equity, Children health & safety, Education arts and community

C. Overview of the Five Milestones

a. Milestone One: Conduct a Sustainability Assessment

- i. Local government needs to research and assess environmental, economic, and social equity challenges within the jurisdiction-- and current programs in place to address these issues as well as conduct a greenhouse gas emissions inventory for both government operations and the community using ICLEI tools and protocols

b. Milestone Two: Establish Sustainability Goals

- i. The sustainability goals set the vision, scope and the framework for the plan. They should include a greenhouse gas emissions reduction target along with other goals, such as those related to natural resources,

transportation, land use, energy, water, waste, air quality, economic development, education, health and housing.

c. Milestone Three: Develop a Sustainability Plan

- i. This part of the process includes brainstorming all possible strategies for achieving the goals.
- ii. Strategies are big picture approaches to addressing goals and key challenges i.e. "promote green building." Each strategy can have a number of measures that are required to implement the strategy.
- iii. In parallel with developing the plan local governments should engage in a significant level of public outreach to provide a diversity of constituents the opportunity to contribute ideas to the plan. This process can last anywhere from a couple of months to a year.

d. Milestone Four: Implement policies and measures

- i. After publishing the plan implementation should begin immediately. It is difficult to implement all measures at once, so local governments should be strategic in how they utilize their staff resources to implement the plan.

e. Milestone Five: Evaluate Progress and Report Results

- i. Local governments should publish an annual progress report on the implementation status of their measures outlined in the sustainability plan.

D. Forming a Team

- a. bringing together a dynamic group of individuals is essential to the planning process. The following are possible roles for members of a sustainability planning committee

- i. Sustainability coordinator
 1. responsible for the development and implementation of the sustainability plan
 2. act as the primary point of contact within the local government and externally
 3. coordinate and monitor the implementation of the plan
- ii. Interdepartmental team
 1. plan development requires participation from multiple local government departments

- a. interdepartmental team is responsible researching best practices , gathering data for the sustainability assessment, and vetting potential measures
- iii. Sustainability advisory board
 - 1. board should provide guidance and advice, and contain a diverse group of constituents and stakeholders
 - a. may also want to include representatives from regional planning, state, or county offices.
 - 2. they should review the findings of the sustainability assessment and provide input on the strategies of the plan
- iv. Elected officials
 - 1. the chief elected officer should support the sustainability plan
 - 2. they should communicate key messages to the public, ensure the commitment and participation of government departments, and provide a public face to the plan to ensure governmental accountability in implementing the plan.
- v. General Public
 - 1. Public should have the opportunity to provide input into the plan through a variety of outlets
 - a. public meetings
 - b. key stakeholder meetings
 - c. website for public comment
 - d. online forums
- vi. External experts
 - 1. the committee should seek academic partners to aid in the development of their sustainability plan.
 - 2. partners can include:
 - a. local universities
 - b. nonprofits
 - c. consultants

Part 2

A. Making a Commitment and Organize Team

- a. The committee should include diverse members with unique skill sets.
- b. Committee should collaborate and create a workplan and outreach strategy to guide planning process
 - i. workplan should include a timeline for the planning process and public outreach.
- c. gather ideas for the scope of the plan

B. Five Milestones for Sustainability

a. Conduct a Sustainability Assessment

- i. Identify the scope of the plan
- ii. Inventory existing initiatives
- iii. Conduct a greenhouse gas emissions inventory
- iv. Analyze inventory data and create a sustainability report

b. Set Sustainability Goals

- i. goals should be clear, relevant, and measurable, and address the issues identified in the sustainability assessment
- ii. Brainstorm strategies to achieve goals
- iii. Publicly announce goals and allow for citizen input

c. Develop a Sustainability Plan

- i. For each set goal, develop a list of potential measures for analysis
- ii. Prioritize and select measures
- iii. Define relevant indicators and data sources to measure future progress.
- iv. Develop implementation plan for each measure
- v. Write the plan in a manner that is clear, compelling, and easy for the public to understand
- vi. plans should include
 1. facts, charts, figures, and current relevant data
 2. goals
 3. short- and long-term measures with implementation plans
 4. matrix of measures and goals
 5. timeline
 6. party responsible for implementing each step

7. funding

d. Implement Policies and Measures

- i. Implement measures and track status
 - 1. make sure all measures have indicators, data sources, and baseline data for tracking progress
- ii. define a process for monitoring implementation process through a resolution or local law

e. Evaluate Progress and Report Results

- i. Develop annual progress report
 - 1. include individuals responsible for the implementation of each measure in the plan, the status of each measure, the progress of each measure, and any achievements and challenges
- ii. Update greenhouse gas emissions inventory
- iii. update the public

Member Feedback
Mission and Vision Statements

From: [Jeff Chestine](#)
To: [Leonor Olexa](#)
Subject: Input and please confirm No Meeting Tonight
Date: Thursday, July 09, 2015 3:26:38 PM

Leonor,

Here is my feedback/input from the last meeting and the Charleston Sustainability plan.

What strikes me the most is the size and scope of their plan.

26 (monthly) committee meetings, 120 subcommittee, 800 some odd volunteers and 2 years in the making. Huge undertaking. I'm inclined as Dr. Lindemann advised to go big or Aim High as it were. So I think we take a page out of Charleston's book on this.

At the end of the last meeting, my take was let's stop talking about projects and PVCs and swales and all that and get to work writing a plan. However, after reading Charleston's plan I believe we really should be working on some projects we can succeed with in the meantime and choose projects which will require some public involvement and help get us better known starting now.

I believe we could get some immediate traction with community if we can get recycling cans for restaurants and make sure they know we were behind it.

Let's get to work with something like Delaware's livable lawns program and at the same time start working on the framework of our long term sustainability plan. The interns could be working on this right away. I've already talked to a couple of business owners (real estate brokerages) who agreed to promote the certified contractors on their own websites. I think we can all sink our teeth into that and start making progress right away.

I think the food waste recycling plan is another we could use now. Maybe we can get the city to allow us to set it up at the site of the new pond. It would be kind of cool to turn that area into a beautiful site of green issues. The denitrification pond, beautiful community garden supplying vegetables to food bank, food waste recycling cutting down on land fill, and worm casting fertilizer for sale to support the schools. There are farms that do tons of this. They sell the castings and the worms. Maybe we can find one who'll consult with us on how to get started.

It could stay with us and we let a highschool club run it. That plugs us in to the school, a different group of kids every year and really, really goes to the heart of everything green. Starts with trash, turns into the best vegetable garden fertilizer available and educates in the process. I've been doing vermicomposting for a few years and its easy. I think loads of people do it these days.

For our mission statement: I'm happy to start with what is written in the "message form the chair" on Charleston's green committee creation and adopt that to Satellite Beach through discussion. I imagine whatever we start with now may have some changes later.

I think our natural first step in creating the plan is an assessment of where we are now as discussed in ICLEI sustainability planning tool kit. Milestones One and Two.

Sincerely,
Jeff Chestine, Realtor
Tropical Realty Beachside, LLC
321.821.8587
www.TropicalRealtyHomes.com

From: Leonor Olexa <lolexa@satellitebeach.org>
Sent: Tuesday, July 7, 2015 11:27 AM
To: Jeff Chestine; jhfergus@bellsouth.net; emathews@cfl.rr.com;
josh@pineapplestreetstudios.com; davidvigliotti@gmail.com; swaymire@cfl.rr.com
Cc: Courtney Barker; Max Hoffman; Megan Comunale; Zachary Fleis
Subject: Ad Hoc Green Committee - Need input/comments from Members

Re: Ad Hoc Green Committee – Need input/comments from Members

To: All Green Committee Members

If you have not already done so, please submit your input/comments to me as soon as possible so that I can to provide all documents to the interns who will be working to compile the information. Thank you.

Respectfully,

Leonor Olexa

City Clerk, CMC, CBTO
565 Cassia Boulevard
Satellite Beach, FL 32937

Tel. 321.773.4407 x 225

Fax: 321.779.1388

Website: www.satellitebeachfl.org

E-mail: lolexa@satellitebeach.org

PLEASE NOTE: Florida has a very broad public record law. Most written communications to or from City officials regarding City business are public records, available to the public and media upon request. Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

VISION: A comfortable, safe, affordable community that rests gently on the natural systems that sustain us. (We enjoy a comfortable, safe, affordable community; but it does not rest gently on the natural systems that sustain us. Accomplishing the latter should not compromise the former.)

GOAL: A community for which our children and grandchildren will still thank us 80 years from now.

ISSUES:

- Greater-than-necessary use of resources
 - Energy
 - Landscape chemicals
 - Water
- Damage to natural systems
 - Eutrofication of the Indian River Lagoon
 - Loss of sea turtle nesting and nearshore ocean habitat
 - Loss of upland habitats and deteriorating natural balance
- Threats from coastal hazards
 - High winds
 - Heavy rainfall
 - Coastal erosion
 - Storm surge
 - Sea level rise
- Affordability for residents and fiscal viability of City government
 - Balancing property affordability against current owners' investment
 - Maintaining a tax base current and future residents can afford
 - Funding needed to provide desired services
 - Maintaining, repairing, and replacing aging infrastructure

ASSETS:

- Human capital
 - Well-educated, capable residents
 - Capable municipal governance and services
- Access to professional institutions
 - Brevard County
 - Regional Planning Council
 - Universities
- Geography
 - Beaches
 - Subtropical climate
 - Local and regional commercial, educational, cultural, and entertainment resources

CHALLENGES:

- Social inertia
 - Residents content with the status quo

- Lack of engagement in local government
- 95+% built out landscape
 - Undeveloped open space at a premium
 - Redevelopment replaces development.
- Topography
 - Low gradient to move water
 - Lack of upland refuge from major storm flooding
- Financing change
 - Finding funds with which to pay for desired changes

AREAS OF CONCENTRATION:

- Public awareness and involvement
 - Educating and engaging residents
- Energy efficiency
 - Reducing energy use
 - Providing energy from renewable sources
- Mitigating coastal hazards
 - Removing built assets from harm's way
 - Hardening built assets against damage
 - Facilitating recovery after damaging events
- Landscape management
 - Reducing use of water and horticultural chemicals
- Recycling
 - Household goods
 - Technology

INITIAL INITIATIVES (low-hanging fruit):

- "Green" event
- LED retrofit lights for Schechter Center gymnasium and parking lot
- Landscape management initiative
- Electric car charging stations

Member Pause

Notes from Josh Pause for the July 9, 2015 Ad Hoc Green Committee Meeting:

Mission Statement (Rough Draft)

Satellite Beach will lead the Space Coast of Florida on the path to sustainable, environmentally-friendly neighborhoods and communities.

Vision Statement (Rough Draft)

Satellite Beach will remain a viable place to live through 2115, and beyond.

Organizing Our Sustainability Plan

I would suggest organizing our sustainability plan into the following three components:

- Homeowners - What can the homeowners do?
 - Replace lights with LEDs
 - Replace St Augustine with native xeriscape
 - Put PV panels on roof

- Businesses - What can local businesses do?
 - Green certification for landscaping companies
 - Recognition for adopting green policies

- Government - What can our local government do?
 - Replace football field @ DeSoto with new retention pond
 - Dredge the canals

This will help our citizens see which actions they can take directly, which they can bring to their boss or business, and which require the support of government. In a word: accountability.

Maintaining Accountability

In order to effectively implement policy, each of our policies must define an indicator, a benchmark and a target. Take for example the subject of encouraging native, xeriscaped yards. Our indicator might be the number of yards in Satellite Beach that are xeriscaped. Our benchmark would be that current number. Our target might be to increase the number of xeriscaped yards by 10%. This allows us to clearly and easily gauge the effectiveness of our policy.

Gauging Community Sentiment

Is sustainability a community value? Do we have the ability to poll our citizens? What is the current benchmark against which improvement can be measured?

City Environmental Advisor

It is my understanding that the city council has a lawyer to help advise them on issues of legal compliance. Why not create a new role of "City Environmental Advisor" to advise the city council on the environmental impacts of their policies?

Global Warming

The cause of global warming is greenhouse gasses. Trees act as a carbon sink and absorb these gases. Ergo, planting trees is one of the more actionable options we have in regards to global warming.

Satellite Beach Green Website

As a web developer, I would be happy to volunteer my services to create a special website focused on the policies of the Ad Hoc Green Committee. A website would be a cost-effective way to communicate with the community, provide policy and resources, and offer recognition to community members who take action in regards to these policies.

It is worth noting that modern websites can be, behind-the-scenes, just as complicated and powerful as traditional desktop software. It might be extremely cost effective to build special web-based software systems to automate a great deal of our work. Allow me to illustrate with one specific example:

In the section titled "Maintaining Accountability" I discussed the *indicator, benchmark, target* paradigm in regards to xeriscaped lawns. Let us assume we can define the total number of residential yards in Satellite Beach. Let us assume we had a program that encouraged citizens to replace their yard with a new xeriscaped yard. When a citizen does this, they might go to this website, enter their address, and notify us of the change. This would allow us to know- in real time- how quickly this policy was being adopted. We could graph the data; a pie graph showing total percent of xeriscaped yards, and a line graph, showing adoption over time.

Assuming we had the blessing of the homeowner, we could go even further. For example, we might display a custom Google Map of Satellite Beach, showing a pointer over each of our xeriscaped homes. This would allow the community to see which of their neighbors have "gone green". We might even allow the homeowner to upload a few photos to share with the community.

Such a website would require a clear privacy policy, but I am envisioning a purely voluntary program. Obviously we would not want to share any information without the consent of the homeowner. I envision a system whereby the head of a household could elect to register, and control all of their information directly, through a web-based interface.

Similar systems could be created to track other policies too- such as the adoption of LED lights, or PV panels, or other green initiatives.

We could also create a "leaderboard" section. The more green initiatives I implement, the higher I would rank on this leaderboard. Once I had implemented all the green initiatives available to me, I might work to convince my neighbors to follow my example. We could use "gamification" to encourage participation, whereby users earn "points" for all of these various "green" activities.

Assuming the idea was popular, we might even offer some sort of prize or special recognition for whichever citizen has earned the most "green points" in a given time period.

I could see this program being especially popular among High School and Middle School students, who can encourage their parents to take action. We can easily list these various initiatives by order of estimated cost and time, showing the cheapest and easiest to implement policies on top.

Websites can also be extremely effective at communicating an environmental message, and directing traffic to social media. For an example, please visit <http://helpthebeach.com>.

Megan Comunale

From: Courtney Barker
Sent: Wednesday, July 08, 2015 12:03 PM
To: Max Hoffman; Zachary Fleis; Megan Comunale
Subject: Fwd: Thursday Meeting

Courtney Barker, AICP
City Manager
City of Satellite Beach, FL
565 Cassia Blvd
Satellite Beach, FL 32937
Phone: (321)773-4407

----- Original message -----

From: David Vigliotti <davidvigliotti@gmail.com>
Date: 07/08/2015 11:48 AM (GMT-05:00)
To: Courtney Barker <cbarker@satellitebeach.org>
Subject: Re: Thursday Meeting

Personal Mission Statement- To build awareness among Satellite Beach residents of best ecological practices through education and community outreach

Goals-

Cultivate social media outlets

Quarterly potluck with guest speakers

Feature local "green" residents and businesses - on social media

Coordinate initiatives at local schools (education)

Promote native plant landscaping- annual native plant sale

Establish a community garden area with composting and water harvesting in collaboration with Master Gardeners to serve as a model for home owners and community building (victory garden theme)

Connect with biking organizations and promote biking

Increase recycling bins (separate) at parks, ballfields and beaches

Annual music festival and fundraiser (surf contest?) for community green initiatives

Nominal fee for the University of Florida extension group to come out to your yard for personal water and fertilizer evaluation

Investigate solar panels- grants for city- and make information easily available to residents (can we negotiate a resident discount?)

On Tuesday, July 7, 2015, Courtney Barker <cbarker@satellitebeach.org> wrote:

Good Afternoon,

We are having some difficulty getting responses and compiling enough information for your next meeting in a week's timeframe. As such, I would recommend that we cancel Thursday's meeting, and I ask that all members provide us with your suggested mission and goals statements by this Thursday, so we can compile an agenda packet for your joint review by the scheduled Tuesday's meeting.

Please let me know if this is acceptable to you, and if so, we will be expecting some emails from you all by Thursday!

Thanks,

Courtney Barker, AICP

City Manager

City of Satellite Beach, FL

565 Cassia Blvd

Satellite Beach, FL 32937

Phone: (321) 773-4407

Fax: (321) 779-1388

Email: cbarker@satellitebeach.org

Additional Back-up Materials

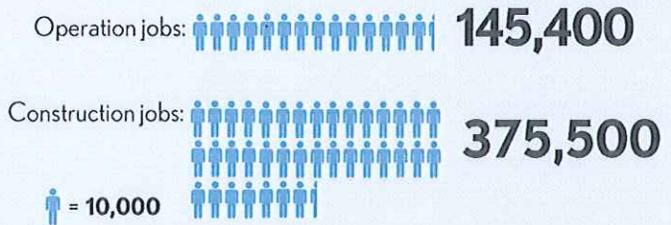
100% FLORIDA

Transition to 100% wind, water, and solar (WWS) for all purposes
(electricity, transportation, heating/cooling, industry)

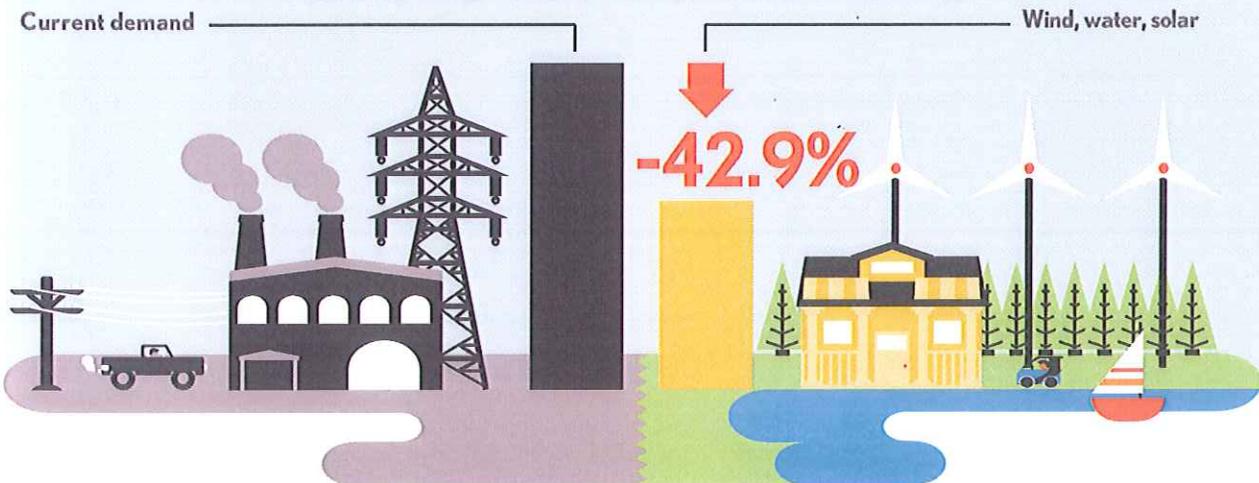


40-Year Jobs Created

Number of jobs where a person is employed for 40 consecutive years



Using WWS electricity for everything, instead of burning fuel, and improving energy efficiency means you need much less energy



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TO LEARN MORE AND 100.ORG TO JOIN THE MOVEMENT

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Data from Stanford University - For more information, visit
<http://go100.me/50StateTargets>

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100% FLORIDA

Transition to 100% wind, water, and solar (WWS) for all purposes
(electricity, transportation, heating/cooling, industry)

Avoided Mortality and Illness Costs

Avoided health costs per year:



3% of State GDP

Air pollution deaths avoided every year: **2,680**

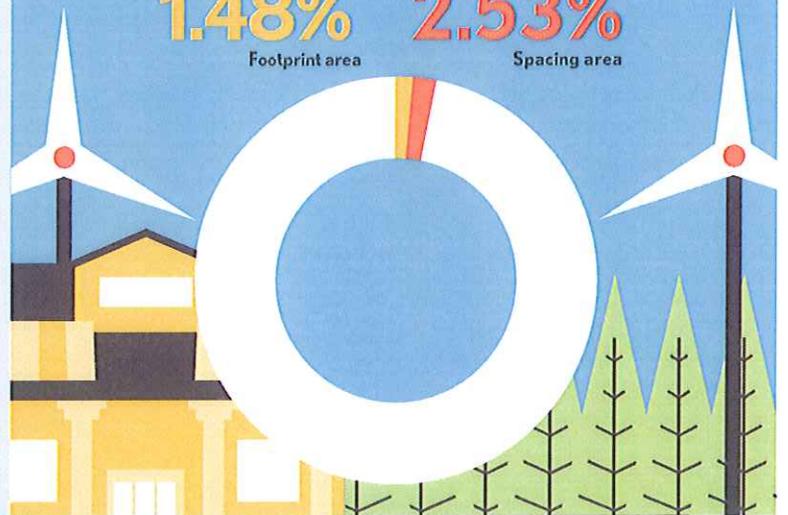


Plan pays for itself in as little as **13.5** years from air pollution and climate cost savings alone

Percentage of Florida Land Needed for All New WWS Generators

1.48%
Footprint area

2.53%
Spacing area



Future Energy Costs 2020-2030

BAU (Business as usual)

WWS (Wind, water, solar)



US average fossil-fuel energy costs*

16.43 c/kWh

*Health and climate external costs of fossil fuels are another 5.7c/kWh



State average
WWS electricity
costs

6.93 c/kWh

Money in Your Pocket

☞ = \$500

Annual energy, health, and climate cost savings per person in 2050: **\$4,000**



Annual energy cost savings per person in 2050: **\$2,400**



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<http://go100.me/50StateTargets>

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For the year Jan. 1–Dec. 31, 2014, or other tax year beginning _____, 2014, ending _____, 20

Your first name and initial _____ Last name _____ Your social security number _____

If a joint return, spouse's first name and initial _____ Last name _____ Spouse's social security number _____

Home address (number and street). If you have a P.O. box, see instructions. _____ Apt. no. _____

City, town or post office, state, and ZIP code. If you have a foreign address, also complete spaces below (see instructions). _____

Foreign country name _____ Foreign province/state/county _____ Foreign postal code _____

▲ Make sure the SSN(s) above and on line 6c are correct.

Presidential Election Campaign
Check here if you, or your spouse if filing jointly, want \$3 to go to this fund. Checking a box below will not change your tax or refund. You Spouse

Filing Status

1 Single

2 Married filing jointly (even if only one had income)

3 Married filing separately. Enter spouse's SSN above and full name here. ▶ _____

4 Head of household (with qualifying person). (See instructions.) If the qualifying person is a child but not your dependent, enter this child's name here. ▶ _____

5 Qualifying widow(er) with dependent child

Check only one box.

Exemptions

6a Yourself. If someone can claim you as a dependent, do not check box 6a

b Spouse

c Dependents:		(2) Dependent's social security number	(3) Dependent's relationship to you	(4) <input type="checkbox"/> if child under age 17 qualifying for child tax credit (see instructions)
(1) First name	Last name			
				<input type="checkbox"/>

If more than four dependents, see instructions and check here

d Total number of exemptions claimed

Boxes checked on 6a and 6b

No. of children on 6c who:

- lived with you _____
- did not live with you due to divorce or separation (see instructions) _____

Dependents on 6c not entered above _____

Add numbers on lines above ▶

Income

7	Wages, salaries, tips, etc. Attach Form(s) W-2	7	
8a	Taxable interest. Attach Schedule B if required	8a	
b	Tax-exempt interest. Do not include on line 8a	8b	
9a	Ordinary dividends. Attach Schedule B if required	9a	
b	Qualified dividends	9b	
10	Taxable refunds, credits, or offsets of state and local income taxes	10	
11	Alimony received	11	
12	Business income or (loss). Attach Schedule C or C-EZ	12	
13	Capital gain or (loss). Attach Schedule D if required. If not required, check here <input type="checkbox"/>	13	
14	Other gains or (losses). Attach Form 4797	14	
15a	IRA distributions	15a	
b	Taxable amount	15b	
16a	Pensions and annuities	16a	
b	Taxable amount	16b	
17	Rental real estate, royalties, partnerships, S corporations, trusts, etc. Attach Schedule E	17	
18	Farm income or (loss). Attach Schedule F	18	
19	Unemployment compensation	19	
20a	Social security benefits	20a	
b	Taxable amount	20b	
21	Other income. List type and amount _____	21	
22	Combine the amounts in the far right column for lines 7 through 21. This is your total income ▶	22	

Attach Form(s) W-2 here. Also attach Forms W-2G and 1099-R if tax was withheld.

If you did not get a W-2, see instructions.

Adjusted Gross Income

23	Educator expenses	23	
24	Certain business expenses of reservists, performing artists, and fee-basis government officials. Attach Form 2106 or 2106-EZ	24	
25	Health savings account deduction. Attach Form 8889	25	
26	Moving expenses. Attach Form 3903	26	
27	Deductible part of self-employment tax. Attach Schedule SE	27	
28	Self-employed SEP, SIMPLE, and qualified plans	28	
29	Self-employed health insurance deduction	29	
30	Penalty on early withdrawal of savings	30	
31a	Alimony paid b Recipient's SSN ▶ _____	31a	
32	IRA deduction	32	
33	Student loan interest deduction	33	
34	Tuition and fees. Attach Form 8917	34	
35	Domestic production activities deduction. Attach Form 8903	35	
36	Add lines 23 through 35	36	
37	Subtract line 36 from line 22. This is your adjusted gross income ▶	37	

Residential Energy Credits

▶ Information about Form 5695 and its separate instructions is at www.irs.gov/form5695.
▶ Attach to Form 1040 or Form 1040NR.

Name(s) shown on return

Your social security number

Part I Residential Energy Efficient Property Credit (See instructions before completing this part.)

Note. Skip lines 1 through 11 if you only have a credit carryforward from 2013.

1	Qualified solar electric property costs	1		
2	Qualified solar water heating property costs	2		
3	Qualified small wind energy property costs	3		
4	Qualified geothermal heat pump property costs	4		
5	Add lines 1 through 4	5		
6	Multiply line 5 by 30% (.30)	6		
7a	Qualified fuel cell property. Was qualified fuel cell property installed on or in connection with your main home located in the United States? (See instructions) ▶	7a	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Caution: If you checked the "No" box, you cannot take a credit for qualified fuel cell property. Skip lines 7b through 11.</p> <p>b Print the complete address of the main home where you installed the fuel cell property.</p> <p style="margin-left: 40px;">_____ Unit No. _____</p> <p style="margin-left: 40px;">_____</p> <p style="margin-left: 40px;">City, State, and ZIP code</p>				
8	Qualified fuel cell property costs	8		
9	Multiply line 8 by 30% (.30)	9		
10	Kilowatt capacity of property on line 8 above ▶ _____ x \$1,000	10		
11	Enter the smaller of line 9 or line 10	11		
12	Credit carryforward from 2013. Enter the amount, if any, from your 2013 Form 5695, line 16	12		
13	Add lines 6, 11, and 12	13		
14	Limitation based on tax liability. Enter the amount from the Residential Energy Efficient Property Credit Limit Worksheet (see instructions)	14		
15	Residential energy efficient property credit. Enter the smaller of line 13 or line 14. Also include this amount on Form 1040, line 53, or Form 1040NR, line 50	15		
16	Credit carryforward to 2015. If line 15 is less than line 13, subtract line 15 from line 13	16		

Part II Nonbusiness Energy Property Credit

<p>17a Were the qualified energy efficiency improvements or residential energy property costs for your main home located in the United States? (see instructions) ▶</p> <p>Caution: If you checked the "No" box, you cannot claim the nonbusiness energy property credit. Do not complete Part II.</p> <p>b Print the complete address of the main home where you made the qualifying improvements. Caution: You can only have one main home at a time.</p> <p style="text-align: center;"> _____ Number and street Unit No. </p> <p style="text-align: center;"> _____ City, State, and ZIP code </p> <p>c Were any of these improvements related to the construction of this main home? ▶</p> <p>Caution: If you checked the "Yes" box, you can only claim the nonbusiness energy property credit for qualifying improvements that were not related to the construction of the home. Do not include expenses related to the construction of your main home, even if the improvements were made after you moved into the home.</p>	17a	<input type="checkbox"/> Yes <input type="checkbox"/> No
18 Lifetime limitation. Enter the amount from the Lifetime Limitation Worksheet (see instructions)	18	
19 Qualified energy efficiency improvements (original use must begin with you and the component must reasonably be expected to last for at least 5 years; do not include labor costs) (see instructions).		
a Insulation material or system specifically and primarily designed to reduce heat loss or gain of your home that meets the prescriptive criteria established by the 2009 IECC	19a	
b Exterior doors that meet or exceed the Energy Star program requirements	19b	
c Metal or asphalt roof that meets or exceeds the Energy Star program requirements and has appropriate pigmented coatings or cooling granules which are specifically and primarily designed to reduce the heat gain of your home	19c	
d Exterior windows and skylights that meet or exceed the Energy Star program requirements	19d	
e Maximum amount of cost on which the credit can be figured	19e	\$2,000
f If you claimed window expenses on your Form 5695 for 2006, 2007, 2009, 2010, 2011, 2012, or 2013, enter the amount from the Window Expense Worksheet (see instructions); otherwise enter -0-	19f	
g Subtract line 19f from line 19e. If zero or less, enter -0-	19g	
h Enter the smaller of line 19d or line 19g	19h	
20 Add lines 19a, 19b, 19c, and 19h	20	
21 Multiply line 20 by 10% (.10)	21	
22 Residential energy property costs (must be placed in service by you; include labor costs for onsite preparation, assembly, and original installation) (see instructions).		
a Energy-efficient building property. Do not enter more than \$300	22a	
b Qualified natural gas, propane, or oil furnace or hot water boiler. Do not enter more than \$150	22b	
c Advanced main air circulating fan used in a natural gas, propane, or oil furnace. Do not enter more than \$50	22c	
23 Add lines 22a through 22c	23	
24 Add lines 21 and 23	24	
25 Maximum credit amount. (If you jointly occupied the home, see instructions)	25	\$500
26 Enter the amount, if any, from line 18	26	
27 Subtract line 26 from line 25. If zero or less, stop ; you cannot take the nonbusiness energy property credit	27	
28 Enter the smaller of line 24 or line 27	28	
29 Limitation based on tax liability. Enter the amount from the Nonbusiness Energy Property Credit Limit Worksheet (see instructions)	29	
30 Nonbusiness energy property credit. Enter the smaller of line 28 or line 29. Also include this amount on Form 1040, line 53, or Form 1040NR, line 50	30	

2014



Department of the Treasury
Internal Revenue Service

Instructions for Form 5695

Residential Energy Credits

Section references are to the Internal Revenue Code unless otherwise noted.

General Instructions

Future Developments

For the latest information about developments related to Form 5695 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/form5695.

What's New

Separate instructions. Starting in 2014, the instructions for Form 5695 are separate from Form 5695.

Nonbusiness energy property credit. The nonbusiness energy property credit has been extended through December 31, 2014.

Purpose of Form

Use Form 5695 to figure and take your residential energy credits. The residential energy credits are:

- The residential energy efficient property credit, and
- The nonbusiness energy property credit.

Also use Form 5695 to take any residential energy efficient property credit carryforward from 2013 or to carry the unused portion of the credit to 2015.

Who Can Take the Credits

You may be able to take the credits if you made energy saving improvements to your home located in the United States in 2014.

Home. A home is where you lived in 2014 and can include a house, houseboat, mobile home, cooperative apartment, condominium, and a manufactured home that conforms to Federal Manufactured Home Construction and Safety Standards.

You must reduce the basis of your home by the amount of any credit allowed.

Main home. Your main home is generally the home where you live most of the time. A temporary absence due to special circumstances, such as illness, education, business, military service, or vacation, will not change your main home.

Costs. For purposes of both credits, costs are treated as being paid when the original installation of the item is completed, or, in the case of costs connected with the reconstruction of your home, when your original use of the reconstructed home begins. For purposes of the residential energy efficient property credit only, costs connected with the construction of a home are treated as being paid when your original use of the constructed home begins. If less than 80% of the use of an item is for nonbusiness purposes, only that portion of the costs that is allocable to the nonbusiness use can be used to determine either credit.



Only the residential energy efficient property credit (Part I) is available for both existing homes and homes being constructed. The nonbusiness energy property credit (Part II) is only available for existing homes.

Association or cooperative costs. If you are a member of a condominium management association for a condominium you own or a tenant-stockholder in a cooperative housing corporation, you are treated as having paid your proportionate share of any costs of such association or corporation.



If you received a subsidy from a public utility for the purchase or installation of an energy conservation product and that subsidy was not included in your gross income, you must reduce your cost for the product by the amount of that subsidy before you compute your credit. This rule also applies if a third party (such as a contractor) receives the subsidy on your behalf.

Residential Energy Efficient Property Credit (Part I)

If you made energy saving improvements to more than one home that you used as a residence during 2014, enter the total of those costs on the applicable line(s) of one Form 5695. For qualified fuel cell property, see [Lines 7a and 7b](#), later.

You may be able to take a credit of 30% of your costs of qualified solar electric property, solar water heating property, small wind energy property, geothermal heat pump property, and fuel cell property. Include any labor costs properly allocable to the onsite preparation, assembly, or original installation of the residential energy efficient property and for piping or wiring to interconnect such property to the home. The credit amount for costs paid for qualified fuel cell property is limited to \$500 for each one-half kilowatt of capacity of the property.

Qualified solar electric property costs. Qualified solar electric property costs are costs for property that uses solar energy to generate electricity for use in your home located in the United States. No costs relating to a solar panel or other property installed as a roof (or portion thereof) will fail to qualify solely because the property constitutes a structural component of the structure on which it is installed. The home does not have to be your main home.

Qualified solar water heating property costs. Qualified solar water heating property costs are costs for property to heat water for use in your home located in the United States if at least half of the energy used by the solar water heating property for such purpose is derived from the sun. No costs relating to a solar panel or other property installed as a roof (or portion thereof) will fail to qualify solely because the property constitutes a structural component of the structure on which it is installed. To qualify for the credit, the property must be certified for performance by the nonprofit Solar Rating Certification Corporation or a comparable entity endorsed by the government of the state in which the property is installed. The home does not have to be your main home.

Qualified small wind energy property costs. Qualified small wind energy property costs are costs for property that uses a wind turbine to generate electricity for use in connection with your home located in the United States. The home does not have to be your main home.

Qualified geothermal heat pump property costs. Qualified geothermal heat pump property costs are costs for qualified geothermal heat pump property installed on or in connection

with your home located in the United States. Qualified geothermal heat pump property is any equipment that uses the ground or ground water as a thermal energy source to heat your home or as a thermal energy sink to cool your home. To qualify for the credit, the geothermal heat pump property must meet the requirements of the Energy Star program that are in effect at the time of purchase. The home does not have to be your main home.

Qualified fuel cell property costs. Qualified fuel cell property costs are costs for qualified fuel cell property installed on or in connection with your main home located in the United States. Qualified fuel cell property is an integrated system comprised of a fuel cell stack assembly and associated balance of plant components that converts a fuel into electricity using electrochemical means. To qualify for the credit, the fuel cell property must have a nameplate capacity of at least one-half kilowatt of electricity using an electrochemical process and an electricity-only generation efficiency greater than 30%.



Costs allocable to a swimming pool, hot tub, or any other energy storage medium which has a function other than the function of such storage do not qualify for the residential energy efficiency credit.

Joint occupancy. If you occupied your home jointly with someone other than your spouse, each occupant must complete his or her own Form 5695. To figure the credit, the maximum qualifying costs that can be taken into account by all occupants for qualified fuel cell property costs is \$1,667 for each one-half kilowatt of capacity of the property. The amount allocable to you for qualified fuel cell property costs is the lesser of:

1. The amount you paid, or
2. The maximum qualifying cost of the property multiplied by a fraction. The numerator is the amount you paid and the denominator is the total amount paid by you and all other occupants.

These rules do not apply to married individuals filing a joint return.

Example. Taxpayer A owns a house with Taxpayer B where they both reside. In 2014, they installed qualified fuel cell property at a cost of \$20,000 with a kilowatt capacity of 5. Taxpayer A paid \$12,000 towards the cost of the property and Taxpayer B paid the remaining \$8,000. The amount to be allocated is \$16,670 (\$1,667 x 10 (kilowatt capacity x 2)). The amount of cost allocable to Taxpayer A is \$10,002 (\$16,670 x \$12,000/\$20,000). The amount of cost allocable to Taxpayer B is \$6,668 (\$16,670 x \$8,000/\$20,000).

Nonbusiness Energy Property Credit (Part II)

You may be able to take a credit equal to the sum of:

1. 10% of the amount paid or incurred for qualified energy efficiency improvements installed during 2014, and
2. Any residential energy property costs paid or incurred in 2014.

However, this credit is limited as follows.

- A total combined credit limit of \$500 for all tax years after 2005.
- A combined credit limit of \$200 for windows for all tax years after 2005.
- A credit limit for residential energy property costs for 2014 of \$50 for any advanced main air circulating fan; \$150 for any qualified natural gas, propane, or oil furnace or hot water boiler; and \$300 for any item of energy efficient building property.



If the total of any nonbusiness energy property credits you have taken in previous years (after 2005) is more than \$500, you generally cannot take the credit in 2014.

Subsidized energy financing. Any amounts provided for by subsidized energy financing cannot be used to figure the nonbusiness energy property credit. This is financing provided under a federal, state, or local program, the principal purpose of which is to provide subsidized financing for projects designed to conserve or produce energy.

Qualified energy efficiency improvements. Qualified energy efficiency improvements are the following building envelope components installed on or in your main home that you owned during 2014 located in the United States if the original use of the component begins with you, the component can be expected to remain in use at least 5 years, and the component meets certain energy standards.

- Any insulation material or system that is specifically and primarily designed to reduce heat loss or gain of a home when installed in or on such a home.
- Exterior windows and skylights.
- Exterior doors.
- Any metal roof with appropriate pigmented coatings or asphalt roof with appropriate cooling granules that are specifically and primarily designed to reduce the heat gain of your home.

For purposes of figuring the credit, do not include amounts paid for the onsite preparation, assembly, or original installation of the building envelope component.



To qualify for the credit, qualified energy efficiency improvements must meet certain energy efficiency requirements. See Lines 19a Through 19h, later, for details.

Residential energy property costs. Residential energy property costs are costs of new qualified energy property that is installed on or in connection with your main home that you owned during 2014 located in the United States. Include any labor costs properly allocable to the onsite preparation, assembly, or original installation of the energy property. Qualified residential energy property is any of the following.

- Certain electric heat pump water heaters; electric heat pumps; central air conditioners; natural gas, propane, or oil water heaters; and stoves that use biomass fuel.
- Qualified natural gas, propane, or oil furnaces and qualified natural gas, propane, or oil hot water boilers.
- Certain advanced main air circulating fans used in natural gas, propane, or oil furnaces.



To qualify for the credit, qualified residential energy property must meet certain energy efficiency requirements. See Lines 22a Through 22c, later, for details.

Joint ownership of qualified property. If you and a neighbor shared the cost of qualifying property to benefit each of your main homes, both of you can take the nonbusiness energy property credit. You figure your credit on the part of the cost you paid. The limit on the amount of the credit applies to each of you separately.

Married taxpayers with more than one home. If both you and your spouse owned and lived apart in separate main homes, the limit on the amount of the credit applies to each of you separately. If you are filing separate returns, both of you would complete a separate Form 5695. If you are filing a joint return, figure your nonbusiness energy property credit as follows.

1. Complete lines 17a through 17c and 19 through 24 of a separate Form 5695 for each main home.

2. Figure the amount to be entered on line 24 of both forms (but not more than \$500 for each form) and enter the combined amount on line 24 of one of the forms.

3. On line 25 of the form with the combined amount on line 24, cross out the preprinted \$500 and enter \$1,000.

4. On the dotted line to the left of line 25, enter "More than one main home." Then, complete the rest of this form, including line 18. The amount on line 18 can exceed \$500.

5. Attach both forms to your return.

Joint occupancy. If you owned your home jointly with someone other than your spouse, each owner must complete his or her own Form 5695. To figure the credit, there are no maximum qualifying costs for insulation, exterior doors, and a metal or asphalt roof. Enter the amounts you paid for these items on the appropriate lines of Form 5695, Part II. For windows and residential energy property costs, the amount allocable to you is the smaller of:

1. The amount you paid, or
2. The maximum qualifying cost* of the property multiplied by a fraction. The numerator is the amount you paid and the denominator is the total amount paid by you and all other owners.

*\$2,000 for windows; \$300 for energy-efficient building property; \$150 for qualified natural gas, propane, or oil furnace or hot water boiler; or \$50 for an advanced main air circulating fan.

Specific Instructions

Part I

Residential Energy Efficient Property Credit

Before you begin Part I:

Figure the amount of any of the following credits you are claiming.

- Credit for the elderly or the disabled.
- Nonbusiness energy property credit (Part II of this form).
- Adoption credit.
- Mortgage interest credit.
- District of Columbia first-time homebuyer credit.
- Alternative motor vehicle credit.
- Qualified plug-in electric vehicle credit.
- Qualified plug-in electric drive motor vehicle credit.

 Also include on lines 1 through 4, and 8, any labor costs properly allocable to the onsite preparation, assembly, or original installation of the property and for piping or wiring to interconnect such property to the home.

Line 1

Enter the amounts you paid for qualified solar electric property. See Qualified solar electric property costs, earlier.

Line 2

Enter the amounts you paid for qualified solar water heating property. See Qualified solar water heating property costs, earlier.

Line 3

Enter the amounts you paid for qualified small wind energy property. See Qualified small wind energy property costs, earlier.

Line 4

Enter the amounts you paid for qualified geothermal heat pump property. See Qualified geothermal heat pump property costs, earlier.

Lines 7a and 7b

Any qualified fuel cell property costs must have been for your main home located in the United States. See Main home, earlier. If you check the "No" box, you cannot include any fuel property costs on line 8.

If you check the "Yes" box, enter the full address of your main home during 2014 on line 7b.

If you and your spouse are filing jointly and you each have different main homes with qualified fuel cell property costs, provide on line 7b the address of your main home. Add a sheet providing the address of your spouse's main home. You and your spouse should add your qualified fuel cell property costs together on line 8 of one Form 5695.

Line 8

Enter the amounts you paid for qualified fuel cell property. See Qualified fuel cell property costs, earlier.

Line 14

Complete the following worksheet to figure the amount to enter on line 14. If you are claiming the child tax credit for 2014, enter on line 4 of the worksheet the amount from line 12 of the Line 11 Worksheet in Pub. 972.



If you are not claiming the child tax credit for 2014, you do not need Pub. 972.

**Residential Energy Efficient Property Credit
Limit Worksheet—Line 14**

1. Enter the amount from Form 1040, line 47, or Form 1040NR, line 45 1. _____
2. Enter the total, if any, of your credits from Form 1040, lines 48 through 51, and Schedule R, line 22; or Form 1040NR, lines 46 through 48 2. _____
3. Enter the amount, if any, from Form 5695, line 30 3. _____
4. Enter the amount, if any, from line 12 of the Line 11 Worksheet in Pub. 972 if you are claiming the child tax credit 4. _____
5. Enter the amount, if any, from Form 8396, line 9 5. _____
6. Enter the amount, if any, from Form 8839, line 16 6. _____
7. Enter the amount, if any, from Form 8859, line 3 7. _____
8. Enter the amount, if any, from Form 8910, line 15 8. _____
9. Enter the amount, if any, from Form 8936, line 23 9. _____
10. Add lines 2 through 9 10. _____
11. Subtract line 10 from line 1. Also enter this amount on Form 5695, line 14. If zero or less, enter -0- on Form 5695, lines 14 and 15 11. _____

Manufacturer's certification. For purposes of taking the credit, you can rely on the manufacturer's certification in writing that a product is qualifying property for the credit. Do not attach the certification to your return. Keep it for your records.

Line 16

If you cannot use all of the credit because of the tax liability limit (line 14 is less than line 13), you can carry the unused portion of the credit to 2015.

File this form even if you cannot use any of your credit in 2014.

**Part II
Nonbusiness Energy Property Credit**

Before you begin Part II:

Figure the amount of any credit for the elderly or the disabled you are claiming.

Lines 17a Through 17c

Line 17a. To qualify for the credit, any qualified energy efficiency improvements or residential energy property costs must have been for your main home located in the United States. See *Main home*, earlier. If you check the "No" box, you cannot take the nonbusiness energy property credit.

Line 17b. Enter the full address of your main home during 2014.

Line 17c. You may only include expenses for qualified improvements for an existing home or for an addition or renovation to an existing home, and not for a newly constructed home. If you check the "Yes" box, you cannot claim any expenses for qualified improvements that are related to the construction of your home, even if the improvement is installed after you have moved into the home.

Line 18

If you took a nonbusiness energy property credit in 2006, 2007, 2009, 2010, 2011, 2012, or 2013, complete the following worksheet to figure the amount to enter on line 18. If the total of the credits on line 8 of the worksheet is \$500 or more, you generally cannot take this credit in 2014.

Lifetime Limitation Worksheet—Line 18

1. Enter the amount, if any, from your 2006 Form 5695, line 12 1. _____
2. Enter the amount, if any, from your 2007 Form 5695, line 15 2. _____
3. Enter the amount, if any, from your 2009 Form 5695, line 11 3. _____
4. Enter the amount, if any, from your 2010 Form 5695, line 11 4. _____
5. Enter the amount, if any, from your 2011 Form 5695, line 14 5. _____
6. Enter the amount, if any, from your 2012 Form 5695, line 32 6. _____
7. Enter the amount, if any, from your 2013 Form 5695, line 30 7. _____
8. Add lines 1 through 7. Also enter this amount on Form 5695, line 18. If \$500 or more, **stop**; you cannot take the nonbusiness energy property credit 8. _____

Lines 19a Through 19h

Note. A reference to the IECC is a reference to the 2009 International Energy Conservation Code as in effect (with supplements) on February 17, 2009.



Do not include on lines 19a through 19d any amounts paid for the onsite preparation, assembly, or original installation of the components.

Line 19a. Enter the amounts you paid for any insulation material or system (including any vapor retarder or seal to limit infiltration) that is specifically and primarily designed to reduce the heat loss or gain of your home when installed in or on such home and meets the prescriptive criteria established by the IECC.



A component is not specifically and primarily designed to reduce the heat loss or gain of your home if it provides structural support or a finished surface (such as drywall or siding) or its principal purpose is to serve any function unrelated to the reduction of heat loss or gain.

Line 19b. Enter the amounts you paid for exterior doors that meet or exceed the Energy Star program requirements.

Line 19c. Enter the amounts you paid for a metal roof with the appropriate pigmented coatings or an asphalt roof with the appropriate cooling granules that are specifically and primarily designed to reduce the heat gain of your home, and the roof meets or exceeds the Energy Star program requirements in effect at the time of purchase or installation.

Line 19d. Enter the amounts you paid for exterior windows and skylights that meet or exceed the Energy Star program requirements.



If you took the credit for windows in 2006, 2007, 2009, 2010, 2011, 2012, or 2013, you may not be able to include window expenses this year.

Line 19f. If you reported expenses on your 2006 Form 5695, line 2b; 2007 Form 5695, line 2d; 2009 Form 5695, line 2b; 2010 Form 5695, line 2b; 2011 Form 5695, line 3d; 2012 Form 5695, line 21d; or 2013 Form 5605, line 19d, then use the [worksheet](#) next to figure the amount to enter on line 19f.

Window Expense Worksheet—Line 19f

1. Enter the amount from your 2006 Form 5695, line 2b . . .	1.	_____
2. Enter the amount from your 2007 Form 5695, line 2d . . .	2.	_____
3. Enter the amount from your 2009 Form 5695, line 2b . . .	3.	_____
4. Enter the amount from your 2010 Form 5695, line 2b . . .	4.	_____
5. Add lines 3 and 4	5.	_____
6. Multiply line 5 by 3.0	6.	_____
7. Enter the amount from your 2011 Form 5695, line 3d . . .	7.	_____
8. Enter the amount from your 2012 Form 5695, line 21d . .	8.	_____
9. Enter the amount from your 2013 Form 5695, line 19d . .	9.	_____
10. Add lines 1, 2, 6, 7, 8, and 9. Also enter this amount on Form 5695, line 19f.	10.	=====

Manufacturer's certification. For purposes of taking the credit, you can rely on a manufacturer's certification in writing that a building envelope component is an eligible building envelope component. Do not attach the certification to your return. Keep it for your records.

Lines 22a Through 22c



Also include on lines 22a through 22c any labor costs properly allocable to the onsite preparation, assembly, or original installation of the property.

Line 22a. Enter the amounts you paid for energy-efficient building property. Energy-efficient building property is any of the following.

- An electric heat pump water heater that yields an energy factor of at least 2.0 in the standard Department of Energy test procedure.

- An electric heat pump that achieves the highest efficiency tier established by the Consortium for Energy Efficiency (CEE) as in effect on January 1, 2009.
- A central air conditioner that achieves the highest efficiency tier that has been established by the CEE as in effect on January 1, 2009.
- A natural gas, propane, or oil water heater that has an energy factor of at least 0.82 or a thermal efficiency of at least 90%.
- A stove that uses the burning of biomass fuel to heat your home or heat water for your home that has a thermal efficiency rating of at least 75%. Biomass fuel is any plant-derived fuel available on a renewable or recurring basis, including agricultural crops and trees, wood and wood waste and residues (including wood pellets), plants (including aquatic plants), grasses, residues, and fibers.

Do not enter more than \$300 on line 22a.

Line 22b. Enter the amounts you paid for a natural gas, propane, or oil furnace or hot water boiler that achieves an annual fuel utilization rate of at least 95.

Do not enter more than \$150 on line 22b.

Line 22c. Enter the amounts you paid for an advanced main air circulating fan used in a natural gas, propane, or oil furnace that has an annual electricity use of no more than 2% of the total annual energy use of the furnace (as determined in the standard Department of Energy test procedures).

Do not enter more than \$50 on line 22c.

Manufacturer's certification. For purposes of taking the credit, you can rely on a manufacturer's certification in writing that a product is qualified residential energy property. Do not attach the certification to your return. Keep it for your records.

Line 25

If the rules discussed earlier for joint occupancy apply, cross out the preprinted \$500 on line 25 and enter on line 25 the smaller of:

1. The amount on line 24, or
2. \$500 multiplied by a fraction. The numerator is the amount on line 24. The denominator is the total amount from line 24 for all owners.

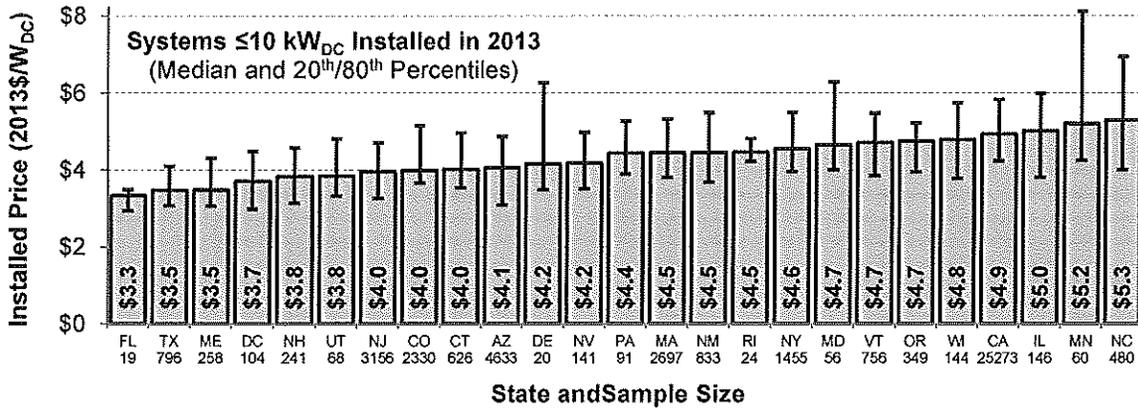
For more details, see [Joint occupancy](#), earlier.

Line 29

Complete the [worksheet](#) below to figure the amount to enter on line 29.

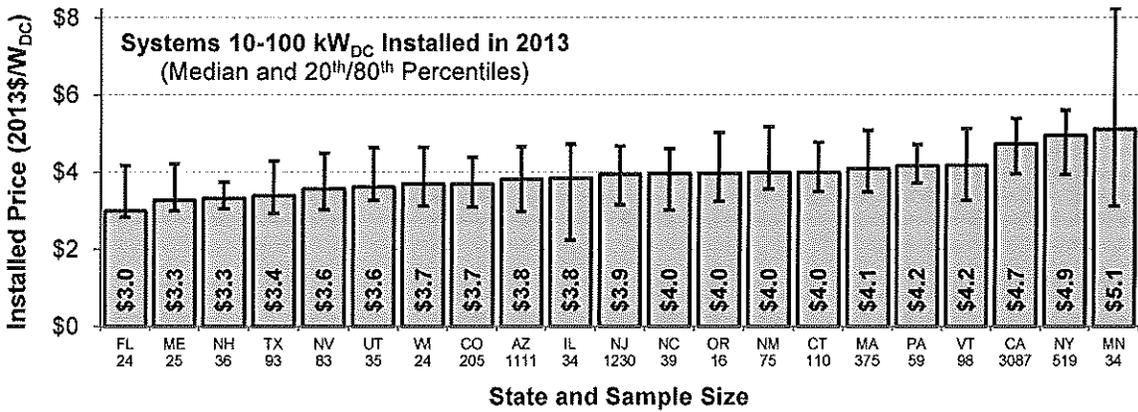
Nonbusiness Energy Property Credit Limit Worksheet—Line 29

1. Enter the amount from Form 1040, line 47, or Form 1040NR, line 45	1.	_____
2. Enter the total, if any, of your credits from Form 1040, lines 48 through 51, and Schedule R, line 22; or Form 1040NR, lines 46 through 48	2.	_____
3. Subtract line 2 from line 1. Also enter this amount on Form 5695, line 29. If zero or less, stop ; you cannot take the nonbusiness energy property credit	3.	=====



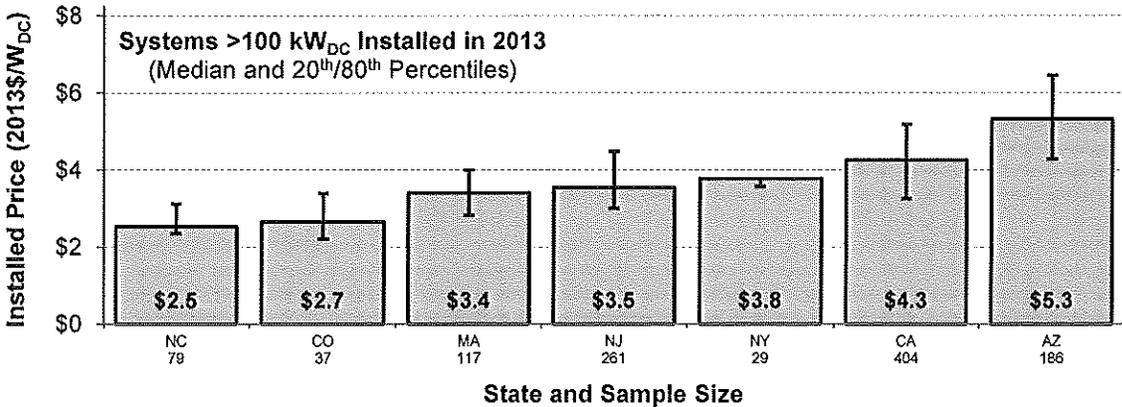
Notes: Median installed prices are shown only if 15 or more observations were available for a given state.

Figure 16. Installed Price of Residential & Commercial PV Systems by State (≤10 kW Systems)



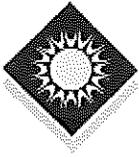
Notes: Median installed prices are shown only if 15 or more observations were available for a given state.

Figure 17. Installed Price of Residential & Commercial PV Systems by State (10-100 kW Systems)



Notes: Median installed prices are shown only if 15 or more observations were available for a given state.

Figure 18. Installed Price of Residential & Commercial PV Systems by State (>100 kW Systems)



FLORIDA SOLAR ENERGY CENTER®

Creating Energy Independence

Rebates & Incentives

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343)

The Federal Government offers substantial incentives for consumers to take advantage of purchasing photovoltaic (PV) systems.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) included, extended and/or amended many consumer tax incentives originally introduced in the Energy Policy Act of 2005 (EPACT). The bill also included tax incentives for businesses, utilities, and government. For a complete summary of the tax incentives included in the bill, read the [summary of Energy Tax Incentives in The Emergency Economic Stabilization Act of 2008](#).

Tax credits were further enhanced in February 2009 by *The American Recovery and Reinvestment Act of 2009*, which removed the maximum credit amount for all eligible renewable energy technologies (except fuel cells) placed in service after 2008.

Tax Credits Defined

A tax credit offers significantly more financial savings to the buyer than a tax deduction. A tax deduction is subtracted from the income before tax liability is computed. The tax credit is subtracted directly from the total tax liability. This means that a tax credit offers more savings to the consumer than the tax deduction. For a comparison, a tax credit of \$1,000 for a taxpayer in the 28% tax bracket is the equivalent of a tax deduction of \$3,751.

Qualifications and Provisions

For residential PV systems, consumers who install solar electric systems can receive a 30% tax credit for systems placed in service from January 1, 2006 through December 31, 2016. A tax credit cap of \$2,000 applies in 2006-2008; beginning January 1, 2009 the tax credit cap no longer applies.

Click [here](#) for a four-page Q&A on the revised federal solar tax incentives, prepared by Solar Energy Industries Association. (Note that this document was published in October 2008.)

The Florida Renewable Energy Technologies and Energy Efficiency Act

The 2006 Florida Renewable Energy Technologies and Energy Efficiency Act, signed into law on June 19, 2006, provides consumers with rebates and tax credits for photovoltaic systems.

The purchase of photovoltaic systems covered under the Florida Renewable Energy Technologies and Energy Efficiency Act qualifies the consumer to receive a substantial rebate. The rebate is based on the manufacturer's power output rating of the modules. The amount is \$4.00 per Watt with a cap of \$20,000 for residential photovoltaic systems and a \$100,000 cap for commercial, publicly owned, or private not-for-profit photovoltaic systems.

For detailed information, visit the [Florida Energy & Climate Commission Web site](#).

Related Resources

If you need to find solar equipment, you can find a list of retail providers and system installers at www.findsolar.org or www.flaseia.org.

For a list of approved modules, please visit [FSEC certified modules](#).

To find a list of photovoltaic systems that qualify for the tax credits and rebates, follow this link to [certified photovoltaic systems](#).



Residential Energy Efficient Property Credit (Section 25D) at a Glance

A credit of 30 percent of the expenditures made by a taxpayer during the taxable year for:

- qualified solar electric systems;
- qualified solar water heaters;
- qualified fuel cell property;
- qualified small wind energy property; and
- qualified geothermal heat pumps.

The credit for expenditures made for qualified fuel cell property is limited to \$500 for each one-half kilowatt of capacity of the property; the amounts of the other qualified expenditures eligible for the credit are not limited. In addition, this credit may be carried over if it exceeds the limitation imposed by section 26(a). The credit is available for property placed in service through Dec. 31, 2016.

More Information

[Energy-Efficient Home Improvements Can Lower Your Taxes](#)

Related Form

[Form 5695, Residential Energy Credits \(PDF\)](#)

Related Publications

[Publication 17, Your Federal Income Tax - Chapter 38, Other Credits - Under Nonrefundable Credits](#), see **Residential Energy Credit** for essential guidance

[Instructions for Form 5695, Residential Energy Credits](#) - See **Residential Energy Efficient Property Credit** for detailed guidance

More solar in the city is aim of new initiative



Steve Orr, Staff writer 3:59 p.m. EDT June 18, 2015



Buy Photo

(Photo: Max Schulle / staff photographer)

CONNECT 24 TWEET 11 LINKEDIN COMMENT EMAIL MORE

A summer-long program to help Rochester residents go solar is about to get underway, with aspirations of bringing about a dramatic increase in the number of city properties sporting photovoltaic panels.

The program, Solarize the Flower City, is built around a series of public meetings to educate residents and business owners on solar energy and explain how to take advantage of government incentives and special discounts. Though the meetings are open to all, the focus for this phase of the program is the southeast quadrant of the city.

Solarize the Flower City, which is sponsored by the city and supported by New York state, hopes to bring about 100 new solar installations in the southeast by summer's end.

That would be a sizable increase. At present there are no more than 40 homes and small businesses in the city with solar panels, according to a list of projects that have received state financial support. Of that number, at least half are in the southeast quadrant.

"We think that there's a lot of latent interest. I expect it to increase as awareness is built, and as people know more and more about us. Attendance will grow throughout the summer," said Susan Spencer, founder and president of ROCSPOT, a non-profit solar advocacy group that runs the Solarize program here.



Buy Photo

Susan Spencer, founder and president of solar advocacy group ROCSPOT. (Photo: Annette Lein@bikebizzle / STAFF PHOTOGRAPHER)

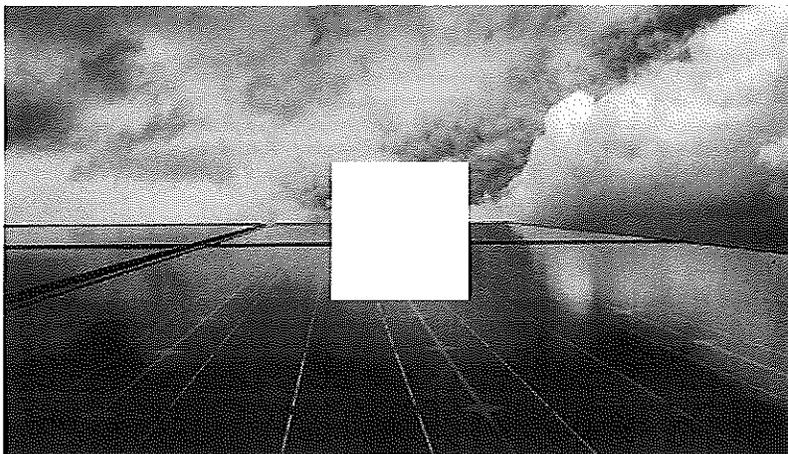
The program, one of about two dozen Solarize programs in New York state communities, launches with a reception at the Rochester Museum & Science Center on Sunday, the summer solstice, also celebrated as Solar Day.

The first public "solar assembly," as they're being called, will be June 25 in the Beechwood neighborhood. Five more are set, with the location of several additional sessions still being finalized.

Each session will feature a presentation on solar technology, the basics of installation, the available financial incentives and financing options.



ROCHESTER DEMOCRAT AND CHRONICLE
Solar rising: Rochester looks to sun power



Reporter Steve Orr and Senior Engagement Editor Julie Philipp discuss the lack of interest locally in solar power and go on adventure looking for local panels. Video by Annette Lein

"Then at every assembly, we'll have a regular person who has gone through the process stand up and speak for about five minutes on what it was like for them," Spencer said. "And then we open it up for questions."

Representatives of three local solar installation companies will be present at meetings to answer questions from property owners. The companies, whose names will be made public Sunday, were selected by ROCSPOT.

Property owners who want to pursue a solar project through the program can arrange site visits and estimates from any of the three companies. ROCSPOT and a partner group, NeighborWorks, can serve as liaison to the installers and offer advice to customers.

Each of them has pledged to provide a "substantial" extra discount to people who sign up through the Solarize program, she said. In other communities with Solarize programs, such discounts have been 10 to 20 percent.

That discount would come on top of established government incentives.



ROCHESTER DEMOCRAT AND CHRONICLE
Why solar energy works in Rochester

The state and federal governments offer tax credits to those who have solar panels installed, and the state also provides direct grants to homeowners and businesses. Installers say these incentives can cover more than half the cost of installation.

Depending on how homeowners finance their share of project costs, they can expect to recover the cost of installation through lower electricity bills in fewer than 10 years. Electricity generated by their panels after that would be essentially free.

As an added incentive to program participants, ROCSPOT intends to raffle off a "substantial rebate" to one of the customer who signs up for solar through the program, Spencer said.

Publicity and some other expenses associated with the public assemblies are being covered by a \$5,000 grant to ROCSPOT from the New York State Energy Research and Development Authority, which oversees the Solarize programs.

ROCSPOT volunteers, the city of Rochester and NeighborWorks have provided about

Spencer believes the message people will hear at the assemblies will resonate.

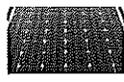
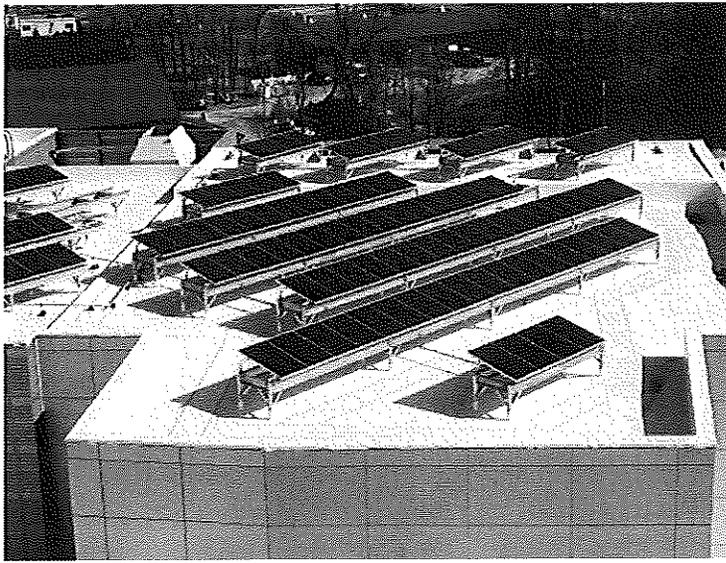
"We see this as a way to help people reduce energy poverty, and I think once that message is really heard, it's something that people will be interested in and excited about," she said. "ROCSPOT's goal is to bring information that solar works here and is affordable here. If you can get money back in your pocket that you can spend on food or clothes, I think people will really respond to that."

SORR@DemocratandChronicle.com



ROCHESTER DEMOCRAT AND CHRONICLE
Despite colder climate, solar panel sales grow

Photos: Local solar projects



Upcoming Solarize the Flower City meetings

The following solar assemblies have scheduled so far. Others will be announced. All of these sessions run from 6 to 8 p.m.

- June 25, St. Mark's and St. John's Episcopal Church, 1245 Culver Road
- July 9, Artisan Church, 1235 S. Clinton Ave.
- July 16, Bausch and Lomb Pavilions, 1400 N. Goodman St.
- July 22, Christ the Good Shepard Church, 1000 N. Winton Road.
- August 20, New Life Presbyterian Church, 243 Rosedale St.
- August 27, St. Anne Church, 1600 Mt Hope Ave.

State-by-state plan to convert US to 100% clean, renewable energy by 2050



One potential way to combat ongoing climate change, eliminate air pollution mortality, create jobs and stabilize energy prices involves converting the world's entire energy infrastructure to run on clean, renewable energy.

This is a daunting challenge. But now, in a new study, [Mark Z. Jacobson \[1\]](#), a professor of civil and environmental engineering at Stanford, and colleagues, including U.C. Berkeley researcher Mark Delucchi, are the first to outline how each of the 50 states can achieve such a transition by 2050. The 50 individual state plans call for aggressive changes to both infrastructure and the ways we currently consume energy, but indicate that the conversion is technically and economically possible through the wide-scale implementation of existing technologies.

"The main barriers are social, political and getting industries to change. One way to overcome the barriers is to inform people about what is possible," said Jacobson, who is also a senior fellow at the Stanford Woods Institute for the Environment and at the Precourt Institute for Energy. "By showing that it's technologically and

State-by-state plan to convert US to 100% clean, renewable energy by 2050

Published on Research & Development (<http://www.rdmag.com>)

economically possible, this study could reduce the barriers to a large scale transformation."

The study [2] is published in the online edition of *Energy and Environmental Sciences*. An interactive map summarizing the plans for each state is available at www.thesolutionsproject.org [3].

Jacobson and his colleagues started by taking a close look at the current energy demands of each state, and how those demands would change under business-as-usual conditions by the year 2050. To create a full picture of energy use in each state, they examined energy usage in four sectors: residential, commercial, industrial and transportation.

For each sector, they then analyzed the current amount and source of the fuel consumed - coal, oil, gas, nuclear, renewables - and calculated the fuel demands if all fuel usage were replaced with electricity. This is a significantly challenging step - it assumes that all the cars on the road become electric, and that homes and industry convert to fully electrified heating and cooling systems. But Jacobson said that their calculations were based on integrating existing technology, and the energy savings would be significant.

"When we did this across all 50 states, we saw a 39 percent reduction in total end-use power demand by the year 2050," Jacobson said. "About 6 percentage points of that is gained through efficiency improvements to infrastructure, but the bulk is the result of replacing current sources and uses of combustion energy with electricity."

The next step involved figuring out how to power the new electric grid. The researchers focused on meeting each state's new power demands using only the renewable energies - wind, solar, geothermal, hydroelectric, and tiny amounts of tidal and wave - available to each state.

They analyzed each state's sun exposure, and how many south-facing, non-shaded rooftops could accommodate solar panels. They developed and consulted wind maps and determined whether local offshore wind turbines were an option. Geothermal energy was available at a reasonable cost for only 13 states. The plan calls for virtually no new hydroelectric dams, but does account for energy gains from improving the efficiency of existing dams.

The report lays out individual roadmaps for each state to achieve an 80 percent transition by 2030, and a full conversion by 2050. Jacobson said that several states are already on their way. Washington state, for instance, could make the switch to full renewables relatively quickly, thanks to the fact that more than 70 percent of its current electricity comes from existing hydroelectric sources. That translates to about 35 percent of the state's all-purpose power if Washington were 100-percent electrified; wind and solar could fill most of the remainder.

Iowa and South Dakota are also well-positioned, as they already generate nearly 30 percent of their electricity from wind power. California, which was the focus of Jacobson's second single-state roadmap to renewables after New York, has already

State-by-state plan to convert US to 100% clean, renewable energy by 2050

Published on Research & Development (<http://www.rdmag.com>)

adopted some of his group's suggestions and has a plan to be 60 percent electrified by renewables by 2030.

The plan calls for no more than 0.5 percent of any state's land to be covered in solar panels or wind turbines. The upfront cost of the changes would be significant, but wind and sunlight are free. So the overall cost spread over time would be roughly equal to the price of the fossil fuel infrastructure, maintenance and production.

"When you account for the health and climate costs - as well as the rising price of fossil fuels - wind, water and solar are half the cost of conventional systems," Jacobson said. "A conversion of this scale would also create jobs, stabilize fuel prices, reduce pollution-related health problems and eliminate emissions from the United States. There is very little downside to a conversion, at least based on this science."

Jacobson said that if the conversion is followed exactly as his plan outlines, the reduction of air pollution in the U.S. could prevent the deaths of approximately 63,000 Americans who die from air pollution-related causes each year. It would also eliminate U.S. emissions of greenhouse gases produced from fossil fuel, which would otherwise cost the world \$3.3 trillion a year by 2050.

Source: [Stanford University](#) [4]

Source URL (retrieved on 06/10/2015 - 12:36pm):

<http://www.rdmag.com/news/2015/06/state-state-plan-convert-us-100-clean-renewable-energy-2050>

Links:

- [1] <https://web.stanford.edu/group/efmh/jacobson/>
- [2] <http://web.stanford.edu/group/efmh/jacobson/Articles/I/USStatesWWS.pdf>
- [3] <http://www.thesolutionsproject.org/>
- [4] <http://news.stanford.edu/news/2015/june/50states-renewable-energy-060815.html?>

AD HOC GREEN COMMITTEE UNAPPROVED REGULAR MEETING MINUTES JULY 02, 2015

Pursuant to public notice, Chairman Jeff Chestine convened a regular meeting of the AD HOC Green Committee on Thursday, July 02, 2015, at 7:04 p.m., in the Council Chamber. Committee Members present were Jeff Chestine, John Fergus, Eugene Mathews, Josh Pause, and Scott Waymire. Staff Members present were City Manager Courtney Barker, and Recording Secretary Diane Niosi. Interns Present were Zachary Fleis, and Max Hoffman. Board Member David Vigliotti was not present.

Chairman Jeff Chestine led the Pledge of Allegiance.

(TIME: 7:05 P.M.) PUBLIC COMMENT

Liaison to the Comprehensive Planning and Advisory (CPAB) Board, Rodney Smith, introduced himself and urged the Board to set the bar high when considering the initiatives for the City.

(TIME: 7:06 P.M.) PRESENTATION ON PROPOSED GREEN INITIATIVES

Intern Max Hoffman, addressed the Board, stating the following:

- 1. Electric Car Charging Stations:
 - Satellite Beach should consider leading the way as being a green community in establishing the first public charging station, attracting environmentally-minded residents as being a green community.
 - Mentioned providing incentives to current residents and businesses to purchase electric vehicles.
 - Suggested establishing a plan for private businesses to build their own charging stations.
 - There are three types of charging stations:
 - Level I Charging Stations are the least expensive at a cost between \$150.00 to \$300.00; charges slower per hour and costs less per hour to charge; plugs into a 120 volt outlet; charging for six hours per day for two users would cost \$400.00 annually for the power.
 - Level II Charging Stations range in cost from under \$400 to approximately \$1,600.00, depending on capabilities; charging is faster than Level I Charging Station; uses a 240 volt outlet at a cost of approximately thirty-eight (\$0.38) cents per hour; charging for six hours per day for two users would cost \$800.00 annually.
 - Pay-To-Charge Charging Stations provide electricity for free or charges for usage per kilowatt hour but takes a long time to get a return on your investment.
 - Stations that charge per kilowatt hour use a charge card swiper and are more complicated and expensive systems.
 - Electric cars can be charged at outlets with 120 or 240 outlets.
 - Level I and II Charging Station outlets are universal for all electric cars.
 - The Level III Charging Station would be the least desirable due to its high cost and can only be used for certain electric cars.
- 2. Green Buildings and Development:
 - Florida Friendly Landscaping has set principles for irrigation, fertilizing, and using low maintenance. Xeriscaping Landscaping uses native drought-tolerant plants and promotes the "Lose the Lawn" concept.
 - Livable Lawns Program promotes proper fertilizing/irrigation techniques to protect waterways.
 - Suggested the City provide incentives to businesses to adopt these techniques.
- 3. Sustainability Leadership and Education Programs:
 - Suggested holding a "Green Fair" to educate the public about green initiatives.
 - Sources for Financing:
 - Grant programs.
 - Solar Energy Loan Fund.
 - The Solar Energy Loan Fund provides many residential and commercial services.
 - Website used for research: Solar Energy Loan Fund (Self).

- The Solar Energy Loan Fund has a delinquency and default rate of less than 1%; received the Most Outstanding Green Business of the Year Award from the South Florida Chapter of the U.S. Green Building Counsel in 2013.
- There are many financing resources for residents/companies.

Josh Pause stated solar energy is approximately forty percent less costly than conventional sources, explaining how the investment in solar energy works and urged the Board to view the example in the "Planet Money" link provided under Attachment 3 of the Initiatives.

John Fergus suggested the City consider applying a portion of the Community Redevelopment (CRA) Agency funds to the establishment of a public charging station.

Intern Zach Fleis addressed the Board, stating the following:

- Immediate ways people could save money on systems:
- Solar and CHP Sales Tax Exemption.
 - Incentive amount is the entire sales tax amount and applied commercially or residentially.
 - Eligible Exemptions: Solar Water Heat, Space Heat, Photovoltaic's, Combined Heat, Power and Pool Heating and are permanent with no set date of expiration.
- There are over fifteen solar energy companies within the County to do business with.
- Florida Power and Light (FPL) has a solar rebate program in Miami with a maximum incentive of \$50,000.00 per site toward installing alternative power sources, including solar energy.
- Provided three handouts: Exemption form; native plant species list with hurricane protection tips; list of certified solar equipment and hardware.

Eugene Mathews added that the State of Florida offers an incentive of thirty percent, with a maximum of \$2,000.00 for solar energy installation.

Chairman Chestine stated that the first step is to establish a plan and asked the Board members to write a one-page summary on their individual goals for the City. He then opened the floor for public comment. There were no public comments.

City Manager Courtney Barker suggested the Board use the mission and goals outlined in the Charleston Green Plan when deriving the vision, goals and timelines for the City's plan.

(TIME: 8:05 P.M.) AGENDA ITEMS FOR THE NEXT MEETING

- Summary by Interns on establishing green plan and incentives overview for residents/businesses.
- Presentation by interns on LEED Certification, LED lighting, and lagoon dredging.
- Interns to provide the ratio of how many years a charging station would take to pay itself off.

(TIME: 8:10 P.M.) ADOPTION OF THE MINUTES: JUNE 29, 2015, REGULAR MEETING

ACTION: Committee Member Fergus MOVED, SECOND by Committee Member Mathews to approve the minutes as presented. VOTE: ALL YES. MOTION CARRIED.

(TIME: 8:15 P.M.) ADJOURNMENT

ACTION: Committee Member Fergus MOVED, SECOND by Committee Member Mathews to adjourn. VOTE: ALL YES. MOTION CARRIED.