

**BUILDING & BUILDING CODES COMMITTEE MINUTES**  
**JUNE 15, 2009**

The Building & Building Codes Committee meeting was held on June 15, 2009, at North Royalton City Hall, 13834 Ridge Road. The meeting was called to order at 7:03 p.m.

**PRESENT:** Committee Members: Chair Don Willey, Vice Chair Mike Farrell, Larry Antoskiewicz; Council: Vince Gentile, Dan Kasaris; Administration: Mayor Robert Stefanik, First Assistant Prosecutor Donna Vozar, Building Commissioner Rito Alvarez; Other Attendees: Paul Marnecheck, Carl Scheutzow, Ed Tuma.

**APPROVAL OF MINUTES**

Moved by Mr. Farrell, seconded by Mr. Antoskiewicz **to approve the May 18, 2009 Minutes.** Yeas: 3. Nays: 0. **Motion carried.**

Mr. Willey announced that Mr. Carl Scheutzow from Mariner Energy Systems was in attendance at the meeting. Mr. Scheutzow distributed information about his company along with information on tax credits, grants and financial credits that are available.

Mr. Scheutzow said Mariner Energy Systems is a solar power installation contractor. He told the committee members that his company can provide reputable contractor's who are able to do the work needed, provide consulting services and answer any questions regarding grants, tax credits and how to get these systems installed.

Mr. Willey told Mr. Scheutzow that North Royalton does not currently have any building codes adopted dealing with solar and/or wind power. Mr. Scheutzow said he is not aware of any communities that currently have ordinances dealing with solar/wind power. He said all of the licensing and permit work that is necessary is currently applied for through electrical construction within the municipality. Mr. Scheutzow said that in order to participate in the grant programs the State of Ohio requires companies to submit information to them then the state makes up a list of certified installers. The Ohio Department of Development maintains the list of certified installers. He said the only people who can receive grant money are those who use a certified installer involved in the project. Mr. Antoskiewicz asked Mr. Scheutzow if he has installed any wind turbines on residential structures. Mr. Scheutzow said his company has shied away from wind turbines because he feels it is difficult to get the maximum power from a wind turbine. He said when a 10 kw wind turbine is placed in the air, that manufacturer puts a 10kw rating on the turbine in 22.5 mph wind. He said in order for someone to get that turbine into a 22.5 mph wind to get the full 10kw, would be very difficult. Mr. Farrell said he understands that there are wind turbines now that can fluctuate into a consistent 6 mph wind. Mr. Scheutzow said that is probably a vertical access wind turbine which can take in multi directional winds. He said there are a number of vertical access wind turbines on the market. He said the largest manufacturer of these turbines is PacWind, but they have just stopped production of all vertical access wind turbines because the efficiency was so low and the State of Ohio would not supply any grant money for wind turbines. He said it is different applying for grant money for solar vs. wind. He said as far as solar power is concerned, climatological data is collected and stored on the amount of solar radiation in geographical areas. Where wind power is concerned, they use the satellite wind map. He said test towers need to be placed at the location and the height that the wind turbine will be placed and prove to the state that you will get the amount of production out of the wind turbine that it is supposed to produce. Mr. Kasaris asked how strong 10kw is. Mr. Scheutzow said 10kw would be more than enough to power an average home at any time during the year. Mr. Scheutzow said vertical access turbines are about 5kw. Mr. Scheutzow said about 90 percent of the solar powered systems he is currently installing are grid tie systems with no batteries. Mr. Scheutzow said that he usually tells customers that before they invest in a renewal energy system, they should look at ways to reduce their consumption so that if when a unit is purchased, it will be the correct size unit.

Mr. Antoskiewicz asked how much a grant would cover in the cost of this type of system. Mr. Scheutzow said that it covers \$3 per watt of solar and \$2 per watt of wind to cover the cost of installation. As far as the

material cost is concerned it would cover approximately \$8 per watt. Mr. Scheutzow said the materials cost for solar installation have come down in price in the last few years.

Mr. Gentile asked if a combination system would be the best way to go. Mr. Scheutzow said a hybrid system would be ideal, but said there are so many variables that go along with wind that it makes it hard to determine or predict what that turbine will output. He said this is why data has to be collected on wind.

Mr. Scheutzow said Cleveland, Ohio has approximately 4.1 hours of optimum sunlight per day on an annual basis. Mr. Farrell asked if direct sunlight is necessary. Mr. Scheutzow said the less cloud cover in front of the sun, the greater the output of solar rays. He said, however, all of the panels will generate some portion of power regardless of the weather. He said December, January and February are very poor production months in Ohio, but May, June, July and August out-produce the winter months by three times. Mr. Antoskiewicz asked how much energy would be stored from a good day for possibly a bad day. Mr. Scheutzow said that solar panels and wind turbines do not store anything, but storage capabilities can be processed through batteries.

Mr. Farrell asked what the average cost savings would be on an annual basis on a building such as City Hall. Mr. Scheutzow said it would depend on the consumption rate and how much a person would want to supplement. He said the cost savings would be approximately 30-50 percent. Mr. Farrell asked what the typical payback would be on an original investment on a solar system. He said it would depend on the size, but said on a residential unit it could be 12-15 years for a payback time. Mr. Farrell asked about commercial use. Mr. Scheutzow said on a commercial unit it could be 6-7 years.

Mr. Scheutzow said he has installed many panels and most of them are from Sharp which is a company in Tennessee. These panels have a 25 year warranty. He said the weak link in the solar unit is the electronic package which is the inverter. Mr. Gentile asked where these units are placed. Mr. Scheutzow said they can be mounted to a roof or set on the ground. Mr. Farrell asked if they are moveable directionally. Mr. Scheutzow said yes. Mr. Gentile asked what the surface area of square feet of panel a person would need to produce a sufficient amount of electricity for an average size home. Mr. Scheutzow said the solar units are becoming more efficient. He said he can now get more wattage out of a square foot area. He said 14 square feet would produce enough energy for an average size home. Mr. Scheutzow said the silicon modules on the panels absorb energy from the sun and transform that energy into electrical power through the inverter. He said these panels are usually elevated from the roof surface approximately 3 inches to allow cool air to move underneath the panel. He said the cooler the panels operate the more efficient they are.

Mr. Alvarez asked how much these units weigh. Mr. Scheutzow said they weigh about 4-5 pounds per square foot of wide load. Mr. Alvarez asked if we would need to let the truss manufacturer know how much these units weigh prior to them being placed on a residential roof. Mr. Scheutzow said he does not think that 5 pounds on a residential structure is an issue. He said if it appears that the roofing materials are close to their life span, he will recommend to the homeowner that they take care of the roofing issues prior to this unit being placed on their roof.

Mr. Farrell asked what percentage of the market solar energy covers when it comes to green energy. Mr. Scheutzow said in Ohio we produce 90 percent of all electricity by burning coal. He said in the green energy field in Ohio, solar energy represents the highest percentage and wind is right below it.

Mr. Gentile asked Mr. Alvarez if a resident wants to place a solar unit or wind unit on their home would they be able to do that. Mr. Alvarez said this is a zoning issue with the height restriction and they would also have to deal with the building code. He said he believes the National Electric Code would cover some of these issues as well.

Mr. Alvarez asked Mr. Scheutzow how these units are cleaned and if they are dirty do they lose their efficiency. Mr. Scheutzow said they put RainX on them when they install them and that usually helps keep them clean for about 6 months. He said if the homeowner does not clean them, the rain will usually keep them clean. He said some homeowners use a garden hose and spray them to keep them clean.

Mr. Gentile asked if a resident pulls a permit for electrical work to install one of these units, is there any restriction or guidelines in the city prohibiting them from placing a solar panel on their roof. Mr. Alvarez said this is regulated through the National Electric Code. Mr. Scheutzow said that in order to receive any grant money from the State of Ohio, the resident must have a permit from the local authority. He said in order to take out a permit the resident must have an OCI licensed contractor.

Ms. Vozar discussed the certification from the State of Ohio and said we would like to incorporate that language into our ordinance and said there may be other concerns we would want to include in our code as well.

Mr. Scheutzow encouraged the city to include in the ordinance that residents use a reputable contractor. He said the state has already done that for residential property.

Mr. Gentile asked if a resident wants a ground mount, would there be problem with this over a roof mount. Ms. Vozar said it would depend if it falls under the definition of a structure. She said this is something we need to look at.

Mr. Alvarez asked Mr. Scheutzow if he has had any complaints about these units from neighbors of residents who have these units. Mr. Scheutzow said that he has had some complaints from a homeowners association in Westlake regarding the size of the unit.

Ed Tuma, a North Royalton resident said that he believes there should be language included in the ordinance not only for the electrical work, but also language regarding structural issues.

Mr. Gentile asked Mr. Tuma if he knows of any city that has a draft resolution that deals with this type of industry that we might be able to work off of. Mr. Tuma will make some calls to see what he can find.

## **UNFINISHED BUSINESS**

### **1. Abandoned houses update report**

Mayor Stefanik discussed the foreclosure situation, abandoned homes and grass cutting in the city. He said he sat down with the Law Department and the Building Department to develop a strategy to stay on top of these foreclosed/abandoned homes. He said the Building Department is keeping a running checklist of where we are with these homes and making sure the grass is cut.

### **2. Proposal to amend grass/weed ordinance**

Ms. Vozar said the weeds/grass amendment is still pending. She distributed to Council the change she made to the current ordinance which is the total area square footage along with the changes to the Developer's Agreement. Mrs. Vozar discussed Item 7 and said that Council had suggested to her that they wanted to change the time period to 2 years after dedication or upon 90 percent of the subdivision lots being completed, whichever occurs later. She suggested due to the economy, 90 percent or two years will put a burden on the developer. She suggested changing the last line of Item 7 of the Agreement to state "whichever occurs first" rather than what it currently states which is "whichever occurs last."

Mr. Farrell asked what happens to the property maintenance if it exceeds the two year period. Ms. Vozar said it would be subject to the laws of North Royalton and we could still go through the process of assessing and cutting.

Mr. Antoskiewicz said he was under the impression that this would go into effect when the development was 90 percent completed. Ms. Vozar said the developer's bond would go into place when they originally apply. She said after two years we would turn it over. She said we cannot go to the developer after the dedication and ask for the bond because we would not get it. Ms. Vozar said this language is being put in place to allow for a bond for grass cutting.

Moved by Mr. Willey, seconded by Mr. Farrell **to recommend to Council approval of the changes to the Developer's Agreement and changes to Ordinance 1464.08 and 660.14.** Yeas: 3. Nays: 0.  
**Motion carried.**

**3. Wind Turbines**

This was discussed above.

**NEW BUSINESS**

1. No new business.

**ADJOURNMENT**

Moved by Mr. Antoskiewicz, seconded by Mr. Farrell **to adjourn the meeting.** Yeas: 3. Nays: 0. **Motion carried.** Meeting adjourned at 8:20 p.m.