

Solar Ready Housing Presented October 15th to Calgary Council

By: Andrew Sedor

First Slide

Hi my name is Andrew Sedor. I am resident of ward 11, a born and raised Calgarian and a 3rd year Urban Studies student at the University of Calgary.

Reading through the Plan It document I did not see much about making non dense, single detached housing more sustainable. I bring this up because one of the main reasons my family moved to Oakridge was because the house had a big beautiful backyard. As much as I want to believe that people of Calgary will want to move into denser neighborhoods, I know this isn't the case for some Calgarians.

My family tries to be very environmentally conscious as well, but we do not want to give up our backyard. So were struck with a problem, "do we give up our backyard to become more environmental?"

But there is a way you can be very environmental conscious, while still driving and living out in the suburbs. This is nearly impossible as of right now but in 10 years, if the correct steps are taken this can become a reality for the average citizen.

This can be done through **solar ready housing**.

Second Slide

Because of the relatively expensive price of solar panels, currently solar power is not a viable option for most households. But in a few years, solar power is predicted to be less expensive than other non-renewable forms of energy. When that day comes, households still may have issues converting to solar energy because of roof orientation, shading and the overall construction of their home.

A solar ready house, in short, is a house that can easily and inexpensively be retrofitted with solar panels or other solar technologies that will maximize the solar efficiency. Solar ready home do not contain solar panels.

Orienting the house on the building lot to maximize its solar exposure and installing a roof with the correct solar pitch can maximize the performance of the photo voltaic (electricity) or solar hot water array (house heating, cooling and hot water use). Landscaping features such as trees should be considered when preparing the site. Removing trees or moving the house site slightly can make a significant difference in available solar radiation.

Third Slide

So how much does this cost? It adds \$280-\$360 to the building cost of a new house. This is a break down of all the technical components in solar ready housing.

Fourth Slide

In comparison, to retrofit current houses that are on the market today, with the technical and electrical components for solar, can cost thousands of dollars more. I found estimates from \$5000 to \$8,000 more for the technical and electrical components. This could act as a huge deterrent to people wanting to purchase and install solar panels. As the Canadian Mortgage and Housing Corporation states "Preparing your house to be solar ready now, may save thousands of dollars in the near future"

Fifth Slide

The City of Vancouver has revised its building code making solar ready installations mandatory for all one and two unit dwellings in the City. The code changes came into effect September 5, 2008. Because Calgary is the sunniest major city in all of Canada, we would benefit much more than Vancouver from Solar Ready Housing.

Vancouver also made it mandatory to have outlets for electric cars in the garages of new homes. This means that in the near future, when solar power and electric cars are affordable, citizens can power both their automobiles and homes with affordable clean energy.

Sixth Slide

As you can see by these figures, the price of solar is falling very rapidly and it will not be long until it becomes affordable, but in current houses there are still the technical and electrical costs which can act as a deterrent and can keep many from going solar.

Though the City is not directly involved in the building code or providing monetary incentives for solar energy, there are many things the City can do to facilitate the growth of Solar Ready Housing in Calgary. Some of these items include: height relaxations, different parcel sizes and dimensions for Solar Ready Housing and informing developers about this new construction feature. Solar Ready Housing benefits industry, citizens and the City as a whole.

Seventh Slide

Last year, Natural Resources Canada did a pilot project with Doug Tarry Homes in Ontario to produce Solar Ready Housing. The Solar Ready Homes were labelled Ontario's "most outstanding production-built home" according to The Ontario Home Builders' Association. One of the things this project proved is that there was a great deal of interest by builders, developers and home buyers in solar ready housing.

The Natural Resources Canada website states:

"One key objective of the Solar Ready pilot initiative is to gauge the potential market and see if consumers are interested. Already, the feedback has been notably positive. There has also been a significant response from other production builders who want to be able to offer their clients the Solar Ready option. From the environmental benefits to the advantages for both builders and consumers, it appears as though the Solar Ready project is poised to be a great success."

Eighth Slide

On a final note, during the Calgary Planning Commission meeting for amending the solar land use bylaw, the issue of aesthetics was brought up. One of the members of the board seemed to dislike the way some solar panels projected. These are how current panels look on houses.

Ninth Slide

With solar ready, the issue of projections is solved. At that same meeting, another board member stated "This could be the beginning of a massive shift in this city's design", when the idea of a solar communities was brought up. Similar comments were made at the community association meeting for solar.

There is still going to be a demand for sprawled suburban housing, the most environmental and economic way of addressing this issue is through solar ready housing. If the correct steps are taken the sprawled suburbs can still be environmental. That is why I think solar ready housing should be an essential component of the Plan It document.

Thank You