

Module 6 reflection exercise

[Dan Wilton](#)
[All Sections](#)

19 19

Choose ONE of the community energy initiatives introduced in this module. Reflect on the following:

- a. What are the key results or benefits being generated?
- b. Which of the specific benefits are related to the ownership model and why?
- c. Identify enabling policies and/or other supports that were important to achieving the results or benefits you identified? Briefly explain the role you think they played.

Please post your discussion to the group (up to 1 page).


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<https://learn.canvas.net/courses/2527/users/906739>

May 11, 2019



The Community Energy model is an important one for our area. Most successful in rural or remote locations, this allows our county to uncouple from the national grid.

Given an expectation of social collapse and government ineffectiveness, those areas with their own local grid will survive better, retain ownership over their own energy futures, and develop their own work force for maintenance of these systems.

A major obstacle here is the transmission lines --- owned by a large out of state investment company that is requiring huge contract buy-outs to allow renewable energy to meet demands in rural areas of Colorado, Wyoming, and New Mexico. These contract buy-outs are under review now, but the PRC in Colorado, and soon here in New Mexico. Getting rid of this relationship with Tri-State Transmission will lower energy costs immediately from 23 cents per unit to less than 9 cents, and then even lower to 4 cents within a subsequent year.

Breaking the old business model of capitalism to allow for people-owned co-ops, as designed in the 1930s in the US, requires removal of this barrier --- and will upgrade transmission slowly over time, if transmission becomes more localized rather than nationalized.

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[Karl Horak \(https://learn.canvas.net/courses/2527/users/903858\)](https://learn.canvas.net/courses/2527/users/903858)

May 28, 2019

Thanks for getting this out there, CJ. Here in ABQ we were cautiously optimistic that NM would usher in some useful community energy legislation with the recent HB 210/SB 281 (Community Solar Act), SB 39 (Solar Market Development Tax Credit), SB 399 (Wind Energy Production Tax Act), and others. Alas, the coal, gas & oil lobbies managed to get them killed in committee during the last legislative session. Time is running short and our state senate, beholden to the fossil fuel industry, has sold away 2 critical years to deal with increasing CO2 emissions.

Meanwhile, today I read that the current administration is preventing USG climate scientists from discussing models beyond 2040 in a transparent effort to diminish the reporting of damaging forecasts from long-term models. Another 4 years of this and we won't be able to recover the lost ground.

:-(

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[Michael Lewis \(https://learn.canvas.net/courses/2527/users/263480\)](https://learn.canvas.net/courses/2527/users/263480)

Jun 17, 2019

Karl are you aware of this positive spin on the legislation in the session that just ended in New Mexico. https://ilsr.org/could-new-mexicos-proposed-community-solar-program-raise-the-bar/?utm_source=Energy+Self-Reliant+States&utm_campaign=9eae503913-Energy+Self+Reliant+States+1+12+151+8+2015+COPY+01&utm_medium=email&utm_term=0_86e661ed1e-9eae503913-82905585 (https://ilsr.org/could-new-mexicos-proposed-community-solar-program-raise-the-bar/?utm_source=Energy+Self-Reliant+States&utm_campaign=9eae503913-Energy+Self+Reliant+States+1+12+151+8+2015+COPY+01&utm_medium=email&utm_term=0_86e661ed1e-9eae503913-82905585)

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Julie MacArthur (<https://learn.canvas.net/courses/2527/users/438170>)

May 31, 2019

Important insight CJ. Often people focus so much on the generation tech (solar or wind policies, for example) to the exclusion of the infrastructure along the rest of the chain. Transmission regulations, and distributed local networks are a crucial piece of the puzzle.

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Murray Hidlebaugh
(<https://learn.canvas.net/courses/2527/users/895967>)

Jun 2, 2019

Kirklees, UK: community energy initiatives

a) What are the key results:

- Save money on fossil fuel energy costs. (Expand energy efficiency in the homes.)
- Reduce carbon emissions.
- One-stop shopping by KES joining together and coordinating private, public, and civil society sectors.
- Grants and support services to low-income households, Leverage government grants with small local investment (regional connections.)
- Capacity to assemble renewable electrical generating systems, photovoltaic, at the local level.
- Area based approach to assessment and installation of retrofits results in cost savings to individuals.
- Job creation at the local level in all phases of development of the renewable system.

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b) Which of the specific benefits are related to the ownership model and why?

- One-stop structure saved citizens time, money and hassle and reduced risks.
- The social enterprise model enabled the savings to largely stay locally.
- It also probably built social capital to gain public support for the move to improve energy efficiency and to reduce demand for fossil fuel.

c) Identify enabling policies and/or other supports that were important to achieving the results or benefits you identified?

- o I think the enabling legislation to create a social enterprise locally is important if there is to be a decentralized and democratically controlled energy production system. Even though an NGO KES was still established by the Metropolitan Council. A formal connection to municipal government is important.
- o I also think there needs to be government seed money to encourage local investment in both their own private facility retrofitting as well as building renewable energy production system. It is difficult to initiate change without incentives.
- o Municipal government support is also important in terms of the ability to create favorable conditions related to property tax, zoning by-laws, local building codes, insurance, and building plans/permits.

This article does show the risk in quoting a "futurist". It also is heavily focused on financial metrics. It will be interesting to do longitudinal studies on these communities, as it is with Jeff Rubin's predictions, to see what staying power this model has and how it changes. I think it is important to note how important leadership is in getting started. It might be useful to explore the critical human factors that create a climate of readiness.

Over time, NGOs often have challenges with succession planning and often the leadership falters. Also, elected governments change, support is withdrawn, and most of the local systems are too small to resist being bought out by the corporate sector. Local governments, always cash strapped, sometimes even pursue sale of their renewable energy system to private corporations to raise money to keep taxes down.

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[Mike Gismondi \(https://learn.canvas.net/courses/2527/users/227458\)](https://learn.canvas.net/courses/2527/users/227458)

Jun 4, 2019

Thanks Murray. The leadership issue is crucial for many reasons.

I also have found it helps when you find the right intermediary specialist or expert who accompanies rather than tries to lead the project. I find that hybrid types, who have worked both in the regime or system and know people and have relationships they built up with system actors, and who also experienced in their own CE projects or have community development experience of their own, can be invaluable.

Energy cultures are distinct in Canada, I would argue they are regional. So values and attitudes differ regionally, and its hard to say whether we have a national outlook.

Where I live in an oil and gas region like Alberta, the challenges on integrating renewables differ from areas of the country like Quebec where there is little local fossil fuels, but a much older history of hydro for example. Ironically, hydro is often seen as clean and good , closer to nature, despite a history of displacing First Nation's peoples, and now we know many ecological contradictions as well.

Thanks for sharing your experience.

Mikeg

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[Kelleigh Wright \(https://learn.canvas.net/courses/2527/users/897550\)](https://learn.canvas.net/courses/2527/users/897550)

Jun 4, 2019

Degrowth as a potential community initiative?

Looking at downscaling, contraction, minimizing renewable and non-renewable energy consumption (or is it examining the addiction to convenience supported by the values of fast cheap & easy if we are being radically honest) for the purpose of mutual well being, in households and industry.

Here in Northeastern Ontario, Canada homes are heated 6 months of the year, communities (both urban and rural) are large distances apart, and 98% of our food needs are imported, 99% of our clothing/fibre needs are imported. I wonder where the line between surviving and thriving lies with our day to day energy demand/consumption.

When a barrel of oil represents 12.5 years of human labour, reduction in oil would then become a reduction in the pace of life and/or an increase in cooperative/interdependent relationships within communities and neighbourhoods to meet daily needs. Would we choose to parent differently under those circumstances?

Oil/gas/petroleum not only impacts transportation, but also road maintenance. The oil industry is also closely tied to plastic consumption, modern textiles and synthetic fertilizers. What local initiatives are needed to support the ripple effect of degrowth in just those few areas?

Ontarians reduced their hydro electricity consumption from an average of 1000 kWh/mth to 750 kWh/mth by 2017. Hydro prices have risen to cover the costs of lost revenue with reduced household and industry consumption, to cover frozen rates under previous governments, and to cover aging infrastructure costs. Hydro as a crown corporation has 40 years of poor management & high debt. As of 2017 it became a crown/public corporation to pay off provincial debt and 'improve management'. Although this company operates 97% of high voltage lines, it is largely unaffordable for many northern rural customers, low income populations, and it is a significant barrier for small business in the north. Hydro electric power is one of the cleanest options available for northerners and also the most unaffordable. Laws at the provincial level would need to be changed to break the current monopoly. Houses in urban areas are not allowed to be off-grid under provincial housing codes. Structures that violate provincial code are condemned and occupants are removed. How can solar power be better integrated as part of the degrowth solution? What massive and radical changes are needed at the provincial level of government to overhaul a dysfunctional company?

Homes in the north, at one time were all heated with wood or coal burning boiler systems until the 1950's and 60's when natural gas started to become available. Most areas in the rural north are still heated with wood or propane. What could be the degrowth options and supports for those who are looking to reduce their carbon footprint and ecological impacts? In what ways might degrowth

shift how we choose to co-habitate in the near future?

The Slow Food Movement embraces the idea of challenging the assumptions around the pace of modern life. It may provide insights on some aspects of what degrowth could look like at the community level. The ripple effect of using less energy and taking the right amount of time to get things done can impact more than just food. It can extend to national and international levels of fashion, science (rejecting the notion of publish or perish), travel, and even how education is offered.

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[Caroline Hurley \(https://learn.canvas.net/courses/2527/users/894561\)](https://learn.canvas.net/courses/2527/users/894561)

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Jun 4, 2019

1. Lewis and Conaty attribute the diverse profitable business strategies and reinvestment resulting from the municipality of Kristianstad's renewable energy strategies, largely to the community's ownership of the means of production. They celebrate the self-reliance, resilience, ecological health and group initiative that has led to such success.

2. The determination of local representatives, with the cooperation of residents and existing businesses fortuitously capable of expanding green operations, along with the select introduction of new types such as biofuel via wood pellets, gave the 1999 goal to become a fossil-fuel-free region the impetus needed to do it.

Kristianstad decided to introduce district heating and transport using biofuels derived from waste management and wind generation. Investment from a range of government bodies supported the transition. Socio- economic benefits to Kristianstad and surrounding areas were soon something to write home about.

3. Attention was paid to financial planning and large amounts of money yielded from a mix of private investors, local companies and some grant-aid from the Swedish government. What seemed to be persuasive was framing the undertaking as a public good - some mythic psychology at play. Planning for capacity, scale, future demand and other germane variables seems also to have been conducted in an intelligent responsible manner that paid off.

Edited by [Caroline Hurley \(https://learn.canvas.net/courses/2527/users/894561\)](https://learn.canvas.net/courses/2527/users/894561) on Jun 7 at 3:27am

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[Lella Blumer \(https://learn.canvas.net/courses/2527/users/896798\)](https://learn.canvas.net/courses/2527/users/896798)

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Jun 4, 2019

Taking a contrarian approach, I'm selecting an initiative (the Hawaii example) that seems to display the opposite of what this question is looking for, because I think there is a lot to be learned from this example.

- a. The key results or benefits were cost savings - but only for those who were first on the list to have solar panels installed.
- b. This inequitable distribution of cost savings is directly related to the ownership model (on the surface, Hawaiian Electric Co. is a publicly-owned utility, but decision-making is not community-based or collaborative).
- c. The policies and supports needed to make the transition to renewable power seem to have been overlooked, leaving the utility scrambling to redesign its system while individuals compete for a place in line.

I'd suggest that the biggest loss from this scenario is the lost opportunity to engage individuals and communities in a meaningful process: awareness of energy consumption and its impact on resources and the climate, exploration of options to reduce consumption; exploration of alternative and renewable energy sources; discussion of priorities and goals, and planning for transition. In the absence of this kind of process, the focus in this particular example remains on cost savings for those lucky enough to be the first to participate. As the Hawaiian Electric Co. representative says in the first clip, there was no other state they could look to for direction when implementing this plan. An agency such as Common Energy Scotland might have made a difference - although that is an observation made solely on the basis of the information presented; maybe that kind of support exists in the US as well. The point I'm trying to make is that it seems initiatives which begin with a more profound exploration and understanding of the issues are more successful than those that are hastily implemented.

One additional observation: the title of the segment ("Utility vs Homeowners over Solar Power") adds unnecessary controversy to the issue. It's another example of distracting from a focused, informative discussion, and it's disappointing to see, because the media have a significant role to play in providing clear and relevant information; mainstream media have not, for the most part, embraced this responsibility.

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[Julie MacArthur \(https://learn.canvas.net/courses/2527/users/438170\)](https://learn.canvas.net/courses/2527/users/438170)

Jun 5, 2019

Lella,

I completely agree - searching for and understanding the range of cases is absolutely essential, rather than just 'best practices'. Also tokenistic policies are extremely problematic, as they can serve to put people off from reforms for many years to come due to bad experiences with hastily drawn up ones.

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[Benjamin Turner \(https://learn.canvas.net/courses/2527/users/897723\)](https://learn.canvas.net/courses/2527/users/897723)

Jun 4, 2019



Tesla Powerpacks + Solar Powering Kauai



I chose to dive in a bit more to the Kauai Island Utility (KIU) and their use of the Tesla Powerpack and solar energy. This case study is interesting because Kauai consumes almost all its energy, during the day, through solar power but by night it was through fossil fuels. The cooperative, KIU, has an energy goal of 70% renewable energy by 2030. The state as a whole is targeting 100% renewable energy by 2045.

a) Key Results:

KIUC was recognized by the Smart Electric Power Association as top utility in the nation for energy storage watts per customer – topping the next largest by nearly 8 times the storage capacity.

Surpassed its goal of 50 percent renewable energy generation four years ahead of schedule

b) Which of the specific benefits are related to the ownership model and why?

"KIU has always been forward-thinking and progressive, and I think it's because we are member-owned"

I think that quote sums things up pretty well. Since they are a cooperative they are able to make choices from within the company and not have to answer to taxpayers. They are able to be more aggressive and take on bigger risks in their investments. "KIU is not encumbered by a focus on short-term quarterly profits"

c) Identify enabling policies and/or other supports that were important to achieving the results or benefits you identified? Briefly explain the role you think they played.

I think this question is very related to the previous. Due to this not being a government-run entity, KIU can be progressive and bold in their moves. They can take the risks which allow the governing bodies to see whether or not it was successful. KIU is a bit of guinea pig. They are encouraged to do what they do because it allows the government to follow in stride knowing works and what doesn't. So I am sure their numerous policies and supports in place, but what is more important is the lack of hurdles and speedbumps. These kinds of progressive moves can easily be halted through government intervention, but it seems the Hawaiian government is making it easy since they recognize the benefit.

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Rolando Ramirez (<https://learn.canvas.net/courses/2527/users/893132>)

Jun 9, 2019



The case presented around the Scottish communities seems to have generated multilayer benefits and results. In addition to its reach, to renewable energy access to far remote islands and communities, and economic success, it has been able to revitalize the capacities, commitments, and abilities of its members, to be inclusive and strengthen democratic participation.

The collaboration of local government and its citizen is also remarkable. In my view here the establishment of a well organized and active community is fundamental. A community that feels empowered, and that is supported by a solid institutional backing, public and private, has all the ingredients to be able to reach high degree of selfgovernment and selfmanaging. It is a start, in a long road in which system change may be visualize in the horizon.

Some of the specific benefits relate, for example, to the use of the surplus energy being generated. The fact that the decision, on the usage of that surplus, is in the hands of the communities and local authorities, provide an enormous sense of inclusiveness, but also direct benefits by generating financial resources that can be devoted, for example, to new infrastructure that the community may find in need. The fact that people see concrete results and resolutions of some of their developmental challenges, increases their commitment and interest in energy democratization. They have become owners of the model, but not only around energy, but also of the sustainability of the whole developmental model they have chosen.

A key converging support, in my view, was that the communities believed in themselves, that had visionary local governments, and were able to muster the initial financial resources (public/private) that helped plant the initial seeds for local energy ownerships platforms. More than anything this was a political decision, the technical aspects came later. Community resilience, and perseverance, were critical.

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[Barbara Denbeigh Hollingworth](#)

<https://learn.canvas.net/courses/2527/users/901554>

Jun 14, 2019

I thought that this module was exciting and interesting. It demonstrated that cooperative energy production without fossil fuels is possible, the technology exists, and it is happening in many locales. I thought it was a hopeful module. However, after looking over the visual reflections and reading comments from fellow students, which were most insightful, I was led to reflect on the implications of so-called "sustainable" energy. The post from Keilleigh including the periodic table was a dramatic reminder that solar and wind energy, and electronics, include a cost in the precious metals that must be mined and are going to be depleted in the next few decades. She and others also emphasized that degrowth is a must if we are to survive. What some of the videos presented in the body of the module illustrated to me was that we are still focused on "ABUNDANCE." The fact that a community in Scotland found that 2 windmills would power their basic needs, but decided to erect 6, so that they could sell the extra back to the grid and make money to build, in their case, an indoor skateboard park for the youth of the community is admirable, but used 3 times the raw materials needed for the structures, which further depletes precious resources, which will run out that much faster. I agree that we must make degrowth a crucial factor in any alternate workable paradigm.

Secondly, speaking to the fact in Leila's visual reflection of the solar farm near Belmont, Ontario (that I pass on the 401 every time I drive to Montreal or Ottawa) which occupies 450 acres of agricultural land, caused me to reflect that 80% of the world's agricultural land goes to feed livestock, that is then eaten. It takes 16 pounds of grain to produce 1 pound of meat. If one averages out the grains needed to feed cattle, pigs, chickens, and turkeys, the ratio is 7 to 1. Degrowth will have to include a long look at our addiction to flesh eating. We have been aware of these ratios, plus concentrations of pesticides and other toxins as one moves up the food chain, since Lappe wrote DIET FOR A SMALL PLANET in the 1970's. The space taken up for solar farms pales when compared to the land taken up for crops to feed the billions (yes, billions) of animals who live lives of unrelenting misery in factory farms around the world (which farms require large amounts of energy just to run the mechanics.) Degrowth is crucial in order to find a sustainable option for a population of 7.7 billion people, and a meat-based diet is simply "unsustainable." It cannot include feeding the over 1 billion brothers and sisters who are living, not only in poverty, but at starvation levels of nutrition.

Those are some of my reflections. Very insightful module and very insightful reflections, visual and otherwise.

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[Mike Gismondi \(https://learn.canvas.net/courses/2527/users/227458\)](https://learn.canvas.net/courses/2527/users/227458)

Jun 21, 2019

Thanks Barbara. On no more meat see my friend Troy Vettesse who I mentioned somewhere

else earlier..

<http://bostonreview.net/science-nature/troy-vettese-climate-gut-check>
(<http://bostonreview.net/science-nature/troy-vettese-climate-gut-check>)

Im thinking about degrowth and phasing our fossil fuels and we have not discussed what happens to all the many workers , many with good union jobs, and their communities now dependent on the fossil fuel economy.

If we are not hard headed neoliberal transition thinkers, then we need to plan and build pathways of change for the millions of workers and their families who will be affected. We cannot simply say, oh yeah, your fired or layed off from oil and gas, and now go find a job in solar or wind or biomass etc..that we got built for green energy....its not there waiting for you..a just transition has to be planned..and fudned

The jobs will be dissimilar (and need paid training), the sectors pay much less (change in income and living standard for some), and the jobs may not be in your town where people currently work. This is a recipe for resistance and a political backlash against degrowth and transition.

So we will need job pathways and state supports (a transition tax), position guarantees, pension portability, incentives and subsidies, payouts for housing/real estate losses, and more help for community redevelopment for the towns and other places losing jobs, and money to do all this transitioning with.

Something else to think about. I see it here in Aberta as we transition off of coal, that labour can be our friends or can be an obstacle - often their leadership supports us...[The ILO publishes some good ideas on just transition.](https://www.ilo.org/wcmsp5/groups/public/-/ed_dialogue/-/actrav/documents/publication/wcms_647648.pdf) [.of course all this is about workers in the north and their just needs, not indigenious communities, or southern countries...but these discusses and pathways are also needed..](https://www.ilo.org/wcmsp5/groups/public/-/ed_dialogue/-/actrav/documents/publication/wcms_647648.pdf)

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[Caroline Hurley \(https://learn.canvas.net/courses/2527/users/894561\)](https://learn.canvas.net/courses/2527/users/894561)

Jul 12, 2019



Besides shortages of elements to make solar and wind technology, here is a hair-raising story about a [reckless wind farm development](https://www.rte.ie/news/connacht/2019/0708/1060765-derrybrien-wind-farm/) (<https://www.rte.ie/news/connacht/2019/0708/1060765-derrybrien-wind-farm/>) leaving serious damage in its wake and huge EU fines threatened for the lack of an environmental impact assessment.

Happier news is the opening of a factory to [recycle discarded paint](https://dublininquirer.com/2019/07/10/a-new-academy-aims-to-spread-the-circular-economy/) (<https://dublininquirer.com/2019/07/10/a-new-academy-aims-to-spread-the-circular-economy/>)

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[Sandra Wheeler](https://learn.canvas.net/courses/2527/users/903359) (<https://learn.canvas.net/courses/2527/users/903359>)

Jun 16, 2019

Kirklees Energy Services, KES (later YES Energy Solutions) is most impressive for the multiple benefits they produced by reducing carbon emissions from the building, energy, and transportation sectors. By retrofitting existing homes for energy efficiency through energy-efficient heating and insulation, weather proofing doors and windows, installing water heater insulation and water heaters that condense water vapor to conserve more hot water, they were first of all able to raise many households that had been paying more than 10% of income to keep warm from this “fuel poverty” and also to improve the health of many of the more vulnerable members of the community. Doing this also injected more green jobs into the community. Savings from insulation alone was \$16 million a year and 34,304 tons of carbon over their first three years. YES also decentralized the generation of renewable power, installed micro renewables, including air source heat pumps, solar photovoltaic and solar thermal for residences, businesses, and entire communities, providing more green jobs and saving half a tonne per year of carbon from a population of 500,000. Lastly they increased low-carbon transport by providing infrastructure for electric vehicles, encouraged the modal shift of cargo previously shipped by road onto rail or barge by providing connections among the alternatives.

The Kirklees Metropolitan Council originally set up KES as a separate legal entity and non-profit social enterprise, and my understanding is that nonprofits have no owners, but are governed by a board of directors or trustees, in this case probably appointed by the Council. The benefits were, however, related to the operation being local and having an astounding capacity to catalyze and synchronize local resources, leveraging \$4 for every \$1 of public investment; later as YES, 5:1. How they managed that, I'd love to know.

Since it was when the EU regime launched a program to improve energy efficiency through pilot local energy management agencies that Kirklees got onboard, we have to question when or if they would have created KES without this carrot. An additional stick may have been the Home Energy Conservation Act that established obligations for local community energy use; another the targets energy efficiency utilities had to meet. The year YES Energy Solutions launched YES Renewables was also the year the UK government instituted Feed-in Tariffs to pay property owners for renewable electricity they generate as well as to a fee for any electricity they export to the grid. All this indicates that Kirklees was not only aware of its obligations, but primed to take advantage of

policies and supports as soon as they became available. In recognition of their success, YES itself became a provider under the UK Warm Zones program. As such, YES coordinates the delivery of information, advice, grants, and installation services to low income and vulnerable households in Yorkshire, spreading their benefits to a wider area by participating in yet another government program. I'm so jealous.

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[Lazaros Angelou \(https://learn.canvas.net/courses/2527/users/886724\)](https://learn.canvas.net/courses/2527/users/886724)

Jul 3, 2019

Fossil – Fuel – Free Kristianstad

In 1999 the representatives of an amalgamation of a small city and 25 nearby towns and villages gathered to make a decision : to make Kristianstad the first fossil-fuel-free municipality in the Western world.

The municipality planned an investment program of 54,7 million euros concerning : Biogas for transport, new boiler at the CHP plant in Kristianstad, Extension of district heating system, cycling, building infrastructure, and campaigning, biogas for transport (cars, buses, and heavy vehicles), conversion of private houses to renewable energy sources, climate information and mobility management, insulation of private houses, solar heating for private houses, conversion of municipal buildings from electric heating to biofuels etc.

The municipality has converted 44 oil-fed boilers in schools and public buildings to burn pellets. This saves 3.000 tones of carbon yearly. In 1998 municipal buildings relied on fossil fuels for 48% and on biofuels for 27% of their heat. By 2002 those proportions had shifted to 9% and 78% respectively. A grant program gives households an incentive to convert from oil to pellets. Also 40 Gwh of electricity is produced by biogas, sufficient to supply over 4.000 homes.

The municipality is also working to increase the use of biogas as a vehicle fuel, with households, companies and municipal units as the target market. In addition to co-ordinating promotion and education, the municipality has offered a grant up to 50% of the extra cost to purchase biogas -fueled buses. As a result, 35 buses and 250 other municipal vehicles operate on biogas. Additional capacity for producing biogas vehicle fuel was installed in 2006, raising local production to 10.000 litres a day, annual production to 4 million litres, and has reduced carbon emissions by an additional 11.000 tons. A recent assessment report projects that by 2018, 800 buses will be fueled by biogas in the region. Combined district and small -scale heating and biogas for transport yield an annual direct carbon reduction of about 140.000 tons.

Apart from introducing biogas as a fuel, the municipality distributes information about car pooling and sharing and encourages people to take a bus or bicycle to work. Wind power is playing an increasing role, currently producing about 65 Gwh of electricity per year. Solar, although not yet a major strategy, is currently producing 11 Mwh/yr by a pilot installation. Adding up the numbers yields an impressive 1.160 Gwh from renewable sources, enough to supply energy for 116.000 typical 3-bedroom homes, while the total population of the district is only 77.000. Thus, at the household and municipal level a lot of money has been saved by converting from oil to bioenergy or

to district heating or woodchip heating.

In Kristianstad, it is the municipality's ownership of the means of production which has been central to implementing systematic and profitable business strategies and to continuously reinvesting in the interests of citizens. The municipality is making money, reducing carbon, and radically increasing the resilience, the ecological health and the energy self-reliance of the region, following a policy by which :

->It jump-started and sustained investment of time, talent and resources

->It played key planning, co-ordinating, oversight and financing roles ->It Used its ownership of two low-carbon energy corporations very strategically : one focused on waste, the other working to develop renewable energy production. Their ownership enabled Kristianstad both to direct investment and to capture cashflow for continuous reinvestment in the renewable energy strategy

->It leveraged national and local programs and investment resources to create a blend of different kinds of money tailored to specific objectives

->it has built its strategies based on a comprehensive, long-term perspective

->it measures and reports on outcomes for carbon reduction, energy efficiency, energy production and cost savings

->a wide range of partnerships has been created and wielded to extend capacity and broaden participation.

The above policies followed by the municipality are accelerating the energy transition process at Kristianstad, having a positive impact at the whole economy of the district, replacing imported by locally produced products (oil by biogas). The positive impact is not only economic but social and environmental as well.

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[Sandeep Chakravartty](#)

<https://learn.canvas.net/courses/2527/users/48821>

Jul 26, 2019

The Community Energy model is an important one for our area. Most successful in rural or remote locations, this allows our county to uncouple from the national grid.

Given an expectation of social collapse and government ineffectiveness, those areas with their own local grid will survive better, retain ownership over their own energy futures, and develop their own work force for maintenance of these systems.

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[Brendan Reimer \(https://learn.canvas.net/courses/2527/users/903250\)](https://learn.canvas.net/courses/2527/users/903250)

Thursday

Considering the YES model, without restating the contents of the article itself, here are my observations.

Key results and benefits were detailed around GHG reductions, energy efficiency and cost reductions, local economic impact including jobs and revenues, and a reduction in energy poverty.

Specific benefits of the ownership model relate to localness, and the relationship to government. While the local government was instrumental as a catalyst, it chose to create the YES model as a social enterprise rather than lead action as government itself. While leading the action through government might create access to greater and additional levers of power (including financial and policy mechanisms), the choice to lead action through a non-profit creates a different kind of community ownership, community engagement, community accountability, and likely creates a buffer to ensure that profits don't disappear into government's general revenues (as is often the case with crown corporations) and enhances the likelihood that the mandate remains through a change in government. I would add that anywhere I've seen community ownership of models (energy, food, etc), I've also seen an incredible growth in local expertise on the model and the industry, as well as transformative growth in local leadership. This becomes a perpetual motion of change as local actors are empowered with knowledge and leadership, which leads to greater local democratic control and innovative, which creates more knowledge and leadership, which continues the cycle of building local resilience.

The full range of supports were in place, and demonstrate how this supportive ecosystem is required to generate success: policy and government leadership, partnerships and programs, strategy and plans, supportive infrastructure and services, incentives and financial aid, models to leverage a diverse range of investments, etc. As a credit union person, it was good to see local credit unions getting involved with financing as well.

As I reflect on my own province (Manitoba), whenever keys to successful development of renewable energy were highlighted in this segment, it reminded me of all the ways that ecosystem does not exist here. Yes, we are a major producer of hydro-electric energy, which is considered green energy. Yes, we have two wind farms built several years ago, but they are owned by international companies and local farmers only get user fees for land used. In talking to wind farm developers, I understand Manitoba is one of the best wind environments in North America because the wind is steady (not sporadic and gusty) and heavy (yes, cold air is heavier, and we are cold much of the year). But the province has not led the development of non-hydro energy development because there has not been the will, the policy, the targets, and therefore not the dedicated resources and incentives, and no interest in shifting the grid to incorporate new sources of energy.

The province defers all energy conversations to Manitoba Hydro, Manitoba Hydro says their mandate is to produce their own energy and sell it to Manitobans and other purchasers, not to support development of other sources and / or to purchase energy from others.

Perhaps we should be happy that we produce renewable energy already through a publicly (community?) owned model. Perhaps we should be happy that local advocacy work led to the creation of a new government entity focused on energy efficiency <https://www.gov.mb.ca/cs/em.html> [_ \(https://www.gov.mb.ca/cs/em.html\)](https://www.gov.mb.ca/cs/em.html). Perhaps.

Perhaps we should be happy that local social enterprises are creating jobs on First Nations communities through the largest geo-thermal companies in Western Canada:

<http://www.akienergy.com/about-aki-energy> [_ \(http://www.akienergy.com/about-aki-energy\)](http://www.akienergy.com/about-aki-energy)

Perhaps.

Or perhaps we have been provided with so much more opportunity than this, and we are barely scratching the surface of what is possible in this province.

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