

CLIMATE FIRST VERSUS LOW CARBON RESILIENCE (LCR)

By Transition Sooke OCP Climate Action Committee. Info pulled together by Lily Mah-Sen, with thanks to Alan Dolan, Susan Clarke, Susan Belford, Lynn Moss, Chris Moss. May 7, 2021.

What do we mean by Climate First?

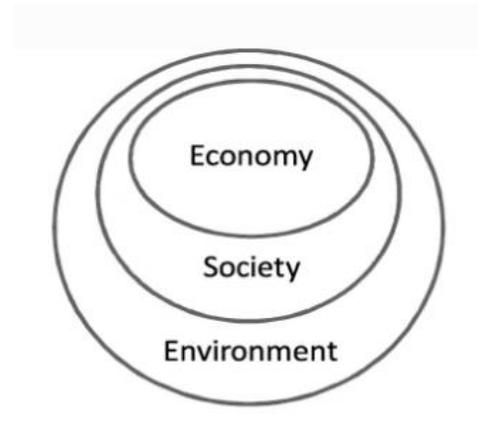
Governments and businesses have been using the concept of “Triple Bottom Line” to address environmental sustainability. They view the 3 sectors of performance- Social (People), Environment (Planet) and Economic (Profit) as overlapping spheres. Sustainability happens when the three sectors intersect.



Triple Bottom Line:

- traditional accounting framework
- Losses in one sector can be “traded” for gains in another.
- Profit will almost always trump the others.

Climate First: You can't have a society or an economy if you don't have an environment. A more accurate illustration is a series of concentric circles with the Environment enclosing the other sectors. Hence, to respond adequately to the Climate Emergency, you must address Climate Change first.



With this in mind, our committee developed a definition for Climate First, which we sent to the Sooke Council and committees on Apr. 12, 2021.

Climate-First: Meeting the GHG reduction target is the first priority in all municipal policy and plans.

Climate-First Operating Principle: Address all matters of civic concern by first locating them within the overall context of the Climate Emergency.

What is the Low Carbon Resilience Approach (LCR)?¹

- First developed by the Adaptation to Climate Change Team (ACT) in the Faculty of Environment at Simon Fraser University

- They noted there are two types of strategies to deal with climate change:
 1. Mitigation strategies to reduce greenhouse gas emissions
 2. Adaptation strategies to reduce vulnerability to the impact of climate change

¹ LCR Tool: A briefing for Mayors and elected officials. Sept. 2020

- LCR strategies integrate both mitigation and adaptation strategies
- This integration achieves co-benefits for health, equity, biodiversity and community liveability
- Referred to as a “win-win” situation—saves money, time, amount of effort to put into place

What are examples of LCR? ²

Roofs and gardens: green roofs, solar panels, solar roofs, rain gardens

Transportation: green fleets (municipal EVs), green public transportation, teleworking, active transportation corridors for walking and bicycling

Alternate power sources: electrical microgrids, energy cogeneration, active solar thermal energy storage

Habitat conservation: naturalized shorelines, wetland rehabilitation.

Let’s work through one example: Installing Solar Roofs in Sooke

Mitigation: Reduces GHG : reduces emissions related to energy consumption; reduces amount of GHG needed to transport non-renewable fuel

Adaptation: increases resilience for homeowners—in case of extreme climate change events such as wildfires, droughts, or floods, solar energy will continue to work (as long as the sun is still shining!)

Co-benefits: Cost savings in the long run
 Investment will pay off when you sell your house
 Creates green jobs
 Improves water security (less water needed for energy generation)
 Less pollution, less waste from fossil fuel consumption

Financing Mechanisms: special financing will be needed from federal, provincial, and/or municipal governments to offset high costs for installation and retrofitting

² *Low Carbon Resilience Interventions: Case Studies at the Building, Neighbourhood, and Community Levels*” by Alison Shaw, Deborah Hartford, and Kacia Tolsma. Oct. 2019

How did Sooke come to adopt LCR as Sooke’s definition of “Climate First”?

The 2020 Climate Action Committee presented its 2020 workplan to the Sooke Council for approval. The plan included the global goal *“climate first approach (be used) in all municipal decision-making and planning processes, including the Official Community Plan”*. The workplan was approved by Sooke Council June 22, 2020.

At a later Council meeting, one of the Councillors questioned the meaning of “Climate First/Green Lens”. Sooke staff were asked to define “Climate First”. They came back with the LCR Approach.

March 22, 2021 Council Meeting: Council accepted the staff’s recommendation to use LCR.

The District of Sooke describes LCR on its website as: *“a green lens that balances the co-benefits of environmental, economic and social determinants and aligns with Sustainable Development Goals.”*

What is problematic about the LCR Approach?

Using the solar roofs in Sooke as an example:

1. It’s a long-term approach—takes time, money, and commitment of people to embrace change. Most people in Sooke can’t afford the cost of going solar. The only financial support for retrofitting is interest-free loans for those on low income. The small rebate offered by BC govt. for purchasing solar panels is not enough to cover the bulk of the costs. How long will it take before adequate funding support is in place? We need immediate solutions if we are to reduce our GHGs by 7% each year!
2. Many LCR approaches rely on new technologies which are very costly—some of these technologies are still in the experimental stage. Solar roofs work best when paired with solar batteries that can store excess solar energy and makes energy available on demand, especially when the electric grid goes down. Tesla’s new Powerwall, which until recently was not available in Canada, sells for \$15,000 C.

3. Building codes and municipal bylaws must be in place, so that designers and builders will ensure that all new builds emit next-to-zero GHGs. Step 5 of the BC Step Code states that all new builds must be solar-ready. The District of Sooke agreed to use the BC Step Code, but they decided to start incrementally with Step 3 for now, reaching Step 5 by 2033. That’s 12 years away!
4. Can LCR really tackle the scale of the problem? The provincial government recently set sectoral targets for reducing GHGs in BC. The targets are to reduce GHGs from the current level in transportation by 27-32%, industry by 38-43, oil and gas by 33-39%, and buildings and in the community by 59-64% by 2030. Will LCR solutions—such as solar panels, roof gardens, more walking trails, municipal EVs be sufficient to help Sooke meet these daunting targets?

Example of LCR in Action in Sooke: Redevelopment of 2197 Otter Point Road (formerly Mulligan’s Bar and Grill)

Two, three-story buildings with 77 housing rentals and commercial space fronting the property were recently approved by Sooke Council. Sooke staff, in recommending the proposal, used the LCR approach. The Council subsequently approved the project.

The staff report said, “When applying a Low Carbon Resilience lens to the proposed development, there are several economic, social, and environmental co-benefits. These include:

- Diversification of the local economy with provision of neighbourhood commercial space.
- Enhance biodiversity, support habitat creation and protect the SPEA (Streamside Protection and Enhancement Area).
- Pedestrian-friendly shopping.
- Walkable neighbourhoods.
- Link open spaces to connect recreational corridors and natural areas with pedestrian paths. . .”³

³ Planning and Development Report to the District of Sooke Regular Council Meeting, April 12, 2021 (RPT-2021-0040)

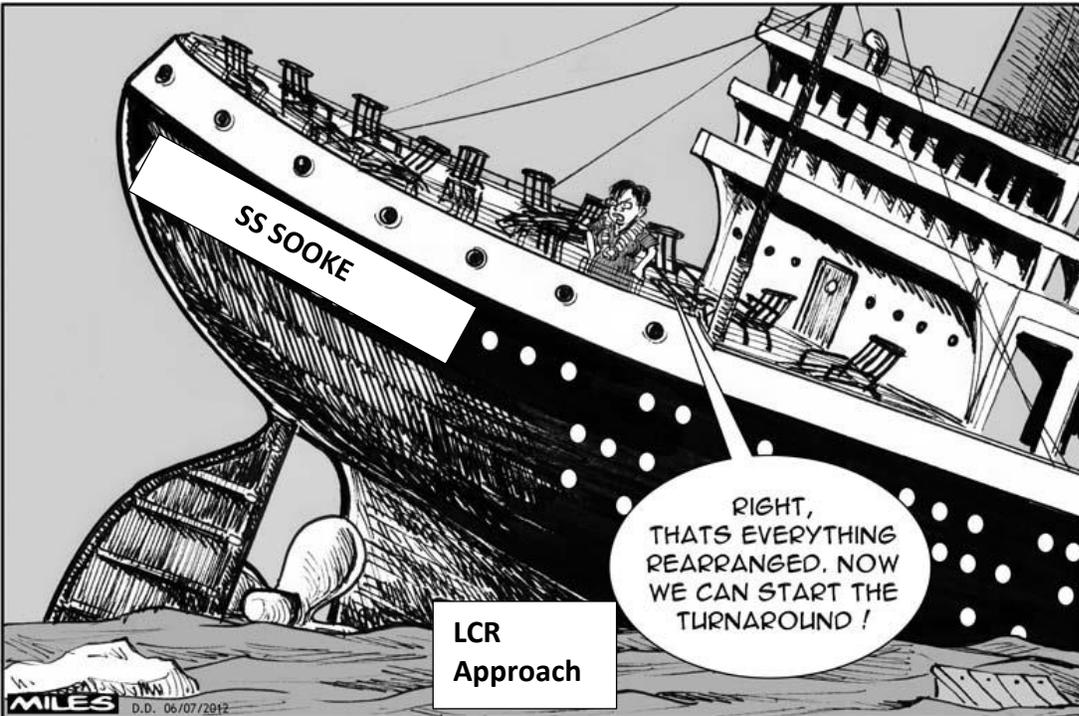
While this report lists benefits the development is providing, it says nothing about what its total GHG emissions will add to Sooke's present GHGs through such things as heating, cooling, embodied carbon in construction materials, transportation, etc. And it says nothing about all the ways that it should be reducing energy consumption and GHG production through passive solar design, active solar installations, EV vehicle charging stations for all residents, heat pump installations, etc.

Shifting the Deck Chairs on the Titanic: an analogy for the LCR approach versus the Climate First Approach

Passengers who survived the sinking of the Titanic noted that the ship was listing to one side as people rushed towards the lifeboats.

So what can be done to prevent another Titanic? Using the LCR approach, we could suggest designing and manufacturing new stronger deck chairs that won't tip and slide around so that the ship remains balanced. The co-benefits would be: diversifying the local economy and creating more jobs by setting up new deck chair manufacturing workshops in England. Fixed deck chairs spaced evenly on the ship's deck will make it much more pleasant and easier for passengers to walk around, thereby increasing their overall health and well-being. Not having deck chairs crowd the space around the lifeboats will make it easier for people to board the lifeboats.

This approach totally ignores the reason why the Titanic sunk: The Titanic's captain was racing the ship through a known ice field because he was trying to establish a time record for crossing the Atlantic. Research reports concluded: *"The Titanic is a passenger ship, not a battleship. No passenger ship is able to withstand a direct collision with an iceberg while travelling at the high speed of 22 knots."*



Conclusion:

We are on the Titanic. The Iceberg of Climate Change is looming ahead. We have less than 10 years to turn the ship around. Now is not the time to be tinkering with the deck chairs.

An LCR approach is useful, but it must be done at a very early stage of a development and it must include a GHG analysis. Sooke's OCP must take a climate first approach. As well, requisite building codes and municipal bylaws to implement the OCP must be in place. The Sooke Council and all of us in Sooke must take the brave steps needed to follow through with concrete actions in response to the climate emergency.

This is what we mean by a Climate-First approach.