

Kanaka Bar Solar Celebration May 22, 2018



10:00 – guest arrivals begin at Basketball Court

11:00 – Introduction of Guests and handout materials

- What is renewable Energy and the Sector – CEBC Executive Director Jae Mather
- What and Why Solar – John Kenney, Urban Systems, Kamloops
- What projects has Kanaka installed here?
 - 50 MW Hydro and Utility Scale Solar, Tom Furst, Innergex (Vancouver)
 - Rooftop Systems, Daniel Mundall, Com Com Services (Lytton)
 - Ground Unit and Pillar Units, Ben Giudici, Riverside Energy Systems, Kamloops
 - Solar Tracker, Chamith SamaraJeeva and Gary Reith, inEnergy, Richmond
- Energy Self-Sufficiency – Janna Janzen, Community Power, Vancouver

12:00 light lunch and networking

- light foods (sandwiches, fruit, meat and cheese, veggie trays)
- networking and handout materials

1:00 – formal welcome and Presentations

- First Nations and Renewable Energy - UVIC Master Student Eryn Fitzgerald, Victoria
- Why is Kanaka doing what it is doing – Chief Patrick Michell
- The Debate is Over, Sherry Yano, David Suzuki Foundation, Vancouver
- Kanaka's 4 self-sufficiency goals & 2018 Summer Plan – Zain Nayani, Kanaka CEO, Kanaka Bar

2:00 – Field Tour & Ribbon Cutting – gifts for those that sign in

BRITISH COLUMBIA'S CLEAN ENERGY SECTORS



WIND



RUN-OF-RIVER



SOLAR



GEOTHERMAL



LARGE HYDRO



BIOMASS



TIDAL



WAVE

5

British Columbians can generate electricity for self or sale!

Sell to BC Hydro or....

1. Net Metering
 - 100/kwh or less
2. Micro SOP
 - 100kwh to 1 MWh
3. Standing Offer Program
 - 1 MWh to 15 MWh
4. Electricity Calls (the big stuff)
 - BC Hydro issues a call and Developers respond with project size, location and type and negotiate a rate.

5. Provide to your-self

Look at your hydro bill:

- How much do you consume daily, monthly or annually?
- Design and install a project that generates enough electricity to supply your home, business, gardens, warehouses and get your bill to net zero.

Battery storage

- for off grid and during power outages
- when the sun does not shine, the wind does not blow or the water stops flowing (leaks, dried up or frozen)

If you generate more than you consume – BC Hydro can purchase the surplus from you – but you need a grid tie in – that requires expertise. Smart meters are a “tie in” already but you still need an electrician.

5

Stages to any Project

Project Life Cycle

1. Feasibility
 - Do you have enough wind, sun, water and land?
 - Do you know how to do a project?
 - Is there room for expansion?
2. Development
 - Permitting & Business Case
3. Construction
 - Financing, Construction Schedule
4. Operations
 - Revenues, paying the loan & operating expenses
5. End of Life
 - Decommission, abandonment or clean up

Project Size Matters

What are you trying to achieve?

- Get “of grid”, reduce operating costs, breakeven point or a profit center?
- Is Bigger “better” then?

Bigger affects project life cycle:

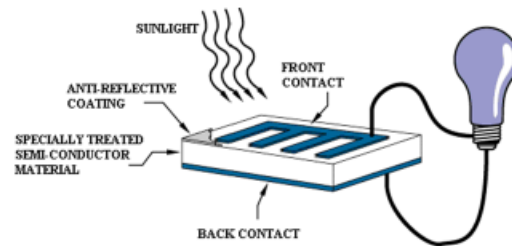
- risks increase along with complexity
- increased consultation (*more people involved*)
- more planning areas and expertise required – particularly on grid tie in.
- longer feasibility and development stages including time to permit

Bigger also affects Cost!

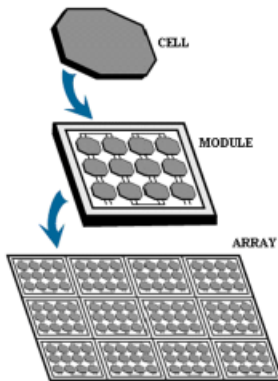
Photovoltaic

Sunlight turned into Electrons

- Light (photons) striking certain compounds causes the surface of the material to emit electrons.
- Light striking other compounds causes the material to accept electrons.
- It is the combination of these two compound acting together that a flow of electrons occurs and the electrons are transported on a conductor (wire) to power – well, just about anything.
- Photovoltaic means sunlight converted into a flow of electrons (electricity).



By adding cells together – we produce more and more electron flow. Kanaka has:



Roof Top: battery storage powering security cameras, computer and internet (off grid).

Ground Unit: powering our Band Office (grid tie in)

Pillar Unit: power Health office (grid tie in)

Solar Tracker: battery storage for lights, powering our Maintenance Shed (grid tie in)

Kanaka has now installed more than 20 kw in total.

For more than 7000 Kanaka has lived!

Nation Lands (*Tmieux*) produces....

- Water (creeks and rivers)
- Air (wind)
- Sun
- Seasons
- Ecosystems (plants, animals, fish)



Community Resources (*Nwhabaten*)

- Food (hunting, fishing, gathering)
- Clothing, Tools, Baskets,
- Art, Language, Culture and laws
- Economy (trade and then sale)



With electricity, Kanaka embraced the "new"

We now power our lives, homes, economy, technology and "our collective future" in a different way.



Home About Us ▾ Climate Change Social & Cultural ▾ Business ▾ Our Relations ▾ Our Library ▾ Newsroom ▾ Contact Us

Climate Change

This section was created in May 2017. Why?

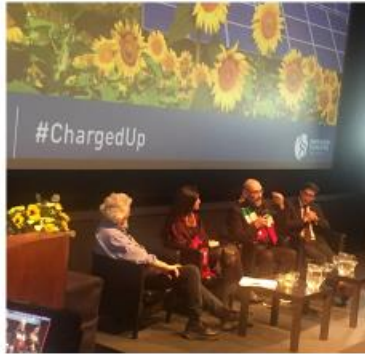
At Kanaka Bar, we have been observing changes around us like temperature ups and downs, precipitation irregularities, increased droughts, higher wildfire threats and loss of wild salmon. What is happening? The answer, we intuitively know, is 'climate change'. We do not know whether it is man-made or natural, but what we do know is what is happening is increasing in intensity, duration and frequency. The worst thing is, it is no longer predictable and this means whatever is starting to occur is simply going to be adverse.

Starting this year, Kanaka Bar will begin tracking observations about our watersheds, sharing them, and what we are doing to adapt.

Kanaka's Website: <http://www.kanakabarband.ca/home>

THE DEBATE IS OVER

Kanaka believes that **climate change** is real and we live in the **age of consequences**



We want to be prepared for the **environment** and **economy** of tomorrow.



HOW WILL WE BE READY? 4 SELF-SUFFICIENCY GOALS

Employment & Community Readiness

- Office
- Field
- Commercial
- Retail

Food

- Meats
- Fruits
- Vegetables
- Beverages

Energy

- New builds
- Renovations
- Demand-side management
- Production

Financial

- Royalty
- Taxation
- Revenue Sharing Agreements
- Business Revenues



Kanaka Bar & Renewable Energy

Red: The Nlaka'pamux

White: explorers, missionaries, settlers, colonial and today's governments and industry.

Black: The history between all

Blue: A new relationship created by Clean Energy for....

Yellow: **A bright future for all of us**



Thank You