

# ENERGYSHIFT PANEL & OPEN HOUSE HIGHLIGHTS

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On Thursday February 2<sup>nd</sup> the City of Surrey hosted a public event to promote and solicit feedback on ENERGYShift and specifically the Community Energy and Emissions Plan. The event consisted of three elements:

- an open house-style reception
- an expert panel, and
- break-out discussions

These three elements ran sequentially, allowing stakeholders and members of the public to examine climate and energy and the Plan in a range of depths and formats. Over 100 people attended this event, including many youth, representatives from government and community organizations, developers, City staff and a council member. This document summarizes the evening and the feedback received from the public.

## EVENT OBJECTIVES

The event was primarily intended to foster awareness and interest in ENERGYShift, with a focus on the Community Energy and Emission Plan (CEEP). Specific objectives of the event were to:

1. Foster awareness & interest on energy and emissions challenges and opportunities for Surrey
2. Foster awareness & interest in the ENERGYShift agenda, with a focus on the Community Energy and Emissions Plan and high level directions being considered
3. Provide an opportunity for the public to inform development of CEEP options

## ATTENDANCE & MAJOR OBSERVATIONS

Attendance at the three elements of the evening varied, with most participants attending at least two elements of the evening. Over a hundred people pre-registered for the event, and 78 signed-in upon arrival. Many more attended the event, especially the panel presentation, but did not register. One hundred thirteen attendees were counted half way through the panel presentations. Approximately 50 participants stayed to discuss issues in small groups, showing high community interest in the issues.

This turn-out was a great success considering past turn-out to comparable events in the community. The attendees were also a very diverse group, with high youth participation, public and community organizations, developers, several City staff and a councillor in attendance. Many attendees were very well informed about the issues and were very supportive of the rationale for action and the strategies for making progress on sustainable energy and climate protection.

Attendees were generally very constructive and solutions oriented rather than pointing out shortfalls of the City, TransLink, other institutions or fellow citizens. There was at the same time some input directed at unique problems in isolated locations that were difficult to generalize across the City. Many comments were oriented at building neighbourhood and community character and spoke to the importance of place-making, priorities which can bring as a co-benefit sustainable energy and emission reductions.

Many individual citizens and stakeholders followed up after the event to say it was particularly good, including participants from the Community Energy Association, Board of Trade, and staff from other municipalities.

## EVENT OVERVIEW

### OPEN HOUSE

The open house portion of the evening was intended to familiarize the public with the Community Energy and Emissions Plan (CEEP) as well as Surrey's other ENERGYShift initiatives and related documents. The public was also given opportunities to prioritize strategies for the final CEEP.

There were eight stations which offered information on the Plan or related City policies. Four stations had an interactive element where participants could provide feedback on the Community Energy and Emissions Plan and suggest improvements to a draft pledge for community members and businesses to reduce energy and emissions.

Surrey's youth leadership group hosted a station at the open house where participants could send themselves a letter to the future to encourage them to act now to reduce energy and emissions. Youth also had tree of change where participants could write the inputs, strengths or opportunities for our low-carbon future as well as their hopes and dreams of the future and what outcomes they envision in our low-carbon community.

#### Open House Stations:

- ✓ Sustainability Charter
- ✓ Surrey's ENERGYShift
- ✓ Community ENERGYShift
- ✓ Community Energy & Emissions Profile
- ✓ Buildings
- ✓ Neighbourhood Energy
- ✓ Transport & Land Use
- ✓ Future Leaders (youth)
- ✓ ENERGYShift Pledge



*The interactive open house was attended by a diverse range of Surrey residents*

## OPEN HOUSE HIGHLIGHTS

### FEEDBACK FROM BUILDINGS STATION

Participants expressed:

- Greatest support for residential and commercial retrofit programs
- Closely followed by support for required higher energy efficiency and renewable energy opportunities for new buildings.
- Comments included need to provide subsidies and incentives for retrofit and energy efficiency programs, support energy buy-back programs, and establish public education and engagement programs.

### FEEDBACK FROM TRANSPORTATION AND LAND USE STATION

Participants expressed:

- Greatest support for extending high speed transit to town centres, and highly supported improving pedestrian and bike opportunities and support low emission vehicles.
- Comments articulated the need to implement an overall cycling plan quickly, focus transit corridors around employment and services, and preference for light rail transit infrastructure.

### FEEDBACK FROM PLEDGE STATION

The ENERGY *Shift* Pledge was supported and some participants shared their individual pledges to reduce energy consumption. Suggestions for pledge promotion include displaying it on bus stops, sky trains stations, and easy to view billboards. Please see the appendix for further Open House Input.

## PANEL

The expert panel was the main event of the evening. The main objective of the panel was to foster awareness & interest on energy and emissions challenges and opportunities for Surrey.

The panel was moderated by Mark Forsythe, host of CBC Radio's popular BC Almanac program. Councilor Hayne welcomed attendees and spoke generally about complementary City priorities, followed by Alex Boston, with HB Lanarc Golder, speaking about development of the Community Energy and Emissions Plan and the rationale for action.

Mark Forsythe then called on the panelists to make their opening statements, which were followed by questions from the audience. Each panelist responded to a final question posed by the moderator: what are the priorities for action in Surrey?



*The Panel discussion was deftly moderated by Mark Forsythe, host of CBC's BC Almanac*

## PANELISTS, THEMES, KEY POINTS & HIGHLIGHTS

*Panel discussion notes, including questions from the floor can be found in the Appendix.*

**Gordon Price**, Director of SFU's City Program, focused on Land Use, Transportation and Urban Design, including:

- The importance of transportation, land use planning & design in the City of Surrey
- What happens in Surrey is of greater significance to the region and province than what happens in an old city like Vancouver. This could be good for Surrey and region. It could be bad.
- The great challenge is making greenfields the greenest they can be, and increasing the emphasis on infill.
- Benefits of efficient, well designed land use plans and transportation systems
- Surrey's challenges and opportunities

**Nimal Rajapakse**, Dean of SFU's Faculty of Applied Sciences and a representative on the City of Surrey's Clean Energy Advisory Network, focused on Energy & Clean Tech Opportunities, including:

- The role of clean technology in reducing energy depend, strengthening sustainable supply, and contributing to climate protection
- Types of clean energy technologies that are most viable for BC and Surrey
- The benefits of clean tech locally and provincially
- Potential strategies for the City and community to pursue opportunities, including the role a city can play in encouraging R&D, job creation, market implementation
- Japan is most energy efficient country in the world – 20 years ago they made that commitment. It is about making commitments.

**Nancy Olewiler**, Director of Powertech Labs, Director of Public Policy at SFU, and TransLink Board of Directors, focused on Buildings, Energy & Transportation, including:

- The imperative for action on sustainable energy and emission management
- The importance of strategic land use and development, and transportation planning in the City of Surrey with a focus on higher performing buildings, local energy supply and transportation considerations
- Surrey's challenges and opportunities, focusing on the City & community, and the City's role/jurisdiction
- Avoided costs from acting early are enormous (ex. Stern Report). 1% cost now to limit 5% costs from impact of climate change later

**Penny Priddy**, former local member of Parliament and the Legislative Assembly and member of the Surrey Board of Trade's Social Policy Committee, focused on Climate & Energy Equity & Social Impacts, including:

- Energy spending vulnerability for residents of Surrey, including mobility, heating, and powering homes
- Importance of energy policy in addressing poverty and inequality and its associated issues in Surrey
- Local, green jobs (retrofits, renewable energy supply)
- Intergenerational equity. Critical to take action now so young people don't bear brunt of Adult action.
- Surrey's challenges and opportunities
- 1/3 of population is under 19 years in Surrey – need for more university spots focused on green jobs so our kids can learn those skills and stay in the community
- During times of `major (policy) change, always need to review how the shift will be affecting vulnerable populations

## SALIENT POINTS RAISED DURING QUESTION & ANSWER PERIOD

- **Top City Priority:** There will never be a solution where the City substitutes one strategy for an entirely new strategy. It needs to be both. The City needs to figure out how to develop, AND do it sustainably.
- **Place for youth to start:** Safe routes to school, biking, transit, carpooling – thinking about how you get to school and changing the attitudes of your peers
- **Place for youth to start:** Start an anti-idling campaign at your school. TransLink's anti-idling campaign has saved hundreds of thousands of dollars that can now be reinvested back in buses (in Surrey!)
- **How to enable sustainable “development:”** Remove barriers – check your bylaws, check your zoning, make sure innovation can happen



*Panelists Penny Priddy, Nimal Rajapakse, Nancy Olewiler, and Gordon Price*

## SMALL GROUP DISCUSSIONS

Following the expert panel, participants were encouraged to join small break-out groups to dive deeper on five themes from the evening. Approximately 50 participants joined the small group presentations and discussion, offering ideas and feedback to help Surrey reduce its energy and emissions in the future.

The primary objective of the small group sessions was to provide an opportunity for the public to inform development of options that should be considered in developing the CEEP.

Two sessions involved a presentation followed by a question, answer and comment period: Community Energy and Emission Plan and District Energy in Surrey. Three other topics were covered by small group discussions: Green Buildings and Energy, Transportation and Land Use, and Green Vehicles. Each small group had a facilitator and at least one staff resource person. Sessions were opened with a short contextual presentation and a very short questions and answer period to clarify what is expected to be in the Plan.

The primary question for discussion in the small groups was: *What options should be considered in developing the Plan?* Specifically, the participants were to focus on solutions, strategies & actions, policies & plans, technologies, and intensities of effort. Participants were encouraged to think about options and opportunities with a “future for our youth” frame, e.g. what do we want to see in 2020 to 2030.

## SMALL GROUP DISCUSSION HIGHLIGHTS

### SUSTAINABLE BUILDINGS AND ENERGY OPPORTUNITIES

1. RAIN WATER CAPTURE/USE
  - a. Rain barrels on new construction- mandate bylaw
2. INCENTIVES FOR NET ZERO AND NEW HOMES
  - b. Tax breaks & cash incentives
  - c. Use in schools
  - d. Condition of rezoning
  - e. Encourage more efficient products
  - f. Loans- low interest
  - g. Remove barriers – most of which are inadvertent – to innovation
3. EDUCATION AND PROMOTION
  - a. Metering- individual units in rentals, water/sewer, kill-a-watts,
  - b. Visualization
  - c. Case study of Passivehaus
  - d. Monitor, and reward exceptional homes
4. LOBBY FOR ADDITIONAL AUTHORITY ON GREEN BUILDINGS
  - a. Focus on efficiency- mandatory Passivehaus
  - b. Rainwater
5. RETROFITS
  - a. Hydronic retrofits
  - b. Incentives

### SUSTAINABLE TRANSPORTATION AND LAND USE OPPORTUNITIES

1. COMPLETE LIVABLE COMMUNITIES
  - a. Build unique, identifiable community centres with character and heart. Use these areas as anchors, increase density and add affordable housing
  - b. Include community amenities: community halls, small parks, community gardens
2. CONNECTIONS FOR CYCLING AND WALKING
  - a. Consistent
  - b. Establish linear multiuse parkways for walking, jogging, skate board, scooter, and biking
  - c. Provide secure bicycle parking lockers at all major centres.
3. TRANSIT
  - a. Development and streets and policies to encourage/enable transit use
  - b. Less focus on moving traffic. More emphasis on moving people; Hierarchy of uses- pedestrian→ cycling→ bus→ trucks→ cars
4. SAFETY FOR ALTERNATIVE MODES
  - a. Increase sidewalk, trail, lighting, and pedestrian crossing infrastructure.
  - b. Designate separated bike lanes on streets without traffic.
  - c. Add traffic calming in residential areas
5. STREET LIVELY INFILL DEVELOPMENT
  - a. Mandate reduced surface lots and place new parking under stores.

## GREEN CAR OPPORTUNITIES

1. GREEN TRANSPORTATION INFRASTRUCTURE
  - Make locations of alternative fuels more accessible, i.e. more locations across the city and better information on where they are and what fuels they supply
  - Partner with a leading electricity infrastructure company and/or car manufacturer to pilot on-road electric car charging infrastructure
  - Secure parking is needed for electric bicycles and scooters.
  - Convenient, secure, and aesthetically attractive electric vehicle charging infrastructure is needed
2. CARPOOLING & RIDESHARING
  - There is huge untapped potential for carpooling & ridesharing in Surrey. A new carpooling co-op based in Surrey is forming that will offer a range of services catered to car owners, people who need rides, and cyclists. (Transportopia Co-op)
3. BARRIERS TO GREEN DRIVING NEED TO BE ASSESSED IN SURREY
  - Surrey is unique from Vancouver. It has its own travel patterns and unique demographics. The City should undertake an effort to assess the barriers and opportunities for advancing green cars and carpooling in the City.
4. PROMOTE GREEN TRANSPORTATION COMMERCIAL SERVICES
  - Delivery services for groceries, other goods using electric vehicles.
  - Free/inexpensive ride home from grocery store if you walk or transit (to assist with the challenge of carrying groceries).
5. BUILDING CODES
  - Mandate all new large residential and commercial developments and retrofits to install charging infrastructure for 40% of parking stalls
  - Use building policy tools to make/incentivize new condo developments to be electric vehicle ready
6. PROMOTE AND CONSIDER ADDITIONAL GREEN FUELS AND TECHNOLOGIES
  - The City should promote a broader list of alternative fuels. Propane is currently not on the City's list and should be.
  - Retrofitting conventional vehicles to be electric vehicles is a less expensive option than purchasing a new electric vehicle. The city should promote businesses that provide these services.

## COMMUNITY ENERGY AND EMISSIONS PLAN PRESENTATION, Q&A

Feedback received during the Community Energy and Emissions Plan session included:

- **Bike Routes:** Consider routes off large arterials, potentially traffic calmed and greenways; separated lanes in busy higher density areas. (Many routes today on very busy streets.
- **Road, Street & Greenway Diversity:** Need to move beyond regimented x density and y land use mix thus z road width... increase density, add a lane... further increase density add a bike route...

- What about greenways? What about traffic-calmed streets? What pedestrian-oriented high streets that don't have cars?
- *District Energy Incentives:* If the premium upfront costs for developers going hydronic is only a couple of %, some minor incentives could easily change developers' minds.
- *Active transport experience:* Concerted efforts should be made to improve experience for people walking, cycling --- avoiding lots of traffic and cars; beautiful tree-lined streets or greenways without any traffic except maybe local.

**DISTRICT ENERGY PRESENTATION, Q&A**

Feedback received during the District Energy (DE) session included:

- There are concerns related to energy efficiency gained versus costs to the developer and consumer.
- It is important for City to communicate that the neighbourhood being considered for DE consists of high-rise, mixed-use buildings where energy efficiency is difficult to realize through more traditional upgrades such as glazing.
- There is a need for the City to communicate and educate citizens and the development community alike, regarding the cost savings and self-financing mechanisms for DE.



*Small Group Discussions provided an opportunity for more in-depth exploration of options that should be considered in the Plan.*



## KEY FOLLOW UPS

- *Enver Creek School Pedestrian Shed:* Bright young student in CEEP small group wanted a school ped shed developed.
  - HBLG to touch base with City to see this has been developed and if not, find out how easy it would be for Aaron to develop (no project cost)
- *Surrey Board of Trade Presentation:* Environment Cttee requested a presentation

## PRELIMINARY EVENT LESSONS

A number of attendees and representatives followed up after the event to say it was v good – CEA, BCSEA, staffer at another city. Observations based on preliminary reflection

### *Positives*

- Apparently effective advertising/word-of-mouth/invitations as attendance was good
- Interesting and diverse ideas were shared as a part of discussion groups!
- Lots of Surrey staff in attendance
- Student participation was a really great addition and commented on throughout the event
- Great organisation and coordination by M Baynham and M. Shaw in general
- By and large most people were amused by the sticky dots and a fair number used them or added comments – I think this interaction with the boards encouraged more reading
- Although a lot to cover in one evening, the amount of time for each element (discussions, presentations, open house) was nicely balanced

### *How to make it better*

- The atrium was an acoustically challenging space to work in
- In some ways it was good to have the event in the middle of suburban hood, but it likely would've been even better attended if it was more transit accessible
- Some attendees were interested in further involvement – a predetermined mechanism could have been developed for allowing future input from specialists (e.g. building energy specialists)
- The sticky dot distribution system could be improved. It may be better to give these out at the front during registration, otherwise you need to interrupt people that are trying to read the boards
- During open house there was a 25 min “peak traffic” period where more staff would`ve helped
- Discussion groups may have been better organized around round tables
- It would have been good to have contingency for popular discussion topics so they could be split. This was particularly true for green cars for which there was higher than anticipated interest.



Prepared by:  
HB Lanarc - Golder Associates

## APPENDIX: INPUT TRANSCRIPTS

### OPEN HOUSE INPUT

#### GREEN BUILDINGS AND ENERGY

Potential Reduction Strategies	E&E Impact	Support	Comments
Residential & Commercial Retrofit Program - Explore opportunities to promote or supplement utility and government programs with education, cost-effective financing	*****	15	Subsidies
New Buildings: Incentives & Education - Encourage higher performance through training, density bonus, permit fee rebate, fast tracking, or a building checklist	**	6	Solar energy buy back. Liaise with BC Hydro to have residential and civic buildings have extra solar panels and sell back extra power; free power for utility.
New Buildings: Require Higher Efficiency - Seek opportunities to regulate higher performance	*****	10	EV charging infrastructure, i.e. 40A circuit required in garage.
Renewable Energy Education & Financing - Explore opportunities to promote or supplement existing programs for renewable heat (e.g. solar hot water) with education incentives	*	5	Net zero buildings like Harmony House. Combine a few of these categories.
New Buildings: Require Renewable Energy - Explore long-term opportunities to require some heat from on-site renewables (solar hot water or geo-exchange)	***	11	Passive solar gain with additional windows.
Your Ideas Require developers to include energy-efficiency and green aspects to their buildings. Public education and engagement.			

#### TRANSPORTATION AND LAND USE

Potential Reduction Strategies	E&E Impact	Support	Comments
Extending high speed transit to town centres on segregated rights of way - Light Rail - Bus-rapid-transit	*****	30	<i>Prefer light rail rather than BRT. Work with high schools in planning.</i>
Focusing growth in transit corridors and town centres - Increasing residential development along from City Centre to Newton and City Centre to Guilford - Encourage employment in transit accessible areas	*****	16	<i>Need residential, employment and services, e.g. schools and daycare along transit corridors. Provide reduced parking.</i>
Priorizing development in existing urban areas - Use market and regulations to shift focus to infill development	*****	8	
Improving pedestrian and bike opportunities - Bike and pedestrian routes, paths and infrastructure - Separated bike lanes in town centres - Encourage neighbourhood grocery stores	***	22	<i>Secure bike parking. Increase speed of implementing cycling/grows plan.</i>

Supporting low emission vehicles - Preferential parking and charging facilities in residential and commercial developments - Green fleet policies and programs for businesses	**	21	
Your Ideas <i>Let people know in advance what steps the City is taking. Well in advance.</i>			

## PLEDGE TO REDUCE ENERGY AND EMISSIONS

The ENERGY Shift Pledge was supported and some participants shared their individual pledges to reduce energy consumption. Suggestions for pledge promotion include displaying it on bus stops, sky trains stations, and easy to view billboards.

<p><b>Implementation Ideas:</b></p> <p><b>Launch:</b></p> <ul style="list-style-type: none"> <li>• A ceremonial signing of the Pledge by high profile organizations</li> <li>• Promptly followed with signatory commitments from a number of other credible institutions, prominent individual businesses, and high profile individuals</li> </ul> <p><b>Promotion:</b></p> <ul style="list-style-type: none"> <li>• Make pledges available to citizens in businesses, rec centres, City Hall</li> <li>• Newspaper publication of all signatories – not just high profile institutions and individuals – but enough people to fill an entire page or centre spread of local newspapers</li> </ul> <p><b>Website:</b></p> <ul style="list-style-type: none"> <li>• The Pledge could become the online hub for climate and energy action for Surrey, providing resources and support</li> </ul>	<p><b>What are your ideas?</b></p> <ul style="list-style-type: none"> <li>- Grocery shop and cook for environmentally friendly (less meat, more local veg). C. Bath</li> <li>- Display it on bus stops, skytrain stations billboards, easy view areas</li> <li>- It's good that the City of Surrey [staff] care about our environment. Looking for a better future, Oscar.</li> </ul>
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## PARKING LOT OF IDEAS FROM OPEN HOUSE

- Coordinate transit with all South of Fraser municipalities
- More direct bus routes to centres
- Split TransLink into 2 sub-regions, North of Fraser and South of Fraser. Different staff
- City led retrofit program. Make it easy for all people
- More bike parking!
- Bike sharing
- Hurry up on the bike plan - Low hanging fruit
- City take lead on establishing bike routes through ag. land
- Building shoulder for bikes on these roads. Don't wait
- 184 and 192 too narrow for bikes, but agricultural land
- King George in front of shop
- Bike lane maintenance
- Small things make a big difference

## PANEL NOTES

### Opening Statements

#### ***Gordon Price***

- Land use and transportation tie
- Make greenfields greener, and intensify intensification.
- So far, Surrey is beginning to pioneer good greenfield, such as East Clayton
- "Its intimidating, almost impossible, but set the groundwork now and change will happen faster later", from 2020-2050

#### ***Nancy Olewiler***

- Why should a municipality take these steps? Especially when the federals aren't doing anything...
- As an economist, "I like to do things cheaply"
  - o Avoided costs from acting early are enormous (ex. Stern Report). 1% cost now to limit 5% costs from impact of climate change later
- Prices rising for energy → how do you insulate yourself?
  - o "NOT by demanding they get lower" but by becoming more efficient
  - o Need to provide people with options

#### ***Nimal Rajapakse***

- Great to see so many youth out – we have to take action in the interests of next generation
- The issue is that energy has been cheap for so long, but that will change and ec dev opportunity is huge
  - o Clean tech sector in Germany is bigger than the auto sector
  - o Japan is most energy efficient country in the world – 20 years ago they made that commitment
- Many options to invest in – solar, wind, biofuels, tidal, etc
  - o For Surrey, bio-fuels is an area we can lead on, given our agricultural and industrial land area
- R&D → another area that Surrey can lead
  - o Lots of young people in Surrey today: in 6 years, 1 in 3 high school graduates will come from Surrey
  - o Surrey has been a leader so far with clean tech research and innovation

#### ***Penny Priddy***

- 1/3 of population is under 19 years in Surrey – need for more university spots focused on green jobs so our kids can learn those skills and stay in the community
  - o "So glad you're here for my grandkids!"
- During times of major policy change, always need to review how the shift will be affecting vulnerable populations
  - o 13.8% of pop in Surrey are below low income cutoff
- Housing + energy spending vulnerability:
  - o If you are spending over 10% of HH income on energy you are considered vulnerable
  - o Older homes are usually the more affordable for lower income people, but they are also less efficient; therefore low income people are generally spending more absolute dollars on energy, as well as proportionally more income
  - o Retrofit programs are designed for people with extra income – how can we finance it so there aren't up-front costs?
- Green Jobs opportunities in retrofits and clean tech – again, need for university spaces and training programs

- Low income “face” → people can have kids taken from them if they can’t keep the heat on – “this is energy inequality at its greatest”

### Questions from the Floor

- City is paving over farmland – how can the City say that it aligns its values of sustainability when there is so much development?
  - o **Gord:** There will never be a solution where the City substitutes one strategy for an entirely new strategy. It needs to be both. The City needs to figure out how to develop, AND do it sustainably.
- Propane – why isn’t the City using propane or recognizing it as an alternative fuel? CNG, Hydrogen etc are not accessible to the average citizen
  - o **Nimal:** perhaps it’s an issue with the supply chain? How is it extracted?
- Can we consider nuclear for the future?
  - o **Nancy:** Provincial policy is that there will be no nuclear development
- How can we accelerate change to avoid the consequences? What are health implications?
  - o **Gord?:** Must be concrete government programs in place to support and encourage the actions we’d like to see
  - o **Nancy:** Its already too late – there will be consequences, so all we can do is invest wisely. For example, no buildings in agricultural lands where flooding will happen, or where we need our natural landscapes to filter and clean our air
  - o **Gord:** The challenge is you can’t put the apocalypse into plans
- Online shipping could decrease vehicle emissions – what can a municipality do to encourage businesses to offer online shopping?
  - o **Penny:** Many businesses already offer this. You also have to think of where things come from though – online shopping may reduce VKT for the shopper, but if the store is far, it will increase the carbon footprint of the item being shipped. Also, need to consider loss of jobs.
- As Youth, where do we start?
  - o **Gord:** Safe routes to school, biking, transit, carpooling – thinking about how you get to school and changing the attitudes of your peers
  - o **Nancy:** Start an anti-idling campaign at your school. TransLink’s anti-idling campaign has saved hundreds of thousands of dollars that can now be reinvested back in buses (in Surrey!)
- Should schools be the first to take on EnergyShift and how?
  - o **Nimal:** Yes, there is an important role for students through volunteer opportunities, curriculum, telling your parents
- Carpooling – huge opportunity here. Do you think a program where people wear badges and wait at designated spots to get picked up could work?
  - o **Gord:** This is more of a sociological question than anything, and will people be trusting enough to get in a car with a stranger. As it is described here... probably not. But with advance of technology there could be opportunities for making better use of all the empty seats.

## **Final Question – what are the priorities for Surrey?**

### ***Gord:***

- Better, faster, bolder

### ***Nimal:***

- Tech such as District Energy and Geothermal
- Engage youth

### ***Nancy:***

- Remove barriers – check your bylaws, check your zoning, make sure innovation can happen

### ***Penny:***

- Empower the youth
- Don't leave anybody behind

## SMALL GROUP DISCUSSIONS

### SUSTAINABLE BUILDINGS AND ENERGY OPPORTUNITIES

1. RAIN WATER CAPTURE/USE
    - i. Rain barrels on new construction- mandate bylaw
  2. INCENTIVES FOR NET ZERO AND NEW HOMES
    - i. Tax breaks
    - ii. Use in schools
    - iii. Condition of rezoning
    - iv. Encourage more efficient products
    - v. Cash incentives
    - vi. Loans- low interest
  3. EDUCATION AND PROMOTION
    - i. Metering- individual units in rentals, water/sewer, kill-a-watts,
    - ii. Visualization
    - iii. Case study of Passivehaus
    - iv. Monitor, re?, and reward exceptional homes
  4. LOBBY FOR ADDITIONAL AUTHORITY ON GREEN BUILDINGS
    - i. Focus on efficiency- mandatory Passivehaus
    - ii. Rainwater
  5. RETROFITS
    - i. Hydronic retrofits
    - ii. Incentives
- Install micro generators below slopes throughout city on city waste or rain water pipes
  - Change all Surrey school portables to have solar water heating
  - Surrey city show leadership with new City Hall

#### ADDITIONAL NOTES

- Visualization of energy use
- Heating system conversion: Electric baseboard and gas forced air to hydronic radiant system

- Municipalities should encourage more efficient products such as higher efficient doors and windows (higher R ratings)
- Encourage City of Surrey to lobby provincial government to change building codes.
  - o Legislate super efficient building envelope
  - o Incentives for renewable energy
- Provide incentives for individual homeowners for new energy efficient construction.
- Offer incentives to green builders to make it more affordable.
- Retrofit incentives for building envelope, windows, and new technology.
- Net Zero Smart Home incentives from City of Surrey, e.g. lower taxes
- Conserve water by rain water storage for garden, toilets, washing, etc.
- Include rain barrels on all new construction as a source of water for things like flushing the toilet.
- Other municipalities offer density bonus or other preferential treatment to developers who demonstrate they will include green or efficiency measures in their projects. What does Surrey do? Even if the City can't mandate it, perhaps they could require it as part of rezoning.
- Public education: It's easy for people to say "It does not make a big difference on my energy bills". How can Surrey promote and educate and provide examples?
- Recognize appropriate design- the City should promote and give credit to proposed development which follow climate appropriate design, not just adding solar panels.
- Passivehaus case study for Surrey.
- Energy metering, visualization of energy use, home building energy management system.

## SUSTAINABLE TRANSPORTATION AND LAND USE OPPORTUNITIES

### 6. COMPLETE LIVABLE COMMUNITIES

- c. Build unique, identifiable community centres with character and heart. Use these areas as an anchor, increase density and add affordable housing
- d. Include community amenities: community halls, small parks, community gardens

### 7. CONNECTIONS FOR CYCLING AND WALKING

- d. Consistent
- e. Establish linear multiuse parkways for walking, jogging, skate board, scooter, and biking
- f. Provide secure bicycle parking lockers at all major centres.

### 8. TRANSIT

- c. Development and streets and policies to encourage/enable transit use
- d. Less focus on moving traffic; Hierarchy of uses- pedestrian→ cycling→ bus→ trucks→ cars

### 9. SAFETY FOR ALTERNATIVE MODES

- d. Increase sidewalk, trail, lighting, and pedestrian crossing infrastructure.
- e. Designate separated bike lanes on streets without traffic.
- f. Add traffic calming in residential areas

### 10. STREET LIVELY INFILL DEVELOPMENT

- b. Mandate reduced surface lots and place new parking under stores.

## SPECIFIC IDEAS

- Bike corrals on 64<sup>th</sup> Ave NS 122<sup>nd</sup> (approx.)
- No pedestrian control major traffic
- Green actions teams based in neighbourhoods
- Linear parkways need in major shopping city centres- i.e. walking, jogging, skate board, scooter, biking friendly areas and routes. Secure bicycle parking lockers at all major centres.
- Shuttle buses to most lines



- Linear parks have safe areas along the way- chess set, picnic area, sidewalk café, play park for kids, off leash dog park, water feature, play area, well treed.
- Safe bike lanes that take you somewhere.
- Designate separated bike lanes now on streets without traffic, University Blvd.
- Connect grid of cycle pathways/streets ideally every two blocks
- Schools to be bike lane hubs with wider lanes as you approach the school
- Mandate reduced surface lots; place new parking under stores i.e. Save on Foods in Newton, Superstore on 104<sup>th</sup>
- Less focus on moving traffic; Hierarchy- pedestrian→ cycling→ bus→ trucks→ cars
- Implement Newton town shift
- Traffic calming in residential areas
- 30 km/h speed zones i.e. 137<sup>th</sup> in Newton
- 30 km/h bike boulevards
- More public streets, less private town house streets
- Better cycling and pedestrians
- More parks/person could be smaller but more frequent
- No single rise commercial, put multistory residential
- People gathering places create community, not human warehousing
- Identifiable community centres
- New developments need to be new communities: community halls, small parks, Garden City type development
- Neighbourhood parks
- Target one existing urban area (Newton) to infill and increase density. Improved quality with affordable housing.
- Infill along major roads- currently long stretches of nothing.
- Community gardens
- Crosswalks at schools
- Bike lanes should compliment sidewalks, not replace them
- Better lighting (pedestrians at night)
- Use existing infrastructure first, hydrolines, rail corridor, old town centres to anchor communities.

#### ADDITIONAL NOTES

- People want to live in new communities, being developed on the edge
- There needs to be a reason to choose living in an existing town centre
  - o Attractive community with:
    - Significant parks
    - Gathering places
    - Antithesis is Wal-Mart/ Superstore
    - Significant development without services (no transport options)
    - Morgan Crossing (heading in the right direction; dog park too small) vs. Grandview Corners (tilt up sprawl)
- Pedestrian friendly
- Services within the neighbourhoods; identifiable centres/public spaces
- Bike corrals across city - make safer and more secure
- Garden City
  - o Parks, bike paths, community halls, schools
- Infill in existing areas as a way to upgrade
- "Street-friendly" retail environments, not strip malls
- Infill along major streets- housing facing streets
  - o Lighting/ more cross walks
- Linear green pathways through developments
  - o Safe, connected.
  - o E.g. Ocean Park, Crescent Beach, local character

- Mixed use→ right direction
- Large commercial areas and no sense of community→ soul less
- Amalgamate bike lanes; continuous, link destinations
  - o E.g. 152 is not friendly for cycling
- Traffic calming to streets
  - o E.g. 26<sup>th</sup>
- Transit into areas with higher densities
  - o E.g. community shuttles
- Community gardens as “neighbourhood heart”
- More public streets as opposed to town home complexes with private streets
- Newton Town Centre Plan
  - o Local street connections
- Mandate reduced parking lots- under buildings
- Bike lanes on low traffic streets
  - o E.g. 138, University Blvd.
- Connected grid of bicycle routes; every two blocks etc.
- Traffic speed calming
  - o Pedestrian→ bus → cycle → trucks → cars

## GREEN DRIVING OPPORTUNITIES

### 1. GREEN TRANSPORTATION INFRASTRUCTURE

- Make locations of alternative fuels more accessible, i.e. more locations across the city and better information on where they are and what fuels they supply
- Partner with a leading electricity infrastructure company and/or car manufacturer to pilot on-road electric car charging infrastructure
- Secure parking is needed for electric bicycles and scooters.
- Convenient, secure, and aesthetically attractive electric vehicle charging infrastructure is needed

### 2. CARPOOLING

- There is huge untapped potential for carpooling in Surrey. A new carpooling co-op based in Surrey is forming that will offer a range of services catered to car owners, people who need rides, and cyclists. (Transportopia Co-op)

### 3. BARRIERS TO GREEN DRIVING NEED TO BE ASSESSED IN SURREY

- Surrey is unique from Vancouver. It has its own travel patterns and unique demographics. The City should undertake an effort to assess the barriers and opportunities for advancing green cars and carpooling in the City.

### 4. PROMOTE GREEN TRANSPORTATION COMMERCIAL SERVICES

- Delivery services for groceries, other goods using electric vehicles.
- Free/inexpensive ride home from grocery store if you walk or transit (to assist with the challenge of carrying groceries).

### 5. BUILDING CODES

- Mandate all new large residential and commercial developments and retrofits to install charging infrastructure for 40% of parking stalls
- Use building policy tools to make/incentivize new condo developments to be electric vehicle ready

6. PROMOTE AND CONSIDER ADDITIONAL GREEN FUELS AND TECHNOLOGIES
  - The City should promote a broader list of alternative fuels. Propane is currently not on the City's list and should be.
  - Retrofitting conventional vehicles to be electric vehicles is a less expensive option than purchasing a new electric vehicle. The city should promote businesses that provide these services.

## DISTRICT ENERGY DISCUSSION NOTES

### OPPORTUNITIES

- District Energy (DE) is a supply-side application that advances in energy efficiency and reduce demand from individual customers. As the customer base improves its energy efficiency the DE utility can serve more customers with less overall capacity.
- Greater education among the development community is needed regarding consumer cost savings related to DE. I.e., customers will avoid costs for natural gas boilers and other individual energy infrastructure.
- City of Surrey must communicate to the public the DE utility is a self financed enterprise (i.e. it is not being funded by general tax revenue).

### CHALLENGES

- The areas in Surrey where DE is being considered are areas of high density/ land-use mix. The most likely customers are high-rise, mixed-use buildings where energy efficiency improvements are harder to achieve in this building type, particularly when 60%+ glazing is the norm.
- The same amount of conservation/emissions reduction achieved through DE may be achieved through building efficiency, which might be easier and more cost effective.
- The cost premium for hydronic heating over electric baseboards is highly inflated.

## COMMUNITY ENERGY AND EMISSIONS PLAN DISCUSSION NOTES

- **Bike Routes:** Consider bike routes off of large streets, potentially traffic calmed streets and in some cases greenways; separated bike lanes in busy higher density/mixed use areas. (Many bike routes are on very busy streets.)
- **Road, Street & Greenway Diversity:** Surrey needs to move beyond its regimented x density and y land use mix therefore z road width... increase density, add a lane... further increase density add a bike route...
  - What about greenways? What about traffic-calmed streets? What pedestrian-oriented high streets that don't have cars? Need flexibility and diversity.
- **District Energy Incentives:** If the premium upfront costs for developers for going hydronic is only a couple of %, some minor incentives could easily change developers' minds.
- **Active Transportation Experience:** Concerted efforts should be made to improve the experience for people walking and cycling --- avoiding lots of traffic and cars; beautiful tree-lined streets or greenways without any traffic except maybe local.