

The City of Surrey asked local youth to imagine their community in 2040. We asked: what changes will have taken place to make Surrey a low-carbon and sustainable place to live, work, and play?

Taking Action on Surrey's Energy Future

ENERGY Shift

YOUTH FORUM





Here is what we heard:

Buildings of the Future

Building design criteria ensure widespread use of LED lighting, motion sensors for lights and escalators, increased insulation in all buildings, and South-facing windows to maximize natural light. Homes do not have dryers, but are furnished with equipment for hang-drying. A bylaw restricts the use of lighting in commercial and institutional spaces during the night or when not in use. All new buildings must meet a building code requirement for a percentage of green space, which may be met through green roofs, living walls, or landscaping.

Renewable energy sources are required within the building code, and there is widespread use of solar heating, photovoltaic panels, wind power, and geothermal in homes and buildings. Old homes as well as new are hooked up to district energy systems, and government grants support the uptake of new technologies. All potential energy is captured; recreation centres acquire energy from their stationary bikes and other equipment, while the energy from water flowing through pipes is harnessed with miniature turbines. Energy limits per household are established, and each person is given an energy budget, which is credited through a smart card when entering buildings or using a car.

Homes are modular, allowing for flexibility and easy rearranging over the course of its use. The foundations of new buildings are strong enough to support future growth; for instance, a 4 story building may later be built to 8 stories.

Getting Around Town

An expanded public transit system includes light rail, increased bus routes and more frequent service. The City experiments with car-free areas and free access to public transit. Bike lanes are added to side streets, and separated by a curb on busy roads. The width of bike lanes increases to promote comfort and safety. Better biking facilities include safer bike racks, more bike lockers, and bike rental options. Sidewalks across the City are expanded and made more accessible.

Alternative fuels such as hydrogen, plant-based fuels, algae, bio-fuel and electricity are used for transit, personal vehicles, and all City fleet vehicles. Electricity stations throughout the city replace gas stations, and high taxes on car ownership helps to subsidize the transit system. Fines for idling are reinforced, and reserved parking is established for alternative vehicles. Car use is allowed only on alternating days, and prizes are awarded to those who choose to drive less.

Garbage-Be-Gone

The City of Surrey has drastically cut down on waste, with a paperless school environment, a ban on the use of plastics for all non-essential items, and the elimination of newspapers and flyers. Reusable cups and dining ware is supported with water filling stations around the city, and fountain-drink style vending machines.

Waste limits per household are enforced, and garbage pickup is paid for on a per-bag basis as opposed to through property taxes. Community and school composts, as well as a city-wide composting collection system divert organics from the landfill. Recycling is greatly expanded to include all numbers, as well as glass, metals and electronics.

Water Wise

A district-wide rainwater collection system provides water for plants, lawns and toilets. All toilets are low-flow, and are flushed with rainwater or other grey-water available. All home showers are equipped with timers, which shut off for a certain amount of time if their use is prolonged. Strict regulations ensure that dumping or polluting of any kind does not contaminate water sources.

Food, Glorious Food

Community gardens are prevalent throughout the community, particularly in schools and residential areas. Farming is viable on a community level, and gardens and greenhouses have been mainstreamed. Pesticides are banned, and lawns are reduced in favour of growing food. Programs support organic and locally grown food, and groceries are delivered sustainably.

The Urban Realm

Large, popular facilities such as recreation centres, malls, and schools are grouped together to reduce the need for commuting. Valuable space and natural areas are preserved by building up with taller buildings, as opposed to building out. Walking is encouraged in denser areas by planting flowers, trees, creating more green spaces, and having enjoyable pedestrian paths. Green rehabilitation is undertaken through programs such as Re-Leaf.

Getting the Word Out

The City reaches out to kids through schools at a young age, and engages parents as well. More events and challenges are put out to high school students, and sustainability education is integrated into all class curriculum. Community-wide clean up events keep neighbourhoods green and offer volunteer hours. Local groups such as the Surrey Youth Sustainability Network are supported, and regular meetings are facilitated to bring all interests in Surrey together.



