



ENERGY

Shift

Taking Action on
Surrey's Energy Future



As the City of Surrey develops in its role as a major urban centre, we're shaping growth and creating healthier communities by implementing the goals outlined in our Sustainability Charter. We believe it's important for governments to demonstrate leadership by advancing new technologies and reducing energy consumption.

We're proud of the fact the Clean Energy Association of BC named Surrey the 'Community of the Year' in 2011 in recognition of the many clean energy initiatives underway, and our multidisciplinary strategy.

Our EnergyShift program will engage the public to help create a strategy for how Surrey can reduce its carbon footprint. The goal is to enhance our land use and development plans, reduce solid waste, encourage walking, cycling and transit, develop sustainable new buildings, and create viable energy infrastructure.

Working in cooperation with industry, government, academic, and community partners, we're taking action on Surrey's energy future. As we build a city from the ground up, we need to make the right choices, do the right things and take concrete actions to advance sustainability in our operations and in our community.

Sincerely,

Dianne Watts, Mayor



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Strategic partnerships, investment and policy initiatives



WHAT IS ENERGYSHIFT?

EnergyShift is an integrated framework that connects City of Surrey actions to catalyze clean energy and low carbon solutions in the following areas:

Community Action

engaging the community and implementing strategies that create a sustainable community

Corporate Operations

demonstrating leadership in greening City operations and leveraging our investments to catalyze change in the clean energy sector

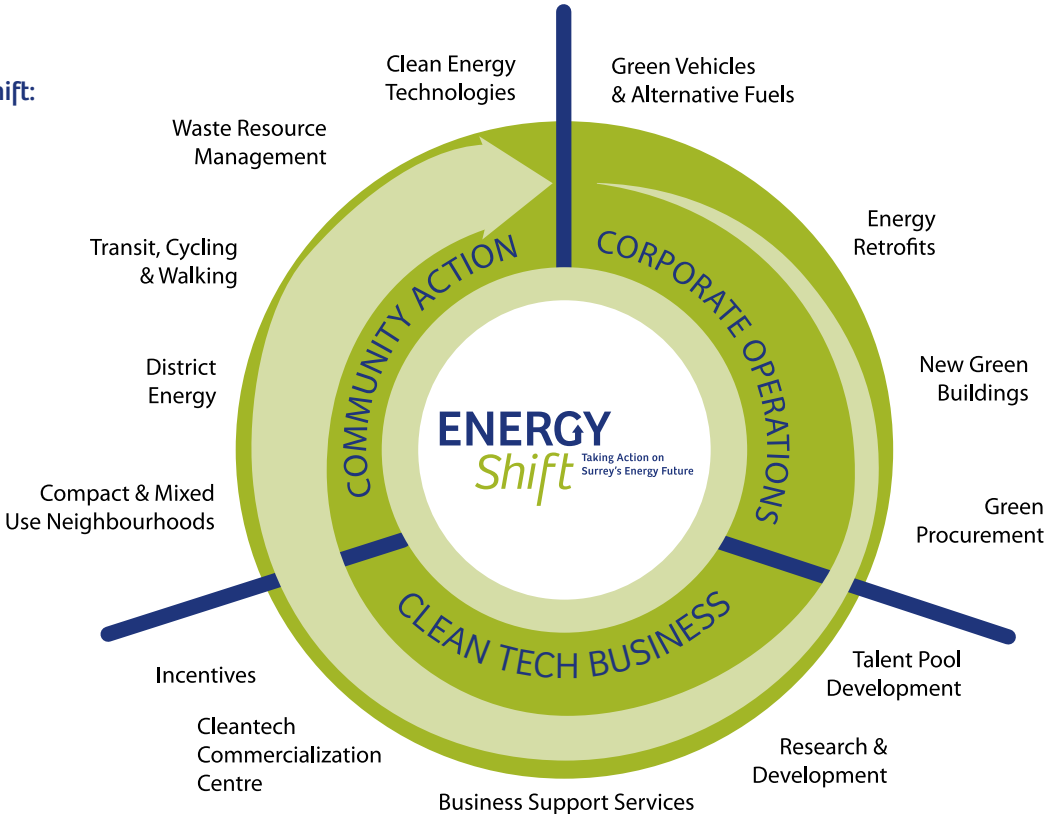
Clean Tech Business

stimulating investment in the clean tech sector and creating high value jobs for the future



Powering the EnergyShift:

- 1. Strategic partnerships
- 2. Investment
- 3. Policy initiatives



City Centre Library includes energy efficient features and is close to rapid transit.



COMMUNITY ACTION

The 25-year Community Energy and Emissions Plan will include strategies to create low carbon communities, shift travel modes of residents to walking, cycling and transit and define policies for more energy efficient buildings.

COMPACT & MIXED-USE NEIGHBORHOODS: CREATING COMPLETE AND VIBRANT COMMUNITIES

The City of Surrey continues to build higher-density nodes centred on its six communities. Complete communities where residents can live, work and play achieve significant energy conservation by reducing dependence on car travel and using resources more efficiently.

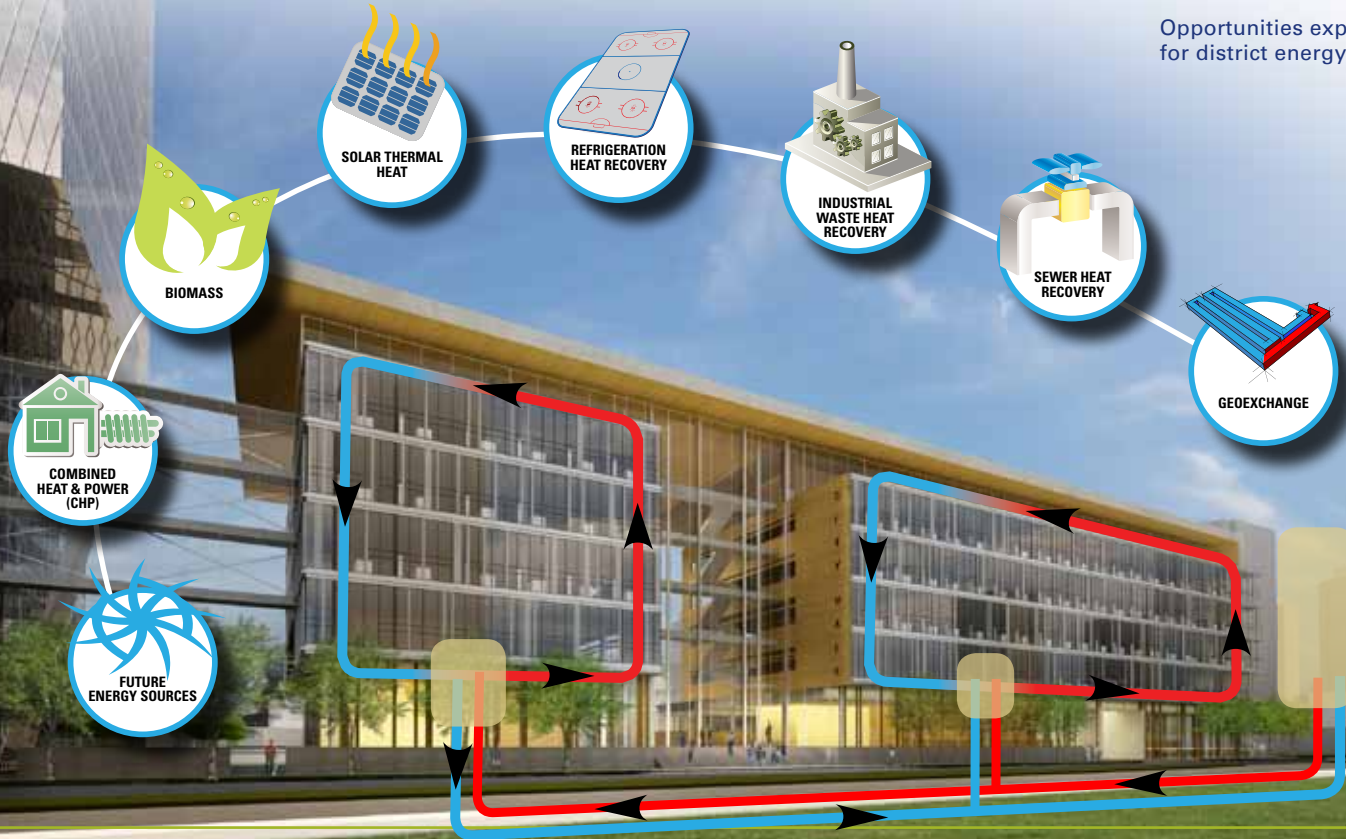
- The Build Surrey Program is the largest capital projects plan in Surrey's history that will see the development of new recreation facilities, community centres, swimming pools, transit improvements, and expanded library and arts services.
- The new West Clayton Neighbourhood Concept Plan will be supported by a Surrey's first Integrated Energy Management & Infrastructure Strategy.

DISTRICT ENERGY NETWORK: CREATING SUSTAINABLE ENERGY SYSTEMS

The City will deploy a district energy system in the City Centre to heat and cool the new City Hall and Library. The system will expand to accommodate high-density residential development as City Centre continues to develop.

- The district energy system has capacity for an additional 400,000 sq. ft. of heating and cooling.
- A City-owned utility will oversee the creation and management of the district energy system.
- The City is identifying opportunities for renewable energy generation and district energy systems throughout the City.

Opportunities explored
for district energy





CNG waste collection truck



Surrey hydrogen fuelling station

CORPORATE OPERATIONS

The City is implementing a number of projects that include green vehicles and buildings to demonstrate leadership and reduce energy spending. These investments aim to catalyze change in the clean energy sector and inspire residents and businesses to take action.

GREEN VEHICLES & ALTERNATIVE FUELS: REDUCING CORPORATE GREENHOUSE GAS EMISSIONS

Through innovative operations the City can conserve energy by improving the systems used by nearly a half million residents. The City recently completed 14 demonstration projects and has 13 new projects underway, including:

- A bio-fuel facility to transform organic waste into fuel.
- Canada's first CNG full-scale municipal waste collection fleet.
- Alternative energy fleet vehicles and infrastructure.

NEW GREEN BUILDINGS: BUILDING SUSTAINABLE INFRASTRUCTURE FOR THE FUTURE

Buildings account for nearly one-third of energy use in Surrey. The City has committed to building high-performance buildings that will immediately achieve substantial energy savings, and use striking architecture to create a unique and beautiful City.

- The iconic new City Centre Library features a green roof and will aim for LEED® Silver certification.
- The new City Hall building will aim for LEED® Gold certification and will use a district energy system for heating and cooling.
- The new state-of-the-art Fire Hall #14 incorporates many sustainability features, including the City's first solar water heating system, and energy saving lighting systems.



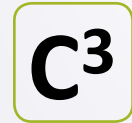
CLEAN TECH BUSINESS

The City of Surrey is taking a bold approach to achieving economic growth and job creation through support and development of the clean tech sector. By way of innovation initiatives we're taking action to create an environment that will encourage and inspire clean tech business to take root and grow right here in Surrey.

CLEANTECH COMMERCIALIZATION CENTRE: SUPPORTING TECHNOLOGY COMMERCIALIZATION

The City is in the preliminary stages of developing the Cleantech Commercialization Centre, a unique destination where the best and brightest in the industry will create, develop and inspire innovations in clean technology. The Centre will be designed to support both early and later stage companies.

- The Centre will provide space and expertise to support demonstration projects, technology testing and business mentoring.
- The Centre will connect emerging companies to financing, SR&ED specialists, SFU researchers and students, as well as shared lab and workshop space.



Solar panel at Powertech Labs





BUSINESS SUPPORT SERVICES: RESOURCES FOR CLEAN TECH SECTOR GROWTH

As one of the leading green cities in British Columbia, Surrey is taking a bold approach to achieving economic growth in the clean tech sector.

- The City assisted 24 regional companies to access new markets during the 2011 Business Mission to India, including many from the clean tech sector.
- With its partners, the City of Surrey is creating an ecosystem of support for clean tech entrepreneurs including business mentorship and access to professional services.
- Surrey's incentives for clean tech companies eliminate property taxes for 3 years, reduce building permit fees by 50% and reduce the business license fee to \$1 for 3 years.

POWERING THE SHIFT: IMPLEMENTING ENERGYShift

Through ENERGYShift, the City is creating a model community in the areas of energy conservation, energy supply, new technology commercialization and regional collaboration. Key implementation devices include:

STRATEGIC PARTNERSHIPS: SUCCESS THROUGH COLLABORATION

Partnerships are critical for addressing climate change and energy sustainability.

- Partnership with the City of Surrey, BC Hydro, Powertech Labs and SFU Surrey to further clean energy initiatives.
- The Mayor's Clean Energy Advisory Network identifies sector growth opportunities and is comprised of clean tech company CEOs, financial advisors, and researchers.
- Supporting SFU to introduce Canada's first energy systems engineering program.



COMMUNITY INVESTMENT: ALLOCATING OUR RESOURCES FOR MAXIMUM BENEFIT

The City's investments are supporting a transition to a low carbon community.

- Build Surrey, investing \$2 Billion to improve access to recreation, transportation options, and green spaces.
- Prioritizing products that are energy efficient and use clean energy through procurement processes.
- District energy using renewable energy for heating and cooling public and private buildings.

POLICY INITIATIVES: POLICY, INCENTIVE & REGULATORY INNOVATION

The City has jurisdiction over land use, development and infrastructure, and implements policies that influence sustainability issues.

- Community Action: Community Energy & Emissions, Walking, and Cycling Plans; District Energy Strategies; and, a Rapid Transit Study
- Corporate Operations: Corporate Emissions Action Plan
- Clean Tech Business: Clean Energy Action Plan, and tax exemptions for new clean tech businesses



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