Townsville

Summary report

Introducton

The City of Townsville, located on the northeastern coastline of Queensland, Australia, is one of a planned 100 cities to earn a grant from IBM as part of the company's philanthropic efforts to build a Smarter Planet™.

IBM's Smarter Cities™ Challenge aims to contribute to the improvement of high-potential cities around the world. During a three-week period starting in July, 2011, a team of six IBM Executives worked in the City of Townsville to deliver their recommendations on sustainability to Councillor Les Tyrell OAM, Mayor of Townsville, and a wide range of stakeholders.

Challenges

Townsville is a tropical port city with a diverse economy with the current 190,000 population expected to double in the next 20 years. Located near the Great Barrier Reef with rainforests, beaches, a string of islands, and occasional cruise ship destination, the city has a warm climate that increasingly has driven up energy usage for cooling.

Townsville is well positioned for controlled growth. Resources are distant, with coal-fired power located far away and long supply lines for other resources. Earlier in 2011, Cyclone Yasi accentuated a need for sustainability in the area. Many solar and shared cooling projects are in place or planned, but the town advances on informal spirit and teamwork to accomplish its impressive portfolio to date.

Highlights:

- Establish a city sustainability hub, including open data, applications and performance indicators
- Leverage the National Broadband network for innovation and access
- Develop learnscapes to support sustainability investments and activities

Themes

Townsville has immediate and long-term goals for sustainability. The city has used the practical approach of showing the community the value of sustainable living, rather than relying only on ecological goodwill to drive decisions.

Solar energy is an abundant resource due to the climate, and the energy utilities and local and state government have many cooperative efforts. Photovoltaic panels, reflective roof coatings, and window design for shading and air flow are easily spotted throughout the city, but not to the level possible despite improving economics. and such efforts will continue to gain momentum as the cost of implementation decreases. The use of water is an Australian challenge throughout Australia, and especially because the production of energy takes lots of water, while the delivery of clean water requires abundant energy.

New buildings and homes will make long-lasting energy decisions about cooling systems in new buildings and homes will make have long-lasting impacts on energy use decisions on cooling systems in the next few years, and Townsville is pushing for centralised cooling modelled after the local university's success. Peak load is a major driver since power plants and long cables are major capital outlays aggravated by distance.

Other sustainability challenges reach into the life of Townsville. Transportation is primarily by traditional western automobile, despite a reviving central business district and a suburban university. Internet connectivity will be improved with the National Broadband Network, which will hopefully accelerate applications and keep Townsville's creative class from fleeing to the larger cities. Finally, data primarily resides in silos, awaiting measures to protect data privacy and intellectual property, including even data on an impressive array of green building projects and energy studies, awaiting assurances for protecting data privacy and intellectual property.

Recommendations

Townsville has a culture of strong, informal collaboration via inspired leaders. The results are numerous projects and growing awareness of sustainability. Our recommendation is an acceleration of that progress via a focused city sustainability hub. Combining an open data and open applications approach with structured guidelines and key performance indicators (KPIs), Townsville's many constituencies can collaborate with each other, with regional sources of information and funding, and with global expertise enabled by digital platforms.

Townsville should assure that fast broadband connects as many entities – business, university, government, and households – as quickly as possible. The formation and structuring of the hub requires a committed open agenda, complete with guidelines and key performance indicators. A leadership team should assure continuity and select an early pilot for proving the value and direction of accelerating change. The development of learnscapes – focused on the power and reach of diverse digital communication and collaboration – will create awareness and support for the acceleration of a range of sustainability investments and activites.

Conclusion

Townsville has the challenges, the vision, and the will to become a model of sustainability for Australia and around the world. Bringing leaders, open data, and guidance together with expanding digital connectivity will accelerate the progress toward a sustainable community. Townsville's quality of life and city spirit for teamwork, combined with innovation and collaboration, can extend their portfolio of projects to become a model for sustainable cities around the world

For more information

To learn more, send an email to ccca@us.ibm.com or visit smartercitieschallenge.org