



## HYDRO RESOURCES

2012

There is opportunity for the Northwest Territories (NWT) to provide clean, renewable energy to communities and industry, and potentially to other regions of Canada. The vast majority of the hydro potential in the NWT has not yet been developed. The growing impacts of fossil fuel use on the environment – and the pressure of rising prices – continue to underscore the importance of developing these resources.

River	Developed (MW)	Undeveloped Potential (MW)	Proposed Development (MW)
Bear	0	568	0
La Martre	0	27	13
Lockhart	0	269	0
Mackenzie	0	10,450	0
Snare	30	33	0
Snowdrift	0	1	1
Taltson	18	172	56
Yellowknife	7	0	0
Total	55	11,520	69
Slave (AB/NT)	0	1,500	0

Development	Date	Capacity (MW)
Bluefish	1938	3.0
Snare Rapids	1948	8.0
Snare Falls	1960	7.5
Taltson	1965	18.0
Snare Forks	1976	9.0
Bluefish Expansion	1994	4.0
Snare Cascades	1996	4.3

The hydroelectric system in place today was developed with federal and industry support. For example, the Snare Rapids hydro facility was developed by the federal government to supply power to the Giant Gold Mine and the town of Yellowknife in 1948. The Giant Gold Mine provided funding towards the transmission line.



In the 1960's, a hydro plant on the Taltson River was constructed to supply power to the Pine Point Cominco Mine site and the communities of Pine Point and Fort Smith, and was supported by the federal government. The commissioning of the Taltson Hydroelectric Development occurred in 1965 and the facility now supplies power to the communities of Fort Smith, Fort Resolution, Hay River, Enterprise and the Hay River Reserve.

## Key Facts

- A 13 megawatt hydro facility on the La Martre River is being assessed to meet the needs of potential resource development, the community of Wha Ti, and future needs of the North Slave market.
- The potential to connect the community of Wha Ti to the Snare hydro system will get the community off diesel generation, and provide the groundwork for future hydro development on the La Martre River.
- The Taltson Hydro Expansion Project is a 56 megawatt expansion of the 18 megawatt Twin Gorges plant on the Taltson River. This project is proposed to serve resource development and could be an important link in the development of a North-South grid in the NWT.
- The potential to extend a transmission line from Enterprise to Kakisa, Dory Point, and Fort Providence is being examined to provide these communities with hydropower from the South Slave grid.

## HYDROELECTRIC GENERATION

*The development of the Northwest Territories' hydroelectric resources will displace imported fossil fuels, drive economic development through the provision of stable, affordable electricity and provide a lasting legacy of clean, renewable power for future generations.*

The development of hydro resources in partnership with Aboriginal governments is a key principle for the Government of the Northwest Territories. Large hydro projects also provide vital infrastructure that encourages economic development and benefits the NWT and project partners.

Hydro projects can take over 10 years to develop and require a substantial amount of upfront, at-risk investment. Undertaking baseline monitoring, environmental and engineering work can shorten the development timeframe and position northern governments to take advantage of hydro development opportunities as they emerge. This work is also linked with the NWT Water Stewardship Strategy. Gaining a greater understanding of NWT rivers supports both the conservation and development objectives of northern governments.

