

## **SASKATOON WEIR HYDROPOWER STATION**

### **A Clean Power Project Partnership**

#### **Frequently Asked Questions – Hydropower Project**

##### **1. What is being proposed at the Weir?**

The City of Saskatoon, through its electric utility Saskatoon Light & Power, is exploring the feasibility of developing a run of the river hydropower station at the weir in partnership with the Saskatoon Tribal Council.

##### **2. What changes to the existing weir and site are being proposed?**

If the project proceeds, the existing weir infrastructure would be renewed; a small-scale hydropower station would be built on the university side of the river, and a service/pedestrian bridge would be built for safer river crossing.

##### **3. What is the cost? What is the cost to City of Saskatoon taxpayers?**

The total estimated cost of the project is \$61.5 - 65.2 million. These costs are expected to be covered by an investment by the Saskatoon Tribal Council and private partners, off-set from revenue generated by the power station and funding from other levels of government.

In the short term, the City may be able to construct the pedestrian walkway at no direct cost to the City, and rehabilitate the existing weir as part of the project. A modest revenue stream in the short term may also be possible for the City. At the end of the procurement phase, the City and the Saskatoon Tribal Council will inherit the facility in good working order, which would provide a long term revenue source to both partners.

##### **4. Will raising the height of the weir affect the water supply?**

Saskatoon is very fortunate to have one of the world's largest earth dams (Gardiner Dam) upstream of us to create a large reservoir of fresh water (Lake Diefenbaker). If flows were to be severely reduced, the elevation of the weir would help ensure water continued to be available for the low-level Raw Water Intake facility.

##### **5. How will this affect the pelicans?**

The health and well-being of the pelicans will be protected and enhanced.

Pelicans feed at the weir site, but they do not nest there. The proposed project will enhance fish habitat and migration, and will retain much of the original weir structure, which will maintain attractive conditions for pelicans.

##### **6. How will this affect fish and other aquatic wildlife?**

Fish migration and habitats will be protected and enhanced.

The current Weir is a challenge for fish migration as the existing fish ladders are ineffective and impassable going upstream for most of the year. Also, the stretch of river between the Gardiner Dam the City is not particularly good fish habitat, in part because of the effects of the weir and dam.

The project will include an enhanced fish navigation channel in the project that will make fish migration easier. This bypass channel will use native bed materials and plant species to mimic natural rest and refuge areas. Flow through the channel will be supplied by natural river flow.

### **7. What is the expected noise level of the proposed plant?**

The 5.5 to 6.1 megawatt hydropower station will produce very little noise. The mechanical systems will be completely enclosed and submerged under the water. People using the pedestrian crossing would be able to have a conversation – without having to raise their voices – standing directly above it.

### **8. What will the hydropower station look like?**

At this early stage of the project, many details have to be finalized. As plans develop, we will seek community input on the proposed design of the plant.

We know that it will be small in scale and that it will be sensitive and responsive to its environment. For instance, we envisage a green roof on the facility – as a nod to green-friendly technology but also as a way of incorporating the structure into its natural surroundings.

### **9. Are there similar run of the river projects in other cities?**

There are many hydropower projects that vary in size. The difference with this proposed system is that most of the infrastructure will be below the water level and maintain a low profile.

### **10. Are the findings of the environmental and pre-feasibility engineering studies still valid?**

Yes. Pre-feasibility Engineering and Baseline Environmental studies were conducted in 2009 to gain a clearer understanding of the technical, environmental, and economic implications of a proposed hydropower station at the Saskatoon Weir. All technical and environmental conditions remain the same, making the data and findings of those reports still valid.

### **11. Why partner with the Saskatoon Tribal Council?**

There are many benefits to both partners. Highlights of benefits to the City include a stronger project team; broader access to provincial and federal funding programs; and honouring the City's commitments to the Truth and Reconciliation Commission's Calls to Action. A joint ownership of this project leverages on Saskatoon Tribal Council's alliance with the First Nations Power Authority, a non-profit organization that assists Aboriginal power producers in advancing power generating projects to SaskPower.

### **12. Why isn't the City going through a tendering process to solicit interest from potential partners?**

The feasibility study will explore the benefits of private partner to construct and operate the facility on behalf of the owners, the City of Saskatoon and Saskatoon Tribal Council. A partner would be selected through a competitive bidding process for the design, development and operation of the project.

### **13. You're exploring involving a private partner. Why doesn't SL&P just construct and operate the plant?**

It is yet to be determined who will operate the plant. Public-private partnerships are common and provide a way to finance and operate public facilities efficiently and affordably. It means that state-of-the-art facilities can come on stream faster and address community needs sooner.

### **14. What is the economic benefit to the City of Saskatoon?**

The pre-feasibility work completed to date clearly indicates that the hydropower station is expected to generate a positive internal rate of return, which means that the project is economically viable and would result in a profit for the project owners.

### **15. What are the benefits for the Saskatoon Tribal Council?**

Investment returns from the hydropower project will support community infrastructure and social programs in the Saskatoon Tribal Council member communities. First Nations can benefit from employment, training and education opportunities that extend beyond the construction phase. The project can lay the foundation for future business ventures in sustainable power and other industries.

### **16. How much power is produced through this process and what will the partners do with it?**

Depending on the final design, the station will produce enough green power for 2,400 to 3,500 homes each year. If approved by SaskPower, they would purchase the electricity and would contribute to their target to have 50 per cent of their generating capacity from renewables by 2030. This could yield a higher rate of return than using the power locally on Saskatoon Light & Power's grid.

### **17. Why has the white water feature been pulled out of the scope of the project?**

Within the Recreation and Parks Master Plan (Master Plan), there were numerous indoor and outdoor recreation facility priorities identified. The current priorities for public recreational infrastructure investment were identified through extensive citizen consultation, and include a focus on reinvesting in existing recreation facilities and parks (i.e. leisure centres, play structures, park upgrades, paddling pools, etc.); potential partnerships around the development of indoor ice facilities; and the potential development of a recreation facility.

A facility such as a white water park was not identified in the list of high priorities. The Master Plan recommends that as facilities become more specialized or serve a smaller segment of the population the funding model for this type of project should include a combination of private/non-profit investment, fundraising, user fees, and potentially some public taxes.

Earlier studies confirmed that a white water park in conjunction with a hydropower plant at the weir is physically viable. To now proceed as part of the feasibility study of the hydropower project, the City would be seeking, from the community interest groups, a formal business plan for the operations of such a facility and private capital funding would have to be secured for the development and operation.

