

EXECUTIVE SUMMARY

KMC Energy Corp. (KMC) is submitting this Development Plan for a proposed run-of-river hydroelectric project (the “Project”) on Tamihi Creek located in the Chilliwack River watershed in southwestern British Columbia. The purpose of the Project is to develop a 15 MW run-of-river hydroelectric facility with the intent of providing clean, renewable, low environmental impact energy to BC Hydro under an Electricity Purchase Agreement (EPA) through the Standing Offer Program (SOP).

This Development Plan has been produced in order to provide Provincial and Federal regulatory agencies, First Nations, stakeholders and the public with detailed information regarding the Project design, construction, operation, potential effects, mitigation measures, residual effects and cumulative effects, with the aim of obtaining all necessary licences, approvals and authorizations for the Project. This Development Plan has been produced with strict adherence to Provincial guidelines and published information requirements. The Development Plan consists of maps, tables, studies, descriptions, plans and assessments with respect to the Project. The Development Plan includes professional consultants’ reports covering: environmental baseline conditions, aquatic, terrestrial, hydrology, geomorphology, geotechnical, instream flow, archaeological and cultural heritage assessments.

The key components of the Project include a headworks (intake, weir and headpond), penstock (water conveyance system), powerhouse and transmission line. Maps showing the regional context of the Project and site specific setting are provided in Appendix B and Appendix C.

The Project footprint required for construction is estimated at 34 ha of which 5 ha is on existing or abandoned roads. The final footprint will be reduced after revegetation of temporary construction areas to an estimated 20 ha. Capital costs to build the Project are estimated to be \$55M. Direct employment is expected to be 25 person years during construction and 60 person years for the 40-year minimum operational lifespan of the Project.

KMC will engage in a public consultation process for this Development Plan as required by the lead Provincial ministries/organizations responsible for review and approval of the plan. The goals of public consultation are to share information related to the Project and the potential social and environmental effects it may have; and provide the public with an opportunity to comment on the Project in an informed and meaningful way. The lead Provincial regulatory agencies will refer the Project Development Plan to all agencies and key stakeholders determined to have an interest in the Project for comments on all aspects of the Project. KMC will provide a summary of all government, stakeholder and public engagement activities conducted and planned relative to the Project.

KMC understands the importance of the Chilliwack River valley to a multitude of users. KMC is committed to reaching out through the stakeholder and public consultation stage of the Development Plan process to all such users, so that Project information is properly understood and Project concerns discussed.

There is no guarantee that consensus on all issues can be reached. In such cases, the consultation process will hopefully provide for a better understanding of the Project to help alleviate concerns. KMC sees consultation as a positive process that can significantly assist the Province in making the best possible decisions as they relate to the Project and associated approvals.

First Nations are entitled to a process of consultation that is separate and distinct from public and stakeholder processes. The legal duty to consult First Nations resides with the Province. Nevertheless, KMC is committed to working closely with the Province and First Nations in this regard as it relates to the Project. As the Project proponent, KMC is in many respects better placed to share Project information with First Nations and address particular interests or concerns. KMC's application for a water licence and associated crown land tenure will require the Province to consult First Nations as a result of the potential for KMC's Project infringing on any archaeological sites and/or any traditional uses associated with the Project area, and/or the existence of title to the Project area. Based on strength of claim to the Project area, KMC has engaged and undertaken considerable discussions with Ts'elxwéyeqw Tribe based on their significant cultural connection to the Chilliwack River valley including the Project area and the immediate proximity of their member communities.

Key identified potential effects of the Project during normal operations are as follows:

- Project footprint impacts in aquatic, riparian and upland habitats from infrastructure placement, vegetation clearing and soil disturbance resulting in losses and/or alteration of habitat;
- Potential for effects on water quality due to instream and near stream construction activities and alteration of flows during operations including potential changes in water temperature;
- Sensory disturbance, especially during construction, causing potential avoidance and/or behavioural changes to wildlife;
- Altering discharge of flows, which influence the abundance, distribution, and quality of habitats either directly, or indirectly;
- Direct mortality and injury to fish and wildlife that may occur via several impact mechanisms: collisions, habitat clearing and flow ramping;
- Compatibility with a variety of other resource and land use objectives including forest industry activities; and
- Compatibility with a variety of recreational activities including public safety concerns

Key mitigation measures include, but are not limited to:

- Project is designed for maximum use of existing infrastructure and minimizing impacts on rare or sensitive ecosystems;

- Engagement of an Environmental Monitor to oversee environmental aspects of construction;
- Implementation of a Construction Environmental Management Plan to prescribe mitigation measures and Best Management Practices during construction;
- Rehabilitation and revegetation of all areas not required for long-term operation of the Project.
- Implementation of minimum Instream Flow Requirements judged to be suitable for all aquatic values;
- Implementation of ramping rates judged to be suitable for the aquatic environment in both the diversion reach and downstream reaches; Consideration of various socio-economic values were also considered in this regard;
- Implementation of a Sediment Management Plan to maintain appropriate supplies of sediment and bed load to maintain necessary geomorphic processes in the diversion reach and downstream reaches;
- Implementation of an Operational Environmental Monitoring Plan to document the measures to be used to avoid or minimize environmental effects (i.e., to ensure compliance with licenced Instream Flow Requirements and Ramping Rates);
- Implementation of the Operational Environmental Monitoring Plan to measure biotic and abiotic responses of the environment to Project operations and identify unexpected effects;
- Consultation with stakeholders, including the public, so that Project information is properly understood in order to alleviate as much a possible any Project concerns; and
- Development and implementation of adequate safety measures including emergency response plans to address unexpected accidents or malfunctions.

Further to this a Fish Habitat Compensation Plan will be implemented to ensure there will be no net loss in productive capacity of aquatic habitat arising from the predicted habitat losses in this regard.

Key Project benefits include, but are not limited to:

- Direct and indirect employment for people in the region during the development, construction, and operations phases of the Project;
- Providing long-term revenues to the local and provincial tax base;
- Offsetting of greenhouse gas emissions from fossil-fuel based energy production through the use of renewable resource development; and

- Upgrades to existing roads and improvements in road maintenance, resulting in reduced erosion and sediment transport, slope stability concerns and other pre-existing logging road related environmental hazards, restoration of forest harvesting opportunities and improved public access.

Based on the Project design, the environmental setting and the commitment to mitigations measures and strategies, no residual effects on atmospheric environment and geophysical elements (hydrology and geotechnical) are anticipated from the Project. However, potential residual effects on geomorphology, the aquatic and terrestrial environments and certain socio-economic valued components are anticipated for some direct and/or indirect effects. The potential residual effects associated with the construction, commissioning and operation of the Project are deemed not-significant. Further to this, no significant cumulative residual effects are predicted. The assessment was based on background data/information, field studies, experience, and professional judgement of senior qualified professionals.

For the consideration of the Responsible Authorities, it is the opinion of KMC that the Project is not likely to cause significant adverse environmental, socio-economic, community, First Nations, or other effects, taking into account the implementation of appropriate impact management measures, as identified in the Development Plan, while providing clean, renewable power from a sustainable resource.