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<b>Report To:</b>	<b>Policy &amp; Resources Committee</b>	<b>Date:</b>	<b>20 September 2016</b>
<b>Report By:</b>	<b>Chief Executive</b>	<b>Report No:</b>	<b>GM/LP/119/16</b>
<b>Contact Officer:</b>	<b>Gerard Malone</b>	<b>Contact No:</b>	<b>01475 712710</b>
<b>Subject:</b>	<b>Hydro: Holeburn at Greenock Cut</b>		

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## 1.0 PURPOSE

- 1.1 This report updates the Committee on progress with the Inverclyde Council/Scottish Water Partnership project for hydro scheme development at the Holeburn at Greenock Cut.

## 2.0 SUMMARY

- 2.1 The Council and Scottish Water (through Scottish Water Horizons) are in partnership to develop the hydro proposal at the Holeburn at Greenock Cut and will use the experience gained for any additional locations within the partners' control. The Council and Scottish Water Horizons entered into this high-level partnership in November 2013 for purposes of investigating the feasibility and developing outline schemes of mutual interest.
- 2.2 The proposal to develop small hydro schemes within Council/Scottish Water ownership is part of the Council's approach to renewables energy generation. The Climate Change (Scotland) Act 2009 introduced strict carbon reduction targets for Scotland and the Scottish Government has a renewable action plan to promote electricity consumption from renewable energy resource. The Council and Scottish Water Horizons identified the opportunity of developing a renewables energy scheme at the Holeburn at Greenock Cut. The Holeburn Scheme has now been the subject of detailed hydrological survey to prove its viability for a 100kW hydro scheme. This report updates the Committee on progress.

## 3.0 RECOMMENDATION

- 3.1 It is recommended that the Committee notes the increase in potential abortive costs in the event the project does not proceed and remits it to the Head of Legal & Property Services to report back on progress by March 2017 following upon tender returns.

**Gerard Malone**  
**Head of Legal & Property Services**

## 4.0 BACKGROUND

- 4.1 The proposal to develop small hydro schemes within Council and Scottish Water ownership is part of the Council's approach to renewables energy generation. The Sale of Electricity by Local Authorities (Scotland) Regulations 2010 enables the Council to generate and sell electricity from renewable sources such as hydro. The Council has been involved in technical and hydrological surveys for a number of sites. This work had the outcome of identifying the project proposal for the Holeburn at Greenock Cut.
- 4.2 The site for the project and its water catchment area are mostly within the Council's and Scottish Water's ownerships although, subject to detailed design and implementation, a small section of ground may be required for the turbine house and separate discussions have been held relative to this land-use proposal.
- 4.3 Hydrological studies have been completed over the course of the past year to support the evidence that the Holeburn site can produce 100kW of renewables energy generation. Over the period of the hydrological surveys, there have been meetings with Scottish Water and with Scottish Water Horizons in relation to the progress of the scheme. As previously reported to Committee, there has been discussion between the Council and Scottish Water in relation to the levels of necessary capital investment and the overall payback period. The payback period is in the region of 15 years and that is outwith the usual parameters of participation in such a project but the critical factor as recognised by the Council and Scottish Water is that the benefits of the partnership allow for the experience gained to be used in the future with other potential locations.
- 4.4 Throughout, it has been the Council and Scottish Water Horizon's approach to contribute the respective assets on a 50/50% basis and to share project risk and future revenue equally. The District Valuer has previously been jointly commissioned by the Council and Scottish Water Horizons to ensure that the respective contributions of land and water assets are accurately determined and both parties will get full recognition of the respective value of their assets used. Similarly, any assets purchased for the project will be owned by the parties in equal share.
- 4.5 The hydrological surveys took place over the course of 2015/16 in order to supplement the previously obtained desktop estimates. The conclusion from this necessary exercise is that the Holeburn Scheme at Greenock Cut can provide 100kW output of electricity with an annual income expected to be in the region of £40,000 pa. The latest budget estimate for capital investment on current forecasts amounts to £900,000.

## 5.0 PRESENT POSITION

- 5.1 A project meeting took place on 7 September 2016 to update the scheme's programme. **Appendix 1** is a note of Scottish Water's detailed programme which shows the key dates as follows:

Initial design – July 2016 to October 2016

Detailed design – October 2016 – December 2016

Planning/SEPA consents/grid payment – October 2016 – December 2016

Prepare construction tender – December 2016 – January 2017

Investment decision by partners – March 2017

Start on site – April 2017

Scheme commissioned and producing electricity – April 2018

- 5.2 The joint venture scheme has had stage 2 approval from Scottish Water since May 2016 and this releases necessary funding to complete the full design by the end of 2016. Scottish Water Horizons and the Council will then be in a position to move towards the construction phase by engaging contractors in the tender process.

- 5.3 The overall outputs are based upon the generation of 0.369-0.394 GWhr per annum for export to grid which is based upon a 45% load factor. The estimated payback at current forecasts amounts to some 15 years and the Council and Scottish Water Horizons are making equal contributions for the design process. At this stage, a £50,000 commitment from both partners is required to complete the detailed design and tender process. This is within the terms and estimates of the project summary which was considered by the Policy and Resources Committee in November 2013. It was reported to the March 2016 meeting of the Committee that, at that stage, the likely project costs for this stage of the design and tender works was estimated by Scottish Water as £70,000 but the scope of the work that has been undertaken by them since has been increased to include the obtaining of consents relative to SEPA, grid connection and planning, all with the intent of securing a viable programme for site start (subject to final investment decisions) with minimal slippage from that as intended originally. If the project were not to proceed, this level of abortive costs would have to be met from project estimates to date.
- 5.4 At present, the design concept review has been completed and other works are in hand in order to prepare for construction. A utility search has been instructed and a topographical survey which is necessary for the tender documentation will be started in w/c 12 September 2016. The ground investigation scope is being finalised and the works to do this are being arranged as soon as possible. A flood risk assessment has been completed and this is the subject of current review. As above, the outline design is presently in hand with an expectation this will be completed by the end of September. All of the planning and SEPA submissions are programmed for October 2016. A grid payment in October 2016 will secure the feed-in tariff at the current rate in order to lock that support into the project estimates. The detailed design will be completed by the end of December 2016.
- 5.5 From discussions with colleagues in Scottish Water Horizons, the present timescale has slipped by approximately two months but the above programme is realistic and there is focused work in order to progress this.
- 5.6 Officers from both organisations are working on aspects of delivery and implementation to take account of current technical reports and flood risk assessments. Further details on this will be reported to the Committee. It is considered that the programme, above, will address any potential risks to reductions in feed-in tariffs and every effort will be made for pre-accreditation of this scheme in order to mitigate any risk on any negative impacts on the financial position. Officers are also looking at all construction tender options in relation to e.g. turbine suppliers to determine if there is any cost mitigation measures to be implemented. Additionally, the potential routing of some project infrastructure through other ground might result in some construction savings and this will be referred to in detail in the future report to Committee.

## **6.0 INVERCLYDE COUNCIL/SCOTTISH WATER HORIZONS PARTNERSHIP**

- 6.1 Additional to the site specific proposals for Holeburn, there are opportunities elsewhere in Inverclyde for hydro power generation involving Council sites and Scottish Water/Scottish Water Horizon assets. The partnership with Scottish Water Horizons allows the experience gained through the Holeburn proposal and the good working relationships that have been established between the organisations to be utilised in the future to the advantage of both parties. Elsewhere, where there are other land-owning or water-asset interests involving the partners and the Council and Scottish Water Horizons can consider proposals in partnership or joint venture with other parties if and when other development opportunities are identified.
- 6.2 At this stage, following general assessment of recent representations, it is considered impractical to seek to develop other schemes involving the use of the same water-assets at Greenock Cut. Recent representations have been received in relation to separate proposals which seek to utilise part of the Greenock Cut: the assumptions that have been made in relation to that scheme are being assessed to determine if they have an adverse impact on either the Holeburn proposal or the other potential additional locations at Greenock Cut. If the partners can be satisfied that there are no adverse impacts on the present scheme or the proposed additional schemes, further reports will be brought back to the Council in respect of any separate, viable proposals that are made. At the moment the separate proposals for use of the

Greenock Cut are being considered in relation to two key points: (1) whether there is any potential adverse impact on the existing partnership and additional locations; and (2) any proposals can only be assessed if the Council obtains market value for the use of any of its assets.

- 6.3 Further reports will be brought back to Committee for consideration in reaction to any separate proposals. A progress report on the Holeburn Scheme following the tender evaluation will be made in early 2017.

## 7.0 IMPLICATIONS

### Finance

#### 7.1 Financial Implications:

##### One Off Costs

No specific budget has been identified in the event the Council is required to meet any abortive costs. This matter will be clarified as part of the March 2017 report to Committee

Cost Centre	Budget Heading	Budget Years	Proposed Spend this Report	Virement From	Other Comments
Tbc	Tbc	2016/18	£50,000	nil	Represents the potential abortive costs in the event the project does not proceed

##### Annually Recurring Costs/ (Savings)

Cost Centre	Budget Heading	With Effect from	Annual Net Impact	Virement From (if Applicable)	Other Comments

### Legal

- 7.2 The project is proceeding on a partnership basis with Scottish Water Horizons and the asset contributions, investment and revenue sharing is on the basis of equal share of risks and benefits. The construction proposals will be dealt with through Scottish Water's procurement procedures.

### Human Resources

- 7.3 There are no direct Human Resources implications arising from this report.

### Equalities

- 7.4 There are no direct Equalities implications arising from this report.

### Repopulation

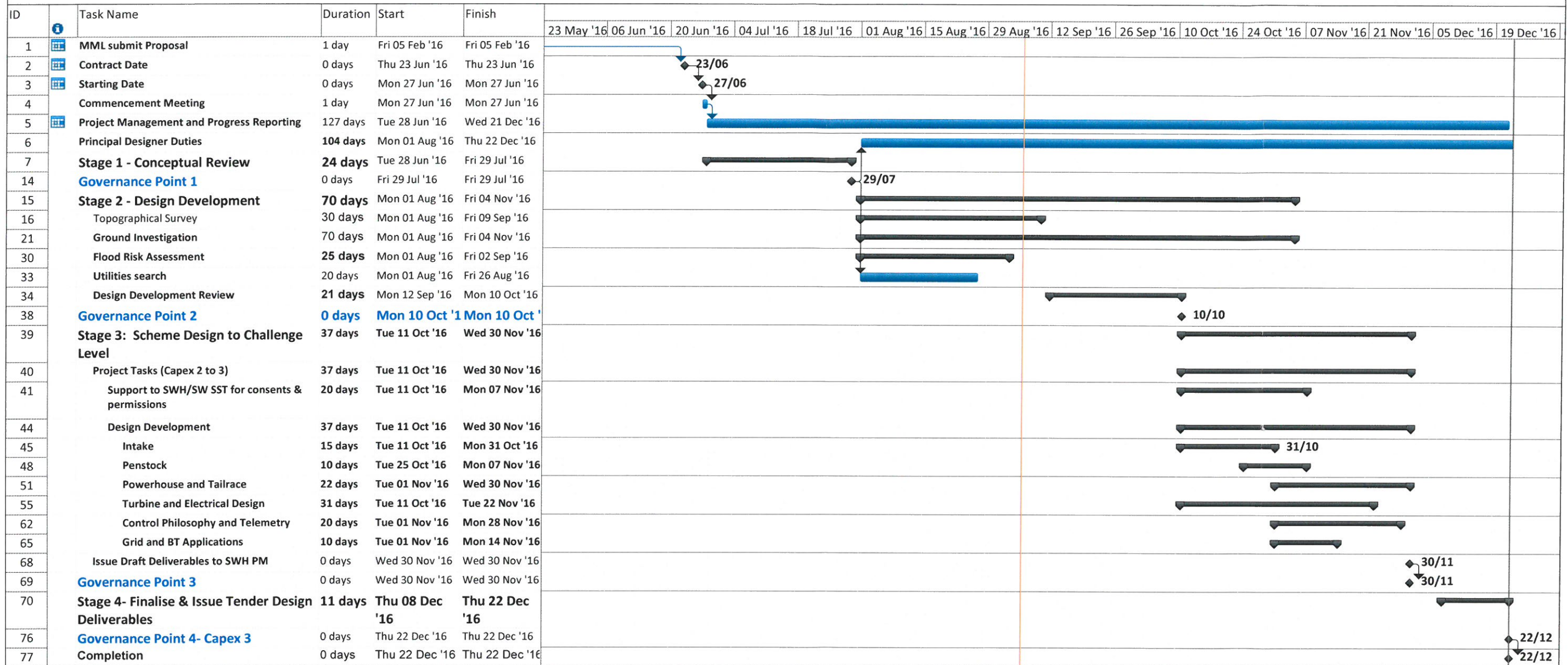
- 7.5 This project involves the Council in the innovative use of its land and water assets for purposes of renewables energy generation. The high level partnership with Scottish Water Horizons and the potential renewables energy generation are all supportive of governmental priorities and local objectives to enhance this area.

## 8.0 CONSULTATIONS

- 8.1 The CMT endorses this report. This report has been explicitly agreed with the Council's partners.

# Greenock Cut Hydro Scheme Programme Version 1.0

APPENDIX 1



Project: Draft Programme in proje  
Date: Tue 06 Sep '16

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			