

HUDSON'S HOPE
B.C. HYDRO SITE C DAM TAX IMPACT
ORDER OF MAGNITUDE STUDY

Background

B.C. Hydro is proposing to build a new hydro electric dam (Site C) on the Peace River which will negatively impact properties located in the District of Hudson's Hope, B.C. The negative impacts to properties include a reduction in property values which, in turn, will reduce tax revenues for the District and BC Hydro has made an offer to compensate for this tax loss.

Objective Of This Study

The objective of this study is to provide the District of Hudson's Hope with an informed opinion as to the probable magnitude of their annual tax loss due to the Site C project in order that the District may make an informed decision with respect to the B.C. Hydro offer.

Methodology Of The Study

In order to estimate the probable tax losses the methodology employed has been to:

1. identify the properties that will be directly impacted by Site C by being either flooded in whole or part, have a Statutory Right of Way (SRW) placed on the remaining property in whole or part and/or have a new road Right of Way (R/W) taken;
2. assess of the impacts on the assessed values of the impacted properties; and
3. calculate the annual District tax loss due to Site C on a "mass valuation" basis using a spreadsheet.

Data Sources

The "input" data sources have been:

- impacted property list - Urban Systems Ltd;
- property sizes - Urban Systems Ltd and B.C. Assessment;
- affected areas (submerged/SRW/Road) - Urban Systems Ltd;
- assessments and taxes - District of Hudson's Hope;
- location of improvements - District of Hudson's Hope; and
- mill rates - Municipalities, Cities, and Surveyor of Taxes.

Overview Of Findings

There are 209 affected properties in the District of Hudson's Hope of which 85 are privately owned and 124 are indicated in Crown Provincial ownership with some of these taxed as Crown occupied (e.g. leased) property.

For the properties that pay taxes the vast majority are residential (class 1), 3 are business and other (class 6) and a few are farm (class 9).

The 2014 mill rates for Hudson's Hope "General Municipal" are:

- residential (class1) 3.5
- business + other (class 6) 9.7
- farm (class 9) 3.0

Our research in developing the "mass valuation" spreadsheet calculation indicated the assessment impacts should be calculate as follows:

1. the flooded (submerged) portion of the parcels and the new road right of way areas calculated at 100% of the proportionate (i.e. flooded %) land assessment;
2. the SRW portion of the parcels calculated at 75% of the proportionate (i.e. SRW %) land assessment;
3. the flooded (submerged) improvements taken at 100% of assessed value; and
4. the SRW affected improvements taken at 25% of their assessed value.

Order Of Magnitude Results

Utilizing the 2014 "General Municipal" Hudson's Hope (Class 1) mill rate of 3.5 the probable tax loss is calculated to be:

Impact on Assessments	\$8,115,100.19
Taken At 3.5 mills	x .0035
Probable Tax Loss	<u>\$28,402.85 per year</u>

Cautionary and Additional Notes

The reader should note and is cautioned as follows:

1. To balance site areas some adjustments were required to road right of way areas (it appeared some road R/W area was already in the SRW area) in order that the total affected area was correct;
2. The determination of affected improvements was based on ortho interpretation and GIS impact area lines. It is considered reasonably done but was not based on ground survey and inspection.
3. It should be noted that the probable tax loss calculation (\$28,402.85) is a 1 year loss whereas the BC Hydro offer represents a "present worth" calculation - that is to say a notional sum of all future tax losses. To equate the two figures one would have to calculate the present worth of the projected \$28,402.85 over the life of Site C and in this regard both the lifespan and appropriate discount rates are disagreed with BC Hydro advancing a 70 year lifespan and 5% discount rate whereas others indicate 100 years and 2% can be supported.

The present worth calculations indicated would therefore be:

- 70 years @ 5% = $19.342677 \times \$28,402.85 = \$549,387$; or
- 100 years @ 2% = $43.098352 \times \$28,402.85 = \$1,224,116$

4. In the tax loss calculation the Hudson's Hope residential (Class1) General Municipal mill rate of 3.5 (2014) has been used. Arguably this is low given the class1 comparative rates in the area:

- Chetwynd - 4.2505

- Fort. St. John - 5.1888
- Dawson Creek - 4.36
- Peace River R.D - 4.04

If a mill rate of 4.0 were applied it is noted that the tax loss calculation would be \$32,460.40 per year ($\$8,115,100.19 \times .004$) and correspondingly higher present worth calculations would result.

Future Tax Loss Calculations

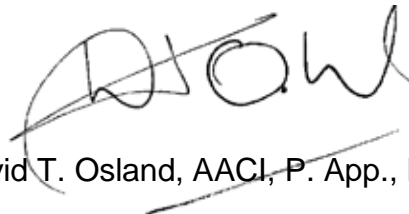
Assuming an annual tax loss payment is to be made by BC Hydro each year as opposed to a lump sum payment (discounted present worth calculation) it is recommended that on an annual basis:

- the impact on the assessment base ($\$8,115,100.19$ in 2015) be indexed for changes in market conditions and this should be based on the B.C. Real Estate Association (BCREA) average annual MLS price change for the Province (B.C. Total) which, for example was +5.8% as of February 2015; and
- the mill rate should be adjusted to reflect the current years' residential rate (i.e. currently 3.5 but may increase).

Conclusion

Given the limitations in time and resource to prepare this study the results are concluded to be reasonable and accurate for the intended use.

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