

5.1/10

**Overall Rating**

(07)

**ᐱᐃᓂᑦ ᐅᐳᒃᓴᐅᑦ ᐃᐤᐳ**  
**Jaynes Inlet Hydro**

[illegible]

Jaynes Inlet hydro produces a lot of power for a small site, mainly thanks to its elevation. It can meet the current electricity needs in Iqaluit, but its limited in its ability to grow with the community. The transmission line would either go along the coast or on the seafloor, across Frobisher Bay. This site was preferred by the community in 2013 - when renewable energy was last explored.

95km

**Δ'ε'ε'ε' . To Iqaluit**



22

**ᠡᠳᠦᠨ ᠶ᠋ᠢᠰᠤᠨ**

- [illegible]

## Summary

- ✔ Low to Medium Technical Risks (Cold Climate & Geotechnical)
- ✔ Low Resource Risk (Availability + Reliability)
- ✔ Median cold climate risk
- ✔ Low risk associated with reliability
- ✔ Off-set Iqaluit's electrical load
- ✔ Medium environmental impact
- ❓ 2nd lowest average energy output
- ❓ Longest transmission corridor among alternatives which is cause for concern for the marine environment
- ❓ Area used for harvesting beluga, seal, narwhal, clams and hunting caribou
- ❓ Site used for collecting drinking water from river and ice.
- ❓ Cabins in the area
- ❓ Long transmission line required



**79.4%**

4D34P<sup>a</sup>σ<sup>c</sup>σ<sup>b</sup>▷<sup>b</sup>74DΔ<sup>a</sup>ε<sup>c</sup>J<sup>c</sup>  
 4▷L▷N<sup>b</sup>σ<sup>c</sup>σ<sup>c</sup>Γ▷<sup>b</sup>L<sup>b</sup>dN<sup>c</sup>

### Reduction in Diesel Consumption for Electricity Generation



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Scan here to learn  
more about this  
project option

[illegible]

This option is compelling, as it has the highest energy output potential. If we converted everyone's heating to electricity, this would be a 'top 3' option. There are no arctic examples of pumped storage, so there is significant technical uncertainty. There are lower risk options, but it could be studied further.

[illegible]

- ✓ Highest installed capacity of all alternatives (30MW)
- ✓ Highest average energy (electric, thermal, industrial)
- ✓ Highest economic benefit
- ✓ Close to town
- ✓ Dam height would be short
- ✓ High likelihood of diesel replacement
- ✗ High CO2 emissions compared to hydro options (still need diesel)
- ✗ Highest cold climate risk
- ✗ Highest risk associated with reliability
- ✗ Possible impact on fish habitat due to the PSH development.
- ✗ Medium land and resource use by Iqalungmiut.
- ✗ Environmentally significant site: caribou habitat



4D34P<sup>a</sup>σ<sup>c</sup>σ<sup>b</sup> Δ<sup>b</sup>Δ<sup>a</sup>Δ<sup>c</sup>Δ<sup>c</sup>  
 4D34P<sup>a</sup>σ<sup>c</sup>σ<sup>b</sup> Δ<sup>b</sup>Δ<sup>a</sup>Δ<sup>c</sup>Δ<sup>c</sup>

### Reduction in Diesel Consumption for Electricity Generation



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Scan here to learn  
more about this  
project option



**09** ᑭᓱᐅᕈᐃᑦ ᐱᓄᐅᐅᐅᐅᐅ  
**Qasitujuak Lake Wind**

ᑕᓐᓇ ᐃᒪᒫᒋᐅᔭᖅ ᐱᐅᓚᓂ “ᒪᓴᑯᐃᓇᐅᓂᓗᓂᖅ”,  
 ᑲᒾᐅᓂ ᓴᑕᑎᓗᓂᖅᓴᓂᖅ – ᐊᑕᖅᑕᐅᓴᓇᖅᑕᓂᖅ ᐱᑕᖅᖅᙵᖅ.  
 ᓇᐅᑕᐅᑕᓚᐅᖅᑕᖅ ᐅᐊᓴᓴᓴ ᐊᒪᒪ ᐅᓚᐱᑕᐅᓂᐊᓴᓂᓄᓂ  
 ᓄᓇᓴᓴ ᐊᓴᒾᒻᑎᓂᓄᓂᐅᖅ ᐊᓴᓴᓂᓄᓂ “ᐊᓄᓂᑕᐊᓄᓂ”  
 ᐃᓂᐅᓴᓄᓂ, ᓴᓴᓂ ᓴᐃᓇ ᖅᓴᓂᖅᑕᖅ ᐊᓄᓴᓴ.

This is considered a very good “wind only” site, but there are higher-ranking options. It was a reasonably short transmission line and less disruption to the landscape compared to other “wind only” sites, like Jayne’s Inlet wind.

**eΔē<sup>9b</sup>⌋<sup>c</sup>**

- [illegible]

## Summary

- ✓ Lowest cold climate risk
- ✓ Low geotech risk
- ✓ Lowest development time
- ✓ Highest wind energy potential
- ✓ Close to town (46km)
- ✓ Low environmental impact
- ⚠ Less than 60% of energy demand is met by renewables
- ⚠ High CO2 emissions compared to hydro options (still need diesel)
- ⚠ Short life span compared hydro (15 years)
- ⚠ Median risk associated with reliability
- ⚠ Unlikely to replace diesel



**48.8%**

4D34P<sup>a</sup>σ<sup>5</sup>σ<sup>6</sup> Δ<sup>6</sup>Δ<sup>3</sup>Δ<sup>4</sup>Δ<sup>5</sup>Δ<sup>6</sup>Δ<sup>7</sup>Δ<sup>8</sup>Δ<sup>9</sup>Δ<sup>10</sup>Δ<sup>11</sup>Δ<sup>12</sup>Δ<sup>13</sup>Δ<sup>14</sup>Δ<sup>15</sup>Δ<sup>16</sup>Δ<sup>17</sup>Δ<sup>18</sup>Δ<sup>19</sup>Δ<sup>20</sup>Δ<sup>21</sup>Δ<sup>22</sup>Δ<sup>23</sup>Δ<sup>24</sup>Δ<sup>25</sup>Δ<sup>26</sup>Δ<sup>27</sup>Δ<sup>28</sup>Δ<sup>29</sup>Δ<sup>30</sup>Δ<sup>31</sup>Δ<sup>32</sup>Δ<sup>33</sup>Δ<sup>34</sup>Δ<sup>35</sup>Δ<sup>36</sup>Δ<sup>37</sup>Δ<sup>38</sup>Δ<sup>39</sup>Δ<sup>40</sup>Δ<sup>41</sup>Δ<sup>42</sup>Δ<sup>43</sup>Δ<sup>44</sup>Δ<sup>45</sup>Δ<sup>46</sup>Δ<sup>47</sup>Δ<sup>48</sup>Δ<sup>49</sup>Δ<sup>50</sup>Δ<sup>51</sup>Δ<sup>52</sup>Δ<sup>53</sup>Δ<sup>54</sup>Δ<sup>55</sup>Δ<sup>56</sup>Δ<sup>57</sup>Δ<sup>58</sup>Δ<sup>59</sup>Δ<sup>60</sup>Δ<sup>61</sup>Δ<sup>62</sup>Δ<sup>63</sup>Δ<sup>64</sup>Δ<sup>65</sup>Δ<sup>66</sup>Δ<sup>67</sup>Δ<sup>68</sup>Δ<sup>69</sup>Δ<sup>70</sup>Δ<sup>71</sup>Δ<sup>72</sup>Δ<sup>73</sup>Δ<sup>74</sup>Δ<sup>75</sup>Δ<sup>76</sup>Δ<sup>77</sup>Δ<sup>78</sup>Δ<sup>79</sup>Δ<sup>80</sup>Δ<sup>81</sup>Δ<sup>82</sup>Δ<sup>83</sup>Δ<sup>84</sup>Δ<sup>85</sup>Δ<sup>86</sup>Δ<sup>87</sup>Δ<sup>88</sup>Δ<sup>89</sup>Δ<sup>90</sup>Δ<sup>91</sup>Δ<sup>92</sup>Δ<sup>93</sup>Δ<sup>94</sup>Δ<sup>95</sup>Δ<sup>96</sup>Δ<sup>97</sup>Δ<sup>98</sup>Δ<sup>99</sup>Δ<sup>100</sup>Δ<sup>101</sup>Δ<sup>102</sup>Δ<sup>103</sup>Δ<sup>104</sup>Δ<sup>105</sup>Δ<sup>106</sup>Δ<sup>107</sup>Δ<sup>108</sup>Δ<sup>109</sup>Δ<sup>110</sup>Δ<sup>111</sup>Δ<sup>112</sup>Δ<sup>113</sup>Δ<sup>114</sup>Δ<sup>115</sup>Δ<sup>116</sup>Δ<sup>117</sup>Δ<sup>118</sup>Δ<sup>119</sup>Δ<sup>120</sup>Δ<sup>121</sup>Δ<sup>122</sup>Δ<sup>123</sup>Δ<sup>124</sup>Δ<sup>125</sup>Δ<sup>126</sup>Δ<sup>127</sup>Δ<sup>128</sup>Δ<sup>129</sup>Δ<sup>130</sup>Δ<sup>131</sup>Δ<sup>132</sup>Δ<sup>133</sup>Δ<sup>134</sup>Δ<sup>135</sup>Δ<sup>136</sup>Δ<sup>137</sup>Δ<sup>138</sup>Δ<sup>139</sup>Δ<sup>140</sup>Δ<sup>141</sup>Δ<sup>142</sup>Δ<sup>143</sup>Δ<sup>144</sup>Δ<sup>145</sup>Δ<sup>146</sup>Δ<sup>147</sup>Δ<sup>148</sup>Δ<sup>149</sup>Δ<sup>150</sup>Δ<sup>151</sup>Δ<sup>152</sup>Δ<sup>153</sup>Δ<sup>154</sup>Δ<sup>155</sup>Δ<sup>156</sup>Δ<sup>157</sup>Δ<sup>158</sup>Δ<sup>159</sup>Δ<sup>160</sup>Δ<sup>161</sup>Δ<sup>162</sup>Δ<sup>163</sup>Δ<sup>164</sup>Δ<sup>165</sup>Δ<sup>166</sup>Δ<sup>167</sup>Δ<sup>168</sup>Δ<sup>169</sup>Δ<sup>170</sup>Δ<sup>171</sup>Δ<sup>172</sup>Δ<sup>173</sup>Δ<sup>174</sup>Δ<sup>175</sup>Δ<sup>176</sup>Δ<sup>177</sup>Δ<sup>178</sup>Δ<sup>179</sup>Δ<sup>180</sup>Δ<sup>181</sup>Δ<sup>182</sup>Δ<sup>183</sup>Δ<sup>184</sup>Δ<sup>185</sup>Δ<sup>186</sup>Δ<sup>187</sup>Δ<sup>188</sup>Δ<sup>189</sup>Δ<sup>190</sup>Δ<sup>191</sup>Δ<sup>192</sup>Δ<sup>193</sup>Δ<sup>194</sup>Δ<sup>195</sup>Δ<sup>196</sup>Δ<sup>197</sup>Δ<sup>198</sup>Δ<sup>199</sup>Δ<sup>200</sup>Δ<sup>201</sup>Δ<sup>202</sup>Δ<sup>203</sup>Δ<sup>204</sup>Δ<sup>205</sup>Δ<sup>206</sup>Δ<sup>207</sup>Δ<sup>208</sup>Δ<sup>209</sup>Δ<sup>210</sup>Δ<sup>211</sup>Δ<sup>212</sup>Δ<sup>213</sup>Δ<sup>214</sup>Δ<sup>215</sup>Δ<sup>216</sup>Δ<sup>217</sup>Δ<sup>218</sup>Δ<sup>219</sup>Δ<sup>220</sup>Δ<sup>221</sup>Δ<sup>222</sup>Δ<sup>223</sup>Δ<sup>224</sup>Δ<sup>225</sup>Δ<sup>226</sup>Δ<sup>227</sup>Δ<sup>228</sup>Δ<sup>229</sup>Δ<sup>230</sup>Δ<sup>231</sup>Δ<sup>232</sup>Δ<sup>233</sup>Δ<sup>234</sup>Δ<sup>235</sup>Δ<sup>236</sup>Δ<sup>237</sup>Δ<sup>238</sup>Δ<sup>239</sup>Δ<sup>240</sup>Δ<sup>241</sup>Δ<sup>242</sup>Δ<sup>243</sup>Δ<sup>244</sup>Δ<sup>245</sup>Δ<sup>246</sup>Δ<sup>247</sup>Δ<sup>248</sup>Δ<sup>249</sup>Δ<sup>250</sup>Δ<sup>251</sup>Δ<sup>252</sup>Δ<sup>253</sup>Δ<sup>254</sup>Δ<sup>255</sup>Δ<sup>256</sup>Δ<sup>257</sup>Δ<sup>258</sup>Δ<sup>259</sup>Δ<sup>260</sup>Δ<sup>261</sup>Δ<sup>262</sup>Δ<sup>263</sup>Δ<sup>264</sup>Δ<sup>265</sup>Δ<sup>266</sup>Δ<sup>267</sup>Δ<sup>268</sup>Δ<sup>269</sup>Δ<sup>270</sup>Δ<sup>271</sup>Δ<sup>272</sup>Δ<sup>273</sup>Δ<sup>274</sup>Δ<sup>275</sup>Δ<sup>276</sup>Δ<sup>277</sup>Δ<sup>278</sup>Δ<sup>279</sup>Δ<sup>280</sup>Δ<sup>281</sup>Δ<sup>282</sup>Δ<sup>283</sup>Δ<sup>284</sup>Δ<sup>285</sup>Δ<sup>286</sup>Δ<sup>287</sup>Δ<sup>288</sup>Δ<sup>289</sup>Δ<sup>290</sup>Δ<sup>291</sup>Δ<sup>292</sup>Δ<sup>293</sup>Δ<sup>294</sup>Δ<sup>295</sup>Δ<sup>296</sup>Δ<sup>297</sup>Δ<sup>298</sup>Δ<sup>299</sup>Δ<sup>300</sup>Δ<sup>301</sup>Δ<sup>302</sup>Δ<sup>303</sup>Δ<sup>304</sup>Δ<sup>305</sup>Δ<sup>306</sup>Δ<sup>307</sup>Δ<sup>308</sup>Δ<sup>309</sup>Δ<sup>310</sup>Δ<sup>311</sup>Δ<sup>312</sup>Δ<sup>313</sup>Δ<sup>314</sup>Δ<sup>315</sup>Δ<sup>316</sup>Δ<sup>317</sup>Δ<sup>318</sup>Δ<sup>319</sup>Δ<sup>320</sup>Δ<sup>321</sup>Δ<sup>322</sup>Δ<sup>323</sup>Δ<sup>324</sup>Δ<sup>325</sup>Δ<sup>326</sup>Δ<sup>327</sup>Δ<sup>328</sup>Δ<sup>329</sup>Δ<sup>330</sup>Δ<sup>331</sup>Δ<sup>332</sup>Δ<sup>333</sup>Δ<sup>334</sup>Δ<sup>335</sup>Δ<sup>336</sup>Δ<sup>337</sup>Δ<sup>338</sup>Δ<sup>339</sup>Δ<sup>340</sup>Δ<sup>341</sup>Δ<sup>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### Reduction in Diesel Consumption for Electricity Generation



$\Delta^{\frac{1}{2}} \Delta^{\frac{1}{2}} \Delta^{\frac{1}{2}}$

Scan here to learn  
more about this  
project option

10 **ᑭᑦᑎᑦᑭᑦᑭᑦ ᑭᑦᑎᑦᑭᑦ**  
**Kynersley Lake Wind**

[illegible]

This is considered a very good “wind only” site, but there are higher-ranking options. It was a reasonably short transmission line and less disruption to the landscape compared to other “wind only” sites, like Jayne’s Inlet wind.

**eΔē<sup>9b</sup>⌋<sup>c</sup>**

- [illegible]

## Summary

- ✓ Lowest cold climate risk
- ✓ Low geotech risk
- ✓ Lowest development time
- ✓ Highest wind energy potential
- ✓ Close to town (30km)
- ✓ Low environmental impact
- ⚠ Less than 60% of energy demand is met by renewables
- ⚠ High CO2 emissions compared to hydro options (still need diesel)
- ⚠ Short life span compared hydro (15 years)
- ⚠ Median risk associated with reliability
- ⚠ Unlikely to replace diesel



**46.3%**

[illegible]

### Reduction in Diesel Consumption for Electricity Generation



$\Delta^{\dot{a}}_b \nabla^c \lambda^d \gamma^e$

$\Delta^b{}_c b^a \sigma_{\rho L J A}^c$

$\Lambda^c \rho^d \nabla^e j^f e^g \zeta^h b^i \gamma^j \sigma^k$

Scan here to learn  
more about this  
project option





Red Light

4.5/10

**Overall Rating**

11

Armshow South Hydro

[illegible]

The last time renewable energy was explored for Iqaluit, this site was rejected due to its importance for hunting, fishing, recreation and animal habitat. We hear you. All options in this area are not recommended.

[illegible]

- [illegible]

## Summary

- ✓ 56% of energy demand met by renewables
- ✓ Low to Medium technical risks (cold climate + Geotech)
- ✓ Low constructability risk
- ✓ Large MW capacity
- ✗ Heavy land and resource use year-round by Iqalungmiut
- ✗ Will affect the migration of arctic char. This is an important char habitat and fishing area
- ✗ Will break up a large amount of land used for animal habitats. This is an important migratory corridor for many animals
- ✗ Site used for harvesting various species (beluga, bowhead, clam seaweed, ptarmigan, caribou and berry harvesting).
- ✗ Will affect waterways leading to Iqaluit, including areas used to teach fishing to younger generations
- ✗ Health and Safety risk rated “medium”



**56%**

[illegible]

### Reduction in Diesel Consumption for Electricity Generation



$\Delta^{\dot{a}} \Delta^b \Delta^c$   
 $\Delta^b \Delta^c \Delta^a$   
 $\Delta^c \Delta^a \Delta^b$

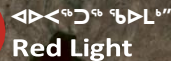
Scan here to learn  
more about this  
project option



24km  
ᐃᑦᑭᑦᑭᑦ · To Iqaluit



30



**Overall Rating**

**Cantley Bay Hydro**[illegible]

Cantley Bay Hydro would be a very large dam. We would not recommend this site because of the loss of animal habitat and the high geotechnical risk.

**ᠡᠳᠦᠨ ᠶ᠋ᠢᠰᠤᠨ**

- [illegible]

## Summary

- ✔ 100% of energy demand met by renewables
- ✔ Lowest site access issues
- ✔ Minimal intrusions on protected areas
- ✔ Very low CO2 emissions
- ✔ Median cold climate risk
- ✔ Low risk associated with reliability
- ⚠ Longer development time (6 years)
- ⚠ This area is used for harvesting seal & caribou. Lots of harvesting activities near mouth of river
- ⚠ Cabins in the area and used a hub for a range of Inuit land such as community gatherings and harvesting ceremonies including a youths' first hunt
- ⚠ Cultural sites – including campsites used by Tuniit and row of inukshuk
- ✖ Highest geotechnical risk
- ✖ Will break up a large amount of land used for animal habitats. Caribou calving grounds and Seal den area



99.8%

[illegible]

### Reduction in Diesel Consumption for Electricity Generation

[illegible]

Scan here to learn  
more about this  
project option



**52km**  
ᐃᑦᐅᑦᐅᑦ · To Iqaluit



32





Red Light

2.2/10

**Overall Rating**

13

**McKeand River North Hydro**

[illegible]

McKeand River North Hydro is more expensive than Iqaluit's diesel system and electricity costs would increase. It has a high geotechnical risk and a significant loss of animal habitat. We would not recommend this option.

**ᠡᠳᠦᠨ ᠶ᠋ᠢᠰᠤᠨ**

- [illegible]

## Summary

- ✓ 99% of energy demand met by renewables
- ✓ 2nd Highest average energy output
- ✓ Median cold climate risk
- ✓ Low risk associated with reliability
- ✓ Minimal intrusions on protected areas
- ✓ Minimal land and resource use by Iqalungmiut
- ⚠ Highest site access issues
- ⚠ Longest transmission line length required increasing risk of outage
- ⚠ Longest development time
- ✗ Highest geotechnical risk
- ✗ High environmental impact: Will create a very large reservoirs following dam construction that will wipe out land habitat for the already struggling caribou population in the area during the calving season
- ✗ High capital cost; electricity would cost more than diesel



98.8%

[illegible]

### Reduction in Diesel Consumption for Electricity Generation



$\triangleright \dot{\bar{z}}_a \triangleleft^b \Gamma \triangleright^b$   
 $\Delta \Gamma^b \bar{b}^a \sigma \rho L J A^c$   
 $\wedge \Gamma \bar{a} \triangleleft^c J^c \bar{a} \bar{c} \bar{c} \bar{c} \bar{b} \triangleright \bar{a} \sigma^b$

Scan here to learn  
more about this  
project option



130km

Δ<sup>9</sup>Τ<sup>9</sup>Τ<sup>9</sup> · To Iqaluit



34



Red Light

5.1/10

**Overall Rating**

14

**ᐱᓄᓂ ᐃᑦᐅ ᐃᓴᓕ ᐃᒃᓕ ᐃᒃᓕ**  
**Armshow River Hydro**

[illegible]

The last time renewable energy was explored for Iqaluit, this site was rejected due to its importance for hunting, fishing, recreation and animal habitat. We hear you. All options in this area are not recommended.

**ᐃᓴᑦ ᕿᕐᕈᕐᕋ**

- [illegible]

## Summary

- ✓ 99% of energy demand met by renewables
- ✓ Low to Medium technical risks (cold climate + Geotech)
- ✓ Low constructability risk
- ✓ Large MW capacity
- ✗ Heavy land and resource use year-round by Iqalungmiut
- ✗ Will affect the migration of arctic char. This is an important char habitat and fishing area
- ✗ Will break up a large amount of land used for animal habitats. This is an important migratory corridor for many animals
- ✗ Site used for harvesting various species (beluga, bowhead, clam seaweed, ptarmigan, caribou and berry harvesting).
- ✗ Will affect waterways leading to Iqaluit, including areas used to teach fishing to younger generations
- ✗ Health and Safety risk rated “medium”



99.3%

[illegible]

### Reduction in Diesel Consumption for Electricity Generation



$\Delta^{\dot{\circ}}_a \Delta^b \Gamma \Delta^b$   
 $\Delta^b b^a \sigma^{\Gamma} L J \Delta^c$   
 $\Lambda^c \Omega^{\Delta^c} J^c \Delta^c \dot{\Delta}^c \Delta^b \Delta^c \sigma^b$

Scan here to learn  
more about this  
project option



24km

**Δᵉᶜ · To Iqaluit**



20





Red Light

0/10

**Overall Rating**

15

**Δ<sup>ϵ</sup>↵Δ<sup>c</sup> δ<sup>α</sup>ℒ Λ<sup>α</sup>↵ δ<sup>β</sup>δ<sup>c</sup>**  
**Sylvia Grinnell Bend Hydro**

[illegible]

Sylvia Grinnell options are more expensive than Iqaluit's diesel system and electricity costs would increase. We would not recommend this site for multiple reasons, including community use, cultural importance and high cost. This is the lowest ranked site.

[illegible]

- [illegible]

## Summary

- ✔ 99% of energy demand met by renewables
- ✔ No CO2 emissions
- ✔ Large Energy/Capacity Range
- ✔ Medium Technical Risks
- ✔ Low risk associated with reliability.
- ✔ Sylvia Grinnell is close to town. Short transmission line required (14 km)
- ✘ High Health and Safety issues
- ✘ High capital cost; electricity would cost more than diesel
- ✘ High environmental impact: Will create a very large reservoirs following dam construction that will wipe out land habitat
- ✘ Territorial Park where many Iqaluit residents frequent
- ✘ Site used for teaching fishing skills to youth and harvesting various mammals and fish.
- ✘ Popular river to gather fresh water



98.8%

4D34P<sup>a</sup>σ<sup>c</sup>σ<sup>b</sup>▷<sup>b</sup>ρ4D3Δ<sup>a</sup>ε<sup>c</sup>J<sup>c</sup>  
 4D4▷N<sup>b</sup>σ<sup>c</sup>Γ▷<sup>b</sup>L<sup>b</sup>ρN<sup>c</sup>

### Reduction in Diesel Consumption for Electricity Generation



$\Delta^{\dot{a}} \Delta^b \Delta^c$   
 $\Delta^b \Delta^c \Delta^a$   
 $\Delta^c \Delta^a \Delta^b$

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**7km**

ᐃᓄᑦᑐᑦ · To Iqaluit



38



Red Light

0/10

**Overall Rating**

16

**Sylvia Grinnell Jag Hydro**

[illegible]

Sylvia Grinnell options are more expensive than Iqaluit's diesel system and electricity costs would increase. We would not recommend this site for multiple reasons, including community use, cultural importance and high cost. This is the lowest ranked site.

7km

Δ<sup>9</sup>Δ<sup>10</sup>Δ<sup>11</sup> • To Iqaluit

40

**ᠡᠳᠦᠨ ᠶ᠋ᠢᠰᠤᠨ**

- [illegible]

## Summary

- ✔ 100% of energy demand met by renewables
- ✔ No CO2 emissions
- ✔ Large Energy/Capacity Range
- ✔ Medium Technical Risks
- ✔ Low risk associated with reliability.
- ✔ Sylvia Grinnell is close to town. Short transmission line required (14 km)
- ✘ High Health and Safety issues
- ✘ High capital cost; electricity would cost more than diesel
- ✘ High environmental impact: Will create a very large reservoirs following dam construction that will wipe out land habitat
- ✘ Territorial Park where many Iqaluit residents frequent
- ✘ Site used for teaching fishing skills to youth and harvesting various mammals and fish.
- ✘ Popular river to gather fresh water



100%

[illegible]

### Reduction in Diesel Consumption for Electricity Generation



$\Delta^{\dot{a}} \Delta^b \Delta^c$   
 $\Delta^b \Delta^c \Delta^a$   
 $\Delta^c \Delta^a \Delta^b$

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The diesel system in Iqaluit, while highly reliable, is expensive, produces a lot of pollution and is completely reliant on diesel supply from the south. Diesel is a non-renewable resource, so it will run out some day.

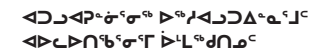
42

**eΔē<sup>9b</sup>⌋C**

- [illegible]

## Summary

- ✓ High Reliability
- ✓ Currently in-place
- ✓ Well known operations
- ⚠ High Cost
- ⚠ Diesel price and availability can change every year
- ⚠ Relies on seilift and continuous supply
- ⚠ Financial benefits go to the diesel supplier (the money leaves Nunavut)
- ⚠ Non renewable resource (it will run out some day)
- ✗ Large environmental impact via air pollution (emissions and air quality)



### Reduction in Diesel Consumption for Electricity Generation



$\triangleright \dot{\bar{z}}_a \triangleleft \dot{\bar{z}}_c \triangleright \dot{\bar{z}}_b$   
 $\Delta c^b b^a \sigma \rho \lambda \mu^c$   
 $\wedge c \mu \triangleleft \dot{\bar{z}}^c \dot{\bar{z}}^c \dot{\bar{z}}^b \dot{\bar{z}}^b \triangleright \dot{\bar{z}}^a \sigma^b$

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